

Advantage All Consulting
9b Lancelot Court
Drouin 3818
Att: Melissa Fisher
melissa@advantageall.com.au;
damien@taylormiller.com.au;
sancell@echelonplanning.com.au;

21 April 2022

Dear Melissa

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

This report has been prepared as a bushfire risk assessment to guide the design stages for a planned subdivision and development of four (4) existing lots in Warragul, Shire of Baw Baw.

The lots covered by this assessment (the site) are:

- 1\LP134776
- 2\LP134776 (part)
- 1\LP134777
- 1\TP939243

We inspected the site on 9 April 2022

The Planning scheme has a fundamental provision at [Planning Policy Framework \(PPF\) clause 13.02](#) that simply put says that bushfire and life safety must be fundamental to every planning decision.

We believe that the subject properties can be developed in a way that successfully meets the policies as detailed in the Planning Policy Framework (PPF) clause 13.02. The bushfire risk to this site is low and is far less than large parts of Victoria. With the required measures in place development is appropriate.

Part of the site is currently zoned as Urban Floodway Zone (UFZ) and we are advised that prior to any future planned development there would be an application for rezoning to Industrial.

Under the Planning Policy Framework clause 13.02, land within a designated Bushfire Prone Area (BPA); subject to a Bushfire Management Overlay (BMO); or "*proposed to be used or developed in a way that may create a bushfire hazard*" have to be able "*To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.*" Furthermore the [Operation of the Planning Policy Framework clause 71.02-3](#) states in part "*..... However, in bushfire affected areas, planning authorities and responsible authorities must prioritise the protection of human life over all other policy considerations.*"

Part of the subject site is in a designated Bushfire Prone Area. The subject site is not in a Bushfire Management Overlay Area. The subject site will not be subject to development that may create a bushfire hazard ie such as would a tree harvesting plantation.

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Proposals at the “settlement” scale have to be able to achieve defensible space for a BAL-12.5 (viz. less than 12.5 kilowatts/square metre of radiant heat flux (RHF)) under AS3959 *Construction of Buildings in Bushfire-prone Areas* (Standards Australia, 2018) for all subsequently created building envelopes. In accordance with [Planning Advisory Note 68 \(March 2018\)](#) the application that is the subject of this review is of a “Settlement Planning” nature where BAL-12.5 is required to be achieved. This application can comply with all 13.02 settlement planning requirements.

The methodology used for this report was to assess the perimeter of the proposed development both by physical on the ground inspection, drone survey, review of subscription service high resolution and generally up to date aerial photos, publicly available topographical and ecological maps and other information then assign, in accordance with AS3959-2018, to discrete sections, the relevant vegetation classification and/or exclusions and topography under the classifiable vegetation for vegetation **off** the site but within the 100m assessment zone. We then have assigned to these sections the required defensible space, in accordance with AS3959, by which any building envelope must be setback from the perimeter of the development to achieve a BAL-12.5 construction rating and no more than the allowable radiant heat flux. The reason the setback is from the perimeter of the development is that the current and subsequent owners of the subject site(s) have no control as to the management of the vegetation outside the property boundaries. This “*defensible space*” is in effect a **Building Exclusion Zone** and can be made up of perimeter roads, common areas and building setbacks on individual lots as well as maintained buffer zones (if required). Defensible space is a fuel reduced zone with restrictions on surface & elevated fuels ie vegetation as well as canopy cover.

While this site is not in a Bushfire Management Overlay (BMO), which is reserved for high-risk areas, the BMO conditions and requirements can be used for good first principles decision guidelines. A Bushfire Hazard Landscape Assessment, in accordance with the [DELWP Technical Guide](#) (Planning Permit Applications Bushfire Management Overlay) has been undertaken and enclosed herewith. Using this guide we have rated the site as a Landscape Type 1 and according to the CFA guideline [Applying the Bushfire Hazard Landscape Assessment in a Bushfire Management Overlay](#) if we apply the Approved Measures of the Victorian Planning Provisions clause [53.02-4](#) then it should mitigate the risk

Compliance with AS3959, as required by PPF 13.02, shows the risk has been reduced to an acceptable level on a local scale.

As we have shown later in this report this application can successfully meet the approved measures of the BMO VPP clause 53.02-4 and therefore, we believe the risk is reduced both on a landscape scale and a local scale to an acceptable level.

Included in this report are all the industry standard bushfire risk assessments:

- A Bushfire Hazard Site Assessment
- A Bushfire Hazard Landscape Assessment
- A Bushfire Management Statement
- An assessment against PPF13.02.

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Requirements detailed in this document do not guarantee survival of the buildings or the occupants in a bushfire event for reasons including, as detailed in the foreword to AS 3959-2018 *Construction of Buildings in Bushfire-prone Areas*, the degree of (future) vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions. The occupants are strongly encouraged to develop and practice a bushfire survival plan and in accordance with CFA advice a policy of “leave early” is always recommended

As far as practical, could you please check the basic information upon which this report is based and notify us if you find any discrepancies.

Should you require further information or have any questions with regard to any of the enclosed information please contact John on 0417 885 747.

Yours Sincerely

John Burke

John Burke

BAL Assessments

Enclosed: Planning and Property Information / Subdivision Master Plan / Site Maps / Bushfire Hazard Landscape Assessment / Bushfire Hazard Site Assessments / Defendable Space Vegetation Management requirements / Site Photos / Bushfire Management Statement / Analysis of PPF 71.02-3 and 13.02

For more information regarding our methodology please visit www.BAL.net.au

We work all over Victoria and specialize in:

*Simplified Procedure for determining the **BAL - Method 1** and Detailed Method **Method 2** (Appendix B)*

*Bushfire Management Overlay (**BMO**) – Site, Vegetation and Hazard assessments*

*Bushfire Risk Assessments under **PPF 13.02***

***Experts' reports** for VCAT, the Building Appeals Board and Panel Hearings*

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Planning and Property Information

Approx. Land size: 9.7ha

PROPERTY DETAILS

Address: **14-40 WILLS STREET WARRAGUL 3820**
Lot and Plan Number: **Lot 1 LP134776**
Standard Parcel Identifier (SPI): **1\LP134776**
Local Government Area (Council): **BAW BAW**
Council Property Number: **17507**
Directory Reference: **Vicroads 704 E8**

www.bawbawshire.vic.gov.au

PLANNING INFORMATION

Planning Zone: [INDUSTRIAL 1 ZONE \(IN1Z\)](#)

[SCHEDULE TO THE INDUSTRIAL 1 ZONE \(IN1Z\)](#)

Planning Overlay: [DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY \(DCPO\)](#)

[DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY - SCHEDULE 1 \(DCPO1\)](#)

Areas of Aboriginal Cultural Heritage Sensitivity:

All or part of this property is an 'area of cultural heritage sensitivity'.

PROPERTY DETAILS

Address: **42-60 WILLS STREET WARRAGUL 3820**
Lot and Plan Number: **This property has 3 parcels. See table below**
Standard Parcel Identifier (SPI): **See table below**
Local Government Area (Council): **BAW BAW**
Council Property Number: **5404**
Directory Reference: **Vicroads 704 E8**

www.bawbawshire.vic.gov.au

	Lot/Plan or Crown Description	SPI
A	Lot 2 LP134776	2\LP134776
B	Lot 1 LP134777	1\LP134777
C	Lot 1 TP939243	1\TP939243

PLANNING INFORMATION

Planning Zone: [INDUSTRIAL 1 ZONE \(IN1Z\)](#)

[SCHEDULE TO THE INDUSTRIAL 1 ZONE \(IN1Z\)](#)

[URBAN FLOODWAY ZONE \(UFZ\)](#)

[SCHEDULE TO THE URBAN FLOODWAY ZONE \(UFZ\)](#)

Planning Overlay: [DESIGN AND DEVELOPMENT OVERLAY \(DDO\)](#)

[DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 8 \(DDO8\)](#)

[DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 9 \(DDO9\)](#)

[DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY \(DCPO\)](#)

[DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY - SCHEDULE 1 \(DCPO1\)](#)

[ENVIRONMENTAL SIGNIFICANCE OVERLAY \(ESO\)](#)

[ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 4 \(ESO4\)](#)

[FLOODWAY OVERLAY \(FO\)](#)

[FLOODWAY OVERLAY SCHEDULE \(FO\)](#)

[LAND SUBJECT TO INUNDATION OVERLAY \(LSIO\)](#)

[LAND SUBJECT TO INUNDATION OVERLAY SCHEDULE \(LSIO\)](#)

[SPECIFIC CONTROLS OVERLAY \(SCO\)](#)

[SPECIFIC CONTROLS OVERLAY - SCHEDULE 1 \(SCO1\)](#)

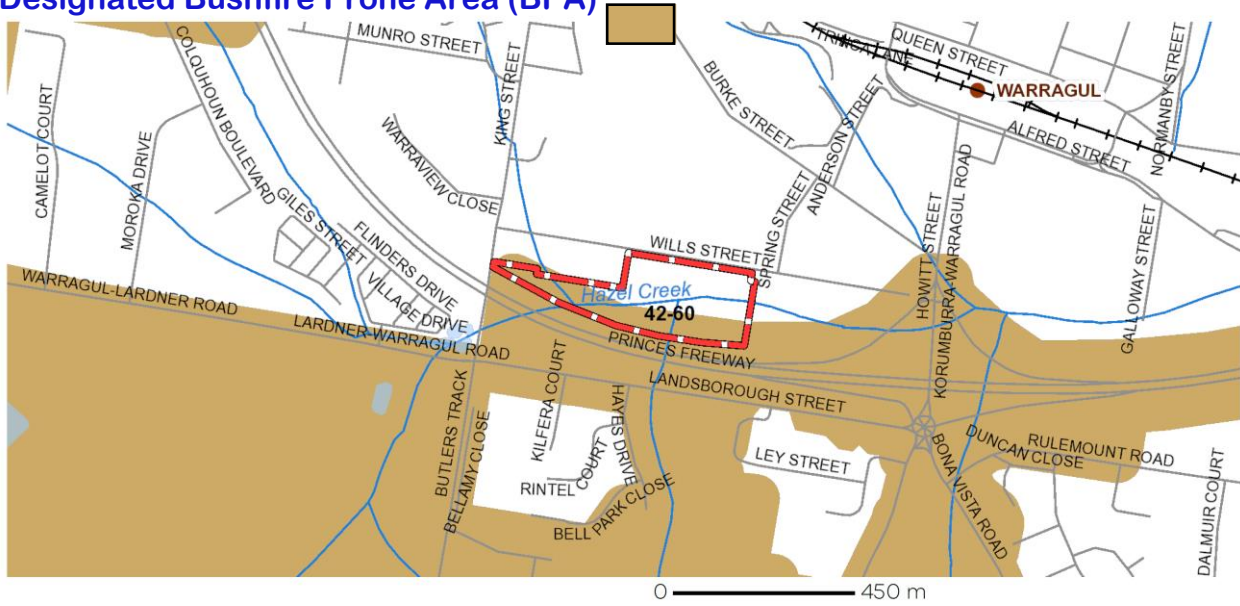
Areas of Aboriginal Cultural Heritage Sensitivity:

All or part of this property is an 'area of cultural heritage sensitivity'.

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

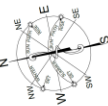
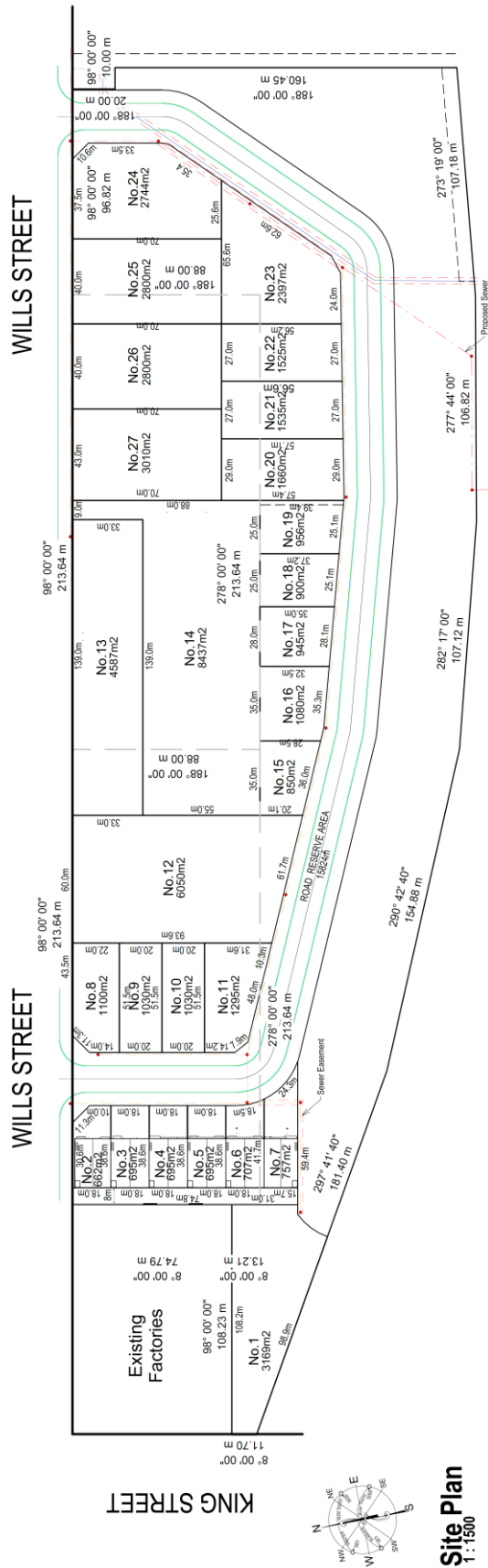
Planning and Property Information

Designated Bushfire Prone Area (BPA)



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

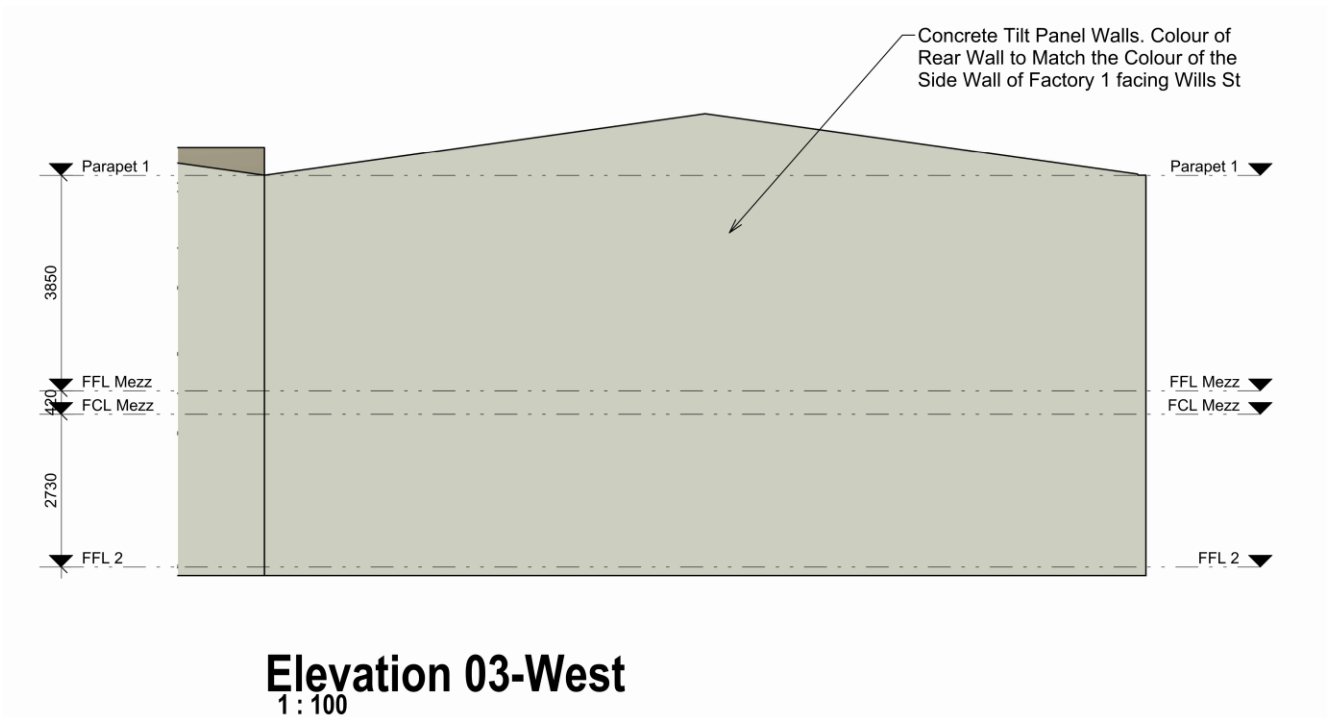
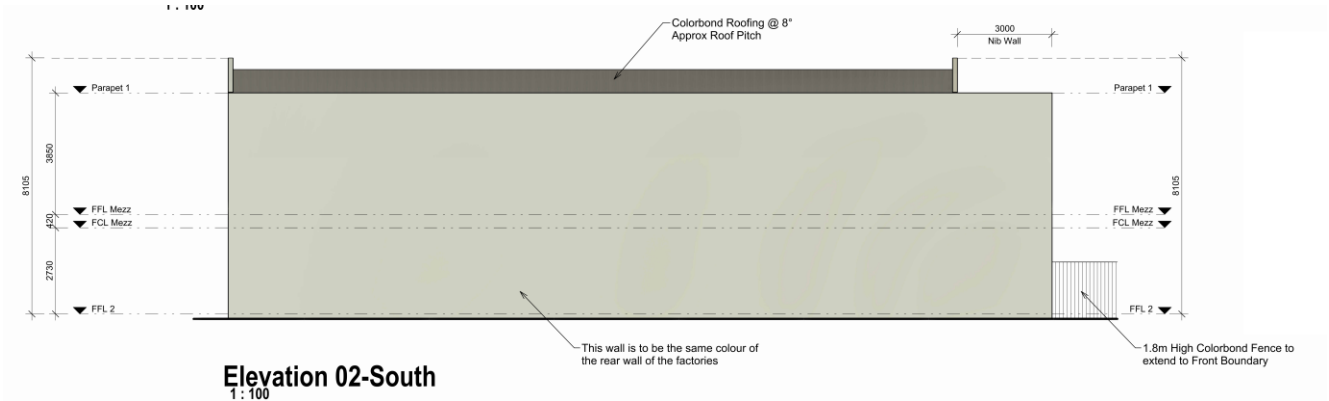
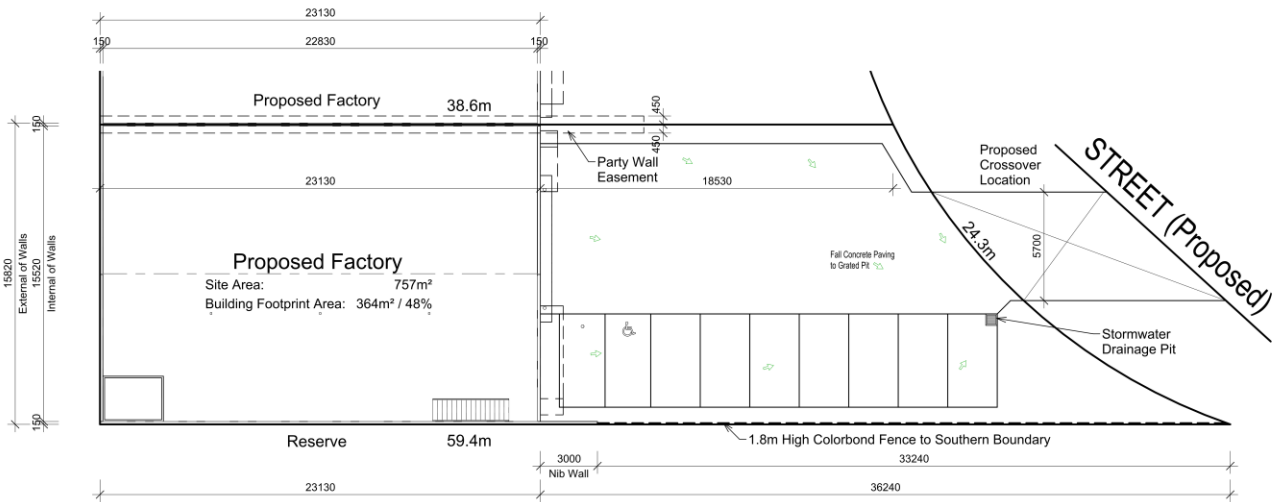
Overall Subdivision Master Plan



Site Plan
1:1500

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

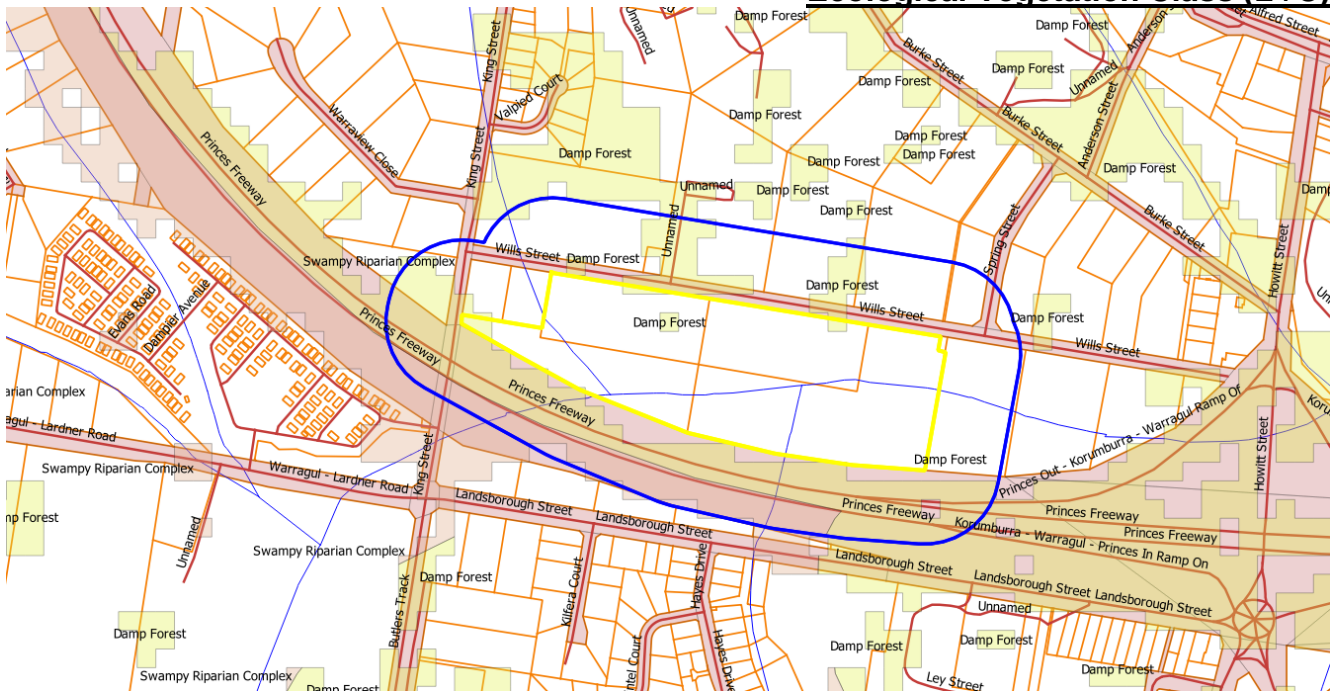
Subdivision Site Plans – Lot 7



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Maps

Ecological Vegetation Class (EVC)



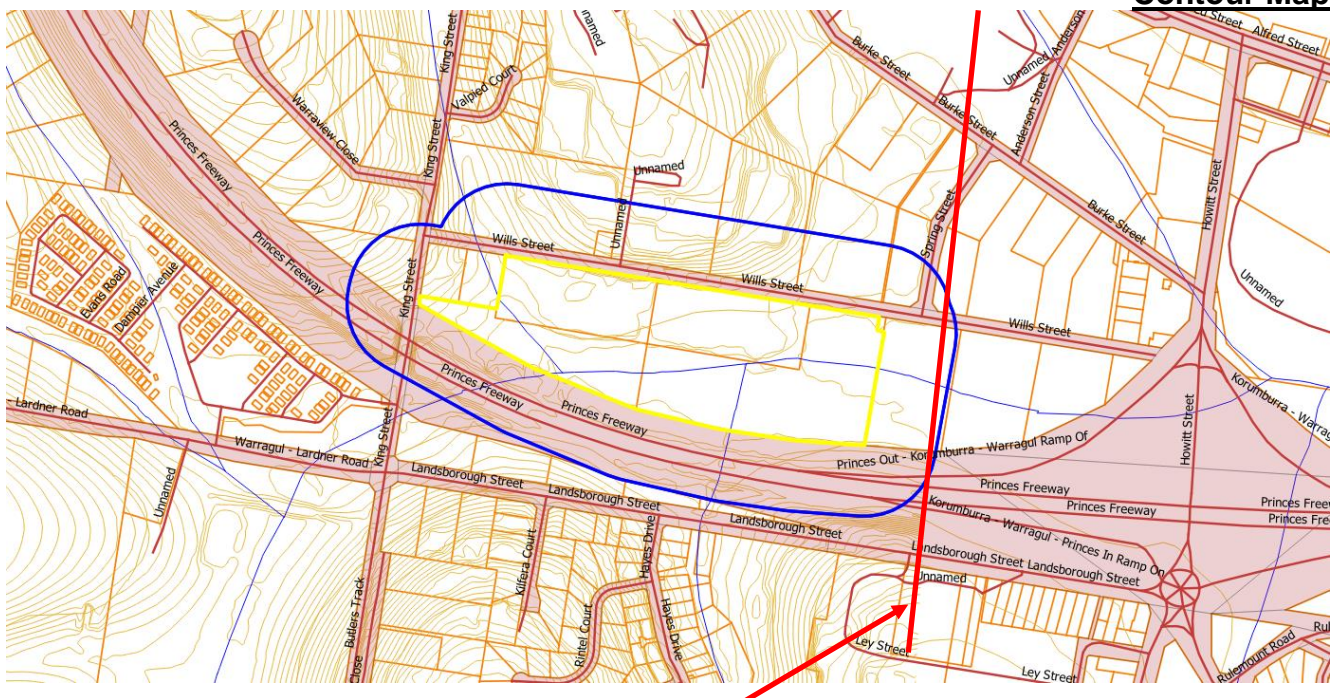
DF = EVC 29, Damp Forest (EVC Benchmarks: Trees to 30m ht, 40% canopy cover)

SRC = EVC 126, Swampy Riparian Complex

Predominant EVC, EVC 83: Swampy Riparian Woodland
(EVC Benchmarks: Trees to 15m ht, 20% canopy cover)

Note: there are the remnants of these EVC's left along the freeway verges however they are not in their natural state or fuel load. Some canopied vegetation exists across the road to the north however it is more park like in structure and fuel load.

Contour Map



1m contours up to this line

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Hazard Landscape Assessment

Neighbourhood Scale

1.5km



Landscape Scale

6km



It is considered that the fire risk from the wider landscape is no greater than that assumed by AS3959 and therefore adequately dealt with by the AS3959/VPP defensible space tables and building construction controls.

The main fire weather comes from the North-West followed by the South-West (*Long, M (2006) A climatology of extreme fire weather days in Victoria*). The existing settlements in to the north-west and the freeway to the south-west provide significant shielding enough to ameliorate any landscape fire and any risk can be credibly dealt with by the AS3959/VPP defensible space and building construction controls.

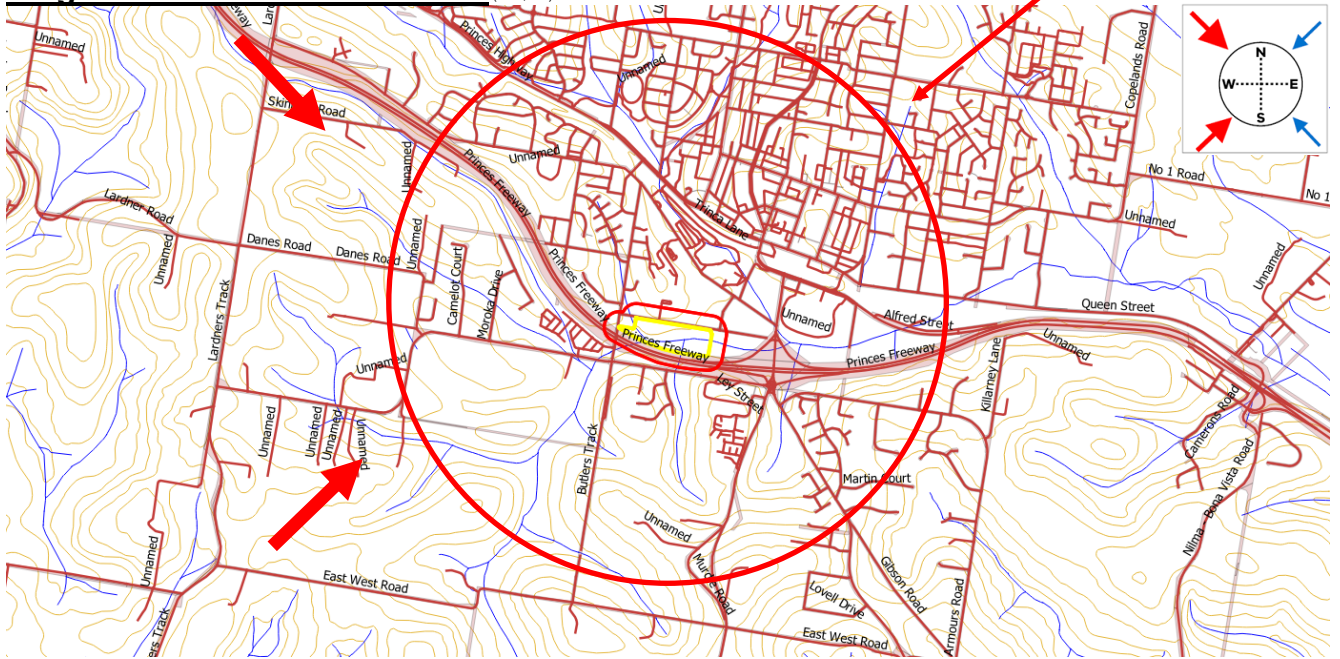
In accordance with the DELWP Technical Guide ([Planning Permit Applications Bushfire Management Overlay, September 2017](#)) we believe this site is situated in a "Broader Landscape Type 1" area. The bushfire risk to this site is not extreme and less than large parts of Victoria. With the required measures in place development is appropriate.

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

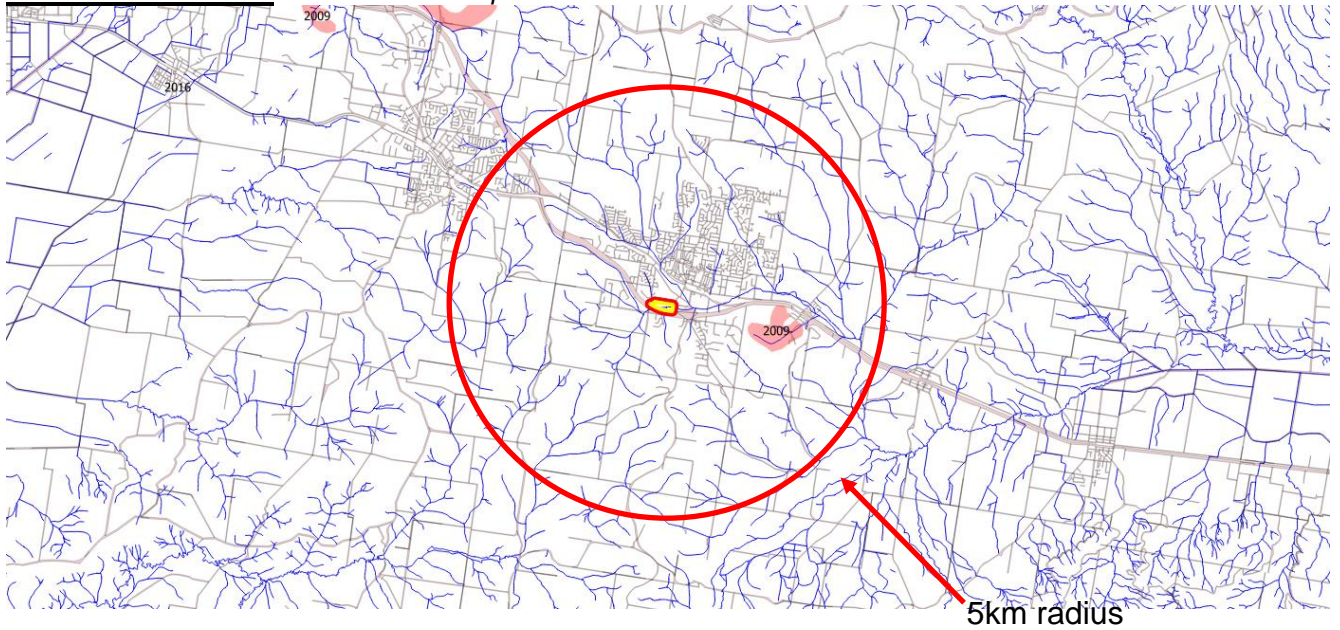
Bushfire Hazard Landscape Assessment

Neighbourhood Scale Contours (1:25,000)

2km radius circle

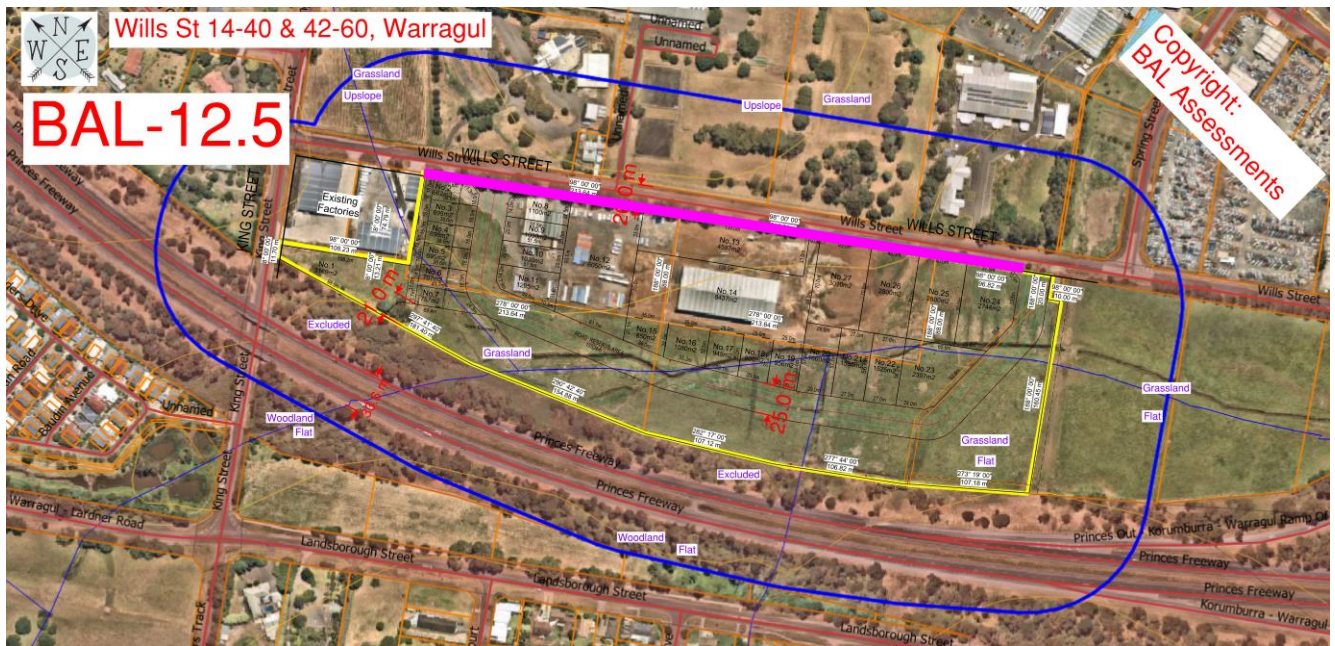


Fire disturbances = Bushfire 1970-present



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Hazard Site Assessment - **NORTH**



This section is bordered by a road of approximately 20 width for Wills Street followed by Grassland on an upslope. While the area has a few trees it is no more than is allowed for a Grassland. In any event the area is well maintained and is bordering on Low Threat in that it appears to be regularly slashed.

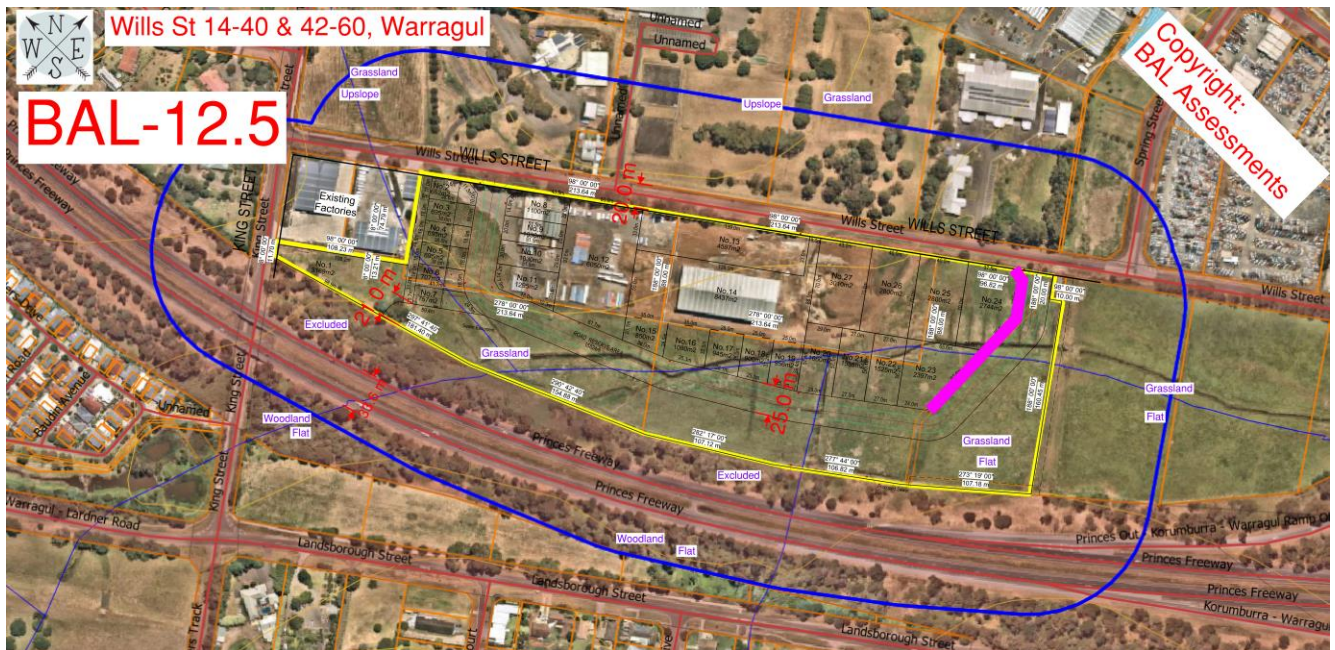
Wills St is sufficient defensible space, 19m required, for BAL-12.5 with Grassland on an upslope.

The following defensible space from this boundary of the development would be required:

BAL-12.5 = 0m

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Hazard Site Assessment – EAST



This section of the subdivision is bordered by the subdivision access road of 25m width followed by a small creek reserve which we have classified as Grassland. This is then followed by a grazed paddock which while currently fairly benign must be classified as Grassland.

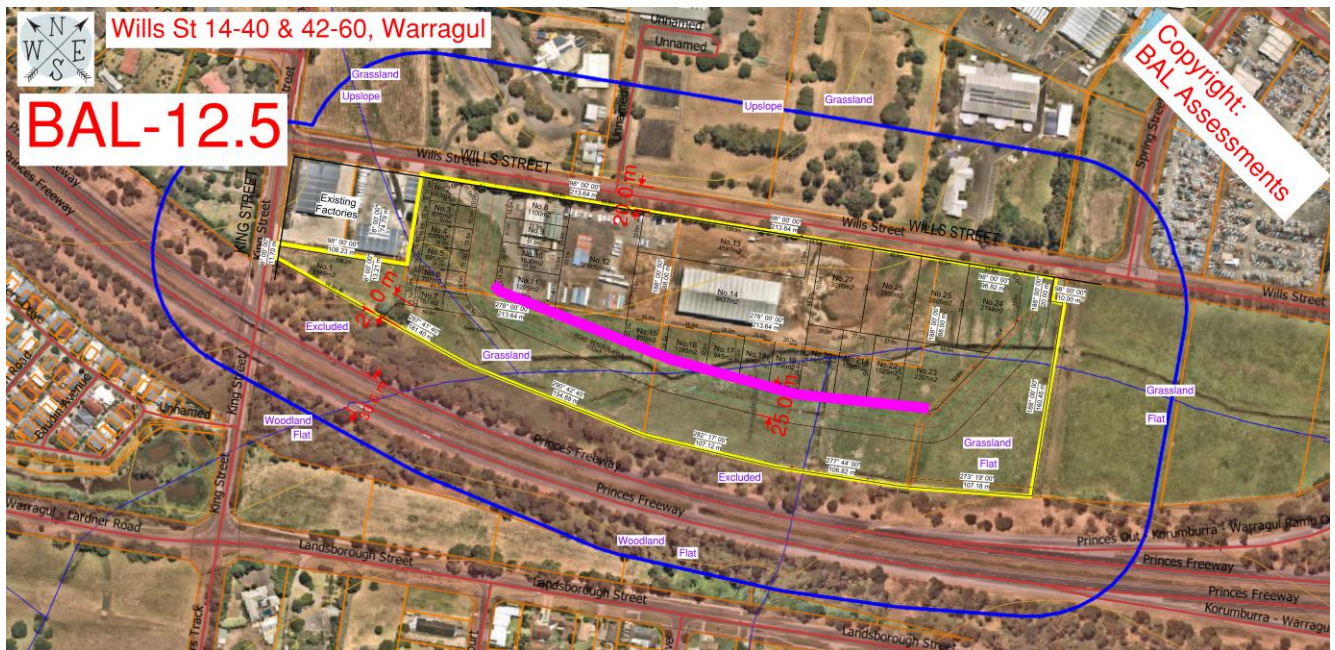
The subdivision access road is sufficient defensible space, 19m required, for Grassland on flat ground. Any small slope on the bank of the creek will not affect the rate of spread of any fire and is not the “effective” slope.

The following defensible space from the boundary of the Lots would be required:

BAL-12.5 = 0m

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Hazard Site Assessment – SOUTH



This section of the subdivision is bordered by the subdivision access road of 25m width followed by a small creek reserve which we have classified as Grassland. This is then followed by the freeway road reserve

The freeway road reserve is substantially degraded vegetation and while it once was made up of a lot of canopied vegetation it is now made up of a lot of areas of reeds and grasses.

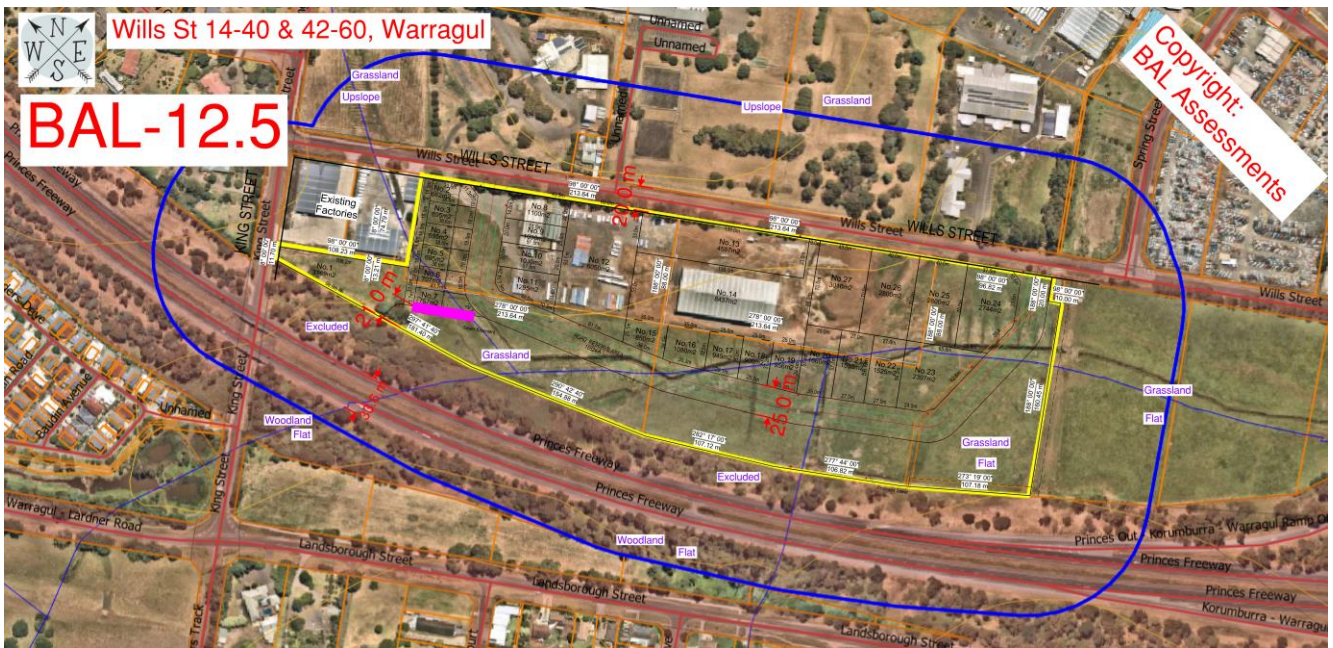
There is an exclusion in the BAL standard, AS3959, at Clause 2.2.3.2.d for strips of vegetation less than 20m in width and not within 20m of the site or within 20m of other classifiable vegetation. The vegetation along the freeway road reserve is greater than 20m from the closest lot and greater than 20m from other canopied vegetation being classified being the road reserve on the south side of the freeway which is larger in size. While the subject road reserve is in some places greater than 20m width and it does border the narrow stretch of the creek reserve Grassland we believe that a practical application of AS3959 would exclude this degraded vegetation which is what we have done.

The following defendable space from the boundary of the Lots would be required:

BAL-12.5 = 0m

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Hazard Site Assessment – SOUTH – West section



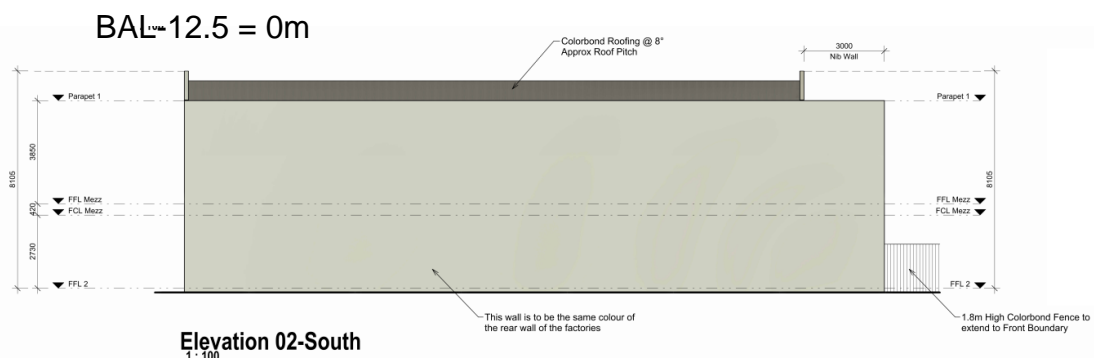
This section of the subdivision of which the southern lot is #7 is bordered initially by a small exposure to Grassland. This is then followed by the freeway road reserve

Instead of providing defendable space for Grassland, 19m required, the buildings will have a, minimum, 5m concrete wall that will extend 3m past the front of the building followed by a 1.8m ht Colorbond fence to the front boundary. This mix of concrete/Colorbond walling will act as a Radiant Heat Shield and in our professional opinion is sufficient to allow a BAL-12.5.

The freeway road reserve is substantially degraded vegetation and while it once was made up of a lot of canopied vegetation it is now made up of a lot of areas of reeds and grasses.

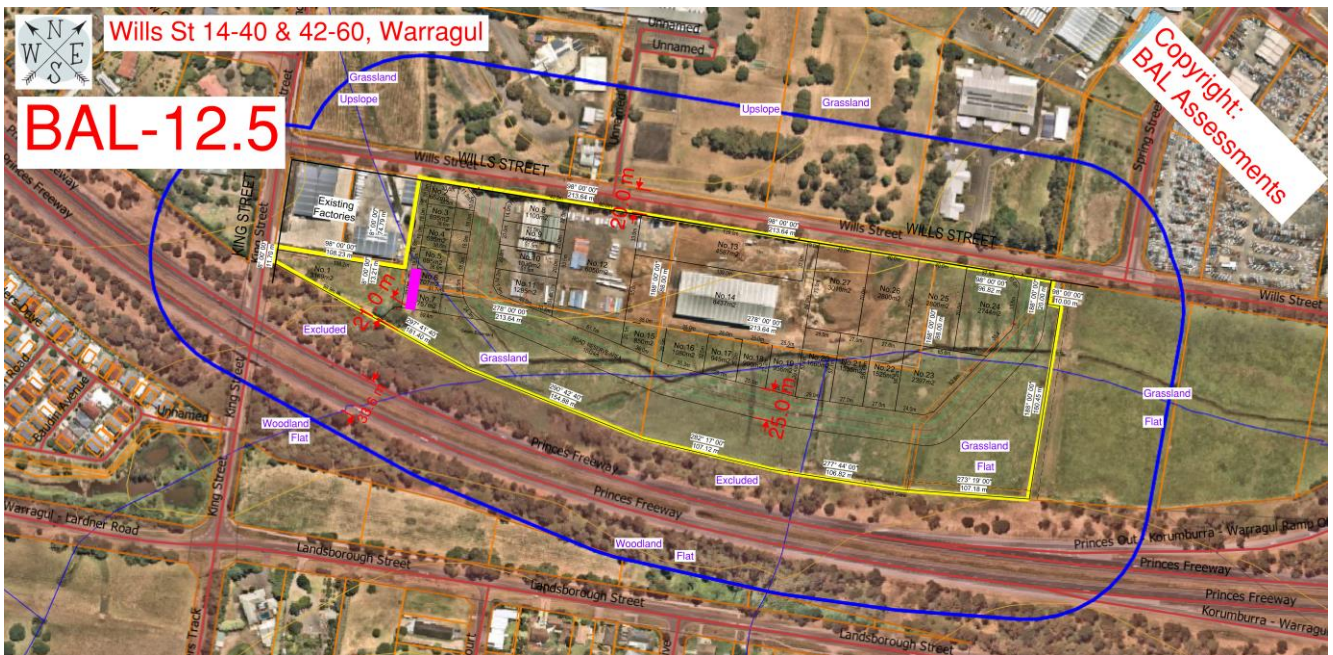
There is an exclusion in the BAL standard, AS3959, at Clause 2.2.3.2.d for strips of vegetation less than 20m in width and not within 20m of the site or within 20m of other classifiable vegetation. The vegetation along the freeway road reserve is greater than 20m from the closest lot and greater than 20m from other canopied vegetation being classified being the road reserve on the south side of the freeway which is larger in size. While the subject road reserve is in some places greater than 20m width and it does border the narrow stretch of the creek reserve Grassland we believe that a practical application of AS3959 would exclude this degraded vegetation which is what we have done.

The following defendable space from the boundary of the Lots would be required:



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Hazard Site Assessment – SOUTH-WEST



This section of the subdivision of which the exposure is lots # 6 and #7 is bordered initially by a small exposure to Grassland. This is then followed by the freeway road reserve

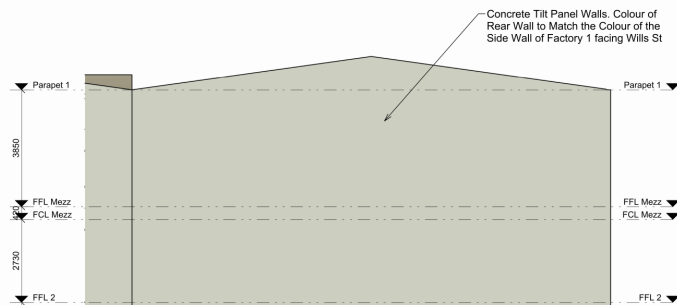
Instead of providing defendable space for Grassland, 19m required, the buildings will have a, minimum, 5m concrete wall. This concrete walling will act as a Radiant Heat Shield and in our professional opinion is sufficient to allow a BAL-12.5.

The freeway road reserve is substantially degraded vegetation and while it once was made up of a lot of canopied vegetation it is now made up of a lot of areas of reeds and grasses.

There is an exclusion in the BAL standard, AS3959, at Clause 2.2.3.2.d for strips of vegetation less than 20m in width and not within 20m of the site or within 20m of other classifiable vegetation. The vegetation along the freeway road reserve is greater than 20m from the closest lot and greater than 20m from other canopied vegetation being classified being the road reserve on the south side of the freeway which is larger in size. While the subject road reserve is in some places greater than 20m width and it does border the narrow stretch of the creek reserve Grassland we believe that a practical application of AS3959 would exclude this degraded vegetation which is what we have done.

The following defendable space from the boundary of the Lots would be required:

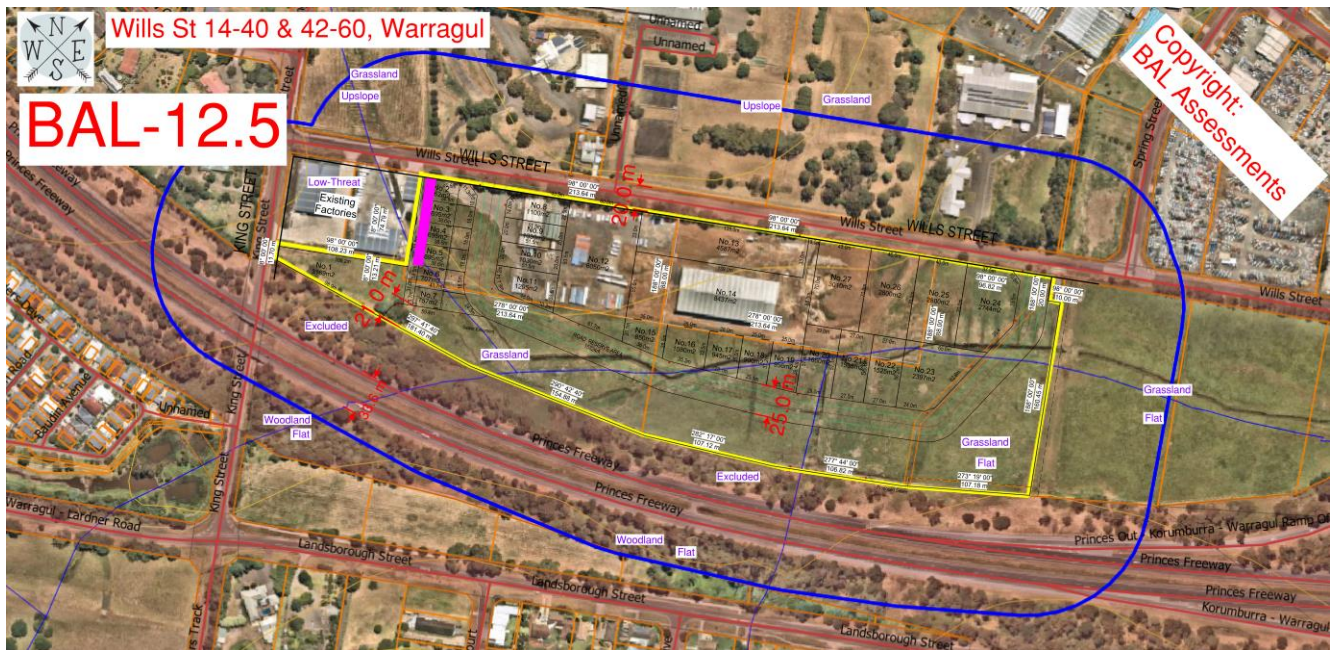
BAL-12.5 = 0m



Elevation 03-West
1:100

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Hazard Site Assessment - WEST



This section of the subdivision of which the exposure is lots #2 to #5 is borders by an adjoining Low-Threat existing factory site which provides sufficient defensible space for a BAL-12.5

The following defensible space from the boundary of the Lots would be required:

BAL-12.5 = 0m

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Defendable Space

Defendable space is a fuel reduced zone with restrictions on surface & elevated fuels ie vegetation as well as canopy cover.

Below is the vegetation management standard for this fuel reduced zone.

Defendable Space

Defendable space to a distance of {Refer Bushfire Hazard Site Assessments} metres around the proposed building(s) is provided and is managed in accordance with the following requirements:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- **The canopy of trees must be separated by at least 5 metres.**
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

Also take into account the following from AS3959-2018 *Construction of Buildings in Bushfire-prone Areas* (Standards Australia, 2018),

NOTE: Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm).

References:

CFA Recommendations for Defendable Space

https://www.cfa.vic.gov.au/documents/20143/69511/BMO-Individual-conditions-defendable_space-Oct-2017.pdf

and

Victorian Planning Provisions clause 53.02 Table 6

http://planning-schemes.delwp.vic.gov.au/schemes/vpps/53_02.pdf

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Photographs

≈ Whole site from East



≈ North boundary of proposed works



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Photographs

≈ North of proposed works



≈ North of proposed works



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Photographs

≈ North of proposed works



≈ East of proposed works



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Photographs

≈ East of proposed works



≈ South boundary of proposed works



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Photographs

≈ South of proposed works – far side of Freeway



≈ South boundary of proposed works



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Photographs

≈ South boundary of proposed works



≈ South boundary of proposed works



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Site Photographs

≈ South boundary of proposed works



≈ West of proposed works



Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Management Statement

Pursuant to the *Bushfire Management Overlay*; clause 53.02 of the Victorian Planning provisions requires that development is only permitted if the risk to life, property and community infrastructure can be reduced to an acceptable level. Clause 53.02 contains various Objectives, Approved Measure (AM), Alternative Measures (AltM) and Decisions Guidelines.

*It is noted that in relation to this assessment the relevant VPP defensible space table (Table 2) has been drawn from AS3959 and complies with AS3959.

The following table demonstrates how the requirements have been achieved and complied with:

REQUIREMENTS	COMPLIANCE
53.02-4 Bushfire Protection objectives	
53.02-4.1 Landscape, Siting and Design objectives	
<p>Development is appropriate having regard to the nature of the bushfire risk arising from the surrounding landscape.</p> <p>Development is sited to minimise the risk from bushfire.</p> <p>Development is sited to provide safe access for vehicles, including emergency vehicles. Building design minimises vulnerability to bushfire attack.</p>	<p><i>While this area is not in a Bushfire Management Overlay (BMO), which is reserved for high risk areas, the BMO conditions and requirements can be used for good first principles decision guidelines. A Bushfire Hazard Landscape Assessment, in accordance with the DELWP Technical Guide (Planning Permit Applications Bushfire Management Overlay) has been undertaken and enclosed herewith. Using this guide have rated the site as a Landscape Type 1 and according to the CFA guideline Applying the Bushfire Hazard Landscape Assessment in a Bushfire Management Overlay if we apply the Approved Measures of the Victorian Planning Provisions clause 53.02-4 then it should mitigate the risk from the wider landscape to an “acceptable level”.</i></p> <p><i>Compliance with AS3959, as required by PPF 13.02, shows the risk has been reduced to an acceptable level on a local scale.</i></p> <p><i>This application can successfully meet the Approved and/or Alternative Measures of the BMO VPP clause 53.02-4 and therefore we believe the risk is reduced both on a landscape scale and a local scale to an acceptable level.</i></p>
Approved Measure 2.1	
The bushfire risk to the development from the landscape beyond the site can be mitigated to an acceptable level.	<i>It is considered that the fire risk from the wider landscape is no greater than that assumed by AS3959 and therefore adequately dealt with by the *VPP defensible space tables.</i>
Approved Measure 2.2	
<p>A building is sited to ensure the site best achieves the following:</p> <ul style="list-style-type: none"> • The maximum separation distance between the building and the bushfire hazard. • The building is in close proximity to a public road. • Access can be provided to the building for emergency service vehicles. 	<p><i>The site does meet the Defensible Space setback requirements of the “BMO” when calculated with the relevant *VPP Table</i></p> <p><i>Alternative siting of the buildings would not improve fire protection.</i></p> <p><i>The buildings are all in close proximity to the subdivision roads where safe egress and access is easily available.</i></p> <p><i>This application will comply with the requirement as contained in Table 5 to Clause 53.02-5.</i></p>
Approved Measure 2.3	
A building is designed to be responsive to the landscape risk and reduce the impact of bushfire on the building.	<i>This will be dealt with at detailed design stage</i>

Bushfire Risk Assessment: Wills St 14-40 & 42-60, Warragul

Bushfire Management Statement

53.02-4.2 Defendable space and construction objectives	
Defendable space and building construction mitigate the effect of flame contact, radiant heat and embers on buildings	<i>As demonstrated below by the compliance with all applicable Approved Measures and/or Alternative Measure it has been shown that this development will reduce the Bushfire risk to an acceptable level.</i>
Approved Measure 3.1	
<p>A building used for a dwelling (including an extension or alteration to a dwelling), a dependant person's unit, industry, office or retail premises is provided with defendable space in accordance with:</p> <ul style="list-style-type: none"> • Table 2 Columns A, B or C and Table 6 to Clause 53.02-5 wholly within the title boundaries of the land; or • If there are significant siting constraints, Table 2 Column D and Table 6 to Clause 53.02-5. <p>The building is constructed to the bushfire attack level that corresponds to the defendable space provided in accordance with Table 2 to Clause 53.02-5.</p>	<p><i>The site does meet the Defendable Space setback requirements of the "BMO" when calculated with the relevant *VPP Table 2 Columns A and as detailed in the Bushfire Hazard Site Assessments.</i></p> <p><i>Not Applicable</i></p> <p><i>Defendable space will be provided for distances in accordance with *Table 2 Columns A and AS3959 and as detailed in the Bushfire Hazard Site Assessments.</i></p>
Approved Measure 3.2	
<p>A building used for accommodation (other than a dwelling or dependent person's unit), a child care centre, an education centre, a hospital, leisure and recreation or a place of assembly is:</p> <ul style="list-style-type: none"> • Provided with defendable space in accordance with Table 3 and Table 6 to Clause 53.02-5 wholly within the title boundaries of the land. • Constructed to a bushfire attack level of BAL12.5. 	<i>Not Applicable</i>
Alternative Measure 3.3	
Adjoining land may be included as defendable space where there is a reasonable assurance that the land will remain or continue to be managed in that condition as part of the defendable space.	<i>Not Applicable</i>
Alternative Measure 3.4	
Defendable space and the bushfire attack level is determined using Method 2 of AS3959:2009* Construction of buildings in bushfire prone areas (Standards Australia) subject to any guidance published by the relevant fire authority. *(superseded by 2018 edition)	<i>Not Applicable</i>

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Alternative Measure 3.5	
<p>A building used for a dwelling (including an extension or alteration to a dwelling) may provide defensible space to the property boundary where it can be demonstrated that:</p> <ul style="list-style-type: none"> • The lot has access to urban, township or other areas where: <ul style="list-style-type: none"> ▪ Protection can be provided from the impact of extreme bushfire behaviour. ▪ Fuel is managed in a minimum fuel condition. ▪ There is sufficient distance or shielding to protect people from direct flame contact or harmful levels of radiant heat. • Less defensible space and a higher construction standard is appropriate having regard to the bushfire hazard landscape assessment. • The dwelling is constructed to a bushfire attack level of BAL FZ. <p>This alternative measure only applies where the requirements of AM 3.1 cannot be met.</p>	<p><i>Not Applicable</i></p>
Alternative Measure 3.6	
<p>A building used for accommodation (other than a dwelling or dependent person's unit), child care centre, education centre, hospital, leisure and recreation or place of assembly may provide defensible space in accordance with Table 2 Columns A, B or C and Table 6 to Clause 53.02-5 where it can be demonstrated that:</p> <ul style="list-style-type: none"> • An integrated approach to risk management has been adopted that considers: <ul style="list-style-type: none"> ▪ The characteristics of the likely future occupants including their age, mobility and capacity to evacuate during a bushfire emergency. ▪ The intended frequency and nature of occupation. ▪ The effectiveness of proposed emergency management arrangements, including a mechanism to secure implementation. • Less defensible space and a higher construction standard is appropriate having regard to the bushfire hazard landscape assessment. 	<p><i>Not Applicable</i></p>
Other unspecified Alternative Measures	
	<p><i>Not Applicable</i></p>

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53.02-4.3 Water supply and access objectives	
<p>A static water supply is provided to assist in protecting property.</p> <p>Vehicle access is designed and constructed to enhance safety in the event of a bushfire.</p>	<p><i>As demonstrated below by the compliance with all applicable Approved Measures and/or Alternative Measure it has been shown that this development will reduce the Bushfire risk to an acceptable level.</i></p>
Approved Measure 4.1	
<p>A building used for a dwelling (including an extension or alteration to a dwelling), a dependant person's unit, industry, office or retail premises is provided with:</p> <ul style="list-style-type: none"> • A static water supply for firefighting and property protection purposes specified in Table 4 to Clause 53.02-5. • Vehicle access that is designed and constructed as specified in Table 5 to Clause 53.02-5. <p>The water supply may be in the same tank as other water supplies provided that a separate outlet is reserved for firefighting water supplies.</p>	<p><i>This requirement is not required when not is a BMO and Hydrants will be provided in accordance with CFA requirements:</i> https://www.cfa.vic.gov.au/plan-prepare/subdivision <i>This application will comply with the requirement as contained in Table 5 to Clause 53.02-5 to the extent relevant, refer also:</i> https://www.cfa.vic.gov.au/plan-prepare/subdivision</p>
Approved Measure 4.2	
<p>A building used for accommodation (other than a dwelling or dependent person's unit), child care centre, education centre, hospital, leisure and recreation or place of assembly is provided with:</p> <ul style="list-style-type: none"> • A static water supply for firefighting and property protection purposes of 10,000 litres per 1,500 square metres of floor space up to 40,000 litres. • Vehicle access that is designed and constructed as specified in Table 5 to Clause 53.02-5. • An integrated approach to risk management that ensures the water supply and access arrangements will be effective based on the characteristics of the likely future occupants including their age, mobility and capacity to evacuate during a bushfire emergency. <p>The water supply may be in the same tank as other water supplies provided that a separate outlet is reserved for firefighting water supplies.</p>	<p><i>Not Applicable</i></p>
Other unspecified Alternative Measures	
	<p><i>Not Applicable</i></p>

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Operation of the Planning Policy Framework (PPF) clause 71.02-3 and in more detail in PPF clause 13.02 of the Victorian Planning provisions requires that planning authorities and responsible authorities must prioritise the protection of human life over all other policy considerations

The following table demonstrates how the requirements have been achieved and complied with:

REQUIREMENTS	COMPLIANCE
71.02-3 Integrated decision making	
..... However in bushfire affected areas, planning authorities and responsible authorities must prioritise the protection of human life over all other policy considerations	<i>As demonstrated by the compliance with all applicable measures, principally defendable space and the BAL building construction controls, it can be shown that this development will reduce the Bushfire risk to an acceptable level.</i>
13.02-1S Bushfire planning	
Policy Application	
This policy must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land that is: <ul style="list-style-type: none"> • Within a designated bushfire prone area; • Subject to a Bushfire Management Overlay; or • Proposed to be used or developed in a way that may create a bushfire hazard 	<p><i>The site is within a designated bushfire prone area</i></p> <p><i>The site is not subject to a Bushfire Management Overlay (BMO) either totally or partially</i></p> <p><i>With the site developed this will reduce the grassfire hazard in the area.</i></p>
Objective	
To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.	<i>As demonstrated by the compliance with all applicable measures, principally defendable space and the BAL building construction controls, it can be shown that this development will reduce the Bushfire risk to an acceptable level.</i>
Strategies	
Protection of human life	
Give priority to the protection of human life by: <ul style="list-style-type: none"> • Prioritising the protection of human life over all other policy considerations. • Directing population growth and development to low-risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire. • Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision-making at all stages of the planning process. 	<p><i>As demonstrated by the compliance with all applicable measures, principally defendable space and the BAL building construction controls, it can be shown that this development will reduce the Bushfire risk to an acceptable level.</i></p> <p><i>The site is assessed as being safe for access and egress to BAL-Low areas, refer to the Bushfire Hazard Landscape Assessment enclosed herewith.</i></p> <p><i>Through the ongoing maintenance of the appropriate defendable space and building construction controls in accordance with AS3959 the subject site should be suitable for shelter in place.</i></p> <p><i>However, in accordance with CFA advice a policy of “leave early” is always recommended.</i></p> <p><i>Through the application of the appropriate defendable space and building construction controls in accordance with AS3959 the bushfire risk will be reduced to an acceptable level</i></p>

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Bushfire hazard identification and assessment	
<p>Identify bushfire hazard and undertake appropriate risk assessment by:</p> <ul style="list-style-type: none"> • Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard. • Considering the best available information about bushfire hazard including the map of designated bushfire prone areas prepared under the Building Act 1993 or regulations made under that Act. • Applying the Bushfire Management Overlay to areas where the extent of vegetation can create an extreme bushfire hazard. • Considering and assessing the bushfire hazard on the basis of: <ul style="list-style-type: none"> ▪ Landscape conditions - meaning conditions in the landscape within 20 kilometres and potentially up to 75 kilometres of a site; ▪ Local conditions - meaning conditions in the area within approximately 1 kilometre of a site; ▪ Neighbourhood conditions - meaning conditions in the area within 400 metres of a site; and, ▪ The site for the development. • Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures. • Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures. • Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented. 	<p><i>The application of AS3959, aided by the CFA publication Vegetation-Classes-Victorian-Bushfire-Management-Overlay, onsite assessments and measurements, available vegetation and contour mapping and the application of a severe fire weather index, known as a Fire Danger Index (FDI), of 100 in accordance with AS3959 adequately satisfies this requirement.</i></p> <p><i>The site is in a designated Bushfire Prone Area which requires the application of AS3959 and this has been undertaken as described elsewhere in the Bushfire Risk Assessment, in particular in the Bushfire Hazard Site Assessments enclosed herewith.</i></p> <p><i>The site is not subject to a Bushfire Management Overlay (BMO) either totally or in part and is not subject to the threat of extreme fire behaviour that would warrant the site being included in the future.</i></p> <p><i>A Bushfire Hazard Landscape Assessment has been undertaken, and enclosed herewith, in accordance with the DELWP Technical Guide.</i></p> <p><i>Landscape conditions have been assessed in the Bushfire Hazard Landscape Assessment enclosed herewith.</i></p> <p><i>Local conditions have been assessed in the Bushfire Hazard Site Assessments enclosed herewith and in the Bushfire Hazard Landscape Assessment enclosed herewith.</i></p> <p><i>Neighbourhood conditions have been assessed in the Bushfire Hazard Landscape Assessment enclosed herewith.</i></p> <p><i>The site has been assessed in the Bushfire Risk Assessment</i></p> <p><i>In informal discussions about a range of issues CFA advise that, if required, this discussion is to take place between council and the CFA after a consultants' report has been received.</i></p> <p><i>The bushfire risk to this site has been assessed and appropriate bushfire protection measures and building controls are outlined in the Bushfire Risk Assessment, in particular in the Bushfire Hazard Site Assessments enclosed herewith, and with the required measures, in particular the application of defensible space, in place development is appropriate.</i></p> <p><i>As demonstrated by the compliance with all applicable measures it can be shown that this development has reduced the Bushfire risk to an acceptable level. The bushfire risk to this site has been assessed and appropriate bushfire protection measures and building controls are outline elsewhere in the Bushfire Risk Assessment, in particular in the Bushfire Hazard Site Assessments, and with the required measures in place development is appropriate.</i></p>

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Settlement planning	
<p>Plan to strengthen the resilience of settlements and communities and prioritise protection of human life by:</p> <ul style="list-style-type: none"> • Directing population growth and development to low-risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metre under AS 3959-2009* Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009*). .*{superseded by 2018 edition} • Ensuring the availability of, and safe access to, areas assessed as a BAL-LOW rating under AS 3959-2009* Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009*) where human life can be better protected from the effects of bushfire. .*{superseded by 2018 edition} • Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development. • Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection measures and where possible reducing bushfire risk overall. • Assessing and addressing the bushfire hazard posed to the settlement and the likely bushfire behaviour it will produce at a landscape, settlement, local, neighbourhood and site scale, including the potential for neighbourhood-scale destruction. • Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighbourhood basis. • Not approving any strategic planning document, local planning policy, or planning scheme amendment that will result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL-12.5 rating under AS 3959-2009* Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009) 	<p><i>In accordance with Planning Advisory Note 68 (March 2018) the application that is the subject of this review is of a "Settlement Planning" nature.</i></p> <p><i>Bushfire Hazard Site Assessments in accordance with AS3959 and the Bushfire Management Overlay VPP clauses 44.06 and 53.02 have been undertaken, and enclosed herewith, for this application and the resulting building areas of the site can achieve a radiant heat flux of less than 12.5 kilowatts/square metre (viz. BAL-12.5).</i></p> <p><i>A BAL-Low area is basically an area where there is no "classifiable" bushfire hazard vegetation, in accordance with AS3959, within 100m under AS3959.</i></p> <p><i>Safe egress is available to suitable BAL-Low shelter in place areas within the adjacent built up residential areas.</i></p> <p><i>With the site managed for defensible space this development will reduce the bushfire hazard in the area.</i></p> <p><i>With the site managed for defensible space this development will reduce the bushfire hazard in the area.</i></p> <p><i>A Bushfire Hazard Landscape Assessment, in accordance with the DELWP Technical Guide, has been undertaken, and enclosed herewith, and with the required measures in place development is appropriate and will reduce the bushfire hazard in the area.</i></p> <p><i>With the required measures in place development on this site is appropriate.</i></p> <p><i>Bushfire Hazard Site Assessments in accordance with AS3959 and the Bushfire Management Overlay VPP clause 53.02-4 have been undertaken, and enclosed herewith, for this application and the resulting building areas of the site can achieve a BAL-12.5 rating.</i></p>

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Areas of biodiversity conservation value	
Ensure settlement growth and development approvals can implement bushfire protection measures without unacceptable biodiversity impacts by discouraging settlement growth and development in bushfire affected areas that are important areas of biodiversity.	<i>The development can successfully implement the required bushfire protection measures however the biodiversity impacts are outside the scope of this Bushfire analysis and is to be dealt with by others if required. Although it does not take any specific expertise to see that the subject site is currently a grassed paddock.</i>
Use and development control in a Bushfire Prone Area	
<p>In a bushfire prone area designated in accordance with regulations made under the Building Act 1993, bushfire risk should be considered when assessing planning applications for the following uses and development:</p> <ul style="list-style-type: none"> • Subdivisions of more than 10 lots. • Accommodation. • Child care centre. • Education centre. • Emergency services facility. • Hospital. • Indoor recreation facility. • Major sports and recreation facility. • Place of assembly. • Any application for development that will result in people congregating in large numbers. <p>When assessing a planning permit application for the above uses and development:</p> <ul style="list-style-type: none"> • Consider the risk of bushfire to people, property and community infrastructure. • Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk. • Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts. 	<p><i>As demonstrated by the compliance with all applicable measures it can be shown that this development will reduce the Bushfire risk to an acceptable level.</i></p> <p><i>This application includes one or more of the nominated triggers.</i></p> <p><i>As demonstrated by the compliance with all applicable measures it can be shown that this development will reduce the Bushfire risk to an acceptable level.</i></p> <p><i>The application of the identified defendable space and building construction controls in accordance with AS3959 ?? and the Bushfire Management Overlay VPP clause 53.02-4 has addressed the identified bushfire risk</i></p> <p><i>The development can successfully implement the required bushfire protection measures however the biodiversity impacts are outside the scope of this Bushfire analysis and is to be dealt with by others if required. Although it does not take any specific expertise to see that the subject site is currently a grassed paddock.</i></p>
Policy guidelines	
<p>Consider as relevant:</p> <ul style="list-style-type: none"> • Any applicable approved state, regional and municipal fire prevention plan. 	<p><i>Apart from a brief reference to Fire Prevention Notices in the Municipal Emergency Management Plan no other plans of relevance to this site have been identified.</i></p>

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Policy documents	
<p>Consider as relevant:</p> <ul style="list-style-type: none">• Any applicable approved state, regional and municipal fire prevention plan.• AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009). .*{superseded by 2018 edition}• Building in bushfire-prone areas - CSIRO & Standards Australia (SAA HB36- 1993, 1993).• Any bushfire prone area map prepared under the Building Act 1993 or regulations made under that Act.	<p><i>Apart from a brief reference to Fire Prevention Notices in the Municipal Emergency Management Plan no other plans of relevance to this site have been identified.</i></p> <p><i>Bushfire Hazard Site Assessments have been conducted in accordance with AS3959 and are enclosed herewith</i></p> <p><i>This handbook is somewhat outdated since the subsequent publication of the new edition of AS3959 in 2009 and 2018 however to the extent it is relevant this application complies</i></p> <p><i>The site is in a designated Bushfire Prone Area which requires the application of AS3959 and that has been undertaken as described elsewhere in the Bushfire Risk Assessment.</i></p>

AS3959 Note:

PPF13.02 references the 2009 edition of AS3959. The 2018 edition of this standard has now been published. On 1 July 2020, National Construction Code (NCC) 2019 Amendment 1 was adopted. NCC 2019 has adopted the current 2018 edition of AS3959.

We have applied the 2018 version of AS3959 but for the purposes of this Bushfire Risk Assessment there are no material differences in the assessment methods between the two editions, in particular there were no changes to the defendable space distances.