Submission No 16

INQUIRY INTO FURTHER INQUIRY INTO THE REGULATION OF BUILDING STANDARDS

Organisation: MidCoast Council

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MIDCOAST council

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Insert date

Enquiries: Gary Mead

MR David Shoebridge MLC
Public Accountability Committee
NSW Legislative Council

Dear Sir

Further enquiry into the regulation of Building Standards

I would like to raise two issues relating to the engineering certification of buildings.

Firstly, greater scrutiny needs to be given to the design and construction of critical and specialist construction elements. This is required to minimise the risk of building failures. Secondly, there is insufficient ownership in terms of responsibilities for developments. Where there is a building failure, who is to blame? is it the builder, contract trades, building designer, certifier etc. Clearer lines of responsibility are required.

To address these issues, I suggest the following model;

Engineers who are engaged in the building construction industry be registered in the same way building certifiers are registered, based on education, skill and experience. For example, engineers who design and certify engineering elements/designs for class 2-9 buildings should have a higher level of education, skill and experience to meet registration requirements, than an engineer who designs and certifies engineering for class 1 and 10 buildings.
Engineering compliance certificates should be introduced, mandated and categorised according to building classification under the National Construction Code, and include;

1. **Engineering Design Compliance Certificates – issued by the registered Principal Design Engineer**
   - **Specify required minimum engineering critical stage inspections for each specific element/component**
   - **Specify tolerances or scope of amendments to the design that the certifying engineer can make without amendment of the engineering design certificate**
   - **Construction Certificate cannot be issued unless a Design Compliance Certificate has been issued for each relevant element**
2. **Engineering element compliance certificate**
   - **Issued for each critical stage inspection as specified in the engineering design compliance certificates**
3. **Engineering Occupancy Compliance Certificates - issued by the registered Principal Certifying Engineer**
   - **a statement that all required critical stage inspections together with any additional inspections have been undertaken and a compliance certificate issued for each element**

- **Occupation Certificate cannot be issued unless all relevant Engineering Occupation Compliance Certificates have been issued.**

The following is an example of how this may work;

Class 2- 9 Buildings

Pre-construction - design compliance certification for structural elements, hydraulic, drainage mechanical ventilation.

During construction –engineering critical stage inspections undertaken and compliance certificates issued as specified in the engineering design compliance certificate - certification of elements of construction including record of on-site inspections – for structural element certification, foundation material, pier, footing, slab column, beam, frame, and other elements as applicable in the design certification, such as, hydraulics, stormwater drainage, sanitary drainage, mechanical ventilation. Any variations/amendments during construction are within identified tolerances in the design compliance certificate or if amendments exceed tolerances the amendment is referred back to the Principal Design Engineer to issue an Amended Design Compliance Certificate.

Post construction – Engineering Occupancy Compliance Certificate, that certifies that the building is suitable for occupation in terms of a specific element such as;
structural adequacy, hydraulic, drainage mechanical ventilation

Class 1 and 10 Buildings

Pre-construction - structural elements design certification as applicable, i.e. for elements unable to be certified by the building certifier, such as suspended concrete slabs.

During construction – principal certifier certification @ critical stage inspection, unless design is amended, which would trigger the need for structural compliance certificate.

Post Construction – Engineering Occupancy Compliance Certificate, that certifies that the building is suitable for occupation in terms of a specific element such as;
structural adequacy.

The above example is simplistic and will undoubtably require refinement, however, the concept is simply to strengthen lines of responsibility. In fact, the above process is not too dissimilar to what happens in practice on most developments, but current practices are not formally regulated, and lines of responsibility are blurred. This concept will provide certainty and confidence for all stakeholders throughout the process and restore consumer confidence in the industry.

Yours sincerely

Gary Mead
Executive Manager Liveable Communities

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