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To Whom It May Concern,

These statements have been prepared to demonstrate how the Magnum Board 'Board and Batten' system supplied by 'Health Based Building' complies with the New Zealand Building code as an alternative solution.

This is accomplished by comparing the Magnum Board 'Board and Batten' system (MBBS) with the acceptable solution E2/AS1 and in particular clause '9.7 Fibrecement Sheet' when using timber cover battens.

We will also highlight in-service history, for projects that AP Design have done up and down the country without concern or failure and lastly compare to a similar Fibrecement product on the market.

Magnum Board and Batten – An Alternative Solution

Over the years, the MBBS has gained popularity, leading to an increase in its usage. The system has from the outset always followed E2/AS1 as a compliance path.

However, because it does not have an independent appraisal the use of MBBS is considered an Alternative Solution to E2/AS1. The Magnesium Oxide Sheet is not outlined under *Table 3: Suitable Wall Cladding - NZBC E2/AS1*.

(Note: NZBC E2/AS1 primarily focuses on products that are commonly used around New Zealand, such as timber weatherboards, fibre cement, metal cladding, plywood, and masonry veneer.)

The Building Code offers a compliance pathway through the use of an Alternative Solution when a design or system deviates partially or fully from the Acceptable Solution. AP Design have successfully completed several projects nationwide using MBBS, all of which have been approved by the local building consent authorities without any issues or failures.

Comparison with E2/ AS1 Clauses

The MBBS follows E2/AS1 clauses 9.7 Fibrecement Sheet closely with just a few variations.
These variations are listed in the following clauses:

- **9.1.7.2(a) – Rigid Wall underlay:**
    - The Acceptable Solution requires a Fibrecement Board Rigid Wall underlay to be minimum 6mm thick. Fixings to be 40 x 2.8 Fibre cement nails, 150mm centres to sides, 300mm centres along the middle.
    - Magnum Board and Batten specifies Magnum Board Rigid Wall underlay to be 9mm thick. Magnum Board and Batten RAB specifies fixings to be SIFCO 50 x 2.8 SS nails, 300mm centres to the sides, 600mm centres along the middle.

- **9.4.4.3 – Cladding Fixings:**
    - The Acceptable Solution requires Fibrecement Board Fixings to be:
      60 x 3.15 Fibre cement nails at 150mm centres to sides, 300mm centres in middle.

      Exterior decorative battens, 65 x 3.15 JH nails, single fixing in centre of battens.

    - Magnum Board and Batten specifies Fixings to be:
      7g x 65mm stainless screws at 300mm centres to sides, 300mm centres in the middle.
      Set 15mm from edge and 50mm from corner.

      Exterior decorative battens, 7g x 38mm stainless screws, spaced 400mm in centres of battens.

- **9.5.1 – Limitations:**
    - The Acceptable Solution requires Jointed systems of Fibrecement Board to have sheet of minimum 6mm thickness.

    - Magnum Board and Batten specifies Magnum Board to have sheet of 9mm thickness.
      1200mm Width and 2400/2700/3000mm Length

- **9.8.2 – Material – Batten Joints:**
    - The Acceptable Solution requires Batten-jointed Panels for Fibrecement Board to be Preprimed, min 75mm x 25mm weathergrooved Timber battens.

    - Magnum Board and Batten specifies Batten-jointed Panels to be H3.2, 65mm x 20mm weathergrooved Earthen Radiata battens.

Similarly to Fibrecement Board, Magnum Board is high resistant towards impact, moisture and fire, hence it can be used for exterior cladding.

Durability is no concern for Magnum Board and Batten as it meets the compliance requirements of B2/AS1:

‘B2.3.1 Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified inded life of the building, if stated, or (a) The Life of the building being not less than 50 years’

Similar products on the market include James Hardie Flex Sheet. These are sheets of fibecement board used as external cladding. The system also follows in accordance to E2/AS1, with only a few differences. Similarly these include Fixing types, Sheet thickness and Batten Types.

Comparison with Appraised Cladding Solutions

Furthermore, Health Based Building has other cladding systems that incorporate Magnum Board as a material which are used for external cladding and have received appraisals.
Some of which also listed below:

Shiplap Weatherboard
https://www.healthbasedbuilding.com/magnum-board/magnum-board-16mm-shiplap-weatherboard
• Product Technical Statement
• Product Appraisal
• Technical Manual
• Construction Details
• Scion Bracing P21 test
• BRANZ Flame spread assessment FAR 4338

Bevel Back Weatherboard
https://www.healthbasedbuilding.com/magnum-board/16mm-weatherboard
• Product Technical Statement
• Product Appraisal
• Technical Manual
• Construction Details
• Scion Bracing P21 test
• BRANZ Flame spread assessment FAR 4338

Magnum Board and Batten
https://www.healthbasedbuilding.com/magnum-board/board-and-batten

• Product Technical Statement
• Technical Manual
• Construction Details
• Scion Bracing P21 test
• BRANZ Flame spread assessment FAR 4338

AP Design is supplying an expert opinion with facts and is not supporting another designer's application for building consent in doing so. The duty of care remains with the designer ultimately.

Kind Regards,

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