
From: David Radcliffe
Sent: Monday, 22 July 2019 1:33 PM
To: Building Confidence Response
Subject: D Radcliffe's Supplementary Submission on Building Stonger Foundation Discussion Paper

I refer to my emailed submission of today's date 10:49am which contains a glaring omission.

At my comments in answer to **Q18**, please add:

"Fire Safety Engineer – Responsible for design and compliance of fire safety systems".

Regards

David Radcliffe

22 July 2019

BUILDING STRONGER FOUNDATIONS – DISCUSSION PAPER

SUBMISSION FROM DAVID RADCLIFFE

A chartered construction professional in private practice, having nearly 60 years experience, having worked in various countries on most types of building and civil engineering projects.

My comments on several questions posed in the “Building Stronger Foundations” discussion paper are as follows:

My comments apply to multi use and multi storey residential projects - not to single dwellings.

Q13 What would the process for declaring that a building complies with its plans look like?

Comments

The original designers of the building (architect, structural engineer, mechanical engineer, electrical engineer etc) should be retained and provide certificates that the actual work in progress (at critical stages – HOLD points such as concrete pours, waterproofing etc) and at completion, complies with the approved drawings and specifications, The Building Code of Australia and relevant Australian Standards. Note – I have included Australian Standards.

My reasons for Comments

The current practice of the Developer employing designers to produce drawings and specifications and then dismissing those designers and employing a Certifier should not be permitted. The original designers should be responsible for compliance. This system has worked in the past and works satisfactorily on non-residential construction projects.

The current system of subcontractors certifying their own work and the Certifier issuing a blanket compliance certificate for the project is a root cause of the defective work problems afflicting the residential construction market.

Under the current system the Certifier has certified compliance of the documentation but has not certified compliance of the work. My suggestions above are intended to change the focus on certification of the work rather than the documentation.

Q14 What kind of role should builders play in declaring final building work?

Comments

The builder should have a contractual and statutory responsibility to supply materials and equipment and construct the works in accordance with approved drawings and specifications, the Building Code of Australia and relevant Australian Standards. However final certified approval should be the responsibility of the original designers as dealt with at Q13 above.

My reasons for Comments

In some cases the Developer and Builder can be the same entity. In other cases the Developer may employ a Builder.

In either case, at the completion of a project, the Builder/Developer or Builder can place the entity into liquidation resulting in a worthless declaration that the work complies.

Q15 Which builders involved in building work should be responsible for signing off on buildings?

My comments at Q13 assumes the external designers are commissioned. However, In the case of “in house” designers employed by the Developer or Builder (which may be the case with large developer / builders) those “in house” designers should inspect and be responsible for certifying compliance as if those designers were external designers

Q16 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.

Comments

Almost all residential buildings contain elements that are complex and technically challenging, such as electrical, mechanical and telecommunications systems. A builder’s employees may have a general working knowledge but in all probability would not have the knowledge or expertise to declare those specialised elements are constructed in accordance with drawings and specifications.

Q18 What occupations or specific activities are involved in the ‘building design’ and should be in the scope for the registration scheme?

Comments

Architect – Responsible for overall design, overall compliance, and inspection of non- specialised trades and elements but including windows, external doors, roofing and all waterproofing (“specialised trades” being such as electrical and mechanical works).

Structural Engineer - Responsible for design and compliance of ground works, reinforced concrete, structural steelwork and other important structural elements.

Electrical Engineer - Responsible for design and compliance of electrical systems.

Mechanical Engineer - Responsible for design and compliance of air conditioning, ventilation and other mechanical systems.

Hydraulics Engineer - Responsible for design and compliance of stormwater, drainage, sewage and water supply element systems.

Transportation Engineer - Responsible for design and compliance of elevators.

My reasons for Comments

In confining the above answers to the occupations and activities listed, I have deliberately excluded “Certifiers” for the following reasons:

As stated at Q13, under the current system the Certifier may certify compliance of the documentation but may not have certified compliance of the work.

Furthermore, there will no doubt be “certifiers” who have extensive trade or professional experience and qualifications and who may actually inspect the work as it progresses. However, I suspect there are many individuals acting as “certifiers” who have scant knowledge or experience of actual construction.

Out of curiosity I recently enquired to a TAFE website offering a 3 year online “Advanced Diploma of Building Surveying” course (Code CPC60115). I was interested to discover what prior onsite practical or any construction experience was required.

In part, this course description “*reflects the role of building surveyors or certifiers who apply knowledge of compliance requirements and construction methods and materials*”, including “*issuing certificates of occupancy*” (which in effect is the final building sign off as fit for occupancy)

I was surprised to note that no entry requirements are required for the course.

The course units focus on the understanding of regulations and document compliance, conducting audits, and preparation of reports of inspections.

As far as I could determine, none of the units includes any subject that teaches the practical fundamentals of building construction such as; how to read architectural structural or hydraulics drawings; or design and good construction practice of elements such as reinforced concrete, brickwork, blockwork, carpentry, roofing etc.

It seems the only onsite practical experience necessary to complete the course is “*to be able to gain supervised access to a number of building sites at various stages of construction*”.

In summary, a person with no prior experience, with the ability to gain occasional access to a building site, with no practical training in the fundamentals of building construction, can obtain an “Advanced Diploma of Building Surveying” and set up as a “certifier”. This is a “fast track” to a responsible position.

There are private organisations offering similar courses.

I do not criticize TAFE for offering this type of course. What I do criticize is it seems this course and qualification should be a supplementary qualification to a person already possessing other basic qualifications and experience, not a sole fast track to such a responsible position.

In my view the whole system of independent “certifiers” should be abolished.

Q20 What form of insurance should be mandatory for ‘building designers’ ? Why?

Comments

It should be mandatory for external designer firms employed by Developer/Builders, plus individual designers employed “in house” by Developer/Builders, to be covered by Professional Indemnity Insurance policies specific to each particular project, providing adequate cover commensurate with the value of the project, element or level of responsibility. The policy duration should extend to take into account defects that may arise after completion of the works and the initial involvement of the designer.

It is common for designers to be covered by Professional Indemnity Insurance so this would not be an additional cost burden.

If the designers are held responsible for compliance as my comments at Q13, the Owner’s Corporation of a faulty building will have recourse through the Courts to relevant Professional Indemnity Insurance policies assuming the designer was negligent in respect of the design and or inspection/compliance of the work.

If the Developer/Builder goes into liquidation the Owner’s Corporation has a fall back on the designer.

I have not commented on Q21 for the reason this subject requires specialised insurance expertise.

David Radcliffe