



## **Building Code of Australia Volume 2 Assessment Report**



10 – 18 Fourth Road, Berkshire Park

Project: Class 1a Dwelling in Part of an Existing  
Class 10a Shed

For

Urban City Planning

Report No: 2132

Dated: 2<sup>nd</sup> November 2021

Prepared by Accurate Fire & Building Consulting©

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# Document Control

**Document:** 10 – 18 Fourth Road, Berkshire Park  
Building Code of Australia  
Assessment Report

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## Revision History

VERSION	DATE	DETAILS	AUTHOR
1	02.11.2021	Final	Scott Robshaw

## General Disclaimer

This report is based on one site inspection on the 19<sup>th</sup> October 2021. Details contained in this report only address issues of significance relevant to the Building Code of Australia applicable at the date of the assessment. The information contained in this document produced by Accurate Fire & Building Consulting is intended only for the use of the client for the purpose which it has been prepared.

## Executive Summary

This report provides a Building Code of Australia 2019, Amendment 1 (Volume 2) assessment of the Class 1a dwelling constructed in part of an existing shed.

### 1. Introduction

#### 1.1 *Limitation and Exclusions*

The information contained in this report is based on an inspection of the building on the 19<sup>th</sup> October 2021.

Furthermore, this report should not be construed to infer that an assessment for compliance with the following has been undertaken:

- (i) Aluminium Composite Paneling (ACP);
- (ii) Reporting on hazardous materials, OH&S matters of site contamination;
- (iii) Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire resistance levels of the building (where applicable);
- (iv) Consideration of any fire services operations (including hydraulic, electrical or other systems);
- (v) Assessment of plumbing and drainage installations including stormwater;
- (vi) Assessment of mechanical plant operations, electrical systems or security systems;
- (vii) Heritage significance;
- (viii) Consideration of energy or water authority requirements;
- (ix) Consideration of Council's local planning policies;
- (x) Environmental or planning issues;
- (xi) Requirements of statutory authorities;
- (xii) Pest inspection or assessment of building damage caused by pests (general/visual pest invasion or damage will be reported, however invasive or intrusive inspections have not been carried out);
- (xiii) Part 3.0 Structural Provisions of the BCA Volume 2 are not considered;
- (xiv) Provision of any construction approvals or certification under Part 4A or Part 5 of the Environmental Planning & Assessment Act 1979; and

(xv) A detailed Part 3.12 Energy Efficiency assessment including building fabric, glazing, building sealing, air movement and services of the BCA have not been carried out.

## **1.2 Report Basis**

The key basis of this report is to address compliance with the Building Code of Australia (BCA) 2019, Amendment 1 (Volume 2).

## **1.3 Standards Adopted by Reference**

Reference to standards of construction will be to the Building Code of Australia (BCA) 2019, Amendment 1 (Volume 2) and the relevant Australian Standards adopted under Schedule 4 (as relevant).

# **2. Building Code of Australia Description**

## **2.1 General**

The subject building is located at 10 – 18 Fourth Road, Berkshire Park.

Currently erected upon the allotment is an existing Class 10a which has partially been adapted to contain a new Class 1a dwelling. The shed and secondary dwelling are located behind the main primary Class 1a dwelling on the allotment.

This report will highlight any variations / non-compliances that were noted during the inspection of the building relating to the Secondary Class 1a dwelling within part of the existing shed.

Where a BCA Clause is not mentioned or noted, the clause is considered not applicable to this building, or the building complies with that Clause.


## 2.2 BCA Volume 2 Assessment

The following BCA Table identifies the areas where the proposed alterations and additions do not comply with the current provisions of the BCA.

It is assumed that all structural provisions and other relevant BCA Clauses were satisfied at the time the original construction of the existing shed.

### Class 1a Dwelling within existing Class 10a shed

Part	Description	Assessment
3.0	Structural provisions	Structural Engineer to confirm compliance with the requirements of this Part.
3.1.3	Drainage	<b>Existing.</b> A surface water drainage system has been partially installed around the building. It is recommended that the external finished surface be graded away from the building to give a slope not less than 50mm over the first 1m from the building in accordance with this part. Additional downpipes are also required to satisfy Part 3.5.3.5. All downpipes are to be connected to rainwater tanks or disposed of to Council's satisfaction. <b>Refer to Recommendation 3.1</b>
3.1.4	Termite Risk Management	<b>Compliance Achievable.</b> Although the <i>Primary building elements</i> of the existing shed are of steel construction and would have complied at the time the original shed was constructed, the <i>primary building elements</i> of the new Class 1a within are constructed of timber. Certification to be provided confirming timber for wall and ceiling framing is termite resistant or a termite management system be installed in accordance with Part 3.1.4.3. <b>Refer to Recommendation 3.2</b>

Part	Description	Assessment
3.2.2.6	Vapour Barriers	<p><b>Complies.</b></p> <p>Evidence of a vapour barrier under the slab of the Class 1a section of the building is evident at the perimeter of the building.</p>  <p>Photo 1 – evidence of vapour barrier under slab of Class 1 portion of building.</p>
3.5.3.5	Downpipes – size and installation	<p><b>Compliance Achievable.</b></p> <p>Additional downpipes are required to be installed to comply with the requirements of this part.</p> <p>Downpipes must be provided to serve not more than 12m of gutter for each downpipe.</p> <p>All downpipes are to be connected to rainwater tanks or disposed of to Council's satisfaction.</p> <p><b>Refer to Recommendation 3.3</b></p>
3.5.4.6	Flashings to wall openings	<p><b>Compliance Achievable.</b></p> <p>New bedroom windows need to be installed to comply with the requirements of parts 3.8.4.2 and 3.8.5.2. When the new windows are installed, flashing complying with the requirements of Part 3.5.4.6 must be provided.</p> <p><b>Refer to Recommendation 3.4</b></p>

Part	Description	Assessment
3.6	Glazing	<p><b>Compliance Achievable.</b></p> <p>All glass is existing however the windows of each bedroom must be replaced to meet light and ventilation requirements (refer to Parts 3.8.4.2 and 3.8.5.2).</p> <p>All new glazing must comply with the requirements of Part 3.6.</p> <p>The sliding door to the living / kitchen area has been provided with visibility markings as required by Part 3.6.4.6.</p> <p>Certification must be provided demonstrating that the existing shower screen meets the requirements of Part 3.6.4.5.</p> <p><b>Refer to Recommendation 3.5</b></p>
3.7.2	Fire separation of external walls	<p><b>Complies.</b></p> <p>All walls of shed are located more than 900mm from the boundaries.</p>
3.7.3.2	Separating Walls	<p><b>Does not Comply.</b></p> <p>As the secondary Class 1a dwelling is not associated with the Class 1a dwelling therefore the wall separating the secondary Class 1a Dwelling from the Class 10a shed must be constructed in accordance with Part 3.7.3.2 and achieve a FRL of 60/60/60.</p> <p>The door from the dwelling to the shed will need to be either removed when the wall is upgraded to achieve a FRL of 60/60/60 or be provided with a self-closing, self-latching, -/60/30 fire door set.</p> <p><b>Refer to Recommendation 3.6</b></p>
3.7.5	Smoke Alarms	<p><b>Compliance achievable.</b></p> <p>The secondary Class 1a dwelling in the shed is not currently provided with a smoke alarm.</p> <p>It is recommended that a hard wired smoke alarm located in accordance with Part 3.7.5.3 be installed in the secondary Class 1a dwelling which complies with AS 3786</p>

Part	Description	Assessment
		and certification of compliance be provided upon installation. <b>Refer to Recommendation 3.7</b>
3.8.1.2	Wet Areas	<b>Certification to be provided.</b> Certification to be provided for bathroom and laundry wet areas confirming compliance with this Part and AS 3740. <b>Refer to Recommendation 3.8</b>
3.8.2	Room Heights	<b>Minor Non-compliance noted.</b> All rooms have a ceiling height of approximately 2.39m in lieu of the required 2.4m. It is recommended that this minor non-compliance be accepted as it is not considered that the short fall in height will not unduly interfere with the intended function of the room as per Performance Requirement P2.4.2.
3.8.3.2	Required facilities	<b>Complies.</b> The secondary dwelling has been provided with: I. a kitchen sink and facilities for the preparation and cooking of food and; II. a bath or shower; and III. clothes washing facilities, comprising at least one washtub and space in the same room for a washing machine; and IV. a closet pan; and V. a wash basin.
3.8.3.3	Construction of Sanitary Compartments	<b>Compliance achievable.</b> The toilet is currently located within 1.2m of the door to the bathroom. The door must be altered to swing outwards, be sliding or be readily removable from the outside of the compartment to comply with Part 3.8.3.3. <b>Refer to Recommendation 3.9</b>



Part	Description	Assessment
3.8.4.2	Natural lighting	<p><b>Does not Comply.</b></p> <p>The windows of the two bedrooms are too small to provide the required natural lighting. Windows to the two bedrooms must be increased in size to allow an aggregate light transmitting area of not less than 10% of the floor area of each room.</p> <p>When new windows are installed, they must be provided with flashing complying with the requirements of Part 3.5.4.6.</p> <p>Note: Bathrooms are exempt from this requirement as they are provided with artificial lighting.</p> <p><b>Refer to Recommendation 3.10</b></p>
3.8.4.3	Artificial lighting	<p><b>Complies.</b></p> <p>Artificial lighting has been provided to the bathroom at a rate of not less than one light fitting per 16m<sup>2</sup> of floor area.</p>
3.8.5.2	Ventilation requirements	<p><b>Does not Comply.</b></p> <p>The windows of the two bedrooms are too small to provide the required natural ventilation. Windows to the two bedrooms must be increased in size to allow a ventilating area of not less than 5% of the floor area of each room.</p> <p>Note: The Bathroom is exempt from this requirement as it has been provided with mechanical ventilation.</p> <p><b>Refer to Recommendation 3.11</b></p>
3.8.5.3	Location of sanitary compartments	<p><b>Complies.</b></p> <p>Bathroom is provided with an exhaust fan.</p>
3.9.1.6	Thresholds	<p><b>Complies.</b></p>

### **3. Summary of Recommendations**

#### **3.1 Part 3.1.3 – Drainage**

A surface water drainage system has been partially installed around the building. It is recommended that the external finished surface be graded away from the building to give a slope not less than 50mm over the first 1m from the building in accordance with this part.

Additional downpipes are also required to satisfy Part 3.5.3.5.

All downpipes are to be connected to rainwater tanks or disposed of to Council's satisfaction.

#### **3.2 Part 3.1.4 – Termite Risk Management**

Although the *Primary building elements* of the existing shed are of steel construction and would have complied at the time the original shed was constructed, the *primary building elements* of the new Class 1a within are constructed of timber.

Certification to be provided confirming timber for wall and ceiling framing is termite resistant or a termite management system be installed in accordance with Part 3.1.4.3.

#### **3.3 Part 3.5.3.5 – Downpipes – Size and Installation**

Additional downpipes are required to be installed to comply with the requirements of this part.

Downpipes must be provided to serve not more than 12m of gutter for each downpipe.

All downpipes are to be connected to rainwater tanks or disposed of to Council's satisfaction.

#### **3.4 Part 3.5.4.6 – Flashing to wall openings**

New bedroom windows need to be installed to comply with the requirements of parts 3.8.4.2 and 3.8.5.2. When the new windows are installed, flashing complying with the requirements of Part 3.5.4.6 must be provided.

#### **3.5 Part 3.6 – Glazing**

All glass is existing however the windows of each bedroom must be replaced to meet light and ventilation requirements (refer to Parts 3.8.4.2 and 3.8.5.2).

All new glazing must comply with the requirements of Part 3.6.

The sliding door to the living / kitchen area has been provided with visibility markings as required by Part 3.6.4.6.

Certification must be provided demonstrating that the existing shower screen meets the requirements of Part 3.6.4.5.

### 3.6 **Part 3.7.3.2 – Separating Walls**

As the secondary Class 1a dwelling is not associated with the Class 1a dwelling therefore the wall separating the secondary Class 1a Dwelling from the Class 10a shed must be constructed in accordance with Part 3.7.3.2 and achieve a FRL of 60/60/60.

The door from the dwelling to the shed will need to be either removed when the wall is upgraded to achieve a FRL of 60/60/60 or be provided with a self-closing, self-latching, -/60/30 fire door set.

### 3.7 **Part 3.7.5 - Smoke Alarms**

The secondary Class 1a dwelling in the shed is not currently provided with a smoke alarm.

It is recommended that a

hard wired smoke alarm located in accordance with Part 3.7.5.3 be installed in the secondary Class 1a dwelling which complies with AS 3786 and certification of compliance be provided upon installation.

### 3.8 **Part 3.8.1.2 - Wet Areas**

Certification to be provided for bathroom and laundry wet areas confirming compliance with this Part and AS 3740.

### 3.9 **Part 3.8.3.3 – Construction of Sanitary Compartments**

The toilet is currently located within 1.2m of the door to the bathroom.

The door must be altered to swing outwards, be sliding or be readily removable from the outside of the compartment to comply with Part 3.8.3.3.

### 3.10 **Part 3.8.4.2 - Natural Lighting**

The windows of the two bedrooms are too small to provide the required natural lighting. Windows to the two bedrooms must be increased in size to allow an aggregate light transmitting area of not less than 10% of the floor area of each room.

When new windows are installed, they must be provided with flashing complying with the requirements of Part 3.5.4.6.

Note: Bathrooms are exempt from this requirement as they are provided with artificial lighting.

### 3.11 **Part 3.8.5.2 – Ventilation Requirements**

The windows of the two bedrooms are too small to provide the required natural ventilation. Windows to the two bedrooms must be increased in size to allow a ventilating area of not less than 5% of the floor area of each room.

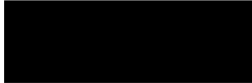
Note: The Bathroom is exempt from this requirement as it has been provided with mechanical ventilation.

#### **4. Conclusion**

In summary, compliance with Recommendations 3.1 to 3.11 above will ensure that the secondary Class 1a dwelling within an existing shed is in keeping with the Deemed-to-Satisfy Provisions of the BCA 2019, Amendment 1 (Volume 2).

Should you require any further information please do not hesitate to contact the undersigned on 0499 775 266 or via email: [scott@accuratefire.com.au](mailto:scott@accuratefire.com.au)

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