

20 April 2020

Ministry of Business, Innovation and Employment
15 Stout Street,
Wellington 6140
buildingfeedback@mbie.govt.nz

Good afternoon,

Building Code Update Consultation, June 2020

Thank you for the opportunity to comment on the proposals contained in the above Consultation Document.

The Building Officials Institute of New Zealand (the Institute) is the peak body for building surveyors in New Zealand with the majority of its membership engaged within building control and consequently we have a vital interest ensuring the changes to documentation as proposed are both fit for purpose and pragmatic in delivering compliance and build quality outcomes. We support the objectives of this consultation to provide clarity, certainty and consistency.

Please find below some general comments and also our specific comments in the attached MBIE Consultation Submission Form.

You will note we have taken the opportunity to correct some unintended errors and/or linkages or absence of linkages thereby ensuring the proposals address wider outcomes that may or may not have been apparent when bringing this document together. We trust our comments and suggestions are helpful.

General comments

We found the consultation hard to navigate and noted the it contained a number of inconsistencies.

Complete Solutions

The Institute's principal concern is that acceptable solutions, and in particular the fire acceptable solutions, are not providing complete solutions because they refer to other Building Code clauses, rather than acceptable solutions, and therefore BCAs cannot rely on the fire acceptable solutions for establishing compliance with the Building Code as they may contain hidden alternative solutions.

For example:

C/AS2 paragraph 3.3.1 a) has the existing text "*the clear height shall be no less than that required by D1/AS1,*" and the proposed text is "*the clear height shall be no less than that required by NZBC Clause D1,*".

NZBC Clause D1 contains performance D1.3.3 (b) that states "*Be free from dangerous obstructions and from any projection likely to cause an obstruction*". Height, as an obstruction, is not specifically included in the Building Code clause and there is no solution for designers to use it for complying with C/AS2. However, acceptable solution D1/AS1 Paragraphs 1.4 covers height in access routes in enough detail for a designer to use.

Referencing acceptable solution D1/AS1 in C/AS2 provides a complete solution for complying with Building Code clauses for fire and access. It provides clarity, certainty and consistency.

Consider the two options:

- Acceptable Solution referencing an Acceptable Solution is a complete solutions and still an Acceptable Solution.
- Acceptable Solution referencing a separate Building Code clause is not specifying a complete solution, and therefore it becomes unclear, uncertain, inconsistent and not an acceptable solution.

Using the example above, if the proposal as it stands is accepted, it is possible for a designer to claim compliance with C/AS2, using an alternative solution for NZBC Clause D1, not D1/AS1 for height of an escape route. This could result in a claim of compliance with C/AS2, with a high probability a BCA would determine it must accept it as complying with the Building Code, even though they have not checked compliance with the alternative solutions for compliance with NZBC Clause D1.

There are numerous instances of this flawed scenario in the proposed changes to C/AS2 including: definition of escape route, 3.1.4, 3.3.5, 3.3.6, 3.7.11 (now 3.7.13) Fig 3.16, 3.8.2, 3.15.3, 3.16.1, 6.4.4, 6.6.2, 7.2.1, 7.4.1.

Inconsistencies

We draw your attention to some examples of inconsistencies observed in the Consultation Document.

- In reference to the eight proposed item changes for C/AS2, we noted the subsequent proposal details were presented in such a way it was difficult to compare and align them over 80 pages in respect of the eight items presented.
- The proposed modifications to AS/NZS 3500.2 were duplicated in two areas (items 1 and 3) for G13 Foul Water which caused confusion.
- The introductory paragraph to the Reference section for C/AS2 is different to the wording in the Reference section in E1/VM1/AS1/AS2, both of which are contained in the Consultation Document, creating interpretation confusion. The wording in E1/VM1/AS1/AS2 is consistent with the Reference sections of all the other Acceptable Solutions and Verification Methods and this should be used for C/AS2.

Hard to navigate

The following examples we believe will help the readability of future consultation documents:

- Include a contents page (index) for the whole document. Our members reported a frustration, due to unnecessary and prolonged time frames preparing comments and submissions
- Align subsequent proposal details and appendices to the proposal descriptions. Refer to bullet point 1 above under inconsistency.

Unclear

In the transitional provisions, it states in the page 19 Table, the new and amended Acceptable Solutions and Verification Methods will cease to have effect on 25 October 2020. We don't believe this is what was intended and does not reflect previous consultations.

Errors

We bring the following examples to your attention so that your submission review team can put context to comments provided by others.

Examples

- Consultation Document on page 8 asks two questions containing the statement "NZBC clause C/AS1". This reference is to an Acceptable Solution and not a Building Code clause. The correct fire related NZBC clauses are C1-C6 Protection from Fire.

- The options for the transitional provisions in the submission were given as:
I support it.
I object to it as it's too short
I object to it as it's too short.
We note that the last option was possibly meant to be *I object to it as it is too long.*

Omissions

We noted there was no discussion on the ongoing relevance of the guidance document *Fire Performance of External Wall Cladding Systems* as parts of it are proposed to be included in C/AS2. We are therefore interested to ascertain if this guidance document will be revoked?

We also noted the Consultation Document does not contain a Reference section for the proposed changes to G9 Electricity for including the Electricity Safety Regulations.

Furthermore, we note the Consultation Document does not contain a similar argument to that used for G9 Electricity for the citation of Gas Regulations in the Acceptable Solutions and Verification Methods for NZBC clause G11 Gas as an energy source.

Simplification

We would suggest by simplifying the way documents are referenced, many of the proposed changes would be no longer required and the outcome for users would be both simpler and clearer. For example, if the referencing of AS/NZS 3500.3 complete with its modification, was from E1/AS1 (instead of a new E1/AS2) then changing the cross-referencing in E2/AS1 would no longer be necessary. We are interested in your feedback in respect of this suggestion.

Timing impacts

We feel sure MBIE will be taking into account the impacts of the Covid-19 lockdown in respect of the proposed transitional timing dates included in the Consultation Document. We would support an extension to any timeframes proposed.

Submission form

Further to the general comments above, please find the MBIE Consultation Submission Form containing our specific comments .

It is our hope this submission in its entirety assists in constructive development of clear, certain and consistent Building Code compliance documentation. Please do not hesitate to contact us if you require extra information or explanation.

Kind regards,

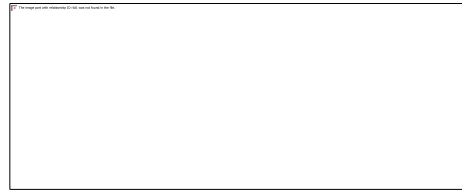


Nick Hill - Chief Executive

Building Officials Institute of NZ

PO Box 11424, Manners Street, Wellington 6142, New Zealand

Grand Annexe Building, Level 12, 84 Boulcott Street, Wellington 6011, New Zealand



Submission Form

Statement of proposals for amending Acceptable Solutions and Verification Methods June 2020 update

Submitter information

Name: Nick Hill
Company: Building Officials Institute of New Zealand (BOINZ)
Email address: Nick.Hill@boinz.org.nz

The best way to describe your role is:

- | | | |
|---|--|---|
| <input type="checkbox"/> Architect | <input type="checkbox"/> BCA/BCO | <input type="checkbox"/> Builder |
| <input type="checkbox"/> Building owner | <input type="checkbox"/> Electrician | <input type="checkbox"/> Engineer – other |
| <input type="checkbox"/> Fire Engineer | <input type="checkbox"/> Geotechnical Engineer | <input type="checkbox"/> Structural Engineer |
| <input type="checkbox"/> Plumber/Gasfitter/Drainlayer | | <input checked="" type="checkbox"/> Other (BOINZ) |

Each question includes a page reference (in brackets) to the relevant proposal within the [Proposals for amending Acceptable Solutions and Verification Methods June 2020 update](#).

When completing this submission form, please suggest changes or comments explaining why you support or object proposed amendments. Your feedback provides valuable information and informs decisions about the proposed amendments.

To submit this form via email:

Once you have completed the form, you can email it to buildingfeedback@mbie.govt.nz, with “Consultation – Amendments to Acceptable Solutions and Verification Methods June 2020” in the subject line.

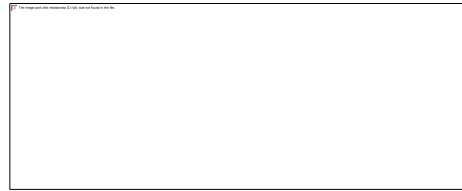
To submit a print copy of this form:

You can post or courier print copy of this form to:

Building Performance and Engineering Team
Ministry of Business, Innovation and Employment
Level 5, 15 Stout Street, Wellington 6011

Or PO Box 1473
Wellington 6140





Building Code Clause Fire C/VM2

1. Cladding requirements: Amend fire testing requirements for cladding systems to reference large scale international test standards and close existing gaps between C/VM2 and C/AS2

Question 1: Do you support Verification Method C/VM2 to be amended as proposed?

(page 22)

- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

1. BS EN 13501 is referenced for the definition of Limited Combustible in C/VM2. Does this apply to C/AS1 and C/AS2 also?
2. NFPA 285: 2019 The reference to the Standard in C/VM2 is missing. Add "Where referenced C/VM2 para 4.6"
3. BRE 135: 2013 The reference to the Standard in C/VM2 is missing. Add "Where referenced C/VM2 para 4.6"

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendment to Verification Method C/VM2?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

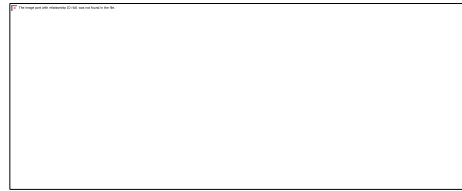
2. Horizontal fire spread: amend the horizontal fire spread requirements to align C/VM2 with C/AS2

Question 1: Do you support Verification Method C/VM2 to be amended as proposed?

(page 34)

- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.



Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendment to Verification Method C/VM2?

- Significant
 Moderate
 Minor
 No impact

Please tell us about the impacts on your business.

3. Editorial: Amend text in C/VM2 to include text from the document “Commentary for Building Code Clauses C1-C6 and Verification Method C/VM2”

Question 1: Do you support Verification Method C/VM2 to be amended as proposed?

(page 59)

- I support it
 I support it but would suggest the following changes
 I object to it
 I object to some aspects of it but would suggest the following changes

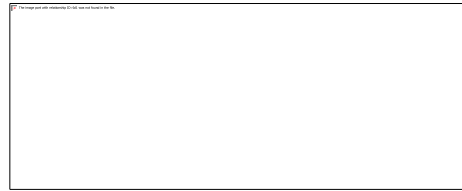
Please tell us what changes you suggest.

1. This change relating to the effect of secondary references differs from and is inconsistent with the reference section descriptions for all the other Building Code clause Acceptable Solutions and Verification Methods. For consistency the C/VM2 description should align with the other Acceptable Solutions and Verification Methods.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendment to Verification Method C/VM2?

- Significant
 Moderate
 Minor
 No impact

Please tell us about the impacts on your business.



Building Code Clause Fire C/AS1

1. Scope of C/AS1 and risk groups: Amend the scope of C/AS1, including the description of risk groups, to provide clarity on the scope of Acceptable Solutions C/AS1 and C/AS2

Question 1: Do you support Acceptable Solution C/AS1 to be amended as proposed?

(page 66)

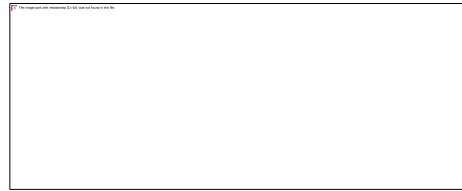
- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS1?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.



Building Code Clause Fire C/AS2

1. Scope of risk groups: Amend the scope of the risk group SH to provide clarity on the scope of Acceptable Solutions C/AS1 and C/AS2

Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

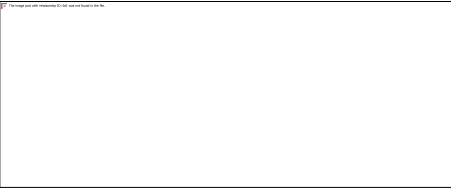

(page 78)

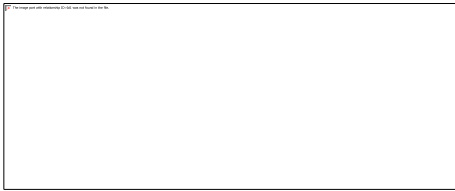
- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

1. This one question covering over 80 pages of changes to C/AS2 in the consultation document is in our view unhelpful in gaining the responses you are probably looking to expect.
2. We draw your attention to the additional information and explanations in the Institute's covering letter, particularly our comments on "Complete solutions".
3. **Reference section. NZS 4332 Lifts.** We disagree with the proposal. NZBC clause D2 does not provide detail for the installation of lifts. It does however, set the performance criteria for mechanical installations for access. C/AS2 6.3.3 references NZS 4332 for control of lifts under fire conditions, which is a fire requirement and is not part of NZBC clause D2, or D2/AS1. Lift controls in the event of fire should reference NZS 4332 and/or EN 81 or include the specific text required in C/AS2. We therefore suggest that the new paragraph C/AS2 6.6.2 reference NZS 4332 or EN 81 for recall features and not include any cross-reference to D2 or D2/AS1.
4. **Reference section. AS/NZS 5601.1. Gas Installations.** We disagree with this proposal. AS/NZS 5601.1 is referenced in C/AS2 for fire reasons, perhaps ensuring safe operation during an earthquake or sufficient clearance around hot flues. We suggest one of two options happens.
 - 1). Include specific reference in C/AS2 relating to the fire reasons for the citing of AS/NZS 5601.1 or
 - 2). delete reference to gas burning appliances as they are covered in G11/AS1 paragraph 9.0.
5. **Reference section. AS/NZS 60598. Luminaires.** We disagree with the proposal. We suggest that the specific fire reasons for the reference (perhaps heat separation) and keep the Standard cited in C/AS2. Please note that this Standard is not referenced from G9/VM1 or G9/AS1.
6. Definition of "**Escape route**". NZBC clause D1 does not provide the detail on how doors in an escape route are not considered obstructions. The correct reference should be D1/AS1, where the detail of access routes is located.
7. **1.1.6.** NZBC clause F3 does not provide useful detail for the handling of hazardous substances. The correct reference should be F3/VM1, which has the process to handle hazardous substances.



- 
8. **3.1.4.** D1/AS1 1.1.5 states: “Access routes which are part of an escape routes shall also comply with NZBC C4”. This is not that helpful as it should be clarified so that access routes comply with D1/AS1 and escape routes comply with C/AS2.
 9. **3.3.1.** NZBC clause D1 does not contain clear details of heights for access routes. The height is contained in D1/AS1. Please see our covering letter for more detail.
 10. **3.3.5.** NZBC clause D1 does not contain details of tread depth for access route or escape routes. The detail in relation to tread depth is contained in D1/AS1.
 11. **3.3.6.** NZBC clause D1 does not contain details of projections for access route or escape routes. The details about projections is contained in D1/AS1.
 12. **3.3.6.** NZBC clause D1 does not contain details about handrail projections for access route or escape routes. The handrail projection details are contained in D1/AS1.
 13. **3.7.11 now 3.7.13.** The details about barriers and handrails are not in the NZBC clause but are in F4/AS1 and D1/AS1.
 14. **3.7.12 now 3.7.14.** NZBC D1 does not contain details of riser heights or landing lengths for access route or escape routes. Riser heights and landing lengths are contained in D1/AS1. We would also ask how can C/AS2 override a minimum landing length access requirement in D1/AS1?
 15. **Figure 3.16.** Stair dimensions are not contained in NZBC clause D1. Stair dimensions are detailed in D1/AS1.
 16. **3.8.2.** NZBC D1 does not contain details of ladders. Details of ladders is contained in D1/AS1.
 17. **3.15.2 now 3.15.8.** Clearly visible signs are a requirement of NZBC clause F8. The details that describe a sign is clearly visible are contained within F8/AS1. The paragraph should reference F8/AS1.
 18. **3.15.5(d) now 3.15.5(d).** NZBC clause D1 does not specify floor levels at doorways. This detail is found in D1/AS1. It does not make sense that D1/AS1 can override a C/AS2 escape route requirement to have the same floor level on each side of doors in an escape route? We strongly recommend the deletion of “unless permitted by D1/AS1”
 19. **3.16.1.** NZBC clause F8 Signs does not contain the detail of signs for means of escape. The reference should be to F8/AS1 where the solutions for signs is located.
 20. **New 6.4.4.** NZBC clause F8 does not contain this level of detail for the type and location of signs. This detail is included in F8/AS1.
 21. **New 6.6.2.** NZBC Clause D2 does not contain reference to recall features. Recall features are located in D2/AS1 which in turn references NZS 4332 and EN 81-20.
 22. **7.2.1.** Gas burning appliances must comply with NZBC G11, which includes how they perform and not how they are installed. In our opinion the best solution for gas burning appliances is to reference AS/NZ 5601.1, which is referenced from G11/AS1 and is also the means of compliance with the Gas Regulations, which the gas fitter will certify compliance with.
Keep the existing wording.
 23. **7.4.1.** NZBC clause G9 does not specify lighting types. G9/VM1 and G9/AS1 both reference AS/NZS 3000 Electrical installations, for the safe installation of electrical equipment including lighting. This Standard is also a means of compliance with the
- 



Electricity (Safety) Regulations that electricians certify against.
 In our opinion the best solution is to reference AS/NZS 3000.
24. C/AS2 Appendix Type 15. NZBC clause D2 does not contain detailed control requirements for lift cars under fire conditions. These are in D2/AS1, which references NZS 4332 and EN 81-20. In our opinion referencing NZS 4332 and EN 81-20 in C/AS2 is the best solution.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

2. Means of escape: Amend the means of escape requirements to improve clarity and consistency of application of C/AS2

Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

(page 78)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

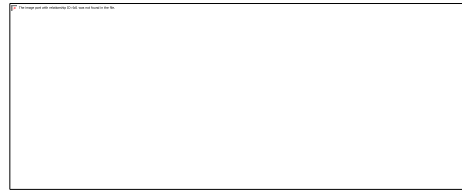
Comments for **Means of Escape** are included under Scope of Risk Groups in our answer to Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

3. Group sleeping areas: Amend requirements for group sleeping areas ensuring spaces are provided with adequate fire safety



Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

(page 78)

- I support it
- I support it but would suggest the following changes
- I object to it
- I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Comments for **Group Sleeping Areas** are included under Scope of Risk Groups in our answer to Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant
- Moderate
- Minor
- No impact

Please tell us about the impacts on your business.

4. Cladding requirements: Amend fire testing requirements for cladding systems to reference large scale international test standards and align C/AS2 and C/VM2

Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

(page 78)

- I support it
- I support it but would suggest the following changes
- I object to it
- I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Comments for **Cladding Requirements** are included under Scope of Risk Groups in our answer to Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant
- Moderate
- Minor
- No impact

Please tell us about the impacts on your business.

5. Control of external fire spread: Amend requirements for control of external fire spread to enhance clarity and usability of the document

Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

(page 78)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Comments for **Control of External Fire Spread** are included under Scope of Risk Groups in our answer to Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

6. Firefighting: Amend requirements for firefighting operations to provide more efficient and effective fire service response, and better align the requirements between Fire and Emergency NZ and the Building Code

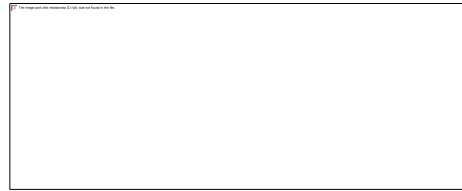
Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

(page 78)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Comments for **Firefighting** are included under Scope of Risk Groups in our answer to Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?



Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant
- Moderate
- Minor
- No impact

Please tell us about the impacts on your business.

7. Editorial: Amend text throughout the document to provide further clarity of requirements

Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

(page 78)

- I support it
- I support it but would suggest the following changes
- I object to it
- I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Comments on **Editorial** matters are included under Scope of Risk Groups in our answer to Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant
- Moderate
- Minor
- No impact

Please tell us about the impacts on your business.

8. Errata from 2019: Amend text in three locations (previously issued as an Errata to C/AS2 in October 2019)

Question 1: Do you support Acceptable Solution C/AS2 to be amended as proposed?

(page 78)

- I support it
- I support it but would suggest the following changes

- I object to it I object to some aspects of it but would suggest the following changes

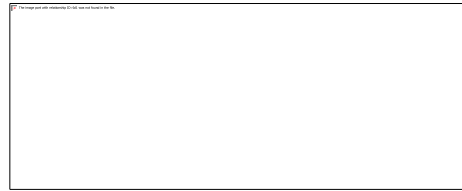
Please tell us what changes you suggest.

Comments on **Errata** are included under Scope of Risk Groups in our answer to Question 1:
Do you support Acceptable Solution C/AS2 to be amended as proposed?

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution C/AS2?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.



Building Code Clause E1 Surface water

1. E1/AS2: Issue a new Acceptable Solution which references AS/NZS 3500.3 Stormwater drainage, with modifications, as a means of compliance with NZBC clause E1 Surface Water

Question 1: Do you support the proposed new Acceptable Solution for NZBC clause E1?

(page 168)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

1. **References.** We agree with the changes to the introduction paragraph to the References section for E1/VM1/AS1/AS2. Please note that this is different from the wording in Reference section for C/VM2, which we disagreed with.
2. **1.0.4 changes to clause 1.2.2.** The proposed wording is not helpful and should be simplified to “In New Zealand this Standard may be used for compliance with the NZBC clause E1 Surface Water as it is referenced as an Acceptable Solution. [Insert E1/AS1 or E1/AS2 as decided by this consultation.” See comment 4 below. Referring to the secondary Standards is not necessary because within New Zealand there are other Standards to choose from in addition to using referenced Australian Standards.
3. **1.0.4 changes to clause 3.4.5.** Either specify the “*some situations*” or delete reference to “*in some situations.*” It is very difficult to comply with “*some situations.*”
4. We recommend that AS/NZS 3500.3 is referenced as Section 6.0 of E1/AS1. This will reduce all of the cross-referencing required in E2/AS1.

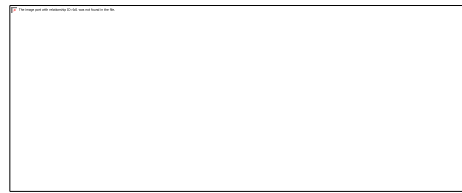
Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed new Acceptable Solution for NZBC clause E1?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

2. Rainfall intensities: Amend E1/AS1 Appendix A to replace the rainfall intensity maps with a table that provides location specific rainfall intensity data

Question 1: Do you support the proposed amendment to Acceptable Solution E1/AS1 Appendix A?



(page 179)

- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendment to Acceptable Solution E1/AS1 Appendix A?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

3. Referenced Standards: Amend E1/VM1 and E1/AS1 to update references to product manufacturing and installation Standards

Question 1: Do you support the proposed updating of references to product manufacturing and installation Standards within the Acceptable Solution and Verification Methods for NZBC clause E1?

(page 192)

- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

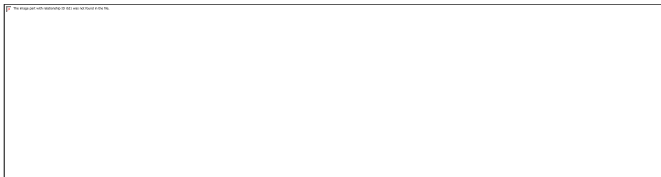
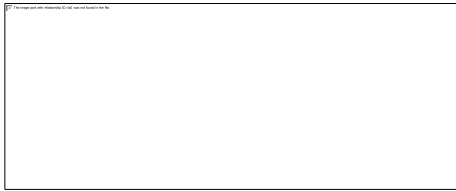
Please tell us what changes you suggest.

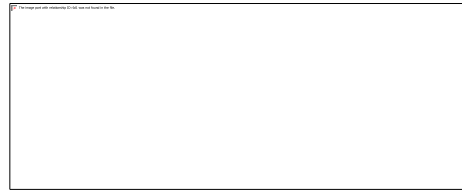
We recommend referencing AS/NZS 3500.3 and its modifications as section 6.0 in E1/AS1.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed updating of references to product manufacturing and installation Standards within the Acceptable Solutions and Verification Methods for NZBC clause E1?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.





Building Code Clause E2 External Moisture

1. Align E2/AS1 with new E1 Acceptable Solution E1/AS2 for the design of gutters, downpipes and spreaders

Question 1: Do you support the Acceptable Solution for NZBC clause E2 to be amended as proposed?

(page 194)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

The changes recommended below will ensure complete solutions by not referencing Building Code clauses when Acceptable Solutions should be referenced.

If AS/NZS 3500.3 is referenced with modifications, as section 6 of E1/AS1, referencing E1/AS2 will not be required.

7.3.2.1 (a) (i). E2/AS1 should provide a solution for NZBC clause E2 and should not reference NZBC Clause E1 but should reference other acceptable solutions. We suggest keeping the original wording because reference to E1/AS2 will not be required.

7.3.2.1 (c) (i). E2/AS1 should provide a solution for NZBC clause E2, and should not reference NZBC Clause E1 but should reference other acceptable solutions. We suggest keeping the original wording because reference to E1/AS2 will not be required.

8.1.6(a). E2/AS1 should provide a solution for NZBC clause E2, and should not reference NZBC Clause E1 but should reference other acceptable solutions. We suggest keeping the original wording because reference to E1/AS2 will not be required..

8.1.6(d). E2/AS1 should provide a solution for NZBC clause E2 and hence should only reference other acceptable solutions. The simplest way to do this is to reference E1/AS1. Also, we recommend that the Comment be added to the text after E1/AS2 to explain the freeboard differences.

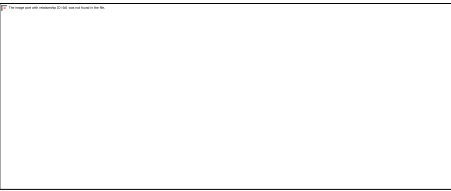
Figure 52: Keep original wording.

8.5.6. Keep original wording.

8.5.10. Revise to read 'Deck gutters and internal outlets shall be sized and constructed to meet E1/AS1 as shown in Figure 64. Keep original wording.

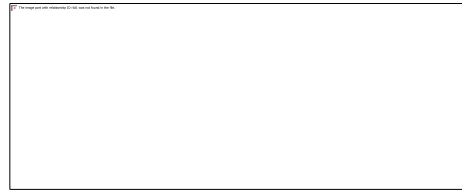
Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to the Acceptable Solution for NZBC clause E2?

- Significant Moderate Minor No impact



Please tell us about the impacts on your business.





Building Code Clause E3 Internal Moisture

1. Overflow from free water: Amend the provisions in E3/AS1 for overflow from free water in adjoining household units to provide more flexibility by allowing the use of integrated overflows in sanitary fixtures

Question 1: Do you support the proposed changes to overflow provisions within Acceptable Solution E3/AS1??

(page 199)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to the overflow provisions within the Acceptable Solution for NZBC clause E3?

- Significant Moderate Minor No impact

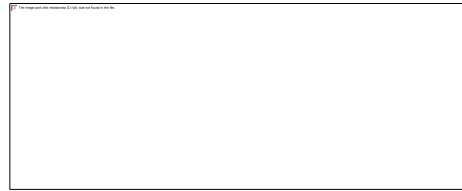
Please tell us about the impacts on your business.

2. Internal wet area membranes: Issue a new Acceptable Solution (E3/AS2) for using internal wet area membranes in situations such as tiled bathroom floors and showers

Question 1: Do you support the proposed new Acceptable Solution for NZBC clause E3?

(page 202)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes



Please tell us what changes you suggest.

The changes are highlighted

Proposed amended text

E3 References

Waterproofing Membrane Association NZ Inc.

Code of Practice for Internal Wet-area Membranes

E3/AS2

Acceptable Solution E3/AS2

Internal Wet-area Membranes

Building work involving internal wet-area membranes that are installed in accordance with sections 1 – 4 of the Waterproofing Membrane Association Incorporated (WMAI) Code of Practice for **Internal** Wet Area Membranes (IWAM) will comply with, and may exceed the requirements of, New Zealand Building Code (NZBC) clause E3 **Internal Moisture**.

[Delete the summary of Building Code performances, as they relate to wet area membranes, is confusing and sets a dangerous precedent for all other Verification Methods and Acceptable Solutions. If it is thought that an explanation of exceeding the Building Code is still required, then it should not be made to look like performance criteria with the performance criteria numbers.]

Within the IWAM Code of Practice, the commentary, which is text shown in italics on a grey background, is non-mandatory and does not form part of this Acceptable Solution.

Supporting Information

The WMAI code of practice for **Internal** Wet Area Membranes is available from
XXXXXXXXXX

Scope:

IWAM is applicable to internal wet-area waterproof **membrane systems**, including their substrates, for bathrooms, kitchens and laundries within buildings. Facilities such as industrial processing areas (for instance a cowshed or an industrial food making facility), or the surrounds and changing facilities of internal swimming pools or spas, are outside its scope.

Avoiding problems

Wet-area waterproof membrane systems that will be installed in conjunction with specialist systems such as underfloor heating and sound insulation systems are outside the scope of this Acceptable Solution.

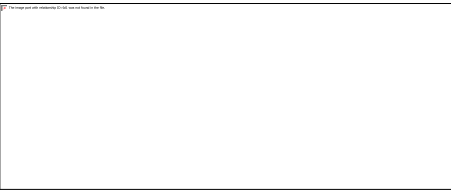
Over-surface finishing work, such as tiling, is outside the scope of this Acceptable Solution.

Where an over-surface must be easy to clean to enable compliance with NZBC clauses such as E3.3.2 –E3.3.5, compliance of that finish must be demonstrated by other means.

Other requirements of clause E3

E3/AS2 is a means of demonstrating that building work involving internal wet-area membranes will comply with, and may exceed the requirements of, parts of the New Zealand Building Code (NZBC) clauses E3.3.2 –E3.3.6 when installed as described in this Acceptable Solution. [Reason: -





Duplication.]

Building designers will also need to identify how the building work addresses NZBC clause E3.3.1, which requires an adequate combination of thermal resistance, ventilation, and space temperature to certain spaces where moisture may be generated or may accumulate. [Reason - Not required for internal moisture.]

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed new Acceptable Solution for NZBC clause E3?

- Significant
- Moderate
- Minor
- No impact

Please tell us about the impacts on your business.

3. Align E3/AS1 and E3/AS2: Amend some provisions of E3/AS1 to remove less reliable construction options and to align with the proposed E3/AS2

Question 1: Do you support the proposed changes to Acceptable Solution E3/AS1 to align with the proposed E3/AS2?

(page 204)

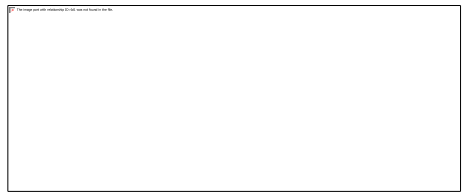
- I support it
- I support it but would suggest the following changes
- I object to it
- I object to some aspects of it but would suggest the following changes

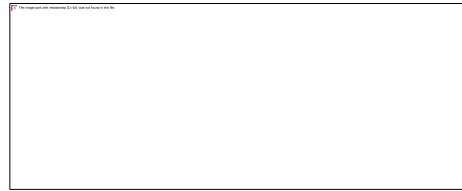
Please tell us what changes you suggest.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to Acceptable Solution E3/AS1 to align with the proposed E3/AS2?

- Significant
- Moderate
- Minor
- No impact

Please tell us about the impacts on your business.





Building Code Clause G9 Electricity

1. Electricity (Safety) Regulations 2010: Reference the Electricity (Safety) Regulations 2010 in G9/VM1 and G9/AS1

Question 1: Do you support the proposed referencing of the Electricity (Safety) Regulations 2010 within the Acceptable Solutions and Verification Method for NZBC clause G9?

(page 210)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

1. We note there is no proposal in the Consultation Document to change the Reference Section of G9.
2. 1.0.1. AS/NZS 3000, NZECP 34 and NZECP 36 are referenced from the Electricity (Safety) Regulations 2010 and NZECP 54 is a recognised Electrical Code of Practice for the installation of recessed luminaires and auxiliary equipment. Please note the Building Act contains provisions that energy work certificates are deemed to comply with the Building Code. It is not legally correct to say these regulations comply with NZBC G9!

BOINZ proposes to change this paragraph as follows. Energy work certificates, certifying electrical work complying with AS/NZS 3000, NZECP 34, NZECP 36, and NZECP 54 under the Electricity (Safety) Regulations 2010 is an acceptable means of compliance with the relevant performances of NZBC G9.

3. 2.0.1 last paragraph. We suggest a this paragraph is numbered and reword to give AS/NZS 3000 takes precedence.
BOINZ proposes 2.0.1 last paragraph is reworded as flows:
2.0.2 In damp situations, the location of light switches and plug sockets shall comply with AS/NZS 3000.

The rationale behind these proposed changes equally relates to G11 *Gas as an Energy Source* and yet we note they are not included in this proposal.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed referencing of the Electricity (Safety) Regulations 2010 within the Acceptable Solutions and Verification Methods for NZBC clause G9?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

- 1. New comment on electrical exemptions:** Amend G9/AS1 to add a new comment box clarifying which domestic electrical installations are exempted from requiring an authorised person under the Electricity Act 1992

Question 1: Do you support the proposed new comment within Acceptable Solution G9/AS1?

(page 212)

- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed new comment within Acceptable Solution G9/AS1?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

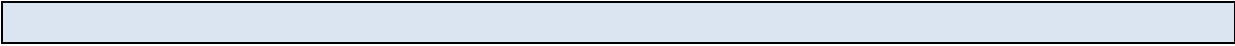
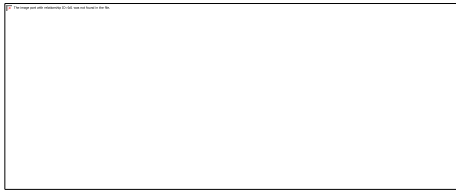
- 1. Accessibility: Amend G9/AS1 requirements for light switches and plug sockets used by a person with a disability**

Question 1: Do you support the proposed changes to accessibility requirements within Acceptable Solution G9/AS1?

(page 213)

- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

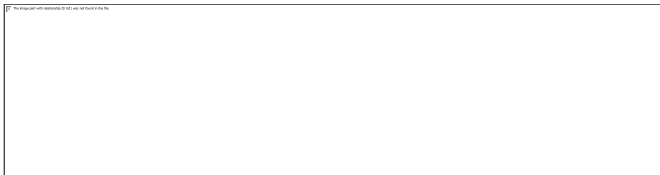
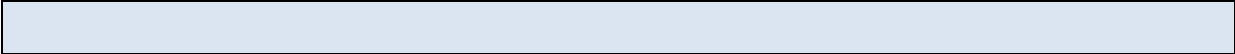
Please tell us what changes you suggest.

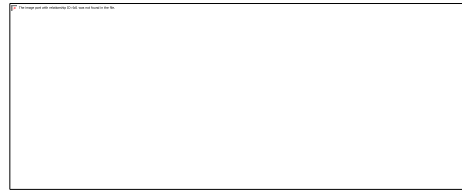


Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed amendments to the Acceptable Solution for NZBC clause G9?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.





Building Code Clause G13 Foul Water

- 1. Modify Standard AS/NZS 3500.2:** Amend G13/AS3 to modify two additional clauses within AS/NZS 3500.2:2018 Sanitary plumbing and drainage

Question 1: Do you support the proposed new Acceptable Solution G13/AS3 modifications to AS/NZS 3500.2:2018?

(page 215)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

1. G13/AS3 2.0.2. Add "Section 14 - Delete Section".

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed new Acceptable Solution G13/AS3 modifications to AS/NZS 3500.2:2018?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

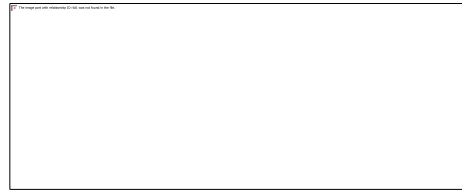
2. Referenced Standards: Amend G13/AS1 and G13/AS2 to update references to product manufacturing and installation Standards

Question 1: Do you support the proposed updating of references to product manufacturing and installation Standards within Acceptable Solutions G13/AS1 and G13/AS2?

(page 217)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.



Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed updating of references to product manufacturing and installation Standards within Acceptable Solutions G13/AS1 and G13/AS2?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

3. Remove G13/AS3 Standard reference: Amend G13/AS3 to remove the reference to AS/NZS 2032:2006 Installation of PVC pipe systems as this Standard is referenced within all other Acceptable Solutions for NZBC clause G13

Question 1: Do you support the proposed removal of the reference to AS/NZS 2032 from Acceptable Solution G13/AS3?

(page 219)

- I support it I support it but would suggest the following changes
 I object to it I object to some aspects of it but would suggest the following changes

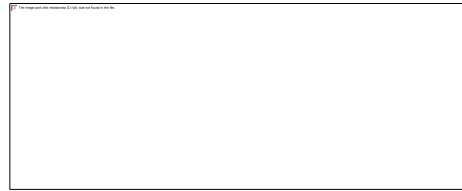
Please tell us what changes you suggest.

We would make the point AS/NZS 2032 is an entire solution for PVCU pipe installation and therefore not of the opinion it is necessary to remove it because parts of it are referenced elsewhere.

Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed removal of the reference to AS/NZS 2032 from Acceptable Solution G13/AS3?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.



4. Editorial: Amend G13.2, G13/AS1 and G13/AS2 to correct cross referencing and spelling errors

Question 1: Do you support the correction of correct cross referencing errors within the Acceptable Solutions for NZBC clause G13 as proposed?

(page 220)

- I support it I support it but would suggest the following changes
- I object to it I object to some aspects of it but would suggest the following changes

Please tell us what changes you suggest.

We support changes to G13/AS2 for water test, however it is referenced from paragraph G13/AS2 6.1.2, not paragraph 3.5.2 as indicated in the proposal.

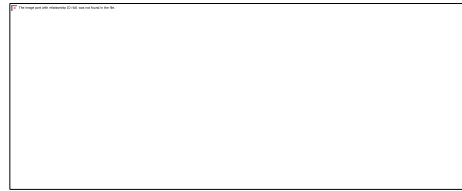
Question 2: What impacts (economic, efficiency etc.) on your business do you expect from the proposed correction of cross referencing errors within the Acceptable Solutions for NZBC clause G13?

- Significant Moderate Minor No impact

Please tell us about the impacts on your business.

Empty rectangular box for providing answers to Question 2.

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Building Code Transition

It is proposed that the amendments to the Acceptable Solutions and Verification Methods will be published on and have an effective date of 25 June 2020.

Transitional arrangements: **four months**.

It is proposed that the changes will come into effect on 25 June 2020 (the proposed effective date).

It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 25 October 2020 (the proposed cessation date), a period of four months.

Question: Do you support the proposed transitional period of four months?

I support it

I object to it as it's too short

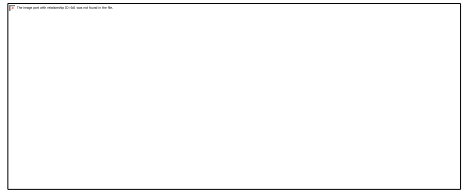
I object to it as it's too short

Please tell us what changes you suggest.

The amount of change in the Fire Acceptable Solutions and Verification Methods needs a longer transitional period.

It is possible that time to analyse submissions and create the amendments to the documents may take longer due to the Covid-19 lockdown.

Please advise any revision to the timetable as soon as possible to allow the building industry to adjust as necessary.



Thank you

Thanks for your feedback, we really appreciate your insight because it helps us keep pace with modern construction methods, the needs of New Zealanders and ensure buildings are safe, healthy and durable.

To help us continue to improve our biannual Building Code update programme, we would love to hear any suggestions or comments you may have on what's working and how we can do better.

If you have a question and would like to contact us, please email us at info@building.govt.nz or call us on 0800 24 22 43.

What would you like to provide feedback on?

- Consultation document
- Suggestions for future amendments
- Survey
- Something else
- The biannual Building Code Update Programme

Please leave your feedback below: