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PRELIMINARY STRUCTURAL ENGINEERING INSPECTION REPORT
ON
APARTMENT COMPLEX
AT
34 PINEHILL COURT, FRANKSTON
FOR
BUILDING COMMISSION

Preliminary

I report on a preliminary inspection of a 12 unit apartment complex at 34 Pinehill court, Frankston on Thursday 19th August 2010. The purpose of the inspection is to determine the structural integrity of the building in relation to an emergency order placed on it.

The building is a 3 level complex of mixed construction consisting of a carpark below a complex of 10 apartment units which are single and double storey. The main ground floor building consists of a reinforced concrete floor system supported on concrete columns and reinforced concrete band beams. The building over is predominantly timber framed with rendered foam panels. The tiled roof is supported on a prefabricated timber roof truss system. There are a number of balconies at the second and third levels of the complex. The third level balconies consist of floor tiles supported on chipboard flooring and timber floor joists and beams.

Not all units could be inspected.

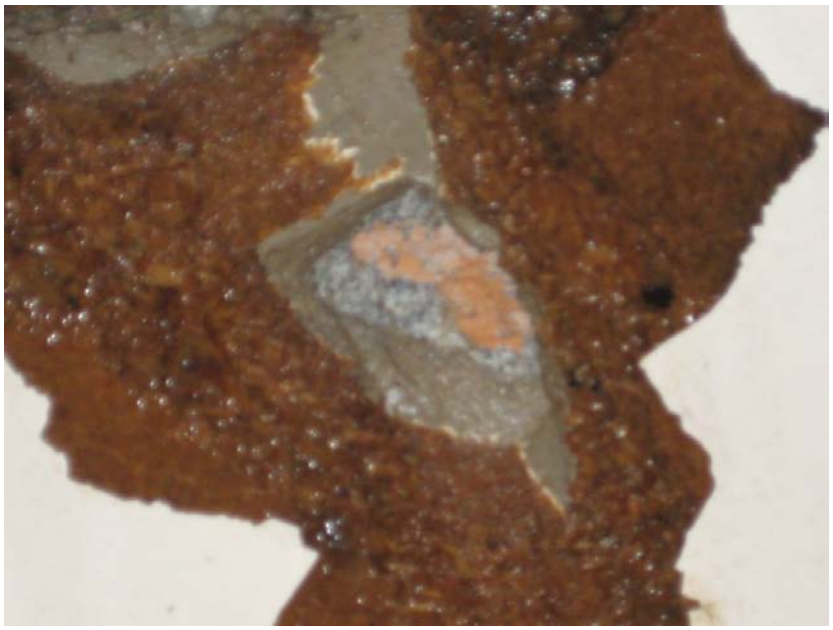
Part of front of the apartment complex

Structural Engineering issues

1) **Balconies**

A number of the balconies on the third level are leaking. I inspected the units 4 and 1. The balcony above unit 4 leaks to the extent that the plaster ceiling has fallen away and the carpet below is water damaged. The chipboard flooring has rotted away to the extent that I do not consider it safe to access the balcony. The timber floor joists are water stained, but they do not appear to be damaged to the extent that the structural integrity of the timber is compromised. The plaster ceiling in the kitchen of unit 1 is extensively water damaged although the plaster has not fallen away yet. There is a timber framed balcony over the kitchen.

Water damaged flooring above ceiling



Rotted chipboard flooring

It is my recommendation that the balconies that are leaking not be allowed to be accessed as I cannot be certain the structural integrity of the chipboard is adequate to support the designed live load.

2) Second Level Floor Structure

A number of structural Engineering drawings of were provided for my perusal at the inspection. The approved first floor level plan shows a reinforced concrete floor slab supported on a system of structural steel beams. The first floor actually consists of reinforced floor slabs supported on reinforced concrete band beams and reinforced concrete columns. The construction does not accord with the drawings.

At the inspection there was no evidence that there is any impending failure of the floor structure. There does not appear to be any shear or bending failure in the slabs or band beams. At one of the outer edge beams the reinforcement is exposed to the extent that the concrete has not been properly compacted and there is no cover. This beam does not appear to be critical in the support system however.

Although the concrete floor does not comply with the approved drawings supplied to me the structure does not appear to be inadequate such that failure is imminent. Further investigation is recommended however to fully determine the suitability of the slab.

3) Roof

The roof is supported on a system of prefabricated trusses. An extensive examination of the sizes, spacing etc. was not carried out. An inspection of the structure in general indicates there is no excessive deflection or bending distress.

Roof truss system

The structural integrity of the roof support system appears satisfactory at this time. However further investigation is recommended considering the non compliance in other areas.

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