GREATER SYDNEY PARKLANDS

BCA ASSESSMENT REPORT

The Rangers Residence – Centennial Park

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Jensen Hughes Australia

Providing building regulations, fire engineering, accessibility, and energy consulting services to NSW for over 25 years

Our story begins in 1997 with the founding of BCA Logic to fulfill the demand of a consultancy company whose expertise expanded across the entire life cycle of a building, from consulting on the initial planning through to construction and occupation.

BCA Logic joined Jensen Hughes in 2021, a leading global, multi-disciplinary engineering, consulting and technology firm focused on safety, security and resiliency. We continue to be at the forefront of our industry and work thoroughly to preserve our position by ensuring the successful delivery of projects.

Jensen Hughes was launched in 2014 through the historic merger of Hughes Associates and Rolf Jensen & Associates (RJA), two of the most experienced and respected fire protection engineering companies at the time. Since then, we have gained market leadership in nuclear risk consulting and established commanding positions in areas like forensic engineering, security risk consulting and emergency management. Over the past 22 years, our integration of more than 30 privately held engineering and consulting firms has dramatically expanded our global footprint, giving us a powerful market presence ten times larger than our nearest competitor in some of our markets and extending our historical lineage back to 1939.

With more than 90 offices and 1500 employees worldwide supporting clients globally across all markets, we utilise our geographic reach to help better serve the needs of our local, regional, and multinational clients. In every market, our teams are deeply entrenched in local communities, which is important to establishing trust and delivering on our promises.

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Table of Contents

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1.0 Basis of Assessment

1.1 LOCATION AND DESCRIPTION

The single storey building development with a garage is a proposed change of use from a Class 3 AirBNB to a Class 5 Office with no new works, the subject of this report, is located at The Rangers Residence – Centennial Park

1.2 PURPOSE

In consideration of the proposed change of use (with no new building works), there are no specific requirements under the legislation for the review and provision of change of use and the fire safety requirements of existing buildings. As such as a comparable measure of assessment, the purpose of this report is to assess the current design proposal with the provisions of **Clause 62 of the NSW Environmental Planning and Assessment Regulation 2021** (EPA Regulation 2021, as identified below and discussed under Part 3.0 of this advice). This is the industry standard with regards to the review of fire safety measures and buildings compliance with regards to change of use where no building works are undertaken, hence has formed part of the assessment of this Report.

1.3 BUILDING CODE OF AUSTRALIA

This report is based on the Deemed-to-Satisfy Provisions of the National Construction Code Series Volume 1 – Building Code of Australia, 2022 (BCA) incorporating the State variations where applicable. Please note that the version of the BCA applicable to new building works is the version applicable at the time of the lodgement of the Construction Certificate application to the Accredited Certifying Authority. The BCA is updated generally on a three-yearly cycle, starting from the 1st of May 2016.

1.4 LIMITATIONS

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

a. the structural adequacy or design of the building;

b. the inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and

c. the design basis and/or

This report does not include, or imply compliance with:

a. the National Construction Code – Plumbing Code of Australia Volume 3

b. the Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to),

c. the deemed to satisfy provision of Part D4 and F4D5 of BCA2022;

d. Demolition Standards not referred to by the BCA;

e. Work Health and Safety Act 2011;

f. Requirements of Australian Standards unless specifically referred to;

g. Requirements of other Regulatory Authorities including, but not limited to, Telstra, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like; and

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h. Conditions of Development Consent issued by the Local Consent Authority.

1.5 DESIGN DOCUMENTATION

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

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2.0 Building Description

For the purposes of the Building Code of Australia (BCA) the development may be described as follows.

2.1 RISE IN STOREYS (CLAUSE C2D3)

The building has a rise in storeys of one (1).

2.2 CLASSIFICATION (CLAUSE A6G1)

The building has been classified as follows.

Table 1: Building Classification(s)

Class	*Level*	*Description*
Class 5	Ground Floor	Office
Class 10	Ground Floor	Private Garage

2.3 EFFECTIVE HEIGHT (CLAUSE A1G4)

The building has an effective height of less than 12 metres.

2.4 TYPE OF CONSTRUCTION REQUIRED (TABLE C2D2)

The building is required to be of Type C Construction.

2.5 FLOOR AREA AND VOLUME LIMITATIONS (TABLE C3D3)

Class 5	Maximum Floor Area	8,000m^2
	Maximum Volume	48,000m^3
Class 10	There are no Floor Area and Volume limitations for this building classification.	

2.6 FIRE COMPARTMENTS

The following fire compartments have been assumed:

a. The whole building is one fire compartment.

2.7 EXITS

The following points in the building have been considered as the exits:

a. North-East side main building entry door.

b. North-West building door leading to backyard.

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2.8 CLIMATE ZONE (CLAUSE A1G4)

The building is located within Climate Zone 5.

2.9 LOCATION OF FIRE-SOURCE FEATURES

The fire source features for the subject development are:

North: The far boundary of Grand Drive

South: The common boundary of Centennial Park

East: The far boundary of Grand Drive

West: The far boundary of Martin Road

In accordance with Clause 2.1 of Specification 5, a part of a building element is exposed to a fire-source feature if any of the horizontal straight lines between that part and the fire-source feature, or vertical projection of the feature, is not obstructed by another part of the building that–

a. has an FRL of not less than 30/–/–; and

b. is neither transparent nor translucent.

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3.0 Clause 62 and 64 – Environmental Planning and Assessment

In addition to the requirements for new works to comply with the current provisions of BCA2022, it is necessary to review the existing building, particularly those parts which are being relied upon for the new works component and to ascertain whether any upgrading is required to satisfy Sections 62 & 64 of the Environmental Planning and Assessment Regulation 2021.

The main trigger for upgrades to an existing building is:-

Clause 62 of the Environmental Planning and Assessment Regulation, 2021:

1. This section applies to the determination of a development application for a change of building use for an existing building if the applicant does not seek rebuilding or alteration of the building.
2. The consent authority must:
    a. Consider whether the fire protection and structural capacity of the building will be appropriate to the building's proposed use, and
    b. Not grant consent to the change of building use unless the consent authority is satisfied that the building complies, or will, when the development is completed, comply, with the Category 1 fire safety provisions that are applicable to the building's proposed use.

Clause 62 is applicable to the proposed change of use as there are no building works being undertaken. There is only a formal change of use proposed from an existing Class 3 to a proposed Class 5.

The existing building consists of solid masonry external walls along the northern, eastern and southern elevations. In relation to the fire protection and structural adequacy of the building, the proposed new use is not considered to have an adverse impact, considering that the building's classification and type of construction is not changing, hence the existing FRLs and construction would still be appropriate for the new proposed use.

A further consideration of Clause 62 ensures that the new use must comply with the Category 1 fire safety provisions as applicable to the new Class 5 use. An assessment of the relevant Category 1 fire safety provisions has been undertaken below:

+ E2P2 (Safe evacuation routes) –

With reference to the above assessment, to satisfy the provisions of Cluse 62, the following upgrades are recommended:

E2P2 – Safe evacuation routes

+ The entry to the main entry door and the rear entry consists of a stairway without handrails which is non-compliant. To make these stairway entries compliant, handrails will be required to be installed to in accordance with D3D22.

  The rear doorway is provided with the steps directly at the doorway and would not comply with BCA Clause D3D15 and D3D16 however within BCA Volume Two this is an allowable construction method where minimal steps are provided. It would be considered that due to the existing Heritage nature of the building that the steps may remain subject to signage being provided internal of the discharge door stating "Caution Step".

+ The egress swinging doors located at the North-East, North-West, East and West side open in the opposite direction of egress. The North-West door is a bifold style and only achieves a clear width of 770mm when both leaves are open, this is considered suitable for egress widths under the BCA. These doors must be provided with a hold open device in accordance with BCA Clause E2P2 and D3D25 as a

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reasonable upgrade strategy considering the Heritage nature of the building. A hold-open device such as a parrot hook and latch would be considered sufficient.

+ The bathroom door has a clear opening width of 700mm; however, this would be in accordance with the concessions under BCA Clause D3D25 due to this being a sanitary compartment.

+ The internal door latch devices are of a round knob style and at a height of approximately 840mm; however, these are not considered as required exits.

  Due to the Heritage nature of the building, consideration may be required as to the upgrading of these doorways. Dispensation may be provided with regards to the upgrading of these applicable doorways is not possible due to Heritage restrictions. However, should there not be any Heritage implication of upgrading these latches it would be proposed that this upgrade is undertaken.

+ The North-East, North-West, East and West side egress door latch device is non-compliant due to the lever design and height above 1100mm and below 900mm respectively in lieu of the required anti-slip curve end lever and height between 900-1100mm above the floor. The latch device must be replaced to be compliant with BCA Clause D3D26. The south side egress doors latch devices must also be replaced accordingly to comply with this Clause.

  Due to the Heritage nature of the building, consideration may be required as to the upgrading of these doorways. Dispensation may be provided with regards to the upgrading of these applicable doorways is not possible due to Heritage restrictions. However, should there not be any Heritage implication of upgrading these latches it would be proposed that this upgrade is undertaken.

+ The rear egress stairway has an awning with a height of 1990mm above the floor which is non-compliant in lieu of the required 2m unobstructed height in accordance with BCA Clause D2D7. Due to allowable encroachments under this Clause down to 1980mm at doorways, it is considered that the awning height would have a negligible impact on egress and may remain as existing.

+ Portable Fire Extinguishers are to be provided throughout the building in accordance with BCA Clause E1D14.

Due to the nature of the building, there is no requirement for hydrants, sprinklers, a fire control centre of smoke detection and therefore E1P3, E1P6, and EP2.1 E3P3. Furthermore, due to the size of the building there is no requirement to be provided with emergency lighting or exit signage.

As discussed, it is our professional opinion that the proposed Office change of use can meet the intent of Clause 62 of the Environmental Planning and Assessment Regulation 2021, subject to the above upgrades being undertaken and dispensation being sought where required for Heritage items.

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Annexures

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Annexure A: Design Documentation

This report has been based on a screenshot of the Ground Floor drawing plan provided by Greater Sydney Parklands.

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Annexure B - Essential Services

The following fire safety measures are required to be installed in the building. The following table may be required to be updated as the design develops and options for compliance are confirmed.

Item	*Essential Fire and Other Safety Measures*	*Standard of Performance*
General		
1.	Portable fire extinguishers	BCA2022 E1D14 AS 2444–2001

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Annexure C - Fire Resistance Levels

The following fire resistance levels (FRL's) are required for the various building elements, with a fire source feature being the far boundary of a road adjoining the allotment, a side or rear boundary or an external wall of another building on the allotment except a Class 10 structure.

TYPE C CONSTRUCTION

Table 12: Type C Construction

Item	*Class 5*
External Walls - Less than 1.5m to a *fire-source feature* - 1.5 – less 3m from *fire-source feature* - 3m or more from a *fire-source feature*	 90/90/90 60/60/60 -/-/-
External Column not incorporated in an external wall - Less than 1.5m to a fire source feature - 1.5 – less 3m from fire source feature; - 3m or more from a fire source feature	 90/-/- 60/-/- -/-/-
Common Walls and Fire Walls	90/90/90
Internal walls bounding sole occupancy units	-/-/-
Internal walls bounding public corridors, hallways and the like	-/-/-
Internal walls bounding a stair if required to be fire rated	60/60/60

Note: An external wall that is required to have an *FRL* need only be tested from the outside to satisfy the *FRL* requirement.

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