

The following comments are provided for consideration in response to the NSW Government Discussion Paper, "Building Stringer Foundations."

To discuss the contents of this submission further, please contact me via the following details:

BRETT FAIRWEATHER

MECHANICAL ENGINEERING CONSULTANT

1. What kinds of plans should be signed off and declared by a statutory declaration?

The 'Final Design', which is used to demonstrate compliance with the Building Code of Australia and other relevant state regulations. This shouldn't be limited to 'plans' though and should extend to all details that are relied upon in the construction process. (plans, specifications, equipment schedules, etc = 'Final Design')

2. Could plans be statutorily declared at the CC/CDC stages? If not, why not?

No. The 'Final Design' doesn't exist at these stages.

Declarations based on a design at CC, doesn't ensure the construction will ever follow this preliminary design.

If a consulting engineer is responsible for the 'Final Design' at CC, then the systems must be installed accordingly, without variation or adjustment. In reality, this never happens – something always changes during construction.

If a builder or sub-contractor amends a design following CC and their successful Tender, then they should be responsible for the 'Final Design'.

3. To what extent should changes to plans be submitted to the regulator?

This sounds like an administrative nightmare!

The regulator is unlikely to have the technical skills to do anything useful with the re-submission.

The Building Surveyor/Certifier would need to be satisfied that the completed construction complies with the Building Code of Australia, so they should receive sufficient information until they are satisfied.

If declarations from building designers will be sufficient, then the content of these declarations should be prescribed (as per NSW's AFSS), to help the surveyor recognise that the design advice (outside their own field of expertise) is complete.

4. Should a statutory declaration accompany all variations to plans or only major variations?

Declarations should be provided with respect to the 'Final Design' (see Q1). If the Final Design is varied, then a new declaration should be provided.

5. Are there any obstacles that would prevent a person from submitting a statutory declaration for variations? If so, what are those obstacles?

Time/costs/risks

Practitioners are often reluctant to take on risks associated with the unknown details in another practitioner's designs.

6. What other options could be workable if there are variations to plans?

Refer to question 3. Allow the relevant authority the opportunity to understand and accept the variation, with all necessary support from the design team.

7. How could the modifications process be made simpler and more robust?

Minimum prescribed documentation for assessment by the relevant authority.

Training & education relevant to the importance of thoroughly documenting all modifications.

A process to limit any undocumented modifications that have affected the 'Final Design' declarations.

8. How should plans be provided to, or accessed by, the Building Commissioner?

Consider adopting existing terminology in this requirement. The term 'Baseline Data' is becoming more widely used in Australian Standards relevant to essential services in buildings. Development of this is already mandatory for these systems and should be relied upon to explain a design and demonstrate it achieves all relevant performance requirements.

Refer to Clause 4.15 in AS 1668.1 for one example.

9. What types of documents should 'building designers' provide to the Building Commissioner?

Only information that will be useful to the Building Commissioner's role.

10. In what circumstances would it be difficult to document performance solutions and their compliance with the BCA?

In areas where compliance is subjective. The BCC is working on quantification of performance requirements, which may help with this limitation (while stifling some opportunities for innovation).

11. Would a performance solution report be valuable as part of this process? If not, why not?

Yes. It is already mandatory for compliance with Part A2 of the Building Code of Australia.

12. Are there any other methods of documenting performance solutions and their compliance that should be considered?

Minimum content, with a consistent reporting structure – this will help the relevant authority when assessing the completeness of the solution.

13. What would the process for declaring that a building complies with its plans look like?

A written declaration, with prescribed content and a consistent format. Simplify the administrative assessment.

NSW's AFSS requirements implemented in 2017 might be a suitable reference when developing a template for these declarations.

14. What kind of role should builders play in declaring final building work?

Recognising their responsibility in compliance, particularly where trade coordination is involved. Laws should be changed to ensure builders still exist more than a short period after construction is "Practically Complete". Builders should be prevented from operating in the same field but under a new business name, leaving a reckless trail of unsafe buildings in their wake.

Builders should be prevented from imposing financial or commercial penalties on sub-contractors who are initially unwilling to (fraudulently) sign-off on an installation, despite obvious shortcomings in the completeness or compliance of their work. (I suspect this bullying lies closer to the core of the construction industry's problems than we've currently heard about. This is discussed and acknowledged amongst practitioners throughout the industry, but will be difficult to find evidence for).

15. Which builders involved in building work should be responsible for signing off on buildings?

Anything to improve a builder's recognition of their role in compliance will be helpful, but they are not experts in each part of the design or construction.

Builders could perhaps rely on peer assessment of compliance, although this will add cost to construction and many professional engineers will be unwilling to accept responsibility for another practitioner's design.

16. Are there any circumstances which would make it difficult for builders to declare that buildings are constructed in accordance with their plans? If so, what are those circumstances?

Builders are not experts in engineering services. They must therefore rely on the demonstrated competency and experience of engineering practitioners.

A registration scheme is an important part of this process, but registration is only effective after a problem has occurred. Evidence of a problem is evidence that the applicable competency assessment for that practitioner's registration is flawed. A feedback loop must be developed to ensure lessons learned in these flaws helps develop ongoing competency assessment.