

Independent strata and asset management advice

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PUBLIC ACCOUNTABILITY COMMITTEE

PHOTOS IN SUPPORT OF ORAL SUBMISSION

by Grahame Vile

20 Feb 2020, Newcastle

- Working in remedial industry as remedial and forensic engineer since 1996. Director of BAAM Consulting since 2002.
- Current President ACRA Australasian Concrete Repair Association
- Past President & past Treasurer ACA (Australasian Corrosion Association, NSW branch)
- Past Secretary CIRCEA (College of Investigative & Remedial Consulting Engineers, Australia)
- Forensic engineer role (on new buildings) = find out underlying cause of a defect, relevant codes, and scopes of work
- Remedial engineer (on older buildings, outside litigation /dispute) = assess causes of deterioration, develop options and remedial strategy, develop scopes of work.

The defects include

- Waterproofing failures wet areas, balcony thresholds
- Wet area substrates particleboard = exacerbated damage
- Balcony & Planter Box detailing moisture ingress, lime/efflorescence, grade, joints
- Roofing flashing deficiencies
- Construction deficiencies pre-cast jointing and cladding detailing, fire separation detailing
- Quality of construction timber framing, guttering, flashings, durability of steelwork
- Flammable Cladding

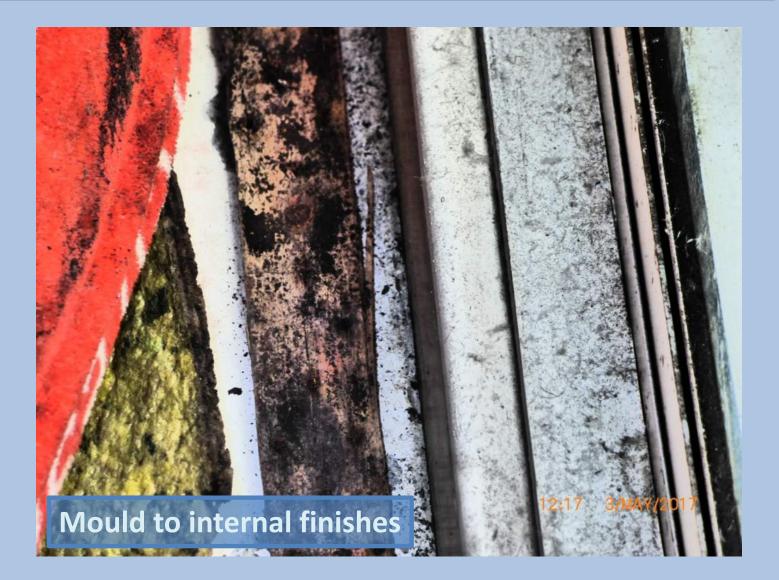
Previous Works

- Insurance Works 2011/2012
- \$200,000 approx. + Variations \$160,000 approx.
- Repairs to approx. 50% of all Lots
- If defects were **not reported** works were not done:
 - A factor of tenants not reporting and/or
 - Defects not presenting at that time.
- The original HBA warranty period expired in around 2011
- Repairs now required to other Lots for similar issues, plus expanded to flammable cladding
- Other works (service / maintenance) compromised Fire Separating Construction in several locations

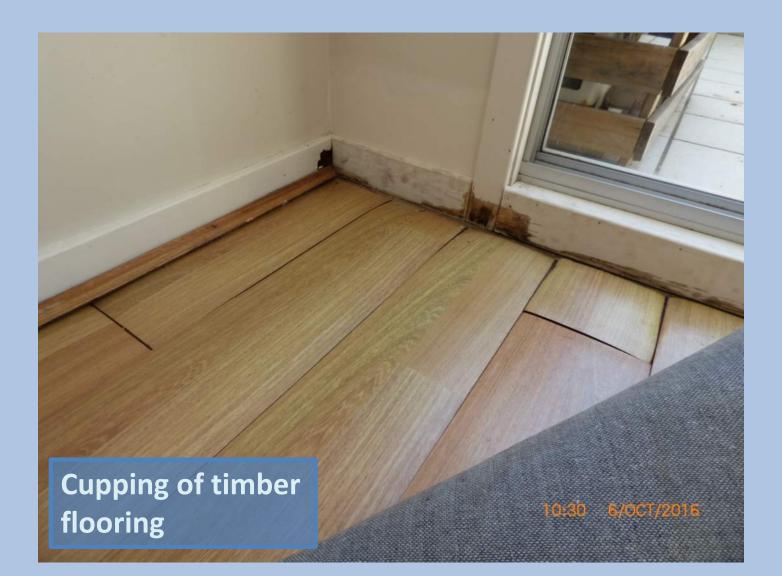
Internal Courtyard Poor Waterproofing & Hob



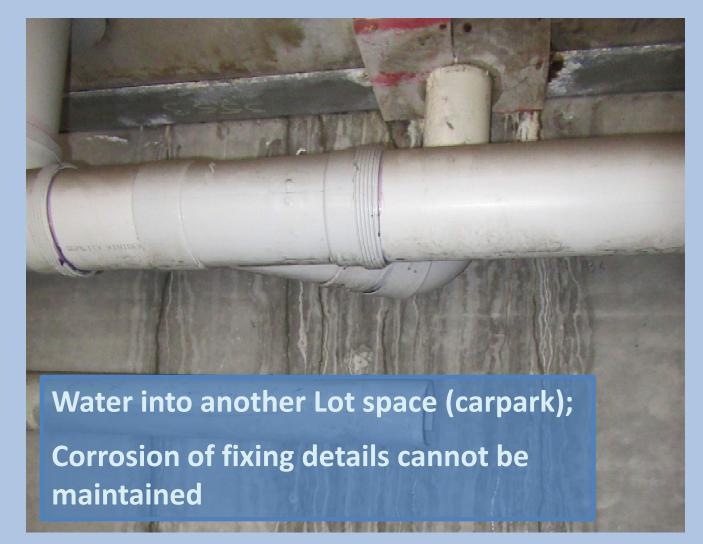
Internal Courtyard – membrane-hob defect



Internal Courtyard Poor Waterproofing



Internal Courtyard and Concrete Façade



Detailing of Precast Panel Joints – moisture to carpark





Water travels past structural connections; corrosion cannot be 11/10/2019 14:24 managed

Pre-cast Panel Joint Detailing



Open Balcony Poor Waterproofing and Hob

From upper level balcony through façade breach and past wall framing

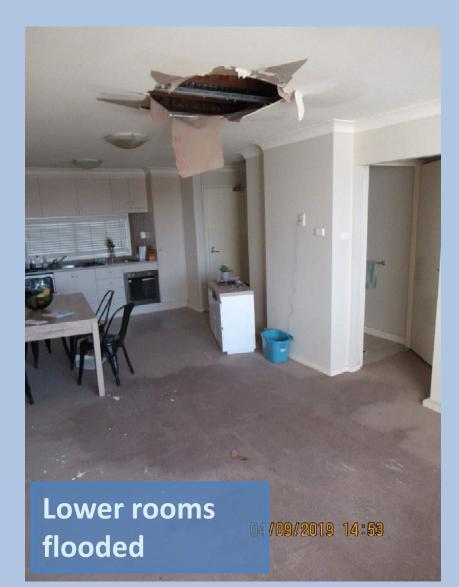
Moisture affected Fireboard – due to roof flashing and cladding leaks



Service cable penetrates external concrete panel join



Poor design & consequence of hot water system failure





No fail-safe detail (containment) to Hot Water ^{04/09/2019} 14:54 tank burst above tray

Poor Material choice and wet area waterproofing failure



susceptible to moisture



Timber rot, membrane adhesion loss

Deteriorated Timber framing at Fascia – membrane defects.



Planter Box



Planter over living area Failed joint detailing end of precast against facade

20/07/2018 11:00

Tiling



Capping /Flashing Repairs



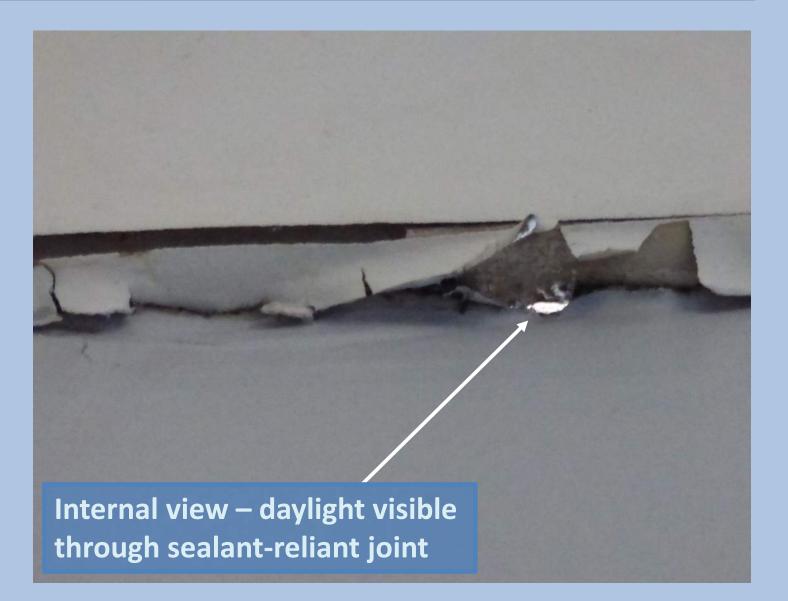
Framing of upper Decks



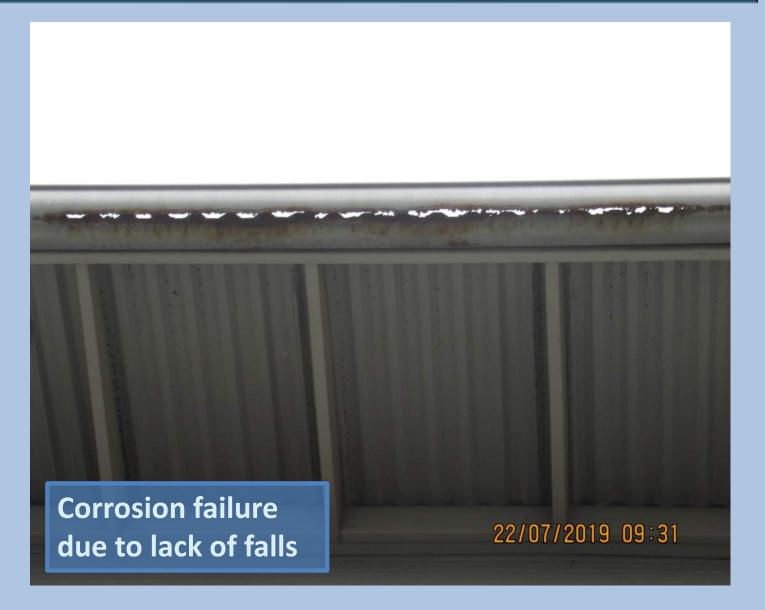
Steel member projects into façade – excessive maintenance effort required Wall-mounted timber with water impacting, rendered against



Flashing Repairs – deteriorated cornice/wall



Guttering failed at less than half Service Life



Flammable cladding



Typical appearance of cladding

Styrene board, thin render coating, no sarking, insulation or fireboard and deficient timber framing.



Flammable Cladding

Fuel Contribution Summary based on the Insurance Council of Australia Guidelines

Sample Type	Identified Polymer and Additive (Filler)	Combustible Material Content (% w/w)	Corrected Inert Filler Content (% w/w)	Insurance Council of Australia Category
Styrene	Polystyrene with Unknown Filler	100%	0%	A

SOLUTIONS

Suggested solutions:

- Abandon self-certification
- Independent oversight and review during construction Clerk of Works model
- Longer warranty periods there are motor vehicles that have longer warranties now
- Life-time Individual Licence to elevate the responsibility of the Builder, and not allow "Company-held" licences
- Disallow phoenixing

SOLUTIONS

Suggested solutions:

- Australian Standards
 - Uniformity
 - Open access (free)
 - Better training for Licenced contractors, including training on and access to Standards
 - Improved standards to remove ambiguity
- Better public education of strata including strata inspections and reports, interpretation of files
- Documentation and files
 - Complete plans at handover
 - Strata Manager changes file transfer between agencies



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