REVISIONS

Rev. #	Date	Drawn	Description
A	08.10.24	CML	IFA

PROJECT CLIENT: LANSELL HOMES

ADDRESS: SANCTUARY GARDENS

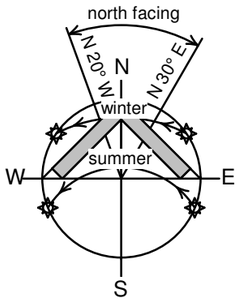
PROJECT: BAL ASSESSMENT

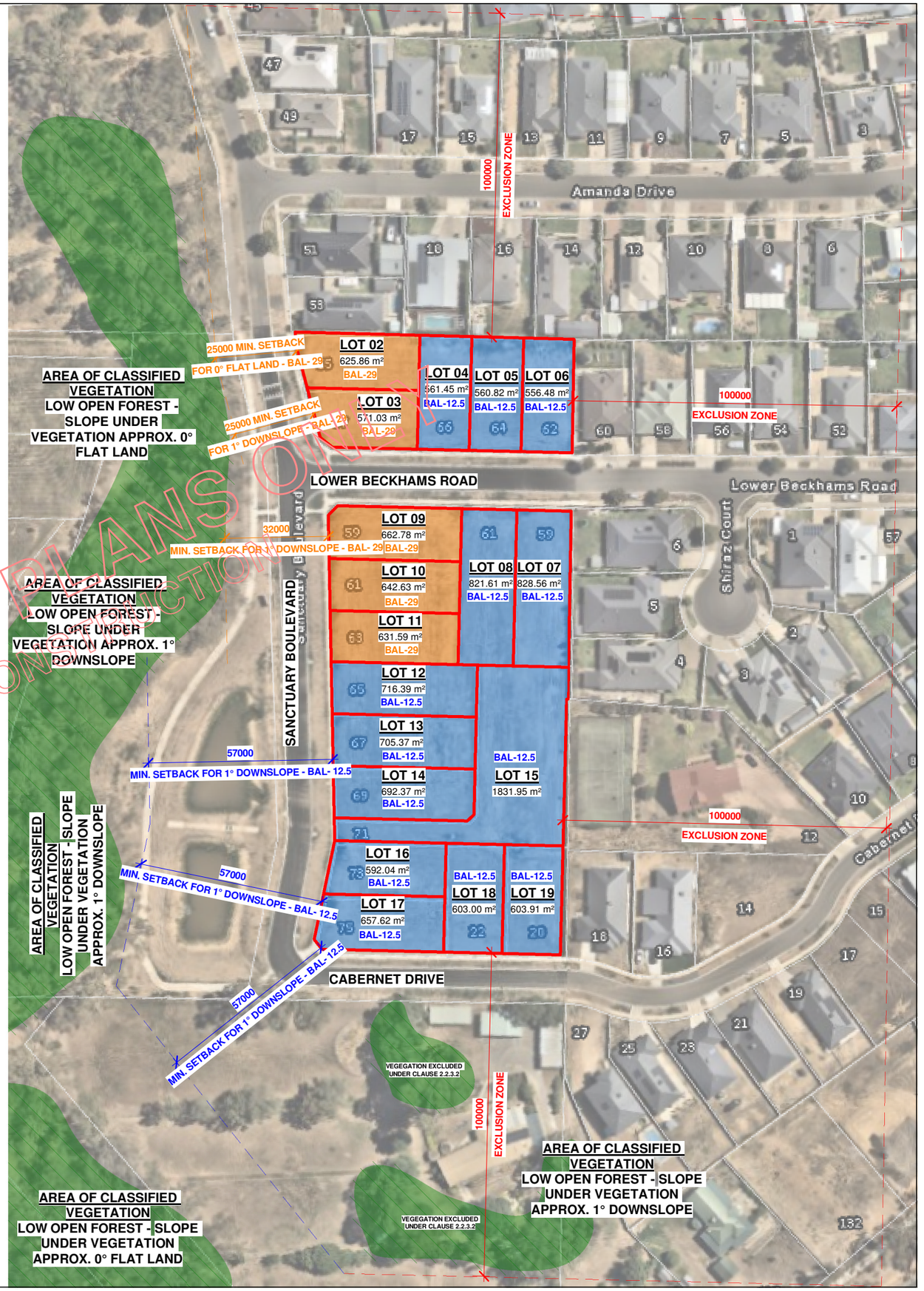
PROJECT NUMBER:	DMC - LH026 - 09-24
DATE:	08.10.2024
ISSUE NUMBER:	IFA
DRAWN BY:	CML
APPROVED BY:	DMC

SHEET NAME:
BAL ASSESSMENT

SCALE:	1 : 1400
DRAWING NO:	A401

PRELIMINARY PLANS
NOT FOR CONSTRUCTION OR TOWN PLANNING SUBMISSIONS





DMC Drafting & Design
Unit 7/4 Schoder Street, Strathdale
Ph: 03 5443 5328
ABN: 33 662 688 119

1 BAL ASSESSMENT
1 : 1400

VICTORIAN BUILDING AUTHORITY
BUILDING CONFIDENCE

Bushfire Attack Level Assessment Report

(As per AS 3959–2018)

Property Details

Applicants Name: CHLOE LAUBSCH - DMC DRAFTING & DESIGN

Contact Phone Number (H): 5443 5328 (M): N/A

Municipality GREATER BENDIGO Lot: LOT 07, 08, 12, 13, 14, 16, 17, 18, 19

Address: SANCTUARY GARDENS ESTATE

Type of building work

New Class 1a building	X
New Class 1b building	
New Class 10a building	
New Class 2 building	
New Class 3 building	
Alteration/Additions to an existing building	

Description of building work: e.g. single dwelling with attached garage

VACANT LOTS SUBJECT TO A PROPOSED SINGLE DWELLING WITH ATTACHED GARAGE IN FUTURE

Note:

Class 1a
- a single dwelling being— a detached house; or
- one of a group of two or more attached dwellings, each being a building, separated by a fire-resisting wall, including a row house, terrace house, town house or villa unit.

Class 1b
- a boarding house, guest house, hostel or the like— with a total area of all floors not exceeding 300 m2 measured over the enclosing walls of the Class 1b; and in which not more than 12 persons would ordinarily be resident; or
- 4 or more single dwellings located on one allotment and used for short-term holiday accommodation, which are not located above or below another dwelling or another Class of building other than a private garage.

Class 10a
- a non-habitable building being a private garage, carport, shed, or the like.

Class 2
- a building containing 2 or more sole-occupancy units, each being a separate dwelling.

Class 3
- a residential building, other than a building of Class 1 or 2, which is a common place of long term or transient living for a number of unrelated persons, including— a boarding-house, guest house, hostel, lodging-house or backpackers accommodation; or
- a residential part of a hotel or motel; or
- a residential part of a school; or
- accommodation for the aged, children or people with disabilities; or
- a residential part of a health-care building which accommodates members of staff; or
- a residential part of a detention centre.

Bush Fire Attack Level (BAL)

Step 1: Relevant fire danger index

(Refer to clause 2.2.2)

FDI 50		Victorian alpine area
FDI 100	X	Victoria general – excluding alpine area

Step 2: Assess the vegetation types within 100m in all directions

Tick relevant group & type of vegetation

(Refer to table 2.3)

Vegetation classification	North	South	East	West
Group A Forest	Tall open forest Tall woodland Open forest Low open forest Pine plantation	Tall open forest Tall woodland Open forest X Low open forest Pine plantation	Tall open forest Tall woodland Open forest Low open forest Pine plantation	Tall open forest Tall woodland Open forest X Low open forest Pine plantation
Group B Woodland	Woodland Low woodland	Woodland Low woodland	Woodland Low woodland	Woodland Low woodland
Group C Shrub-land	Closed (low) heath Open heath Low shrub-land	Closed (low) heath Open heath Low shrub-land	Closed (low) heath Open heath Low shrub-land	Closed (low) heath Open heath Low shrub-land
Group D Scrub	Closed scrub (Tall Heaths) Open scrub	Closed scrub (Tall Heaths) Open scrub	Closed scrub (Tall Heaths) Open scrub	Closed scrub (Tall Heaths) Open scrub
Group E Mallee/Mulga	Tall shrubland	Tall shrubland	Tall shrubland	Tall shrubland
Group F Rainforest	Tall closed forest Closed forest Low closed forest	Tall closed forest Closed forest Low closed forest	Tall closed forest Closed forest Low closed forest	Tall closed forest Closed forest Low closed forest
Group G Grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland

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A	08.10.24	CML	IFA

PROJECT CLIENT: LANSELL HOMES
ADDRESS: SANCTUARY GARDENS
PROJECT: BAL ASSESSMENT

PROJECT NUMBER: DMC - LH026 - 09-24

DATE:	08.10.2024
ISSUE NUMBER:	IFA
DRAWN BY:	CML
APPROVED BY:	DMC

SHEET NAME: BAL REPORT
SCALE:
DRAWING NO: A402

CLAUSE 2.2.3.2 - EXCLUSIONS - LOW THREAT VEGETATION AND NON-VEGETATED AREAS.

(a) Vegetation of any type that is more than 100m from the site.

(b) Single areas of vegetation less than 1 hectares in area and note within 100m of other areas of vegetation being classified vegetation.

(c) Multiple areas of vegetation less than 0.25 hectares in area and not within 20m of the site, or each other or other areas of vegetation being classified vegetation.

(d) Strips of vegetation less than 20m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or each other, or other areas of vegetation being classified vegetation.

(e) Non-vegetated area, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.

(f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves, and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.

Notes:

1) Minimal fuel conditions mean 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 100mm).

2) A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.

	☐ Open tussock ☐ Sparse open tussock ☐ Dense sown pasture ☐ Sown Pasture ☐ Open herbfield ☐ Sparse open herbfield	☐ Open tussock ☐ Sparse open tussock ☐ Dense sown pasture ☐ Sown Pasture ☐ Open herbfield ☐ Sparse open herbfield	☐ Open tussock ☐ Sparse open tussock ☐ Dense sown pasture ☐ Sown Pasture ☐ Open herbfield ☐ Sparse open herbfield	☐ Open tussock ☐ Sparse open tussock ☐ Dense sown pasture ☐ Sown Pasture ☐ Open herbfield ☐ Sparse open herbfield
Group H Tussock Moorland	☐ Tussock Moorland	☐ Tussock Moorland	☐ Tussock Moorland	☐ Tussock Moorland
Exclusions	**North**	**South**	**East**	**West**
Insert relevant paragraph descriptor from clause 2.2.3.2. i.e.(b), (c), (d), (e) or (f)	2.2.3.2(a)	2.2.3.2(c)(d)	2.2.3.2(a)	2.2.3.2(a)

Step 3: Distance of the site from classified vegetation

(Refer to clause 2.2.4)

Distance from each vegetation type	North	South	East	West
	100m+	LOT 17 - 57m	100m+	LOT 12, 13, 14, 15, 16, 17 - 57m
		REMAINDER - 100m+		REMAINDER - 100m+

Step 4: Determine the effective slope of land under the classified vegetation

(Refer to Figure 2.3)

Effective slopes	North	South	East	West
Slope under the classified vegetation	☒ Upslope/0°	☒ Upslope/0°	☒ Upslope/0°	☒ Upslope/0°
	Downslope			
	☐ >0° to 5°	☒ >0° to 5°	☐ >0° to 5°	☒ >0° to 5°
	☐ >5° to 10°	☐ >5° to 10°	☐ >5° to 10°	☐ >5° to 10°
	☐ >10° to 15°	☐ >10° to 15°	☐ >10° to 15°	☐ >10° to 15°
	☐ >15° to 20°	☐ >15° to 20°	☐ >15° to 20°	☐ >15° to 20°

Step 5—Determination of the BAL

Select the relevant table from Tables 2.4 or 2.6 for FDI 50 or FDI 100 as relevant for Victoria.

Using the relevant table, determine the Bushfire Attack Level (BAL) for each of the vegetation classifications determined at Step 2, the distance from the site determined at Step 3 and the effective slope determined at Step 4.

Bushfire Attack Level Assessment Report

Select the highest BAL obtained above.

The BAL for this site is: **BAL** BAL-12.5

Date of Assessment: 08.10.2024

Assessors Name: CHLOE LAUBSCH

Assessors contact number:

Home N/A Mobile N/A Work 5443 5328

Statement:

I have taken all reasonable steps to ensure that the information provided in this assessment is accurate and reflects the conditions on and around the site and allotment on the date of this assessment.

Signed: [signature]

Date: 08.10.2024

ATTACHMENTS

Site plan (Attachment 1)
North aspect vegetation and east aspect vegetation (Attachment 2)
South aspect vegetation and west aspect vegetation (Attachment 3)

Notes

NEED TO ADD SITE PHOTOS

DMC Drafting & Design
Unit 7/4 Schoder Street, Strathdale
Ph: 03 5443 5328
ABN: 33 662 688 119

REVISIONS

Rev. #	Date	Drawn	Description
A	08.10.24	CML	IFA

PROJECT CLIENT: LANSELL HOMES			
ADDRESS: SANCTUARY GARDENS	PROJECT NUMBER: DMC - LH026 - 09-24	DATE: 08.10.2024	SHEET NAME: BAL REPORT CONT.
		ISSUE NUMBER: IFA	
PROJECT: BAL ASSESSMENT		DRAWN BY: CML	
		APPROVED BY: DMC	SCALE: DRAWING NO: A403

AS3959:2018 - CONSTRUCTION OF BUILDINGS IN A BUSHFIRE-PRONE AREA (BAL NOTES)

SECTION 3 – GENERAL CONSTRUCTION REQUIREMENTS.

CLAUSE 3.1 – GENERAL.
This section specifies general requirements for the construction of buildings for all Bushfire Attack Levels (BALs). The BALs and the corresponding Sections within AS3959, for specific construction requirements area listed in accordance with Table 3.1.

CLAUSE 3.2 – CONSTRUCTION REQUIREMENTS FOR SPECIFIC STRUCTURES.

CLAUSE 3.2.1 – ATTACHED STRUCTURES AND STRUCTURES SHARING A COMMON ROOF SPACE.
Where any part of a garage, carport, veranda, cabana, studio, storage area or similar roofed structure is attached to, or shares a common roof space with, a building required to conform with this standard, the entire garage, carport, veranda, or similar roofed structure shall confirm with the construction requirements of this Standard, as applicable to the subject building.
Alternatively, the structure shall be separated from the subject building by a wall that extends to the underside of a non-combustible roof covering, and that conforms with provisions within this Clause – refer to relevant requirements within the Standard.

CLAUSE 3.2.2 – GARAGES AND CARPORTS BENEATH THE SUBJECT BUILDING.
Where a garage or carport is beneath a building required to comply with this Standard, it shall conform with the construction requirements of this Standard, as applicable to the subject building.
Alternatively, any construction separating the garage or carport (including walls and flooring systems) from the remainder of the building shall confirm with provisions within this Clause – refer to relevant requirements within the Standard.

CLAUSE 3.2.3 – ADJACENT STRUCTURES ON THE SUBJECT ALLOTMENT.
Where any garage, carport, or similar roofed structure on the subject allotment is not attached to a building required to conform with this Standard, the structure shall conform with the construction requirements of this Standard.
Alternatively, the adjacent structure shall be separated from the subject building at a distance of not less than 6m from the building required to conform with this Standard. This distance is measured as any of the horizontal straight lines from the adjacent structure to the subject building; or *provisions within this Clause – refer to relevant requirements within the Standard.*

TABLE F1

BUSHFIRE-RESISTANT SPECIES

Standard trade name	Botanical name
Ash, silvertop	*Eucalyptus sieberi*
Blackbutt	*Eucalyptus pilularis*
Gum, red, river	*Eucalyptus camaldulensis*
Gum, spotted	*Corymbia maculata*
Ironbark, red	*Eucalyptus sideroxylon*
Kwila (Merbau)	*Intsia bijuga*
Turpentine	*Syncarpia glomulifera*

SECTION 5 - CONSTRUCTION REQUIREMENTS FOR BAL-12.5

CLAUSE 5.2 - SUBFLOOR SUPPORTS.
BAL-12.5 does not require any special construction requirements for subfloor supports where the subfloor space is enclosed with a wall that conforms with Clause 5.4; or a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze, or aluminium; or a combination of (a) and (b).
****Note this requirement applies to the subject building only and not to verandahs, decks, steps, ramps, and landings (see Clause 5.7).*

CLAUSE 5.3 – FLOORS.
BAL-12.5 does not require any special construction requirements for concrete slabs on the ground, while special construction requirements are required for enclosed subfloor spaces and unenclosed subfloor spaces. For elevated floors, including bearers, joists and flooring, there is no special construction requirements where the subfloor space if enclosed with a wall that conforms with Clause 5.4; or a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze, or aluminium; or a combination of (a) and (b). Where the subfloor space is unenclosed, the bearers, joists and flooring, less than 400mm above finished ground level, shall have bearers and joists be non-combustible; or bushfire-resistant timber; or a combination of (a) and (b), and flooring be non-combustible; or bushfire-resistant timber; or particleboard or plywood flooring where the underside is lined with sarking-type material or mineral wool insulation; or a combination of (a), (b) and (c).
****Note this requirement does not apply to elevated floors, including bearers, joists and flooring is the underside of the element is 400mm or more above finished ground level.*

CLAUSE 5.4 – WALLS.
BAL-12.5 requires the exposed components of an external wall that are less than 400mm from the ground or less than 400mm above decks, carport roofs, awnings and similar elements shall be either non-combustible material including masonry, precast, in-situ and earth wall; timber logs in accordance with this Standard; or cladding that is fixed externally to the stud and is non-combustible, fibre-cement (min. 6mm thick) or bushfire-resistant timber. BAL-12.5 requires all joints in the external surface material of walls shall be covered, sealed, overlapped, backed or butt-jointed. BAL-12.5 requires vents and weepholes in external walls shall be screened with a mesh made of corrosion-resistant steel, bronze or aluminium.

CLAUSE 5.5 – EXTERNAL GLAZED ELEMENTS, ASSEMBLIES AND DOORS.
Where fitted, BAL-12.5 requires bushfire shutter to conform with Clause 3.7 and be made from non-combustible materials; or a timber species as specified in Appendix E of this Standard; or bushfire resistant timber; or a combination of (a), (b) and (c). Where fitted, BAL-12.5 requires screens for windows and doors shall have a mesh or perforated sheet made of corrosion-resistant steel, bronze or aluminium. The frame supporting the mesh or perforated sheet shall be made from metal; or bushfire-resistant timber; or a timber species as specified in Appendix E of this Standard.
Windows – BAL-12.5 requires window assemblies shall be completed protected by bushfire shutters; or completely protected externally by screens; or conform with the following. Frame materials for window frames and window joinery shall be made of bushfire-resistant timbers; or a timber species as specified in Appendix E of this Standard; or metal; or metal-reinforced uPVC, for window assemblies less than 400mm from the ground or less than 400mm above decks, carport roofs, awnings and similar elements. BAL-12.5 does not have specific requirements for seals, weather strips and hardware for window assemblies. Where glazing is less than 400mm from the ground or less than 400mm above decks, carport roofs, awnings and similar elements, it shall be Grade A safety glass with a minimum thickness of 4mm or glass blocks with no restriction on glazing methods. The openable portions of windows shall be screened internally or externally with screens that conform to Clause 3.6 and Clause 5.5.2.

Hinged Doors – BAL-12.5 requires side-hung external doors, including French doors, panel fold and bi-fold doors shall be completely protected by bushfire shutters; or completely protected externally by screens; or conform with the following. Door panel material shall be non-combustible; or solid timber, laminated timber or reconstituted timber, having a minimum thickness of 35mm for the first 400mm above the threshold; or hollow core, solid timber, laminated timber or reconstituted timber, having a minimum thickness of 35mm for the first 400mm above the threshold; or hollow core, solid timber, laminated timber or reconstituted timber protected externally by a screen that conforms with Clause 5.5.2; or for fully framed glazed door panels, the framing shall be made from metal or bushfire resisting timber or a timber species as specified in Appendix E or uPVC. Door frame material shall be bushfire resisting timber; or a timber species as specified in Appendix E; or metal; or metal-reinforced uPVC. BAL-12.5 does not have specific requirements for hardware and screens. BAL-12.5 requires weather strips, draft excluders or draft seals shall be installed on door assemblies and doors shall be tight-fitting to the door frame and to an abutting door, if applicable. Door glazing shall be Grade A safety glass with a minimum thickness of 4mm, or glass blocks with no restriction on glazing methods.
Sliding Doors - BAL-12.5 requires sliding doors shall be completely protected by bushfire shutters; or completely protected externally by screens; or conform with the following. Door frame material shall be bushfire resisting timber; or a timber species as specified in Appendix E; or metal; or metal-reinforced uPVC. BAL-12.5 does not have specific requirements for hardware, weather strips and screens. BAL-12.5 requires sliding doors shall be tight-fitting to the door frames. Door glazing shall be Grade A safety glass with a minimum thickness of 4mm, where incorporated.
Garage Doors – All garage doors shall be protected with suitable weather strips, draught excluders, draught seals or brushes. Door assemblies fitted with guide trackers do not need edge gap protection. Additionally, the lower portion of the garage door that is within 400mm of the ground when the door is closed shall be non-combustible material; or bushfire-resistant timber; or a timber species as specified in Appendix E; or a combination of the above. Garage doors with ventilation slots shall be protected in accordance with Clause 3.6.

CLAUSE 5.6 – ROOFS (INCLUDING PENETRATIONS, EAVES, FASCIA'S AND GABLES, AND GUTTERS AND DOWNPIPES).
The following applies to all types of roofs and roofing systems – roof tiles, roof sheets and roof-covering accessories shall be non-combustible; the roof/wall and roof/roof junction shall be sealed or otherwise protected in accordance with Claus 3.6; Roof ventilation openings shall be fitted with ember guards made of non-combustible materials or a mesh or perforated sheet conforming with Clause 3.6 and, made of corrosion-resistant steel, bronze or aluminium; only evaporative coolers manufactured in accordance with AS/NZS 60335.2.98 shall be used.
Tiled Roofs – Tiled roofs shall be fully sarked and be located at the top of the framing, except that the roof battens may be fixed above the sarking; cover the entire roof area including ridges and hips; and extend into gutters and valleys.
Sheet Roofs – Sheet roofs shall be fully sarked in accordance with Clause 5.6.2, except that foil-backed insulation blankets may be installed over the battens; or have any gaps sealed at the fascia or wall line, hips and ridges by – a mesh or perforated sheet that conforms with Clause 3.6 an that is made of corrosion-resistant steel, bronze or aluminium; or mineral wool; or other non-combustible materials; or a combination of the above.
Verandah, Carport & Awning Roofs – A verandah, carport or awning roof forming part of the main roof space shall meet all the requirements for the main roof, as specified in Clauses 5.6.1 to 5.6.6. For verandah, carport or awning roofs separated from the main roof space by an external wall conforming with Clause 5.4 shall have a non-combustible roof covering, except where the roof covering is a translucent or transparent material.

Roof Penetrations – All roof penetrations shall be sealed (including roof lights, ventilators, cooling units and similar elements) with a non-combustible material. Openings in vented roof lights, roof ventilators or vent pipes shall conform with Clause 3.6 and be made of corrosion-resistant steel, bronze or aluminium. All overhead glazing shall be Grade A safety glass conforming with AS1288. Glazed elements in roof lights and skylights may be of polymer provided a Grade A safety glass diffuser, conforming with AS1288, is installed under the glazing. Where glazing is an insulating glazing unit (IGU), Grade A toughened safety glass of a minimum 4mm in thickness shall be used in the outer pane of the IGU. Flashing elements of tubular skylights may be of a fire-retardant material, provided the roof integrity is maintained by an under-flashing of a material having a flammability index not exceeding five. Eave lighting shall be adequately sealed and not comprise the performance of the element.
Eaves Linings, Fascia's & Gables – Gables shall conform with Clause 5.4. Eave penetrations shall be protected in the same way as roof penetrations, as specified in Clause 5.6.5. Eave ventilation openings shall be fitted with ember guards in accordance with Clause 3.6 and made from corrosion-resistant steel, bronze or aluminium. Joints in eave linings, fascia's and gables may be sealed with plastic joining strips or timber storm moulds. BAL-12.5 does not have specific construction requirements for fascia's, bargeboards and eave linings.
Gutters & Downpipes – BAL-12.5 does not provide material requirements for gutters (excluding box gutters) and downpipes. If installed gutter and valley leaf guards shall be non-combustible. Box gutters shall be non-combustible and flashed at the junction with the roof with non-combustible material.

CLAUSE 5.7 – VERANDAHS, DECKS, STEPS AND LANDINGS.
BAL-12.5 does not have specific requirements to enclose the subfloor space of verandahs, decks, steps, ramps or landings. Decking may be spaced – *refer additional notations regarding spacings under Clause C5.7.7 in the Standard.*
Enclosed Subfloor Spaces – BAL-12.5 does not provide construction requirements for the supports, framing and materials used to enclose a subfloor except where those materials are less than 400mm from the ground – where materials used to enclose less than 400mm from the ground must conform with Clause 5.4. BAL-12.5 does not provide construction requirements for decking, stair treads and the trafficable surface of ramps and landings that are more than 300mm from a glazed element. For decking, stair treads and the trafficable surface of ramps and landings less than 300mm (horizontally) and less than 400mm (vertically) shall be made from non-combustible materials; or bushfire-resisting timber; or a timber specifies as specified in Appendix E; or uPVC; or a combination of the above.
Unenclosed Subfloor Spaces – BAL-12.5 does not provide construction requirements for the supports and framing. BAL-12.5 does not provide construction requirements for decking, stair treads and the trafficable surface of ramps and landings that are more than 300mm from a glazed element. For decking, stair treads and the trafficable surface of ramps and landings less than 300mm (horizontally) and less than 400mm (vertically) shall be made from non-combustible materials; or bushfire-resisting timber; or a timber specifies as specified in Appendix E; or uPVC; or a combination of the above.
Balustrades, Handrails or Other Barriers – BAL-12.5 does not provide construction requirements for these elements.
Verandah Posts – BAL-12.5 requires verandah posts shall be timber mounted on galvanised mounted stirrups with a clearance of not less than 75mm above the adjacent finish ground level; or less than 400mm from the surface of the deck or ground shall be made from non-combustible materials; or bushfire-resisting timber; or a timber specifies as specified in Appendix E; or uPVC; or a combination of the above.

CLAUSE 5.8 – WATER AND GAS SUPPLY PIPES.
Above-ground, exposed water supply pipes shall be metal. External gas pipes and fittings above ground shall be steel or copper construction having a minimum wall thickness in accordance with gas regulation or 0.9mm whichever is the greater. The metal pipe shall extend a minimum of 400mm within the building and 100mm below ground.

DMC Drafting & Design
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REVISIONS

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A	08.10.24	CML	IFA

PROJECT CLIENT:	LANSELL HOMES
ADDRESS:	SANCTUARY GARDENS
PROJECT:	BAL ASSESSMENT
PROJECT NUMBER:	DMC - LH026 - 09-24
DATE:	08.10.2024
ISSUE NUMBER:	IFA
DRAWN BY:	CML
APPROVED BY:	DMC
SHEET NAME:	BAL NOTES
SCALE:	
DRAWING NO:	A404

Bushfire Attack Level Assessment Report

(As per AS 3959–2018)

Property Details

Applicants Name: CHLOE LAUBSCH - DMC DRAFTING & DESIGN

Contact Phone Number (H): 5443 5328 (M): N/A

Municipality GREATER BENDIGO Lot: LOT 02, 03, 09, 10, 11

Address: SANCTUARY GARDENS ESTATE

Type of building work

New Class 1a building	X
New Class 1b building	
New Class 10a building	
New Class 2 building	
New Class 3 building	
Alteration/Additions to an existing building	

Description of building work: e.g. single dwelling with attached garage

VACANT LOTS SUBJECT TO A PROPOSED SINGLE DWELLING WITH ATTACHED GARAGE IN FUTURE

Note:

Class 1a
- a single dwelling being— a detached house; or
- one of a group of two or more attached dwellings, each being a building, separated by a fire-resisting wall, including a row house, terrace house, town house or villa unit.

Class 1b
- a boarding house, guest house, hostel or the like— with a total area of all floors not exceeding 300 m2 measured over the enclosing walls of the Class 1b; and in which not more than 12 persons would ordinarily be resident; or
- 4 or more single dwellings located on one allotment and used for short-term holiday accommodation, which are not located above or below another dwelling or another Class of building other than a private garage.

Class 10a
- a non-habitable building being a private garage, carport, shed, or the like.

Class 2
- a building containing 2 or more sole-occupancy units, each being a separate dwelling.

Class 3
- a residential building, other than a building of Class 1 or 2, which is a common place of long term or transient living for a number of unrelated persons, including— a boarding-house, guest house, hostel, lodging-house or backpackers accommodation; or
- a residential part of a hotel or motel; or
- a residential part of a school; or
- accommodation for the aged, children or people with disabilities; or
- a residential part of a health-care building which accommodates members of staff; or
- a residential part of a detention centre.

Bush Fire Attack Level (BAL)

Step 1: Relevant fire danger index

(Refer to clause 2.2.2)

FDI 50		Victorian alpine area
FDI 100	X	Victoria general – excluding alpine area

Step 2: Assess the vegetation types within 100m in all directions

Tick relevant group & type of vegetation

(Refer to table 2.3)

Vegetation classification	North	South	East	West
Group A Forest	Tall open forest Tall woodland Open forest Low open forest Pine plantation	Tall open forest Tall woodland Open forest Low open forest Pine plantation	Tall open forest Tall woodland Open forest Low open forest Pine plantation	Tall open forest Tall woodland Open forest X Low open forest Pine plantation
Group B Woodland	Woodland Low woodland	Woodland Low woodland	Woodland Low woodland	Woodland Low woodland
Group C Shrub-land	Closed (low) heath Open heath Low shrub-land	Closed (low) heath Open heath Low shrub-land	Closed (low) heath Open heath Low shrub-land	Closed (low) heath Open heath Low shrub-land
Group D Scrub	Closed scrub (Tall Heaths) Open scrub	Closed scrub (Tall Heaths) Open scrub	Closed scrub (Tall Heaths) Open scrub	Closed scrub (Tall Heaths) Open scrub
Group E Mallee/Mulga	Tall shrubland	Tall shrubland	Tall shrubland	Tall shrubland
Group F Rainforest	Tall closed forest Closed forest Low closed forest	Tall closed forest Closed forest Low closed forest	Tall closed forest Closed forest Low closed forest	Tall closed forest Closed forest Low closed forest
Group G Grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland	Open woodland Low open woodland Open shrubland Low open shrubland Hummock grassland Closed tussock grassland Tussock grassland

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REVISIONS

Rev. #	Date	Drawn	Description
A	08.10.24	CML	IFA

PROJECT CLIENT: LANSELL HOMES

ADDRESS: SANCTUARY GARDENS

PROJECT: BAL ASSESSMENT

PROJECT NUMBER: DMC - LH026 - 09-24

DATE:	08.10.2024
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SHEET NAME: BAL REPORT

SCALE:

DRAWING NO: A405

CLAUSE 2.2.3.2 - EXCLUSIONS - LOW THREAT VEGETATION AND NON-VEGETATED AREAS.

(a) Vegetation of any type that is more than 100m from the site.

(b) Single areas of vegetation less than 1 hectares in area and note within 100m of other areas of vegetation being classified vegetation.

(c) Multiple areas of vegetation less than 0.25 hectares in area and not within 20m of the site, or each other or other areas of vegetation being classified vegetation.

(d) Strips of vegetation less than 20m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or each other, or other areas of vegetation being classified vegetation.

(e) Non-vegetated area, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.

(f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves, and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.

Notes:
1) Minimal fuel conditions mean 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 100mm).
2) A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.

	[ ] Open tussock [ ] Sparse open tussock [ ] Dense sown pasture [ ] Sown Pasture [ ] Open herbfield [ ] Sparse open herbfield	[ ] Open tussock [ ] Sparse open tussock [ ] Dense sown pasture [ ] Sown Pasture [ ] Open herbfield [ ] Sparse open herbfield	[ ] Open tussock [ ] Sparse open tussock [ ] Dense sown pasture [ ] Sown Pasture [ ] Open herbfield [ ] Sparse open herbfield	[ ] Open tussock [ ] Sparse open tussock [ ] Dense sown pasture [ ] Sown Pasture [ ] Open herbfield [ ] Sparse open herbfield
Group H Tussock Moorland	[ ] Tussock Moorland	[ ] Tussock Moorland	[ ] Tussock Moorland	[ ] Tussock Moorland
Exclusions	**North**	**South**	**East**	**West**
Insert relevant paragraph descriptor from clause 2.2.3.2. i.e.(b), (c), (d), (e) or (f)	2.2.3.2(a)	2.2.3.2(a)	2.2.3.2(a)	

Step 3: Distance of the site from classified vegetation

(Refer to clause 2.2.4)

Distance from each vegetation type	North	South	East	West
	100m+	100m+	100m+	LOT 02 + 03 - 25m
				LOT 09, 10, 11 - 32m

Step 4: Determine the effective slope of land under the classified vegetation

(Refer to Figure 2.3)

Effective slopes	North	South	East	West
Slope under the classified vegetation	[X] Upslope/0°	[X] Upslope/0°	[X] Upslope/0°	[X] Upslope/0°
	Downslope			
	[ ] >0° to 5°	[ ] >0° to 5°	[ ] >0° to 5°	[X] >0° to 5°
	[ ] >5° to 10°	[ ] >5° to 10°	[ ] >5° to 10°	[ ] >5° to 10°
	[ ] >10° to 15°	[ ] >10° to 15°	[ ] >10° to 15°	[ ] >10° to 15°
	[ ] >15° to 20°	[ ] >15° to 20°	[ ] >15° to 20°	[ ] >15° to 20°

Step 5—Determination of the BAL

Select the relevant table from Tables 2.4 or 2.6 for FDI 50 or FDI 100 as relevant for Victoria.

Using the relevant table, determine the Bushfire Attack Level (BAL) for each of the vegetation classifications determined at Step 2, the distance from the site determined at Step 3 and the effective slope determined at Step 4.

Select the highest BAL obtained above.

The BAL for this site is: **BAL** BAL - 29

Date of Assessment: 08.10.2024

Assessors Name: CHLOE LAUBSCH

Assessors contact number:

Home N/A Mobile N/A Work 5443 5328

Statement:

I have taken all reasonable steps to ensure that the information provided in this assessment is accurate and reflects the conditions on and around the site and allotment on the date of this assessment.

Signed: ....

Date: 08.10.2024

ATTACHMENTS

Site plan (Attachment 1)
North aspect vegetation and east aspect vegetation (Attachment 2)
South aspect vegetation and west aspect vegetation (Attachment 3)

Notes

NEED TO ADD SITE PHOTOS

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AS3959:2018 - CONSTRUCTION OF BUILDINGS IN A BUSHFIRE-PRONE AREA (BAL NOTES)

SECTION 3 – GENERAL CONSTRUCTION REQUIREMENTS.

CLAUSE 3.1 – GENERAL.
This section specifies general requirements for the construction of buildings for all Bushfire Attack Levels (BALs). The BALs and the corresponding Sections within AS3959, for specific construction requirements area listed in accordance with Table 3.1.

CLAUSE 3.2 – CONSTRUCTION REQUIREMENTS FOR SPECIFIC STRUCTURES.

CLAUSE 3.2.1 – ATTACHED STRUCTURES AND STRUCTURES SHARING A COMMON ROOF SPACE.
Where any part of a garage, carport, veranda, cabana, studio, storage area or similar roofed structure is attached to, or shares a common roof space with, a building required to conform with this standard, the entire garage, carport, veranda, or similar roofed structure shall confirm with the construction requirements of this Standard, as applicable to the subject building.
Alternatively, the structure shall be separated from the subject building by a wall that extends to the underside of a non-combustible roof covering, and that conforms with provisions within this Clause – refer to relevant requirements within the Standard.

CLAUSE 3.2.2 – GARAGES AND CARPORTS BENEATH THE SUBJECT BUILDING.
Where a garage or carport is beneath a building required to comply with this Standard, it shall conform with the construction requirements of this Standard, as applicable to the subject building.
Alternatively, any construction separating the garage or carport (including walls and flooring systems) from the remainder of the building shall confirm with provisions within this Clause – refer to relevant requirements within the Standard.

CLAUSE 3.2.3 – ADJACENT STRUCTURES ON THE SUBJECT ALLOTMENT.
Where any garage, carport, or similar roofed structure on the subject allotment is not attached to a building required to conform with this Standard, the structure shall conform with the construction requirements of this Standard.
Alternatively, the adjacent structure shall be separated from the subject building at a distance of not less than 6m from the building required to conform with this Standard. This distance is measured as any of the horizontal straight lines from the adjacent structure to the subject building; or *provisions within this Clause – refer to relevant requirements within the Standard.*

TABLE F1

BUSHFIRE-RESISTANT SPECIES

Standard trade name	Botanical name
Ash, silvertop	*Eucalyptus sieberi*
Blackbutt	*Eucalyptus pilularis*
Gum, red, river	*Eucalyptus camaldulensis*
Gum, spotted	*Corymbia maculata*
Ironbark, red	*Eucalyptus sideroxylon*
Kwila (Merbau)	*Intsia bijuga*
Turpentine	*Syncarpia glomulifera*

SECTION 7 - CONSTRUCTION REQUIREMENTS FOR BAL-29

CLAUSE 7.2 - SUBFLOOR SUPPORTS.
BAL-29 does not require any special construction requirements for subfloor supports where the subfloor space is enclosed with a wall that conforms with Clause 7.4 (except where sarking is not required where specified in Clause 7.4.1(c)); or a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze, or aluminium; or a combination of (a) and (b). Where the subfloor space is unenclosed, the support posts, columns, stumps, piers, and poles shall be of non-combustible material; or of bushfire-resisting timber; or a combination of (i) and (ii).
****Note this requirement applies to the subject building only and not to verandahs, decks, steps, ramps, and landings (see Clause 7.7).*

CLAUSE 7.3 – FLOORS.
BAL-29 does not require any special construction requirements for concrete slabs on the ground, while special construction requirements are required for enclosed subfloor spaces and unenclosed subfloor spaces. For elevated floors, including bearers, joists and flooring, there is no special construction requirements where the subfloor space if enclosed with a wall that conforms with Clause 7.4 (except where sarking is not required where specified in Clause 7.4.1(c)); or a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze, or aluminium; or a combination of (a) and (b). Where the subfloor space is unenclosed, the bearers, joists and flooring, less than 400mm above finished ground level, shall have bearers and joists be non-combustible; or bushfire-resistant timber; or a combination of (a) and (b), and flooring be non-combustible; or bushfire-resistant timber; or particleboard or plywood flooring where the underside is lined with sarking-type material or mineral wool insulation; or a combination of (a), (b) and (c).
****Note this requirement does not apply to elevated floors, including bearers, joists and flooring is the underside of the element is 400mm or more above finished ground level.*

CLAUSE 7.4 – WALLS.
BAL-29 requires the exposed components of an external wall shall be either non-combustible material including masonry, precast, in-situ and earth wall; timber logs in accordance with this Standard; or cladding that is fixed externally to the stud and is fibre-cement (min. 6mm thick) or steel sheet or bushfire-resistant timber or a combination. BAL-29 requires all joints in the external surface material of walls shall be covered, sealed, overlapped, backed or butt-jointed. BAL-29 requires vents and weepholes in external walls shall be screened with a mesh made of corrosion-resistant steel, bronze, or aluminium.

CLAUSE 7.5 – EXTERNAL GLAZED ELEMENTS, ASSEMBLIES AND DOORS.
Where fitted, BAL-29 requires bushfire shutter to conform with Clause 3.7 and be made from non-combustible materials; or bushfire resistant timber; or a combination of (a) and (b). Where fitted, BAL-29 requires screens for windows and doors shall have a mesh or perforated sheet made of corrosion-resistant steel, bronze, or aluminium. The frame supporting the mesh or perforated sheet shall be made from metal; or bushfire-resistant timber.
Windows – BAL-29 requires window assemblies shall be completely protected by bushfire shutters; or conform with the following. Frame materials for window frames and window joinery shall be made of bushfire-resistant timbers; or metal; or metal-reinforced uPVC. BAL-29 requires window hardware to be externally fitted hardware that supports the sash in its functions of opening and closing shall be metal. BAL-29 does not have specific requirements for seals and weather strips for window assemblies. Glazing shall be toughened glass with a minimum thickness of 5mm or glass blocks with no restriction on glazing methods. Where glazing is less than 400mm from the ground or less than 400mm above decks, carport roofs, awnings and similar elements, the glazing shall be screened externally with a screen that conforms to Clause 3.6 and Clause 7.5.2. Glazing in all other cases except for Clause 7.5.2 (b)(v), the openable portions of the windows shall be screened internally or externally with screens that conform with Clause 3.6 and Clause 7.5.2.
Hinged Doors – BAL-29 requires side-hung external doors, including French doors, panel fold and bi-fold doors shall be completely protected by bushfire shutters; or completely protected externally by screens; or conform with the following. Door panel material shall be non-combustible; or solid timber, laminated timber, or reconstituted timber, having a minimum thickness of 35mm for the first 400mm above the threshold; or for fully framed glazed door panels, the framing shall be made from metal or bushfire resisting timber or a timber species as specified in Appendix E or uPVC. Door frame material shall be bushfire resisting timber; or metal; or metal-reinforced uPVC. BAL-29 does not have specific requirements for screens. BAL-29 requires externally fitted hardware that supports the panel in its functions of opening and closing shall be metal. BAL-29 requires weather strips, draught excluders or draught seals shall be installed on door assemblies and doors shall be tight-fitting to the door frame and to an abutting door, if applicable. Door glazing shall be toughened glass with a minimum thickness of 6mm.
Sliding Doors – BAL-29 requires sliding doors shall be completely protected by bushfire shutters; or completely protected externally by screens; or conform with the following. Door frame material shall be bushfire resisting timber; or metal; or metal-reinforced uPVC. BAL-29 requires externally fitted hardware that supports the panel in its functions of opening and closing shall be metal. BAL-29 does not have specific requirements for seals, weather strips and screens. BAL-29 requires sliding doors shall be tight-fitting to the door frames. Door glazing shall be toughened glass with a minimum thickness of 6mm, where incorporated.
Garage Doors – All garage doors shall be protected with suitable weather strips, draught excluders, draught seals, or brushes (these elements must be manufactured from materials having a flammability index not exceeding five). Door assemblies fitted with guide trackers do not need edge gap protection. Additionally, garage doors shall be non-combustible material; or bushfire-resistant timber; or fibre-cement sheet, a minimum thickness of 6mm; or a combination of the above. Garage doors with ventilation slots shall be protected in accordance with Clause 3.6.

CLAUSE 7.6 – ROOFS (INCLUDING PENETRATIONS, EAVES, FASCIA'S AND GABLES, AND GUTTERS AND DOWNPIPES).
The following applies to all types of roofs and roofing systems – roof tiles, roof sheets and roof-covering accessories shall be non-combustible; the roof/wall and roof/roof junction shall be sealed or otherwise protected in accordance with Claus 3.6; Roof ventilation openings shall be fitted with ember guards made of non-combustible materials or a mesh or perforated sheet conforming with Clause 3.6 and, made of corrosion-resistant steel, bronze or aluminium; only evaporative coolers manufactured in accordance with AS/NZS 60335.2.98 shall be used.
Tiled Roofs – Tiled roofs shall be fully sarked and be located at the top of the framing, except that the roof battens may be fixed above the sarking; cover the entire roof area including ridges and hips; and extend into gutters and valleys.
Sheet Roofs – Sheet roofs shall be fully sarked in accordance with Clause 7.6.2, except that foil-backed insulation blankets may be installed over the battens; or have any gaps sealed at the fascia or wall line, hips and ridges by – a mesh or perforated sheet that conforms with Clause 3.6 an that is made of corrosion-resistant steel, bronze or aluminium; or mineral wool; or other non-combustible materials; or a combination of the above.
Verandah, Carport & Awning Roofs – A verandah, carport or awning roof forming part of the main roof space shall meet all the requirements for the main roof, as specified in Clauses 7.6.1 to 7.6.6. For verandah, carport or awning roofs separated from the main roof space by an external wall conforming with Clause 7.4 shall have a non-combustible roof covering and the complete support structure shall be of non-combustible material; or bushfire-resisting timber; or timber rafters lined on the underside with fibre-cement sheeting a minimum of 6mm in thickness; or a combination of the above.
Roof Penetrations – All roof penetrations shall be sealed (including roof lights, ventilators, cooling units and similar elements) with a non-combustible material. Openings in vented roof lights, roof ventilators or vent pipes shall conform with Clause 3.6 and be made of corrosion-resistant steel, bronze, or aluminium. All overhead glazing shall be Grade A safety glass conforming with AS1288. Glazed elements in roof lights and skylights may be of polymer provided a Grade A safety glass diffuser, conforming with AS1288, is installed under the glazing. Where glazing is an insulating glazing unit (IGU), Grade A toughened safety glass of a minimum 4mm in thickness shall be used in the outer pane of the IGU. Flashing elements of tubular skylights may be of a non-combustible (however, they may be of an alternate material, provided the roof integrity of the roof covering is maintained by an under-flashing made of a non-combustible material. External single plane glazed elements of roof lights and skylights, where the pitch of the glazed element is 18° of less, shall be protected with ember guards made from a mesh or perforated sheet with a minimum aperture of 2mm, made of corrosion-resistant steel, bronze, or aluminium.
Eave lighting shall be adequately sealed and not comprise the performance of the element.
Eaves Linings, Fascia's & Gables – Gables shall conform with Clause 7.4. Eave penetrations shall be protected in the same way as roof penetrations, as specified in Clause 6.6.5. BAL-29 requires fascia's and bargeboards shall be timber (bushfire-resisting timber); or metal (be fixed at 450mm centres); or a combination of both. BAL-29 requires eave linings shall be fibre-cement (minimum 4.5mm thick); or bushfire-resisting timber; or a combination of both. Eave ventilation openings shall be fitted with ember guards in accordance with Clause 3.6 and made from corrosion-resistant steel, bronze, or aluminium. Joints in eave linings, fascia's and gables may be sealed with plastic joining strips or timber storm moulds.
Gutters & Downpipes – BAL-29 does not provide material requirements for downpipes. BAL-29 requires all gutters (excluding box gutters) shall be metal or uPVC. If installed gutter and valley leaf guards shall be non-combustible. Box gutters shall be non-combustible and flashed at the junction with the roof with non-combustible material.

CLAUSE 7.7 – VERANDAHS, DECKS, STEPS AND LANDINGS.
BAL-29 does not have specific requirements to enclose the subfloor space of verandahs, decks, steps, ramps, or landings. Decking may be spaced – *refer additional notations regarding spacings under Clause C5.7.7 in the Standard.*
Enclosed Subfloor Spaces – BAL-19 does not provide construction requirements for the supports and framing when the subfloor is enclosed. BAL-29 deems the subfloor space of verandahs, decks, steps, ramps and landing to be enclosed when the material used to enclose conforms with Clause 7.4 (except that sarking is not required where specified in Clause 7.4.1(c); and all openings are protected in accordance with Clause 3.6 and made from corrosion-resistant steel, bronze or aluminium. BAL-29 requires decking, stair treads and the trafficable surface of ramps and landings shall be of non-combustible materials; or bushfire-resisting timber; or a combination of both.
Unenclosed Subfloor Spaces – BAL-29 requires support posts, columns, stumps, stringers, piers, poles, and general framing shall be non-combustible material; or of bushfire-resisting timber; or a combination of both. For decking, stair treads and the trafficable surface of ramps and landings shall be made from non-combustible materials; or bushfire-resisting timber; or a combination of both.
Balustrades, Handrails or Other Barriers – BAL-29 does not provide construction requirements for these elements that are more than 125mm from the building. Where elements are less than 125mm from the building and glazing shall be non-combustible materials; or bushfire-resisting timber; or a combination of both.
Verandah Posts – BAL-29 requires verandah posts shall be non-combustible materials; or bushfire-resisting timber; or a combination of both.

CLAUSE 7.8 – WATER AND GAS SUPPLY PIPES.
Above-ground, exposed water supply pipes shall be metal. External gas pipes and fittings above ground shall be steel or copper construction having a minimum wall thickness in accordance with gas regulation or 0.9mm whichever is the greater. The metal pipe shall extend a minimum of 400mm within the building and 100mm below ground.

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