



Planning,
Industry &
Environment

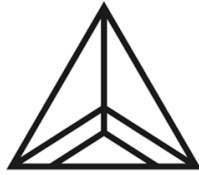
Issued under the Environmental Planning and Assessment Act 1979

Approved Application No 10666

Granted on the 3 November 2021

Signed M Brown

Sheet No 2 of 18



TOWN PLANNING & DESIGN

NAOMIE MCLEOD

BUSHFIRE ASSESSMENT

Ref. 23/20

Snowstreams Unit 4

1 Chimneys Way

Thredbo, NSW, 2625

LOT 558 DP1118421

For Joycard Pty Ltd (Barry Morcom)

PROPOSED DEVELOPMENT: Addition of deck on upper level

COUNCIL: Snowy Monaro Regional Council, Snowy Monaro



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December, 2020

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1. Property and Proposal

1.1 Property Details

Applicant: Joycard Pty Ltd (Barry Morcom)

Address: Snowstreams 4, 1 Chimneys Way, Thredbo, NSW

Legal Address: Lot 558 DP1118421

Type of Building Work: Addition of Deck on upper level

Council LGA: Snowy Monaro Regional Council

Fire Danger Index (FDI): 50

This bushfire report is to be provided to the Department of Planning NSW for proposed addition of an upper level deck at Snowstreams Unit 4 located at 1 Chimneys Way, Thredbo Village, NSW, legally known as Lot 558 DP 1118421. The site is located within the Kosciuszko National Park.

The proposal seeks approval for an upper level steel deck that will be an extension to the existing.

The land is zoned for tourist accommodation and is identified as bushfire prone by the NSW Planning Portal. In accordance with Planning for Bushfire Protection 2019, the development is deemed a *Special Fire Protection Purpose* (SFPP), requiring a Bush Fire Safety Authority from the NSW Rural Fire Service under Section 100B of the NSW Rural Fires Act 1997.

This report has been prepared in accordance with the Environmental Planning & Assessment Act 1979 (Clause 4.46) and the Rural Fires Act 1997 (Clause 100B – Bush Fire Safety Authorities).



Figure 1: Aerial image of subject site and unit; Source NSW Planning Portal

1.2 Bush Fire Prone Land

The NSW Planning Portal provides information pertaining to land that is identified as bush fire prone. The mapping below confirms that 1 Chimneys Way, Thredbo is bush fire prone land.

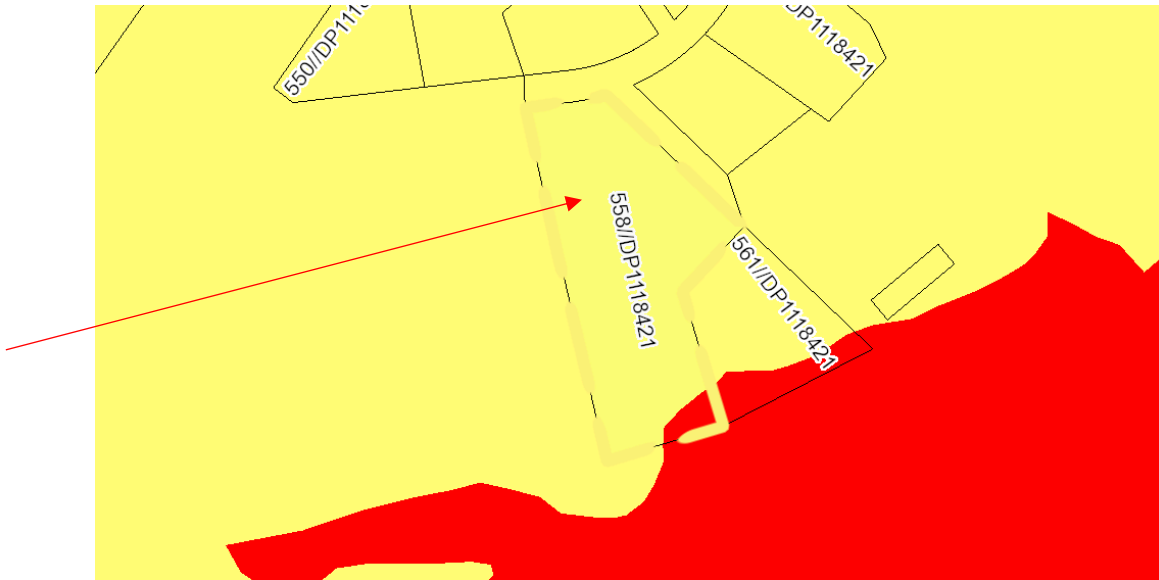


Figure 2: Bush Fire land; Source NSW Planning Portal. Viewed 18 December, 2020

1.3 Location

The subject site is located within Thredbo 35.4km from the ski resorts gateway town of Jindabyne. Access to Thredbo is along Alpine Way.

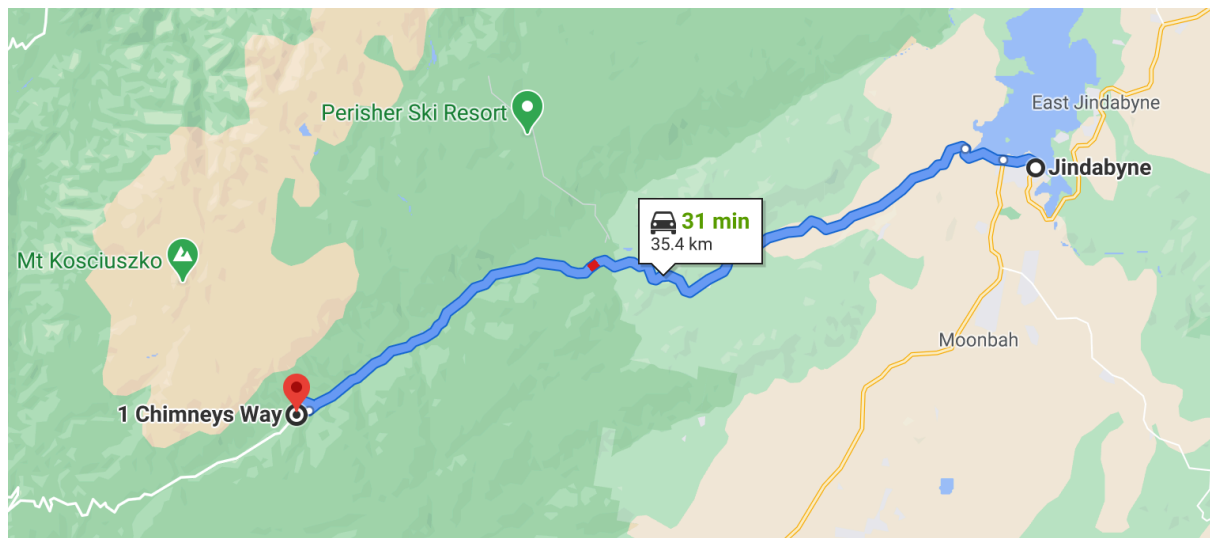


Figure 3: Location Map; Source Google Maps. Viewed 18 December, 2020



Figure 4: Aerial view of subject site; Six Maps

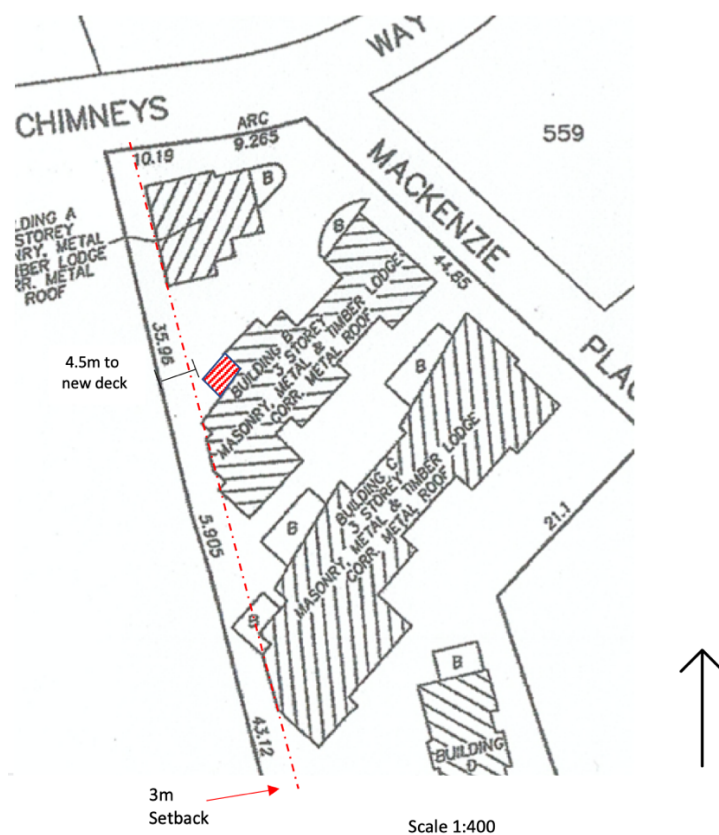


Figure 5: Lease boundary map indicating subject unit and location of proposed deck addition

1.4 Proposal

The proposal is for an addition of an upper level deck. Existing on the first level is a steel deck that is to be extended to provide for a larger outdoor area for entertainment purposes. No ground disturbance is required as part of this proposal.



Figure 6: Proposed deck addition on upper – first floor level



Figure 7: External location of proposed deck

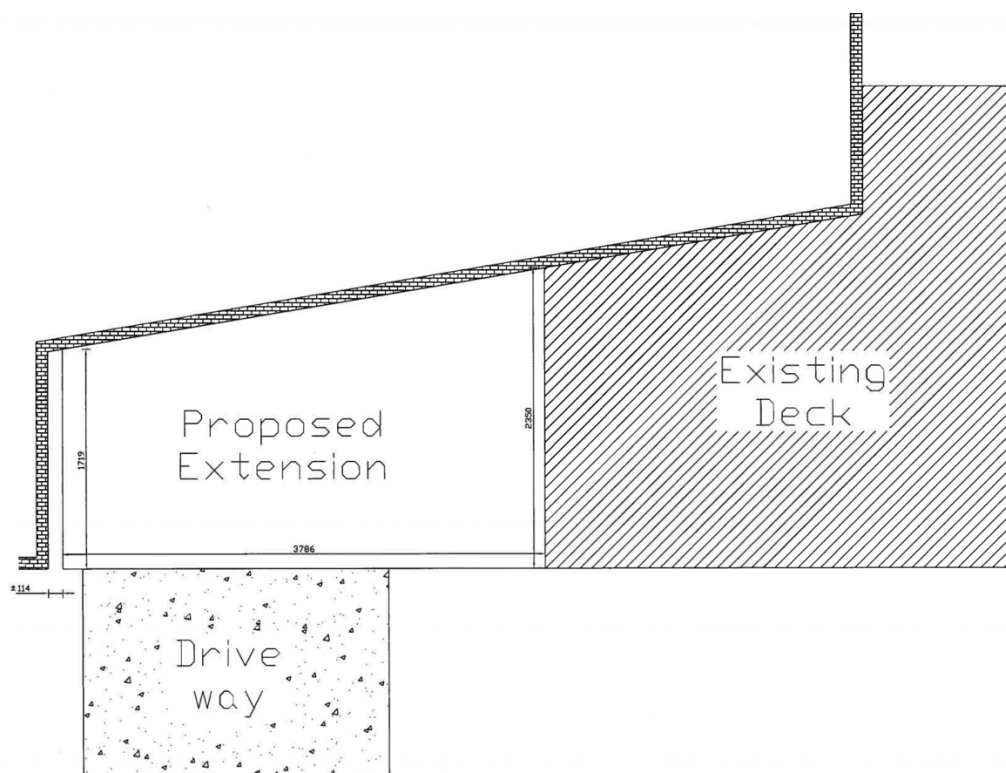


Figure 8: Floor plan for deck addition; Source Cooma Steel

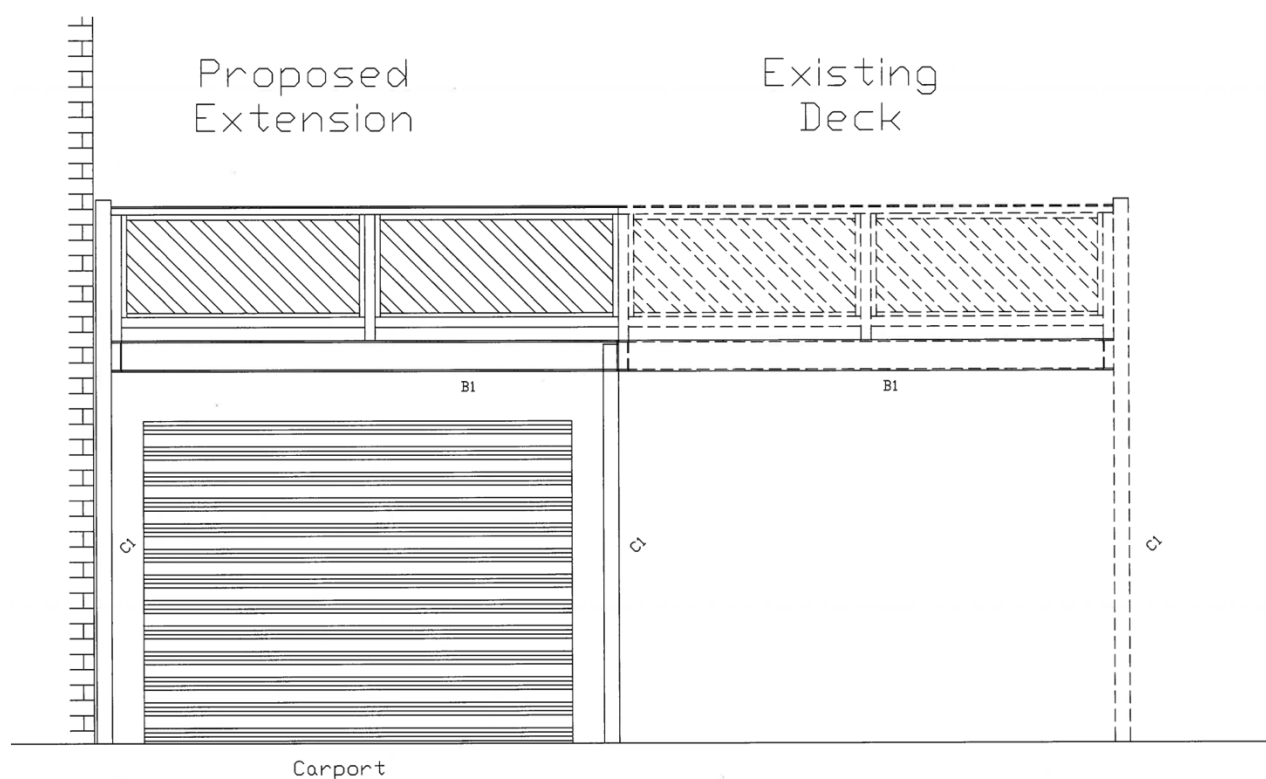


Figure 9: Floor plan for deck addition; Source Cooma Steel

2. Bushfire Hazard Assessment

2.1 Vegetation

The subject site is a complex of townhouses (chalets) on the same allotment being 1 Chimneys Way, Thredbo, NSW, within the Kosciuszko National Park.

The site and surrounding to the east, north and west can be considered managed lands due to the built up nature. The land directly to the south is un managed and adjacent to the Thredbo River. The land would be classified as 'Woodland' according to Keith (2004).



Figure 10: Aerial image showing the site in context with the Woodland Vegetation to the south; Six Maps



Figure 11: Aerial indicating that the vegetation to the south is 78m from the proposed development

North	East	South	West
Managed Land When measured to a distance of 140m from the subject dwelling site the area can be classed as managed land	Managed Land When measured to a distance of 140m from the subject dwelling site the area can be classed as managed land	Woodland When measured to a distance of 140m from the subject dwelling site the predominant vegetation is Woodland. The proposed development is 78m from the vegetation.	Managed Land When measured to a distance of 140m from the subject dwelling site the area can be classed as managed land

2.2 Slope

Slope assessment is derived from detailed contour data available, such as topographic maps displaying contour intervals.

The slope is to be categorised into one of following classes, relative to the location of the hazard:

- all upslope vegetation (considered 0 degrees);
- >0 to 5 degrees downslope vegetation;
- >5 degrees to 10 degrees downslope vegetation;
- >10 degrees to 15 degrees downslope vegetation; and
- >15 degrees to 20 degrees downslope vegetation.

APZ tables within PBP are provided for acceptable solutions with slopes of up to 20 degrees. Effective slopes are to be assessed with hazards on slopes in excess of 20

degrees will require a detailed performance assessment. This may include a consideration of the potential flame length and its impact on the proposed development.

North	East	South	West
Upslope	Upslope	Flat/Upslope	Upslope

3. Asset Protection Zone

An Asset Protection Zone (APZ) is an area between a bush fire hazard and a building that is managed to minimise fuel loads, inhibit fire paths, reduce the effects of heat, flame ember and smoke attack.

Direction	Slope	Vegetation	APZ	BAL Level
North	Upslope	Managed land	100m	BAL 19
East	Flat/upslope	Managed Land	100m	BAL 19
South	Flat/ upslope	Woodland	60m	BAL 19
West	Flat/upslope	Managed Land	100m	BAL 19

The table below sets out the requirements for Asset Protection Zones (APZ) within the FFDI 50 – Alpine Areas derived from Planning for Bushfire Protection 2019.

Given the distance from the greatest hazard (Woodland vegetation) to the south, a setback of 78 metres would require the deck addition to be constructed to a BAL 12.5 level of construction.

The whole of the site is to be managed as an Inner Protection Area (IPA) in perpetuity.

Table A1.12.7

Determination of BAL, FFDI 50 – alpine areas

KEITH VEGETATION FORMATION		BUSH FIRE ATTACK LEVEL (BAL)				
		BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
		Distance (m) asset to predominant vegetation class				
ALL UPSLOPE AND FLAT LAND	Rainforest	< 5	5 -< 7	7 -< 10	10 -< 15	15 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 11	11 -< 15	15 -< 22	22 -< 30	30 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 6	6 -< 8	8 -< 12	12 -< 17	17 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 5	5 -< 6	6 -< 9	9 -< 13	13 -< 100
	Tall Heath	< 12	12 -< 16	16 -< 23	23 -< 32	32 -< 100
	Short Heath	< 7	7 -< 9	9 -< 14	14 -< 20	20 -< 100
	Arid-Shrublands (acacia and chenopod)	< 5	5 -< 6	6 -< 9	9 -< 14	14 -< 100
	Freshwater Wetlands	< 4	4 -< 5	5 -< 7	7 -< 11	11 -< 100
	Alpine Complex	< 4	4 -< 6	6 -< 8	8 -< 12	12 -< 100
	Grassland	< 6	6 -< 8	8 -< 11	11 -< 17	17 -< 50

Figure 12: Table 1.12.7 Planning for Bushfire Protection 2019, FFDI 50 Alpine Areas

4. Bushfire Attack Level (BAL)

Bushfire attack level (BAL) construction standards are concerned with improving the ability for a building to withstand bushfire attack.

When considering effective slope, setbacks, vegetation type the following BAL construction standards shall apply:

= BAL 12.5

5. Access

The objective in planning for bush fire protection is to ensure that safe and operational access is available to structures and water supply in the event of a bushfire. Access roads must be suitable to ensure that people evacuating have safe access to and from a public road system.

- The access to 1 Chimneys Way is a sealed public road system that would allow for two wheel drive and all weather access. The road system can suitably comply with the objectives of PBFP by allowing for safe access for people and firefighting vehicles.

6. Services

6.1 Water

Water supply to the site:

Criteria	Solutions	Complies	Comment
Water supply is available to the site	Reticulated water	Yes	Existing water mains
Accessible water is provided in accordance with standards	Hydrants are available and are consistent with PBFP requirements	Yes	Existing water main/hydrant
Pressure and flow from hydrants	In accordance with AS 2419.1:2005	Yes	Existing water mains/hydrant
The integrity of the water supply is maintained	All above ground water services pipes external to the building are metal including and up to any taps	Yes	Can comply

6.2 Electricity

The electrical supply is existing and will remain unchanged under this consent.

6.3 Gas

- Any bottled gas shall be installed and maintained in accordance with AS1596 and the requirements of any relevant authorities.
 - All fixed gas cylinders are to be kept clear of flammable materials to a distance of at least 10 metres and be shielded on the hazard side of the installation.
 - If gas cylinders need to be kept close to the building, the release valves are to be directed away from the building and at least 2 metres from any combustible material.
- All gas connections are to be metal.

7. Recommendations

The proposed deck addition was assessed in accordance with Planning for Bushfire Protection 2019 and it is determined that the proposal can comply with the prescribed requirements of PBP.

Specific details for the proposed development as assessed in this report are as follows:

Asset Protection Zone

Asset protection for a distance as follows: The entire site shall be maintained as an inner protection area in perpetuity.

BAL – Bushfire Attack Level

The following BAL construction levels apply :

Deck addition = BAL 12.5 on all elevations

Construction must comply with the requirements of AS3959-2009 and Table 7.4a of Planning for Bushfire Protection 2019.



8. Special Fire Protection Purpose Developments

Planning for Bush fire protection 2019 identifies that ‘*The alpine resorts are located within the environmentally significant setting of the Kosciusko National Park. The alpine resort areas are predominantly used for short- term tourist accommodation and are considered to be SFPP development. Much of the existing building stock has not been constructed to current requirements for development in a bush fire prone area. Leasehold arrangements combined with conflicting land management objectives present challenges in achieving APZs for SFPP developments in the alpine areas. The specific objectives that apply to SFPP infill development in the alpine resort areas are as follows:*

Objective	Response
<ul style="list-style-type: none"> provide an appropriate defendable space 	There are many adequate defendable spaces within close proximity to the subject site
<ul style="list-style-type: none"> provide a better bush fire protection outcome for existing structures (e.g. via ember protection measures); 	The existing building was constructed under PBFP. The minor addition will not create any additional fire risk to the building.
<ul style="list-style-type: none"> ensure new building work complies with the construction standards set out in AS 3959; 	New work will comply with AS3959
<ul style="list-style-type: none"> to ensure ongoing management and maintenance responsibilities are in place where APZs are proposed outside of the sub lease or leasehold area; 	The surrounding properties are all maintained and managed as inner protection areas. The area to the south which poses the greatest fire risk is unmanaged land however poses only a minimal risk to the proposed development
<ul style="list-style-type: none"> written consent from the land managers is provided for all proposed works outside of the sub lease or leasehold area; 	N/A
<ul style="list-style-type: none"> written consent from the land managers is provided for all proposed works outside of the sub lease or leasehold area; 	N/A
<ul style="list-style-type: none"> proposed APZs outside of the sub lease or leasehold area are supported by a suitable legal mechanism to ensure APZs are managed under a binding legal agreement in perpetuity; 	N/A

<ul style="list-style-type: none"> ensure building design and construction standards enhance the chances of occupant and building survival; 	
<ul style="list-style-type: none"> provide safe emergency evacuation procedures. 	Evacuation and emergency procedures shall be in accordance with the requirements of PBFP
<ul style="list-style-type: none"> the scope of the proposed works, including any increase in size and footprint of the building; 	The proposed development will not increase the footprint of the existing building
<ul style="list-style-type: none"> any additional capacity for the accommodation of guests and/or staff on site; and 	The proposed development will not increase the capacity for additional guests or staff at the property
<ul style="list-style-type: none"> the cost associated with the proposed upgrade of any building. 	The minor development is deemed to be an upgrade to the property however at a minimal cost.

The NSW RFS has an expectation that a better bush fire outcome is achieved where new development is proposed in association with existing facilities. As the bulk of existing structures in alpine areas are not constructed to appropriate bush fire standards, longer term plans should be developed to pro-actively enhance the overall bush fire protection.

9. Conclusion

In conclusion it has been demonstrated that the proposed deck addition can comply with the provisions and requirements of Planning for Bushfire Protection 2019 for *Special Fire Protection Purpose* (SFPP), requiring a Bush Fire Safety Authority from the NSW Rural Fire Service under Section 100B of the NSW Rural Fires Act 1997.

The deck addition will make the building more habitable.

The proposal complies with the standards necessary to protect persons and property from any impacts during a bush fire event. Therefore it is considered satisfactory for the NSW RFS to issue a Bushfire Safety Authority for the proposed development.

Naionie McLeod
Town Planner
Planning for Bush Fire Protection – University of Technology, Sydney

22 December, 2020

Reference List:

NSW Rural Fire Service (2019) *Planning for Bushfire Protection*, A guide for Councils, Planners, Fire Authorities and Developers, NSW Rural Fire Service.

Keith, D. 2004. *Ocean Shores to Desert Dunes, The Native Vegetation of NSW and the ACT*, DIPNR and NSW NPWS

Disclaimer:

This report has been prepared in good faith complying with the legislative requirements of Planning for Bushfire Protection 2019 and the NSW Planning system.

The recommendations and measures in this report have been outlined to ensure safety to property and human life in the event of a bush fire. It shall be the determination of NSW Rural Fire Service to support the recommendations therein.