

5th October 2020

Andrea Smith,
Development Manager, Villawood Properties
PO Box 1104, Bendigo VIC 3552
Email: andrea@villawoodproperties.com
Phone: (03) 5444 0002

Dear Andrea,

Bushfire Attack Level Assessment Imagine Estate, Strathfieldsaye: Stage 12

Practical Ecology has been commissioned to provide a Bushfire Attack Level Assessment for the residential subdivision of Stage 12 of Imagine Estate, Strathfieldsaye. It is understood a planning permit has been granted for the subdivision plan attached to the end of this report. An overview of the site is presented in Map 1.

The land is located within a Bushfire Prone Area under the Victorian *Building Regulations 2006*. As such, the provisions within the Building Code of Australia (BCA) require residential development to be protected from the effects of bushfire. The deemed-to-satisfy solutions require an assessment of the Bushfire Attack Level (BAL) in accordance with *Australian Standards 3959-2018: Construction of buildings in bushfire-prone areas* (AS3959-2018). Dwellings must then be built to the relevant BAL as per the BCA.

Currently there are two deemed-to-satisfy methods of building construction to satisfy the BAL:

- AS3959-2018
- NASH Standard 'Steel Framed Construction in Bushfire Areas'

The land is zoned General Residential and is not covered by a Bushfire Management Overlay. Planning Authorities may seek assurance that bushfire protection measures have been considered at the subdivision application stage.

There are three potential methods of BAL assessment under the building and planning regulations:

- Method 1 of AS3959-2018
- Method 2 of AS3959-2018
- An Alternative Solution in accordance with the BCA for building permits or as approved by the Relevant Authority for planning permits.

Considering the nature of the development and the condition of the surrounding vegetation. Method 1 as per AS3959-2018 is considered suitable.

SUMMARY OF RESULTS

Document date & version	05/10/2020 – Version 1.0
Assessors	Julian Drummond (BPAD Level 2 (Vic) – Accreditation No. BPAD44709)
Assessors Contact	Email: juliand@practicalecology.com.au Phone: (03) 9484 1555
Plan of Subdivisions	Tomkinson Ref: 1065312 Subd V1 Linework (14-08-2020)

Lot No	BAL (as rating per AS3959-2018)	Setback required?
1201	BAL-12.5	No
1202	BAL-12.5	No
1203	BAL-12.5	No
1204	BAL-12.5	Yes – Northern boundary*
1205	BAL-12.5	Yes – Northern boundary*
1206	BAL-12.5	Yes – Northern boundary*
1207	BAL-12.5	Yes – Northern boundary*
1208	BAL-12.5	No
1209	BAL-12.5	No
1210	BAL-12.5	No
1211	BAL-12.5	No
1212	BAL-12.5	No
1213	BAL-12.5	No
1214	BAL-12.5	No
1215	BAL-12.5	No
1216	BAL-12.5	No
1217	BAL-12.5	No
1218	BAL-12.5	No
1219	BAL-12.5	No

* This setback can be avoided on these lots if the dwelling is built to BAL-19 as per AS3959-2018.

Bushfire Attack Level Assessment

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Assessors Contact	Email: juliand@practicalecology.com.au Phone: (03) 9484 1555

SITE DETAILS

Municipality	Greater Bendigo
Address	A\PS815072 & A\PS723836
Applicant	c/o Andrea Smith Development Manager, Villawood Properties PO Box 1104, Bendigo VIC 3552 andrea@villawoodproperties.com
Zoning	General Residential
Overlays	Development Plan Overlay – Schedule 26
Bushfire Prone Area	Yes
Proposal	Residential subdivision

AS3959 METHOD 1

Direction	East & South	West	West	West	North
Fire Danger Index	100	100	100	100	100
Vegetation type	Low Threat	Woodland	Woodland	Grassland	Grassland
Exclusions (from section 2.2.3.2b, c, d, e and/or f)	e, f	N/A	f	N/A	N/A
Slope (up/down)	Flat	Flat	Flat	Flat	Flat
Slope (degrees)	0–1°	0–1°	0–1°	0–1°	0–1°
Defendable space for BAL 12.5 (m)	N/A	33	N/A	19	19
Defendable space for BAL 19 (m)	N/A	24	N/A	13	13
Defendable space for BAL 29 (m)	N/A	16	N/A	9	9
Distance from classified vegetation (m)*	0	29	15	38	0
BAL (based on the distance to the classified vegetation)	BAL-12.5	BAL-19	BAL-12.5	BAL-12.5	Flame Zone

* Distances have been measured from the edge of the proposed residential lots as opposed to the property boundary as a large section of the property is not being developed at this stage (Portion A on the plans)

SUMMARY AND RECOMMENDATIONS

The results of the BAL assessment are displayed on Map 2.

All of the terrain onsite has been cleared for residential development and the areas to the south are either constructed or partially constructed residential areas which pose no threat (see Figure 1 and Figure 2). The Grassland on the property to the north will eventually be developed into residential areas similar to those to the south so no setbacks will be required from this vegetation despite its proximity to the site.

The Woodland along Emu Creek and the Grassland separating the Woodland from the site boundary will remain in perpetuity but a shared bike/walking trail will be present within this area which will result in a managed setback from the road reserve. Despite this, setbacks will be required within some lots to achieve BAL-12.5 (see Figure 4 and Figure 5). Although, this BAL rating is the minimum and setbacks can be reduced through a higher BAL rating (see Map 2). The Woodland patch to the west of the southern section of the site is currently maintained Wetland and is therefore being considered as exempted under Section 2.2.3.2.f of AS3959-2018.

QUALIFICATIONS

We 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 on the date of this assessment. This assessment cannot guarantee safety during a bushfire event. There are additional measures that should be considered and implemented to improve the bushfire performance of buildings and the safety of occupants such as:

- a Personal Bushfire Plan for each household to detail how occupants will respond to an emergency event
- building design: e.g. minimise re-entrant corners, elevated floors, vulnerable elements
- access and egress for emergency services
- static water supply in case mains water is not available
- defensible space around building by managing vegetation and removing other fuel sources.

Please don't hesitate to contact me if you have any issues or queries,

Yours sincerely,



Julian Drummond

Bushfire/Ecological Consultant

Practical Ecology, PO Box 228 Preston, 3072 | www.practicalecology.com.au

T: 03 9484 1555 | F: 03 9484 9133 | juliand@practicalecology.com.au



PHOTOGRAPHS



Figure 1. Low Threat terrain within the property



Figure 2. Low Threat development to the south of the site



Figure 3. Grassland on the property to the north



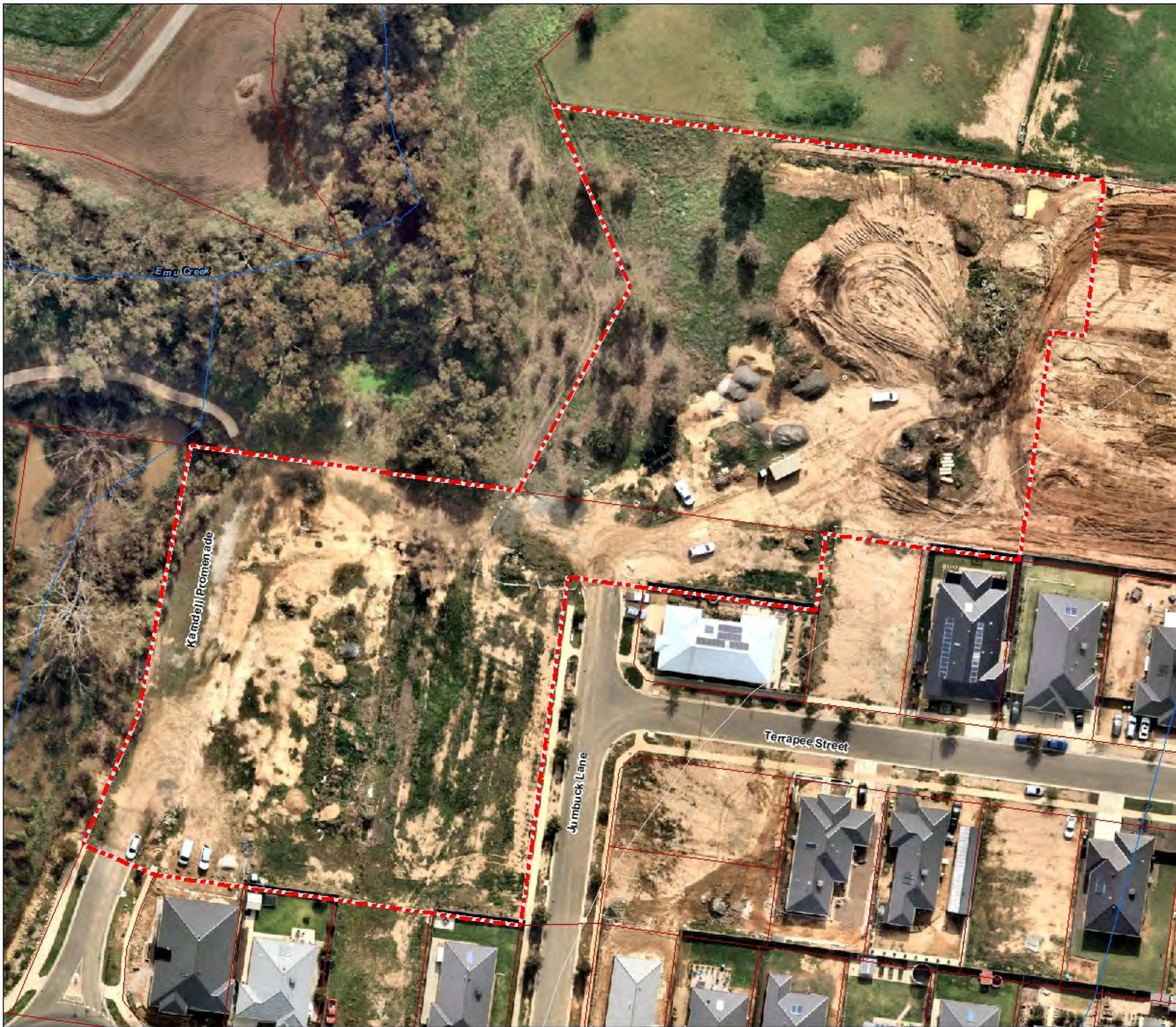
Figure 4. Woodland vegetation along Emu Creek to the west



Figure 5. Grassland to the west of the site



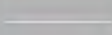

Figure 6. Wetland to the west of the site



Map 1. Subject site

Stage 12, Imagine Estate,
Strathfieldsaye

Legend

-  Subject site
-  Parcels
-  Contours (10m)
-  Natural watercourse

Details

Date: 22/09/2020
Version: 1
Aerial photography from Nearmap (May 2020).
Base map data Copyright © The State of Victoria.



Scale 1:750 (Page size A3)

Disclaimer

Practical Ecology bears no responsibility for the accuracy and completeness of this information and any decisions or actions taken on the basis of the map. While information appears accurate at publication, nature and circumstances are constantly changing.

Map 2. BAL Assessment

Stage 12, Imagine Estate,
Strathfieldsay



Legend

- Subject site
 - Assessment area (100m)
 - Parcels
 - Contours (10m)
 - Natural watercourse
- Classified vegetation**
- Woodland
 - Grassland
 - Currently Grassland
 - Low Threat
 - Exempted vegetation
- Proposed developments**
- Residential lots
 - Reserve
 - Road reserve
- Defendable space setbacks**
- BAL-12.5
 - BAL-19
 - BAL-29

Details

Date: 5/10/2020
Version: 1
Aerial photography from Nearmap (May 2020).
Base map data Copyright © The State of Victoria.



Scale 1:1,400 (Page size A3)

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MGA2020
ZONE 55

RESERVE No.2

RESERVE No.1

PROMENADE

TARNOOK DRIVE

TARNOOK DRIVE

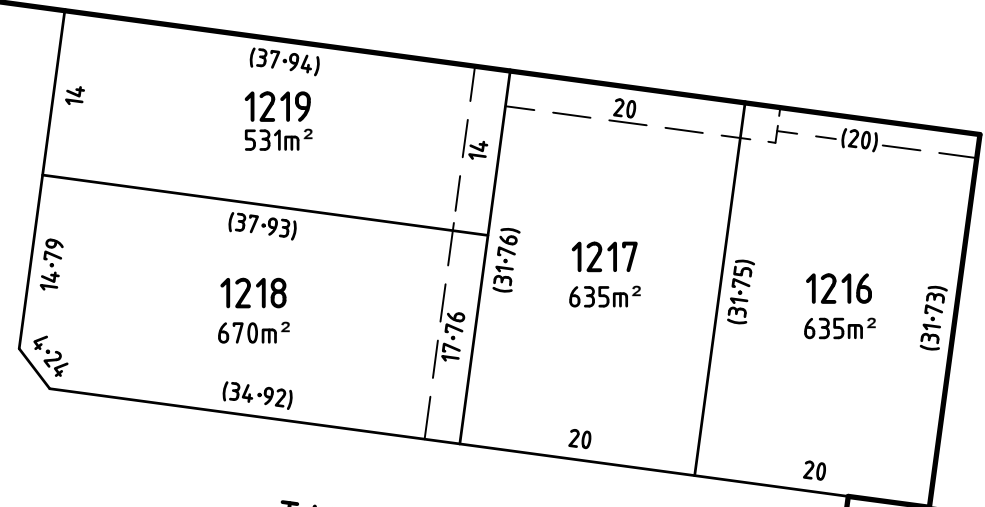
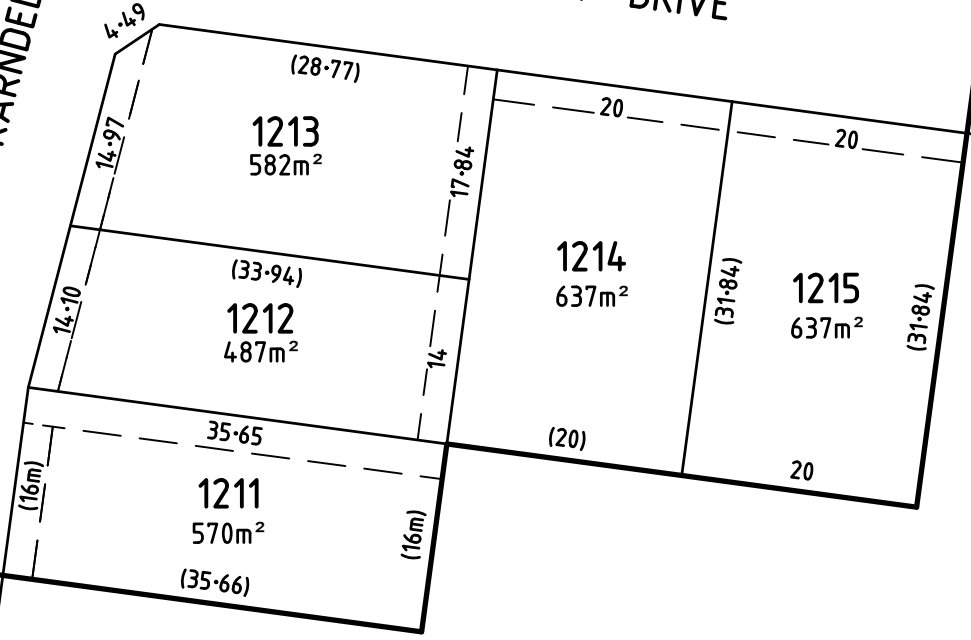
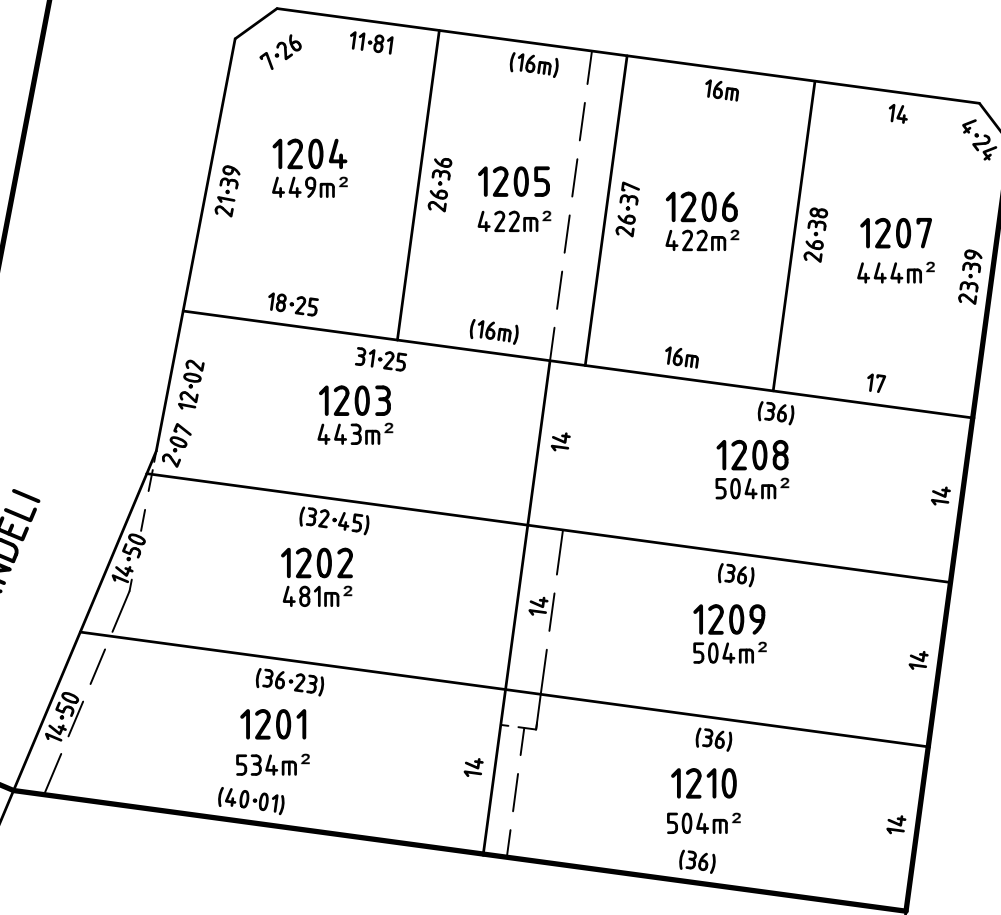
KARNDALI

PROMENADE

JUMBUCK LANE

KARNDALI

KARNDALI PROMENADE



Tomkinson Ref:
1065312 Subd V1 Linework
Created 14-08-2020