

# TOPNOTCH BUILDING INSPECTIONS

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<https://topnotchbuildinginspections.com.au/>



## PRE-PLASTER INSPECTION

1234 Main St. Preston Victoria 3072

Buyer Name

12/03/2021 9:00AM



Inspector

Colin Hamilton

*Colin Hamilton*

Registered Building Practitioner DB-U 17607

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Agent

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**14**MAJOR DEFECT / SAFETY  
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- ⊖ 6.1.1 Exterior - Pliable Membrane Walls: Perforations in the House Wrap
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## 1: GENERAL INFORMATION

## 2: INSPECTION DETAILS

### Information

<b>In Attendance</b> Tradesmen	<b>Weather Conditions</b> Fine & Dry	<b>Ground/Soil Surface Conditions</b> Dry
<b>Direction House Faces</b> North	<b>Building Type</b> House  <a href="#">What style of house is it?</a> <a href="#">realestateview.com.au</a>	<b>Construction Type</b> Timber Framed, Brick Veneer, Weatherboard / Composite
<b>Number Of Storeys</b> Single Storey	<b>Number of Bedrooms</b> Four	<b>Number of Bathrooms</b> Two
<b>WC / Powder Room</b> One WC	<b>Roof Design</b> Truss Roof Frame, Hip & Valley, Gable, Cathedral  <a href="#">Roof Designs</a>	<b>Roof Cladding</b> Corrugated Iron (ColorBond)
<b>Footing Type</b> Waffle Pod	<b>Items Not Inspected</b> Underground Stormwater Pipes, Underground Sewer Pipes, Agi- Drains, Electrical Works, Boundary Fence	<b>Areas Of Possible Concealment Of Defects</b> No

## General Information: Introduction

**Introduction:** The following attached pages are your Pre-Plaster Inspection report.

This Pre-Plaster Inspection is the last chance to ensure that defect items identified with the Frame Inspection have been rectified and no other defective works have occurred at the Rough In Stage by the Electricians, Plumbers, Air-Conditioning / Heating Contractors or Carpenters, and to inspect other modifications that have been made to the frame were performed in accordance with current best Standards of Practice.

**Your Inspector may bring:** to your attention and discuss certain Recommended Upgrades of original and functioning installations and assemblies of Systems and Components that you may wish to consider implementing as part of upgrading your home. These Recommended Upgrades may exceed some of the building and construction standards that apply to the construction of your home. Recommended Upgrades should be performed only by Qualified parties in accordance with all applicable industry standards and requirements pertaining to permits, codes and regulations.

**Any oral statements made by the Inspector** pertaining to Recommended Upgrades or any inclusion in the Inspection Report of information regarding Recommended Upgrades shall be deemed to be informational only and supplied as a courtesy to you and shall not be deemed to be an amendment to or waiver of any exclusions included in the "Inspection Agreement and Standards of Practice."

**Use of photos and video:** Your report includes many photographs which help to clarify where the inspector went, what was looked at, and the condition of a system or component at the time of the inspection. Some of the pictures may be of deficiencies or problem areas, these are to help you better understand what is documented in this report and may allow you see areas or items that you normally would not see. A pictured issue does not necessarily mean that the issue was limited to that area only, but may be a representation of a condition that is in multiple places. Not all areas of deficiencies or conditions will be supported with photos.

**What really matters in an inspection:** The process can be stressful. An inspection is supposed to give you reassurance but often has the opposite effect. You will be asked to absorb a lot of information in a short time. This often includes a written report, checklist, photographs and what the inspector himself says during the inspection. All this combined with what you notice yourself makes the experience even more overwhelming.

What should you do? Relax. Your inspection items / recommendations will be sent to you and at your request to your site supervisor to address.

The Builder Recommendations that really matter will fall into three categories:

1. **Major Defects / Safety Hazards.** An example of these would be a non-compliant structural item or a safety hazard that may cause injury.

2. A **Minor Defect**, things that may lead to **Major Defects**. A small water leak coming from a piece of roof flashing, for example.

3. **General Advice.** Such as ensuring ceiling insulation is not in contact with the sarking under the roof, or holes / perforations in the house wrap made after the inspection to be properly taped and sealed.

Anything in these categories should be corrected. Often a serious problem can be corrected inexpensively to protect both life and property (especially in categories 1 and 2).

**Most Builders are honest and are often surprised to learn of defects uncovered during an inspection.**

## General Information: Client Present at End of Inspection

No

We invite the client to attend their home inspection. Following the home inspector is advantageous for a homeowner as it enables them to ask questions during the inspection and it enables them to learn what the home inspector desired to teach about the house.

## Areas Inspected

Building Exterior, Building Interior, Roof Exterior

The inspection covered the Readily Accessible Areas of the property.

Please note obstructions and limitations to accessible areas for inspection are to be expected in any inspection.

## Areas Restricted To Inspection

Not Applicable

Any areas which are restricted or inaccessible at the time of inspection present a high risk for undetected building defects. The client is strongly advised to make arrangements to access inaccessible areas urgently.

## Limitations

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General Information

### **THERMAL IMAGING INFORMATION**

**THERMAL IMAGING:** An infrared camera may be used for specific areas or visual problems, and should not be viewed as a full thermal scan of the entire home. Additional services are available at additional costs and would be supplemented by an additional agreement/addendum. Temperature readings displayed on thermal images in this report are included as a courtesy and should not be wholly relied upon as a home inspection is qualitative, not quantitative. These values can vary +/- 4% or more of displayed readings, and these values will display surface temperatures when air temperature readings would actually need to be conducted on some items which is beyond the scope of a home inspection. If a full thermal scan of the home is desired, please reach out to me and schedule this service.

## 3: INSPECTOR COMMENTS

### Information

#### Inspectors Comments: Inspectors Comments

I have undertaken a pre-plaster inspection at the property and make the following observations which are to be rectified prior to the installation of plasterboard and finishing external claddings.

1. Eternal Doors have not been installed as per manufacturer's recommendations.
2. Windows have not been installed as per manufacturer's recommendations.
3. Not all windows have been taped and sealed to pliable membrane
4. Many perforations were found in the external pliable membrane.
5. Binders and bottom chord restraints have not been installed in the Porch area
6. Binders have not been installed to the beam at the garage door opening
7. Not all wall junctions have been fixed
8. Noggings in some areas are missing
9. Trimmers for plasterboard in areas are missing
10. Lintels for non-loadbearing openings greater than 1800mm have not been installed.
11. A stud is missing
12. Notching of studs at plumbing breeches are not in compliance with AS1684.2-2010
13. Plumbing breeches were not level
14. Some walls are not Plumb
15. Insulation is missing in some locations
16. Some Jack studs at lintels have not been installed
17. Trusses in the family/dining and grand outdoor room require more bottom chord restraints, maximum 4.0m spacings in compliance with AS1684.2-2010

I recommend reading the full report and rectifying all identified defects in compliance with the Building Regulations, NCC 2019, Australian Standards, Manufacturers Recommendations and Good Building Practices.

If required, feel free to contact me to discuss.

Thank you for trusting me to undertake your inspection.

Kind Regards

Colin Hamilton



Topnotch Building Inspections

## 4: CONSTRUCTION SITE

### Information

---

**Trash Dumpster / Rubbish Cage**

Rubbish Cage

**Job Site Address Posted**

The Address and Lot # was visible at the time of inspection.

This is for your information.

**Job Site Clean**

The Job Site was clean at the time of inspection unless noted below.

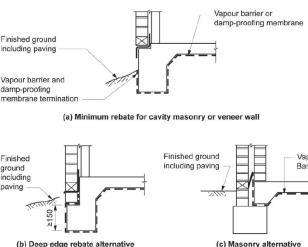
This is for your information.

## Vapour Barrier

Ensure that the vapor barrier is installed in compliance with the NCC2019 and Engineering drawings.

The vapour barrier must be placed beneath the slab so that the bottom surface of the slab is entirely underlaid and extends under edge beams to finish at ground level in accordance with Figure 3.2.2.3. of the National Construction Code.

Figure 3.2.2.3 Acceptable vapour barrier and damp-proofing membrane location



See Photographs



General View, Vapour Barrier



General View, Vapour Barrier



General View, Vapour Barrier



General View, Vapour Barrier



General View, Vapour Barrier



General View, Vapour Barrier

## Limitations

Construction Site Information

### **BRICKWORKS UNDER CONSTRUCTION**

The brickwork was under construction at the time of my inspection and had not been completed. This was a limitation to my inspection.

# 5: ROOF

## Information

### GENERAL INFO: ROOF TYPE / STYLE

Hip and Valley, Gable

[Roof and Styles Information](#)

### Roof Coverings: ROOFING MATERIAL

Corrugated Iron (Colorbond)

[Click here or more information on Roofing materials](#)

### GENERAL INFO: Sky Light(s)

None

### Roof Coverings: Pliable Membrane (Sarking)

Fully Sarked

### Flashings: Material

ColorBond

### Gutters / Downpipes: INFORMATIONAL

External / Eaves Gutters

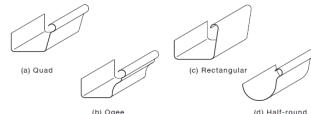


FIGURE 5.6(A) TYPICAL EXTERNAL EAVES GUTTERS

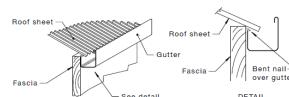
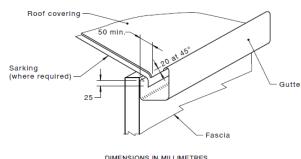
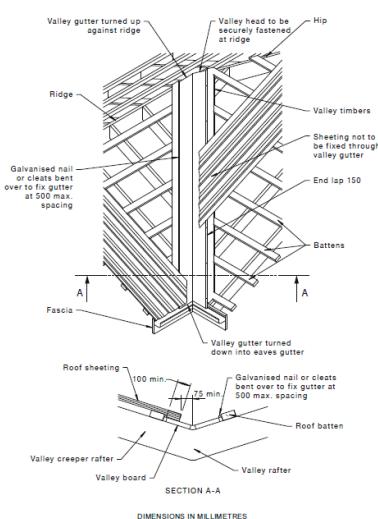


FIGURE 5.6(B) CLEATING

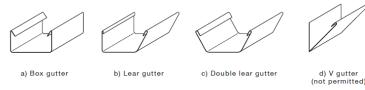


### Valley Gutters



DIMENSIONS IN MILLIMETRES

### Internal / Box Gutters



**Roof Vents (Whirly Birds): Roof Ventilation**  
Roof  
Whirly Bird(s)

**Skylights, Chimneys & Other Roof Penetrations:** CHIMNEY(S)  
**MATERIAL**  
Not Applicable

**Skylights, Chimneys & Other Roof Penetrations:** ROOF PROTRUSION  
**TYPE(S)**  
Plumbing Stack Vents, Exhaust Vents, Aerial(s), Evaporative Cooling Unit



Roof Penetrations

## GENERAL INFO: Inspection Method

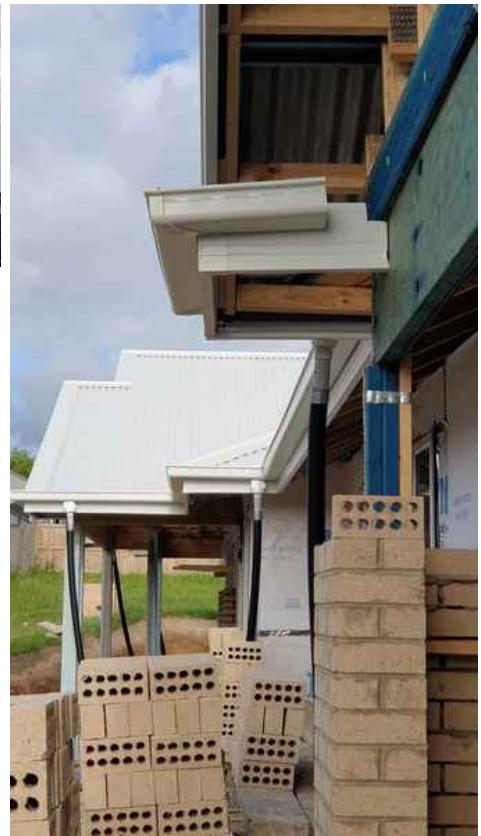
### Ground

The roof is inspected from various locations and methods, including from the ground, a ladder, .

The inspection was not an exhaustive inspection of every installation detail of the roof system according to the manufacturer's specifications or construction codes. It is virtually impossible to detect a leak except as it is occurring or by specific water tests, which are beyond the scope of our inspection.

**GENERAL INFO: ROOF VIEWS****Roof**

General Roof Views.

**GENERAL INFO: Visual Inspection**

Only the visible areas were inspected at the time of inspection. No deficiencies noted to visible areas unless otherwise noted below.

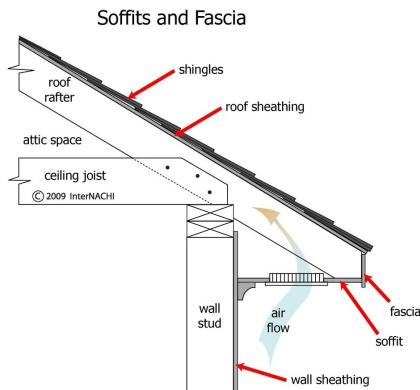
## Roof Coverings: Visual Inspection

Only the visible areas were inspected at the time of inspection. No deficiencies noted to visible areas unless otherwise noted below.

## Eaves, Soffits & Fascia: EAVES, SOFFIT & FASCIA

The eaves are the edges of the roof which overhang the face of a wall and, normally, project beyond the side of a building. The eaves form an overhang to throw water clear of the walls. The Soffit is the underside of the eave whereas the Fascia is the outward-facing vertical portion.

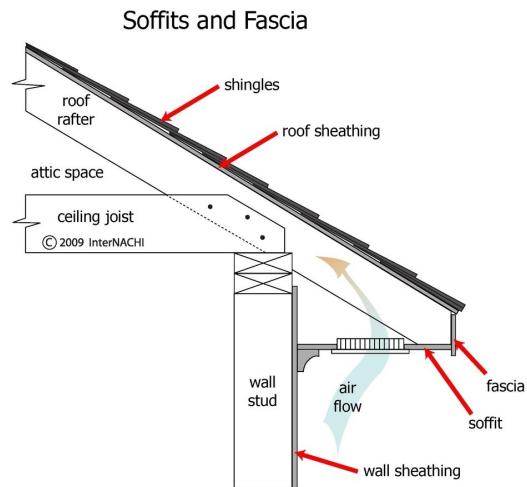
[More Information on Eaves](#)



## Eaves, Soffits & Fascia: EAVES & FASCIA MATERIAL

Metal Fascia, Eaves Lining Not Installed

The eaves are the edges of the roof which overhang the face of a wall and, normally, project beyond the side of a building. The eaves form an overhang to throw water clear of the walls. The Soffit is the underside of the eave whereas the Fascia is the outward-facing vertical portion.



## Flashings: Flashing Informational

A "Flashing" refers to pieces of COLORBOND®, ZINCALUME®, GAVINISED IRON, STAINLESS STEEL or Copper installed to prevent the passage of water into a structure from a joint or as part of a weather resistant barrier system.

Flashings come in a variety of standard shapes and sizes and can be custom made to suit most if not all applications of weather sealing.

See link [here](#) for more information

## Limitations

### GENERAL INFO

### ROOF LIMITATIONS

The inspection of the roof and its covering material is limited to the conditions on the day of the inspection only. The roof covering material, visible portions of the roof structure from within the roof structure (if applicable) were inspected looking for indications of current or potential leaks.

Future conditions and inclement weather may reveal leaks that were not present at the time of inspection.

Any deficiencies noted in this report with the roof covering or indications of leaks, or potential leaks should be evaluated and repaired as required by a licensed roofing contractor.

## Builder recommendations

### 5.3.1 Eaves, Soffits & Fascia



#### FASCIA - DAMAGED

##### FASCIA

One or more sections of the fascia are damaged.

Recommend qualified roof plumber to evaluate & repair.

See photograph(s) for location(s)

Recommendation

Contact a qualified plumbing contractor.



Entry



Entry



Above Master Bedroom Window

## 6: EXTERIOR

### Information

#### Exterior Entry Doors

Temporary Builders Doors

#### Appurtenance

Covered Entry

#### Windows: Type

Aluminium, Sliding, Awning

#### Pliable Membrane Walls: Manufacturer and Type of Membrane

External Pliable Membrane

Vapour Permeable Membrane, Fletcher Insulation

Vapour Barrier      Vapour Permeable



#### Pliable Membrane Walls: Visual Inspection

Only the visible areas were inspected at the time of inspection. No deficiencies noted to visible areas unless otherwise noted below.

#### Exterior Doors: External Doors

Timber Framed, Aluminium Framed, Hinged, Sliding

Only the visible areas were inspected at the time of inspection.

No deficiencies noted to visible areas unless otherwise noted below.

#### Porches, Patios, Decks and Balconies: Appurtenances

Front Porch

Only the visible areas were inspected at the time of inspection.

No deficiencies noted to visible areas unless otherwise noted below.

#### Surface Drainage, Retaining Walls & Grading: General Grading Good

The general grading of the perimeter around the house's foundation appeared to be functional at the time of inspection. Ideally, the grading should slope away from the houses foundation about 6" over the first 10'.

### Limitations

Vapour Barrier

**VAPOUR BARRIER, WORKS ONGOING**

## Ensure the vapour barrier is not being compromised during the construction process.

The functionality of the vapour barrier to the entire perimeter of the building including, is required to comply with NCC2019 and AS2870-2011.

It is a requirement of both NCC2019 and AS 2870-2011 5.3.3.4 that vapour barriers are turned up and terminated at ground level above pavement adjacent footing. The vapour barrier is defective if building materials and fill has been left on top of the membrane, as this prevents it from being pulled up against the slab when installing perimeter paving as it is intended to be.

This must be remedied immediately to prevent slab edge dampness.

It is a requirement of AS 2870-2011 5.3.3.4 that vapour barriers are turned up and terminated at ground level above paving adjacent footing. The vapour barrier is defective if building material and fill has been left on top of the membrane as this prevents it from being pulled up against the slab when doing perimeter paving as it is intended to be.

## NCC2019

### Clause 2.6

#### Vapour barriers

A vapour barrier must be installed under slab-on-ground construction for all Class 1 buildings and for Class 10 buildings where the slab is continuous with the slab of a Class 1 building as follows—

##### (a) Materials

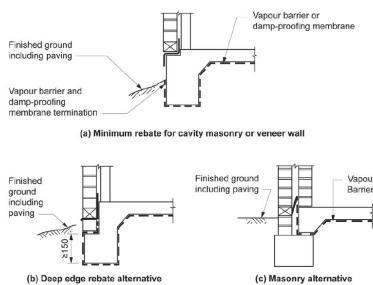
A vapour barrier must be—

- (i) 0.2 mm nominal thickness polyethylene film; and
- (ii) medium impact resistant, determined in accordance with criteria specified in clause 5.3.3.3 of AS 2870; and
- (iii) be branded continuously "AS 2870 Concrete underlay, 0.2 mm Medium impact resistance".

##### (b) Installation

A vapour barrier must be installed as follows—

- (i) lap not less than 200 mm at all joints; and
  - (ii) tape or seal with a close fitting sleeve around all service penetrations; and
  - (iii) fully seal where punctured (unless for service penetrations) with additional polyethylene film and tape.
- (c) The vapour barrier must be placed beneath the slab so that the bottom surface of the slab is entirely underlaid and extends under edge beams to finish at ground level in accordance with Figure 3.2.2.3.



## Builder recommendations

### 6.1.1 Pliable Membrane Walls

#### PERFORATIONS IN THE HOUSE WRAP



Minor Defect

Perforations were observed in the house wrap throughout the structure.

I recommend **sealing all perforations, holes or torn house wrap throughout the structure** and in strict compliance with AS4200.2-2017.

See Sample Photographs

## AS4200.2-2017

### Clause 3.2 General Requirements

When installing pliable building membranes, the following requirements apply:

- (a) Damage or tears to the membrane shall be repaired to restore the integrity and maintain the purpose of the membrane.
- (b) The membrane shall be cut to provide a neat fit around obstacles and penetrations (see Section 4).
- (c) Exposure of pliable building membranes to intense heat, sparks, flames or abrasive tools shall be avoided.
- (d) Where a pliable building membrane is installed as a vapour control membrane, Class 1 or Class 2, or as an air barrier, it shall be continuously sealed at all discontinuities, end laps, joints and penetrations by—
  - (i) a pressure sensitive, heat and moisture resistant tape;
  - (ii) adhesive of equal or greater vapour resistance than the vapour control membrane;
  - (iii) heat and moisture resistant adhesive tape;
  - (iv) mechanical fixing with adhesive sealant; or
  - (v) adhesive bond.

Recommendation

Contact your builder.





## 6.1.2 Pliable Membrane Walls

### MISSING HOUSE WRAP

The House Wrap has not been completed. We recommend to inspect and install.

I recommend installing permeable membranes throughout the entire structure and in strict compliance with AS4200.2-2017.

See Photographs

#### AS4200.2-2017

##### Clause 3.2 General Requirements

When installing pliable building membranes, the following requirements apply:

- (a) Damage or tears to the membrane shall be repaired to restore the integrity and maintain the purpose of the membrane.
- (b) The membrane shall be cut to provide a neat fit around obstacles and penetrations (see Section 4).
- (c) Exposure of pliable building membranes to intense heat, sparks, flames or abrasive tools shall be avoided.
- (d) Where a pliable building membrane is installed as a vapour control membrane, Class 1 or Class 2, or as an air barrier, it shall be continuously sealed at all discontinuities, end laps, joints and penetrations by—
  - (i) a pressure sensitive, heat and moisture resistant tape;
  - (ii) adhesive of equal or greater vapour resistance than the vapour control membrane;
  - (iii) heat and moisture resistant adhesive tape;
  - (iv) mechanical fixing with adhesive sealant; or
  - (v) adhesive bond.

Recommendation

Contact your builder.



Minor Defect



## 6.2.1 Windows

### WINDOW TAPE



Major Defect / Safety Hazard

The Flashing Tape around the perimeter of the windows has not been installed in a professional workmanlike manner.

I recommend checking all windows, doors, joints and penetrations throughout the structure are sealed in strict compliance with AS4200.2-2017

See sample photographs

## **AS4200.2-2017**

### **Section 4 Penetrations**

#### **4.1 GENERAL**

The pliable building membrane shall be cut neatly to allow penetration by chimneys, vents, pipes, cables and other services, as required.

#### **4.2 THERMAL CONTROL**

Where a pliable building membrane is installed as thermal control, penetrations shall be sealed to restrict air exchange between air cavities of either side of the membrane.

#### **4.3 VAPOUR CONTROL AND AIR CONTROL**

Where a pliable building membrane is installed as a vapour barrier or air barrier membrane, methods shall be used to restrict air exchange between air cavities of either side of the membrane in accordance with Clause 3.2.

#### **4.4 WATER CONTROL**

Where a pliable building membrane is installed as a water control membrane, penetrations shall be sealed with a pressure-sensitive and heat- and moisture-resistant tape.

NOTE: The membrane should divert the water away from the opening rather than towards it.

#### **4.7 WINDOWS, ROOF WINDOWS, SKYLIGHTS AND DOORS**

At windows, doors and other openings, the pliable building membrane shall be cut and dressed into all sides of the opening to achieve the desired function of the membrane in accordance with Clauses 4.1, 4.2, 4.3 and 4.4.

The building membrane shall be installed to facilitate drainage to the building flashing.

Recommendation

Contact your builder.





### 6.3.1 Exterior Doors **FRAMES NOT FIXED**

 Major Defect / Safety Hazard

The external door frames have not been installed as per the manufacturers recommendations.

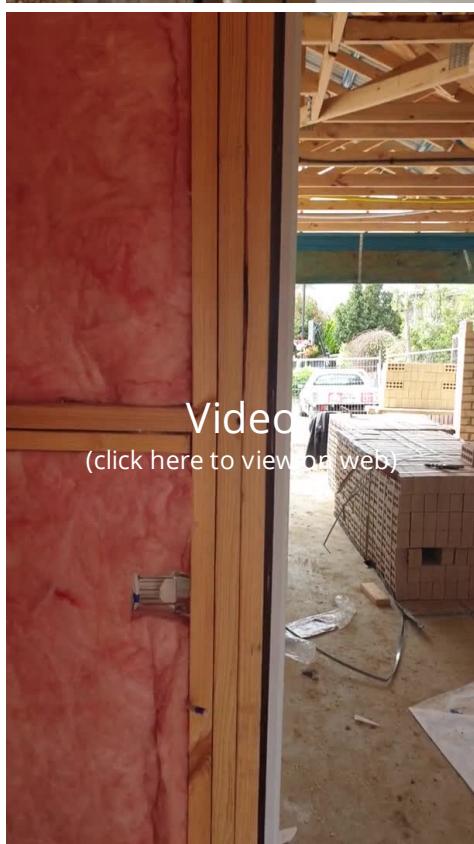
The external door frames have only been tacked in position.

I recommend installing the external door frames as per the manufacturers recommendations and in-line with the Industry Guide To The Correct Installation Of Windows And Doors. [See link here](#)

See Sample Photographs

Recommendation

Contact your builder.



**Video**

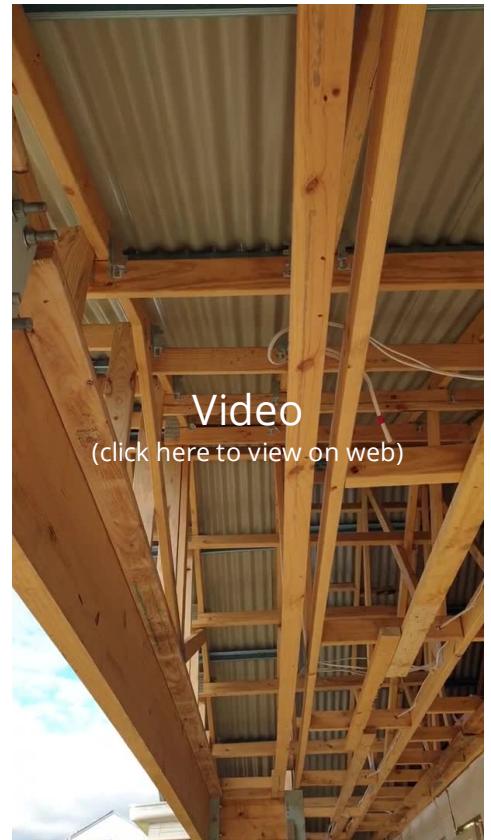
(click here to view on web)



6.5.1 Porches, Patios, Decks and  
Balconies

## BINDERS

 Major Defect / Safety Hazard



The Porch lintels have not been tied into the roof frame and are free to move.

I recommend tying the Porch lintel to the roof structure as required  
the truss manufacturer installation guide, Australian Standards  
4440:2004 and 1684.2-2010

See photograph(s)

## **AS 1684.2-2010**

### **9.7.6 Shear forces on external non-loadbearing walls**

Non-loadbearing external walls, such as gable end walls and verandah walls (where trusses are pitched off verandah beams or other beams), shall be restrained laterally at their tops at a maximum of 3000 mm (see Clause 6.2.5).

Where lateral restraint for these walls is not provided by the usual means using binders, intersecting walls, strutting, hanging or other roof beams or ceiling joists or ceiling battens or similar members, the walls shall be restrained laterally in accordance with Table 9.29 and Table 9.30, where applicable, or the relevant details given in Table 8.22 for the fixing of the top of bracing walls.

NOTE: Lateral restraint in accordance with this Clause is not required where bracing walls are connected to the ceiling or roof framing in accordance with Clause 8.3.5.8 or where tie-down details are structurally adequate to provide also the lateral restraint.

### **6.2.5 Lateral support for non-loadbearing walls**

#### **6.2.5.1 External walls**

External walls shall be laterally supported against wind forces.

External walls supporting ceiling joists, rafters or trusses are deemed to have adequate lateral support.

Non-loadbearing external walls, such as gable end walls and verandah walls, where trusses are supported by a verandah plate or other beam, shall be restrained laterally at a maximum of 3000 mm centres by means of—

- (a) intersecting walls;
- (b) ends of hanging or strutting beams;
- (c) continuous timber ceiling battens; or
- (d) tie members (binders) (see Figure 6.10).

Where binders are required, they shall be 35 × 70 mm min. continuous members fixed to the external top plate as shown in Figure 6.10. Binders may be spliced, provided 4/75 mm nails, or equivalent, are provided for each side of the joint; that is, binders overlap at least two ceiling joists with 2/75 mm nails to each joist and/or binder crossing.

NOTE: Alternative details for the lateral support of non-loadbearing external walls, such as may occur in trussed roof construction, when trusses are pitched off verandah beams, are given in Section 9.

Recommendation

Contact your builder.

# 7: WINDOWS

## Information

### Windows: Window Information

Residential Grade, Aluminium

General description of windows

### General Information

Windows are checked for clearances to structural framing, packing requirements, fixing requirements and gap sealing. Referenced materials include NCC2019, AS1684.2, AS2047 and window manufacturer recommendations.

## Builder recommendations

### 7.1.1 Windows



Major Defect / Safety Hazard

### WINDOW FLASHINGS

#### WINDOWS

Windows are required to be flashed and sealed.

See below for requirements and photographs for locations

### NCC2019

#### Performance Requirements

##### P2.2.2 weatherproofing

A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause—

- (a) unhealthy or dangerous conditions, or loss of amenity for occupants; and
- (b) undue dampness or deterioration of building elements.

### AS2047-2014

#### Clause 7.2.2 Flashing

Flashing shall be incorporated into the building envelope where it is necessary—

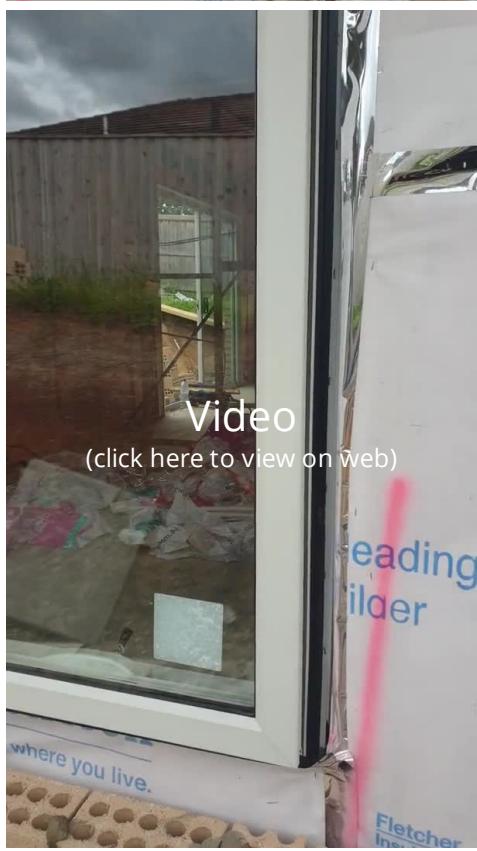
- (a) to restrict water from entering into the interior of a building from the exterior;
- (b) to restrict water passing across a cavity to the inner leaf; or
- (c) to shed water through cladding to the outer face.

#### Recommendations

Flash all windows in compliance with AS2047-2014

Recommendation

Contact your builder.



## 7.1.2 Windows

**PROTECTION OF WINDOWS**

## EXTERNAL WINDOWS AND DOORS

Door tracks and window sills should be protected from damage by planks, scaffolding and barrows impacting them.

Windows and Doors should be stored on site in a clean, dry area away from the damaging effects of cement, lime, paint, acid and the like. During installation, they should be protected from building fallout such as wet plaster, mortar, paint and welding splatter. Wet plaster and mortar should be removed immediately and the soiled area washed down with clean water.

If removal is delayed and scraping becomes necessary, the surface finish might be damaged.

NOTE: Window framing could be affected by corrosive salts migrating from masonry construction and from the ground. Where necessary, care should be taken by the use of damp courses or other protective measures to eliminate this corrosive cause.

Acid used for cleaning brickwork should be prevented from dripping onto aluminium. If this dripping onto aluminium occurs, the acid should be immediately washed off with clean water.

If strippable coatings or pressure-sensitive tapes are used to protect exposed surfaces, care should be taken not to damage the finish during their removal. Prolonged exposure to sunlight can make temporary coating or tape difficult to remove.

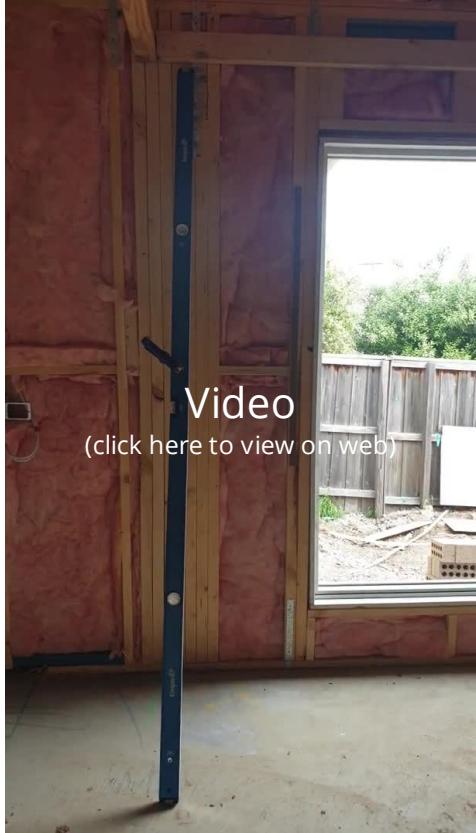
**Recommendations**

Install and provide adequate protection for all windows and external doors to protect them from being damaged.

Recommendation

Contact your builder.



**Video**

(click here to view on web)

**Video**

(click here to view on web)

#### 7.1.3 Windows

#### **FRAMES NOT FIXED**

**Major Defect / Safety Hazard**

The window frames have not been installed as per the manufacturers recommendations.

The window frames have only been tacked in position.

I recommend installing all of the window frames as per the manufacturers recommendations and in-line with the Industry Guide To The Correct Installation Of Windows And Doors. [See link here](#)

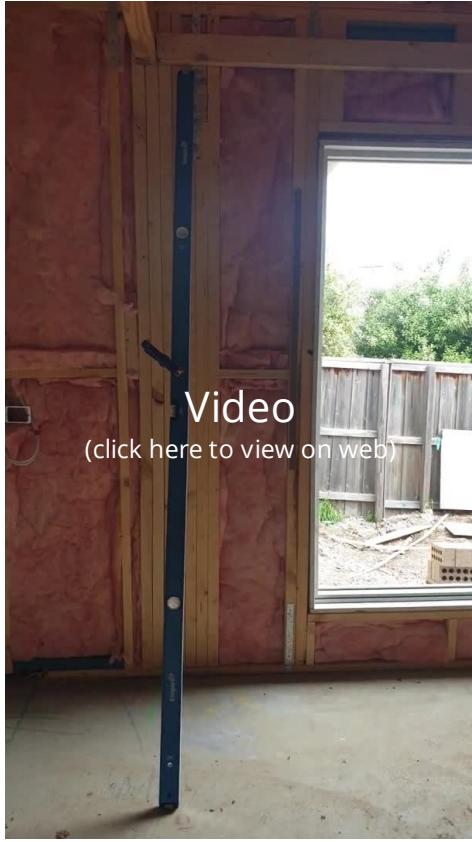
See Sample Photographs

Recommendation

Contact your builder.



**Video**  
(click here to view on web)



**Video**  
(click here to view on web)













## 8: EXTERNAL DOORS

### Information

#### External Doors: External Door

#### Information

External Doors

Aluminium, Timber, Hinged,  
Sliding

General description of External  
Doors

#### General Information

External doors are checked for clearances to structural framing, packing requirements, fixing requirements and gap sealing.

Referenced materials include NCC2019, AS1684.2, AS2047 and window manufacturer recommendations.

### Builder recommendations

#### 8.1.1 External Doors

#### EXTERNAL DOOR INSTALLATION GENERAL

EXTERNAL DOORS



Major Defect / Safety Hazard

The external door(s) have not been installed as per the manufacturers recommendations or AS1684.2-2010

All doors must have sufficient gap around them with a minimum of 15mm at the top of the window to the underside of the timber frame. (AS1648.2-2010 Section 6.2.3)

See requirements below and photograph(s) for location(s)

## **AS1684.2-2010**

### **Clause 6.2.3 Openings**

Openings shall be framed with jamb studs and lintels (heads) or ring beams as shown in Figure 6.9. Where required, jack studs shall be the same size, spacing, and orientation as the common studs, as shown in Figure 6.9. Alternatively, jack studs may be made up by horizontal nail lamination. A minimum clearance of 15 mm shall be provided between the underside of the lintel, ring beams, or lintel/ring-beam trimmer and the top of the window frame or door frame.

## **AS2047-2014**

### **Clause 7.3 Thermal and Structural Movement**

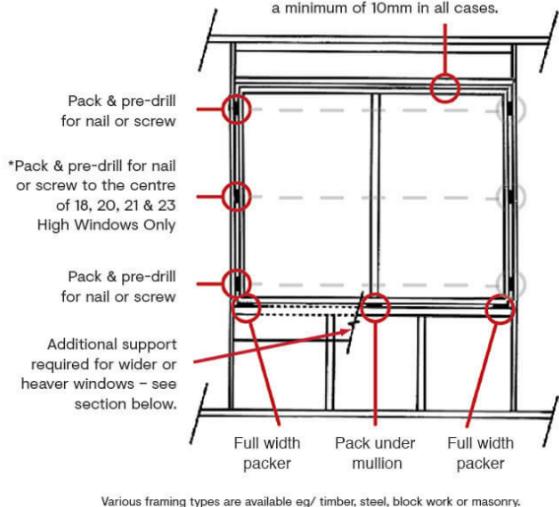
#### **7.3.1 General**

A gap shall be provided between the window and the surrounding structure sufficient to prevent loads being imposed on the window, allowing for thermal expansion of the window and for structural movement as described in Clauses 7.3.2 and 7.3.3.

The gap shall be sealed with suitable flexible mouldings or flexible caulking to resist water penetration, or other weatherproofing methods shall be used.

### **General Acceptable Installation**

Timber framing standards require minimum 15mm gap at head for settlement, we recommend 20mm, not packed. Other frame types may require less, but we recommend a minimum of 10mm in all cases.



### **Recommendation**

Check all windows have a minimum clearance of 15mm measured at the head and sufficient clearance to allow for thermal and structural movement at their jambs and sill.

Ensure windows are fixed and packed in strict compliance with the manufacturers recommendations and flash/seal all gaps to prevent water penetration

*The gaps and packers must be as the manufacturers specifications.*

Recommendation

Contact your builder.

# 9: FRAMING

## Information

### General Information

Wall framing will be inspected for best and standard building practices. Walls junctions will be checked for connection details, studs will be checked for hole size and spacings, and the walls will be checked to ensure previous identified defects have been rectified.

## Builder recommendations

### 9.1.1 Wall Framing



Major Defect / Safety Hazard

### WALL JUNCTIONS

CHECK ALL WALL JUNCTIONS THROUGHOUT DWELLING

It was observed that intersecting walls were not fixed, or fixed correctly in the nominated locations throughout the structure.

I recommend fixing all wall intersections in compliance, and as required by AS:1684.2

See below for details, and photographs for locations.

### 6.2.1.3 Wall junctions

Studs at wall junctions and intersections shall be in accordance with one of the details shown in Figure 6.3. Studs shall be not less in size than common studs. All junctions shall have sufficient studs, which shall be located so as to allow adequate fixing of linings.

All intersecting walls shall be fixed at their junction with blocks or noggings fixed to each wall with 2/75 mm nails. Blocks or noggings shall be installed at 900 mm max. centres.

Recommendation  
Contact your builder.

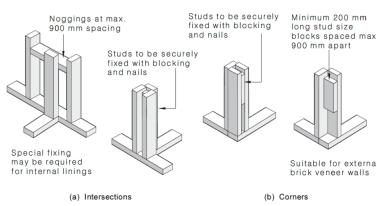
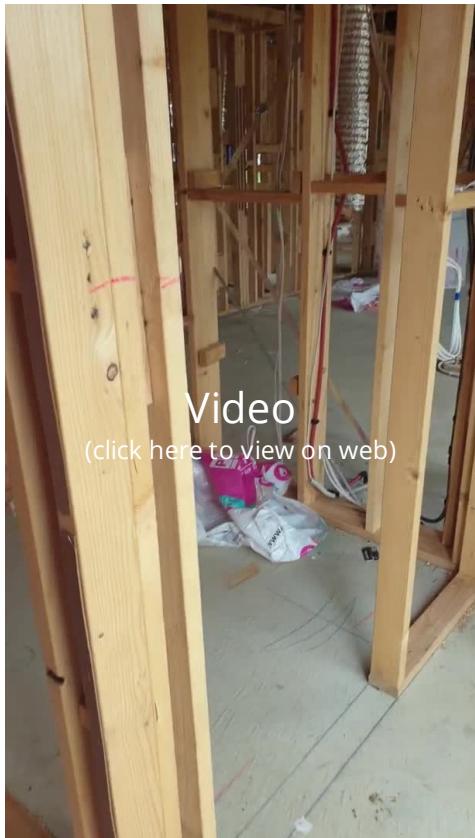
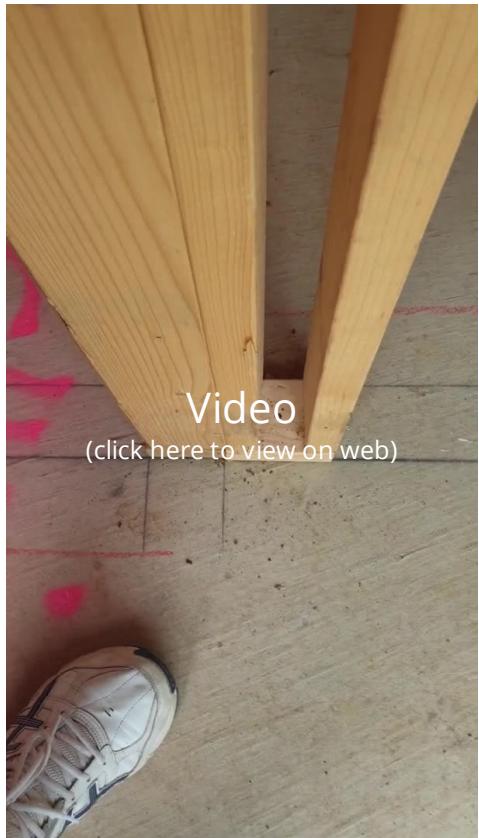


FIGURE 6.3 TYPICAL WALL JUNCTIONS



**Video**  
(click here to view on web)



**Video**  
(click here to view on web)



**Video**  
(click here to view on web)





Leisure / Bed 4

Leisure / Bed 4



Leisure / Bed 4



Leisure / Bed 4



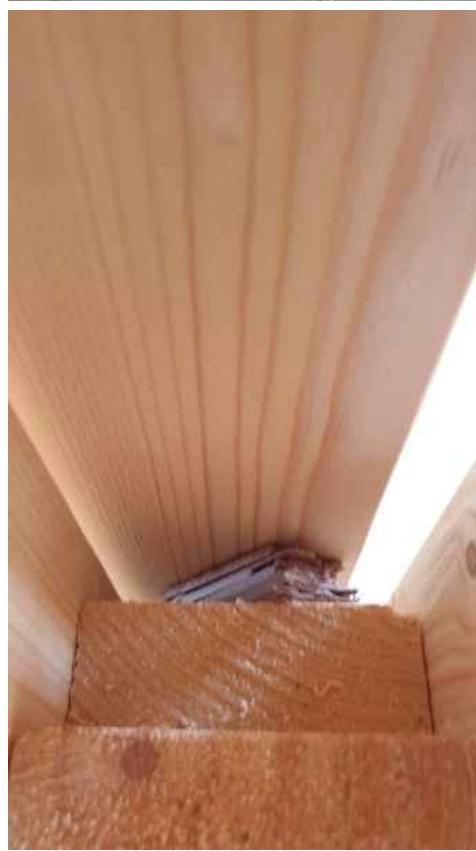
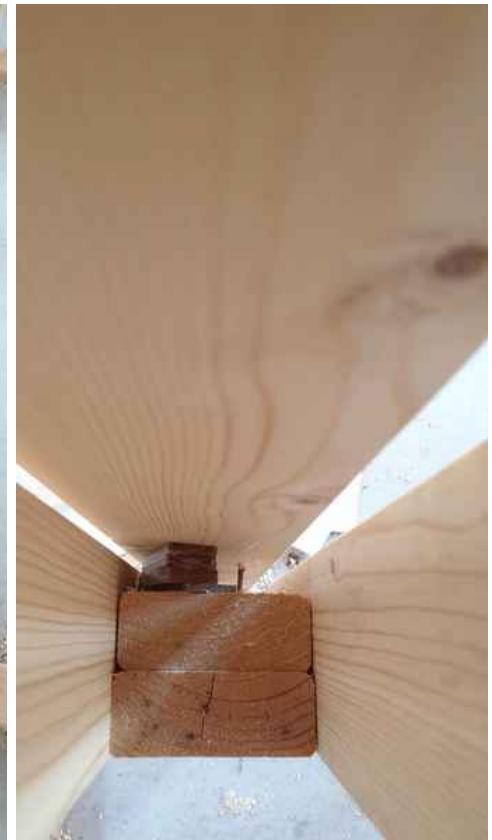
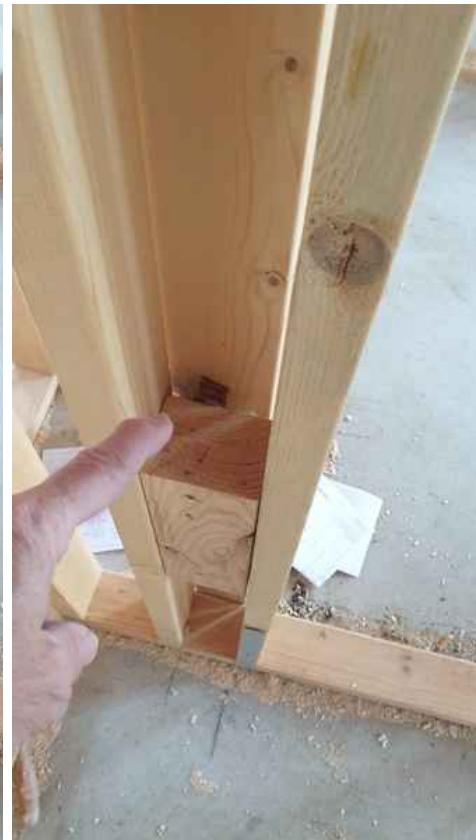
Leisure / Bed 4



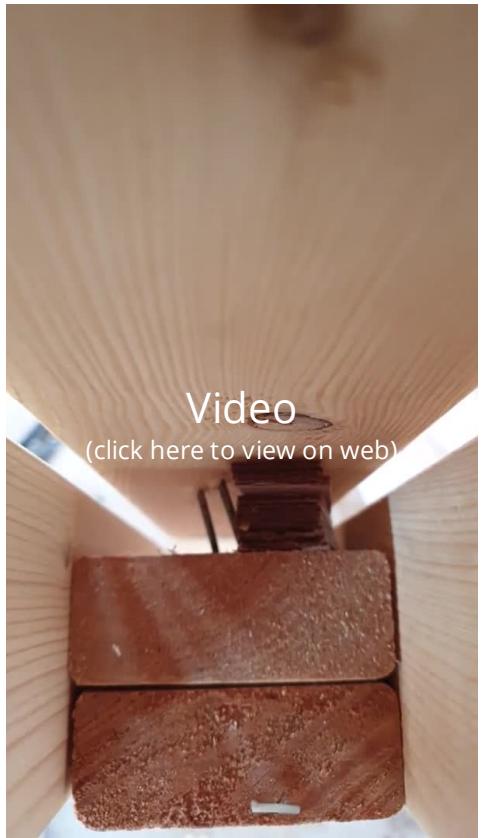
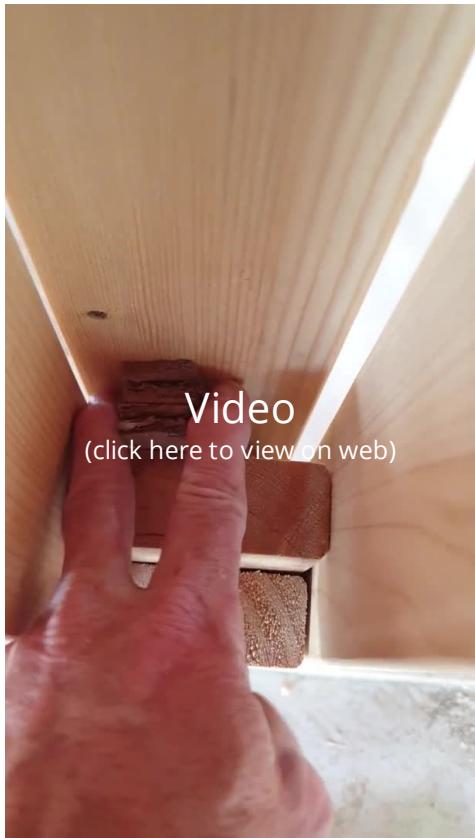
Leisure / Bed 4



Leisure / Bed 4









## 9.1.2 Wall Framing

**NOTCHING OF STUDS**

CHECK DWELLING THROUGHOUT



Major Defect / Safety Hazard

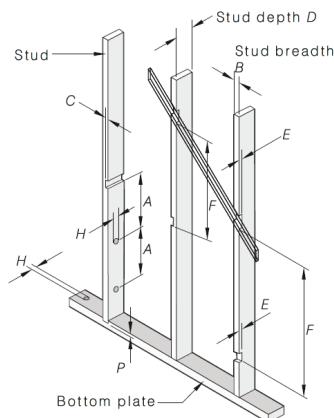
Studs have been notched for plumbing breeches in excess of the maximum size allowed by AS1684.2-2010.

The maximum notch into a stud depth is 20mm.

I recommend removing the effected studs and replacing with new studs to comply with AS1684.2-2010

#### 6.2.1.4 Notching, trenching and holes in studs and plates

The maximum size and spacing of cuts, holes, notches, and similar section-reductions, in studs and plates shall be in accordance with Figure 6.4 and Table 6.1. Holes in studs and plates shall be located within the middle half of the depth and breadth of the member, respectively. A longitudinal groove up to 18 mm wide  $\times$  10 mm deep may be machined into the middle third depth of a stud to accept full-length anchor rods. Where the groove exceeds this dimension, the remaining net breadth and depth of the stud shall be not less than the minimum size required.

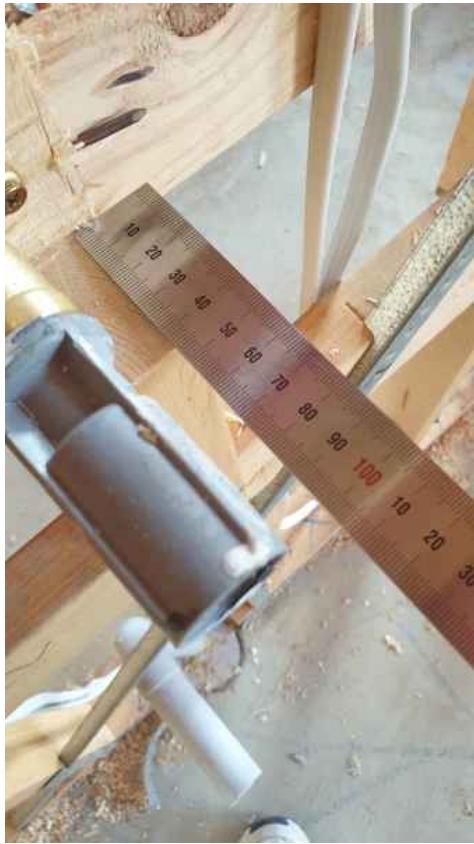


Symbol	Description	Limits	
		Notched	Not notched
A	Distance between holes and/or notches in stud breadth	Min. 3D	Min. 3D
H	Hole diameter (studs and plates)	Max. 25 mm (wide face only)	Max. 25 mm (wide face only)
C	Notch into stud breadth	Max. 10 mm	Max. 10 mm
E	Notch into stud depth	Max. 20 mm (for diagonal cut in bracing only) (see Notes 1 and 2)	Not permitted (see Note 1)
F	Distance between notches in stud depth	Min. 12B	N/A
P	Trenches in plates		3 mm max.

Recommendation  
Contact your builder.

FIGURE 6.4 NOTCHING OF WALL STUDS





### 9.1.3 Wall Framing

## JACK STUDS IN OPENINGS

CHECK ALL JACK STUDS IN OPENINGS

It was observed that openings framed with Jamb studs and lintels, had "Jack" studs installed with an incorrect orientation.

Australian Standard 1684.2:2010 requires that "Jack" studs, be sized, spaced and orientated as the common studs.

See Photographs for general observations.

See below for requirements.

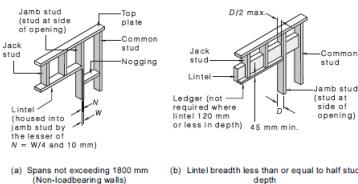
 Major Defect / Safety Hazard

### Australian Standard 1684.2:2010

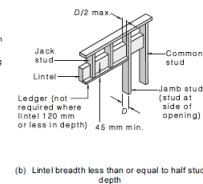
#### Section 6 - Wall Framing

##### Part 6.2.3 - Openings

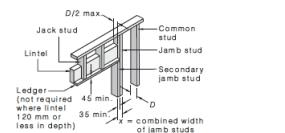
Openings shall be framed with jamb studs and lintels (heads) as shown in Figure 6.8. Where required, jack studs shall be the same size, spacing, and orientation as the common studs, as shown in Figure 6.9 but may be made up by horizontal nail lamination. A minimum clearance of 15 mm shall be provided between the underside of the lintel or lintel trimmer and the top of the window frame.



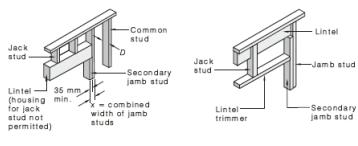
(a) Spans not exceeding 1800 mm (Non-loadbearing walls)



(b) Lintel breadth less than or equal to half stud depth



(c) Lintel breadth less than or equal to half stud depth—Alternative



(d) Lintels having breadth greater than half stud depth

FIGURE 6.8 OPENINGS

**I recommend installing jack studs in compliance and as required by AS1684.2:2010 throughout the structure.**

Recommendation

Contact your builder.

### 9.1.4 Wall Framing

## OPENINGS NON-LOADBEARING (>1800MM)

 Major Defect / Safety Hazard

The Sitting Room Openings (entryway and other opening along hallway) require lintels to prevent sagging as per AS1684.2-2010.

I recommend checking the standard for the appropriate lintel size and install new lintels into the non-loadbearing walls as required.

See photographs

## AS1684.2-2010

### 6.3.6.5 Lintels in non-loadbearing walls

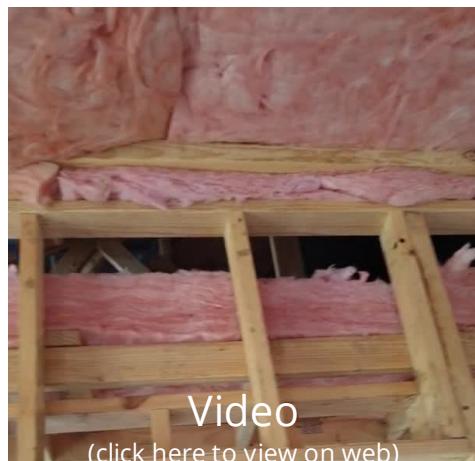
The size of lintels in internal walls supporting ceiling joists only, or supporting hanging beams, shall be determined by using the hanging beam Span Table 23 (see Clause 7.3.7) or the counter beam (beams supporting hanging beams) Span Table 24 (see Clause 7.3.8) for these two applications respectively.

For internal walls where ceiling loads are not supported and wall openings are wider than 1800 mm, the size of the lintel shall be determined from Span Table 23 using a ceiling load width of 1800 mm.

Where wall openings wider than 1800 mm occur in non-loadbearing external walls, a lintel shall be provided and the size of the lintel shall be determined from Span Table 23 using a ceiling load width of 1800 mm

Recommendation

Contact your builder.



## 9.1.5 Wall Framing

### MISSING FRAMING TO PICK UP PLASTER



Wall framing is required to be installed to adequately support the plasterboard in the locations identified.

#### Entry Area

See photograph(s) for locations.

Recommendation

Contact your builder.



9.1.6 Wall Framing  
**WALLS NOT PLUMB**

Minor Defect

Some walls were not plumb, and have not been installed on a professional and workmanlike manner.

## Guide to Standards and Tolerances

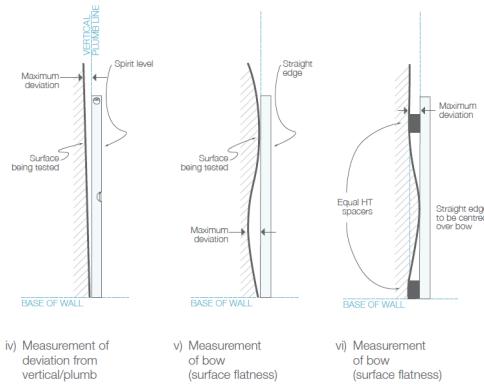
### Vertical surfaces

Deviations of a vertical surface from a true vertical plane are to be measured from a plumb line through a plan position or reference point nominated in the contract documents or inferred, if none is nominated. The maximum deviation of a vertical surface from that plumb line will not exceed the deviation stated in the Guide. Refer to diagram E(iv).

Vertical flatness to be measured as shown in Diagrams E(v) and (vi).

Where diagrams are provided for the clarification of details, the diagram shows only detail relevant to the issue and is not intended to be used as a general detail for construction.

DIAGRAM E MEASUREMENT OF VERTICAL AND INCLINED SURFACES



iv) Measurement of deviation from vertical/plumb

v) Measurement of bow (surface flatness)

vi) Measurement of bow (surface flatness)

I recommend checking all walls to ensure they have been installed straight and plumb as required.

Recommendation

Contact your builder.



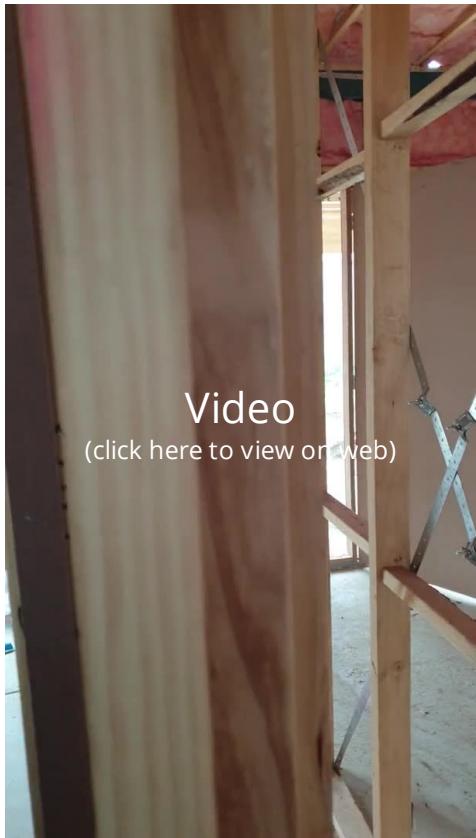
Family Room



Family Room



Family Room



**Video**  
(click here to view on web)



Family Room

Family Room



Family Room



Family Room



Family Room



Bed 4



Bed 4



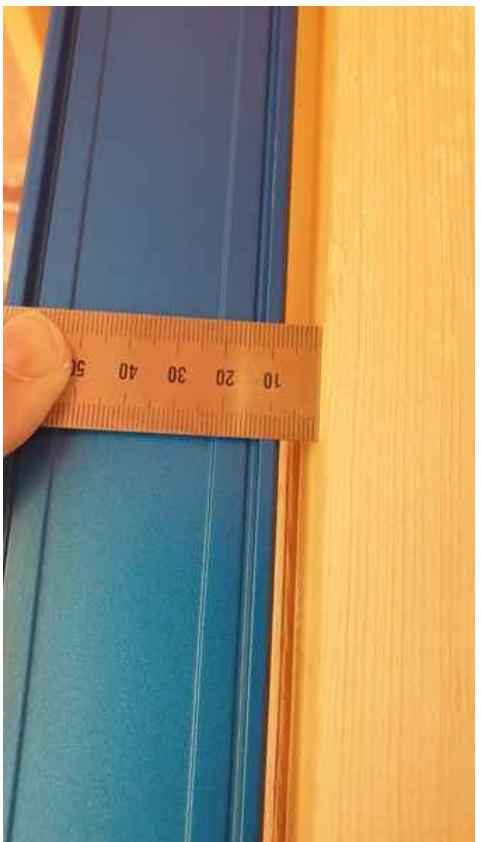
Bed 4



Bed 4



Bed 4



Bed 4



Bed 4



Bed 4



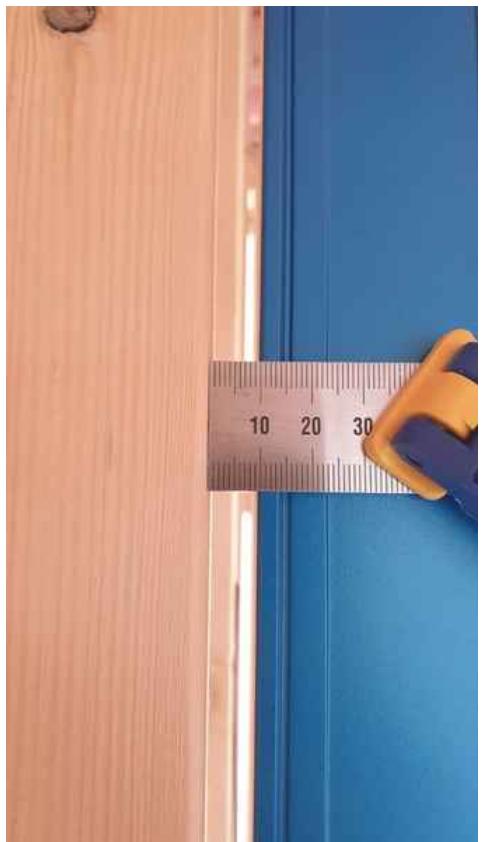
Bed 4



Bed 4



Bed 4



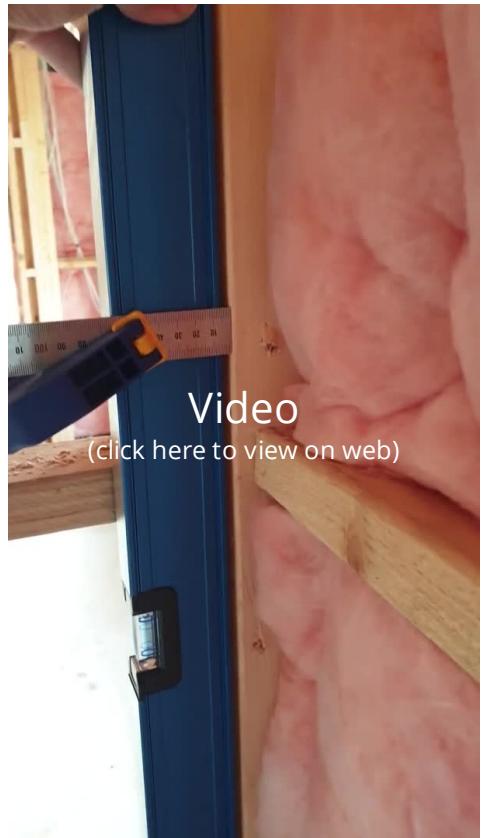
Bed 4



Bed 4



Bed 4



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Bed 3



Bed 3



Video

(click here to view on web)



**Video**  
(click here to view on web)



Master

Master



Master





Master

## 9.1.7 Wall Framing

**NOGGING**

Major Defect / Safety Hazard

It was observed that some noggings have been not been installed as required by **AS1684.2:2010** or they have been removed.

See Photographs for locations.

## Australian Standard 1684.2:2010

### Section 6 - Wall Framing

#### Part 6.2.1.5 - Nogging

Where required, wall studs shall have continuous rows of noggings, located on flat or on edge, at 1350 mm maximum centres (see Figure 6.5).

Noggings are not required to be stress graded.

Unless otherwise specified, the minimum noggling size shall be the depth of the stud minus 25 mm by 25mm thick, or a noggling shall have a minimum cross-section of 50 mm × 38 mm for unseasoned timber and 42 mm × 35 mm for seasoned timber, and shall be suitable, where required, for the proper fixing of cladding, linings, and bracing.

Where required to provide fixing or support to cladding or lining or for joining bracing sheets at horizontal joints, noggings shall be installed flush with one face of the stud.

Where required to permit joining bracing sheets at horizontal joints, noggings shall be the same size as the top or bottom plate required for that bracing wall.

In other cases, noggings may be installed anywhere in the depth of the stud. Stagger in the row of noggings shall be not greater than 150 mm.

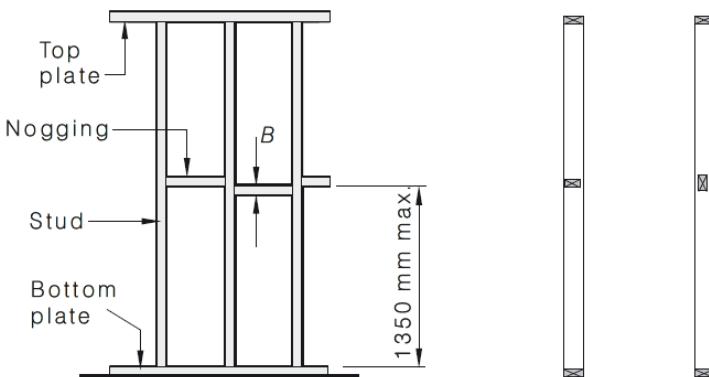


FIGURE 6.5 NOGGING

## Section 9 - Fixings and Tie-Down Design

### Part 9.5

#### Table 9.3

Noggings to studs are to be fixed with 2/75 x 3.05mm nail skewed or through nailed.

**I recommend all noggings are installed to ensure compliance with Australian Standard 1684.2:2010**

Recommendation

Contact your builder.





Video

(click here to view on web)



Video

(click here to view on web)

Noggings in excess of max 1350mm  
spacings



Poor Connection

#### 9.1.8 Wall Framing **POOR WORKMANSHIP**

**A** Major Defect / Safety Hazard

Poor workmanship was observed in the following location(s)

I recommend to complete work in a professional and workmanlike manner and in strict compliance with the Building Code.

See photographs for locations.

Recommendation

Contact your builder.



Bottom Chord restraints required at  
4.0m Maximum spacings



Bottom Chord restraints required at  
4.0m Maximum spacings



Missing Trimmer



Bottom Chord restraints required at 4.0m Maximum spacings and Binders have not been installed.



Video  
(click here to view on web)



Bent fascia



Bent fascia



Gutter Obviously Exaggerated Fall



No window sill protection or means of preventing access



Bottom Chord restraints required at 4.0m Maximum spacings



Beam and wall out of alignment



Beam and wall out of alignment

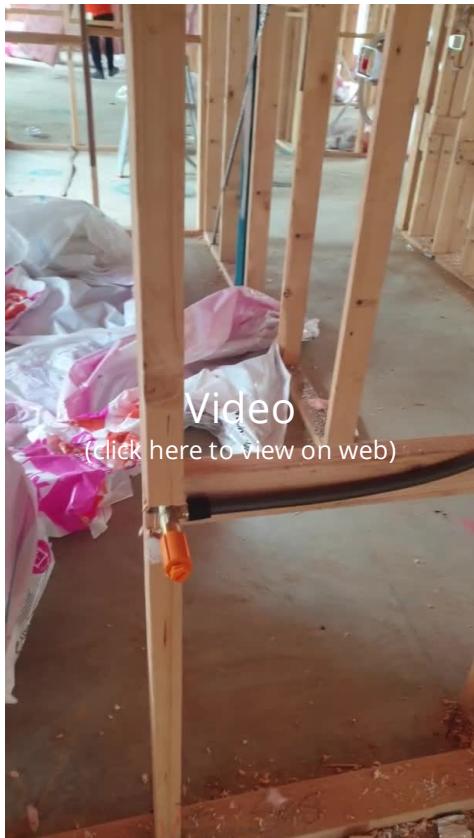


Missing framing members for plasterboard

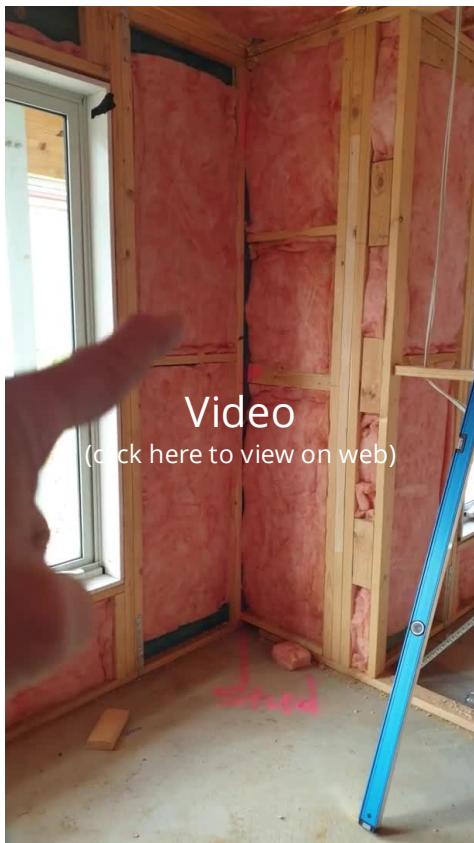


Cut stud work



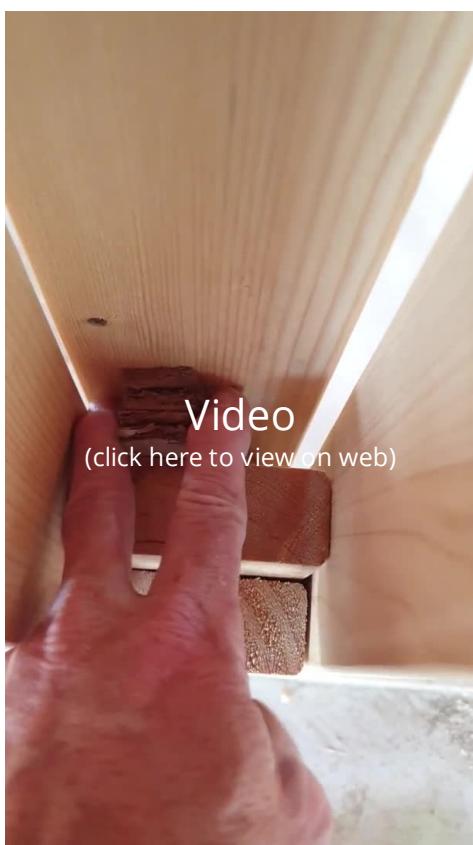


Missing Noggings

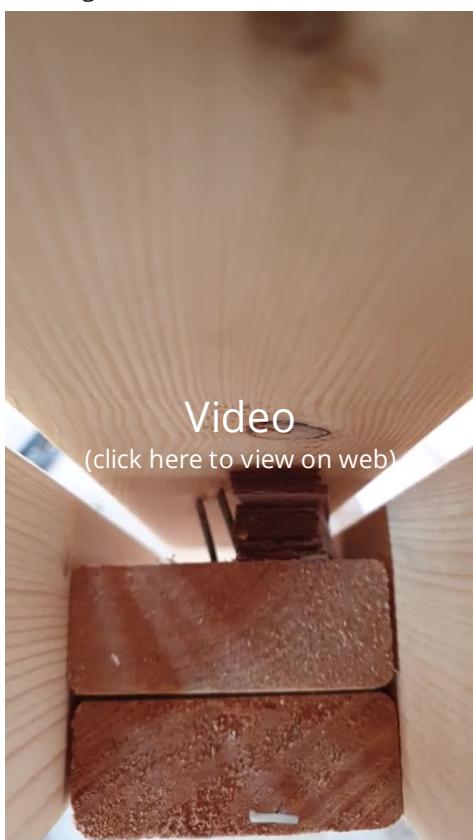




Missing Stud



Video  
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Video  
(click here to view on web)



Poor Workmanship



Modified leak control flange.



Master Ensuite Wall Not Fully Supported



Master Ensuite Wall Not Fully Supported



Master Ensuite Wall Not Fully Supported



Breaches Not Level In Master Ensuite

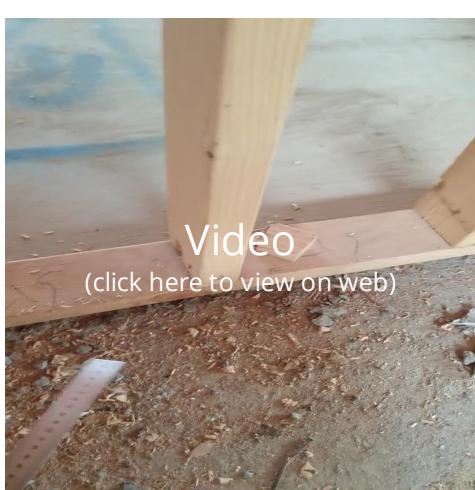


Bottom plate cut in bracing wall, requires rectification

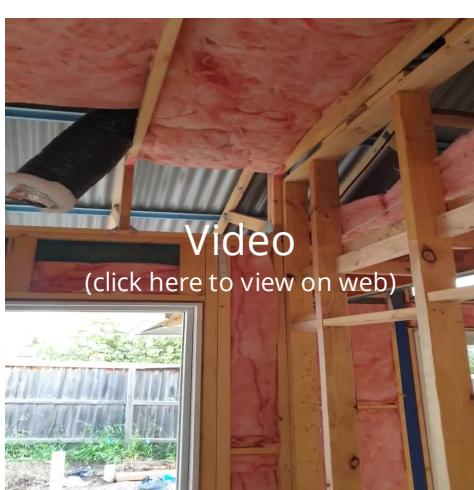


Video

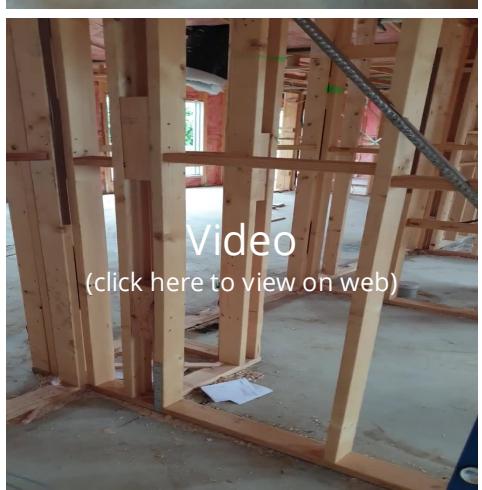
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Video  
(click here to view on web)



Video  
(click here to view on web)

## 9.2.1 Roof Framing

### BOTTOM CHORD TIES



Major Defect / Safety Hazard

Bottom chord ties have not installed in compliance with AS4440-2004 in the dining/family, grand outdoor room and the porch area. Ties for construction are required at a maximum 4.0m spacing where direct stick platerboard or timber battens are used to support platerboard.

I recommend installing bottom chord ties in compliance with AS4440-2004

#### **AS4440-2004**

##### **4.4.2.3 Bottom chord ties for construction**

Where bottom chord ties are not required as specified in Clauses 4.4.2.1 and 4.4.2.2, for example, where the ceiling is fixed directly to the bottom chord, for the purpose of construction, the following bottom chord ties shall be installed, unless another tie configuration is approved by the regulatory authority:

(a) Spacing ..... 4000 mm maximum.

(b) Fixing ..... Fixed to each truss bottom chord with a minimum of one 65 mm nail.

NOTE: Bottom chord ties are neither intended to replace the binders required to support the end wall, nor designed to be a trafficable platform. They are intended for the purposes of locating trusses in their proper alignment (see Appendix C).

Recommendation

Contact your builder.

## 9.2.2 Roof Framing

### BINDERS



Major Defect / Safety Hazard

The Garage and Porch lintels have not been tied into the roof frame and are free to move.

I recommend tying the garage and porch lintels to the roof structure as required the truss manufacturer installation guide, Australian Standards 4440:2004 and 1684.2-2010

See photograph(s)

## AS 1684.2-2010

### 9.7.6 Shear forces on external non-loadbearing walls

Non-loadbearing external walls, such as gable end walls and verandah walls (where trusses are pitched off verandah beams or other beams), shall be restrained laterally at their tops at a maximum of 3000 mm (see Clause 6.2.5).

Where lateral restraint for these walls is not provided by the usual means using binders, intersecting walls, strutting, hanging or other roof beams or ceiling joists or ceiling battens or similar members, the walls shall be restrained laterally in accordance with Table 9.29 and Table 9.30, where applicable, or the relevant details given in Table 8.22 for the fixing of the top of bracing walls.

NOTE: Lateral restraint in accordance with this Clause is not required where bracing walls are connected to the ceiling or roof framing in accordance with Clause 8.3.5.8 or where tie-down details are structurally adequate to provide also the lateral restraint.

### 6.2.5 Lateral support for non-loadbearing walls

#### 6.2.5.1 External walls

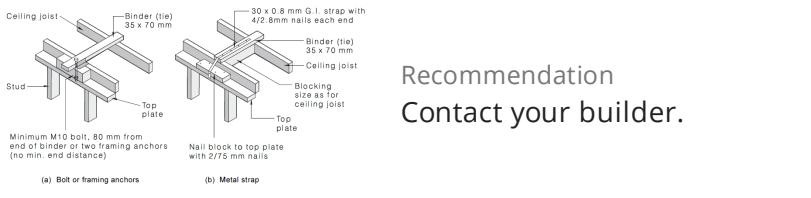
External walls shall be laterally supported against wind forces. External walls supporting ceiling joists, rafters or trusses are deemed to have adequate lateral support.

**Non-loadbearing external walls, such as gable end walls and verandah walls**, where trusses are supported by a verandah plate or other beam, shall be restrained laterally at a maximum of 3000 mm centres by means of—

- (a) intersecting walls;
- (b) ends of hanging or strutting beams;
- (c) continuous timber ceiling battens; or
- (d) tie members (binders) (see Figure 6.10).

Where binders are required, they shall be 35 × 70 mm min. continuous members fixed to the external top plate as shown in Figure 6.10. Binders may be spliced, provided 4/75 mm nails, or equivalent, are provided for each side of the joint; that is, binders overlap at least two ceiling joists with 2/75 mm nails to each joist and/or binder crossing.

NOTE: Alternative details for the lateral support of non-loadbearing external walls, such as may occur in trussed roof construction, when trusses are pitched off verandah beams, are given in Section 9.



Recommendation  
Contact your builder.

FIGURE 6.10 BINDERS



Missing Binders in Garage



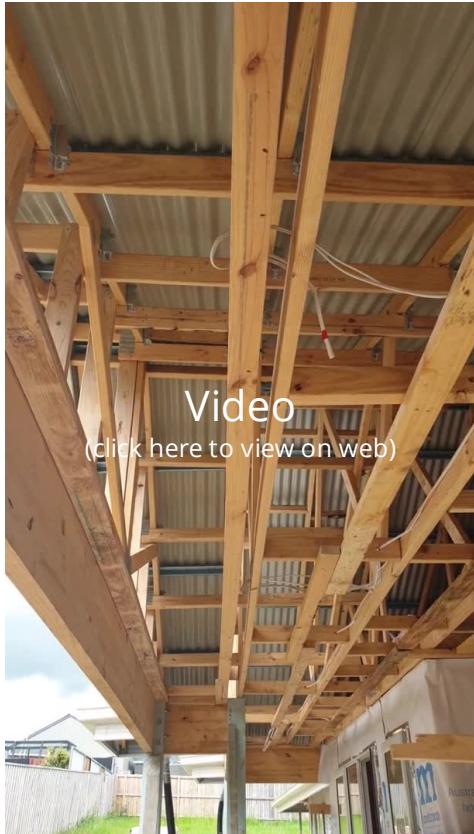
Missing Binders in Garage



Missing Binders in Garage



Missing Binders in Porch Area



Video  
(click here to view on web)

# 10: INSULATION

## Information

### Wall Insulation: R-Value and Type    Ceiling Insulation: R-Value and

R2.0, Glass Wool

R-Value and Batt Type of  
Insulation

### Batt Type, Ceiling

R4.0, Glass Wool

R-Value and Batt Type of  
Insulation.



### General Information

Wall, Ceiling

The Wall and Ceiling Insulation is checked for R Value and standards of workmanship.

## Builder recommendations

### 10.1.1 Wall Insulation

#### INSULATION OF WALL JUNCTIONS

- Minor Defect

The external wall junctions of the structure have not insulated.

Insulation is required to be continuous to be effective.

I recommend installing insulation into the external wall junctions to provide continuity, and in strict compliance with the manufacturers recommendations and AS3999-2015 to ensure effectiveness.

See requirements below and sample photographs

## AS3999-2015

### 3.2.4 Continuity of insulation

The following requirements shall be met as appropriate:

(a) Bulk insulation shall be installed so that it—

- (i) abuts or overlaps adjoining insulation other than at structural members such as columns, studs, noggin, joists, furring channels, and the like, where the insulation shall butt against the member;
- (ii) forms a continuous barrier with ceilings, walls, bulkheads, floors, or the like, that inherently contribute to the thermal envelope (see examples in Figures 3.2.4.1 and 3.2.4.2); and

NOTE: The thermal envelope of a building is the part of a buildings fabric that separates heated or cooled spaces from the exterior of the building or other spaces that are not heated or cooled. A continuous thermal barrier around the envelope is necessary to achieve good performance.

(iii) does not affect the safe or effective operation of a service or fitting.

(b) The settling factors for any loose fill materials being installed shall be confirmed by manufacturer's technical information and extra thickness provided to allow for settling as required to meet the R-value and building regulations.

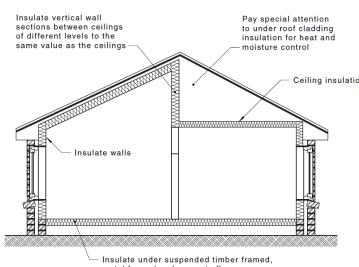


FIGURE 3.2.4.1 EXAMPLE OF THERMAL ENVELOPE WITH SUSPENDED FLOOR

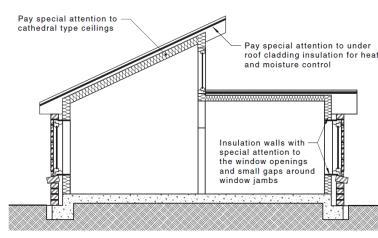


FIGURE 3.2.4.2 EXAMPLE OF THERMAL ENVELOPE WITH SLAB ON GROUND

## 3.3 INSULATION INSTALLATION GUIDANCE AND RULES

### 3.3.1 Insulation gaps, joints and thermal bypass

The following requirements apply:

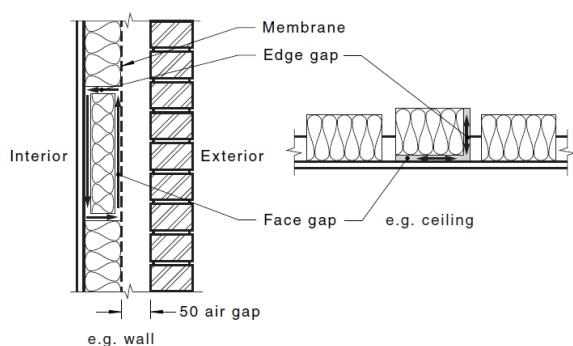
- (a) Gaps around the edges of insulation segments, on all four edges, both sides or gaps at the top and bottom shall be avoided (see Figure 3.3.1).
- (b) Interconnecting cavities shall be avoided (see Note to Figure 3.3.1).

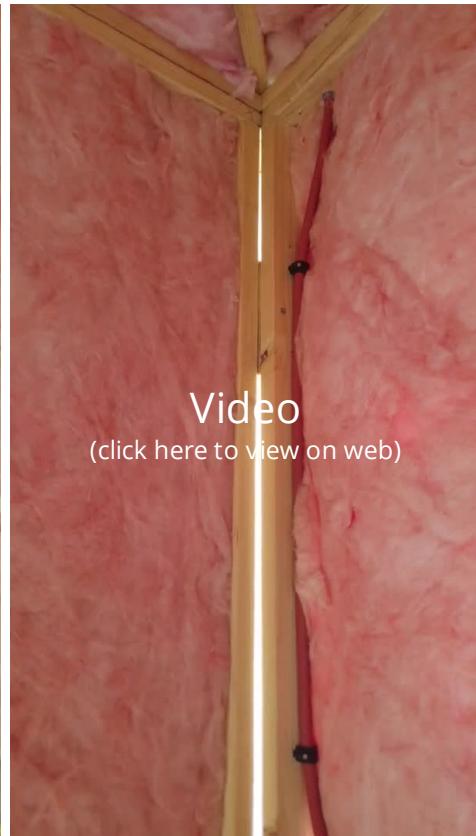
NOTE: The occurrence of face gaps in conjunction with edge gaps allows air on either side of the insulation to exchange and they can render an insulating layer nearly ineffective. This is known as interconnecting cavities.

FIGURE 3.3.1 EDGE GAPS AND SIDE GAPS

Recommendation

Contact a qualified insulation contractor.















## 10.1.2 Wall Insulation

**GAPS AROUND WINDOWS AND DOORS**

Minor Defect

The gaps around the windows and doors have not been insulated.

Insulation is required to be continuous to be effective.

I recommend installing insulation in strict compliance with the manufacturers recommendations and AS3999-2015 to ensure effectiveness.

See below for requirements and sample photographs

## **AS3999-2015**

### **3.2.4 Continuity of insulation**

The following requirements shall be met as appropriate:

(a) Bulk insulation shall be installed so that it—

(i) abuts or overlaps adjoining insulation other than at structural members such as columns, studs, noggin, joists, furring channels, and the like, where the insulation shall butt against the member; (ii) forms a continuous barrier with ceilings, walls, bulkheads, floors, or the like, that inherently contribute to the thermal envelope (see examples in Figures 3.2.4.1 and 3.2.4.2); and

NOTE: The thermal envelope of a building is the part of a buildings fabric that separates heated or cooled spaces from the exterior of the building or other spaces that are not heated or cooled. A continuous thermal barrier around the envelope is necessary to achieve good performance.

(iii) does not affect the safe or effective operation of a service or fitting.

(b) The settling factors for any loose fill materials being installed shall be confirmed by manufacturer's technical information and extra thickness provided to allow for settling as required to meet the R-value and building regulations.

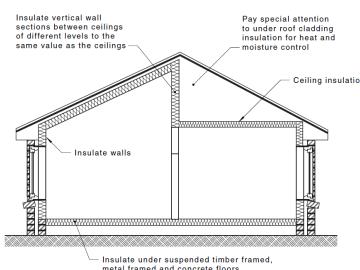


FIGURE 3.2.4.1 EXAMPLE OF THERMAL ENVELOPE WITH SUSPENDED FLOOR

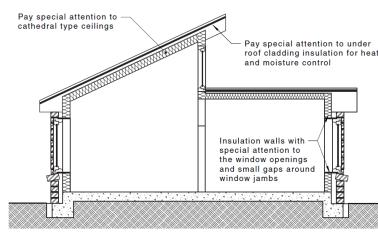


FIGURE 3.2.4.2 EXAMPLE OF THERMAL ENVELOPE WITH SLAB ON GROUND

## **3.3 INSULATION INSTALLATION GUIDANCE AND RULES**

### **3.3.1 Insulation gaps, joints and thermal bypass**

The following requirements apply:

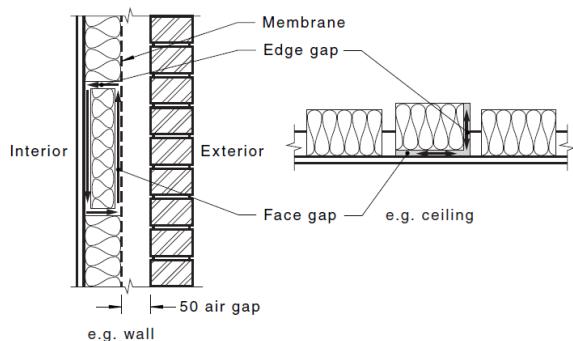
(a) Gaps around the edges of insulation segments, on all four edges, both sides or gaps at the top and bottom shall be avoided (see Figure 3.3.1).

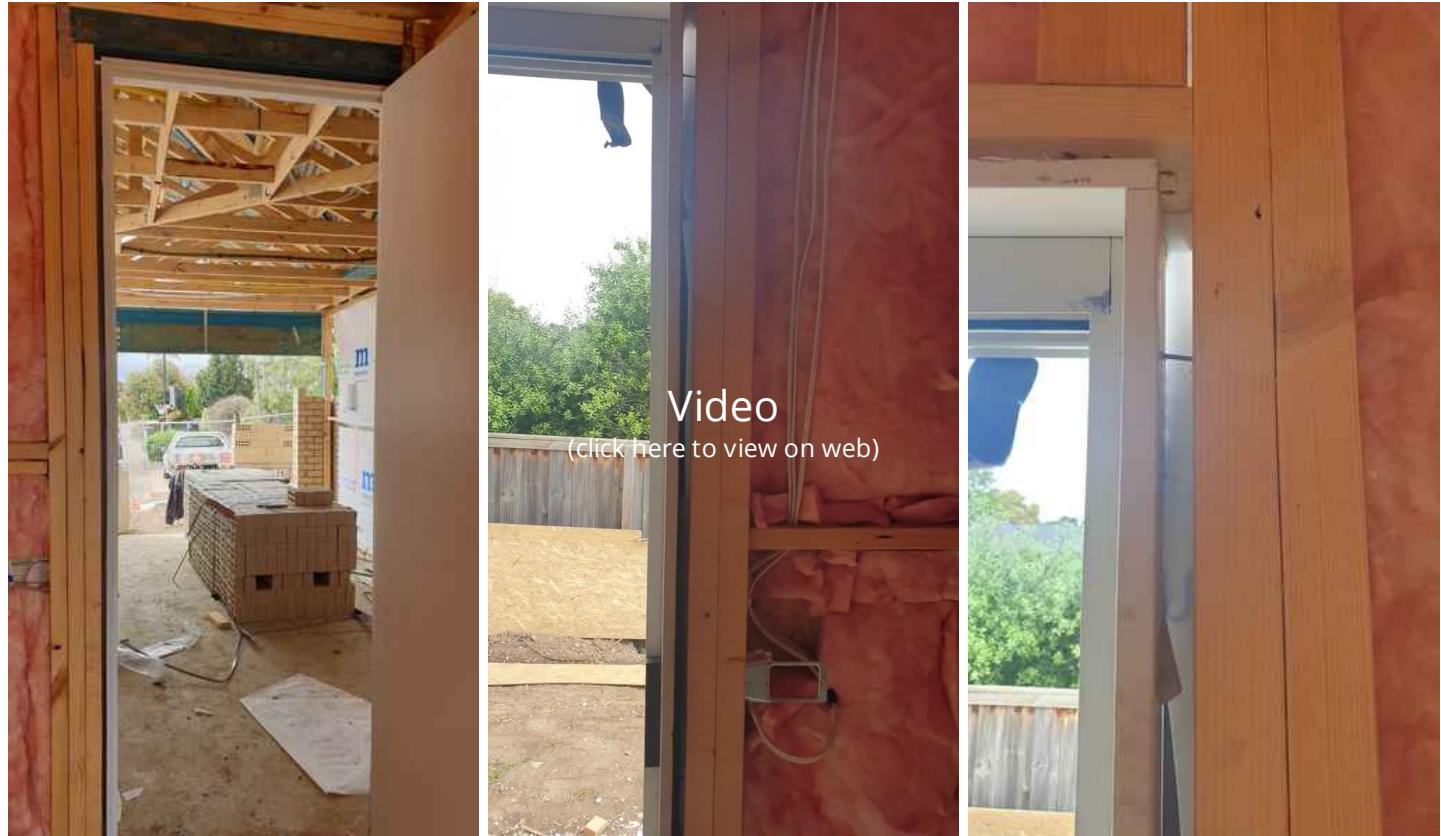
(b) Interconnecting cavities shall be avoided (see Note to Figure 3.3.1).

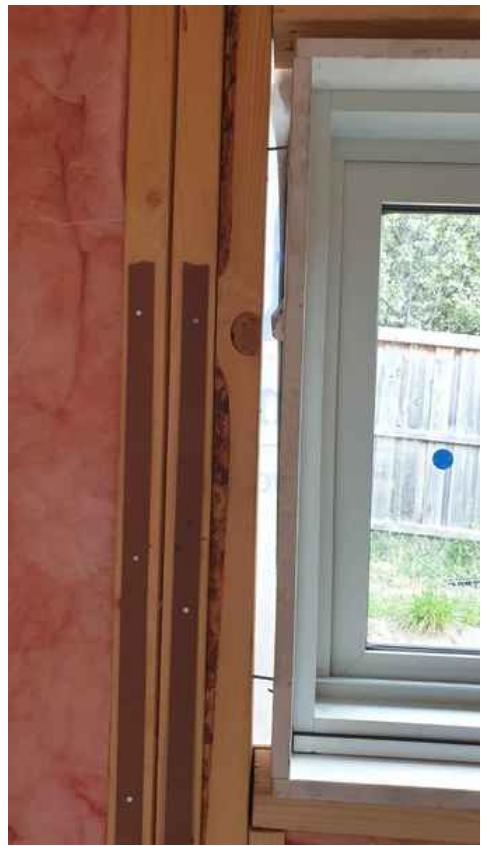
NOTE: The occurrence of face gaps in conjunction with edge gaps allows air on either side of the insulation to exchange and they can render an insulating layer nearly ineffective. This is known as interconnecting cavities.

FIGURE 3.3.1 EDGE GAPS AND SIDE GAPS

Recommendation  
Contact a qualified insulation contractor.











## 10.1.3 Wall Insulation

**AREAS NOT INSULATED OR COMPLETED**

Minor Defect

The areas of the structure were not insulated at the time of the inspection.

Insulation is required to be continuous to be effective.

I recommend installing insulation into wall structure to provide continuity, and in strict compliance with the manufacturers recommendations and AS3999-2015 to ensure effectiveness.

See requirements below and sample photographs

## AS3999-2015

### 3.2.4 Continuity of insulation

The following requirements shall be met as appropriate:

(a) Bulk insulation shall be installed so that it—

- (i) abuts or overlaps adjoining insulation other than at structural members such as columns, studs, noggin, joists, furring channels, and the like, where the insulation shall butt against the member;
- (ii) forms a continuous barrier with ceilings, walls, bulkheads, floors, or the like, that inherently contribute to the thermal envelope (see examples in Figures 3.2.4.1 and 3.2.4.2); and

NOTE: The thermal envelope of a building is the part of a buildings fabric that separates heated or cooled spaces from the exterior of the building or other spaces that are not heated or cooled. A continuous thermal barrier around the envelope is necessary to achieve good performance.

(iii) does not affect the safe or effective operation of a service or fitting.

(b) The settling factors for any loose fill materials being installed shall be confirmed by manufacturer's technical information and extra thickness provided to allow for settling as required to meet the R-value and building regulations.

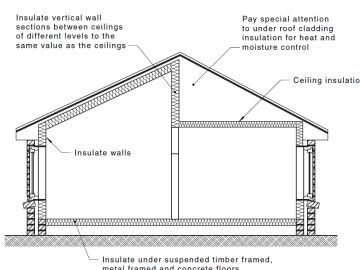


FIGURE 3.2.4.1 EXAMPLE OF THERMAL ENVELOPE WITH SUSPENDED FLOOR

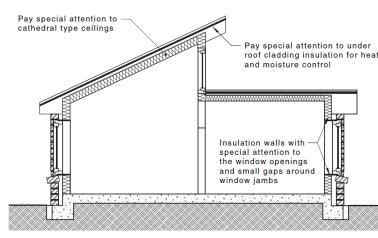


FIGURE 3.2.4.2 EXAMPLE OF THERMAL ENVELOPE WITH SLAB ON GROUND

## 3.3 INSULATION INSTALLATION GUIDANCE AND RULES

### 3.3.1 Insulation gaps, joints and thermal bypass

The following requirements apply:

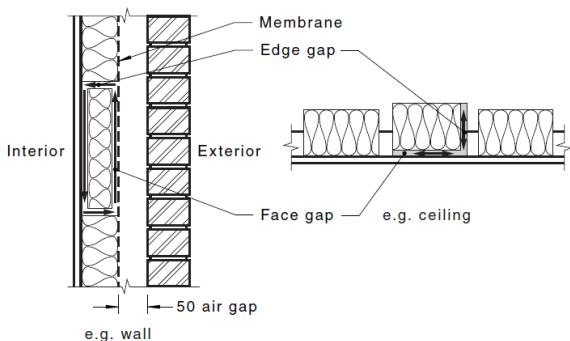
(a) Gaps around the edges of insulation segments, on all four edges, both sides or gaps at the top and bottom shall be avoided (see Figure 3.3.1).

(b) Interconnecting cavities shall be avoided (see Note to Figure 3.3.1).

NOTE: The occurrence of face gaps in conjunction with edge gaps allows air on either side of the insulation to exchange and they can render an insulating layer nearly ineffective. This is known as interconnecting cavities.

FIGURE 3.3.1 EDGE GAPS AND SIDE GAPS

Recommendation  
Contact a qualified insulation contractor.





## 10.2.1 Ceiling Insulation

**MISSING OR NOT COMPLETE INSULATION**

- Minor Defect

The areas of the structure were not insulated at the time of the inspection.

Insulation is required to be continuous to be effective.

I recommend installing insulation into wall structure to provide continuity, and in strict compliance with the manufacturers recommendations and AS3999-2015 to ensure effectiveness.

See requirements below and sample photographs

## **AS3999-2015**

### **3.2.4 Continuity of insulation**

The following requirements shall be met as appropriate:

(a) Bulk insulation shall be installed so that it—

- (i) abuts or overlaps adjoining insulation other than at structural members such as columns, studs, noggin, joists, furring channels, and the like, where the insulation shall butt against the member;
- (ii) forms a continuous barrier with ceilings, walls, bulkheads, floors, or the like, that inherently contribute to the thermal envelope (see examples in Figures 3.2.4.1 and 3.2.4.2); and

NOTE: The thermal envelope of a building is the part of a buildings fabric that separates heated or cooled spaces from the exterior of the building or other spaces that are not heated or cooled. A continuous thermal barrier around the envelope is necessary to achieve good performance.

(iii) does not affect the safe or effective operation of a service or fitting.

(b) The settling factors for any loose fill materials being installed shall be confirmed by manufacturer's technical information and extra thickness provided to allow for settling as required to meet the R-value and building regulations.

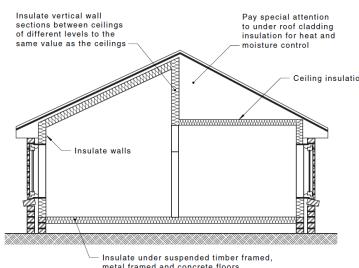


FIGURE 3.2.4.1 EXAMPLE OF THERMAL ENVELOPE WITH SUSPENDED FLOOR

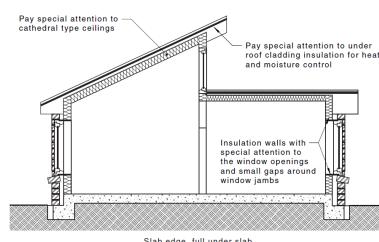


FIGURE 3.2.4.2 EXAMPLE OF THERMAL ENVELOPE WITH SLAB ON GROUND

## **3.3 INSULATION INSTALLATION GUIDANCE AND RULES**

### **3.3.1 Insulation gaps, joints and thermal bypass**

The following requirements apply:

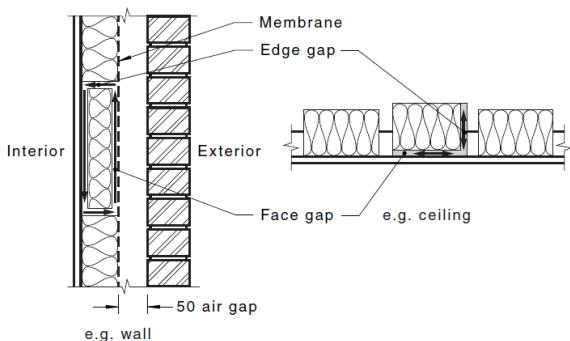
(a) Gaps around the edges of insulation segments, on all four edges, both sides or gaps at the top and bottom shall be avoided (see Figure 3.3.1).

(b) Interconnecting cavities shall be avoided (see Note to Figure 3.3.1).

NOTE: The occurrence of face gaps in conjunction with edge gaps allows air on either side of the insulation to exchange and they can render an insulating layer nearly ineffective. This is known as interconnecting cavities.

FIGURE 3.3.1 EDGE GAPS AND SIDE GAPS

Recommendation  
Contact a qualified insulation contractor.







# 11: PLUMBING

## Information

**Plumbing Water Distribution  
(Inside Home)**  
PEX

**Plumbing Waste**  
PVC

**All Lugged Elbows Secure:  
Secured**  
Properly Secured

**Shower Arm Lugged Elbows  
Secure: Secured**

Properly Secured

### Breeches: Information

Master Ensuite, Shower, Vanity, Main Bathroom

Breaches are inspected to ensure they are level, and the studwork has not been over notched.

For notching, see Wall Framing Section, Notching.

No defects were observed unless noted in this report.

### All Lugged Elbows Secure: Visual Inspection

Properly Secured.

Only the visible areas were inspected at the time of inspection.

No deficiencies noted to visible areas unless otherwise noted below.

### Shower Arm Lugged Elbows Secure: Visual Inspection

Only the visible areas were inspected at the time of inspection.

No deficiencies noted to visible areas unless otherwise noted below.

### Pipework (Water Services): Visual Inspection

Only the visible areas were inspected at the time of inspection.

No deficiencies noted to visible areas unless otherwise noted below.

### Drains Have Visible Fall: Visual Inspection

Only the visible areas were inspected at the time of inspection.

No deficiencies noted to visible areas unless otherwise noted below.

## Builder recommendations

11.1.1 Breeches

### NOT LEVEL

The plumbing breeches have not been installed level.  
This is poor workmanship and is required to be rectified.

I recommend installing all breeches level, check all locations throughout dwelling.  
Furthermore, ensure the notching requirements of AS1684.2-2010 are fully adhered to. See Notching under Wall Framing Section for details.

See photographs for locations below.



## Recommendation

Contact a qualified plumbing contractor.



## 12: GAS SUPPLY & FIXTURES

### Information

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#### Gas Supply

Natural Gas

#### Gas Lines Installed & Stub Outs Secure: Visual Inspection

Only the visible areas were inspected at the time of inspection.

No deficiencies noted to visible areas unless otherwise noted below.

# STANDARDS OF PRACTICE

## Inspection Details

### General

**Topnotch Building Inspections** strives to perform all inspections in substantial compliance with the Australian Standards for Building Inspections. As such we inspect the readily, accessible, visually observable, systems and components within the home as described by the standards. Where systems or components as described in the Standard were not inspected, the reason(s), limitations of why the item was not inspected will be stated. The home inspection is neither technically exhaustive or quantitative.

The inspection shall comprise of a **visual assessment** of the property to identify major defects and to form an opinion regarding the general condition of the property at the time of inspection.

Where the client or other interested party requires only assessment of the structure of the property, the scope of the inspection shall be limited to that described in Appendix A.

An estimate of the cost of rectification of defects is not required in an inspection report in accordance with the Australian Standard 4349.1

### Areas for inspection

The inspection shall cover all **accessible areas**. The client shall arrange right of entry, facilitate physical entry to the property and supply necessary information to enable the inspector to undertake the inspection and prepare a report.

The inspector is **not responsible** for arranging entry to property or parts of property.

Areas where reasonable entry is denied to the inspector, or where reasonable access is not available, **are excluded from**, and do not form part of, the inspection.

NOTE: Those areas may be the subject of an additional inspection following the provision of reasonable entry and access.

## Inspection Process

The inspection shall comprise of a **visual appraisal** and limited assessment of serviceability.

### Limitations

Limitations that are reasonably expected to be present or that reasonably may occur shall be identified.

### Extent of reporting

Significant items to be reported are as follows:

#### (a) Major Defects.

NOTE: A Major defect is one of sufficient magnitude where rectification has to be carried out in order to avoid unsafe conditions, loss of utility or further deterioration of the property. For example, unsafe balustrades or imminent collapse of a structural member, leaking showers, unconnected downpipes, ponding of water under a dwelling, rotted timber stumps and many more. Generally these defects are expensive to repair and require a professional trades person or qualified person to rectify. Where a major defect has been observed, the inspector will advise to seek further evaluation and advice by a qualified professional.

#### (b) Minor Defects.

NOTE: A Minor defect is described as "A defect, other than a major defect". For example, deteriorating exterior paint, blemishes, damaged hinges, leaking tap outlet, standing water in eaves gutters etc. Most of these defects are considered as part of normal home maintenance and are usually cheaper to repair than a major defect. Having said that, painting the external of a home can be expensive!

#### (c) Maintenance Items / FYI

NOTE: A Maintenance Item and similarly an FYI is generally for your information. Items such as a functioning but ageing hot water service or heater, scratches and scuffs in the kitchen sink, internal painting items, non functioning internal door handles, poorly installed insulation in the roof space etc. FYI's may include handy tips, additional information and websites or a professional opinion on an item that doesn't fall into the defects categories.

### Acceptance criteria

The building shall be compared with a building that was constructed in accordance with the generally accepted practice at the time of construction and which has been maintained such that there has been no significant loss of strength and serviceability.

**Roof**

In accordance with the Australian Standard 4349.1, the home inspector shall observe:

From ground level or the eaves; the eaves, fascias, bargeboards, the roof-covering materials, gutters, downpipes, vents, visible flashings, skylights, chimney, and other roof penetrations.

The inspector shall describe: The method used to observe the roofing, the type of roof-covering materials, report as in need of correction observed indications of active roof leaks and other observed defects.

The inspector is not required to: Walk on any roof surface (although every safe attempt to do so, will be taken), confirm proper fastening or installation of any roof-covering material, predict the service life expectancy, perform a water test, warrant or certify the roof, inspect underground storm-water drainage pipes, remove snow, ice, moss, algae, debris or other conditions that prohibit the observation of the roof surfaces, inspect antennae, satellite dishes, lightning arresters, de-icing equipment, or similar attachments.

The inspector *will not walk* on any roof areas that appear, in the inspectors opinion, to be unsafe or walk on any roof areas if doing so might, in the inspector's opinion, cause damage.

**Framing**

Framing will be checked for Standards of Workmanship, Compliance with Australian Standards 1684.2:2010 and Compliance with the National Construction Code 2019.