

PRACTITIONER EDUCATION SERIES

# Proactive Inspections Program Findings: Buildings

**WELCOME**

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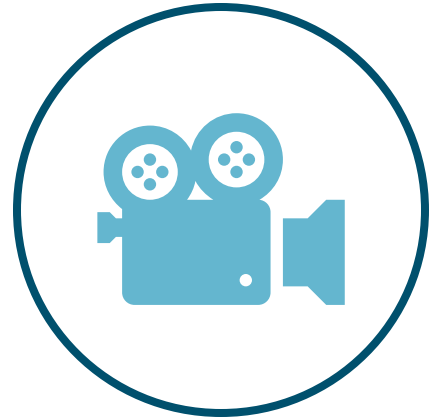
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# Before we begin

Recording



Questions



Feedback Survey

# In today's session

Proactive  
Inspections  
Program



Recent Q4 findings



Case studies of  
common issues



**Proactive  
Inspections  
Program**

# Proactive Inspection Program

## WHAT IS IT?

- Involving teams of building and plumbing inspectors, who are VBA Authorised Officers.
- Inspections of building and plumbing works under construction through Victoria

## WHY WE DO IT?

- It aims to reduce number of non-compliant work.
- Enforce compliance with the *Building Act 1993* (the Act), Building Regulations 2018 and Plumbing Regulations 2018, prior to occupation taking place.
- Able to address significant failures early, rectification is often easier, avoids impacting the safety, health, and amenity of future residents.

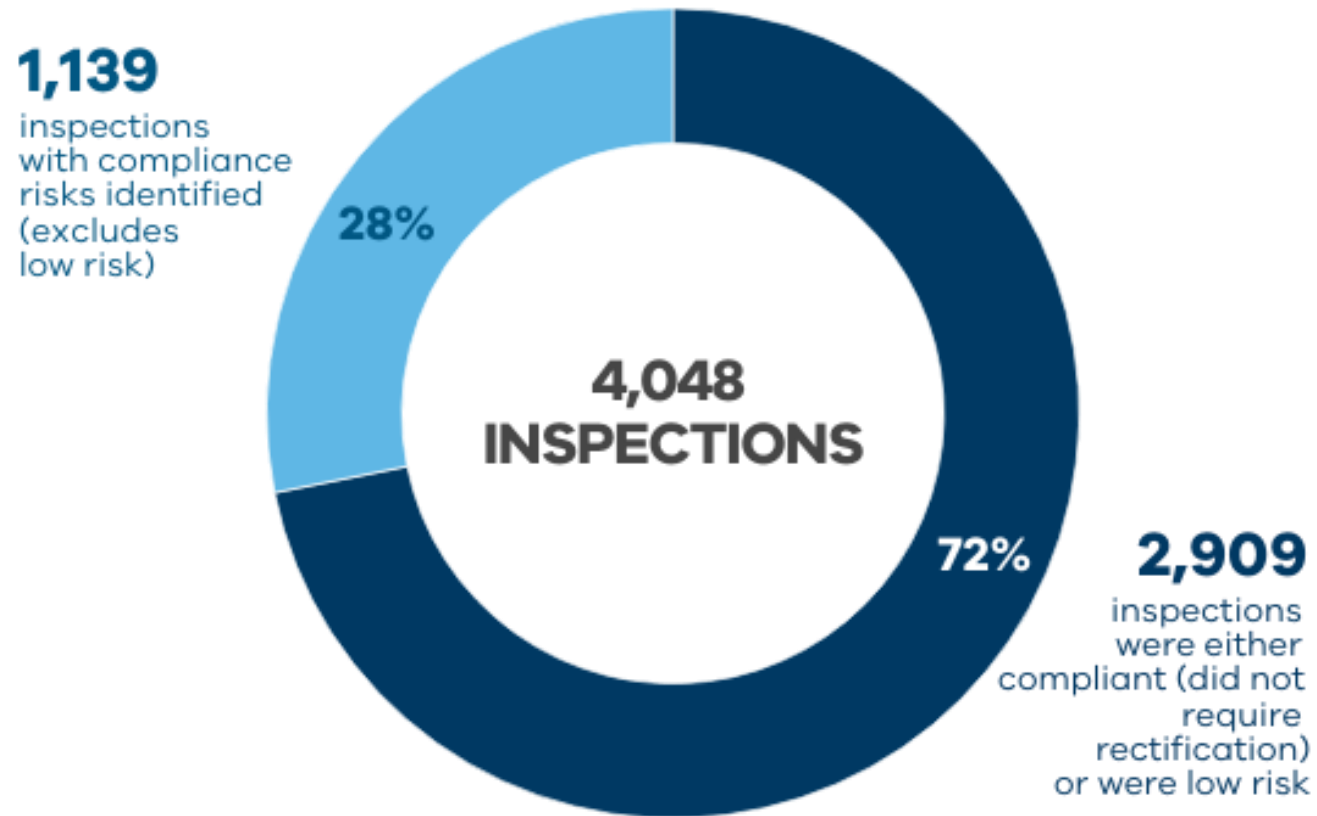
**GOAL: INSPECT AT LEAST 10 PER CENT OF ALL BUILDING PERMITS ISSUED PER YEAR**

# Proactive Inspection Program

## WHAT ACTION DO WE TAKE?

Low risk (Pass)	<b>Non-compliance is not identified</b> at inspection, or any non-compliance is consistent with work in progress and is reasonably expected to be resolved as work progresses.
Low risk (Low-impact non-compliance)	It is <b>unlikely that the non-compliance</b> , if left untreated, would cause an adverse effect on the safety and/or amenity of the occupants. Financial loss for future occupants or loss of structural integrity is unlikely.
Medium risk	It is <b>possible that the non-compliance</b> , if left untreated, would cause an adverse effect on safety and/or amenity of the occupants/public. Financial loss for future occupants or loss of structural integrity is possible.
High risk	It is <b>almost certain that the non-compliance</b> , if left untreated, would cause an adverse effect on the safety and/or amenity of the occupants/public. Structural integrity would be significantly compromised and/or total loss of project value would be incurred.

# Recent findings



The most common non compliances issue that were found on site where to do with:

- Timber framing  
**329**
- Unreinforced brickwork & accessories  
**112**
- Footings/slab construction and subfloor ventilation  
**119**
- Damp and weatherproofing  
**112**



# Common issues in timber framing

# Bottom Plates that overhang concrete slabs



- Under AS1684.2 there are no prescribed allowance for timber frame overhangs.
- The Guide to Standards and Tolerances (currently under review) only allows a 90mm wide stud to overhang a maximum of 10mm
- Areas that exceed the allowed tolerance require a review from the relevant registered civil engineer to provide evidence that compliance with the NCC 2019 Volume 2 Part 2.1 is being achieved.

- Reinforcement starter bars into edge of concrete and bulk pour concrete



# Bottom Plates that overhang concrete slabs

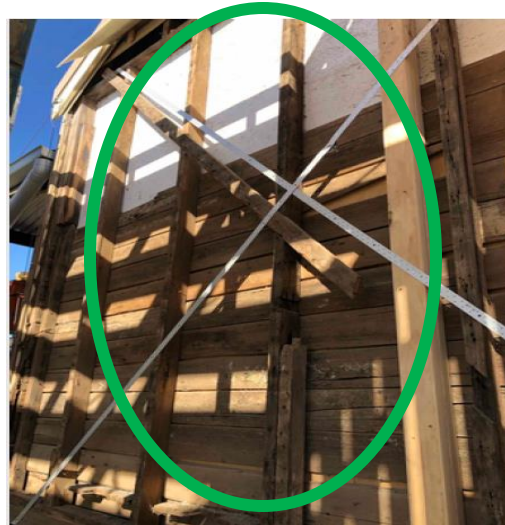


# Notching / Trenching / Holes in studs and plates



- AS1684 allows for a maximum hole diameter of 25mm on the face of the bottom plate.
- Part 6.2.1.4 must be followed.
- Where the notch exceeds this in a braced wall, consideration must be given to be Part 8.3.6 noting that sheet braced walls require a continuous bottom plate
- Studs are required to be evenly spaced and extend from the underside of the top plate down to the bottom plate.

# Braced walls



- Alterations and additions should factor in existing braced walls to ensure that they are not compromised as part of the new work.

- Metal bracing is to span from the bottom plate to top plate. Where bracing is cut the wall no longer provides the design bracing capacity.

- Bracing above did not achieve the required 1800mm minimum span

# *Location of Braced walls*



- When considering the location of braced walls, it is important to factor in the proposed services/fittings to ensure they will not be compromised.



- Where bracing is cut to allow for ducting/toilet fittings the wall is no longer working towards providing the initial assumed bracing capacity.

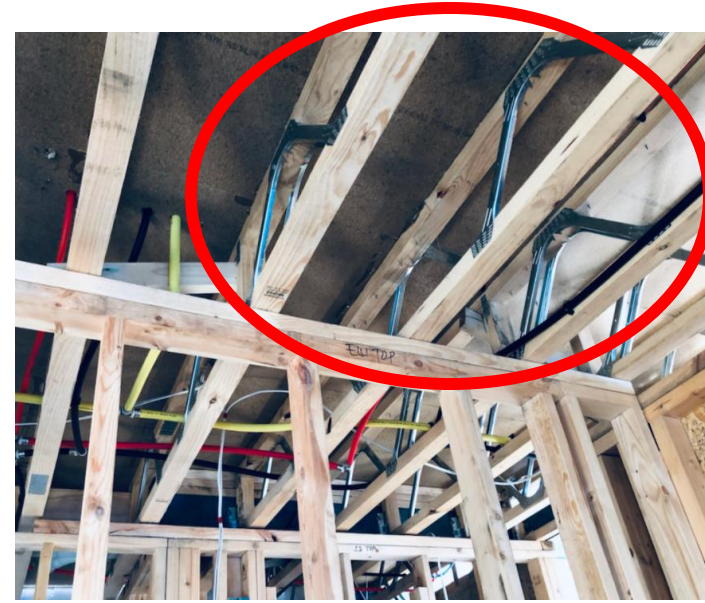
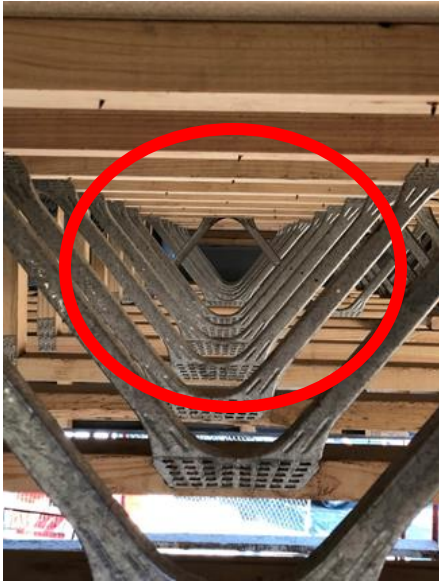
# Notching / Trenching / Holes in sheet braced walls



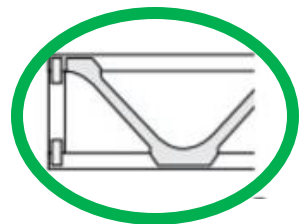
- Penetrations have occurred within the sheet bracing contrary to the manufacturers installation guidelines.
- It is critical to ensure that the manufacturers installation guides are being followed.
- Unless otherwise specified the sheet bracing must span a minimum of 900mm wide



# Installation of Floor joists



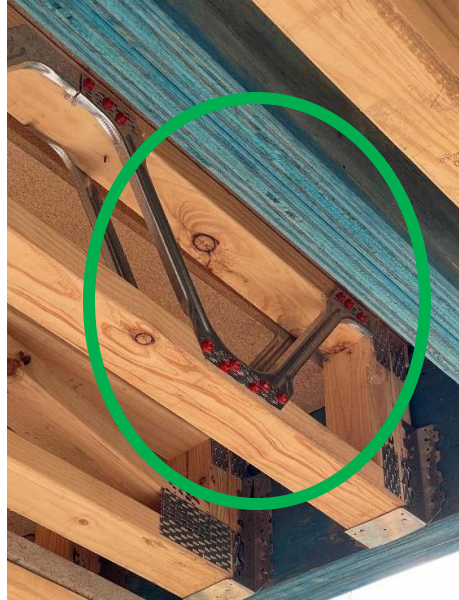
- The manufacturers installation guides must be followed so that they are installed the correct way up.
- Posi Struts require the web starts at the top chord at each support point unless clearly identified otherwise.



# Damaged Floor Joists



- Web of Posi Strut was damaged which required replacement



- Flange of Smart Joist was damaged. Materials should be good and suitable for their purpose for which they are used.

# Cuts / Holes and Notches within the Floor joists



- Timber floor joist has top-chord and web notching to allow for plumbing pipe

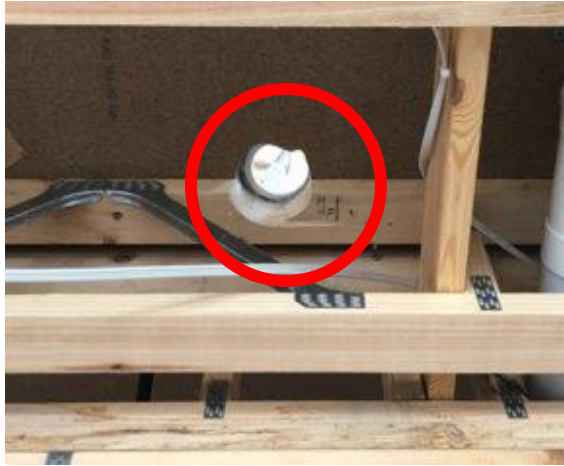


- Posi strut was notched resulting in a rectification design provided from the manufacturer.

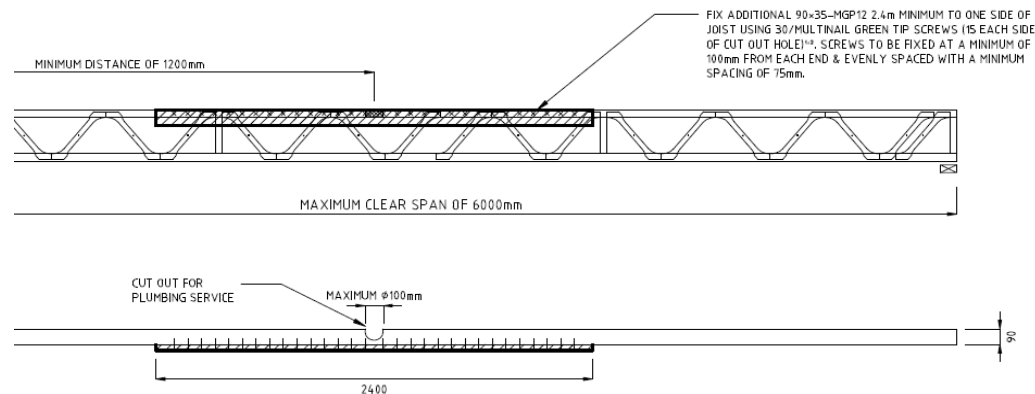


- New support running vertically and laterally across joists to provide further stability.

# Cuts / Holes and Notches within the Floor joists



- Posi strut was penetrated resulting in a rectification design provided from the engineer



- E-Joists require cuts are neat and not within 5mm of the flanges.
- E-Joists require spacing of holes to be two times the width/diameter of the hole or 300mm (which ever is greater)

# Bracing to ends of Floor joists



- Blocking not installed to end joists.
- Blocking to be installed at maximum 1.8m centres.



- Blocking provided at 1.8m centres.



- Blocking provided but bracing straps to complete the tie down have not yet been provided for the braced wall.

# Bracing to ends of Floor joists



- No end support bracing provided.
- Timber diagonal blocking required at 1200 centrs.



- Timber diagonal bracing provided at 1200mm centres however no Trip-L-Grips were not installed. Required to have at least one per braced panel.



- No internal end support bracing provided
- Trip-L-Grips are required if using speed brace or diagonal timber bracing.

# Strong backs



- Inspection identified strongback had been cut to allow for plumbing pipe

- Metal L-Bracket installed across 3 joists as per engineers rectification design and certification process

# Fixing of trusses to internal walls



- Slotted L-Brackets not installed at 1.8m centres (internal non-loadbearing).



- No shear blocks installed to internal non-loadbearing braced wall.
- Refer to Table 8.22 for various methods

# Half Trusses



- No bracing to the ends of cut-off/half trusses



- Timber diagonal bracing installed to cut-off/half trusses
  - Speed bracing installed to half trusses
  - Blocking and fixing not provided as per manufacture's details



# Other Structural Issues



- Blocking not provided with double studs to transfer the concentrated loads through the structure.



Additional support blocking provided between the ground / first floor to transfer the concentrated loads through the structure

# Other Structural issues



- Double studs/jamb studs required to ends of lintels



- Waling plate cut.



- Tie downs at jamb studs.



# PIP Quarterly Report



The screenshot shows the VBA (Victorian Building Authority) website. The header includes the VBA logo and navigation links: Find a practitioner, eToolbox, VBA360, BAMS, About us, News and events, and Contact us. The main navigation bar lists: Building industry, Building surveyors, Plumbing industry, Owner-builders, Consumers, and Cladding. The main content area features a large image of two inspectors in hard hats. Below the image is a breadcrumb trail: Home > Building industry > Complaints, compliance and enforcement > Proactive Inspections Program > Quarterly reports. The main heading is "Proactive Inspections Program (PIP) Quarterly reports". Below the heading is a sub-heading: "The VBA's Proactive Inspections Program helps ensure the safety of Victoria's construction industry." and a paragraph: "We have a team of expert building and plumbing inspectors that typically look at more than 900 sites each month. This work means we can identify potential faults earlier, when they are easier to fix, and that the burden of fixing them sits with the..." To the right of the main content is a "On this page" section with a "Hide" button and a list of links: "Where we are", "What we're looking for", "What we find", "Overview of building inspections", and "Overview of plumbing". A left sidebar contains a menu with items: Building industry, Practitioner Education Series, Building regulatory framework, Building practitioner registration, Builder renewals and other requirements, and Prescribed temporary structures. There are "Print" and "Share" buttons in the top right of the content area.

More information regarding  
The PIP Quarterly report can  
be found on the VBA website:

- For the website go to <https://www.vba.vic.gov.au/plumbing/complaints-compliance-enforcement/proactive-inspections-program/quarterly-reports>



# Q & A

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# Thank you