

12<sup>th</sup> May 2021

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

Dear Andrea,

## Bushfire Attack Level Assessment Imagine Estate, Strathfieldsaye: Stage 15

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Practical Ecology has been commissioned to provide a Bushfire Attack Level Assessment for the residential subdivision of Stage 15 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

<b>Document date &amp; version</b>	03/05/2021 – Version 0.1
<b>Assessors</b>	Daniel Casullo Julian Drummond (BPAD Level 2 (Vic) – Accreditation No. BPAD44709)
<b>Assessors Contact</b>	Email: <a href="mailto:danielc@practicalecology.com.au">danielc@practicalecology.com.au</a> Phone: (03) 9484 1555
	Email: <a href="mailto:juliand@practicalecology.com.au">juliand@practicalecology.com.au</a> Phone: (03) 9484 1555

Lot No	BAL (AS3959–2018)	Lot No	BAL (AS3959–2018)
1501	12.5	1514	12.5
1502	12.5	1515	12.5
1503	12.5	1516	12.5
1504	12.5	1517	12.5
1505	12.5	1518	12.5
1506	12.5	1519	12.5
1507	12.5	1520	12.5
1508	12.5	1521	12.5
1509	12.5	1522	12.5
1510	12.5	1523	12.5
1511	12.5	1524	12.5
1512	12.5	1525	12.5
1513	12.5	1526	12.5

## Bushfire Attack Level Assessment

<b>Document date &amp; version</b>	23/09/2020 – Version 0.1
<b>Assessor</b>	Daniel Casullo Julian Drummond (BPAD Level 2 (Vic) – Accreditation No. BPAD44709)
<b>Assessors Contact</b>	Email: <a href="mailto:danielc@practicalecology.com.au">danielc@practicalecology.com.au</a> Phone: (03) 9484 1555
	Email: <a href="mailto:juliand@practicalecology.com.au">juliand@practicalecology.com.au</a> Phone: (03) 9484 1555

### SITE DETAILS

<b>Municipality</b>	Greater Bendigo
<b>Address</b>	Dukes Lane (Parcels 839662X)
<b>Applicant</b>	c/o Andrea Smith Development Manager, Villawood Properties PO Box 1104, Bendigo VIC 3552 <a href="mailto:andrea@villawoodproperties.com">andrea@villawoodproperties.com</a>
<b>Zoning</b>	General Residential
<b>Overlays</b>	Development Plan Overlay – Schedule 26
<b>Bushfire Prone Area</b>	Yes
<b>Proposal</b>	Residential subdivision

### AS3959 METHOD 1

The subject site contains a mixture of Forest (see Figure 1), Woodland (see Figure 2), Grassland (see Figure 3 and Figure 4) and Low Threat vegetation (see Figure 5 and Figure 6). These vegetation patches are detailed in Table 1, and shown on Map 2.

**Table 1.** Bushfire hazard site assessment

Patch	1	2	3	4
<b>Vegetation type</b>	Forest	Woodland	Grassland	Low Threat
<b>Effective slope (up/down)</b>	Flat	Flat	Flat	Flat
<b>Effective slope (degrees)</b>	0–1°	0–1°	0–1°	0–1°

The majority of this vegetation is proposed to be cleared during the development of Imagine Estate (Table 1, and shown on Map 3), and is therefore exempt from the BAL Assessment. These areas include vegetation within a proposed residential subdivision to the north, east, south and west of the site. These areas are covered by the Development Plan Overlay – Schedule 26 which provides additional assurance that they'll be managed as residential.

Considering these exemptions, the only vegetation that will remain is the proposed 'Reserve' that is located in the centre of the site. This area is deemed low threat due to it being heavily managed within a minimum fuel condition. Due to the absence of classifiable vegetation within the subject site and the proposed residential development occurring within the entirety of the assessment area, BAL-12.5 can be met for all lots.

## QUALIFICATIONS

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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 us if you have any issues or queries,

Yours sincerely,

Daniel Casullo

Bushfire Consultant

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Julian Drummond

Bushfire/Ecological Consultant

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**PHOTOGRAPHS**



**Figure 1.** Forest to the east



**Figure 2.** Woodland to the north



**Figure 3.** Grassland to the south



**Figure 4.** Grassland to the south



**Figure 5.** Low threat areas to the south-east




**Figure 6.** Low Threat areas to the south-west







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 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.

Legend	
	Subject site
	Parcels
	Contours (10m)
	Natural watercourse

**Details**  
 Date: 27/04/2021  
 Version: 1  
 Data Source: Base layers courtesy of VicMap, Copyright © State of Victoria. Aerial photography from Nearmap (January 2021).

**Map 1. Subject Site**  
 Imagine Estates – Stage 15





Scale 1:1,000 (Page size A3)





Legend		Classified vegetation	
	Subject site		Forest
	Assessment area (100m)		Woodland
	Parcels		Grassland
	Contours (10m)		Low Threat
	Natural watercourse		

**Details**

Date: 27/04/2021  
Version: 1

Data Source: Base layers courtesy of VicMap, Copyright © State of Victoria. Aerial photography from Nearmap (January 2021).

**Map 2. BAL Assessment: Vegetation**  
Imagine Estates – Stage 15

Scale 1:1,400 (Page size A3)

**Disclaimer**

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<b>Legend</b>	
Subject site	Residential lots
Parcels	Reserve
Contours (10m)	Road reserve
Natural watercourse	Adjacent residential development
Vegetated exempted due to approved residential development to occur within this area	
<b>Classified vegetation</b>	
Forest	
Woodland	
Grassland	
Low Threat	

**Details**

Date: 12/05/2021  
Version: 1

Data Source: Base layers courtesy of VicMap, Copyright © State of Victoria. Aerial photography from Nearmap (January 2021).

**Map 3. BAL Assessment: Development**  
Imagine Estates – Stage 15



Scale 1:1,000 (Page size A3)



**Crown Portion:** -----

**Title Reference:** VOL.9476 FOL.703, VOL.9461 FOL.845, VOL.9451 FOL.229,  
VOL. FOL. , VOL. FOL. & VOL. FOL.

**Last Plan Reference:** LOTS A, B & C PS839660C, CP150758,  
LOT 1 TP131358 & TP283172

**Postal Address:** DUKES LANE  
(at time of subdivision) STRATHFIELDSAYE 3551

**MGA Co-ordinates:** E 265 780 Zone: 55  
(of approx. centre of land N 5 923 730 GDA 2020  
in plan)

Vesting of Roads and/or Reserves		Notations
Identifier	Council/Body/Person	Upon registration of this plan a restriction is to be created; see sheet six The water supply easement shown as E-1 on CP150758 and created by J137283 merges upon registration of this plan The pipelines or ancillary purposes easement E-1 on PS839660C which affects lot C on PS839660C and is contained within road R1 on this plan (Imagine Drive & Spectrum Lane) is to be removed The powerline easement E-8 on PS839660C which affects Lot B and C on PS839660C and is contained within road R1 on this plan (Imagine Drive) is to be removed
RESERVE No.1 ROAD R1	CITY OF GREATER BENDIGO CITY OF GREATER BENDIGO	
Notations		<u>Other purpose of plan:</u> To remove the water supply easement shown as E-2 on CP150758 created by L578897C <u>Grounds for removal:</u> Direction in planning permit DS/188/2016
<b>Depth Limitation:</b> DOES NOT APPLY		
<b>Survey:</b> This plan is based on survey		
<b>Staging:</b> This is not a staged plan of subdivision		
<b>Planning Permit No.</b> DS/188/2016		
<b>This survey has been connected to permanent mark(s):</b>		
<b>In Proclaimed Survey Area No.</b> -----		

### Easement Information

**Legend:** E - Encumbering Easement or Condition in Crown Grant in the Nature of an Easement or other Encumbrance A - Appurtenant Easement

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
E-1	PIPELINES OR ANCILLARY PURPOSES	2.50	PS839660C	COLIBAN REGION WATER CORPORATION
E-2, E-3	PIPELINES OR ANCILLARY PURPOSES	SEE DIAG	THIS PLAN - SEC 136 WATER ACT 1989	COLIBAN REGION WATER CORPORATION
E-3	DRAINAGE	SEE DIAG	THIS PLAN	CITY OF GREATER BENDIGO



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SURVEYOR'S FILE REF: 1065315  
PLOTTED 01-04-2021 P.J.L.

VERSION 03

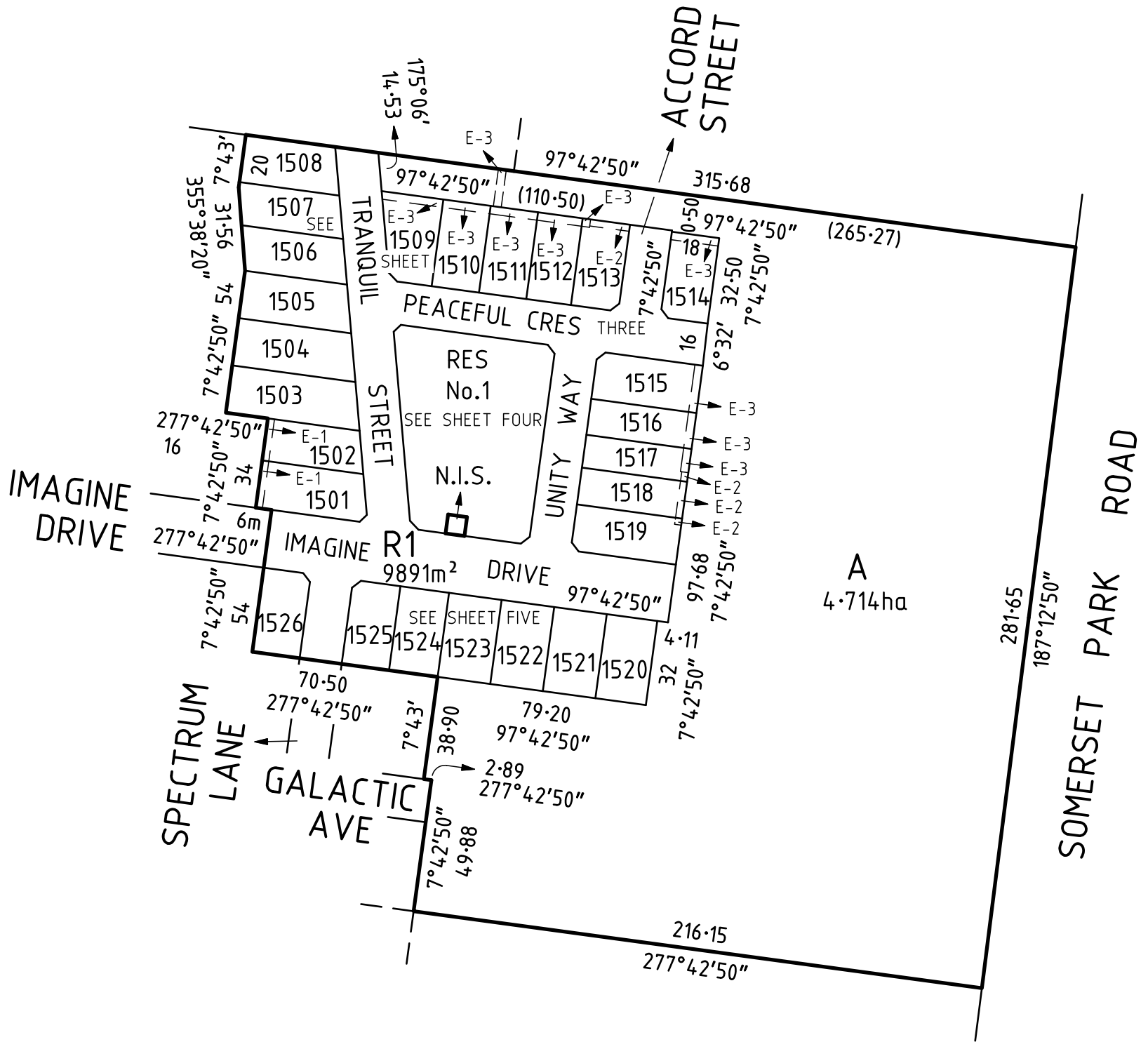
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SIZE: A3

Sheet 1 of 6 Sheets

CHRISTOPHER SCOTT FRANKS



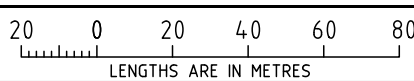
MGA2020  
ZONE 55



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SCALE  
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ORIGINAL SHEET SIZE  
A3

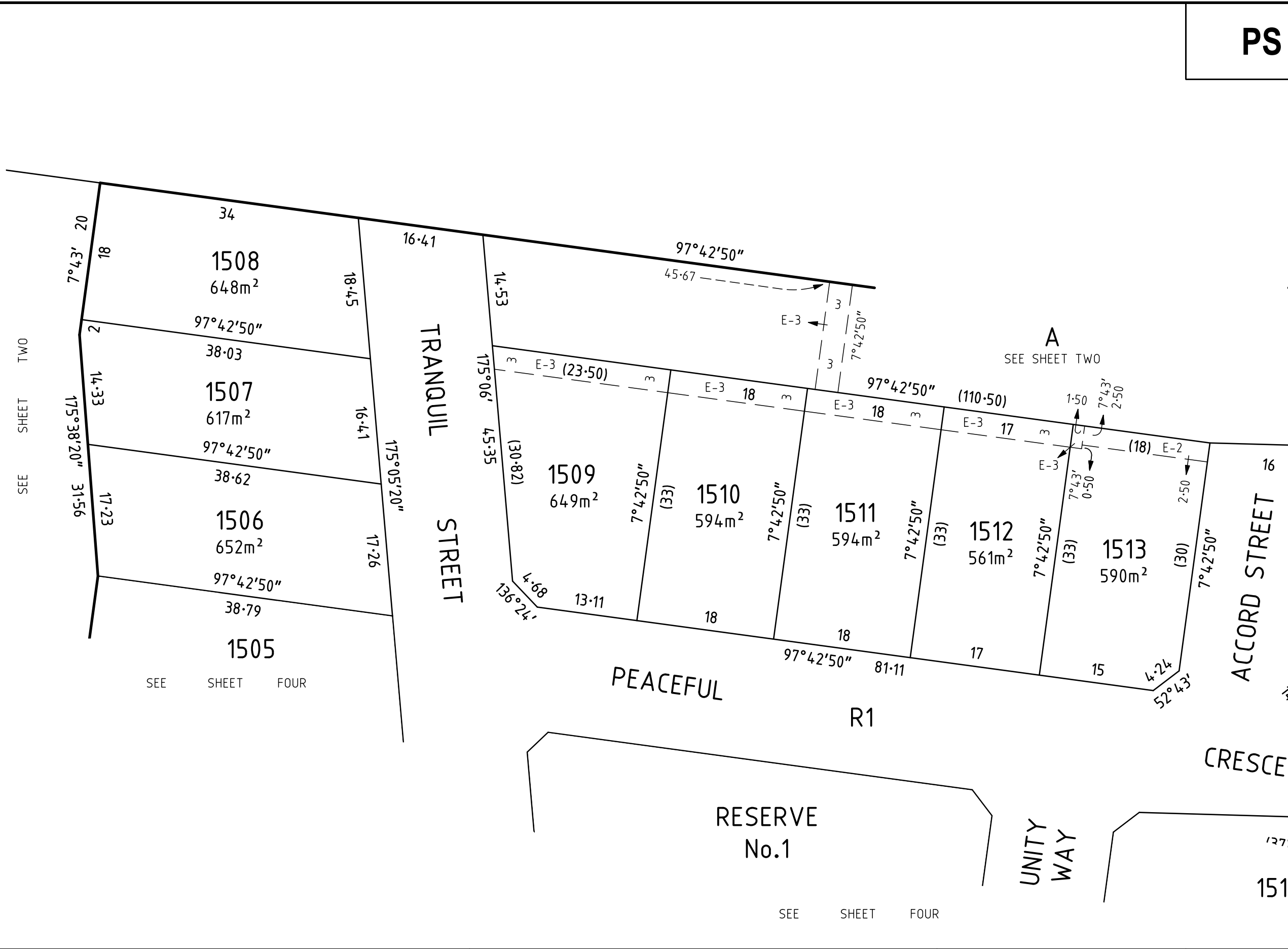
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VER  
03

PLOTTED 01-04-2021 P.J.L.  
Sheet 2

CHRISTOPHER SCOTT FRANKS





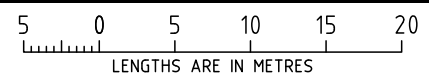
SEE SHEET TWO

SEE SHEET FOUR

SEE SHEET FOUR



SCALE 1:500



ORIGINAL SHEET SIZE A3 SURVEY 1C

CHRISTOPHER SCOTT FRANKS











BINDS THE BURDENED LAND AND THE BENEFIT OF THE RESTRICTION IS ANNEXED TO AND RUNS WITH THE BENEFITED LAND

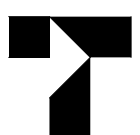
**BURDENED LAND:** ALL THE LOTS IN THIS PLAN EXCEPT LOT A

**BENEFITED LAND:** ALL THE LOTS IN THIS PLAN EXCEPT LOT A

**RESTRICTION:**

THE BURDENED LAND CANNOT BE USED WITHOUT ACCORDANCE WITH THE PROVISIONS RECORDED IN MCP #T.B.A.

EXPIRY DATE: T.B.A.

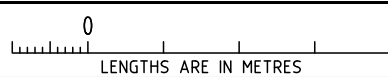


**Tomkinson**  
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SCALE  
N/A



ORIGINAL  
SHEET SIZE  
A3

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Sheet 6

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