

Date: 30 August 2024

Project No: F2807

Department of Planning, Housing and Infrastructure
Regional Assessment
Shop 5A, 19 Snowy River Avenue
Jindabyne, NSW 2627



Email: mark.brown@planning.nsw.gov.au

Attention: Mark Brown

Dear Mark,

Re: Attunga Ski Lodge Thredbo – Performance-based design brief and Staged Works

We write in relation to the above address and your request that AED Fire provide support for the staging of upgrading works in relation to the fire safety measures required by AED Fire's Performance Based Design Brief, ref F2807 PBDB Rev 01 and dated 07/07/2021.

We understand that subsequent to the issue of AED Fire's Performance-based design brief, a Fire Safety Upgrade Master Plan, ref 1399 Rev A, dated 21 November 2023, has been prepared by J-Squared Consulting Engineers.

1.0 - AED Fire's Performance-based design brief

AED Fire's Performance-based design brief addressed 6 issues. These are listed in brief below –

Separation of Equipment

A Performance Solution is to be developed permitting the doorway to the plant room not achieving the required FRL. Clause C2.12 requires that a doorway separating equipment is to achieve an FRL of at least -/120/30.

The solution is based on the building being protected by an automatic sprinkler system installed in accordance with AS2118.4.

Bounding construction: Class 2 and 3 buildings

A performance solution is to be developed permitting the window to the gamers room within the bounding construction to remain unprotected.

The solution is based on the building being protected by an automatic sprinkler system installed in accordance with AS2118.4.

Roof lights

A performance solution is to be developed permitting the roof lights that are located within 3m of the adjacent sole-occupancy unit.

The solution is based on a radiant heat assessment to determine if the risk of fire spread is considered adequate.

Fire-resistance of building elements

A performance solution is to be developed permitting the existing masonry wall to be retained without achieving the required FRL of 90/90/90.

The solution is based on the building being protected by an automatic sprinkler system installed in accordance with AS2118.4.

Number of exits required

A performance solution is to be developed permitting the basement to have 1 exit in lieu of 2.

The solution is based on the outcome of an occupant egress analysis within a fire scenario where the building is protected by an automatic sprinkler system in accordance with AS2118.4.

When fire-isolated stairways and ramps are required

A performance solution is to be prepared permitting the main internal stairs to be used in lieu of a fire-isolated stairway.

The solution is based on an occupant egress analysis within a fire scenario where the building is protected by an automatic sprinkler system in accordance with AS2118.4.

Discussion

The Performance-based design brief requires the installation of an AS2118.4 sprinkler system as a fundamental fire safety measure to mitigate 5 of the 6 issues that are addressed.

The sole issue that does not fundamentally require the installation of sprinklers is the issue of roof lights located within 3m of the adjacent Sole Occupancy Unit. The Performance-based design brief requires that these skylights be assessed with a radiant heat assessment.



This assessment would be based on a sprinkler-controlled fire resulting in reduced temperatures. While not explicitly noted as a requirement, the installation of sprinklers would nonetheless be required for a successful outcome of this assessment.

2.0 - J-Squared Consulting Engineers Fire Safety Upgrade Master Plan

The Upgrade Master Plan addresses 2 issues;

- Fire Resistance, and
- Access and Egress.

The Upgrade Master Plan is dependant on the installation of an FPAA101D sprinkler system. The report requires of fire safety works in addition to the installation of the sprinkler system.

3.0 – Issue

We understand that, due to budgetary constraints, it is proposed to initially install a sprinkler system in the building and other required fire safety measures are to follow in subsequent years.

4.0 – Conclusion

We consider the installation of sprinklers to be the most important fire safety measure required by the Performance-based design brief and provides a substantial improvement to fire and life safety even if the other fire safety measures required by the Performance-based design brief are not initially installed. We therefore support the staged installation of fire safety measures with the initial installation of the sprinkler system.

We recommend that the operation of the sprinkler system activate a building occupant warning system.

The Upgrade Master Plan requires the installation of an FPAA101D sprinkler system in lieu of the AS2118.4 sprinkler system recommended in AED Fire's Performance-based design brief. FPAA101D sprinkler systems were not an available option when we drafted our Performance-based design brief, and we do not feel that the FPAA101D sprinkler system is inconsistent with the AED Performance-based design brief.

5.0 – Limitations and Exclusions

This report specifically excludes the following:

- Determining full compliance with the BCA in relation to the building design or services design, consideration of matters outside the scope or limitations of the BCA, approval for any Part 4A Certificate under the Environmental Planning & Assessment Act 1979 or Regulation 2000, or consideration of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire resistance levels (FRLs) of the building.
- Determining compliance with the Disability Discrimination Act 1992, consideration of local Environmental Planning requirements, policies and/or guidelines, reporting on hazardous materials, OH&S matters or site contamination, or compliance assessment of Heritage Issues or energy efficiency
- Our assessment does not include impacts from fire such as protection of property, the interruption of business due to fire, the impacts from fire on the broader environment and similar matters and does not provide a Performance Solution or a Peer Review of the J-Squared Fire Safety Upgrade Master Plan.

Letter prepared by:

Lee Clark

Director for AED Fire

Master Fire Engineering (UWS)

Certifier – Fire Safety BDC2770

RPEQ Registration Number 20229 (Fire Safety)

Building Services Provider Engineer (Fire Safety) 681499836

Design Practitioner #DEP0000044

Professional Engineer #PRE0000045