



New Home Inspections

BUILDING CONSULTANTS AND QUALITY INSPECTORS

PRE PLASTER INSPECTION REPORT AND DEFECTS LIST

Address of Subject Property:
Lot 55 Sample Dr, Point Sample

Client:
Jane Sample

Date of Inspection – Wednesday 11th September 2013

Start Time of Inspection – 10:00 am

Prevailing Weather Conditions – Overcast

Builder – Sample Homes

Date of Report – Thursday 12th September 2013

Client Brief

We have been requested by the client to attend their property and carry out a building inspection on the quality of work produced to date by the builder and thereafter to prepare an inspection report identifying any defects that exist in the finishes and the quality of those finishes, for which rectification can reasonably be expected to be the responsibility of the builder.

Property Details

Dwelling Type:- House & Garage	Main Construction Type:- Brick Veneer
Class of Buildings:- BCA 1a and 10a	Dwelling Configuration:-Double Storey
Stage of Building Works:- Frame	Footing Type:- Concrete Slab
Main Roofing Type:- Concrete Tiles	Garage Type:- Attached

Inspection & Report Particulars

Our inspection is a visual inspection of the finishes and the quality of those finishes completed by the Builder up to the stage of our site attendance. This report contains a 'Schedule of Building Defects' that lists the items that in the writers judgement and 30 years of industry experience do not reach the minimum acceptable standard of quality, level of building practice, or have not been built in a proper workmanlike manner with regard to the requirements of the Building Acts and Regulations, the Building Code of Australia (BCA), the relevant Australian Standards or to within the Building Commission's guide to acceptable Standards & Tolerances.

Client Authority

None of the rectification methods, procedures or products suggested within this report are to be read as an instruction to the builder, nor are they an authorisation to vary from the original contractual documentation, a manufacturers installation instruction, any Australian Standards or the BCA. Therefore, depending on the rectification works required, the builder must obtain a signed variation and/or agreement from the client prior to carrying out any such work, whenever one would normally be necessary.

This report must be read by the builder in addition to any list or other correspondence provided by the owner/s.

Terms & Conditions

All site inspections, meetings, this report, all future reports, correspondence and advice that we provide in relation to this property, whether written or verbal, are provided subject to the limitations and exclusions detailed in our standard terms and conditions set out on the last page of this report.

Access

Access was gained to all required areas in accordance with clause 6 of the terms and conditions listed on the last page of this report.

Inspection Notes

At the time of our inspection – 1/. The bricklayers had commenced working on site and had only completed approximately 70% of their work, which could therefore not be properly inspected; 2/. The majority of the floor slabs edge beams had had the soil back-filled up over them; 3/. I had not been provided with a copy of the engineering, wall bracing, first floor joist system and roof truss designs and layouts.

Summary

The items detailed in the attached 'Schedule of Building Defects' require further rectification and/or justification prior to this home proceeding to the next stage.

Should the reader of this report have any additional queries or questions in relation to the items set out within it, please do not hesitate to contact the writer via any of the methods detailed below.

Yours faithfully,



Rob Doedens

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Email: rob@newhomeinspections.com.au



Please direct all postal correspondence to: P.O.Box 448, Patterson Lakes 3197.


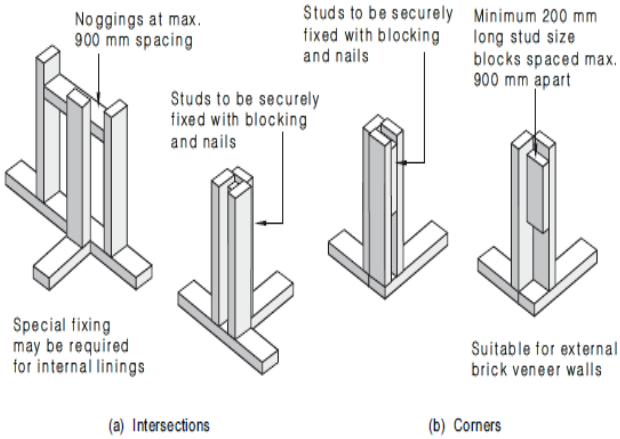
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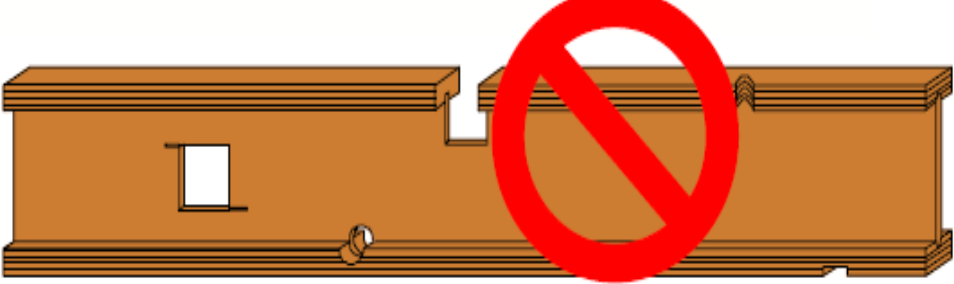

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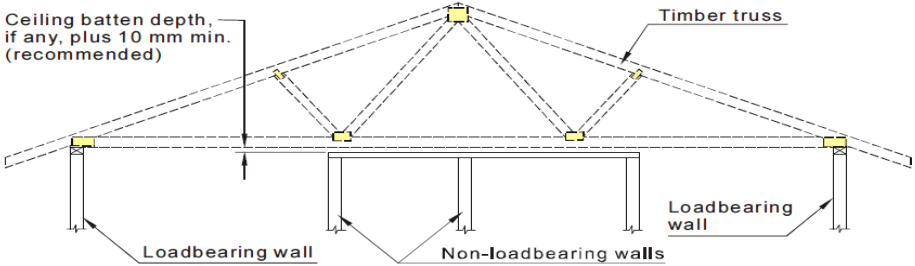
SCHEDULE OF BUILDING DEFECTS

Item	Observations, Considerations and Recommendations:-
1.	<p>Outstanding Items from our Frame Stage Inspection Report that could still be viewed.</p> <p>The jack studs that have been installed above most of the external door and window openings have been installed on their flat, which is the wrong way around for the brickwork over these openings to be tied back into.</p> <p>It is a requirement of Australian Standard, A.S 1684 Residential Timber-Framed Construction, clause 6.2.3 Openings, that <i>'Jack studs shall be provided in all cases between the lintel and the top plate trimmer. Jack studs shall be the same size, spacing, and orientation as the common studs'</i>.</p> <p>Additionally, the relevant Australian Standard A.S. 3700 requires in section 4.10 Wall Ties that <i>'Wall ties for cavity and masonry veneer walls shall be spaced no greater than 600mm in each direction. Adjacent to lateral supports and control joints, and around openings in the masonry, with the first line of ties located within 300mm from the top of the wall, control joint or perimeter of opening'</i>.</p> <p>These incorrectly placed jack studs must be properly installed before the brickwork is erected so that it can be properly tied back to them as required.</p> <p><u>1st September 2013</u> This work was still to be carried out.</p>
2.	<p>The Family room timber bifold doorframe has not had a sill flashing installed onto it in accordance with the requirements of Part 3.5.3.6 Flashings to Wall Openings of the BCA, which will allow water to penetrate in under them into the finished floor coverings.</p> <p>This frame will now have to be removed and the sill properly flashed before it is re-installed with attention paid to the flashing beings turned down into the cavity.</p> <p><u>1st September 2013</u> This work was still to be carried out.</p>
3.	<p>Brickwork</p> <p>The brickwork had been installed hard up to the underside of the roof beams around the Alfresco area.</p> <div style="text-align: center;">  </div> <p>Part 3.3.1.10 Shrinkage Allowance for Timber Framing of the BCA requires that <i>'In masonry veneer walls a gap must be left between the timber frame and the top of the masonry wall, including window sills ect, to allow for settlement of the timber framing caused by timber shrinkage. These clearances must be not less than 5mm at sills of lower and single storey windows; and 8mm at roof overhangs of single storey buildings'</i>.</p> <p>The brickwork below these beams will need to be lowered to achieve the required 8mm clearance.</p>
4.	<p>Articulation joints are the vertical gaps constructed into clay brickwork to absorb the expected structural movement of the buildings foundation material, and just as importantly to act as control joints to absorb the expected growth in the clay bricks from long-term thermal expansion.</p> <p>Clay brick manufacturers allow for an estimated 15 year coefficient of expansion of between 0.3 to 0.9mm per metre of brickwork, which would equate to between 5 and 15mm of possible expansion over the longer external walls of this home.</p> <p>For these reasons Part 3.3.1.8 Vertical Articulation Joints, of the BCA requires that <i>'Vertical articulation joints with a width of not less than 10mm must be provided in straight, continuous un-reinforced masonry walls having no openings, at not more than 6 metre centres; and where openings more than 900 x 900mm occur, at not more than 5 metre centres.'</i></p>

Item	Observations, Considerations and Recommendations:-
	<p>I note the following deficiencies in the correct installation of the articulation joints around this home:-</p> <ol style="list-style-type: none"> The articulation joint nominated on the approved plans to be installed between the side wall of the Master Bedroom and the Ensuite wall projection beside it has not been installed. The articulation joint nominated on the approved plans to be installed over the right hand side of the left hand Porch isolated pier up through the Balcony wall brickwork has not been installed. The articulation joint nominated on the approved plans to be installed beside the Kitchen window has not been installed. The articulation joint nominated on the approved plans to be installed to the left side of the front Games room window does not extend up through the brickwork over the window frame. The articulation joint installed beside the left side of Bed 3's window is breached and not continuous down the entire wall within the Rumpus room roof line.  <p>These omitted or incorrectly installed articulation joints will stop the ability of the individual sections of these walls from being able to move independently to each other as they experience the expected footing movement and brick growth.</p> <p>The builder must therefore properly rectify/installed these articulation joints, with attention given to adequately tying the walls on each side of the joints back to the timber framework at maximum 300mm centres in accordance with the requirements of the relevant Australian Standards/BCA, which state-</p> <p>Australian Standard A.S. 3700 – 2001 requires in section 4.10 Wall Ties that <i>'Wall ties for cavity and masonry veneer walls shall be spaced no greater than 600mm in each direction. Adjacent to lateral supports and control joints, and around openings in the masonry, with the first line of ties located within 300mm from the top of the wall, control joint or perimeter of opening'</i>. Additionally, section 11.4.7 Building In requires that <i>'Wall ties and accessories embedded in masonry joints shall be built in as the construction proceeds'</i>.</p>
5.	<p>There has not been a cavity flashing installed inside the brickwork over the electrical meterbox.</p>  <p>Part 3.3.4.7 Location of Flashings of the BCA's requires a flashing must be provided where the cavity is interrupted by a structural element, <u>opening</u> or the like.</p> <p>This flashing must be properly installed to water-proof the top of the electrical meterbox and to stop the possibility of the ingress of any water into it.</p>
6.	<p>Exhaust Fan Ducting</p> <p>There has been no allowance made to duct the ground floor Powder room and Ensuite WC exhaust fans out into the external air.</p>

Item	Observations, Considerations and Recommendations:-
7.	<p>Part 3.8.5.2 Ventilation Requirements of the BCA's requires that '<i>contaminated air from a sanitary compartment must exhausted directly to the outside of the building by way of ducts.</i>'</p> <p>Allowance should be made for these exhaust fans to duct externally before the plaster sheeting is installed.</p>
8.	<p>Sill Flashings In Addition to Item 2 of this report, the Balcony doorframe has now been installed and its sill has not been flashed either, which will need to be rectified.</p>
8.	<p>Lock Up Issues The corner studs at the junction of each adjoining wall throughout this house have only been fixed with one nail into each corner block and these fixings are presently spaced at up to 950mm centres. Additionally, not all of the corner studs have been pulled up tight to the blocks they are fixed into, which will lead to the future cracking down these internal plastered corners.</p>  <p>The relevant Australian Standard, A.S 1684 Residential Timber-Framed Construction - Simplified, clause 6.2.1.3 Wall Junctions states '<i>Studs at wall junctions and intersections shall be in accordance with one of the details shown in Figure 6.3</i>'.</p>  <p>FIGURE 6.3 TYPICAL WALL JUNCTIONS</p> <p>And also that '<i>Internal and external walls shall be fixed together with a minimum of <u>2/75mm nails at 900mm maximum centres</u></i>'.</p> <p>All of these corner studs need to be pulled up tight to each other and have additional nails fixed through them to within the 900mm maximum spacing, to stop the future cracking of the internal plastered corners.</p>
9.	<p>The noggings need to be reinstated in between the wall studs in the nib wall on the left of the Living room opening to the Entry.</p>
10.	<p>The Family room sliding doorframe is currently within 5mm to the underside of its head trimmer.</p> <p>It is a requirement of Australian Standard, A.S 1684 Residential Timber-Framed Construction, clause 6.2.3 Openings, that '<i>A minimum clearance of 15mm shall be provided between the underside of the lintel or lintel trimmer and the top of the window frame</i>'.</p> <p>This opening must be modified in compliance with the above.</p>
11.	<p>The top flange of the SmartJoists over the Meals area has been cut through for the installation of the shower waste.</p>

Item	Observations, Considerations and Recommendations:-
	 <p>The SmartJoists installation instructions clearly warns:-</p>  <p>DO NOT CUT OR NOTCH FLANGES DO NOT OVER CUT HOLES IN WEB</p> <p>This SmartJoist will have to be properly rectified under the instruction of their manufacturer who should supply the detail for the required rectification work.</p>
12.	<p>There have been 240 x 51 SmartJoists installed as the first floor joists across the Kitchen area of this home. There have been circular holes with a diameter of up to 115mm drilled through the webs of the joists over the Pantry area that are approximately 300mm out from the internal load-bearing wall.</p>  <p>The manufacturer's Hole Chart states that the <u>minimum</u> distance out from a supporting wall that holes of this size can be drilled through the webbing of joists over this span is 1300mm. The manufacturer notes in this chart state that these spacings are conservative and that the most accurate method for the design of web penetration sizes and distances is by their software.</p> <p>As the present spacings of these sized holes breach the manufacturers Hole Chart the builder should confirm the acceptability with the manufacturer and either rectify these joists as directed or supply the manufacturers certification of the present as built situation back to the owner.</p>
13.	<p>There are two trusses across the Bed 3/TV area wall that have had their 90mm bottom chords reduced back to only 83mm to straighten the ceiling lines.</p>

Item	Observations, Considerations and Recommendations:-
	 <p>The adequacy of these trusses needs to be confirmed by their manufacturer or otherwise rectified under their instruction.</p>
14.	<p>There are a number of noggins missing from the walls throughout this home that need to be reinstated in between the wall studs i.e. the Garage/Laundry wall, Ensuite/Master wall, Bed 3/Bed 4 wall etc.</p>
15.	<p>The noggins need to be reinstated in between the wall studs at the electrical meterbox.</p>
16.	<p>There are a number of the noggings between the wall studs throughout this house that are short to the faces of the studs, which will allow the studs to move in behind the plaster sheeting, which could lead to the future cracking of the plaster joints.</p> <p>The relevant Australian Standard, A.S 1684 Residential Timber-Framed Construction - Simplified, clause 6.2.1.5 Nogging, states '<i>Wall studs shall have <u>continuous</u> rows of noggings, located on flat or on edge, at 1350mm maximum centres</i>'.</p> <p>All of these short noggings need to be rectified so that they are tight between the studs.</p>
17.	<p>The trusses along the Games/Bed 4 wall have been blocked up off the top plates to align the ceiling, a practice that will now stop the trusses from being able to deflect as they were designed too; as well as now making the internal non load-bearing walls load-bearing.</p>  <p>The relevant Australian Standards A.S 1684 Residential Timber-Framed Construction, states in section 6.2.5.2 Internal Walls – Trussed Roofs, that '<i>Non Load-bearing walls shall be kept a <u>minimum of 10mm</u> below the underside of the bottom chord, or ceiling battens when used</i>'. While A.S. 4440 Installation of Nail-plated Timber Roof Trusses, state in section 2.2.2 Non Load-bearing Walls, that '<i>Non load-bearing walls, as designated, shall not carry any truss loading and shall not be packed to touch the underside of trusses (see Figure 2.1)</i>'.</p>  <p>FIGURE 2.1 LOADBEARING AND NON-LOADBEARING WALLS</p> <p>A.S. 4440 Installation of Nail-plated Timber Roof Trusses, also state in Appendix B2 Camber, that '<i>Trusses are built with camber to allow for the initial deflection at the take up of load and some creep (i.e. long-term deflection) as the timber settles. Thus, packing to the underside of a truss over a non load-bearing wall may stop these deflections and in turn support the truss in an incorrect position</i>'.</p> <p>This blocking must be removed and the ceiling lines straightened using one of the other available methods.</p>

--:End of Schedule:--

THE STANDARD TERMS & CONDITIONS THAT WE PROVIDED OUR SERVICES SUBJECT TO:-

1. Engagement

Our engagement is confined to that of a Building Consultant and not that of a Building Surveyor or Inspector as defined in the Building Act of 1993. Our inspectors do not hold qualifications as Engineers, Land Surveyors or Pest & Timber Infestation Inspector and therefore have not check and make no comment on:- The structural integrity of the building; The capacity and/or consistency of the sites foundation material; The correctness of the buildings footing system; The site and roof drainage systems; The title boundaries and the location of any easements and/or their assets; The buildings boundary setbacks; Compliance with any requirement of Part 4, Siting, of the Building Regulations; Glazing for compliance with their codes and standards; The presents of termites & borers or at the completeness of any termite risk management procedures and barriers; All other requirements that are the responsibility of the above mentioned professions.

2. Assumptions

2.1. Our inspections are carried out on the quality of the fixtures, fittings and materials as installed and presented at the time of our site attendance and we rely on as fact that they have been installed in accordance with their manufacturer's installation instructions and/or designer's specification, including all associated and substrate works. 2.2. We assume that all items identified in our previous inspection report/s in relation to this property have been rectified to the owner's satisfaction, with the exception of any item that is still fully visible and capable of being properly inspected by us, and that our inspector believes still requires further rectification and/or justification, will be carried forward into this report.

3. Interpretation

3.1. Words in the singular include the plural and vice versa, according to the requirements of their context; 3.2. Words importing a gender include every gender; 3.3. References to a person includes an individual, firm or corporate or unincorporated body and vice versa, according to the requirements of the context.

4. Discrepancies or Ambiguities

4.1. Due to the fast moving nature under which our reports are produced they are provided on an E&OE basis; 4.2. If a reader of this report believes there may be a discrepancy or ambiguity contained within it they should notify the writer immediately, via email, for clarification of the suspected discrepancy or ambiguity.

5. Documentation

Documentation provided to us to facilitate the carrying out of our inspections and to prepare our reports and/or other correspondence is only viewed on an informal basis and we make no certification that the building has been constructed in accordance with it.

6. Photographs

6.1. Photographs provided within our reports will have been taken at the subject property on the day of our inspection by our inspector, unless otherwise noted. 6.2. Photographs are provided for the clients understanding of the item identified and any defects noted are not limited to those shown in the photograph provided within this report. 6.3. We do not provide binding comment or opinion on photographs provided to us on any rectification work allegedly carried out on any item identified within our reports, regardless of who provided it, and all comments that we do provide must only ever be considered to be of a loose general nature only.

7. Non-Destructive Inspection

Our inspections are carried out on a non-destructive basis and exclude any area that would require the dismantling, removal or relocation of any fixture, fitting, plaster, timber, cladding, insulation, sarking, membrane, roof covering, lining, steelwork, scaffolding or excavation of any soil.

8. Measurements/Levels

8.1. Measurements taken during our inspections are with a standard 4 fold carpenters ruler or 8 metre steel tape; and levels with either a 900 or 2000mm long spirit level, unless otherwise stated within this report; 8.2. Floor levels are only checked if the area/rooms are clear of builder's equipment, materials, debris, and furniture. Further, as floor levels need only be rectified just prior to the installation of the floor coverings they will be treated as a builder's Work in Progress until such time, unless otherwise stated within this report, and we rely on as fact that the builder levels and straightens all ceiling lines prior to the installation of plaster.

9. Access

Our inspections are limited to areas that can only be safely accessed with the standard equipment that we carry, being an 1800mm high set of aluminium steps, and that can be readily accessed without causing our inspectors to breach any of WorkSafe Victoria's current Code of Practices or any part of the current Occupational Health and Safety Act.

10. Services, Appliances, Plant, Equipment and Materials

We do not check or test for the correctness, appropriateness, sizing, grading, capacity, installation, certification, and completeness of any service, plant, equipment, appliances and materials i.e. heaters; hot water units; air conditioners; evaporative coolers; ovens; hotplates; dishwashers; rangehoods; spa pump; electricity supply; electrical and data wiring, switches and fittings; smoke detectors; duct work; insulation R-values; gas lines and fittings; water supply; sewer drains, stormwater and agricultural drains; solar panels; garage doors operating mechanisms; framing members, bracing and tie-down etc.

11. Copyright

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13. Reference

References contained within this report to the Building Acts & Regulations, the Building Code of Australia (BCA), any Australian Standards, a Building Commissions document, a manufacturers technical data sheet or installation instruction, or any other document are neither exhaustive, complete or a substitute for the original document and are provided to facilitate the understanding of this report only. We therefore accept no responsibility for any loss, damage or expense incurred for reliance upon the part references contained within this report.

14. Exclusions

- 14.1. Defects outside the scope of our client brief;
- 14.2. Defects not evident by visual inspection, or only visible from outside the subject properties boundary lines;
- 14.3. Defects in inaccessible parts of the building or site, including but not limited to, areas with limited boundary wall set-backs, within the roof cavity space and sub-floor areas;
- 14.4. Defects only apparent under artificial light;
- 14.5. Defects only apparent in different weather or environmental conditions as to those prevailing at the time of our inspectors attendance;
- 14.6. Defects not consider significant enough to warrant any rectification work at the time of our inspectors attendance;
- 14.7. Defects that would be rectified as a consequence of any other defect detailed within this report;
- 14.8. Defects that our inspector considers to be Work in Progress or already clearly marked for rectification by your builder;
- 14.9. Check measure of rooms, walls and the overall building, for size, height, parallel and squareness;
- 14.10. Compliance with contractual documents such as electrical, heating, cooling, joinery, detailed plans; and/or colour selection specifications.
- 14.11. Landscaping, water tanks, retaining walls and any other structures outside the roofline of the main building;
- 14.12. Enquiries of Councils, the relevant Building Surveyor and/or any Statutory Authority;
- 14.13. Items that meet accepted industry practices and/or generally comply with the Performance Requirements of the BCA even if they are not meeting the Deemed-to-Satisfy provisions of that document.
- 14.14. The identification and reporting of inconsequential paint touch-ups, minor plaster and other small cosmetic defects.
- 14.15. The identification and reporting of minor cracking of cornice and architrave joints; minor alignment of cupboard doors and draw fronts; minor alignment of doors and their latches as it is our considered opinion that these items are best addressed at the maintenance stage.

15. VCAT Compliance

In the normal course of quoting our services, we do not allow to present our reports in accordance with Practice Note 2 under Section 158 of the Victorian Civil & Administrative Tribunal Act 1998. Therefore, if this report is to be submitted to VCAT an additional addendum will have to be prepared by us to be attached to it.