

**BUSHFIRE PROTECTION ASSESSMENT
FOR THE
PROPOSED REDEVELOPMENT
OF THE MOUNTAIN VIEW AGED CARE FACILITY
ON LOT 2 in DP 827455,
No. 57 MULGOA ROAD,
PENRITH**

Australian Bushfire Protection Planners Pty Limited



ABPP

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Assessment Number	Document	Preparation Date	Issue Date	Directors Approval
B203471	Final	17.03.2020	18.03.2020	<i>G.L.Swain</i>

EXECUTIVE SUMMARY

Australian Bushfire Protection Planners Pty Limited has been commissioned by *John Flower*, on behalf of *HardiCare* to undertake the Bushfire Consultancy for a Development Application to be lodged with Penrith Council for the proposed redevelopment of the existing Mountain View Aged Care complex on Lot 2 in DP 827455, No. 57 Mulgoa Road, Penrith.

The site contains an existing single storey aged care facility which is proposed to be partially demolished and replaced with a two storey Residential Aged Care complex.

Pedestrian and vehicular access to the site is from Retreat Drive, to the west of the development site.

A review of the Penrith Bushfire Prone Land Map has confirmed that the north-western corner of the development site is located in the buffer zone to Category 1 Bushfire Prone Vegetation located to the west of the existing Mountain View Retreat Retirement Village, which occupies the land to the north of the development site.

The site inspection undertaken on the 17.03.2020 identified that the carpark to the west of Retreat Drive contains a narrow corridor of screen trees with a managed understorey. The site inspection also confirmed that the mapped bushfire prone vegetation consists of grass and scattered trees within a watercourse which flows to the northwest, connecting to Peach Tree Creek.

The separation width between the vegetation in the watercourse and the north-western corner of the existing/proposed building exceeds 90 metres however the development site boundary is located approximately 75 metres from the mapped bushfire prone vegetation.

The proposed redevelopment of the Aged Care facility is therefore defined as integrated development pursuant to Division 4.46(1) of the *Environmental Planning & Assessment ACT 1979* and the Development Application is required to address the provisions of Section 100B of the NSW Rural Fires Act 1997.

Under Section 4.47 of the *Environmental Planning & Assessment ACT 1979* the Consent Authority is required to obtain a Bushfire Safety Authority from the Commissioner of the NSW Rural Fire Service [pursuant to Section 100B of the Rural Fires Act].

Section 6.4 of *Planning for Bushfire Protection 2019* identifies the objectives that apply to modifications to existing *Special Fire Protection Purpose Development*.

These include:

- Provide an appropriate defensible space;
- Site the building in a location which ensures appropriate separation from the hazard to minimise potential for material ignition;
- Provide a better bushfire protection outcome for the existing buildings;
- New building should be located as far from the hazard as possible and should not extend towards or be situated closer to the hazard than the existing buildings;
- Ensure there is no increase in bushfire management and maintenance responsibility on adjoining landowners without their written confirmation;
- Ensure building design and construction enhances the chances of occupant and building survival; and
- Provided for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads).

This report examines the proposed development against these objectives.



Graham Swain,
Managing Director,
Australian Bushfire Protection Planners Pty Limited

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SECTION 1

INTRODUCTION

1.1 Aim of this Assessment.

The aim of this preliminary report is to review the proposed development to determine the level of potential bushfire threat to the new complex and the bushfire protection measures required to address the bushfire risk.

1.2 Development Proposal.

The site contains an existing single storey aged care facility which is proposed to be partially demolished and replaced with a two storey Residential Aged Care complex – refer to Figure 1 Aerial Photograph of existing complex below.

Figure 1 – Plan showing the existing complex



A copy of the proposed Site Plan is provided in Figure 2 on Page 7. Figure 3 on Page 8 provides a copy of the new Ground Floor Layout Plan and Figure 4 on Page 9 provides a copy of the new First Floor Layout Plan.

Figure 5 on Page 10 provides a copy of the Elevations to the New Building.

Figure 2 – Site Plan of the proposed Aged Care Facility.

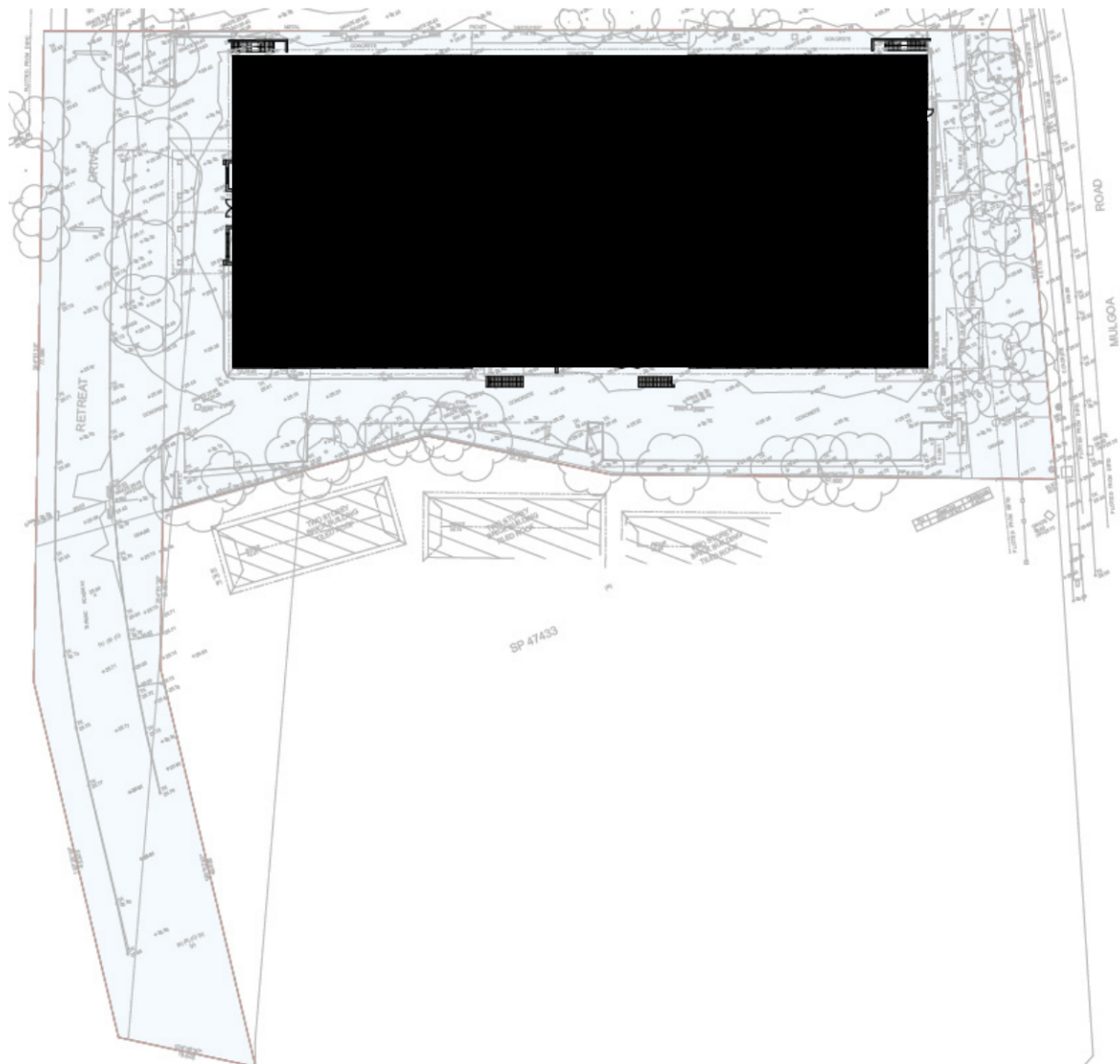


Figure 3 – New Ground Floor Plan Layout

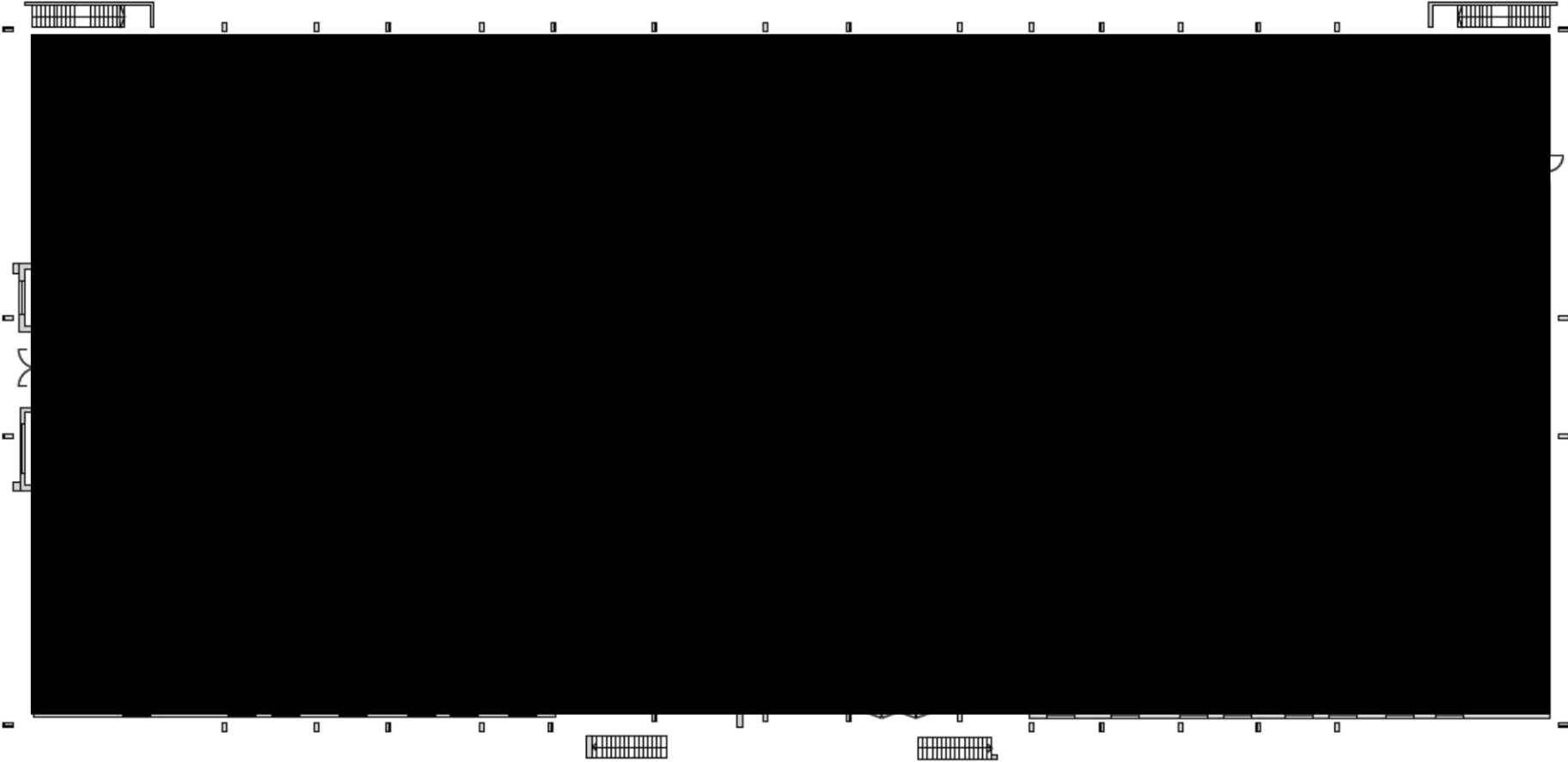


Figure 4 – New First Floor Plan Layout.

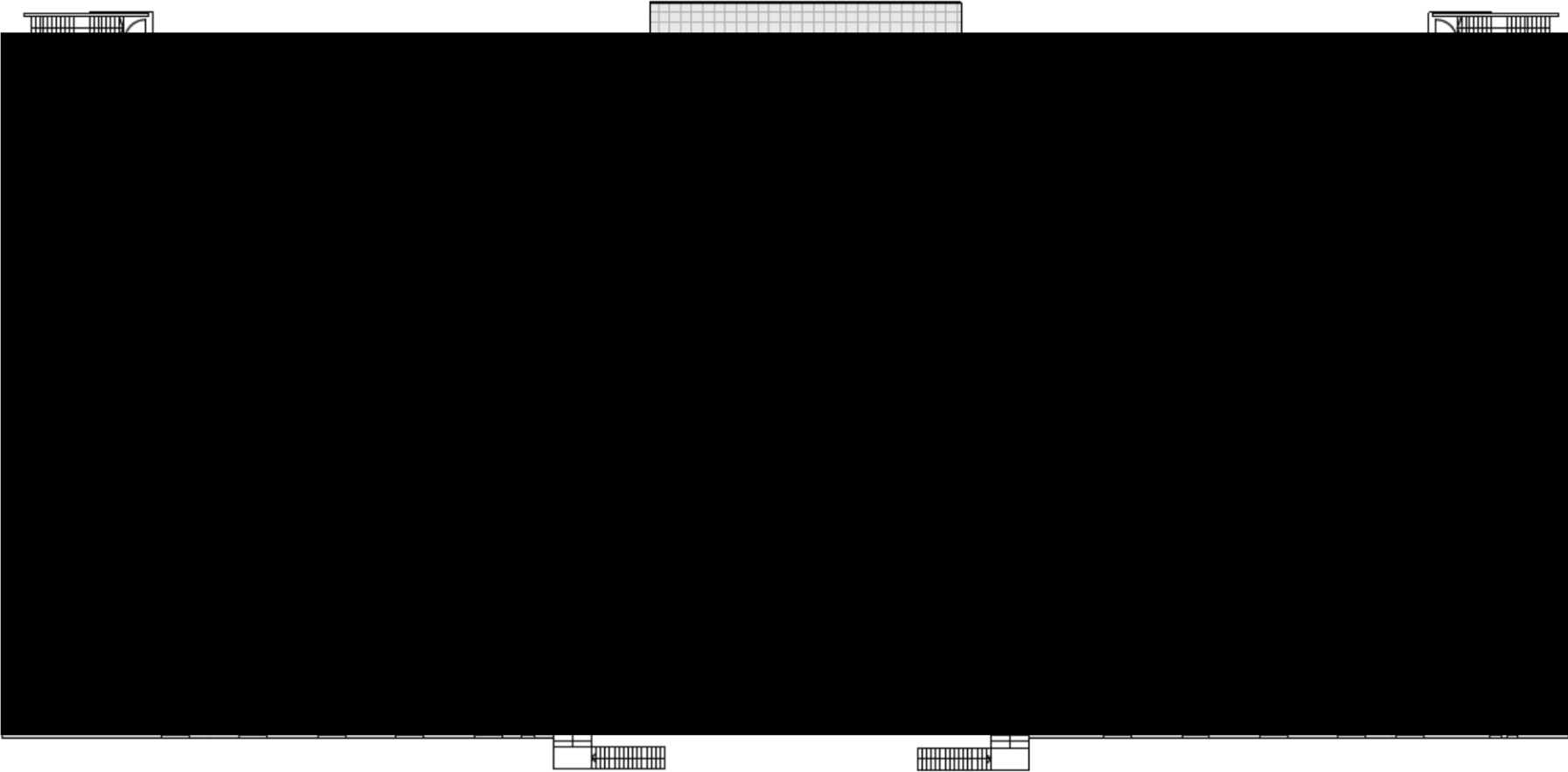
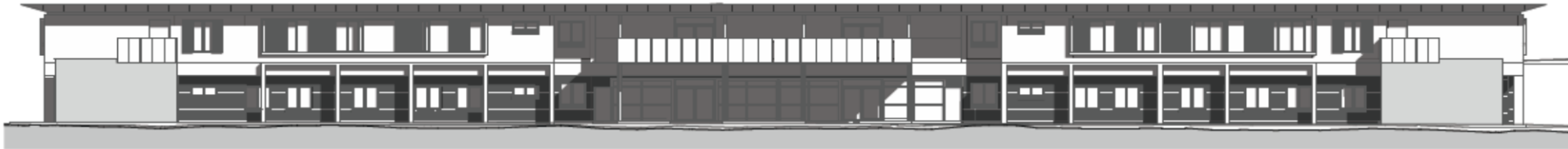


Figure 5 – New Elevations.



North Elevation



West Elevation



South Elevation



East Elevation

SECTION 2

PROPERTY DESCRIPTION

2.1 Location & Description.

The Aged Care complex occupies Lot 2 in DP 827455, No. 57 Mulgoa Road Penrith.

Figure 6 – Location of the Aged Care Complex Site.



2.2 Existing Land Use.

The site contains an existing single storey aged care facility with access from Retreat Drive.

This complex will be partially demolished as part of the development proposal.

2.3 Surrounding Land Use.

The land to the northeast contains the Mountain View Retreat Retirement Village. Retirement Units occupy the land the southeast of the development site

A Trotting Track occupies the land to the southeast of Mulgoa Road and a carpark occupies the land to the northwest of the development site.

Figure 7 – Aerial Photograph of the Development Site and adjoining land



2.4 Topography.

Appendix 2 of *Planning for Bushfire Protection 2019* states that slopes should be assessed, over a distance of at least 100m from a development site, and that the gradient of the land should be determined which will most significantly influence the fire behaviour on the site.

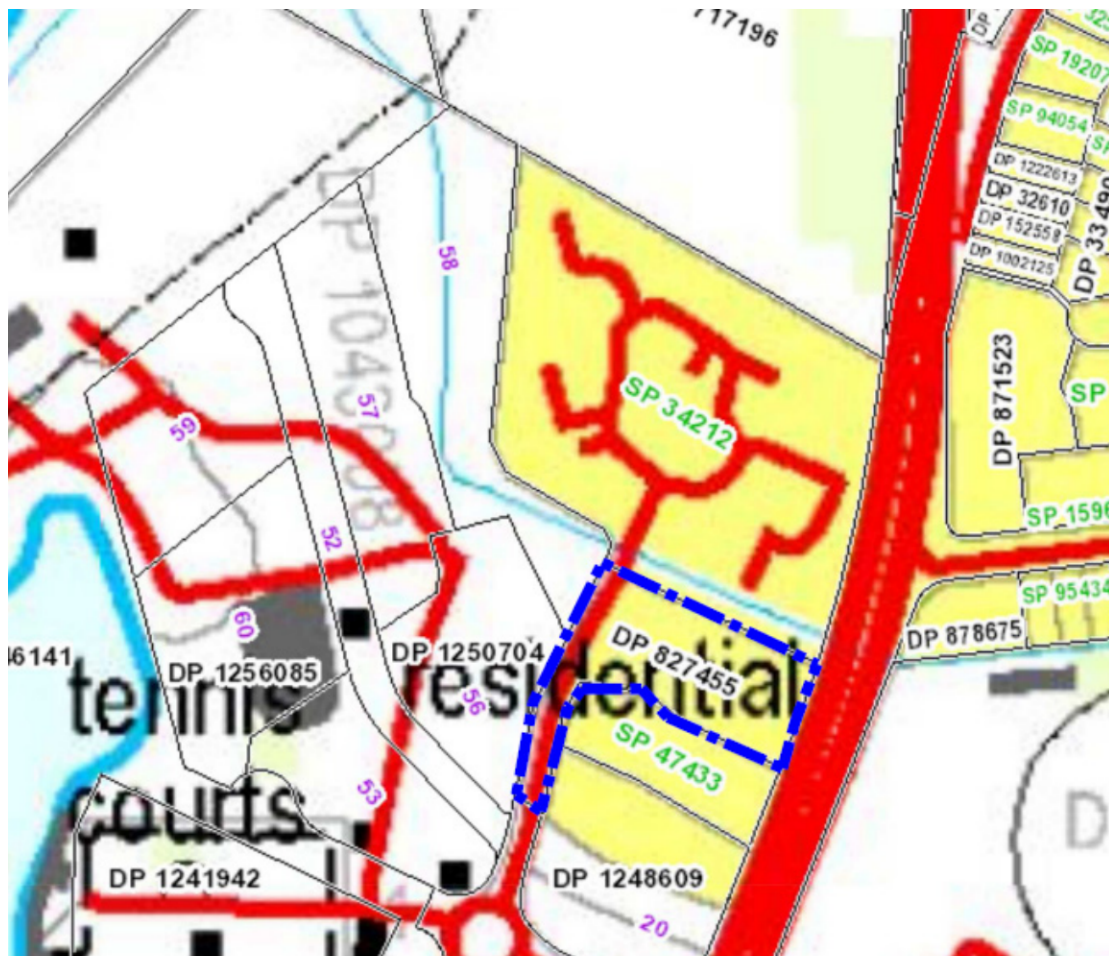
(i) Within the Development Site.

The land within the development site is level across the existing building pad.

(ii) Adjoining the Development Site.

The carpark to the northwest of the development site is level. The land that contains the mapped bushfire prone vegetation within the creek corridor falls to the northwest at 2 – 3 degrees – refer to Figure 8 – Topographic Plan on Page 13.

Figure 8 – Topographic Plan.



2.5 Vegetation.

The vegetation within the development site consists of managed landscaped gardens.

2.6 Vegetation within 140 metres of the proposed Aged Care complex.

The existing Retirement Village to the northeast and southwest of the development site contain managed landscaped gardens.

The carpark to the northwest of the development site contains a narrow row of shade trees with a managed understorey.

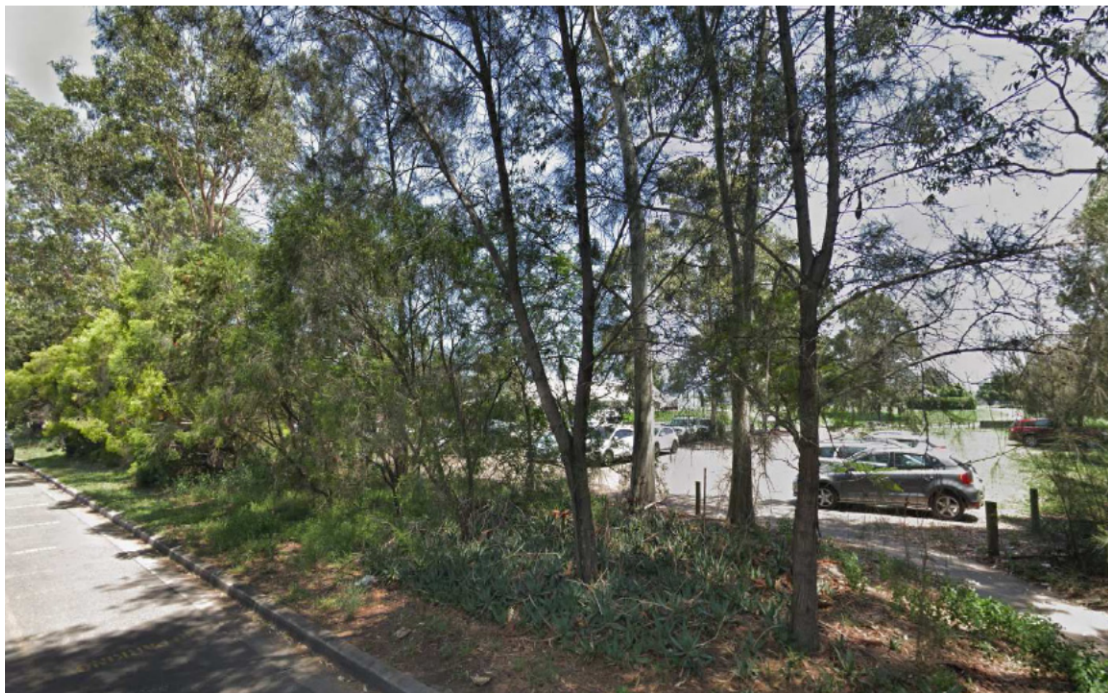
The mapped bushfire prone vegetation in the watercourse corridor contains partially managed grasses, grasses and isolated clumps of trees.

Refer to Site Photographs on Page 14 & 15.

2.7 Site Photographs.



Photograph 1 - looking to the northwest showing the managed vegetation in the watercourse between the carpark and the Mountain View Retreat Retirement Village (on the right).



Photograph 2 - looking into the carpark showing the managed verge on the western side of Retreat Drive.



Photograph 3 - looking to the northeast across the parkland and carpark to the northwest of the development site.



Photograph 4 - looking to the east from Retreat Drive showing the existing complex.

SECTION 3 BUSHFIRE PROTECTION ASSESSMENT

3.1 Setback and Construction Standards to the proposed Building.

The north-western corner of the development site is recorded on the Penrith Bushfire Prone Land Map as containing the buffer zone to Category 1 bushfire prone vegetation and therefore subject to the bushfire protection requirements of the *Environmental Planning & Assessment Act 1979*, the *Rural Fires Act 1997* and the *Rural Fires Regulation 2013*.

Figure 9 – Extract from the Penrith Bushfire Prone Land Map.



The existing complex consists of a single storey building which is constructed on a level pad surrounded by landscaped gardens. The development involves the partial demolition of the existing building, including the removal of the roof and supporting structure and construction of a new first floor level above the existing building footprint.

The proposed works also include internal modifications to the ground floor of the existing building.

The separation width between the mapped bushfire prone vegetation and the existing building is more than 90 metres. This exceeds the width of Asset Protection Zone required by Table A1.12.1 of *Planning for Bushfire Protection 2019* – (50 metres) – for grassy woodland vegetation on land with a gradient of 0 – 5 degrees downslope.

The radiant heat on the building at more than 90 metres separation is less than 12.5kW/m^2 - therefore satisfying the 10kW/m^2 required for Special Fire Protection Purpose Development.

The new works shall be constructed to comply with Section 3 and Section 5 (BAL12.5) of A.S. 3959 – 2018 – ‘Construction of Buildings in Bushfire Prone Areas’.

Figure 10 – Plan showing the 90 metre setback to the building, measured from the mapped bushfire prone vegetation in the watercourse located adjacent to the western corner of the Mountain View Retreat Retirement Village.



3.2 Water Supplies for Fire Fighting Operations.

The existing reticulated water supply to the complex will be upgraded to address the fire-fighting water supply to the new building with booster valve, hydrants and hose reels installed to comply with A.S. 2419.1 – 2005.

The existing electricity and gas supplies to the complex are located underground and therefore present no external source for ignition of vegetation.

3.3 Access for Fire Fighting Operations.

The development proposal does not include any modification to the existing access to the complex as the building footprint remains unchanged.

3.4 Emergency Management for Fire Protection / Evacuation.

A site specific '*Emergency Management Plan*' shall be prepared for the new complex.

Due to the low level of bushfire risk to the complex it is expected that there will be no requirement for the relocation of residents during bushfire events in the local area.

SECTION 4

CONCLUSION

This report has been prepared as part of the Development Application to Penrith City Council for the alterations and additions to the existing Mountain View Retirement Complex and examines the bushfire risk to the proposed development and has determined that the separation between the existing/proposed building exceeds 90 metres to the mapped bushfire prone vegetation on the land adjacent to the south-western corner of the neighbouring Mountain View Retreat Retirement Village.

This separation exceeds the width required to comply with Table A1.12.1 of *Planning for Bushfire Protection 2019* and satisfies the requirement that the maximum radiant heat exposure on the exterior of the building does not exceed 10kW/m^2 – for a *Special Fire Protection Purpose Development* located in a bushfire prone area.

The following table summarises the extent to which the development proposal conforms with [or deviates from] the objectives of Section 6.4 of *Planning for Bushfire Protection 2019*.

Table 1. Compliance with the objectives of Section 6.4 of *Planning for Bushfire Protection 2019*.

Objective	Compliance with Section 6.4 of <i>PfBFP 2019</i> .
Provide an appropriate defensible space	The width of the Asset Protection Zone to the northwest of the complex exceeds the deemed-to-comply requirements of <i>Planning for Bushfire Protection 2019</i>
Site the building in a location which ensures appropriate separation from the hazard to minimise potential for material ignition	The existing location of the building is not changed by the proposed development and will not be exposed to material ignition
Provide a better bushfire protection outcome for the existing buildings	The location of the existing complex provides satisfactory bushfire protection to the building and residents
New building should be located as far from the hazard as possible and should not extend towards or be situated closer to the hazard than the existing buildings	The development does not propose a change to the existing location of the complex.
Ensure there is no increase in bushfire management and maintenance responsibility on adjoining landowners without their written confirmation	Landscaping within the development site maintained to the standard of an Inner Protection Area (Asset Protection Zone). Carpark to the northwest contains no bushfire prone vegetation.
Ensure building design and construction enhances the chances of occupant and building survival	Building not exposed to radiant heat in excess of 10kW/m^2
Provided for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads).	Approved access to the complex will not be modified



Graham Swain,
Managing Director,
Australian Bushfire Protection Planners Pty Limited.



REFERENCES:

- N.S.W Rural Fire Service – *Planning for Bushfire Protection 2019*;
- *Environmental Planning & Assessment Act – 1979*;
- *Rural Fires Act – 1997*;
- *Rural Fires and Environmental Assessment Legislation Amendment Act 2002*;
- *Rural Fires Regulation 2013*;
- NSW Rural Fire Service – *Guideline for Bushfire Prone Land Mapping 2013*;
- *Biodiversity Management Act 2017*;
- *Bushfire Environmental Assessment Code 2006*;
- Building Code of Australia;
- Australian Standard A.S 3959-2018 “*Construction of Buildings in Bushfire Prone Areas*”;
- Penrith Bushfire Prone Land Map.