

This is a visual only Building Inspection & Report carried out in accordance with AS4349.0

Enclosed Defect REPORT (hereinafter called the "Report")



ALL INSPECT
All Building & Termite Inspections

Report Number

Inspection Date: 18/12/2019

Property Address: Sample



SERVICES

New Construction

Slab
Frame
Lock-Up
Handover
6 Months Warranty

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Pre-Purchase

Pre-Sale
Commercial
Building Reports
Termite Reports
General Reports

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Definitions to help you better understand this report

Terms on which this report was prepared

If you have any queries with this report or require further information, please do not hesitate to contact the person who carried out the inspection.

The parties

Report number:

Name of Client:

Mr Sample

Building company

Phone

Address:

Sample street

Client's email:

Client's telephone number:

Consultant's name:

Consultant's licence number

Consultant's mobile number:

Company name:

ALLINSPECT

Company address and postcode:

PO BOX 1104 Park Ridge 4125

Company email:

info@allinspect.com.au

Company telephone number:

32970345 1300 25 46 77

Section A Results of inspection - summary

This Summary is not the Report. The following Report MUST be read in full in conjunction with this Summary. If there is a discrepancy between the information provided in this Summary and that contained within the body of the Report, the information in the body of the Report shall override this Summary.

In summary the purpose of the inspection is to give advice regarding the condition of the property and site with a view to provide the builder with a list of items to be rectified to achieve compliance of a new construction that are within the Australian Standards and the National Construction code and Standards and Tolerances.

In summary the building is need of rectification to bring it up to a minimum standard for new construction

Unless stated otherwise, any recommendation or advice given in this Report should be implemented as a matter of urgency.

Section B General

The records of the appropriate local authority should be checked to determine or confirm:

- whether the ground on which the building rests has been filled, is liable to subside, is subject to landslip or tidal inundation, or if it is flood prone;
- the status of the property and services (e.g. compliance of the building with the provisions of any building Act, code, regulation or by-laws); and
- whether council has issued a building certificate or other notice for the dwelling.

Where appropriate, legal advice (e.g. from a solicitor) should be sought to explain title and ownership matters and to deal with matters concerning easements, covenants, restrictions, zoning certificates and all other law-related matters.

Strata or company title properties

Not applicable.

General description of the property

Residential building type:

Detached house.

Number of storeys:

Single storey.

Orientation (to establish the way the property was viewed):

The façade of the building faces north.
Note. For the purpose of this report the façade of the building contains the main entrance door.

Prevailing weather conditions at the time of inspection:

Dry.

Other:

Primary method of construction

Main building – floor construction:

Slab-on-ground.

Main building – roof construction:

Timber Framed Colorbond

Section D Condition Report

The following defects all need to be rectified before moving forward with this build.

1. Brick over-hang. This will need to be rectified.

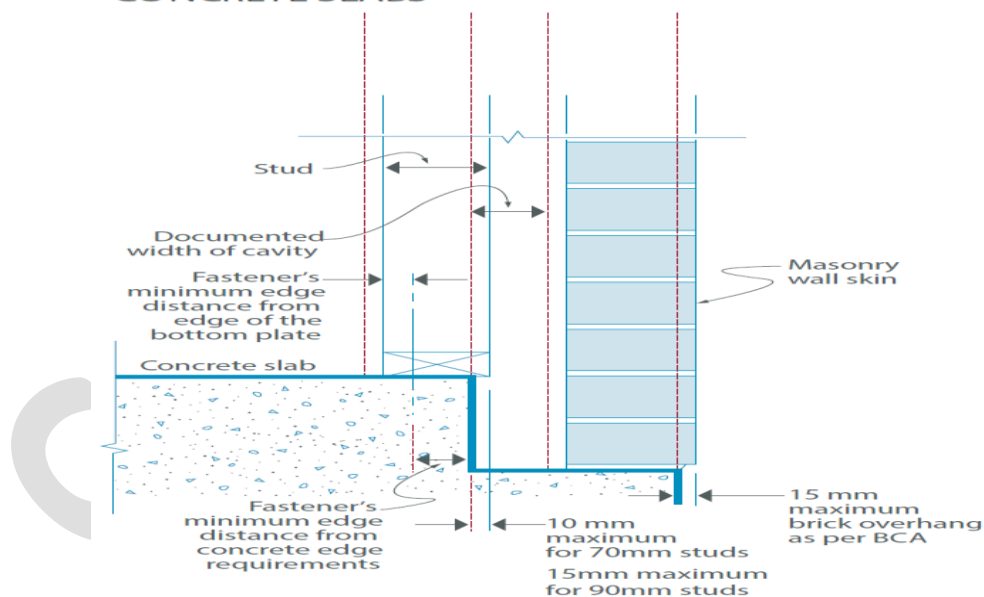
The brick over hang to the dwelling needs to be supported. The BCA, part 3.2.2.7 calls for a maximum overhang of 15 mm. All must be reworked and supported in accordance with AS 2870 prior to handover.

3.2.2.7 Edge rebates

Edge rebates for slab-on-ground, stiffened raft or *waffle raft* with masonry *cavity* or veneer construction must comply with the following:

- (a) The rebate must not be less than 20 mm, except as provided for in (d).
- (b) Exterior masonry must not overhang more than 15 mm past the edge of the slab.
- (c) The edge rebate must be flashed and drained in accordance with **Part 3.3.4** and where it cannot be flashed it must be filled with mortar.

Refer Figure 4.11
BOTTOM PLATES THAT OVERHANG
CONCRETE SLABS



2. It noted at the time of in section that the brickwork is presenting with bowed walls. These are out of level, and are clearly discernible. Noted that the walls are going be render, but still not in an appropriate way or with reasonable care and skill as per below:

Section 24 Schedule 1B of the Queensland Building and Construction Commission Act 1991 ('QBCC Act').

Division 2—Implied warranties for all contracts

Standard of work and exercise of care and skill

44. The building contractor warrants the subject work will be carried out—

- (a) in an appropriate and skilful way; and
- (b) with reasonable care and skill.

We refer the builder to AS 3700-2011, page 128, table 12.1, section (e). The maximum allowance is 5 mm. This installation exceeds this amount. This needs to be rework to comply with standard.

TABLE 12.1
TOLERANCES IN MASONRY CONSTRUCTION

| Item | Tolerance |
|--|--|
| (a) Horizontal position of any masonry element specified or shown in plan at its base or at each storey level | ±15 mm |
| (b) Relative displacement between loadbearing walls in adjacent storeys intended to be in vertical alignment | ±10 mm |
| (c) Maximum deviation from plumb within a storey from a vertical line through the base of the member | The lesser of ±10 mm per 3 m of height or 0.05 times the thickness of the leaf |
| (d) Maximum deviation from plumb in the total height of the building (from the base) | ±25 mm |
| (e) Maximum horizontal or vertical deviation of a surface from a plane surface (bow) when measured as described in Clause 12.5.2 | ±5 mm |





3. Weep holes Blocked. This will need to be rectified.

A number of weep holes on the dwelling appear to be blocked.
All weep holes must be clean and the hole “functional” as per AS4773.2-2010 clause 9.6.2.1 inserted below. **Please note that any damage to the flashings during the removal of the hardened mortar will require considerable reworks as the flashings cannot be breached.**

9.6.2.1 Cavity flashings

Where it is supported on a concrete slab, cavity flashing shall be located at the base of the cavity and at all points where the cavity is interrupted by a structural element, an opening or the like.

A cavity flashing shall be—

- (a) turned up a minimum of 150 mm at the inner frame;
- (b) fixed to the inner frame at 600 mm maximum centres;
- (c) lapped at joints in a straight run by a minimum of 150 mm;
- (d) lapped at corners by the width of the leaf and cavity in accordance with Figure 9.1 or fanned in accordance with Figure 9.2; and
- (e) embedded not less than 25 mm into the outer leaf.

A cavity flashing that is also a DPC shall extend across the full width of the masonry skin. Flashing that protrudes past the face of the wall shall be either cut off or turned down.

Veneer walls shall be drained by weepholes at 1200 mm maximum centres. The raking of perpendicular joints to form weepholes shall extend the full width of masonry (through the wall) including bed joint at the level of the flashing.

Where there is a slab on ground that is Class A or S in accordance with AS 2870 on a sandy or limestone soil, a proprietary polymer emulsion flashing may be used, in accordance with the manufacturer’s instructions.

Where cavity flashings are penetrated, the flashing shall be punched through or cut from the inside of the wall, and be fitted around the penetration and sealed.

In areas where termite management systems are required, all penetrations within the cavity shall be treated in accordance with AS 3660.1.



4. Brick Cavities Area garage, will need reworking.

The cavities have been breached with mortar. The BCA calls for 25 mm minimum opening between the back of the brickwork and any items installed onto the frame that could cause a bridge to form, thus allowing the transfer of water/moisture to the frame. There are numerous occasions on this dwelling where a complete bridge has been formed with mortar hard up against the frame/sisalation paper. Considerable rework needs to take place to ensure that the builder's comply with requirements of this BCA requirement.

We refer the builder to AS 3700, clause 12.4.13, inserted.

12.4.13 Cavities in walls

Cavities shall be free from mortar droppings or other materials that might bridge the cavity and allow transmission of moisture. Where ducts, sleeves or pipes are laid along or across a cavity, construction shall be such that transmission of moisture is prevented.

3.3.4.2 Width of cavity

In brick veneer and **cavity** masonry construction, a **cavity** must be provided between the inner and outer masonry leaves or the masonry leaf and the supporting frame as follows:

- (a) Brick veneer—not less than 25 mm width.
- (b) **Cavity** masonry—not less than 35 mm nor more than 65 mm width.
- (c) Except for mullions, the minimum **cavity** width specified in (a) and (b) is to be maintained between the outer masonry leaf and any services, insulation or sheet bracing located in the **cavity**.





5. Area garage this will need rework.

We noted that the DPC was set at a height greater than the FFL of the garage.

As per AS 4773.1, part 14.8.2, the DPC must be installed into the rebate as low as possible however no case higher than the FFL of the internal floors.

The garage wall will need to be reworked to install two bricks to the underside of the internal wall thus lifting the bottom plate to a height greater than the installed DPC.

14.8.2 Damp-proof courses

Damp-proof courses (DPCs) shall be provided to protect all masonry against rising ground water. The DPC shall be placed as low as possible in the wall and in no case higher than the finished floor level.



6. Garage and other area will need rework.

We noted that the brick ties do not comply with the minimums set out in the Australian Standards or the BCA/NCC. The BCA calls for compliance with AS 3700 and AS 4773.2. It is adopted by reference which means it makes up part of the BCA/NCC.

AS 3700, part 4.10 details wall ties into a dwelling. All documentation calls for brick ties to be installed into a dwelling at a minimum of 600 mm. However in some places it must be doubled up.

The Australian Standards call for wall ties every 300 mm around openings in brickwork, such as doors, meter boxes and windows.
It also calls for ties every 300 to Articulation openings and the like.

Further, AS 4773.2, part 9.7 calls for wall ties every 300 mm to most openings and joints and 400 mm below intermediate floor levels.

There is much conjecture in relation to wall ties from some builder due to the changes in the BCA/NCC documentation on the subject. However both of these Standards are adopted in the new BCA/NCC and hence mandate the installation of same. All opens around all windows, doors and AJ's must have ties every 300 mm.

We noted on this dwelling that compliance was not present.

AS 3700

4.10 WALL TIES

Wall ties for cavity walls and masonry veneer walls shall be as follows:

- (a) Of Type A and a duty rating appropriate to the structural requirements of the masonry (see Clauses 7.6.2, 7.6.3 and 7.7.4).
- (b) Designed to transfer the appropriate loads.
- (c) Embedded at least 50 mm into the mortar joint and, where applicable, into the grout, have at least 15 mm cover from any exposed surface of the joint and be positively attached to the structural backing as follows:
 - (i) For face-fixed ties in masonry veneer more than 3.0 m above the ground, by screw fixing.
 - (ii) For side-fixed ties, by either screw or nail fixing.

NOTES:

- 1 AS 2699 (see all parts) requires the manufacturer to supply the fasteners with the ties.
- 2 Tests have shown that nail fixing for face-fixed ties in timber veneer construction and clip-on ties in steel stud veneer construction do not provide the required attachment to the structural backing under earthquake loading.
- 3 Reduction of embedment within the limits of wall tolerance (see Table 12.1) is assumed not to affect performance.

(d) Spaced to comply with the following:

- (i) Not greater than 600 mm in each direction.
- (ii) Adjacent to horizontal or vertical lateral supports and control joints, and around openings in the masonry, with the first row of ties located within 300 mm from the line of lateral support, the control joint or the perimeter of opening.

When a masonry veneer connected to a flexible structural backing is continuous past a horizontal floor support, this edge distance applies to the first row of ties immediately above and below the line of the floor.

Where ties are required to be designed for double the design tie force (see Clauses 7.6.2 and 7.7.4) and this is achieved by doubling the number of ties in the row, all the ties in the row are required to satisfy the edge distance requirement.

NOTE: A row of ties may be in a single bed joint or distributed between up to two adjacent bed joints, provided both bed joints are within 300 mm of the line of the floor or support.

AS 4773.2

9.7 WALL TIES

Wall ties shall be selected and spaced in accordance with the documents, Table 9.2 and Figure 9.7 and shall be fixed in accordance with Figure 9.8.

Ties shall be placed in such a manner that they are within—

- (a) 300 mm of control joints;
- (b) 300 mm from the ends and tops of walls;
- (c) 300 mm from openings and intersecting walls;
- (d) 300 mm above intermediate floor level in two-storey construction; and
- (e) 400 mm below intermediate floor level in two-storey construction, except where circumstances do not allow for this, such as where the frame is obscured by window flashing.

In all cases, the maximum vertical and horizontal spacing shall not exceed 600 mm.

Wall ties shall be installed in accordance with Clause 9.5 to prevent water transfer to the inside of the building with provision for long-term shrinkage of the timber frame.

Ties shall be doubled—

- (i) at the first row of ties above and below the floor level in two-storey construction (see Figure 9.7);
- (ii) at the top of the wall (see Figure 9.7); and
- (iii) at intersecting internal stud walls (see Figure 9.7).

Where ties are required to be doubled, they shall be placed in adjacent courses (as shown in Figure 9.7 or shall be placed in the same course on each side of the stud. Where the ties are doubled and are in adjacent courses, only the first tie shall be within the required distance.

Veneer ties shall be fixed with the fastener type used during the testing of the tie.

NOTE: AS 2699.1 requires the manufacturer to supply the fastener.

Ties shall be embedded at least 50 mm into the masonry leaf.



7. External Brickwork Defects Listed Below:

- Stack bond bricks garage
- Bricks lipping and twisted
- Brick sills not same lope
- Corners uneven and stepping
- Brick articulation joints not vertically inline

All will need to be rework to comply with below insert

Standards & Tolerances Guide

3.8 Masonry facing

Within the first 12 months after completion of the work and unless documented otherwise, masonry is defective if it is not laid with true, fair or finish face outwards.

Within the first 12 months after completion of the work and unless documented otherwise, masonry faces are defective if they are not cleaned and free of excess mortar or stains when viewed from the normal viewing position.

Section 24 Schedule 1B of the Queensland Building and Construction Commission Act 1991 ('QBCC Act').

Division 2—Implied warranties for all contracts

Standard of work and exercise of care and skill

44. The building contractor warrants the subject work will be carried out—

- (a) in an appropriate and skilful way; and
- (b) with reasonable care and skill.





8. Garage

Manhole obstructed, this will need to be rectified.

The man hole is extensively obstructed. AS 5601, clause 1.4.1 calls for non- hazardous access to the heating unit. The manhole in its current position could be classed as hazardous. The manhole needs to be reposition to allow unrestricted access to service persons needing to access the ceiling space from time to time. Obstructing the access breaches AS 3000 electrical rules and AS 5601 Gas Installations.



9. Slab rectification needs to be completed before moving forward with this build.



10. The main bath area waterproofing does not have at least a 25mm leg up above the bath frame, waterproofing to extend over the top, this needs to be reworked to comply with insert below:

AS 3740—2010

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3.9 JUNCTIONS

3.9.1 Perimeter flashing

3.9.1.1 General

The following list specifies the minimum requirements for the treatment for various junctions. Junctions may be either wall to floor or wall to wall. Either the floor or wall may be waterproof, water resistant or have no treatment specified.

The types of junctions that shall be used are as follows:

- (e) *Type 5* Perimeter flashing to wall/floor surfaces shall be continuously sealed to the horizontal surface and have a vertical leg of a minimum of 25 mm above the finished floor level, except across doorways, and the horizontal leg shall be a minimum width of 50 mm.



11. It was noted at the time of the inspection that it appears that there as been no water stop installed to the openings of some of the bathrooms, this will need to be rectified to comply with the minimum standard, refer to insert below.

AS 3740—2010

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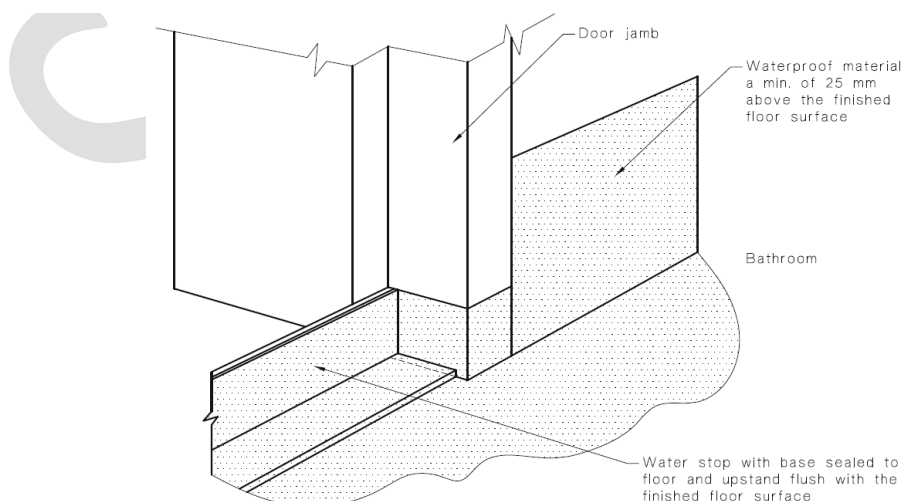
3.9.1.2 Perimeter flashing at floor level openings

The following applies:

- (a) *For whole wet area floor waterproofing* A water stop that has a vertical leg finishing flush with the top of the finished floor level shall be installed at floor level openings. The floor membrane shall be terminated to create a waterproof seal to the water stop and to the perimeter flashing.

NOTE: For typical bathroom detail for whole bathroom waterproofing, see Figures 3.3(a) and 3.3(b).

- (b) *For other than whole wet area floor waterproofing* A water stop that has a vertical leg finishing flush with the top of the finished floor level shall be installed at floor level openings. The water stop shall be waterproofed to the perimeter flashing.





12. The niche sections to the shower have not been constructed with sufficient fall. The builder must rework these sections to comply with AS 3740.

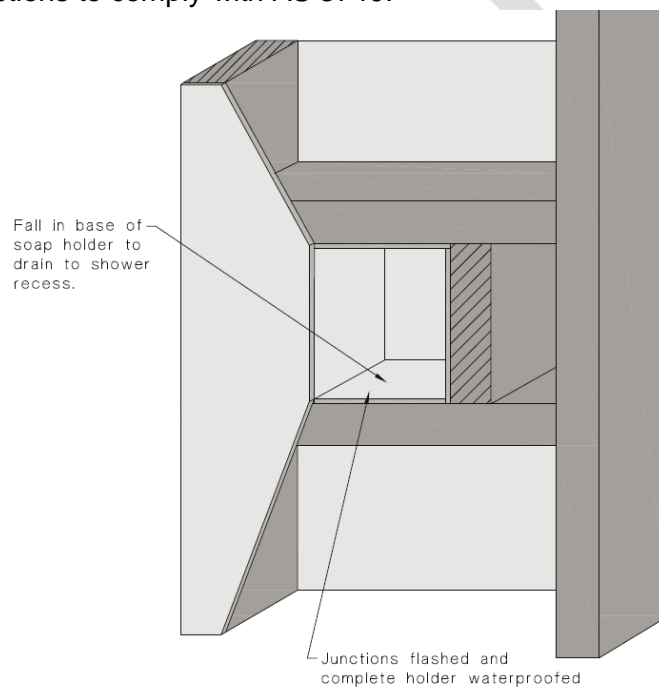


FIGURE 3.4 TYPICAL DETAIL FOR RECESSED SOAP HOLDERS



13. It appears the waterproofing is starved; this will need rectification to meet the manufacturers insulation manual.

Waterproof means the property of a material that does not allow moisture to penetrate through it.

Water resistant means the property of a system or material that restricts moisture movement and will not degrade under conditions of moisture.



Section E Conclusion

In conclusion, following the inspection of surface work in the readily accessible areas of the property, our clients have requested that we place in writing a formal request that all items in this report are rectified. We refer the builder to the builders own contract with our client which calls for the builder to act on ALL KNOWN DEFECTS. All items in this report are therefore brought to the builder's attention and are therefore known to the builder. We would suggest that the builder rework the dwelling before moving forward with this build, so that it complies with the minimums set out in the BCA, the Australian Standard and all other relevant requirements. If the builder feels that we are in error, we request that they justify with a counter reference that would support that position and show cause why they do not have to rectify the defects found.

Section F Important note

Australian Standard AS4349.0-2007 *Inspection of Buildings, Part 0: General Requirements* recognises that a property report is not a warranty or an insurance policy against problems developing with the building in the future. Accordingly, a preventative maintenance program should be implemented for the property which includes systematic inspections, detection and prevention of incipient failure. Please contact the Consultant who carried out this inspection for further advice.

Your attention is drawn to the advice contained in the Terms and Conditions of this Report including any special conditions or instructions that need to be considered in relation to this Report.

Section G Certification

This document certifies that the property described in this Report has been inspected by the Building Consultant in accordance with the level of service requested by the Client and the Terms and Conditions set out in this Report, and in accordance with the current edition of the Report Systems Australia (RSA) Handbook Standard Property Inspection Reports 'Uniform Inspection Guidelines for Building Consultants'.

Authorised Signatory: *David Tacon*

Name: David Tacon Date of Issue: 19 December, 2019