



New Zealand Concrete Masonry
Association Inc

Submission to the

**Department of Building
and Housing**

on

Proposed Changes to Building Code
Clause E2 (External Moisture)
Documents

4 February 2011



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The Building Standards Group
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Dear Sir/Madam

Proposed Changes to Building Code Clause E2 (External Moisture) Documents

The New Zealand Concrete Masonry Association (NZCMA) represents six Executive Members who collectively account for approximately 95 percent of the of the total concrete masonry producers in New Zealand.

The cement and concrete industry annually produces and uses about 1.5 million tonnes of cement in New Zealand, which equates to around 3.75 million cubic metres of concrete for new residential, non-residential and commercial construction. In total, the direct, indirect and induced economic impact of the cement and concrete industry resulted in close to \$7.5 billion of output across the economy in the year to March 2006. This activity supported more than 24,000 jobs and created a value add of about \$2.8 billion – around 2 percent of New Zealand's GDP in 2006.

Members of the NZCMA collectively produce over \$1,600,000 in masonry, paving and other related products. As the representative of our industry, NZCMA has prepared the following comments in response to the discussion document - Proposed Changes to Building Code Clause E2 (External Moisture) Documents.

General Comments

NZCMA notes that the proposed changes to Clause E2/AS1 of the NZ Building Code stem from the revision of NZS 3604:1999 Timber Framed Buildings.

NZCMA supports the introduction of an Acceptable Solution (AS3) for concrete and concrete masonry details in Clause E2 of the NZ Building Code.



Specific Comments

Regarding the following items of the proposed revised E2/AS1:

9.2 Masonry Veneer

9.2.1 Limitations

NZCMA believes the second paragraph of this point's comment should be replaced with:

“The installation of masonry veneer shall be carried out by brick or block-layers recognised under the Licensed Building Practitioner Scheme.”

Reason: The installation of masonry veneer by brick or block-layers with the appropriate qualifications will go further towards ensuring quality.

NZCMA further believes that this comment should not be a comment but integrated into the body of the AS1.

9.2.2 General (1)

NZCMA questions the relevancy of SNZ HB 4236:2002 Masonry Veneer Wall Cladding as equivalent information is now available in in Clause E2 External Moisture 9.2.

The inclusion of a minimum veneer thickness of 70mm is required if the reference to SNZ HB 4236 is removed.

9.2.2 General (2)

NZCMA believes the sentence “Masonry units shall be laid-up in stretcher bond” should be appended with “with minimum unit dimensions of 70mm width and 25% nominal length in length unit”.

The sentence should read “Masonry units shall be laid-up in stretcher bond with minimum unit dimensions of 70mm width and 25% nominal length in length unit”.

Reason: To clarify minimum dimensions.

9.2.2 General (4)

NZCMA believes the words “Mortar less than 24 hours...” should be replaced with “Mortar joints less than 24 hours...”

Reason: To clarify that this paragraph is about mortar joints.



9.2.4 Flashings (1a)

The dimension of the butyl rubber thickness is missing.

Figure 73C: Masonry Veneer Window Installation - (f) SILL

1. NZCMA believes the following NOTE should be added besides the “Cavity vents” label:

“NOTE: Cavity vents required only under windows over 2.4m in width as detailed under 9.2.6.”

2. NZCMA believes the 15° sill slope requirement should be lowered.

Reason: The industry has experienced a 15° sill slope as too steep for some applications, i.e. door ways, clay tiles, etc. Wind would drive rainwater up regardless of a 10° or 20° sloped sill.

Figure 73D: Masonry Veneer Details - (i) FLOOR REBATE DETAIL

NZCMA believes a NOTE should be added to the “5-20mm overhang” label explaining that such is required to mask tolerances of the foundation edge, and is not intended to be a drip edge.

Reason: To clarify the reason of the overhang.

Figure 73D: Masonry Veneer Details - (i, j and k)

Brick ties are only required in the first course above that containing the damp proof course. No second tie in the next upper joint is needed as demonstrated by BRANZ research work.

NZCMA believes the drawings should be amended accordingly.

Reason: To avoid unnecessary building costs.

9.2.7 Wall Ties

NZCMA believes that in the first sentence of the second paragraph the word “installed” should be replaced with “anchored”, and the words “with a layer of mortar both above and below the tie” should be deleted.

The sentence should read “Wall ties shall be anchored so that they are contained within the mortar bed.”

Reason: BRANZ research report (SR 204) demonstrates that dry bedding of ties is satisfactory from a structural perspective. This may assist to reduce labour costs.



Table 18B, Placement of Wall Ties

Wall ties are only required in the first course above that containing the damp proof course. A second tie in the next upper joint is not required as demonstrated by BRANZ.

NZCMA believes that Table 18B should be amended accordingly.

Reason: To avoid unnecessary building costs.

Table 18C, Corrosion protection to masonry wall ties

NZCMA believes that galvanized wall ties for Zone C (previously Zone 1) applications as stated, in the recent AS1, is still sufficient.

Reason: NZCMA is unaware of any instances where galvanized wall ties for Zone 1 (Zone C) have failed. The requirement for stainless steel lintels would lead to an increase of building costs.

Table 18D, Corrosion protection to lintels

NZCMA believes that galvanized lintels for Zone C (previously Zone 1) applications as stated, in the recent AS1, is still sufficient.

Reason: NZCMA is unaware of any instances where galvanized lintels for Zone 1 (Zone C) have failed. The requirement for stainless steel lintels would lead to an increase of building costs.

9.2.8.2 Concrete Bricks

1. NZCMA believes the words “Figure ?” should be replaced with “Figure 73A”, and the words “and comprise.” be deleted.

The sentence should read “Control joints shall be formed as shown in Figure 73A.”

2. NZCMA believes that sub-points a) and b) i) and ii) should be deleted

Reason: A fully drained cavity is provided and does not require a sealant base joint.

9.2.10 Windows and Doors

NZCMA believes the words “SNZ HB 4236” should be replaced with “Figure 73C, D & E.”

The sentence should read “Window flashings should be installed in accordance with SNZ HB 4236.”

Reason: Window flashings are not part of 4236.



9.3 Stucco
9.3.1 Limitations

NZCMA believes the following COMMENT should be added.

“The installation of solid plaster stucco shall be carried out by solid plasterers registered under the Licensed Building Practitioner Scheme.”

Reason: The application of solid plaster stucco by those with the appropriate qualifications will go further towards ensuring quality.

NZCMA further believes that this comment should not be a comment but integrated into the body of the AS1.

Proposed E2/AS3 Acceptable Solution for Concrete and Concrete Masonry

NZCMA fully supports introducing an Acceptable Solution for concrete and concrete masonry construction into the New Zealand Building Code, as it will streamline the compliance process for residential concrete buildings, as well as remove obstacles to the building sector’s productivity.

The technically robust document CCANZ S01: STANDARD for Weathertight Concrete and Concrete Masonry is ideal for the Department of Building and Housing (DBH) to cite as the new Acceptable Solution.

The introduction of E2/AS3 will contribute greatly to alleviating Building Consent Authorities’ uncertainty in the area of weathertight concrete and concrete masonry design, and in turn allow for a more inclusive range of building materials from which builders, designers and their clients can choose

We trust that the above comments and recommendations are appropriate for consideration. However, please do not hesitate to contact us if we can be of any further assistance or if you have any queries or require additional information.

Yours faithfully

A handwritten signature in black ink, appearing to read "David Barnard", with a long, sweeping underline.

David Barnard
ACTING EXECUTIVE OFFICER