



# **Ordinary Meeting of Council**

**22 June 2022**

**UNDER SEPARATE COVER  
ATTACHMENTS**

**ITEM 9.1**

**QUEANBEYAN-PALERANG REGIONAL COUNCIL  
ORDINARY MEETING OF COUNCIL**

**ATTACHMENTS – 22 June 2022 Page i**

Item 9.1	Development Application DA.2021.1259 - Four Torrens Title Lots, Construction of Three Two Storey Dwelling Houses - 2G Phillip Avenue, Queanbeyan East	
<i>Attachment 1</i>	<i>DA.2021.1259 - Draft Plan of Management for APZ Over Council Land - 2G Phillip Avenue.....</i>	<i>2</i>
<i>Attachment 2</i>	<i>DA.2021.1259 - S4.15 Assessment Report - 2G Phillip Avenue .....</i>	<i>22</i>
<i>Attachment 3</i>	<i>DA.2021.1259 - Architectural Plans - 2G Phillip Avenue .....</i>	<i>40</i>
<i>Attachment 4</i>	<i>DA.2021.1259 - Subdivision and Survey - 2G Phillip Avenue..</i>	<i>67</i>
<i>Attachment 5</i>	<i>DA.2021.1259 - Statement of Environmental Effects - 2G Phillip Avenue, Queanbeyan West.....</i>	<i>70</i>
<i>Attachment 6</i>	<i>DA.2021.1259 - Bushfire Assessment - 2G Phillip Avenue ...</i>	<i>102</i>
<i>Attachment 7</i>	<i>DA.2021.1259 - Biodiversity Report - 2G Phillip Avenue.....</i>	<i>141</i>
<i>Attachment 8</i>	<i>DA.2021.1259 - Combined Redacted Submissions- 2G Phillip Avenue Queanbeyan East.....</i>	<i>198</i>
<i>Attachment 9</i>	<i>DA.2021.1259 - Response to Submissions - 2G Phillip Avenue Queanbeyan East.....</i>	<i>207</i>
<i>Attachment 10</i>	<i>DA.2021.1259 - Draft Conditions of Consent - 2G Phillip Avenue .....</i>	<i>213</i>

# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 1 DA.2021.1259 - DRAFT PLAN OF MANAGEMENT FOR APZ  
OVER COUNCIL LAND - 2G PHILLIP AVENUE

2 Phillip Avenue Queanbeyan – Plan of Management

## Plan of Management

**Lot 1 DP 119766, 2G Phillip Avenue, Queanbeyan East &  
Lot 102 DP 1213713, 10G Phillip Avenue, Queanbeyan East**

### Plan

### Summary Sheet

#### COUNCIL:

**Name:** Queanbeyan-Palerang Regional Council

**Address:** 256 Crawford Street, Queanbeyan 2620

**Post :** PO Box 90, Queanbeyan. NSW 2620

**Web:** [www.qprc.nsw.gov.au](http://www.qprc.nsw.gov.au)

**Phone :** 1300 735 025

**Representative:** Portfolio General Manager – Natural and Built Character

#### LANDOWNER:

**Name:** Pineclub Pty Ltd (ABN 42 053 954 939)

**Address:** 2G Phillip Avenue, Queanbeyan. 2620

**Post:** 47/3 Young Street, Crestwood. NSW 2620

**Email:** [garrykerans@gmail.com](mailto:garrykerans@gmail.com)

**Phone:** 0427268935

**Representative:** Garry Kerans

2 Phillip Avenue Queanbeyan – Plan of Management

**LAND:**

Lot 1 in DP 119766 at Phillip Avenue, Queanbeyan East, NSW, 2620

Lot 102 DP 1213713 at Philip Avenue, Queanbeyan East, NSW, 2620

**OPERATIVE PROVISIONS:**

**1 Definitions and Interpretations**

1.1 In this Plan the following definitions apply:

**Act** means the *Environmental Planning and Assessment Act 1979* (NSW)

**Council Land** means Lot 102 DP 1213713 at Philip Avenue, Queanbeyan East, NSW, 2620

**Development** means the future development of the Land under this Plan and the associated works

**Development Application** means an application under the Act for a Development Consent

**Development Consent** means the consent under Part 4 of the Act to carry out development

**Land** means Lot 1 in DP 119766 at Phillip Avenue, Queanbeyan East, NSW, 2620, and following subdivision of the Land, means each Lot in the approved subdivision.

**Landowner** means the initial Landowner, and following subdivision of the Land, means each Lot Owner

**Lot** means each lot in a plan of subdivision of the Land

**Lot Owner** means each owner, from time to time, of a Lot

2 Phillip Avenue Queanbeyan – Plan of Management

**Management Obligation** means the management of the portion of the Land and the adjoining area of Council Land incorporating Buttles Creek that is designated in the Map as attaching to each proposed Lot, in accordance with the relevant requirements of any Development Consent, including the attached Vegetation Management Plan.

**Map** means the map supplied as Appendix 1

**Party** means a party to this Plan, including all successors and assigns and subsequent Lot Owners

**Vegetation Management Plan** means the vegetation management plan in Appendix 2

**Work** means work associated with the Management Obligations, as well as any weed control or planting necessary or other work required by the Vegetation Management Plan.

1.2 In the interpretation of this Plan, the following provisions apply unless the context otherwise requires:

1.2.1 Headings are inserted for convenience only and do not affect interpretation.

1.2.2 A reference in this Plan to a business day means a day other than a Saturday or Sunday on which banks are open for business generally in Queanbeyan.

1.2.3 If the day on which any act, matter or thing is to be done under this Plan is not a business day, the act, matter or thing is to be done on the next business day.

1.2.4 An expression importing a natural person includes any company, trust, partnership, joint venture, association, body corporate or governmental agency.

1.2.5 Where a word or phrase is given a defined meaning, another part of speech or other grammatical form in respect of that word or phrase has a corresponding meaning.

2 Phillip Avenue Queanbeyan – Plan of Management

1.2.6 A word which denotes the singular denotes the plural, a word which denotes the plural denotes the singular, and a reference to any gender denotes the other genders.

1.2.7 References to the word 'include' or 'including' are to be construed without limitation.

**2 Effect of this Plan.**

2.1 This Plan applies to the Council Land, the Land and to the Development and binds the Landowner and each subsequent Lot Owner.

**3 Commencement of this Plan**

3.1 This Plan commences when it has been executed by each of the Parties and must be executed prior to the issue of an occupation or subdivision certificate relating to any consent issued under development application DA.2021.1259 by the Council.

**4 Amending this Plan**

4.1 The Parties may, at any time and from time to time, agree in writing on any amendment to this Plan.

**5 Vegetation Management Plan**

5.1 In executing this Plan the Landowner acknowledges that the Vegetation Management Plan specifies the works to be carried out under this Plan.

**6 Management Obligations**

6.1 The Landowner, at its own cost, is to perform the Management Obligations. To avoid doubt, following subdivision of the Land, each Lot Owner must perform the Management Obligations that relate to its Lot. A Lot Owner is not responsible for Management Obligations that relate to a different Lot.

2 Phillip Avenue Queanbeyan – Plan of Management

**7 Carrying out of Work**

7.1 Any Work that is required to be carried out by the Landowner under this Plan is to be carried out in accordance with any relevant Development Consent.

**8 Access to the Land**

8.1 The Landowner is to permit the Council, its officers, employees, agents and contractors to enter the Land or any other land at any time, upon giving reasonable prior notice, in order to inspect, examine or test any Work or to remedy any breach of the Landowner relating to the carrying out of any Work.

8.2 The Council is to permit the Landowner to enter and occupy any Council Land (including a watercourse) for the purpose of enabling the Landowner to carry out any Work under this Plan that is required to be carried out on such land or to perform any other obligation imposed on the Landowner by or under this Plan.

**9 Protection of People and Property**

9.1 The Landowner is to ensure to the fullest extent reasonably practicable in relation to the carrying out of any Work that:

9.1.1 all necessary measures are taken to protect people and property, and

9.1.2 nuisances and unreasonable noise and disturbances are prevented.



2 Phillip Avenue Queanbeyan – Plan of Management

**10 Indemnity and Insurance**

- 10.1 The Landowner indemnifies the Council, its employees, officers, agents, contractors and workmen from and against all losses, damages, costs (including legal costs on a full indemnity basis), charges, expenses, actions, claims and demands whatsoever which may be sustained, suffered, recovered or made arising in connection with a negligent act or omission of the Landowner in carrying out any Work and the performance of any other obligation under this Plan .
- 10.2 The Landowner is to take out and keep current, or is to ensure that its contractors take out and keep current, to the satisfaction of the Council the following insurances in relation to Work required to be carried out by the Landowner under this Plan.
- 10.2.1 public liability insurance for at least \$20,000,000.00 for a single occurrence, which covers the Council, the Landowner and any subcontractor of the Landowner, for liability to any third party,
- 10.2.2 workers compensation insurance as required by law.
- 10.3 The Landowner is not to carry out any Work unless it has first provided to the Council satisfactory written evidence of all of the insurances specified in this clause.

2 Phillip Avenue Queanbeyan – Plan of Management

**11 Failure to Carry Out Work**

- 11.1 If the Council reasonably considers that the Landowner is in breach of any obligation under this Plan relating to any Work, the Council may give the Landowner a notice requiring the breach to be rectified to the Council's reasonable satisfaction.
- 11.2 The dispute resolution provisions of this Plan do not apply to the giving of such a notice given under clause 11.1
- 11.3 A notice given under clause 11.1 is to allow the Landowner a period of not less than 28 days to rectify the breach or such further period as the Council considers reasonable in the circumstances.
- 11.4 The Council may carry out and complete the Work the subject of a notice under clause 11.1 if the Landowner fails to comply with the notice to the Council's reasonable satisfaction.
- 11.5 The Landowner is to do all things reasonably necessary to enable the Council to exercise its rights under clause 11.4
- 11.6 If the Council incurs a reasonable cost in carrying out, completing or rectifying a defect in a Work resulting from non-compliance by the Landowner with this Plan, the Council may recover the cost from the Landowner in a court of competent jurisdiction.
- 11.7 Nothing in this clause prevents Council taking action under the *Environmental Planning and Assessment Act 1979* to enforce the non-compliance with a condition of consent relating to the obligations imposed under this Plan.

2 Phillip Avenue Queanbeyan – Plan of Management

**12 Dispute Resolution - Expert Determination**

12.1 This clause applies to a dispute under this Plan which relates to a matter that can be determined by an appropriately qualified expert.

12.2 Any dispute between the Parties as to whether a dispute to which this clause applies can be determined by an appropriately qualified expert is to be referred to the Chief Executive Officer of the professional body that represents persons with the relevant expertise for determination, which is to be final and binding on the Parties.

12.3 Such a dispute is taken to arise if one Party gives another Party a notice in writing specifying particulars of the dispute.

12.4 If a notice is given under clause 12.3, the Parties are to meet within 14 days of the notice in an attempt to resolve the dispute.

12.5 If the dispute is not resolved within a further 28 days, the dispute is to be referred to the President of the NSW Law Society to appoint an expert for expert determination.

12.6 The expert determination is binding on the Parties except in the case of fraud or misfeasance by the expert.

12.7 Each Party is to bear its own costs arising from or in connection with the appointment of the expert and the expert determination.

2 Phillip Avenue Queanbeyan – Plan of Management

**13 Dispute Resolution - Mediation**

13.1 This clause applies to any dispute under this Plan other than a dispute to which clause 12 applies.

13.2 Such a dispute is taken to arise if one Party gives another Party a notice in writing specifying particulars of the dispute.

13.3 If a notice is given under clause 13.2, the Parties are to meet within 14 days of the notice in an attempt to resolve the dispute.

13.4 If the dispute is not resolved within a further 28 days, the Parties are to mediate the dispute in accordance with the Mediation Rules of the Law Society of New South Wales published from time to time and are to request the President of the Law Society, or the President's nominee, to select a mediator.

13.5 If the dispute is not resolved by mediation within a further 28 days, or such longer period as may be necessary to allow any mediation process which has been commenced to be completed, then the Parties may exercise their legal rights in relation to the dispute, including by the commencement of legal proceedings in a court of competent jurisdiction in New South Wales.

2 Phillip Avenue Queanbeyan – Plan of Management

**14 Assignment, Sale of Land, etc.**

14.1 Unless the matters specified in clause 14.2 are satisfied, the Landowner is not to do any of the following:

14.1.1 transfer the Land to any person, or

14.1.2 assign or novate to any person the Landowner's rights or obligations under this Plan.

14.2 The matters required to be satisfied for the purposes of clause 14.1 are as follows:

14.2.1 the Landowner has, at no cost to the Council, first procured the execution by the person to whom the Landowner's rights or obligations under this Plan are to be assigned or novated, of an agreement in favour of the Council on terms reasonably satisfactory to the Council, and

14.2.2 the Council, by notice in writing to the Landowner, has stated that evidence satisfactory to the Council has been produced to show that the assignee or novatee, is reasonably capable of performing its obligations under the Plan, and

14.2.3 the Landowner is not in material breach of this Plan, and

14.2.4 the Council otherwise consents to the transfer, assignment or novation, such consent not to be unreasonably withheld

14.3 This clause does not apply in relation to any sale or transfer of the Land if this Plan is registered on the title to the Land at the time of the sale.

2 Phillip Avenue Queanbeyan – Plan of Management

**15 Costs**

15.1 The Landowner is to pay to the Council the Council's reasonable costs as agreed for preparing, negotiating and executing this Plan, and any document related to this Plan within 7 days of a written demand by the Council for such payment.

15.2 The Landowner is also to pay to the Council the Council's reasonable costs of enforcing this Plan within 7 days of a written demand by the Council for such payment.

**16 Annual Completion of Landowner's Obligations Under this Plan**

16.1 This clause applies when the Landowner has completed all of its annual obligations under this Plan to the satisfaction of the Council.

16.2 The Landowner may make an application to the Council in writing requesting the Council to certify in writing that the Landowner has completed all of its annual obligations under this Plan to the reasonable satisfaction of the Council.

16.3 The Council is to issue the certificate referred to in clause 26.2 within 28 days of receiving the Landowner's application referred to in that clause.

**Executed by the Landowner  
Pineclub Pty Ltd**

.....  
**Signature**

2 Phillip Avenue Queanbeyan – Plan of Management

.....  
**Name**

.....  
**Position**

.....  
**Date**

**Executed by Council**

.....  
**Signature**

.....  
**Name**

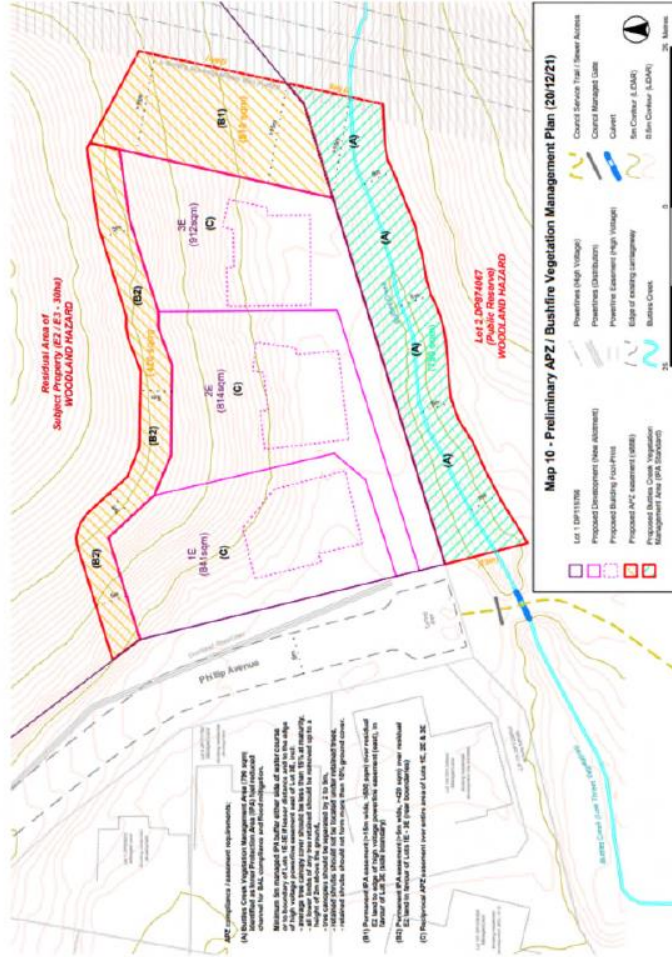
.....  
**Position**

.....  
**Date**

2 Phillip Avenue Queanbeyan – Plan of Management

Appendix 1

APPENDIX 1 – MAP





## Appendix 2

### VEGETATION MANAGEMENT PLAN

#### 1. Application

1.1. This Vegetation Management Plan applies to the riparian area either side of a 3rd order (Class 4) creek called Buttles Creek, designated “(A)” in the map in Appendix 1 of the 2 Phillip Avenue Plan of Management.

#### 2. Aim of this Plan

- 2.1. The aims of this Plan are as follows:
- 2.1.1. To limit and manage the vegetation growth within the asset protection zones associated with the Development in an acceptable manner.
  - 2.1.2. To limit the spread of fire to and from the Land and protect both the adjoining development as well as other existing development within the Phillip Avenue, Elizabeth Crescent zone of Queanbeyan.
  - 2.1.3. To undertake the controlled management of vegetation in the riparian area in a manner suitable for this area to conform to current Asset Protection Zone (APZ) management practice.
  - 2.1.4. As identified in the Hydrological Study undertaken by the Snowy Mountains Engineering Corporation, to limit the density of tree growth and vegetation accumulation within the Buttles Creek area to reduce the risk of overland flooding caused by the accumulation of vegetation which may partially or wholly block the present water flow in Buttles Creek.
  - 2.1.5. To control and manage weed and exotic species within the riparian area to minimise spread to downstream sections of Buttles Creek and the Queanbeyan River. Weeds and exotic species of concern are listed in Table 1 below, which is extracted from the ecological consultant’s report provided with the application for the development.
  - 2.1.6. To carry out works generally consistent with the Environment First Principles set out in Attachment 2 to this Vegetation Management Plan.

2 Phillip Avenue Queanbeyan – Plan of Management

**3. Outcomes of this Plan**

- 3.1. At the completion of each cycle of work carried out by the landowners the following outcomes should be achieved:
  - 3.1.1. The average tree canopy cover across the Area should be less than 15% at maturity,
  - 3.1.2. Lower limbs of any tree retained within the Area should be removed up to a height of 2m above the ground
  - 3.1.3. Tree canopies within the Area should be separated by 2 to 5m
  - 3.1.4. Retained shrubs within the Area should not be located under retained trees within the Area
  - 3.1.5. Retained shrubs within the Area should not form more than 10% ground cover.

**4. Works Required**

- 4.1. The landowner shall undertake an annual weed management and vegetation maintenance program in the riparian area during the months of September to November each year to achieve the outcomes in 3.1 above. Treatment should conform with best practice low impact bush regeneration/ecological practice, and include measures implemented to mitigate erosion, and impacts on any native fauna residing in the treatment area. In particular the annual maintenance program shall include the following actions:
  - 4.1.1. Undertake staged removal/treatment of weeds and vegetation, to minimise erosion.
  - 4.1.2. Prioritise treatment/removal of identified weeds with reference to the identified weeds in Attachment 2 to this Vegetation Management Plan.
  - 4.1.3. Remove any weed species prior to clearing native vegetation;
  - 4.1.4. Retain and relocate fallen dead limbs containing hollows (where practical and safe), and any lopped hollow sections of trees to provide habitat for native fauna;
  - 4.1.5. Minimise disturbance to existing soil profiles to avoid disturbing terrestrial species and the potential for erosion;
  - 4.1.6. Minimise disturbance to any rock formations if discovered, to prevent disturbing harbourage sites for native fauna (lizards, snakes, small mammals);
  - 4.1.7. Visually check for presence of any fauna habituating in treatment area, prior to mulch/slash native vegetation and retain on site;

2 Phillip Avenue Queanbeyan – Plan of Management

- 4.1.8. Retain any mulched/slashed native vegetation, although the biomass of slashed /mulched vegetation should not exceed ground fuel parameters for an APZ. Mulched vegetation will provide runways and harbor for potential small native mammalian fauna if present or egressing the subject property, and will assist in retaining any soil stored native seed on site. Ensure mulched vegetation is compacted against existing soil profile to reduce capacity for immolation, by excluding air.

2 Phillip Avenue Queanbeyan – Plan of Management

**Attachment 1 - Weed and exotic species found on site**

<i>Scientific name</i>	Common Name
<i>Lantana camara</i>	Lantana
<i>Ligustrum lucidum</i>	Large-leaved privet
<i>Lonicera japonica</i>	Honeysuckle
<i>Malus domestica</i>	Apple
<i>Pinus radiata</i>	Radiata pine
<i>Plantago lanceolata</i>	Lambs tongue
<i>Prunus domestica</i>	Plum
<i>Prunus persica</i>	Peach
<i>Pyracantha angustifolia</i>	Orange firethorn
<i>Quercus robur</i>	English oak
<i>Rosa rubiginosa</i>	Sweet briar
<i>Rubus fruticosus sp aggregate</i>	Blackberry

2 Phillip Avenue Queanbeyan – Plan of Management

<i>Rumex brownii</i>	Swamp dock
<i>Salix babylonica</i>	Weeping willow
<i>Scabiosa atropurpurea</i>	Pin cushion
<i>Senecio madagascarensis</i>	Fireweed
<i>Sida rhombifolia</i>	Paddys lucerne
<i>Ulmus procera</i>	English elm
<i>Verbascum thapsus subsp. thapsus</i>	Great Mullein
<i>Verbena rigida var. rigida</i>	Veined verbena

## Attachment 2

### Environment First Principles

It is intended to manage this watershed as a "system," considering the environmental function first.

All decisions and actions taken should improve the local and downstream ecology of the Buttles Creek watershed.

The overall aim is to protect and enhance the existing natural features as the first step in a hierarchy of other management decisions.

Prevention should be emphasised over remediation, recognising that prevention is more cost efficient than remediation.

Erosion is to be reduced by retaining a low native or fire retarding groundcover, rather than requiring 'heavy handed' removal of bulk areas or weeds by machinery. Landowners should consult with the local LandCare group to establish a well bound network of diverse and low vegetation which would also improve the scour threshold velocity of the whole creek bank, and prevent the invasion of this local ecosystem, by less appropriate species. This outcome would also require least annual maintenance and reduce future creek bank disturbances.

Hand trimming, or removal of many types of weeds is possible if undertaken on a regular basis. Even though the creek bank, and associated granular soil profiles, has proven to be extremely stable, and do not seem to erode much at all during periods of high flow leaving the creek banks without vegetation is to be avoided if possible, as some increase to silt or fine materials entering the creek may occur during these periods.

# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 2 DA.2021.1259 - S4.15 ASSESSMENT REPORT - 2G PHILLIP  
AVENUE



## Section 4.15 Assessment Report - DA.2021.1259

### EXECUTIVE SUMMARY

The proposal seeks development consent for the Torrens title subdivision of land to create 3 development lots (for residential purposes) and 1 residual allotment (4 total). The construction of three dwelling houses, and the creation of an internal driveway/right of way. The proposal also incorporates the provision of a plan of management for the management of a bushfire asset protection zone located on the adjoining lot to the south. The adjoining lot is owned and managed by Council.

The proposal was notified for a period of 14 days from the 31/05/2021 to 28/06/2021 in accordance with the QPRC Community Engagement and Participation Plan. Five (5) submissions were received during the notification period. Raising issues with traffic generation, waste collection, biodiversity and tree removal, impact on threatened species, and overall density of the development. The suggestion that a single dwelling would be better placed on the allotment as opposed to three was also raised by several submitters.

Principal issues relate to the proposed asset protection zone on Council owned land. The slope of the land, and biodiversity impacts on existing native vegetation and the riparian corridor that traverses the lot and adjoining Council owned lot.

It is recommended that Council agrees to enter the proposed Plan of Management to facilitate the creation and maintenance of an appropriate Asset Protection Zone (APZ) for the development on Council land and that the DA be approved under delegated authority of the General Manager subject to the issue of General Terms of Approval by the NSW Rural Fire Service and NSW Natural Resources Access Regulator. In the instance that Council is satisfied with the design of the proposal and with the impact and obligations of the Plan of Management.

### BACKGROUND

The site does not contain any existing development.

Previous DA history includes:

- 1992-1993 – a development applications was submitted to Council for multi-dwelling housing comprising of 15 townhouses on the eastern side of the ridge. The DA was rejected on environmental grounds and flooding issues.
- 2005- A DA for townhouses was submitted and refused.
- 2011 – Rezoning proposal was approved by Council for the portion of R2 and C4 zoned land that currently exists on the site.
- 2016 – A concept plan was drafted but never submitted for DA approval.
- 2021 – The current development application was submitted to Council for 3 development lots, 1 residual lot and the construction of 3 dwellings.

### DESCRIPTION OF THE SITE AND LOCALITY

The subject site is legally described as Lot 1 DP 119766, and is commonly known as No. 2G Phillip Avenue, Queanbeyan East, NSW. The site is located on the north eastern side of Phillip Avenue and has an area of 30.8 Hectares.

The contains split zoning, being predominantly C2 – Environmental Conservation and C4 Environmental Living. The site contains a small portion of R2 low density residential zoned land. Which is in proximity to Phillip Avenue.



The land contains a substantial slope upwards from the watercourse located on the adjoining block to about 30 to 40 metres to the north. From the lot boundary to the south to the highest point of the R2 zoned portion represents a roughly 14 metre slope upwards.

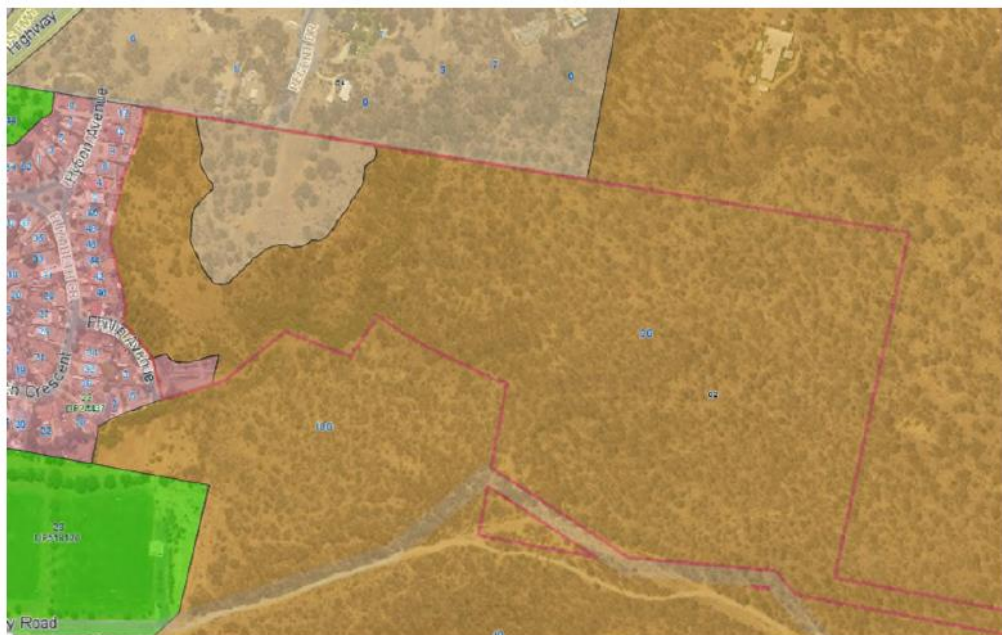


Figure 1: Subject Site

#### PROPERTY BURDENS AND CONSTRAINTS

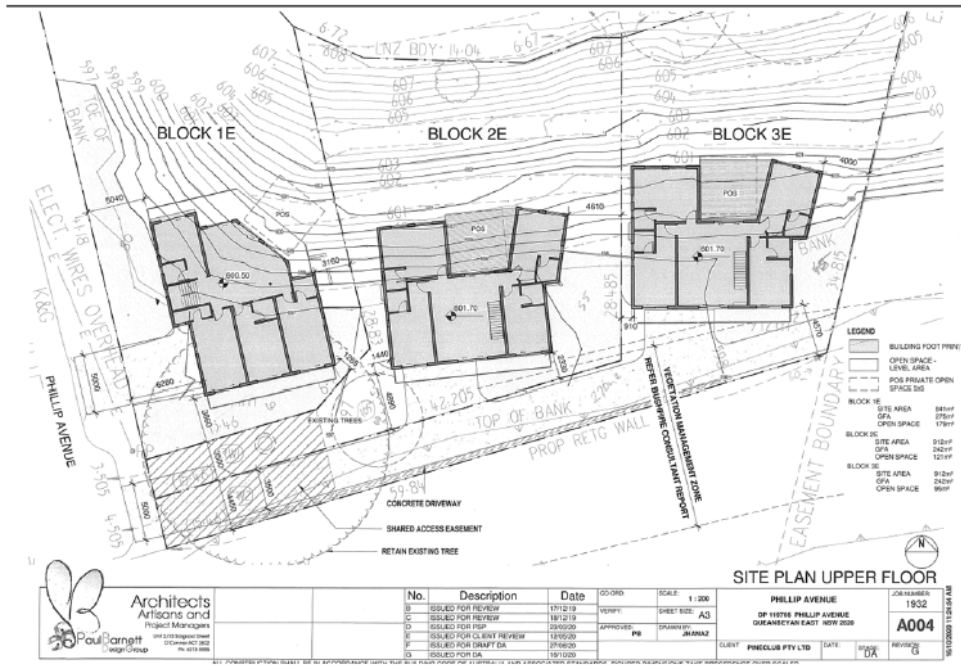
There are no easements or burdens on the land which could affect, or be affected by, the proposed development.

#### DESCRIPTION OF THE PROPOSED DEVELOPMENT

The development application is for the subdivision of land to create 3 allotments for residential use and 1 residual lot. The development of three split level homes on the created allotments and a driveway with a registered right of carriageway to service each allotment.

The following lot arrangement is proposed:

- A lot 841m<sup>2</sup> in area and with a road frontage facing Phillip Avenue.
- A lot 814m<sup>2</sup> in area
- A lot 912m<sup>2</sup> in area
- A large residual lot (not for development purposes). The residual lot is a mix of C4 and C2 – Environmental Conservation Zoning. The C4 portion of the lot may be intended for future development whilst the C2 portion is intended as an 'offset' lot with no intended future development.



**CONSENT AUTHORITY**

In accordance with the *Environmental Planning and Assessment Act 1979* (EP&A Act) the proposal is considered local development and Council is the Consent Authority.

**SECTION 4.10 DESIGNATED DEVELOPMENT – EP&A Act, 1979**

The proposal is not designated development.

**SECTION 4.47 INTEGRATED DEVELOPMENT – EP&A Act, 1979**

The proposal is integrated development. The following approval/s were required:

Agency	Requirement	Status
NSW Rural Fire Service	Section 100B <i>Rural Fires Act 1997</i> .	Subject to adoption of POM
NSW Natural Resources Access Regulator	Section 91 <i>Water Management Act 2000</i>	Outstanding

**REFERRALS**

**INTERNAL REFERRALS**

**Engineering Comments**

Council’s Development Engineer offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

**Health & Building Comments**

Council's Building Officer offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

## **EXTERNAL REFERRALS**

### **NSW RURAL FIRE SERVICE**

The proposal was referred to the NSW RFS. The RFS refused to issue General Terms of Approval (GTAs) on the basis of insufficient area to create an APZ. Unless a Plan of Management or agreement was in place to deal allow the ongoing management of an APZ on adjoining land to achieve sufficient distances. The proposal will be required to be re-referred to RFS once Council has adopted and agreed to the Plan of Management proposed by the Applicant. If Council does not wish to adopt the Plan of Management GTAs will not be able to be issued unless an alternative arrangement can be adopted.

### **NSW NATURAL RESOURCES ACCESS REGULATOR**

NRAR has not issued approval for the proposed development within proximity to the watercourse. The DA should not be issued without the approval of NRAR. Further information was requested, the applicant submitted information. However, no further correspondence has been received.

## **CONSIDERATION OF THREATENED SPECIES**

Council is required under Section 4.15 of the *Environmental Planning and Assessment Act 1979* to assess whether the proposed development will have a significant impact on any threatened species, populations, or ecological communities, or their habitats. Such threatened species in NSW may be protected under the *NSW Biodiversity Conservation Act 2016* or under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. The assessment process under the *EPBC Act* can occur outside the NSW planning system and requires input from the Federal Department of Environment. Any *EPBC Act* requirements associated with this proposal are discussed later in this section.

Section 7.3 of the *Biodiversity Conservation Act 2016* sets out what must be considered in determining whether a proposed development will have a significant impact. Section 7.3 requires the consideration of the following:

- any assessment guidelines applicable to the species, population, or ecological communities, or their habitats, and
- the application of the 'seven-part test' described in the Section.

The subject site and adjoining allotment (Council land) is predicted to contain several endangered plant communities, including red stringybark, inland scribbly gum tussock grass and is mapped on the biodiversity values map.

A five-part test was undertaken as to determine whether the proposed development would significantly affect any threatened species, population, or ecological community, or its habitat. From the assessment below the clearing is of native vegetation and considered a key threatening process. However, given the vegetation type, scale of removal and existing vegetation that will remain it is considered that could be a significant impact on the threatened species, population, ecological community and/or its habitat.

**(a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,**

**(b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:**

- (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or**

- (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,
- (c) in relation to the habitat of a threatened species or ecological community:
  - (i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and
  - (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and
  - (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,
- (d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),
- (e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

The proposed removal of the vegetation in this application is considered the removal of native vegetation and is therefore an activity as defined under the *Biodiversity Conservation Act 2016*. The proposal is likely to have some impact on native vegetation within the mapped riparian corridor. The proposed Asset Protection Zone included in the applicant's submitted Plan of Management for Council's endorsement is in a terrestrial biodiversity mapped area of land and within a riparian corridor.

The submitted Ecological Report had the following findings;

In respect to whether the proposed development exceeds the biodiversity offsets scheme threshold Area Criteria, and meets the requirement for BDAR assessment.

The biodiversity offsets scheme threshold for a property with a minimum lot size of <1 ha, specifies that native vegetation clearing should not exceed 0.25 ha.

The subject property and the proposed development, including the provision of APZ's, measures approximately 0.4ha in size.

The maximum extent of proposed native vegetation clearing, associated with the proposed development, has been estimated at 0.02 ha. It would involve the clearing of: seven (7), native trees as well native shrubs/ground-cover species located in the footprint of the proposed development.

None of the tree, or shrub/ground-cover species, are threatened or protected, and are well represented in extant native vegetation within the surrounding landscape and within the nearby Cumberun NR.

It has been indicated, that a substantial area of extant native vegetation, in E2 zoned lands on Lot 1/DP119766, to the east of the proposed development on the subject property, will be retained.

Canopy coverage on the subject property is virtually absent, and does not provide an effective or safe corridor for the egress of native arboreal fauna. Significant scat, and visual evidence of activity by European fox (*Vulpes vulpes*); Domestic cat (*Felis catus*), and Domestic dog was observed in the western sections of Lot 1/DP119766 and Lot 102 /DP1213713.

Evidence of diurnal and nocturnal surveys for native fauna, indicate that habitation, and foraging by native fauna is concentrated in the eastern sections of Lot 1/DP119766 and Lot 102 /DP1213713. These areas also provide greater coverage for faunal egress across the landscape into contiguous areas of extant native vegetation in Cuumbeun Nature Reserve.

The Biodiversity Values Map and Threshold Tool and site assessment, indicates that there are no significant Biodiversity Values on the subject property, and the amount of native vegetation clearing associated with the proposed development, does not exceed the biodiversity offsets scheme threshold of 0.25ha for a property with a minimum lot size of < 1ha.

The proposed development does not trigger the requirement for a BDAR assessment.

A Test of Significance, consistent with the requirements of Part 7, Division 1, Section 7.3, has been prepared and is presented as Appendix 4.

Threatened species identified in desktop searches, as occurring within a 5km radius of the subject property, and potentially utilising ecosystems present on the subject property, are presented in Appendix 1. An analysis and estimate of the impact of the proposed development on threatened species utilising, or potentially utilising the subject property, is also presented in Appendix 1.

In summary:

- No threatened plant species, were identified on the subject property, or in the area of proposed development, during site, or desktop-based assessment.
- No threatened fauna were noted as permanent residents on the subject property, or in the area of proposed development. Threatened fauna opportunistically habituating, harbouring, foraging, or egressing the general landscape, would experience minimal disruption and impact from the proposed development.

Activities associated with the proposed development do not represent a Key Threatening Process as detailed in Schedule 4 of the BC Act 2016.

The vegetation dominating the subject property and the area of proposed development, has been identified as CLEARED/MODIFIED, and dominated by weed/exotic vegetation.

It has been determined by the author, as detailed in the Test of Significance, presented as Appendix 4, that the environmental impacts of the proposed development are not significant. It is also proposed, that any impacts should be counterbalanced by Management Recommendations detailed in Section 5. The benefits of these recommendations are summarised following:

- Removal of weed species infesting the subject property, and the area of proposed development, including the northern edge of the Buttles Creek riparian corridor.
- Reduction in harbour to feral animals.
- Consequent reduction in predation of native fauna by feral predators.
- Restoration of the native environment of 'the northern edge of the Buttles Creek riparian corridor.
- Buffering the potential reduction in forage for native herbivores, by planting native herb, and graminoid species, such as Snow grass (*Poa sieberiana*).
- Compensatory planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the northern riparian corridor of Buttles Creek.
- Compensatory planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*).

The development area of the allotment is wholly mapped as terrestrial biodiversity. The applicant provided an appropriate ecological report which determined that the relatively small area of native vegetation to be removed did not trigger the need for a Biodiversity Development Assessment Report (BDAR). The ecological report did not assess the additional impacts created by the need to clear some vegetation within the adjacent creek corridor to create a bushfire asset protection zone (APZ). However, it has been assessed that the works required within the corridor listed below, do not exceed the area of clearing that would trigger the need for a BDAR particularly given the poor quality of vegetation within the creek line and the substantial area of extant native vegetation retained on the residual lot.

- The average tree canopy across the POM should be less than 15% at maturity,
- Lower limbs of any tree retained with the POM should be removed up to a height of 2 metres above the ground,
- Tree canopies within the POM should be separated by 2 to 5 metres,
- Retained shrubs within the POM should not be located under retained trees within the POM,
- Retained shrubs within the POM should not form more than 10% ground cover.

The ecological report concludes that there are no threatened plant species identified on the subject property or in the area of the proposed development and that no threatened fauna were noted as permanent residents on the subject property. As such it was determined that the environmental impacts of the proposed development are not significant. The report did include some compensatory planting which will be included as a condition of consent.

#### **SECTION 4.14 CONSULTATION AND DEVELOPMENT CONSENT – CERTAIN BUSHFIRE PRONE LAND – EP&A ACT, 1979**

Section 4.14 of the EP&A Act requires an assessment to be made of the proposal against the requirements of the Rural Fire Service document 'Planning for Bushfire Protection 2006'. The Act allows this assessment to be made by the Council or the RFS. Assessments under Section 4.14 against the PBP 2006 need to be made for most development on bushfire prone land which does not require an approval under the Rural Fires Act 1997 as integrated development.

The subject site is mapped as bushfire prone land. The proposal was referred to the NSW Rural Fire Service. The RFS are not in support of the application in its current state and requested that the applicant provide a plan of management or arrangement with the adjoining owner to allow sufficient area for an asset protection zone.

#### **SECTION 4.15 CONSIDERATIONS – EP&A Act, 1979**

In determining a development application, the consent authority is to take into consideration the following matters of consideration contained within section 4.15 of the *Environmental Planning and Assessment Act, 1979* as relevant to the development application:

##### **4.15(1)(a) the provisions of:**

##### **(i) any environmental planning instrument**

#### **STATE ENVIRONMENTAL PLANNING POLICY NO. 55 - REMEDIATION OF LAND**

The site is not known to contain any existing contamination. It is considered appropriate for its intended use for residential development.

#### **STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX ) 2004**

A valid BASIX Certificate has been submitted for each proposed dwelling. The development will be conditioned to comply with the BASIX requirements if approved.

#### **STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007**

The proposal is adjacent to overhead powerlines and was referred to Essential Energy who offered no objection to the proposal.

### QUEANBEYAN LOCAL ENVIRONMENTAL PLAN (QLEP) 2012

An assessment of the proposal against the general aims of QLEP 2012 is included below:

Cl. 1.2(2)	Aims	Complies
(a)	To facilitate the orderly and economic use and development of land in Queanbeyan based on ecological sustainability principles.	Yes
(b)	To provide for a diversity of housing throughout Queanbeyan.	Yes
(c)	To provide for a hierarchy of retail, commercial and industrial land uses that encourage economic and business development catering for the retail, commercial and service needs of the community.	Yes
(d)	To recognise and protect Queanbeyan's natural, cultural and built heritage including environmentally sensitive areas such as Queanbeyan's native grasslands, the Queanbeyan River and Jerrabomberra Creek.	No
(e)	To protect the scenic quality, views and vistas from main roads and other vantage points within Queanbeyan of the escarpment and Mount Jerrabomberra.	Yes
(f)	To maintain the unique identity and country character of Queanbeyan.	Yes
(g)	To facilitate the orderly growth of the urban release area in Googong in a staged manner that promotes a high level of residential amenity and the timely provision of physical and social infrastructure through appropriate phasing of the development of land.	Yes

### Suspension of Covenants, Agreements, and Instruments

Under Clause 1.9A, no covenants, agreements and instruments restricting the development have been identified.

### Permissibility

The subject site is Zoned R2 Low Density Residential zone under *Queanbeyan Local Environmental Plan 2012*.

Development for the purposes of a dwelling such as is proposed is permissible within the R2 Low Density Residential zone with consent and is defined under QLEP 2012 as follows:

**"dwelling house** means a building containing only one dwelling.

**Note**— Dwelling houses are a type of **residential accommodation**—see the definition of that term in this Dictionary"

Subdivision of land, as is also proposed, is permitted pursuant Clause 2.6 of the QLEP 2012.

The site is also partially zoned C4 - Environmental Living and C2 – Environmental Conservation.

### Zone Objectives

An assessment of the proposal against the objectives of the R2 Low Density Residential zone is included below:

Objectives	Complies
➤ To provide for the housing needs of the community within a low-density residential environment.	Yes
➤ To enable other land uses that provide facilities or services to meet the day to day needs of residents.	Yes
➤ To encourage development that considers the low-density amenity of existing and future residents.	Yes

➤ To encourage development that is designed to recognise the bushland character of the locality where appropriate and to minimize the impact of urban development, particularly on the edge of the urban area.	<b>Yes</b>
--	------------

**Demolition**

Under Clause 2.7 of the QLEP 2012, the proposal does not involve demolition of an existing structure.

**Part 4: Principal development standards**

An assessment of the proposal against the relevant provisions contained within Part 4 of the QLEP 2012 is provided below.

**Minimum subdivision lot size**

Cl.	Standard	Controls	Proposed	Complies
4.1	Minimum subdivision lot size	600m <sup>2</sup> (R2 Zoned Land)	814m <sup>2</sup> 841m <sup>2</sup> 912m <sup>2</sup> (residual is greater than 600m <sup>2</sup> )	Yes

**Height of building**

Cl.	Standard	Controls	Proposed	Complies
4.3	Height of building	8.5m (R2 Zoned Land)	8.5m	Yes

**Part 5: Miscellaneous Provisions**

The relevant provisions contained within Part 5 of the QLEP 2012 are addressed below as part of this assessment:

**5.11 Bush fire hazard reduction**

The application **does** involve bush fire hazard reduction works. The NSW RFS will be required to issue GTAs General Terms of Approval for the proposal. These have not been issued yet as Council is required to endorse a Bushfire Plan of Management for the proposed Asset Protection Zone on the adjoining lot which is Council owned land (Lot 102 DP 1213713, No. 10G Phillip Avenue).

**Part 7: Local Provisions**

The relevant provisions contained within Part 7 of the QLEP 2012 are addressed below as part of this assessment:

**7.1 Earthworks**

Clause 7.1 of the QLEP 2012 establishes several matters requiring consideration for development involving earthworks. Earthworks associated with the development are proposed and form part of this application. The proposed earthworks will not have a detrimental impact on drainage patterns and soil stability or the existing and likely amenity of adjoining properties. The development application will be condition to mitigate the potential impact of soil erosion and the like during construction.

**7.3 Terrestrial biodiversity**

Clause 7.3 of the QLEP 2012 makes for provision for developments that impact on terrestrial biodiversity. This clause **is** considered relevant to the proposed development as the site **is** identified as "Biodiversity" on the Terrestrial Biodiversity Map.



- (3) *Before determining a development application for development on land to which this clause applies, the consent authority must consider:*
- (a) *whether the development is likely to have:*
- (i) *any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and*
  - (ii) *any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and*
  - (iii) *any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and*
  - (iv) *any adverse impact on the habitat elements providing connectivity on the land, and*
- (b) *any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.*

The development site is located within land mapped as terrestrial biodiversity. An assessment, including the finding of the provided Ecologist's report are provided in the section of this report that provides an assessment of the impact on threatened species. It is considered that the development will have some impact on threatened species and terrestrial biodiversity due to the development of the site and the maintenance of APZs on the land and adjoining Council land.

#### **7.4 Riparian land and watercourses**

Clause 7.4 of the QLEP 2012 makes provision for developments within riparian land and watercourses. This clause is considered relevant to the proposed development as the site is partially identified as "Watercourse" on the Riparian Land and Watercourses Map".

The development is not likely to have a significant impact on the watercourse, with the exception of the maintenance of an asset protection zone on land either side. The NSW Natural Access Resources Regulator has not issued approval for licence for the activity within and within the vicinity of the watercourse. Additional information requested by NRAR has been forwarded to them and a response is still being sought.

#### **7.9 Essential services**

Clause 7.9 of the QLEP 2012 requires satisfactory arrangements to be made for water supply, stormwater drainage, solid domestic waste, sewage, and the treatment and disposal of effluent. Along with the supply of electricity and suitable vehicle access.

Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the development are available or that adequate arrangements have been made to make them available when required:

- (a) *the supply of water,*
- (b) *the supply of electricity,*
- (c) *the disposal and management of sewage,*
- (d) *stormwater drainage or on-site conservation,*
- (e) *suitable vehicular access.*

Council's Development Engineer has assessed the proposed development and confirmed that the site **does** have suitable vehicle access and adequate services are available.

#### **4.15(1)(a)(ii) any draft environmental planning instruments**

The draft comprehensive Queanbeyan-Palerang Local Environmental Plan is applicable to the development. The plan does not contain any requirements that would prohibit the development of the land.

#### **4.15(1)(a)(iii) any development control plan**

<b>QUEANBEYAN DCP 2012 COMMENTS</b>		
<b>Section</b>	<b>Controls</b>	<b>Compliance / Conditions</b>
<b>PART 2 – ALL ZONES</b>		
<b>2.2</b>	<p><b>Car Parking</b>            A total of 2 car parking spaces per dwelling have been provided in accordance with the requirements of section 2.2.</p> <p>The application has been referred to Councils Development Engineer who has found the parking arrangements including access and manoeuvring areas to be satisfactory in this instance.</p>	Yes
<b>2.3</b>	<p><b>Environmental Management</b>            A BASIX certificate has been submitted and the relevant commitments shown on the submitted plans. The proposed development will not result in any significant environmental impacts and is not located within the vicinity of arterial roads, entertainment venues or the like.</p>	Yes
<b>2.4</b>	<p><b>Contaminated Land Management</b>            The proposal is considered generally satisfactory with respect to State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) and therefore also with respect to DCP clause 2.4. The land is not known to have been used for potentially contaminating activities.</p>	Yes
<b>2.7</b>	<p><b>Erosion and Sediment Control</b>            Standard conditions relating to site management will be imposed should development consent be granted.</p>	Yes
<b>2.8</b>	<p><b>Guidelines for Bushfire Prone Areas</b>            The site is identified as bushfire prone land and was referred to the NSW RFS as integrated development.</p>	Yes
<b>2.9</b>	<p><b>Safe Design</b>            The proposed development generally satisfies the relevant provisions of this clause.</p>	Yes
<b>2.10</b>	<p><b>Subdivision</b>            The proposed development includes subdivision and meets the requirements of this clause.</p>	Yes
<b>2.11</b>	<p><b>Airspace Operations and Airport Noise</b>            The proposed development complies with the requirements prescribed for the site in Clause 7.5 Airspace Operations and 7.6 Development in areas subject to Airport Noise. of the QLEP 2012 – see previous discussion in this assessment.</p>	N/A
<b>2.12</b>	<p><b>Preservation of Trees and Vegetation</b>            The proposed development requires the modification of existing vegetation. Please refer to the threatened species assessment section of this report.</p>	No

<b>QUEANBEYAN DCP 2012 COMMENTS</b>																																				
Section	Controls	Compliance / Conditions																																		
<b>PART 3A – SINGLE DWELLING RESIDENTIAL DEVELOPMENT.</b>																																				
3.A2.1	<p><b>External Materials, Patterns, textures and Decorative Elements</b></p> <ul style="list-style-type: none"> <li>a) Residential development shall be compatible with existing development with regard to external materials, patterns, textures and decorative elements.</li> <li>b) All dwellings or extensions on or above the 640m contour level (AHD) shall have external materials dark in tone and non-reflective in nature.</li> <li>c) Development in scenic protection areas shall be compatible with the natural scenic qualities of the locality.</li> </ul> <p>The proposal is generally compliant with the above mentioned criteria.</p>	Yes																																		
3.A.2.2	<p><b>Siting and Building Setbacks</b></p> <ul style="list-style-type: none"> <li>a) The minimum building setbacks to comply with Table 1. <u>Note:</u> No carport or garage is to be constructed forward of the building line of any dwelling already on the site.</li> <li>b) No clothes drying areas are to be located within the front setback area unless they are suitably screened from public view.</li> </ul> <p>All dwellings comply with the relevant setbacks except for the front and rear setback of dwelling 1 (labelled as Block E). Noting that the two rear dwellings are battle axe allotments which do not have a traditional frontage. Rear setbacks for these blocks are compliant.</p> <p><b>Table 1</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2" style="text-align: center;">Front Boundary</th> <th rowspan="2">Rear Boundary</th> </tr> <tr> <th style="text-align: center;">Major Frontage</th> <th style="text-align: center;">Minor Frontage</th> </tr> </thead> <tbody> <tr> <td>Dwelling</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Single Storey *</td> <td style="text-align: center;">6.0m</td> <td style="text-align: center;">4.0m</td> <td style="text-align: center;">4.0m</td> </tr> <tr> <td>Two or more Storeys *</td> <td style="text-align: center;">7.5m</td> <td style="text-align: center;">4.0m</td> <td style="text-align: center;">4.0m</td> </tr> <tr> <td>Free standing garage/ carport</td> <td style="text-align: center;">6.0m</td> <td style="text-align: center;">5.5m</td> <td style="text-align: center;">Nil</td> </tr> <tr> <td>Attached pergola/deck</td> <td style="text-align: center;">6.0m</td> <td style="text-align: center;">4.0m</td> <td style="text-align: center;">0.9m</td> </tr> <tr> <td>Swimming pool or similar</td> <td style="text-align: center;">6.0m</td> <td style="text-align: center;">4.0m</td> <td style="text-align: center;">Nil</td> </tr> <tr> <td>Corner Allotments with Long Curved Frontages</td> <td style="text-align: center;">5.0m</td> <td style="text-align: center;">5.0m</td> <td style="text-align: center;">4.0m (see Fig. 1)</td> </tr> </tbody> </table> <p><b>Figure 3.2 (Upper Floor)</b></p> <p>The front and rear setback variation for Block 1E are not considered significant and are not anticipated to result in a significant impact on the streetscape if the development was to be approved.</p>		Front Boundary		Rear Boundary	Major Frontage	Minor Frontage	Dwelling				Single Storey *	6.0m	4.0m	4.0m	Two or more Storeys *	7.5m	4.0m	4.0m	Free standing garage/ carport	6.0m	5.5m	Nil	Attached pergola/deck	6.0m	4.0m	0.9m	Swimming pool or similar	6.0m	4.0m	Nil	Corner Allotments with Long Curved Frontages	5.0m	5.0m	4.0m (see Fig. 1)	Yes - Variation
	Front Boundary		Rear Boundary																																	
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<p><b>3.A.2.3</b></p>	<p><b>Fences</b></p> <p>a) Fences – forward of the building line for the primary road frontage:</p> <p>i) No higher than 1.8m above ground level (existing) for a maximum of 50% of the length of the frontage. Note: Parts of fences adjoining a driveway must be reduced in height to a maximum of 1.2m to allow for visibility when manoeuvring vehicles.</p> <p>ii) Contain open elements to allow for passive surveillance of the street. Note: Council will not approve lengths of high, solid walls.</p> <p>iii) Any gates are to swing open within the property.</p> <p>iv) Must not interfere with the ability of vehicles to safely manoeuvre.</p> <p>v) Be designed to be integrated with the design of the existing building in terms of materials, colours and finishes.</p> <p>vi) Barbed wire and electric fencing is not permitted.</p> <p>vii) Highly reflective materials are not supported.</p> <p>b) Fences behind the building line of the primary road frontage:</p> <p>i) Side and rear boundary fences:</p> <ul style="list-style-type: none"> <li>• No higher than 2.1m above ground level (existing)</li> <li>• Barbed wire and electric fencing is not permitted.</li> <li>• Highly reflective materials will not be supported.</li> </ul> <p>ii) Corner blocks (Secondary Street frontage):</p> <ul style="list-style-type: none"> <li>• If constructed of timber metal or lightweight materials – be not higher than 2.1m above ground level (existing). Open elements are required for the portion of fencing that is above 1.8m.</li> <li>• If constructed using masonry materials – be not higher than 1.8, above ground level (existing), and must contain open elements to allow for passive surveillance of the street.</li> <li>• Any gates are to swing open within the property.</li> <li>• Must not interfere with the ability of vehicles to safely manoeuvre.</li> <li>• Be designed to be integrated with the design of the existing building in terms of materials, colours and finishes.</li> <li>• Barbed wire and electric fencing is not permitted.</li> <li>• Highly reflective materials are not supported.</li> </ul> <p>Fencing is not proposed at this stage. The proponent will have to undertake fencing as exempt development or under a separate development application (if relevant).</p>	<p>N/A</p>
<p><b>3.A.3.1</b></p>	<p><b>Topography</b></p> <p>a) Buildings are to be designed to relate to the existing contours of the site, with minimal excavation or fill and with the height of foundations kept to a minimum.</p> <p>b) Cut and fill shall be limited to a maximum of 1.5m</p> <p>c) Finished batters of cut and fill are limited to a maximum of 1 vertical 4 horizontal.</p> <p>d) Greater depths maybe considered provided they are not highly visible from the street</p>	<p>Yes</p>

	<p>The dwellings are constructed into the slope on the site, which is significant. This has been done to limit cut and fill. The site slopes upwards of 14 metres within the location of the dwellings.</p>	
3.A.5	<p><b>Vehicle Access and Car Parking</b></p> <ul style="list-style-type: none"> <li>a) Parking spaces are not permitted between the front of the building(s) and the street with the exception of any access way immediately in front of the garage. The area between the dwelling and the verge should not be hardstand area used for parking of vehicles or storage of items.</li> <li>b) Where an existing allotment has vehicular access to a public lane, additional vehicular access from the lane will be considered where there is no adverse impact.</li> <li>c) Driveways are to be set back sufficiently from side boundaries to allow for effective screen planting along the boundary.</li> <li>d) The driveway width itself is to be at least 3m wide, with adequate turning area provided to allow for ease of access to garages.</li> <li>e) Driveways may need to be splayed, depending on volume and speed of traffic and footpath width. The grade of a driveway is not to exceed 1:5 within the property boundary, with a suitable transition provided to the public road.</li> </ul> <p><b>Note:</b> The design of driveways shall comply with the Queanbeyan City Council Engineering standards and specifications.</p> <p>Two parking spaces per dwelling have been provided. Council's Engineer has assessed parking and driveway requirements as satisfactory.</p>	Yes
3.A.7	<p><b>Consideration of Views, Shadowing and Privacy</b></p> <ul style="list-style-type: none"> <li>a) New dwellings should be designed to safeguard privacy and minimise the extent of impact on the outlook of existing or potential dwellings in the proximity.</li> <li>b) Direct overlooking of internal living areas of neighbouring dwellings is to be minimised by building layout, location and design of windows and balconies, provision of screening devices and landscaping.</li> <li>c) Two storey dwellings will include design features to minimise potential impacts on privacy and loss of natural light to existing adjoining development</li> <li>d) Shadow diagrams will be required for all two storey development showing its impact at 9am, 12 noon and 3pm on 21 June (winter solstice). A minimum of 3 hours of natural light to the private open space and north facing living room windows of adjoining properties is required to be maintained between these hours.</li> <li>e) The proximity of dwellings to each other and the design of dwellings in terms of their layout, bulk, height and position of openings may have an impact on amenity. Privacy considerations are to be addressed through the careful layout of buildings and the activity which occurs in and around them, e.g. windows/decks to be elevated living areas may cause overlooking and be a source of noise nuisance.</li> <li>f) Where two storey development creates a privacy intrusion on adjoining single storey development, appropriate measures must be installed to minimise the impact. The measures can include obscured glazing or screening, but there are alternative options.</li> </ul>	Yes

	The proposal is not anticipated to create any overshadowing or overlooking issues with adjoining sites. The development is located on the opposite side of a road from existing dwellings.	
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**4.15(1)(a)(iiiia) any planning agreement or draft planning agreement**

No planning agreement has been entered into under section 7.4 of the *Environmental Planning and Assessment Act 1979*.

**4.15(1)(a)(iv) matters prescribed by the regulations**

Clause 92 of the *Environmental Planning and Assessment (EP&A) Regulation 2000* requires Council to take into consideration Australian Standard AS2601–1991: *The Demolition of Structures*, in the determination of a development application.

Having regard to these prescribed matters, the proposed development does not involve the demolition of a building for the purposes of AS 2601 – 1991: *The Demolition of Structures*.

Should this application be approved, appropriate conditions of consent are included within the recommended to ensure compliance with any relevant regulations.

**4.15(1)(a)(v) any coastal zone management plan**

Council is not subject to a coastal zone management plan.

**4.15(1)(b) the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality**

Some environmental impacts are anticipated with the clearing and modification of vegetation to create and maintain asset protection zones. No significant social or economic impacts are anticipated. Aboriginal artefacts present on the site are not within the vicinity of the development area of the lot and are located on the far northern corner. The DA was initially referred to Heritage NSW due to this to which it was agreed there would be no impact.

**4.15(1)(c) the suitability of the site for the development**

The subject site is relatively unconstrained and is considered suitable in its current state for the purposes of the proposed development.

**4.15(1)(d) any submissions made in accordance with this Act or the regulations**

The proposal required notification pursuant the QPRC Community Engagement and Participation Plan for a period of 14 days. It was notified from the 31 May 2021 to 28 June 2021. Five (5) submissions were received during this period and all submissions were against the proposal. A copy of the submissions is provided in Attachment 8.

The relevant issues raised are as follows:

- Traffic congestion based on the increased numbers of dwellings. View that the development should be reduced to one dwelling on the site. Upgrading of infrastructure /servicing
- Prevention of public access to nature corridor, destruction of and/or disruption to wildlife corridor, negligence in current management of the site.
- Slope of the land.
- Bulk and scale of dwellings.
- Visual impacts, environmental impacts, that the use of the land is not appropriate and would be better used as a nature corridor.

**Assessing Officer's Comments**

The applicant has provided a detailed and thorough response to the matters raised in submissions which can be found in Attachment 9. It is recommended Councillors refer to this attachment as staff generally support the comments and assertions made in those responses.

It is noted that the creation of an APZ into a riparian corridor will not be without some impact on Council land. Despite this, all other aspects of the development are generally compliant with Council's LEP and DCP. The site was rezoned with the intent of allowing future subdivision and residential development. It is within Council's jurisdiction to weigh up the benefit vs cost of allowing the development to go ahead in its current form given the history of the site, the planning proposal and rezoning, and the contents of the proposed Plan of Management.

#### **4.15(1)(e) the public interest**

The public interest is served through the detailed assessment of this development application under the relevant local planning controls and legislation and consideration of any submissions received relating to it by Council. The proposed development is not considered to be contrary to the public interest.

#### **SECTION 64 CONTRIBUTIONS**

Section 64 of the *Local Government Act 1993* allows contributions to be levied towards the provision of water, sewerage, and stormwater infrastructure.

Section 64 Contributions are applicable to the proposed development.

The Queanbeyan Development Servicing Plan will be applicable to this development. The development will attract 3 ET each, including 1 ET credited for the existing lot prior to subdivision, for water and sewer respectively.

The sewer contribution for the East Zone is \$1,082 per ET, and the water contribution is \$3,225 per ET in the Queanbeyan Zone. The figures are subjected to annual and updated CPI increases.

#### **SECTION 7.12 CONTRIBUTIONS**

Section 7.12 of the *Environmental Planning & Assessment Act 1979* permits councils to require as a condition of development consent, the reasonable dedication of land or the payment of monies, or both, for development that is likely to require the provision of, or increase the demand for public amenities and public services within the area.

Section 7.12 Contributions are applicable to the proposed development as follows:

1% of the total cost of development works = \$12,539.24.

#### **CONCLUSION**

The submitted proposal for a four lot Torrens title subdivision (comprising of 3 development lots and 1 residual allotment) and the construction of three dwellings on Lot 1 DP 119766, No. 2G Phillip Avenue, Queanbeyan East is an integrated development and is supported by a Statement of Environmental Effects (SEE). The proposal was notified to adjoining owner/occupiers and five (5) submissions against the proposal were received.

The proposal has been assessed under Section 4.15 of the *Environmental Planning & Assessment Act 1979* including the relevant provisions of *Queanbeyan Local Environmental Plan 2012* and *Queanbeyan Development Control Plan 2012*. The development generally satisfies the requirements and achieves the objectives of these instruments other than a small variation to front and rear setbacks for the dwelling fronting Phillip Avenue.

The key consideration for Council is the reliance of a bushfire Asset Protection Zone on Council land, which will result in some impacts on biodiversity/native vegetation and the mapped riparian corridor. If Council is willing to accept the recommendations of the Ecologist's report, Bushfire Assessment Report and the terms and condition of the proposed Plan of Management, then the application is deemed generally satisfactory for approval.

Two outstanding matters need to be finalised before the application can be determined:

1. Council must agree to endorse the Plan of Management for the APZ over the Buttles Creek corridor, which must be subsequently forwarded to, and approved by the RFS.
2. NRAR must issue their general terms of approval.

Subject to these two matters being resolved the application can be determined. For that reason, it is recommended that determination of the application be delegated to the CEO when the two outstanding matters have been resolved.



# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 3 DA.2021.1259 - ARCHITECTURAL PLANS - 2G PHILLIP  
AVENUE

1932

# PHILLIP AVENUE

DP 119766 PHILLIP AVENUE  
 QUEANBEYAN EAST NSW 2620

PINECLUB PTY LTD

## Sheet List

Sheet Number	Sheet Name	Revision
A001	LOCATION PLAN	C
A002	EXISTING SITE SURVEY	C
A004	SITE PLAN UPPER FLOOR	G
A005	SITE PLAN LOWER FLOOR	E
A010	1E SITE PLAN	B
A015	2E SITE PLAN	B
A020	3E SITE PLAN	B
A100	1E UPPER FLOOR PLAN	E
A101	1E LOWER FLOOR PLAN	E
A105	2E UPPER FLOOR PLAN	D
A106	2E LOWER FLOOR PLAN	D
A110	3E UPPER FLOOR PLAN	B
A111	3E LOWER FLOOR PLAN	B
A200	1E ELEVATIONS	B
A201	1E ELEVATIONS	B
A205	2E ELEVATIONS	B
A206	2E ELEVATIONS	B
A210	3E ELEVATIONS	B
A211	3E ELEVATIONS	B
A215	COMPOSITE STREET ELEVATIONS	B
A300	1E SECTIONS	D
A305	2E SECTIONS	F
A310	3E SECTIONS	B
A900	SHADOW DIAGRAM - 21 JUNE 9AM	A
A901	SHADOW DIAGRAM - 21 JUNE 12NOON	A
A902	SHADOW DIAGRAM - 21 JUNE 3PM	A



Architects  
 Artisans and  
 Project Managers

Paul Barnett  
 Design Group

Unit 2/15 Sargood Street  
 O'Connor ACT 2602  
 Ph: 6213 5555

DO NOT SCALE: CHECK & VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION



**LOCATION PLAN**



**Architects  
 Artisans and  
 Project Managers**  
 Paul Barnett  
 Design Group  
 Unit 2/15 Sangood Street  
 O'Connor ACT 2602  
 Ph: 6213 5555

CONSULTANTS:

PHILLIP AVENUE  
 DP 119766 PHILLIP AVENUE  
 QUEANBEYAN EAST NSW 2620  
 CLIENT  
 PINECLUB PTY LTD

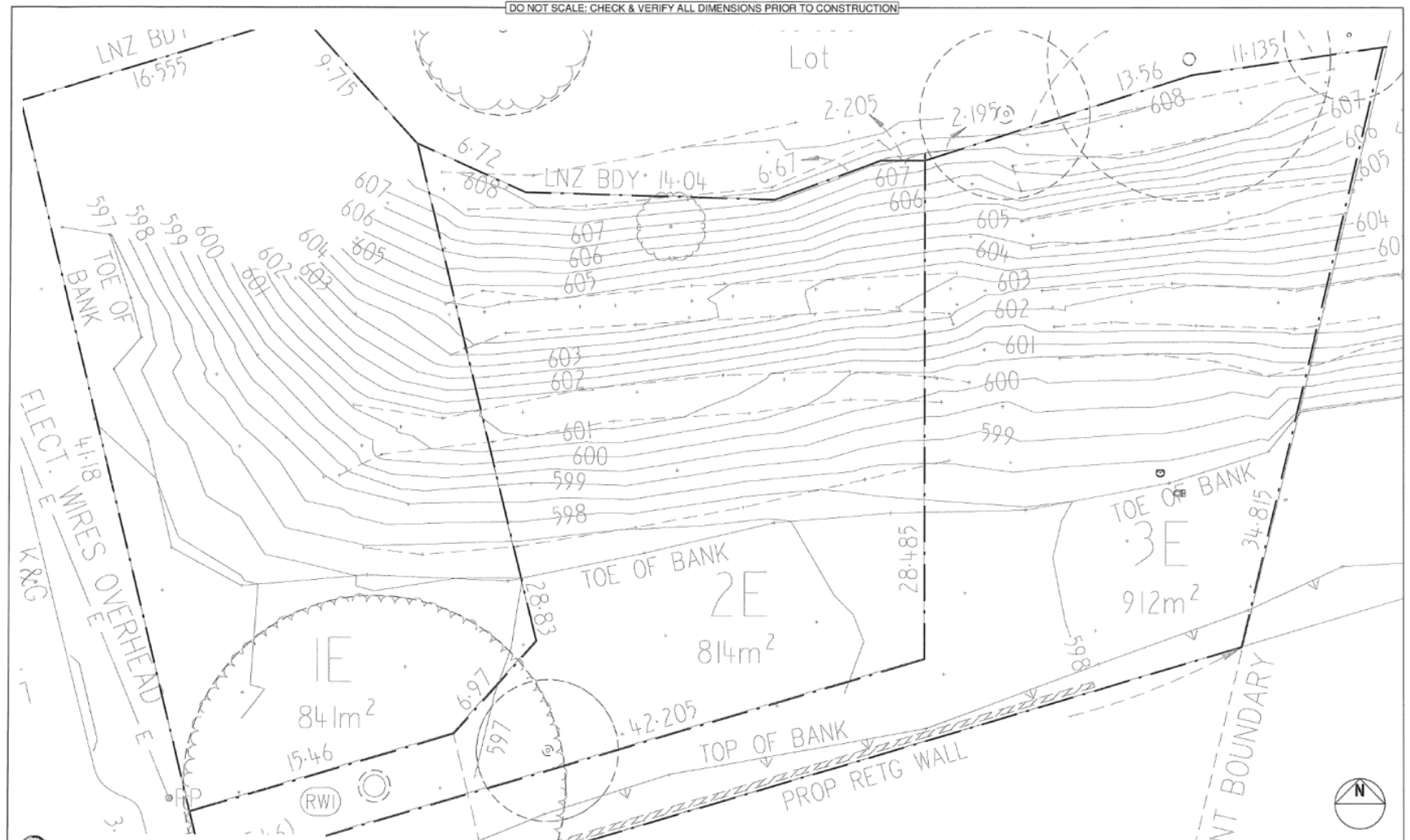
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B	ISSUED FOR DRAFT DA	27/08/20
C	ISSUED FOR DA	16/10/20

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SCALE:	<b>@ A3</b>
DRAWN BY:	<b>JHANAZ</b>

JOB NUMBER:	1932
DRAWING:	<b>A001</b>
REVISION:	<b>C</b>

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ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AND ASSOCIATED STANDARDS. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED

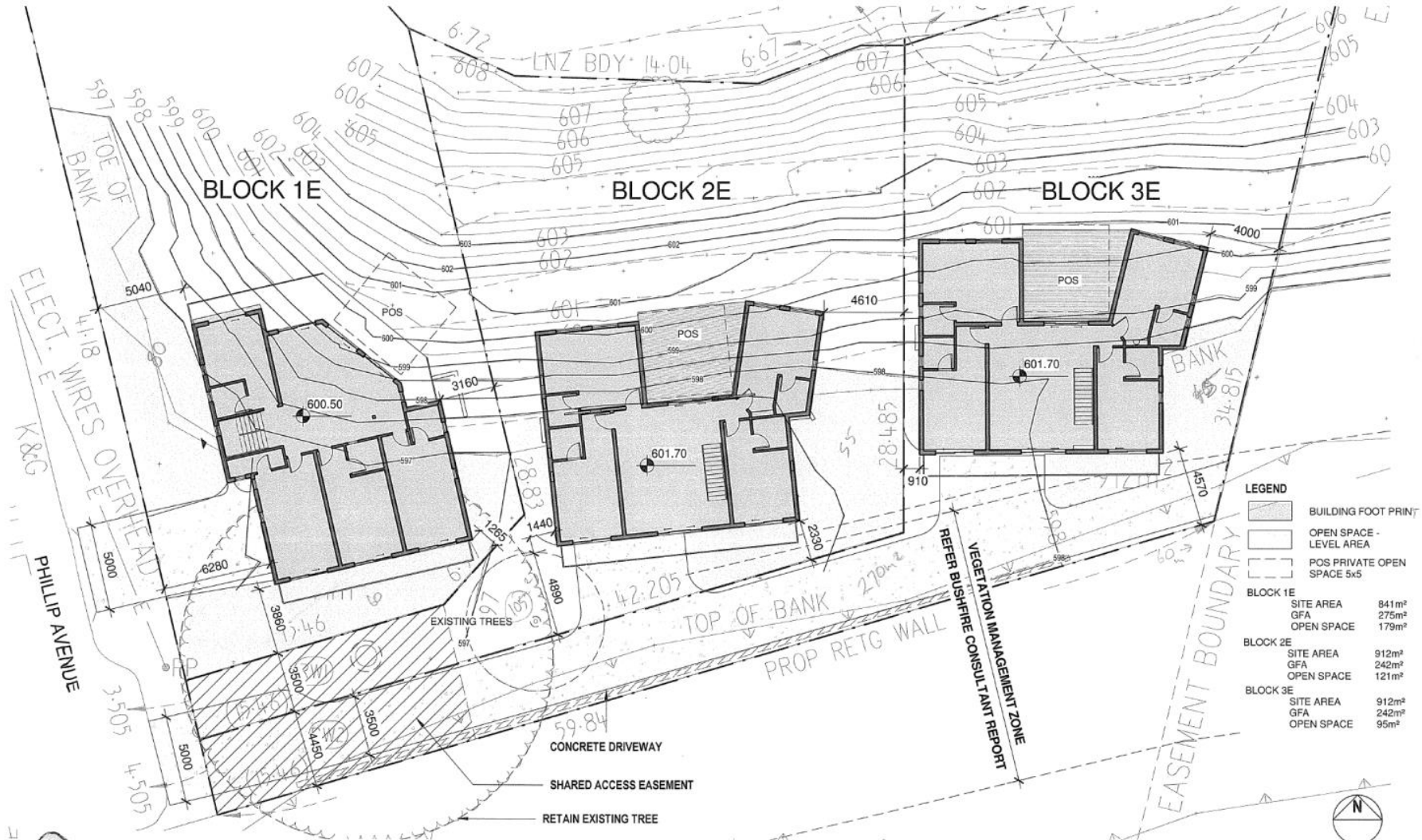


**EXISTING SITE SURVEY**

 <p><b>Architects</b> Artisans and Project Managers <b>Paul Barnett</b> Design Group Unit 2/15 Sargood Street Canberra ACT 2602 Ph: 6213 5555</p>	CONSULTANTS:	PHILLIP AVENUE DP 119766 PHILLIP AVENUE QUEANBEYAN EAST NSW 2620 CLIENT PINECLUB PTY LTD	<table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>ISSUED FOR PSP</td> <td>23/03/20</td> </tr> <tr> <td>B</td> <td>ISSUED FOR DRAFT DA</td> <td>27/08/20</td> </tr> <tr> <td>C</td> <td>ISSUED FOR DA</td> <td>16/10/20</td> </tr> </tbody> </table>	No.	Description	Date	A	ISSUED FOR PSP	23/03/20	B	ISSUED FOR DRAFT DA	27/08/20	C	ISSUED FOR DA	16/10/20	STAGE: <b>DA</b> SCALE: <b>1 : 200 @ A3</b> DRAWN BY: <b>JHANAZ</b>	JOB NUMBER: 1932 DRAWING: <b>A002</b> REVISION: <b>C</b>
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	B	ISSUED FOR DRAFT DA	27/08/20														
C	ISSUED FOR DA	16/10/20															

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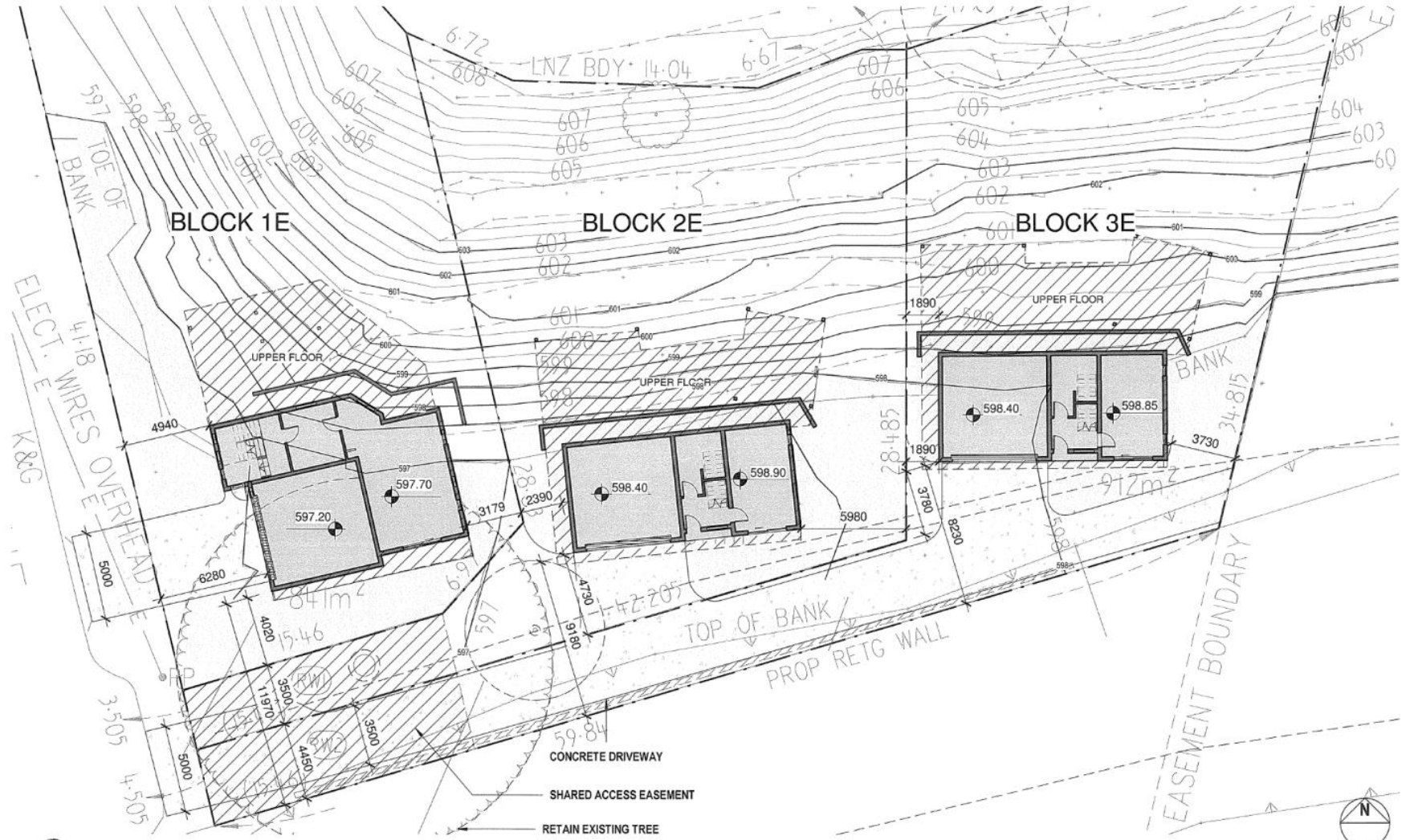
SITE PLAN UPPER FLOOR



No.	Description	Date	CO-ORD:	SCALE:	PHILLIP AVENUE	JOB NUMBER:
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C	ISSUED FOR REVIEW	18/12/19				
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G	ISSUED FOR DA	16/10/20			CLIENT PINECLUB PTY LTD	REVISION: G

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SITE PLAN LOWER FLOOR



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E	ISSUED FOR DA	16/10/20				

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**LEGEND**

- BUILDING FOOT PRINT
- OPEN SPACE - LEVEL AREA
- POS PRIVATE OPEN SPACE 5x5

**BLOCK 1E**

SITE AREA	841m <sup>2</sup>
GFA	275m <sup>2</sup>
OPEN SPACE	179m <sup>2</sup>

**BLOCK 2E**

SITE AREA	912m <sup>2</sup>
GFA	242m <sup>2</sup>
OPEN SPACE	121m <sup>2</sup>

**BLOCK 3E**

SITE AREA	912m <sup>2</sup>
GFA	242m <sup>2</sup>
OPEN SPACE	95m <sup>2</sup>

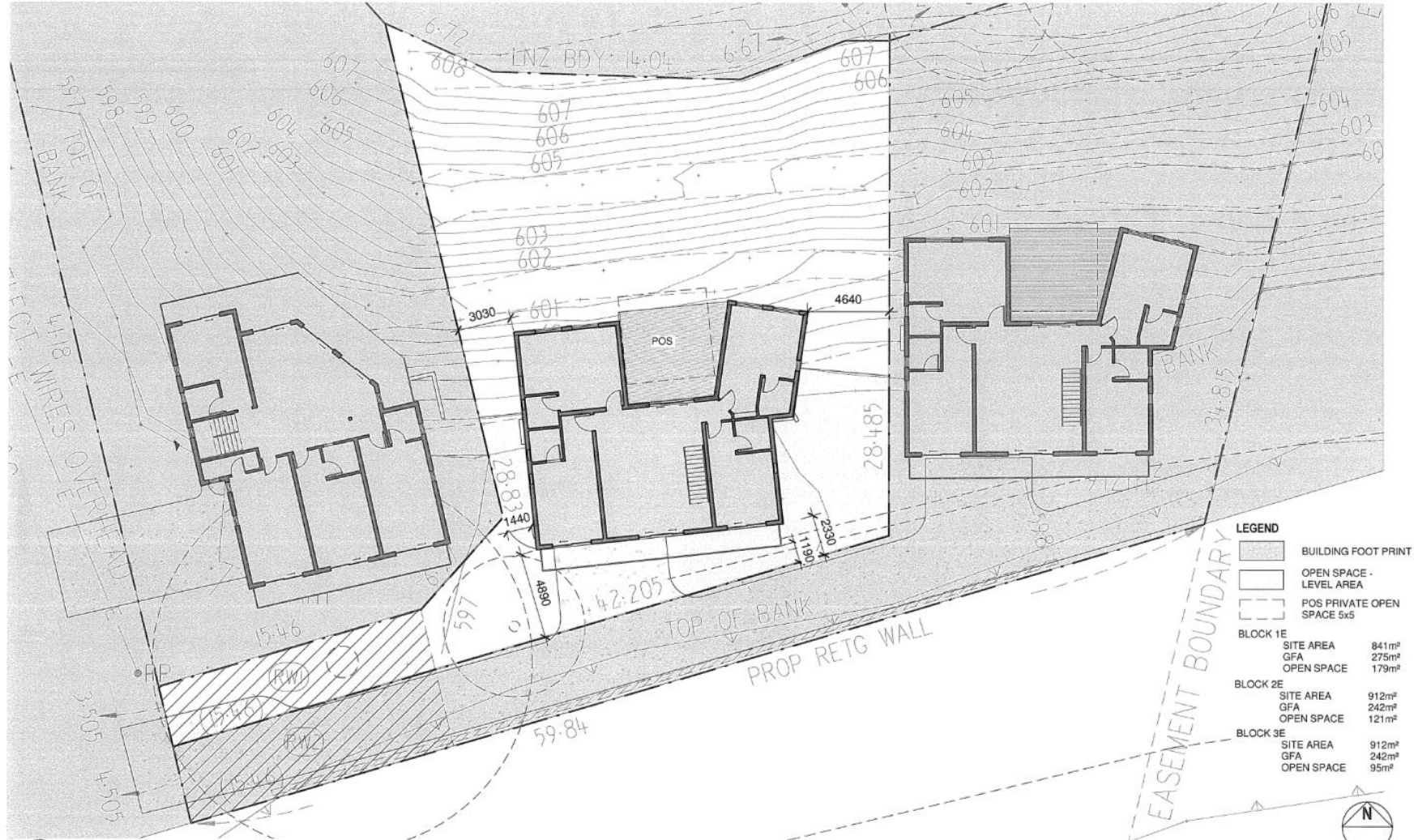
1E SITE PLAN

**Architects  
Artisans and  
Project Managers**  
**Paul Barnett**  
 Design Group  
 Unit 2/15 Sargood Street  
 Connor ACT 2602  
 Ph: 6213 5555

No.	Description	Date	CO-ORD:	SCALE:	PHILLIP AVENUE	JOB NUMBER:
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**LEGEND**

- BUILDING FOOT PRINT
- OPEN SPACE - LEVEL AREA
- POS PRIVATE OPEN SPACE 5x5

**BLOCK 1E**

SITE AREA	841m <sup>2</sup>
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OPEN SPACE	179m <sup>2</sup>

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SITE AREA	912m <sup>2</sup>
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**BLOCK 3E**

SITE AREA	912m <sup>2</sup>
GFA	242m <sup>2</sup>
OPEN SPACE	95m <sup>2</sup>

**2E SITE PLAN**

**Architects  
Artisans and  
Project Managers**

**Paul Barnett  
Design Group**

Unit 2/15 Sargood Street  
 Corner ACT 2602  
 Ph: 6213 5555

No.	Description	Date	CO-ORD:	SCALE:	PHILLIP AVENUE	JOB NUMBER:
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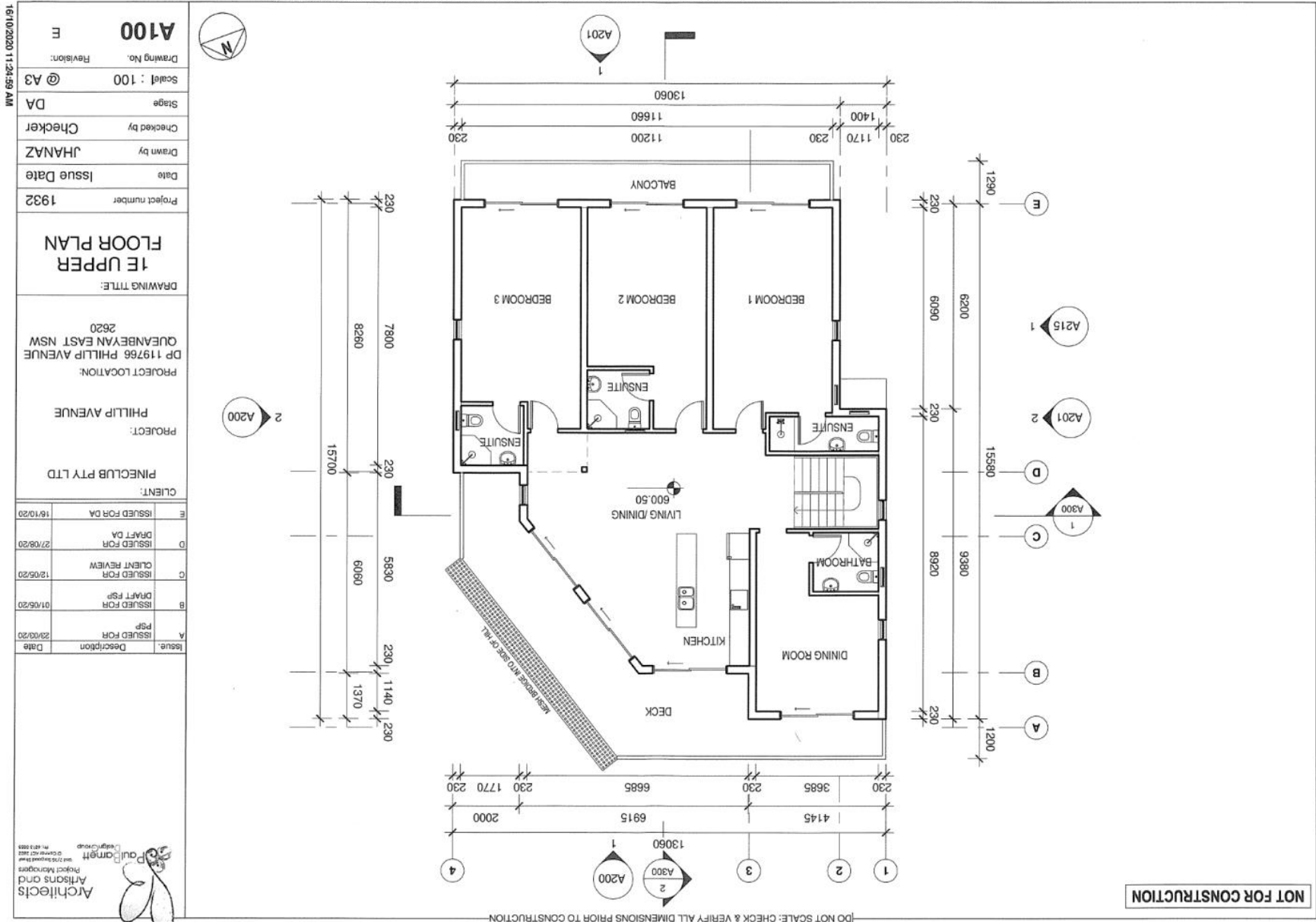


Architects Artisans and Project Managers <b>Paul Barnett</b> Design Group Unit 2/15 Scargood Street O'Connor ACT 2602 Ph: 6213 5555	No.	Description	Date	CO-ORD:	SCALE: 1 : 200	PHILLIP AVENUE DP 119766 PHILLIP AVENUE QUEANBEYAN EAST NSW 2620	JOB NUMBER: 1932
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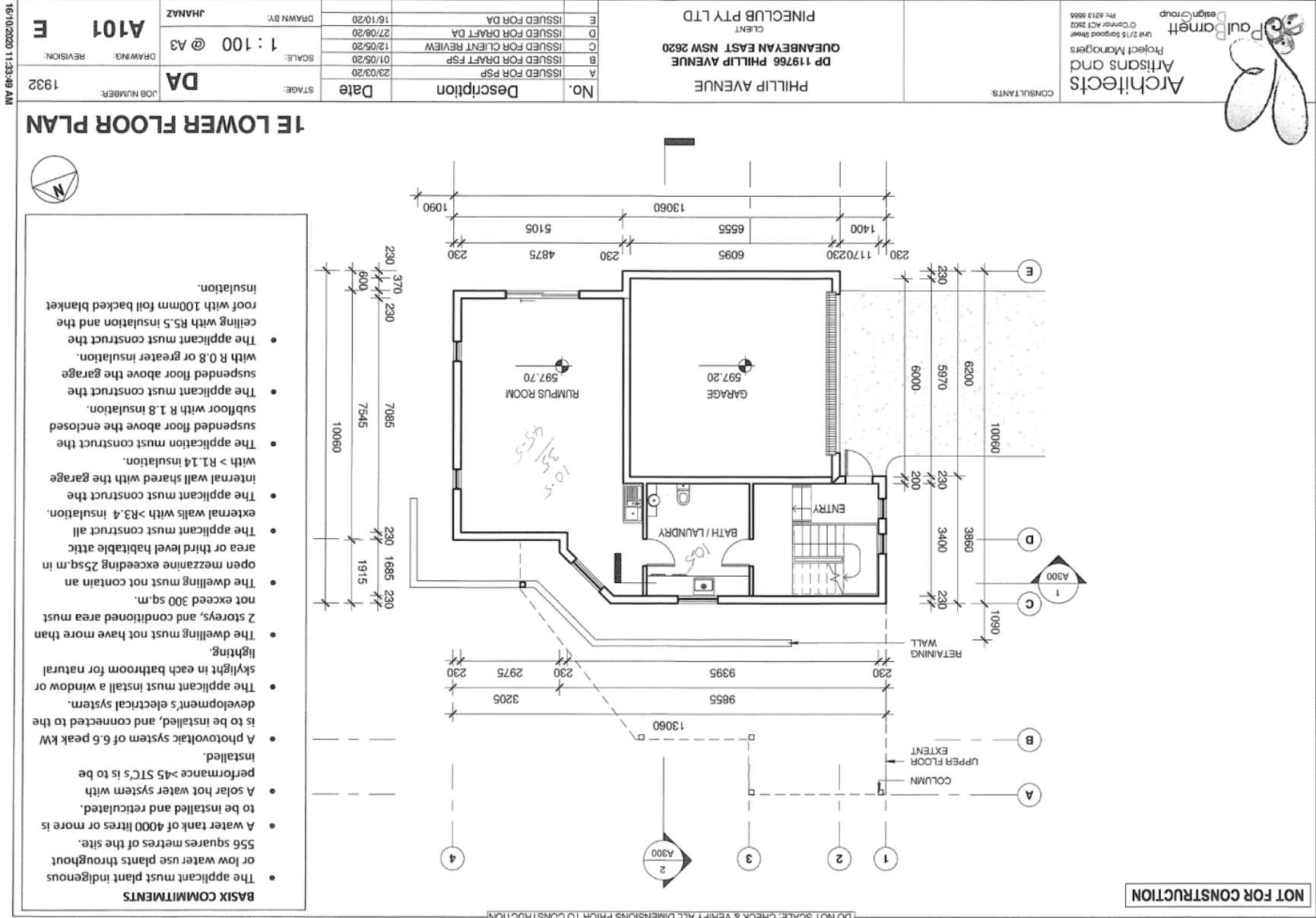
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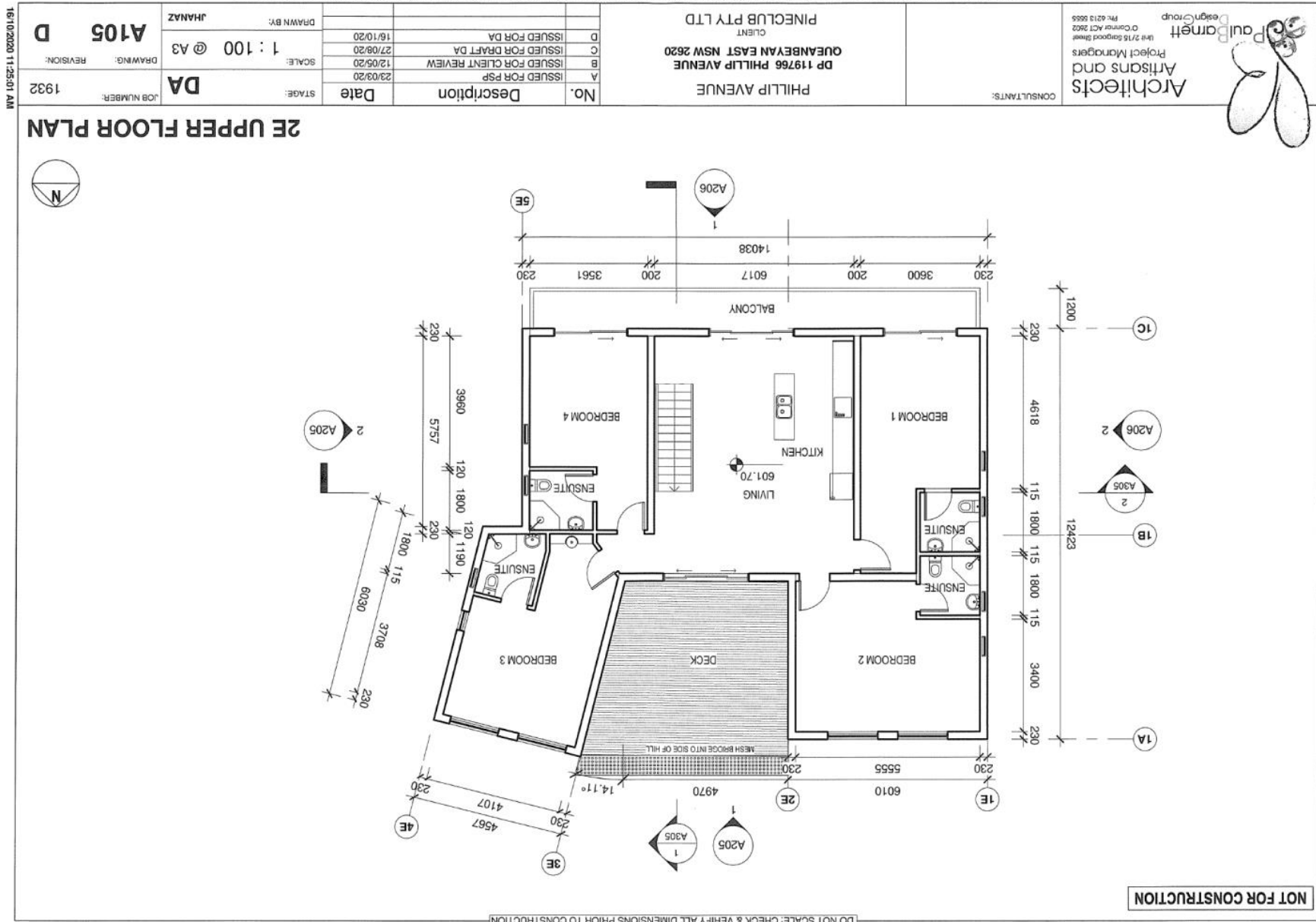
9.1 Development Application DA.2021.1259 - Four Torrens Title Lots, Construction of Three Two Storey Dwelling Houses - 2G Phillip Avenue, Queanbeyan East  
 Attachment 3 - DA.2021.1259 - Architectural Plans - 2G Phillip Avenue (Continued)



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<b>Artisans and Architects</b> Project Managers Unit 2/15 Seagood Street O'Connor ACT 2602 Ph: 0213 5555	PHILLIP AVENUE DP 119766 PHILLIP AVENUE QUEANBEYAN EAST NSW 2620 CLIENT PINECLUB PTY LTD	ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AND ASSOCIATED STANDARDS. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED.	CONSULTANTS:	PHILLIP AVENUE DATE: 23/03/20 STAGE: DA JOB NUMBER: 1932 DRAWING: 1 : 100 @ A3 REVISION: D	DRAWN BY: JHANAZ															
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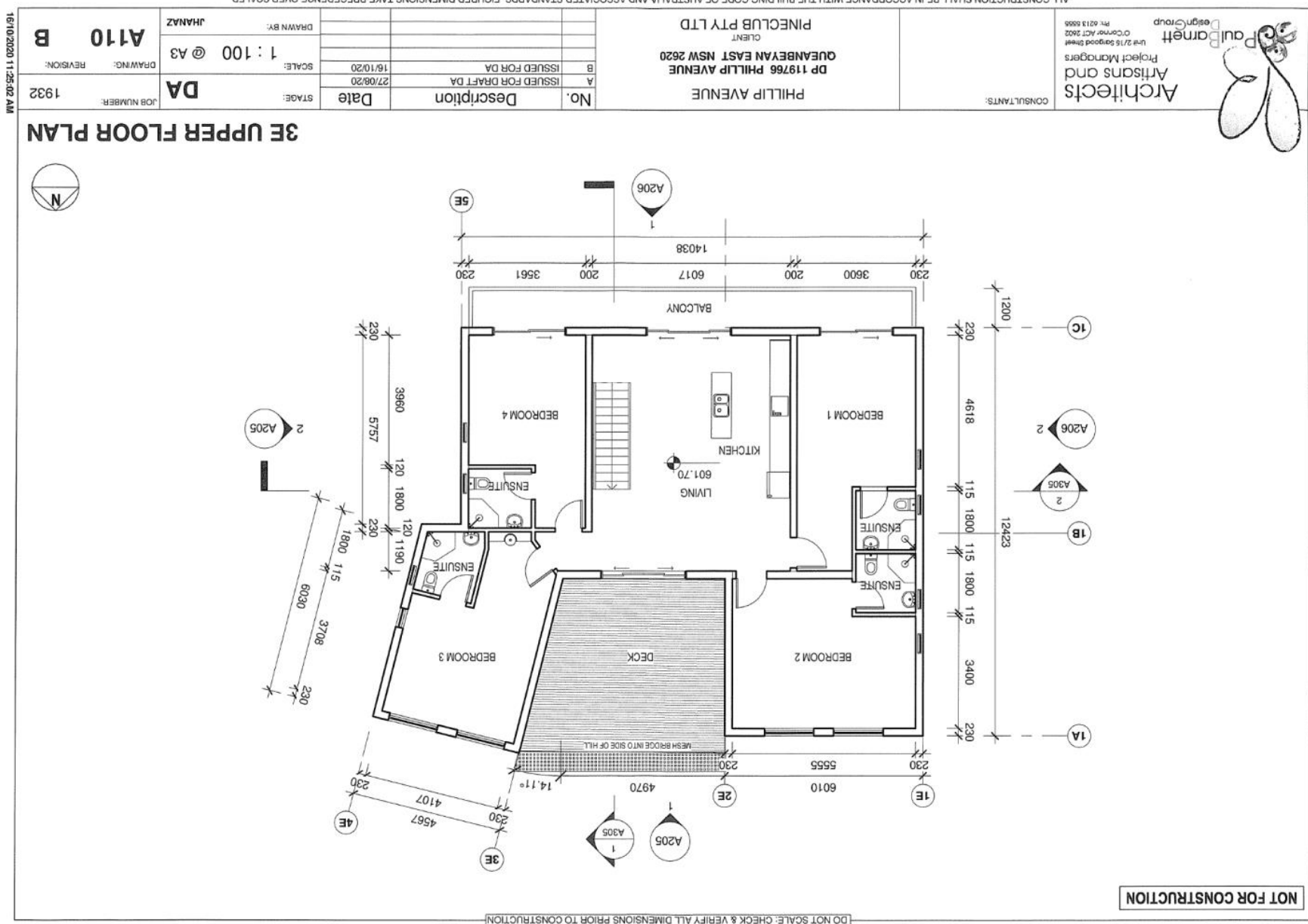
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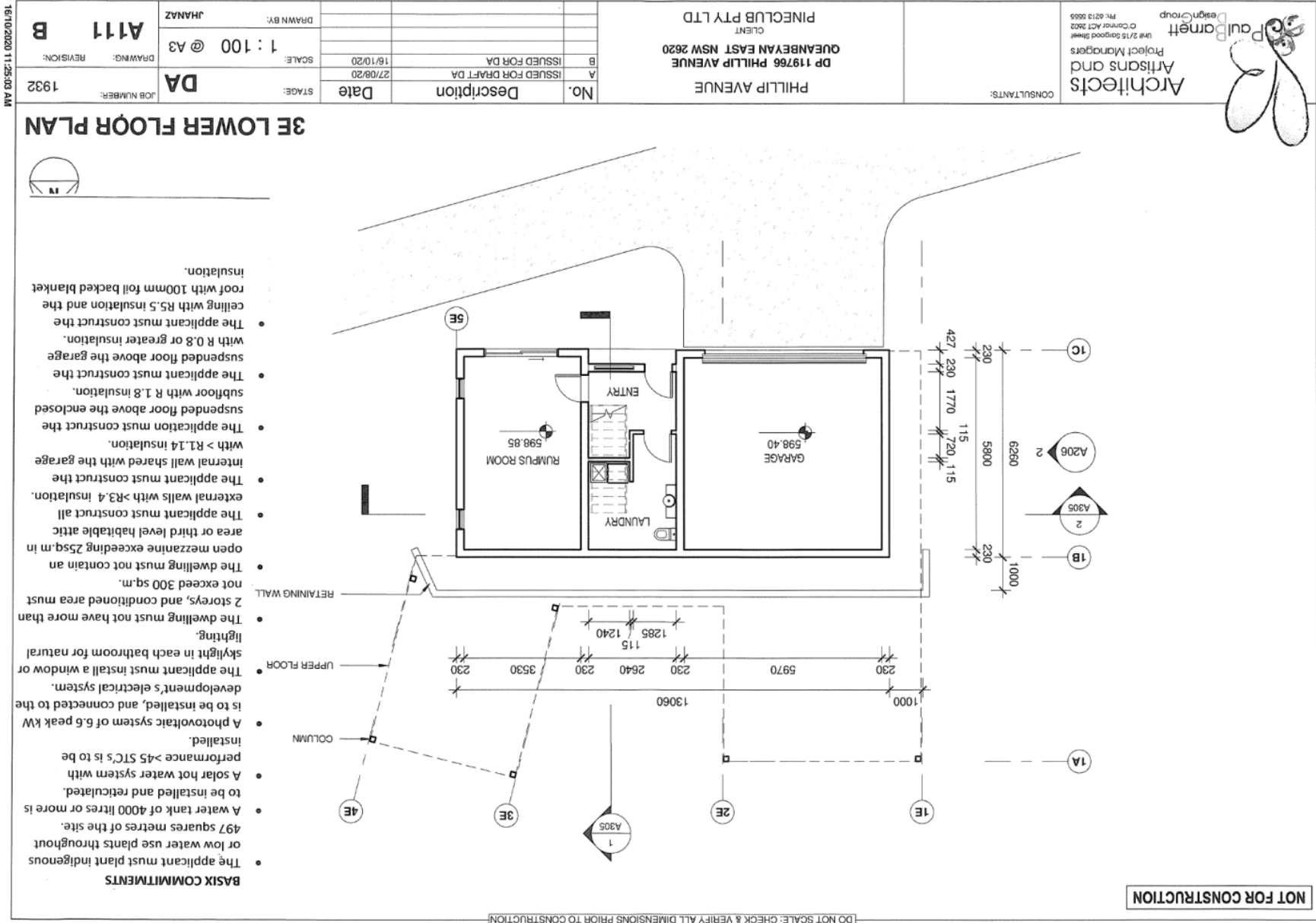
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**BASIC COMMITMENTS**

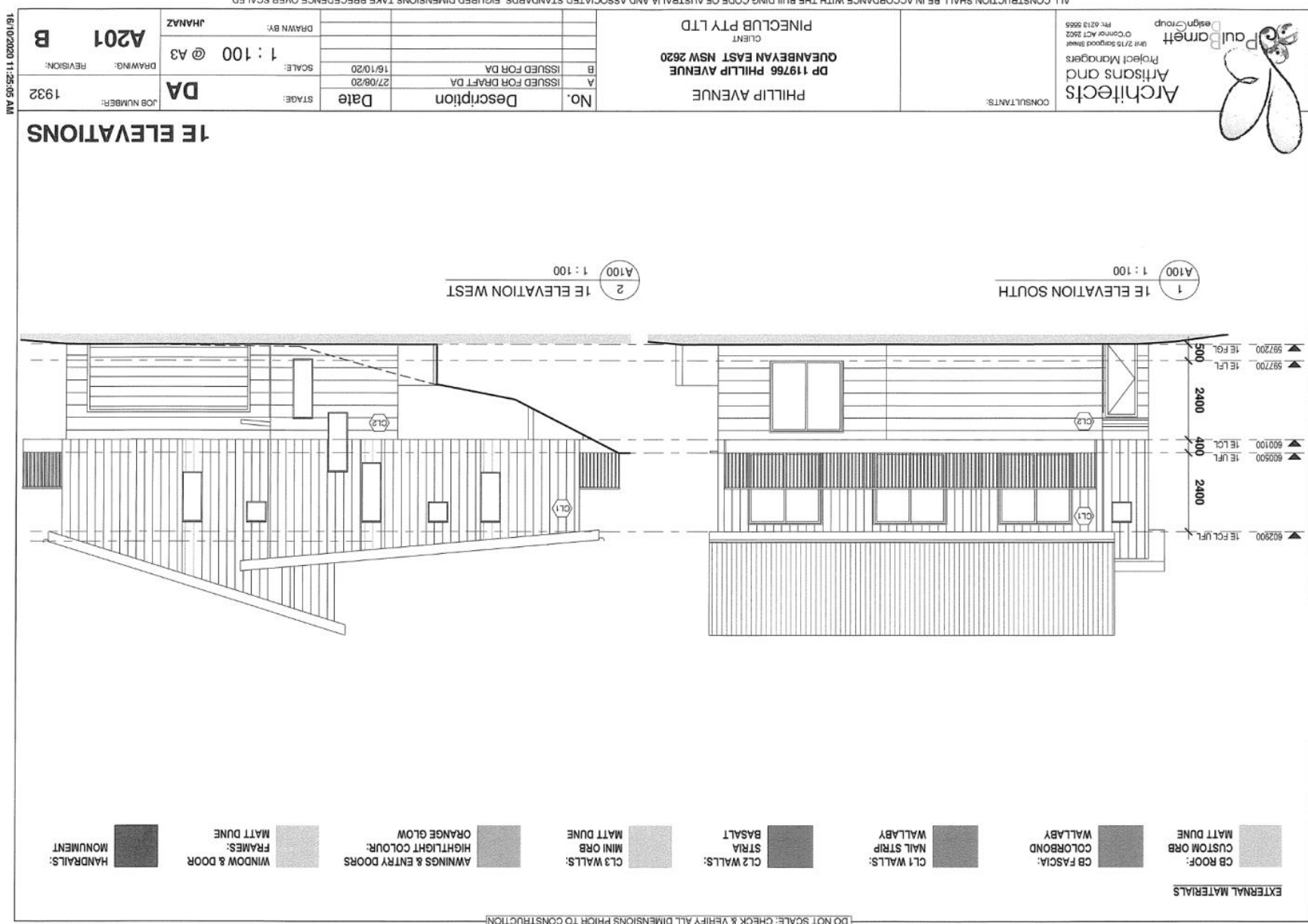
- The applicant must plant indigenous or low water use plants throughout 481 squares metres of the site.
- A water tank of 4000 litres or more is to be installed and reticulated.
- A solar hot water system with performance >45 STC's is to be installed.
- A photovoltaic system of 6.5 peak kW is to be installed, and connected to the development's electrical system.
- The applicant must install a window or skylight in each bathroom for natural lighting.
- The dwelling must not have more than 2 storeys, and conditioned area must not exceed 300 sq.m.
- The dwelling must not contain an open mezzanine exceeding 25sq.m in area or third level habitable attic.
- The applicant must construct all external walls with >R3.4 insulation.
- The applicant must construct the internal wall shared with the garage with > R1.14 insulation.
- The application must construct the suspended floor above the enclosed subfloor with R 1.8 insulation.
- The applicant must construct the suspended floor above the garage with R 0.8 or greater insulation.
- The applicant must construct the roof with 100mm foil backed blanket insulation.

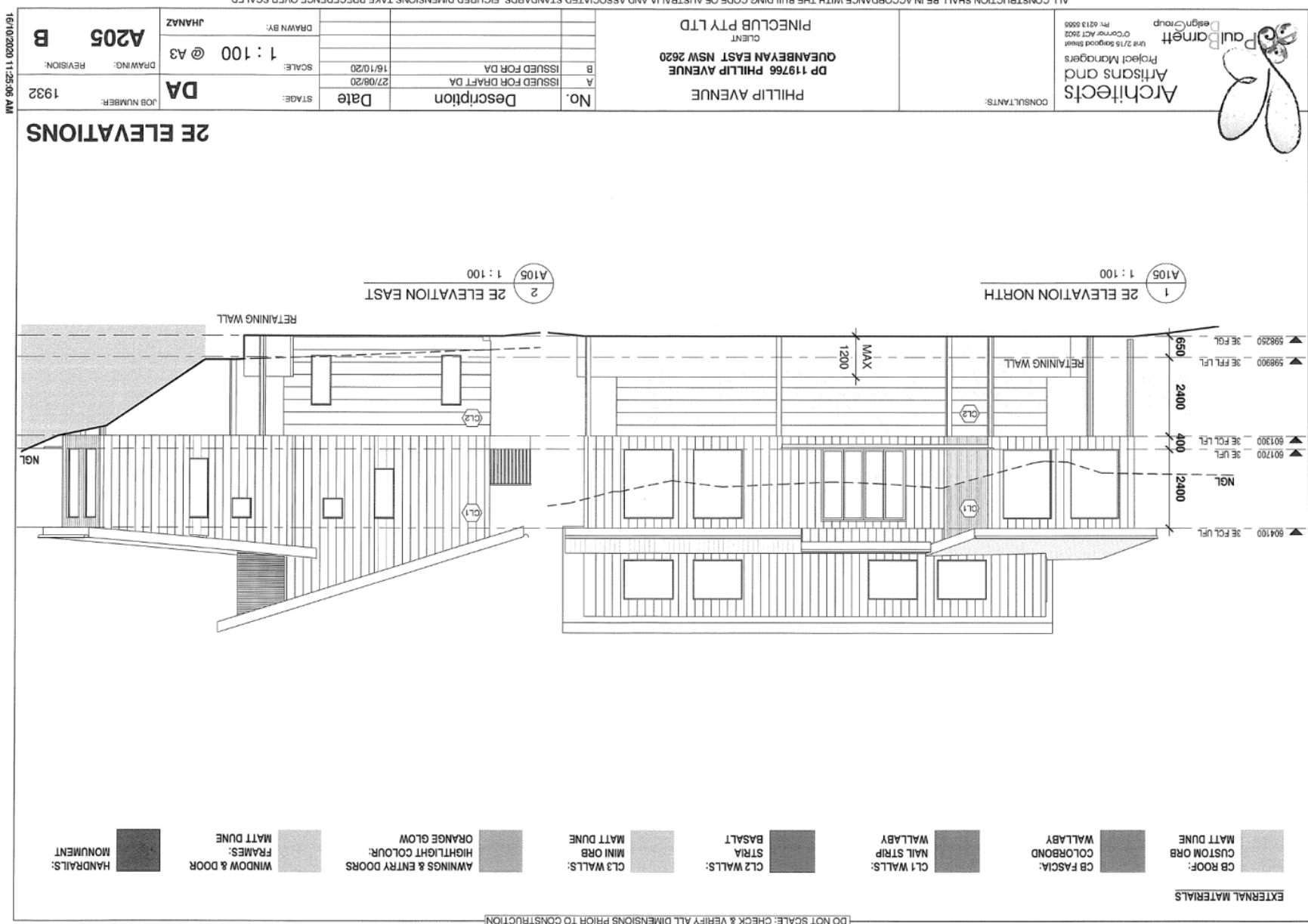


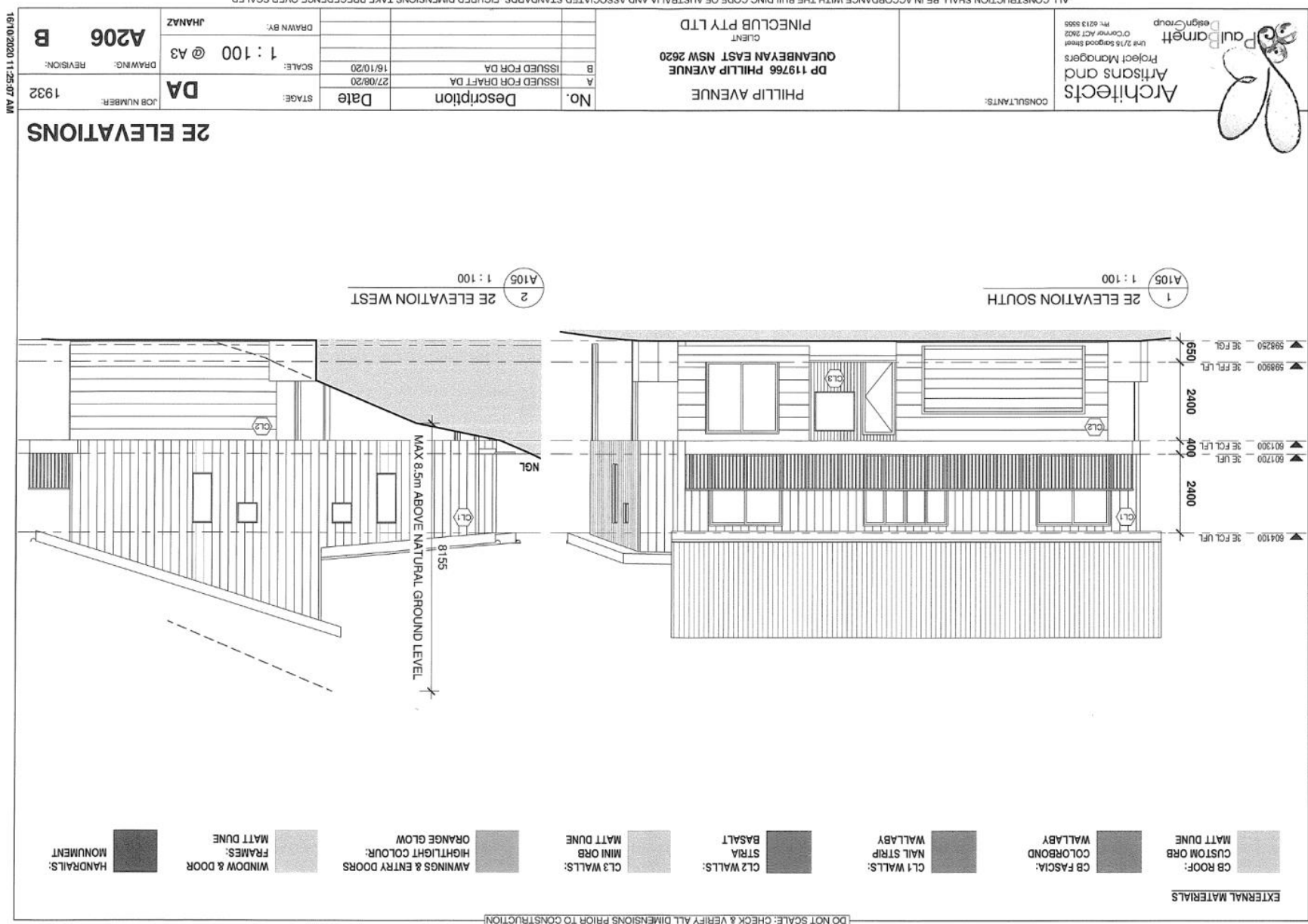


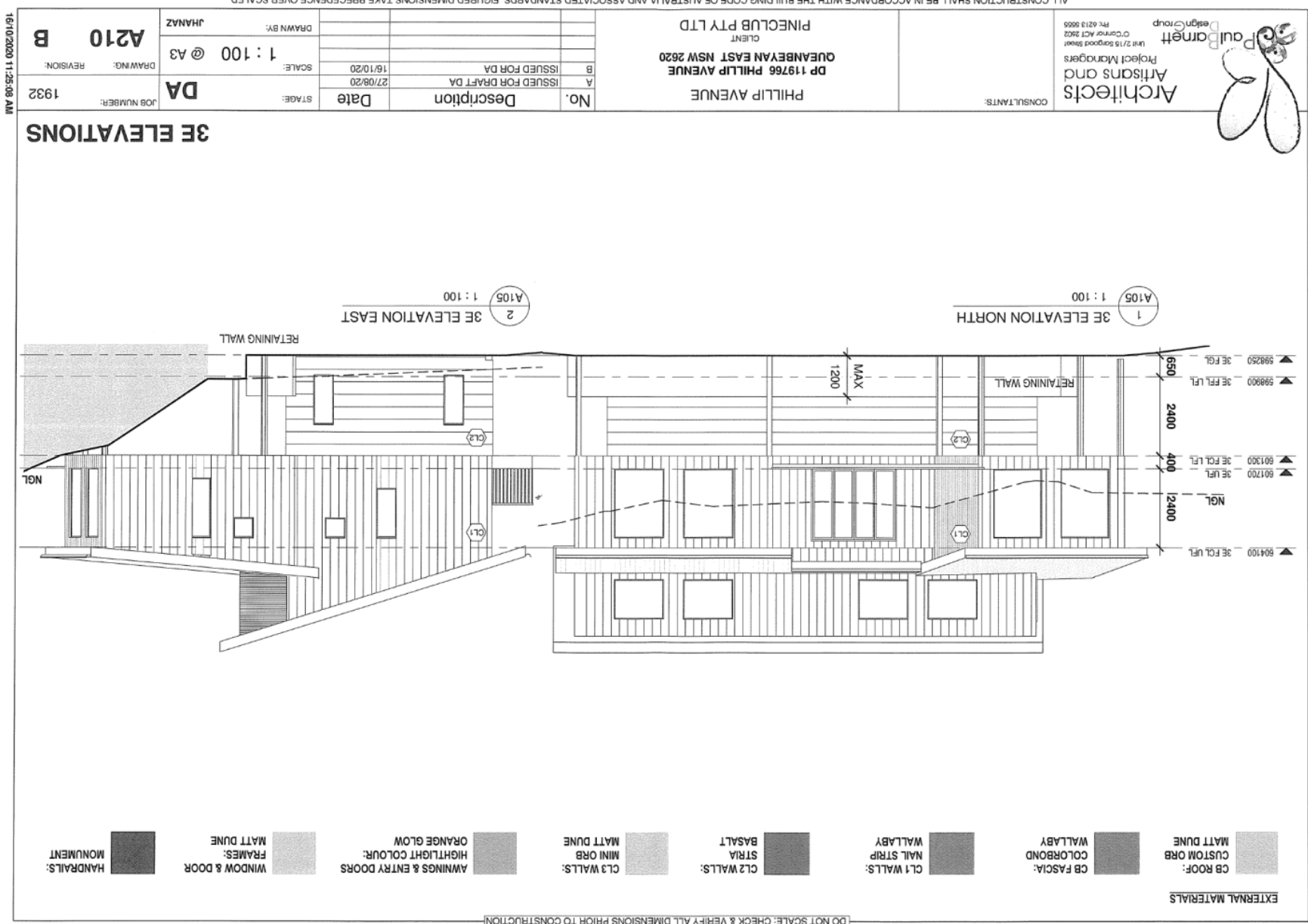


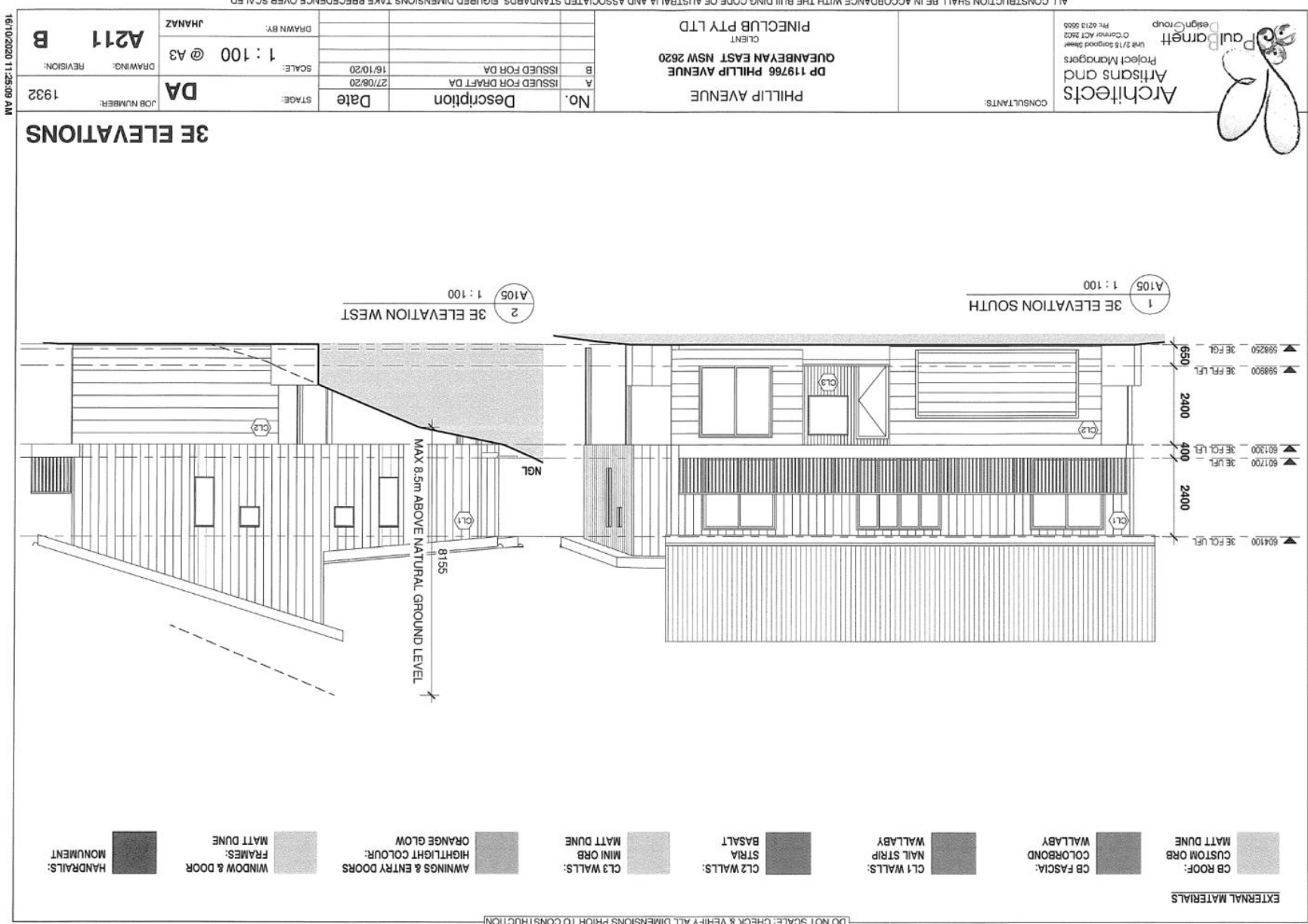












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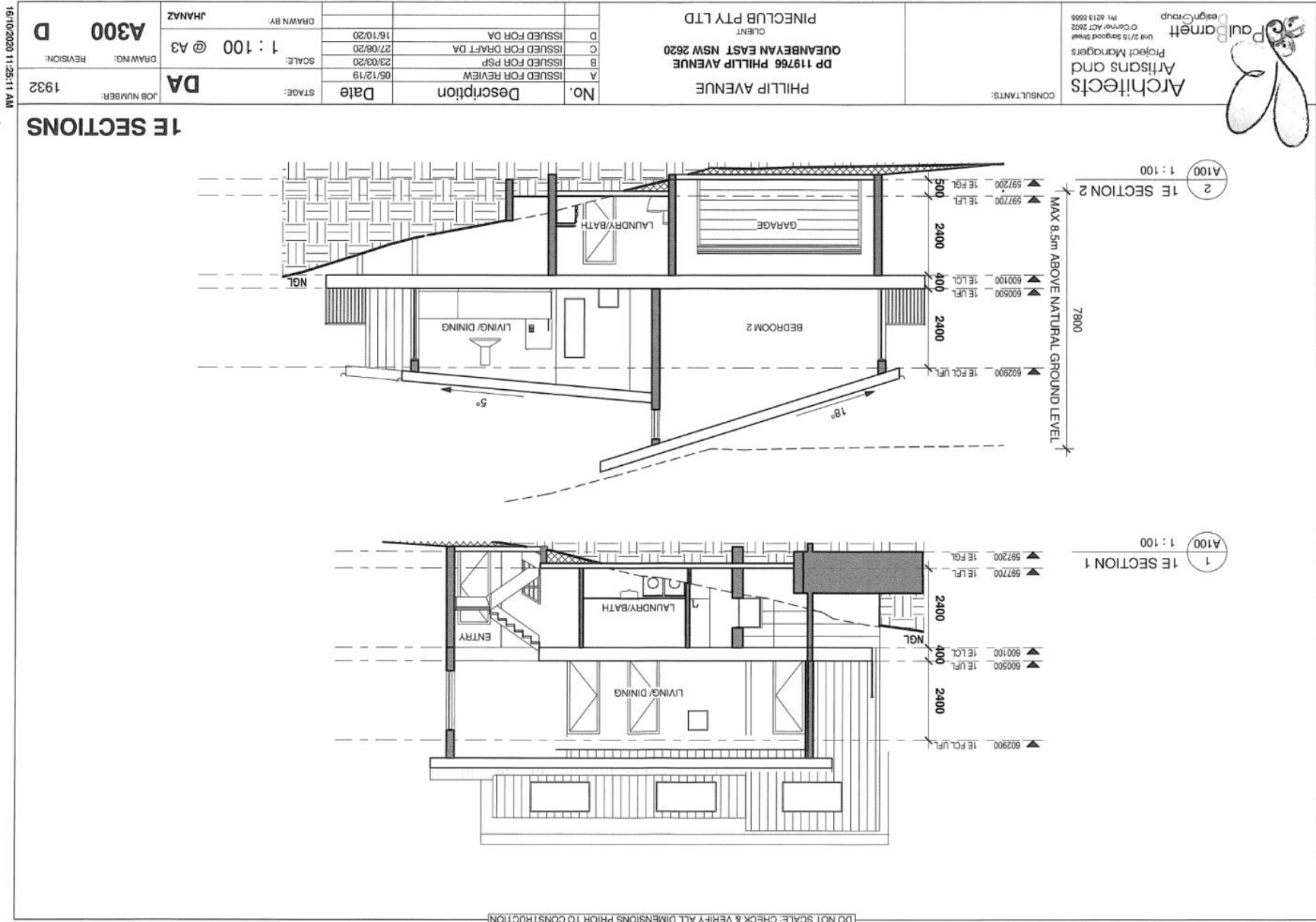
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## COMPOSITE STREET ELEVATIONS

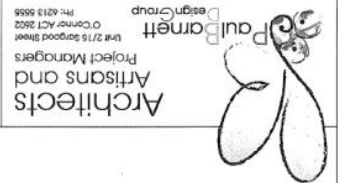
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COMPOSITE 2  
2  
1 : 200

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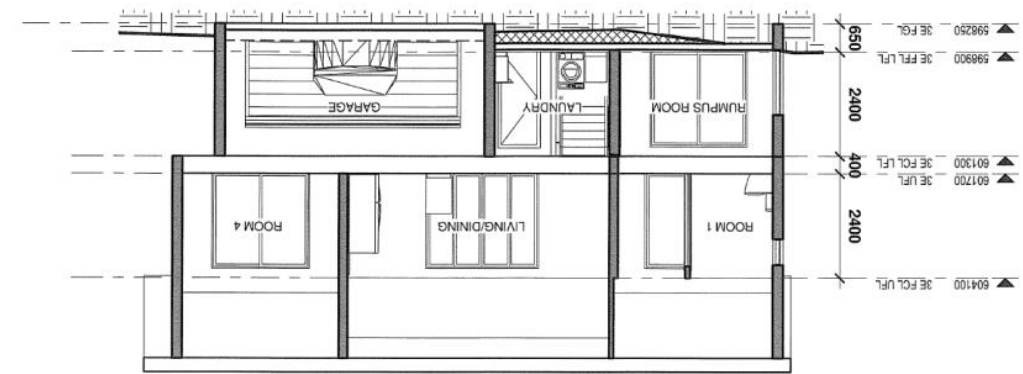
Artists and  
 Architects  
 Project Managers  
 Unit 2/15 Sandwood Street  
 O'Connor ACT 2602  
 Ph: 6213 9555

PHILLIP AVENUE  
 DP 119766 PHILLIP AVENUE  
 QUEANBEYAN EAST NSW 2620  
 CLIENT  
 PINECLUB PTY LTD

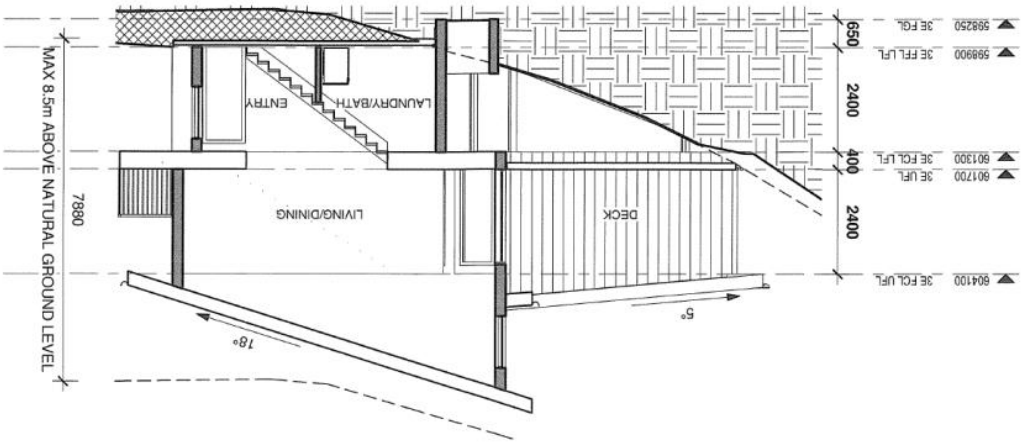
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2E SECTIONS



2E SECTION 2  
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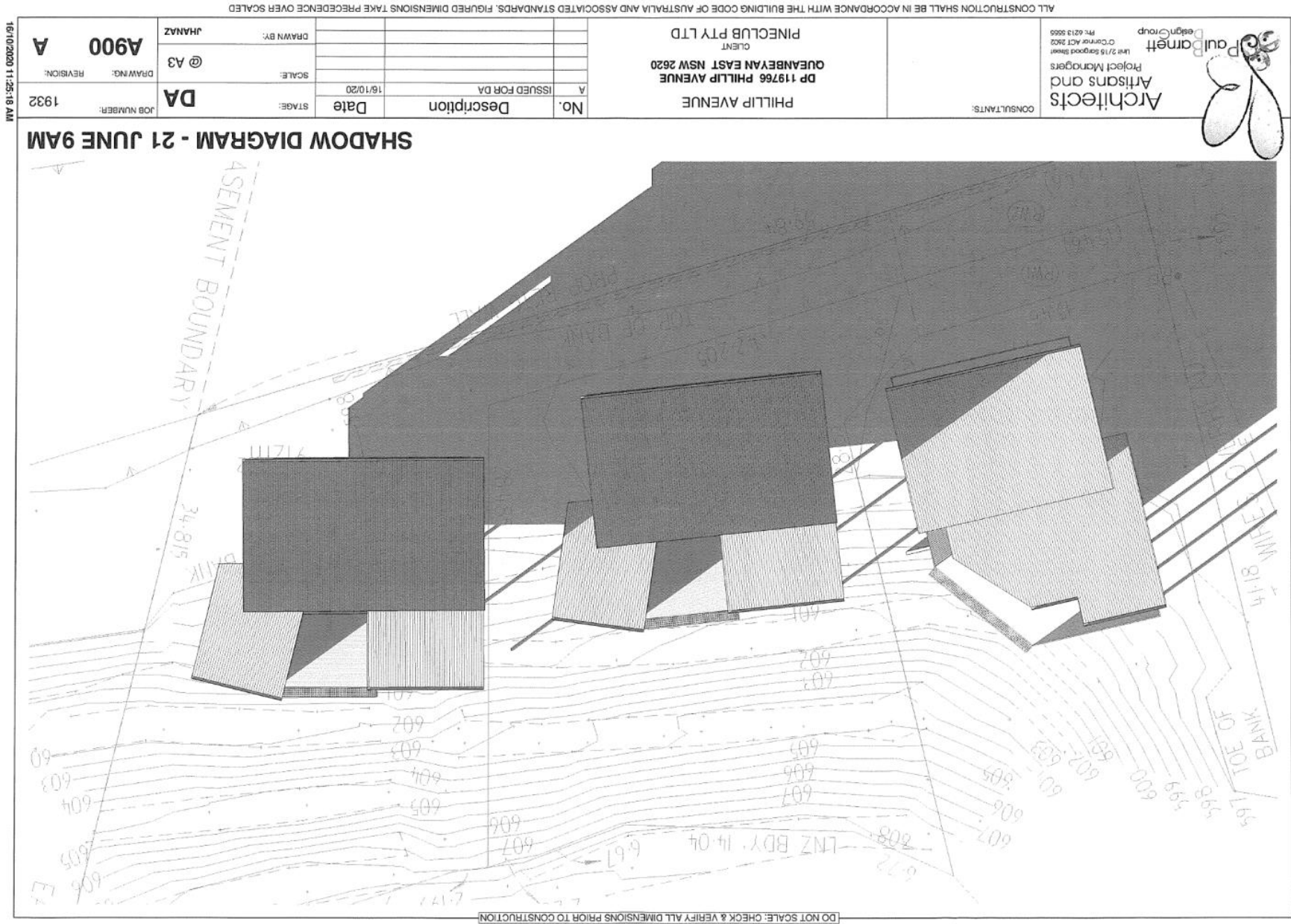


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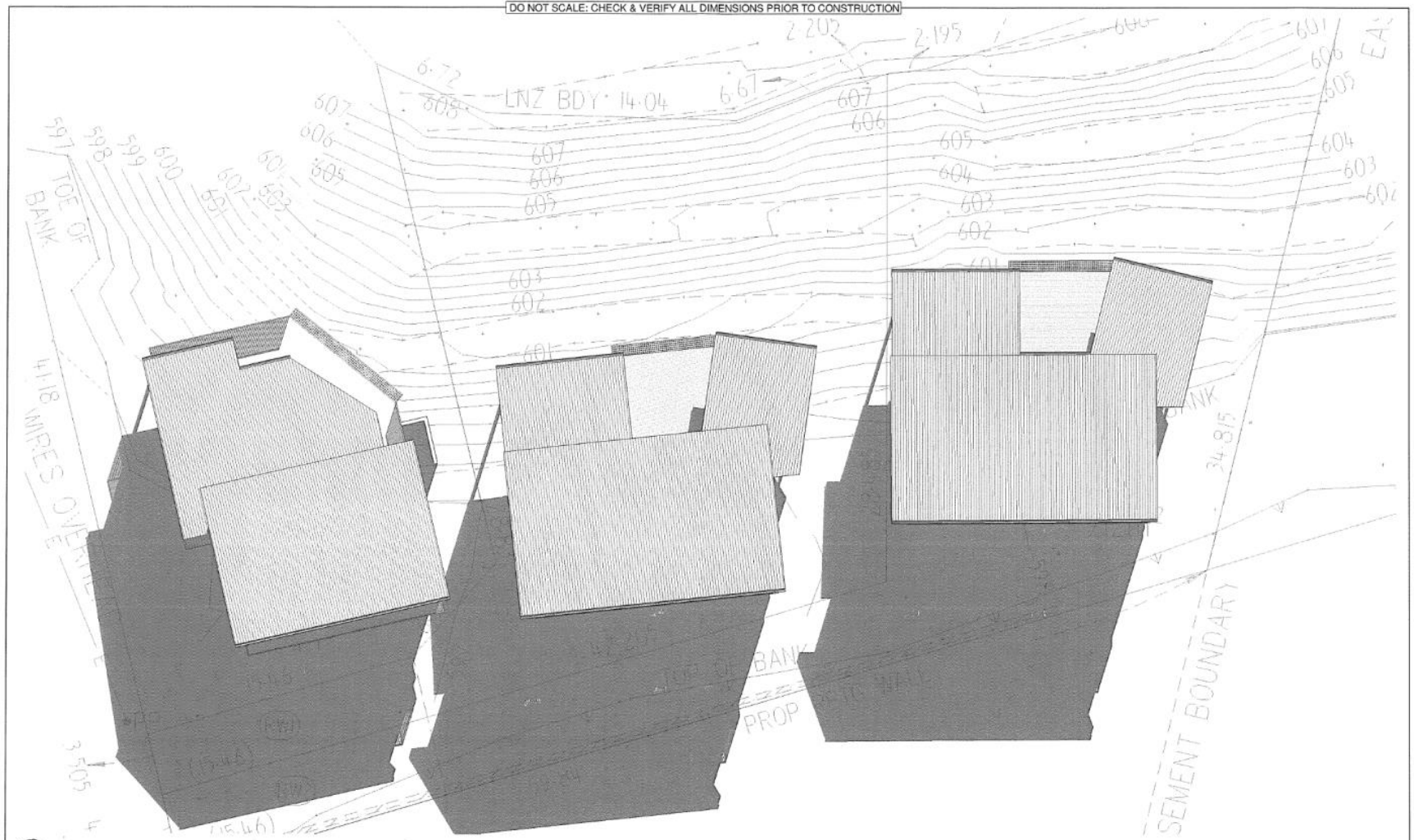
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16/10/2020 11:25:18 AM



**SHADOW DIAGRAM - 21 JUNE 12NOON**



**Architects**  
 Artisans and  
 Project Managers  
 Paul Barnett  
 Design Group  
 Unit 2/15 Gairwood Street  
 O'Connor ACT 2602  
 Ph: 6213 6565

CONSULTANTS:

PHILLIP AVENUE  
 DP 119766 PHILLIP AVENUE  
 QUEANBEYAN EAST NSW 2620  
 CLIENT  
 PINECLUB PTY LTD

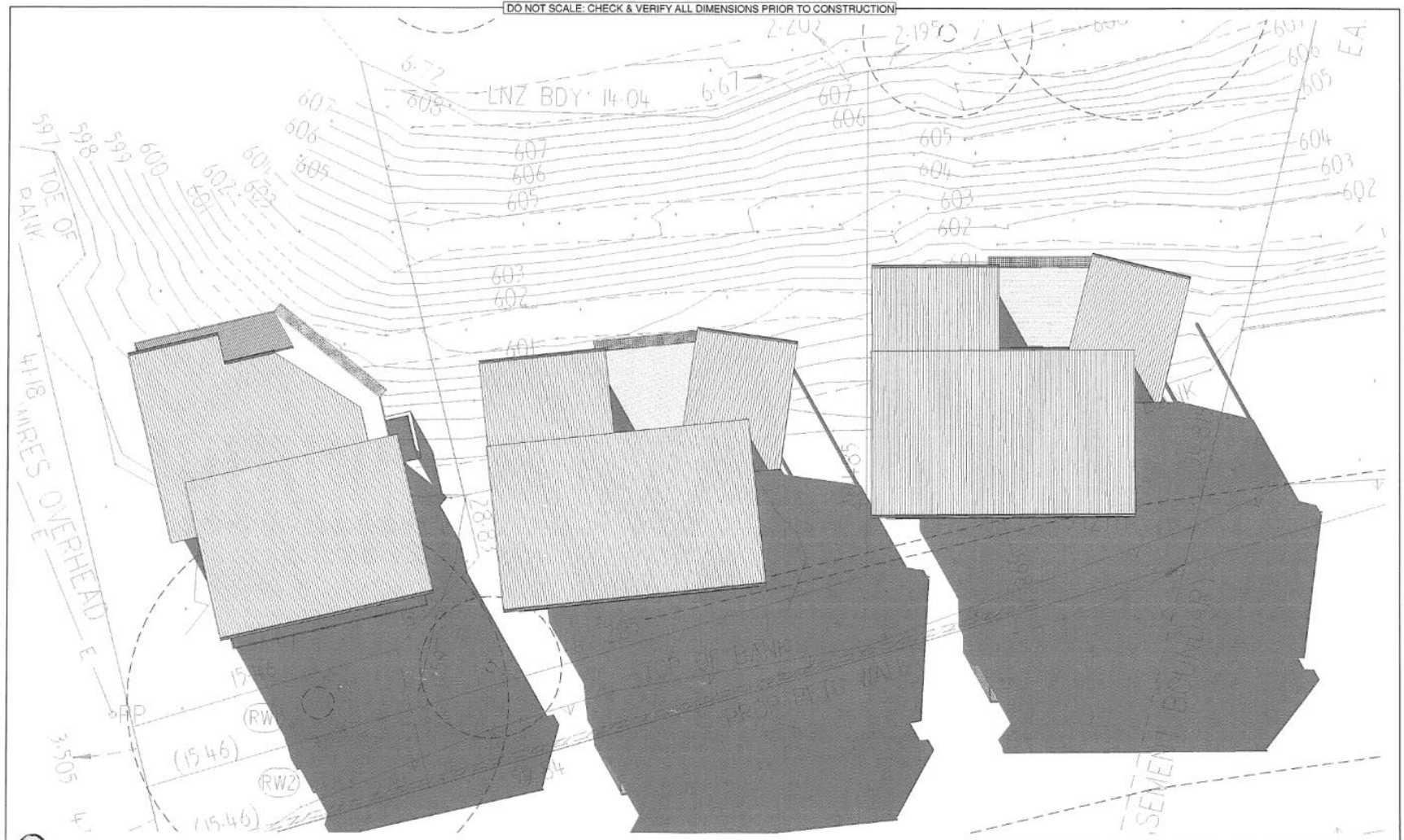
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STAGE: **DA**  
 SCALE: **@ A3**  
 DRAWN BY: **JHANAZ**

JOB NUMBER: 1932  
 DRAWING: **A901** REVISION: **A**

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AND ASSOCIATED STANDARDS. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED

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**SHADOW DIAGRAM - 21 JUNE 3PM**



**Architects**  
 Artisans and  
 Project Managers  
 Paul Barnett  
 Design Group  
 Unit 2/16 Sargood Street  
 O'Connell ACT 2602  
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CONSULTANTS:

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 CLIENT  
 PINECLUB PTY LTD

No.	Description	Date
A	ISSUED FOR DA	16/10/20

STAGE: **DA**  
 SCALE: @ A3  
 DRAWN BY: JHANAZ

JOB NUMBER: 1932  
 DRAWING: **A902** REVISION: **A**

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AND ASSOCIATED STANDARDS. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED

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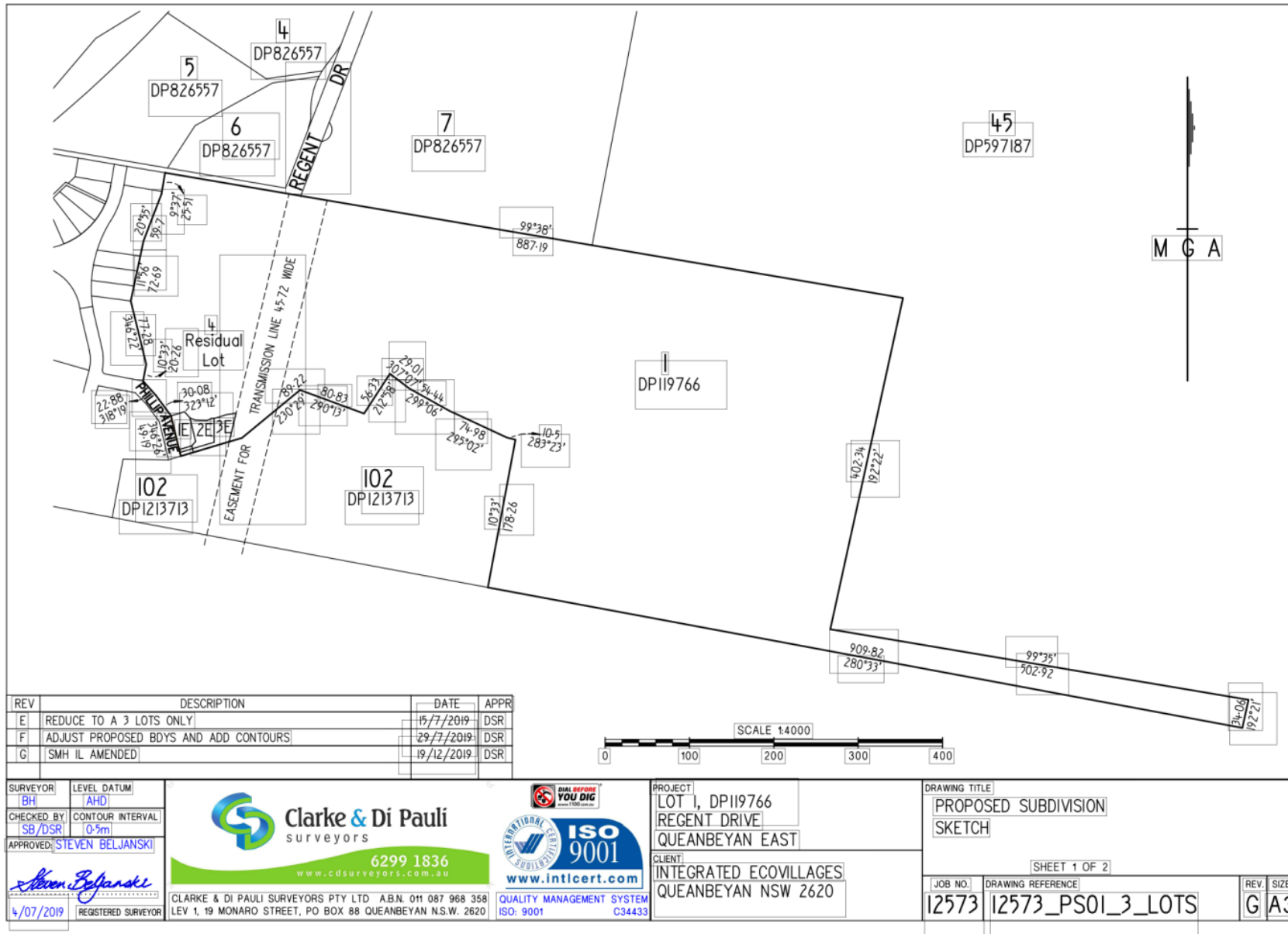
# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 4 DA.2021.1259 - SUBDIVISION AND SURVEY - 2G PHILLIP  
AVENUE



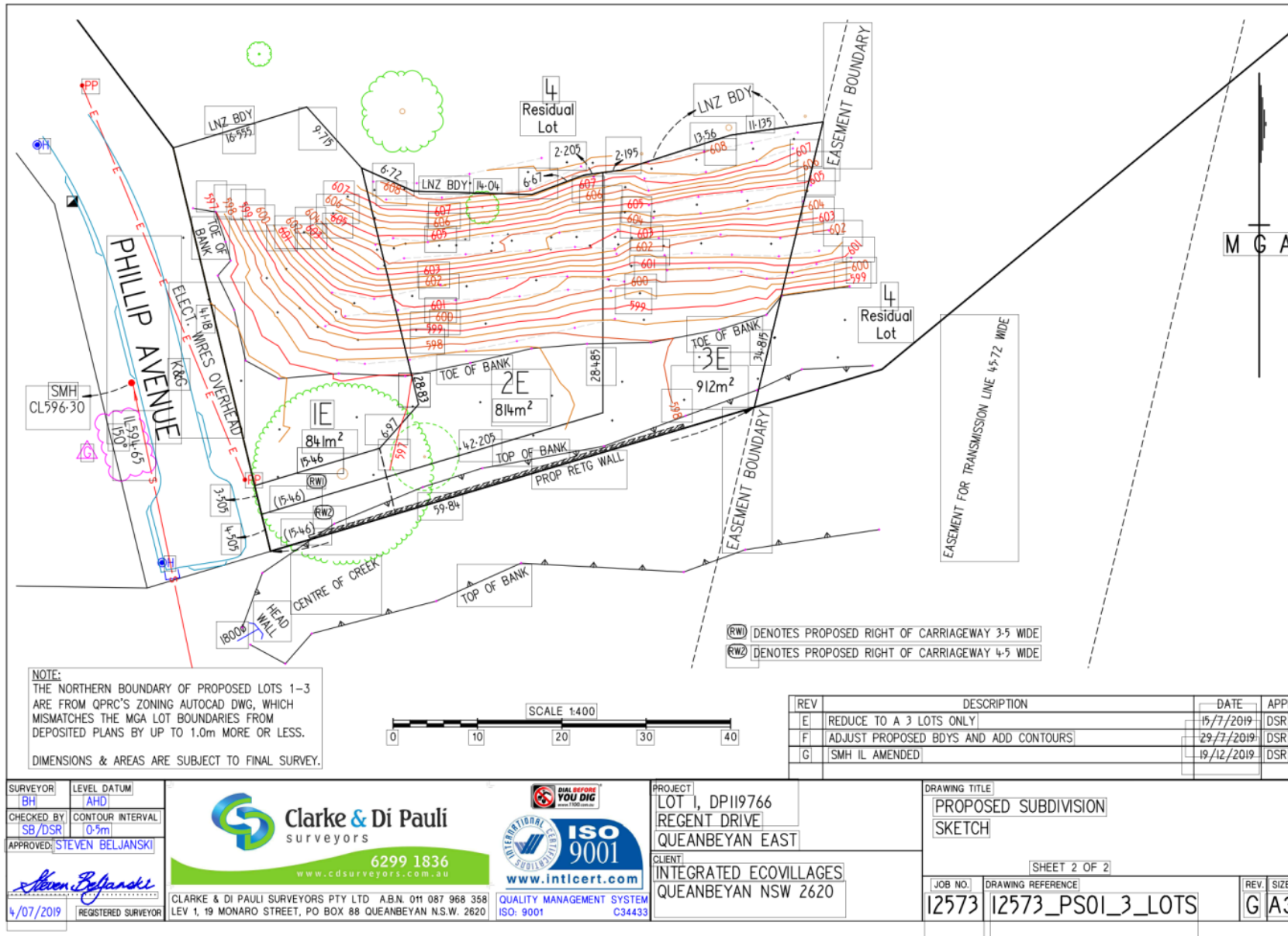
SURVEYOR  
 BH AHD  
 CHECKED BY  
 SB/DSR 0.5m  
 APPROVED: *Steven Beljanski*  
 4/07/2019 REGISTERED SURVEYOR

**Clarke & Di Pauli**  
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 6299 1836  
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 CLARKE & DI PAULI SURVEYORS PTY LTD A.B.N. 011 087 968 358  
 LEV 1, 19 MONARO STREET, PO BOX 88 QUEANBEYAN N.S.W. 2620

**ISO 9001**  
 INTERNATIONAL CERTIFICATION  
 QUALITY MANAGEMENT SYSTEM  
 ISO: 9001 C34433

PROJECT  
 LOT 1, DP119766  
 REGENT DRIVE  
 QUEANBEYAN EAST  
 CLIENT  
 INTEGRATED ECOVILLAGES  
 QUEANBEYAN NSW 2620

DRAWING TITLE  
 PROPOSED SUBDIVISION  
 SKETCH  
 SHEET 1 OF 2  
 JOB NO. 12573  
 DRAWING REFERENCE 12573\_PS01\_3\_LOTS  
 REV. G  
 SIZE A3



# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 5 DA.2021.1259 - STATEMENT OF ENVIRONMENTAL EFFECTS -  
2G PHILLIP AVENUE, QUEANBEYAN WEST



## STATEMENT OF ENVIRONMENTAL EFFECTS

2G PHILLIP AVENUE, QUEANBEYAN EAST

PREPARED BY:

CHELSEA NEWMAN  
TOWN PLANNING CONSULTANT  
HUGH DENNETT PTY LTD  
3 MAY 2021 – VERSION 5 (FINAL)





## INTRODUCTION

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This Statement of Environmental Effects (SEE) has been prepared to accompany a Development Application (DA) proposing Torrens Title subdivision to create four lot and the construction of three detached dwelling-houses at Lot 1 DP 119766, 2G Phillip Avenue, Queanbeyan East, NSW (“the site”).

This SEE and the accompanying plans and documentation provides an assessment of the proposal against the applicable requirements of the *Environmental Planning and Assessment Act 1979* (“the Planning Act”).

## PLANS AND DOCUMENTATION

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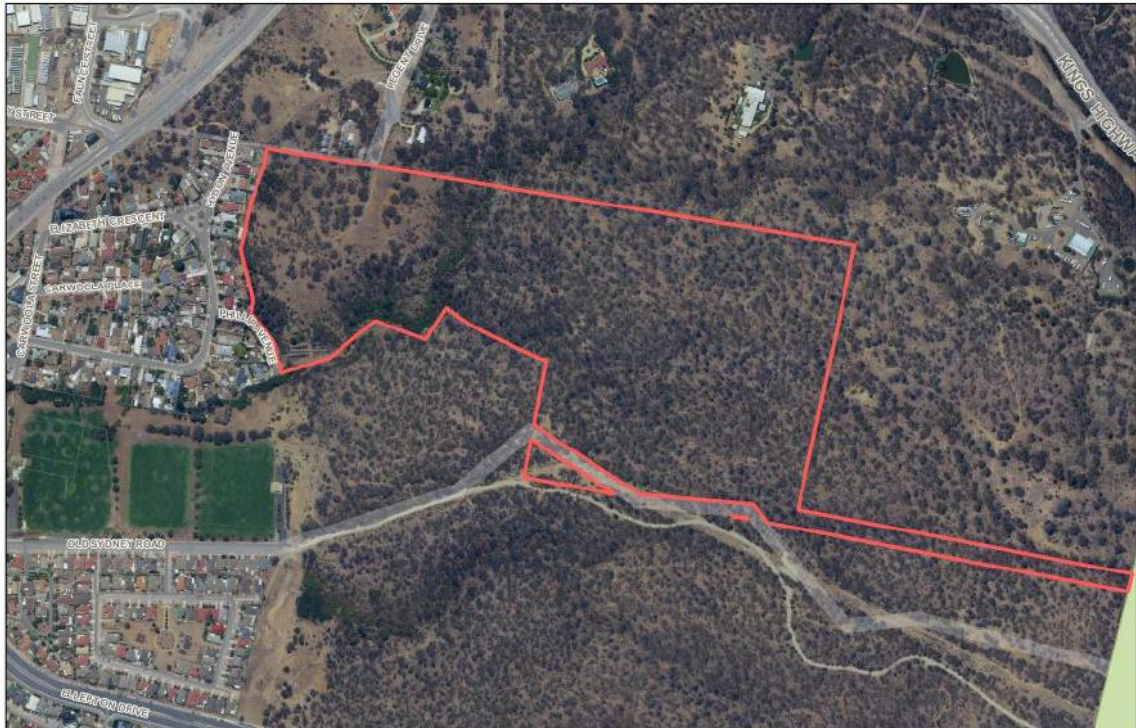
The following plans and documentation have been prepared to inform the proposed development and meet the requirements of the Planning Act.

- **Proposed Subdivision Sketch (Sheet 1)** – prepared by Clarke & Di Pauli, dated 19 December 2019, Revision G (Ref: 12573\_PS01\_3\_LOTS).
- **Proposed Subdivision Sketch (Sheet 2)** – prepared by Clarke & Di Pauli, dated 19 December 2019, Revision G (Ref: 12573\_PS01\_3\_LOTS).
- **Architectural Drawings Set** – prepared by Paul Barnett Design Group, dated 16 October 2020. Refer to Cover Sheet (A000) for Drawings List and Revision Numbers.
- **Civil Engineering Drawings** – prepared by ACT Consulting Engineers, dated 24 November 2020, Revision A (Ref: 20-863); Refer to Cover Sheet for Drawings List.
- **Flora and Fauna Assessment** – prepared by Unlimited Habitats, dated December 2019 (Ref: 20191210).
- **Aboriginal Cultural Heritage Due Diligence Assessment** – prepared by Past Traces, dated 10 October 2019, Revision v.1.
- **Geotechnical Investigation & Slope Stability Risk Assessment** – prepared by ACT Geotechnical Engineers, dated 16 October 2020 (Ref: MT/C11155).
- **Flood Study “Creek South of Lot 1 DP 119766 City of Queanbeyan – 100 Year Water Profile”** – Prepared by SMEC in 1992 and submitted as part of a Local Environmental Study for the site in 1993.
- **BASIX Certificates x 3** – dated 22 & 23 March 2021, (Certificate no: 1188205S, 1188229S and 1188435S).

## THE SITE AND ITS CHARACTERISTICS

The subject site is Lot 1 DP 119766, 2G Phillip Avenue, Queanbeyan East, NSW. It is a large vacant allotment (31ha) located on the edge of an established residential locality, with frontage to Phillip Avenue, Regent Drive and The Old Sydney road. The site also extends into a large area of the Queanbeyan East escarpment. To the west of the site is low density housing; to the south and east is a large area of bushland, and to the north is large lot residential housing.

The site and its locality is shown in Figure 1 below.



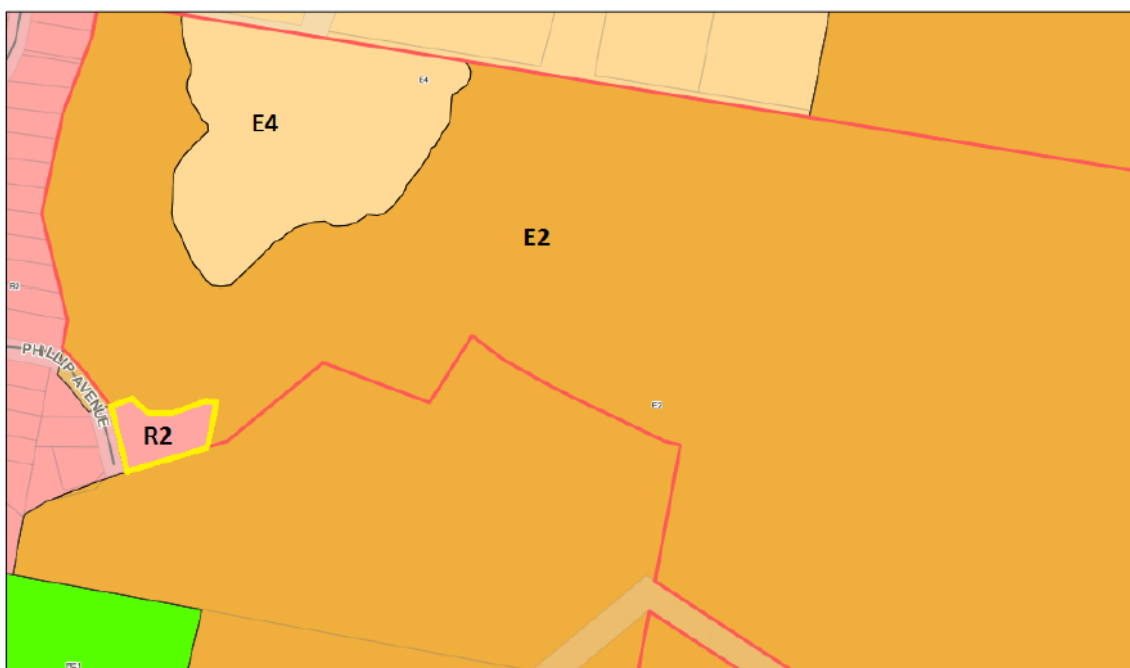
**Figure 1 – 2G Phillip Avenue**

(Source: Queanbeyan-Palerang Regional Council)

The site has three land use zones. The majority of the site is zoned E2 – Environmental Conservation. There is a large section off Regent Drive zoned E4 – Environmental Living, and a small portion in the south-west corner of the site accessed from Phillip Avenue that is zoned R2 – Low Density Residential.

**Only the R2 zoned portion of the site is proposed to be developed for residential subdivision as part of this DA.**

The R2 zoned portion of the site is 2,567m<sup>2</sup> in area as surveyed. The northern boundary of proposed Lots 1-3 follows the R2 zone boundary.



**Figure 2 – Zoning Map**

(Source: Queanbeyan-Palerang Regional Council)

### SITE HISTORY

A review of Council's records for the site show that it has had a long history of development proposals and zoning reviews. Council holds copies of numerous previous studies that have been carried out for the site. However, the site remains undeveloped, and no development consents have been issued.

The only record of land use for the site relates to a small house that was located in the north of the site many years ago – within proposed residue Lot 4. There is little evidence of this house left on the site today, being remnants of a concrete slab and some broken bricks. There will be no impacts to the remains of this house from the subject proposal. Nonetheless, a previous archaeological study carried out in 1993 (Barber) examined and recorded these ruins. It recommended that they may be removed if necessary with no further assessment. The Local Environmental Study (LES) for the site prepared by GHD in 1993 included a review of the Barber report and concluded that the significance and conservation value of these ruins is low.

The previous investigations of the site have been used to inform the subject proposal. However, new studies have also been carried out to ensure compliance with current legislative requirements – except for flooding, where, on the advice of Council, the findings of a flood study carried out by SMEC in 1992 have been applied to the subject proposal. A copy of the SMEC report is included with this DA.

### DRAINAGE, WATERCOURSES, TOPOGRAPHY AND VEGETATION

#### Drainage and Watercourses

A drainage channel runs through the site from north to south before joining Buttles Creek. This creek runs through the site from east to west, with the creek bed generally abutting, and in parts encroaching into, the southern boundary of the R2 zoned portion of the site. This section of the creek is generally dry and correlates with the part of the site that is identified as "Watercourse" on the QLEP 2012 Riparian Lands and Watercourses Map.

As described in the biodiversity assessment prepared for this proposal, "...Buttles Creek and the riparian corridor, are infested with weeds". These include woody weeds such as: Blackberry; Hawthorn; Honeysuckle; Weeping willow; and Cotoneaster. These weeds have recently been cleared by the property owners.

A retaining wall is proposed to be constructed alongside the creek bed where it runs adjacent to the proposed driveway. Additionally, a headwall for the discharge of storm

water into the creek is also proposed – refer to accompanying civil engineering drawings. Detailed drawings are to be provided for the retaining wall at Construction Certificate stage.

#### Vegetation

The site is wholly identified as “Biodiversity” on the QLEP 2012 Terrestrial Biodiversity Map. However, vegetation within the R2 zoned portion of the site is dominated by exotic and weedy vegetation, with only some isolated remnants of native trees and shrubs.

A large yellow-box gum (*E. melliodora*) tree located at the south-west corner of the R2 zoned land is proposed to be retained.

#### Topography

The R2 zoned portion of the site is characterised by a section of flat ground adjacent to Buttles Creek, which then rises steeply to the north.

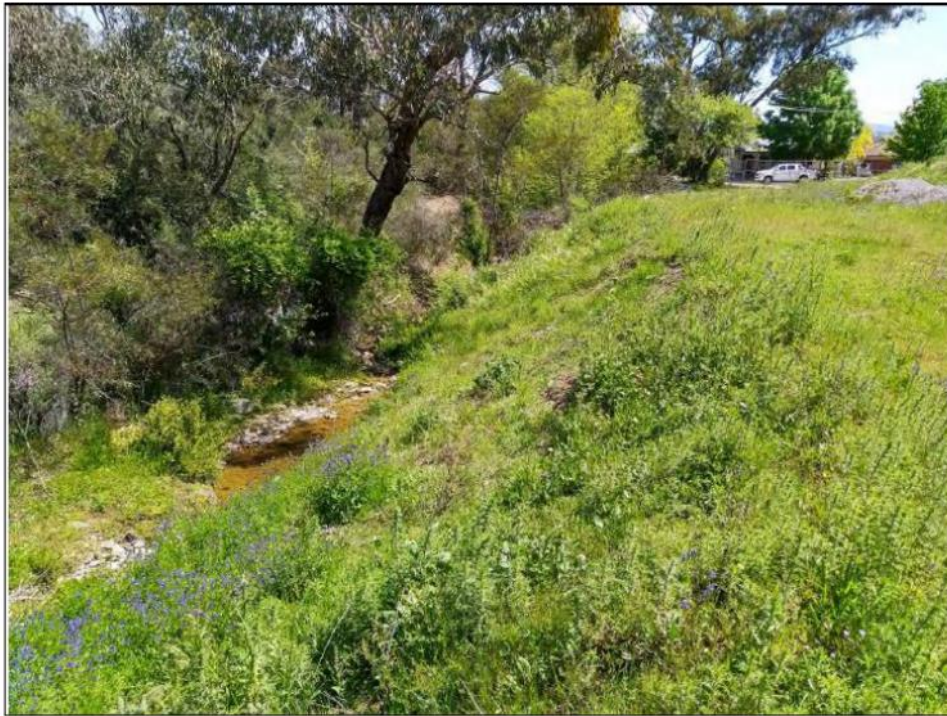
#### *History of Earthworks within the R2 Zoned Land*

The following history of earthworks carried out on the R2 zoned land has been provided by the property owners, who have owned the property for 30 years.

In the recent past the slope has been terraced to facilitate the clearance of noxious woody weeds and to allow the surveyors to do the necessary detailed contour survey. These terraces are indicated on the accompanying Proposed Subdivision Sketch.

Noxious woody weeds have also recently been removed from the banks of Buttles Creek. Furthermore, approximately 15 years ago, the weeds along the creek bank were so thick and impenetrable that earthmoving machinery was required to be used to clear them. This involved some excavation of the bank and forming the top of the bank and angle of repose to ensure stability. The result is that some lower material was dragged to form the top of the bank contour. However, this part of the creek bank retains a similar profile to the adjoining bank upstream and downstream. No imported materials or fill has been applied to the creek bank.

Figure 3 below is a recent photo of the creek bank looking to the west.



**Figure 3 – Creek Bank (Looking West)**

Source: ACT Geotechnical Engineers Pty Ltd

## HAZARDS

### **Bushfire**

The site is wholly identified as being bushfire prone land on Council's Bushfire Prone Land Map. A Bushfire Assessment report prepared for the proposal demonstrates that it can achieve compliance with the requirements of 'Planning for Bushfire Protection 2019'.

### **Flooding**

While the site is not identified as "Flood planning area" on the Queanbeyan Local Environmental Plan (QLEP) 2012 Flood Planning Map, the potential for flooding from Buttles Creek needs to be considered.

A flood study done for the site by was done by SMEC in 1992. Council's Development Engineers have advised that this study could be used to inform the proposed development.

The SMEC study contains modelling and analysis of Buttles Creek that shows a 1 in 100 year flood event would be contained within the creek bed. All of the proposed dwellings are located well above the 1 in 100 year plus 500mm freeboard level.

Note: The Local Environmental Study (LES) for the site prepared by GHD in 1993 included a review of the SMEC report by GHD's Water Technology Section. This review found the flooding analysis carried out by SMEC to be acceptable.

#### Contamination

The site is not known to have been contaminated by any past uses, or have been used for any potentially contaminating activities.

#### ABORIGINAL HERITAGE

The site is not a heritage listed item or within the vicinity of one, and is not within a heritage conservation area.

The accompanying Aboriginal Cultural Heritage Due Diligence Assessment has identified one Aboriginal site and one Potential Archaeological Deposit (PAD). However, these are both remote from the proposed residential lots and will not be in any way impacted by the subject proposal.

Note: The accompanying Aboriginal Cultural Heritage Due Diligence Assessment was prepared with the assumption that the E4 zoned portion of the site would be developed at the same time as the R2 zoned portion, hence the Assessment refers to proposed lots that are not part of the subject DA.

#### EASEMENTS, SERVICING AND INFRASTRUCTURE

There is an easement for transmission line 45.72m wide burdening the site. It runs north to south, directly adjoining the eastern boundary of proposed Lot 3. No development is proposed to encroach into this easement.

The R2 portion of the site can be connected to reticulated water and sewer services, and electricity.



Stormwater drainage is proposed to be upgraded as shown in the Stormwater Management Plan.

## THE PROPOSED DEVELOPMENT

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The proposed development is summarised as follows:

- Torrens Title subdivision into four lots, with Lots 1, 2 and 3 proposed as residential lots and Lot 4 as an undeveloped residue lot; and
- Construction of three separate two storey dwelling-houses and associated access, retaining walls, earthworks and servicing infrastructure.

### Design

Below is some commentary from the proponent in support of the design of the development.

*A couple of design options were investigated in some 3D design studies that were undertaken in order to ascertain a way in which solar access was available to most of the rooms in these dwellings. The hill lent itself to a stepped construction to access the view of the gully. The hill also provided an ideal opportunity to provide a ground connection on both levels.*

*While we normally prefer reasonably high thermal mass construction methods with high insulation standards, in this instance, even though the hill is very stable for building on, we have chosen to use a lightweight stepped construction technique with more than the required amount of insulation. We felt that the site called for a structure that simply touched the ground at critical points and decks providing a transition from the indoor spaces to the ground.*

*There are two levels of North double glazed windows to capture the winter warmth, and minimal double glazed windows on the East and West for ventilation and zen views of the amazing surroundings. Balconies on the south allow for Southern light and views, as well as good direct access to morning and evening sunlight. The 97% Basix thermal performance ratings indicate just how successful the combination of glazing configuration, natural ventilation and passive house principles work for these dwellings.*

*The first dwelling on lot 1 that is partly sitting on the beginning of a ridge, required a substantially unique design in order to both address the Phillip Avenue street frontage aspect as well as the solar aspects and views to the South. All dwellings provide good residential amenities internally, fitting in with the modern desire to have a separate ensuite per bedroom with correspondingly reduced corridor areas, thus allowing for more personal privacy and easy connection to open plan living and dining areas.*

*The design leaves much of the level ground available for vehicles. These Hidden Valley homes should be an affordable living option for families seeking a connection to the environment with a low cost of living and short travel times to work, schools and facilities.*

#### Compliance

Compliance with the applicable development standards and controls is achieved, with the exception of a proposed DCP variation to the front setback for the dwelling-house on Lot 1 (facing Phillip Avenue). This variation has been justified later in this report under the section discussing compliance with Part 3a of the Queanbeyan DCP 2012.

#### Consultation with Council

It is acknowledged that the R2 zoned portion of the site has some constraints to residential development not usually encountered on land with this zoning, in particular the steep slope. As such, the property owners have spent considerable time and effort, including having multiple meetings with Council staff, to come up with a suitable development proposal.

A 2019 proposal to subdivide the R2 zoned portion into four lots and with no associated dwelling construction was rejected by Council's DCR panel. The proposal has been subsequently reduced to a three lot subdivision and, importantly, at the advice of Council's Portfolio General Manager – Natural and Built Character, the construction of the three individual dwelling-houses within each lot is now also included. This allows Council to assess the works required for both subdivision and dwelling construction in an integrated way.

## ENVIRONMENTAL PLANNING ASSESSMENT

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### BIODIVERSITY CONSERVATION ACT 2016

Part 7 – Biodiversity assessment and approvals under Planning Act, of the *Biodiversity Conservation Act 2016* (“the BCA Act”) sets out how the biodiversity impacts of development that requires approval under the Planning Act must be assessed.

The biodiversity offset scheme (BOS) is not triggered for the proposed development and the preparation of a biodiversity development assessment report (BDAR) is not required. Please refer to the accompanying Flora and Fauna Assessment (FFA) prepared by Unlimited Habitats Environmental Services. It details how the proposed development complies with the relevant provisions of the BCA Act.

### INTEGRATED DEVELOPMENT

The proposed development requires approval under:

- s.100B of the *Rural Fires Act 1997*;
- s. 90 of the *National Parks and Wildlife Act 1974*; and
- s.91 of the *Water Management Act 2000*.

Note 1: While there is a known Aboriginal object on the site, an Aboriginal Heritage Impact Permit will not be required as the proposal will not have any impacts on the object.

Note 2: Although the proposal includes the construction of a retaining wall to stabilise a section of creek bank and a headwall for the discharge of storm water, it is considered that this does not require approval under s.219 of the *Fisheries Management Act 1994* because the wall will not, block or leave stranded any fish, will not destroy any immature fish, and will not obstruct the passage of any fish.

### EVALUATION

Section 4.15 of the Planning Act sets out the matters to be considered by consent authorities when determining a development application. These are discussed in detail below.

### Environmental Planning Instruments (EPIs) and Draft EPIs

The following EPIs are relevant to the proposed development:

- State Environmental Planning Policy (SEPP) (Infrastructure) 2007;
- SEPP No 55—Remediation of Land;
- SEPP (Koala Habitat Protection) 2021;
- SEPP (Vegetation in Non-Rural Areas (2017));
- SEPP (Building Sustainability Index: BASIX) 2004;
- Queanbeyan Local Environmental Plan 2012 (QLEP); and
- Draft Queanbeyan-Palerang Local Environmental Plan 2020.

#### ***SEPP (Infrastructure) 2007***

Overhead high voltage power lines traverse the site within an easement for transmission line 45.72m wide. No development is proposed to encroach into this easement.

Pursuant to clause 45 of this SEPP, Council will refer this DA to the relevant electricity authority for their comment.

There are no other clauses of this SEPP that are relevant to the proposal.

#### ***SEPP No 55—Remediation of Land***

*Clause 7 - Contamination and remediation to be considered in determining development application*, of the SEPP is applicable to the proposal.

In regards to clause 7 the following information is provided.

- The land is not within an investigation area.
- A review of available records does not indicate that any parts of the site have been used for any of the purposes listed in Table 1 of the *Contaminated Land Planning Guidelines*.
- Specifically in relation to the R2 zoned portion of the site:

It has had no development or land use carried out on it apart from work to remove weeds. The owners of the site have owned it since 1991 and are responsible for all of these works. No fill has been imported onto the site. Material has simply been shifted within the site to effect weed removal.

- There is sufficient knowledge about the R2 part of the site to satisfy Council that it is not land specified in sub-clause 7(4), and therefore, a preliminary

investigation (Stage 1 Report) under sub-clause 7(2) is not required to subdivide it for residential lots.

- It is noted that the Draft amended SEPP 55 states that Clause 7 will be amended to include a new provision specifically giving Council the discretion not to require a report if it knows that the land is not contaminated or is otherwise suitable for the proposed use (see page 17 of the Explanation of Intended Effect). This Draft SEPP is required to be taken into consideration by Council for any DA under sub-clause 4.15 (1)(a)(ii) of the EP & A Act 1979.
- Advice was sought from Council in relation to the need for a preliminary investigation (Stage 1 Report) for a proposal to develop the R2 zoned portion of the site. Council advised in email dated 31 July 2018 as follows:

*Council believe that the information you have provided in regards to SEPP 55(7) would suffice as a Stage 1 – Preliminary Investigation in accordance with the Managing Land Contamination Planning Guidelines if it was to be lodged as part of a Development Application.*

A copy of the abovementioned email is provided with this DA.

#### **SEPP (Koala Habitat Protection) 2021**

This SEPP is applicable to the subject site.

Please refer to the accompanying Flora and Fauna Assessment (FFA). Although the FFA refers to the 2019 version of this SEPP (which was current at the time of writing), the information in the FFA demonstrates that the site does not support 'potential koala habitat' and does not 'constitute core koala habitat' as defined in the current SEPP.

#### **SEPP (Vegetation in Non-Rural Areas) 2017**

Under this Policy vegetation means a tree or other vegetation, whether or not it is native vegetation.

*Part 3 – Council permits for clearing of vegetation in non-rural areas, applies to vegetation in any non-rural area of the State that is declared by a development control plan to be vegetation to which this Part applies.*

Refer to discussion of vegetation under the Queanbeyan DCP 2012 later in this document.

#### *SEPP (Building Sustainability Index: BASIX) 2004*

The proposed dwellings are BASIX affected buildings. A BASIX Certificate has been prepared for each dwelling and the commitments required to be shown on the DA plans are listed on the plans.

#### *Draft Queanbeyan-Palerang Local Environmental Plan 2020 (Draft QPLEP)*

The Draft QLEP 2020 has completed a period of public exhibition. There are no changes proposed within this draft instrument that are relevant to the proposed development.

#### *Queanbeyan Local Environmental Plan (QLEP) 2012*

The following clauses of the QLEP 2012 are specifically relevant to the proposed development:

- 1.4 – Definitions;
- 2.3 – Zone objectives and Land Use Table;
- 2.6 – Subdivision—consent requirements;
- 4.1 – Minimum subdivision lot size;
- 4.3 – Height of buildings;
- 4.10 – Heritage conservation;
- 7.1 – Earthworks;
- 7.2 – Flood planning; and
- 7.3 – Terrestrial biodiversity;
- 7.4 – Riparian land and watercourses;
- 7.5 – Scenic protection; and
- 7.9 – Essential services.

#### *Clause 1.4 – Definitions*

The proposed use is defined under the QLEP 2012 as being for three *dwelling-houses*.

***dwelling house*** means a building containing only one dwelling.

Dwelling-houses are permitted with consent in the R2 – Low Density Residential zone.

The proposed subdivision of the site into three residential lots and one residue lot is permissible under clause 2.6 of the QLEP.

Earthworks are also proposed that are associated with providing vehicle access and the dwelling construction. These are ancillary to the dwelling-house and subdivision permissible uses.

*earthworks means excavation or filling.*

#### Clause 2.3 – Zone objectives and Land Use Table

The proposed development meets the relevant objectives of the R2 – Low Density Residential zone listed below:

- *To provide for the housing needs of the community within a low density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To encourage development that considers the low density amenity of existing and future residents.*
- *To encourage development that is designed to recognise the bushland character of the locality where appropriate and to minimize the impact of urban development, particularly on the edge of the urban area.*

Specifically, the proposal:

- Provides for the housing needs of the community in a way that has considered the low density amenity of future residents of the three proposed dwelling-houses, and the amenity of neighbouring residents; and
- Has been designed to minimise impacts to the nearby bushland and to minimise earthworks.

The R2 zoned portion of the site is characterised by infestations of noxious woody weeds (recently cleared). The proposal will result in an improved situation whereby these weeds will be permanently replaced by suitable residential development.

#### Clause 2.6 – Subdivision—consent requirements, and

#### Clause 4.1 – Minimum subdivision lot size

Subdivision of land to which the QLEP applies is permitted with consent under clause 2.6.



The proposal complies with the minimum lot size for subdivision.

The part of the site zoned R2 is identified on the QLEP's Lot Size Map as having a minimum lot size of 600m<sup>2</sup>. The rest of the site has two applicable minimum lot sizes of 2ha and 20ha.

Proposed Lots 1, 2 and 3 are all over the applicable 600m<sup>2</sup>, ranging from 814m<sup>2</sup> to 912m<sup>2</sup>. Proposed residue Lot 4 is 30.75ha.

#### Clause 4.3 – Height of buildings

The maximum height of any building or structure permitted within the R2 zoned portion of the site is 8.5m. The proposed dwelling-houses are all two storey structures and are all under the maximum permitted height as shown on the submitted elevations and sections.

#### Clause 5.10 – Heritage conservation

The site is not within a heritage conservation area, is not a heritage listed item or within the vicinity of one.

The accompanying Aboriginal Cultural Heritage Due Diligence Assessment has identified one Aboriginal site and one Potential Archaeological Deposit (PAD). However, these are both remote from the proposed residential lots (within proposed residue Lot 4) and will not be in any way impacted by the subject proposal.

In regards to European history there are some remnants of a small house in the north of the site within proposed residue Lot 4. Previous investigations concluded that the significance and conservation value of these remnants is low. Nonetheless, the subject proposal does not involve any works in the vicinity of the house remnants.

#### Clause 7.1 – Earthworks

The objective of this clause is to ensure that earthworks will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

A Geotechnical Investigation and Slope Stability Risk Assessment was prepared for the site by ACT Geotechnical Engineers Pty Ltd. It states the site is suitable for residential redevelopment provided their recommendations are followed. The design of the proposal is in accordance with the geotechnical recommendations, with accepted procedures for hillside construction incorporated, including:

- Minimising site cut by proposing a small building footprint for the ground floor of each dwelling-house, with a larger upper floor level extending behind and supported by columns; and
- Providing decks for recreational areas.

The proposal includes earthworks to provide vehicle access and as part of the construction of each dwelling-house. Retaining walls proposed at the rear of each house have been limited in height to a maximum of 1.2m.

Subdivision Works Certificate and Construction Certificate drawings will be prepared in accordance with the geotechnical recommendations. It is also assumed that any development consent will be conditioned to ensure compliance with the geotechnical recommendations.

It is noted that the Geotechnical Investigation states that fill is likely to be present on the site. The owner's advice is that no fill has been imported onto the site. Material has simply been shifted within the site to effect weed removal and improve stability – refer to detailed discussion of this previously in this report.

The accompanying civil engineering drawings include appropriate measures to avoid, minimise and mitigate the impacts of the development, including: sediment and erosion control; construction management; and stormwater management.

Provided that the proposal is carried out in accordance with: the geotechnical recommendations; the measures shown in the civil engineering drawings; Council and State water authority requirements; and the applicable Australian Standards, it will not have adverse impacts on drainage patterns and soil stability in the locality of the development, or any waterway or environmentally sensitive area.

#### Clause 7.2 – Flood planning

While the site is not identified as “Flood planning area” on the Queanbeyan Local Environmental Plan (QLEP) 2012 Flood Planning Map, some parts of the site are at or below the flood planning level for Buttles Creek.

The SMEC flood study from 1992 contains modelling and analysis of Buttles Creek and provides recommended floor levels at several cross sections for above the 1 in 100 year flood level plus 500mm freeboard. All of the proposed dwellings are located well above the recommended levels at the applicable cross sections. As such, the proposal is compatible with the flood hazard of the site.

Provided that the proposal is carried out in accordance with Council and State water authority requirements, accepted engineering practice, and the applicable Australian Standards, it is considered unlikely to: significantly adverse flood behaviour; result in significant adverse impacts on drainage patterns and soil stability in the locality of the development, or any waterway or environmentally sensitive area; or result in unsustainable social and economic costs to the community as a consequence of flooding.

#### Clause 7.3 – Terrestrial biodiversity

The site is wholly identified as “Biodiversity” on the QLEP 2012 Terrestrial Biodiversity Map. However, vegetation within the R2 zoned portion of the site is dominated by exotic and weedy vegetation, with only some isolated remnants of native trees and shrubs.

Asset protection zones (APZs) are proposed to extend into residue Lot 4 by 5m to the north of Lots 1, 2 and 3 and 15m to the east of Lot 3. This area is also dominated by weeds/exotic vegetation. Vegetation within and alongside the creek bed will also need to be managed to mitigate bushfire risk, ensure suppression of noxious woody weeds, and reduce impedance of water flow.

The proposal is supported by a Flora and Fauna Assessment (FFA) prepared by Unlimited Habitats Environmental Services. The FFA’s scope is limited to the R2 zoned land, but also provides comment on the potential modification/removal of vegetation to establish APZs, and determines the vegetation community/formation dominating a 140m radius of the proposed development as per guidelines provided in Planning for Bushfire Protection 2019. Hence, the FFA has also informed the Bushfire Assessment.

A maximum of only 0.02ha of native vegetation will be impacted by the proposed development, including the APZs in Lot 4. A large yellow-box gum (*E. melliodora*) tree located in the south-west corner of the site is proposed to be retained.

The FFA concludes that:

- *The vegetation contiguous to and occupying the footprint for development for the subject property, has been identified as CLEARED or MODIFIED vegetation, and is dominated by weed/exotic species; and*
- *The proposed development over R2 zoned lands on Lot 1/DP119766, does not require BDAR assessment as:*
  - *The Biodiversity Values Map and Threshold Tool and site assessment, indicates that there are no significant Biodiversity Values on the subject*

*property, and the amount of native vegetation clearing associated with the proposed development (0.02ha), does not exceed the biodiversity offsets scheme threshold of 0.25ha for a property with a minimum lot size of < 1ha.*

- *No threatened plant species, EEC's or TEC's were identified on the subject property, or in the area of proposed development, during site, or desktop-based assessment.*
- *No threatened fauna were noted as permanent residents on the subject property, or in the area of proposed development.*
- *Activities associated with the proposed development do not represent a Key Threatening Process as detailed in Schedule 4 of the BC Act 2016.*

Given the above, it is considered that the proposal complies with the requirements of cl. 7.3.

#### Clause 7.4 – Riparian land and watercourses

Part of the site, including a section of the R2 zoned portion, is identified on the QLEP Riparian Lands and Watercourses Map. The mapped area is consistent with the location of Buttles Creek.

There are no stormwater mains within proximity of the proposed development. As such, stormwater is proposed to discharge to Buttles Creek. This was flagged as an option by Council's Development Engineers at DCR meeting, subject to the approval of the relevant state water agency.

All three proposed dwelling-houses will connect to Council's reticulated sewer network.

Provided that the proposal is carried out in accordance with Council and State water authority requirements, accepted engineering practice, and any applicable Australian Standards, it is considered unlikely to have any adverse impact on: water quality and flows; aquatic and riparian species, habitats and ecosystems; and the free passage of fish; any future rehabilitation of the watercourse and riparian areas. Further, the proposal will not involve any water extraction from the watercourse.

#### Clause 7.5 – Scenic protection

Part of the site is identified on the QLEP Scenic Protection Map. However, this mapping layer does not extend into any part of the R2 zoned portion. Therefore, the provisions of this clause are not considered to be applicable as the proposed works and built form does not encroach into the Scenic Protection Area.

#### Clause 7.9 – Essential Services

The following services are essential:

- a) the supply of water,*
- b) the supply of electricity,*
- c) the disposal and management of sewage,*
- d) stormwater drainage or on-site conservation,*
- e) suitable vehicular access.*

The site is able to be provided with all essential services – refer to submitted Civil Drawings. Suitable vehicle access is proposed to be provided to each new lot as follows:

- Lot 1 – direct driveway access from Phillip Avenue;
- Lot 2 and Lot 3 – via right-of-carriageway from Phillip Avenue; and
- Residue Lot 4 – will retain existing legal access from Regent Drive and crown road.

The driveway for Lot 1 is located clear of the slope, thus ensuring a suitably flat grade from the kerb to the garage can be achieved.

The configuration of the pavement within the right-of-carriageway for Lot 2 and Lot 3 has been influenced by the strong desire of both the property owners and Council to retain a large yellow-box gum tree.

### Development Control Plans

The Queanbeyan DCP 2012 (“the DCP”) is applicable.

### *Queanbeyan DCP 2012*

Parts 2 and 3a of the DCP are specifically relevant. Below is a summary of the proposal’s compliance with the relevant controls.

#### **2.2 – Car Parking**

Each dwelling-house is to be provided with at least two car parking spaces located behind the building line. The proposal complies. Each dwelling-house is provided with an attached double garage. Vehicle Turning Paths demonstrate that cars can satisfactorily manoeuvre in and out of each garage.

#### **2.3 – Environmental Management**

##### Waste and Recycling

The Civil Engineering drawings and notes contain details of waste management during construction. A detailed Construction Management Plan can be provided prior to Construction Certificate if required.

Each dwelling-house will rely on Council’s standard wheelie bin waste collection service. Council’s waste trucks already travel to the end of Phillip Avenue to collect kerbside waste. There is sufficient flat ground within the curtilage of each residential lot for the storage of wheelie bins, which can then be wheeled over the respective driveways for kerbside collection.

##### Noise and Vibrations

Some noise will be generated during the construction phase of the proposal. Any impacts from this on nearby residences will be satisfactorily addressed by adherence to Council’s standard restrictions on hours of operation for construction.

The use of the proposed dwelling-houses will not generate any noise impacts over and above those usually generated from low density residential development.

#### **2.5 – Flood Management**

This clause provides development controls and guidelines in respect of flood prone land in Queanbeyan.

Refer to previous discussion of flood risk earlier in this report.

- All proposed finished floor levels for the dwellings are well above the 1 in 100 year flood event plus 500mm freeboard level (the flood planning level).
- All of the proposed dwelling-houses are accessed by driveways that are above the flood planning level.

### **2.6 – Landscaping**

This clause outlines Council's requirements for landscape plans and also lists what development types require a Council Accredited Landscape Consultant to prepare landscape plans.

With reference to *Table 4 – When is a landscaping plan required and who can prepare one*, the proposed development does not require submission of a landscaping plan. This is because:

- The proposed subdivision does not include future public land; and
- The proposed dwelling-houses are not located within the Scenic Protection Area.

The reference in Table 4 to development comprising 3 - 9 dwellings requiring a landscape plan is interpreted to be applicable to multi-unit (townhouse) style developments, not to a proposal that includes both subdivision and construction of three separate dwelling-houses. Indeed, were the proposal to be broken up into separate DAs for subdivision and dwelling-houses there would be no doubt as to the development not requiring submission of a landscaping plan.

Both Council's verge and the section of the right-of-carriageway not proposed to be paved will be rehabilitated with suitable grassing and it is expected that any development consent will be conditioned accordingly. Measures to ensure the large yellow-box tree to be retained is not damaged during construction are also expected to be conditioned, but can also be included in a Construction Management Plan if required by Council.

### **2.7 – Erosion and Sediment Control**

Please refer to submitted Civil Engineering drawings and notes and previous comments under discussion of earthworks.

## 2.8 – Guidelines for Bushfire Prone Areas

The site is wholly identified as being bushfire prone land on Council's Bushfire Prone Land Map. A Bushfire Assessment report prepared by Australian Bushfire Assessment Consultants demonstrates that the proposal can achieve compliance with the requirements of 'Planning for Bushfire Protection 2019' (PBP).

The Bushfire Assessment outlines a number of measures to ensure compliance with PBP, and Bushfire Attack Levels (BAL) for the three residential lots range from BAL 19 to BAL 29.

Asset Protection Zones (APZs) or fuel reduced / managed areas (by formal easement or equivalent agreement) are proposed as part of the proposed development, including;

- 5m wide APZ easement area, over the residual E2 zoned area of land to the northern boundaries of the proposed new residential allotments,
- 15m wide APZ easement area, over the residual E2 zoned area to the eastern boundaries of the proposed Lot 3; and
- 5m wide fuel reduced / managed area either side of the adjoining creek / water course which runs along the southern boundary of the proposed development area (within public land on Lot 102 DP 1213713).

Figure 3.4 in the Bushfire Assessment provides full details on the proposed APZs, including the total distances measured from building lines, inclusive of the proposed easements.

The Bushfire Assessment states that:

*The riparian APZ area would be maintained by virtue of non-native shrubs and invasive weed species being required to be continuously removed from within the creek line. Native woodland and associated shrubs do not otherwise readily occur or accumulate within the creek line due to rocky nature of the area and natural water flow / erosion process.*

Clause 2.8.6 of the DCP allows for restrictions to be placed on titles relating to APZs to ensure effectiveness of the fire protection measures. An 88B Instrument for this development will set out the terms of APZ creation and on-going management required of all lot owners. Rear fences will need to have gates to facilitate access to the APZ area within Lot 4.



In regards to the management of the proposed APZ within public land on Lot 102 DP 1213713 it is intended for the 88B Instrument to require the owners of Lots 1, 2 and 3 to maintain this APZ to the benefit of Council (who owns this lot).

### **2.9 – Safe Design**

The proposal won't have any negative impacts with respect to crime prevention through environmental design considerations.

The proposed dwelling-house on the lot with the long frontage to Phillip Avenue (Lot 1) faces the street. Entries to the proposed dwelling-houses on Lot 2 and Lot 3 are not obscured by any walls, alcoves et cetera, and will be clearly visible from the driveway.

Passive surveillance of the street from the dwelling on Lot 1 is obtained from an upper level deck, a habitable upper level window, and ground level open space in the front yard. Upper level balconies to the dwellings on Lot 2 and Lot 3, and some ground level open space will provide passive surveillance to the driveway.

New fencing will not obscure and building entries or reduce opportunities for passive surveillance. Fencing along the front boundary (facing Phillip Avenue) is proposed to be 1.2m high and constructed of steel powder coated pickets.

### **2.10 – Subdivision**

The proposal satisfies the applicable controls in this part of the DCP relating to design, solar access, vehicle access, and service provision.

By incorporating the dwelling-house construction within each new residential lot within the same application it has been demonstrated that the proposed subdivision reflects the constraints of the land and is consistent with the character of the surrounding residential development. Furthermore, the proposed subdivision:

- will not prevent the satisfactory future division of the land;
- will not lead to undue erosion of the land or land in the vicinity;
- will not pollute any water supply or water resources;
- achieves the most efficient use of existing utility services;
- is designed so as to be suitable for residential purposes (Lots 1-3);

- will not result in the clearing of any significant trees;
- maintains the existing low density residential character;
- provides opportunities for maximum solar efficiency for each dwelling; and
- reflects the servicing capacity of the area.

### **2.12 – Tree and Vegetation Management**

Under clause 2.12.6 approval is required to remove vegetation on residential zoned land which has a height of 6m or greater, or a canopy spread of 3m or greater.

The R2 zoned portion of the site contains a limited number of trees. Vegetation that is clear of built form and access is proposed to remain but will be subject to some modification to establish and maintain the required asset protection zones (APZs).

The design of the access to Lot 2 and Lot 3 has taken into account the retention of the large yellow-box tree in the south-west corner of the site. One small gum tree will need to be removed to allow for the driveway construction.

### **3A.1.2 – Objectives for Single Residential Development**

The proposal is consistent with the objectives for single dwelling-houses. Specifically:

- Impacts to the existing low density amenity of the locality from the use of three additional houses will be insignificant;
- The proposal will contribute to the low density housing mix within the Queanbeyan urban area, which is lacking in new developments of this kind;
- The proposal is considered to be ecologically sustainable, with the vast majority of the overall site remaining as extant native bush, with only the most degraded land (the R2 zoned portion) proposed to be developed;
- The design of the three two dwelling-houses is compatible with the scale and bulk of the existing built form on Phillip Avenue. The house on Lot 1 directly faces the street to provide an active street presence, and a variety of external materials, textures and suitably muted colours are proposed;
- Good levels of amenity are provided to future residents of the three dwellings. In addition to large decks providing a secure area of private open space accessed

from upper level habitable rooms, each dwelling also has access to areas of flat ground. Each deck is north facing and will receive good levels of sunlight. Habitable rooms on the upper levels of each dwelling also face north; and

- The design of the three two dwelling-houses follows the contours of the slope to minimise cut and fill. This has been achieved by having a small building footprint for the ground floors, with a larger upper floor level extending behind and supported by columns.

### **3A.2.1 External Materials, Patterns, Textures and Decorative Elements**

A variety of external materials, textures and suitably muted colours are proposed for the dwelling-houses – refer to the Elevations.

### **3A.2.2 Siting and Building Setbacks**

Required setbacks for two storey dwelling-houses is 7.5m from the main front boundary (4m from a minor frontage on corner lots), and 4m from the rear boundary. No side boundary setbacks are stipulated.

The objective of the setback controls is to ensure quality residential development by preventing overdevelopment and respecting the amenity of neighbours.

#### ***Variation***

The dwelling-house on Lot 1, which has a direct frontage to Phillip Avenue has a front setback of 4.94m to 6.28m, which is a variation to the prescribed 7.5m. This variation is justified on the following grounds:

- The objective of the control is satisfied. Specifically:
  - The proposal is not an overdevelopment of the R2 zoned portion of land. Each lot is well over the minimum lot size. By including the dwelling-houses in the same application as the subdivision it has been demonstrated that each lot can be satisfactorily serviced, accessed and built on, and
  - The amenity of neighbouring development is respected. There will be no negative shadow impacts and no opportunities for casual overlooking into back yards et cetera;
- The proposal is not inconsistent with the established streetscape of Phillip Avenue. It is not a typical streetscape, being a short street that is only developed

on one side, and with only three houses having street frontage. One of these houses has a front setback of only 4m; and

- The proposed variation, if approved, will not set a precedent for any other development along Phillip Avenue, as there is no opportunity for any other houses to be built with frontage to the street. Specifically, the undeveloped land further along the eastern side of the street is very steep and is zoned E2, which doesn't permit dwelling-houses.

### **3A.2.3 Fences**

The proposal complies with the controls in this clause.

- Fencing along the front boundary (facing Phillip Avenue) is proposed to be 1.2m high and constructed of steel powder coated pickets.
- It is not intended to fence the rear (northern boundary) of Lots 1-3. If for some reason Council requires this boundary to be fenced the preference is not to use chain mesh or similar materials as vegetation will penetrate this type of fencing, making it difficult to prune and maintain.
- Fencing along the side boundaries will be constructed of non-combustible materials and the height will not exceed the maximum prescribed in this clause.
- No fencing is proposed along the boundary of the site with Buttles Creek.

### **3A.3.1 Topography**

The proposal complies with the controls in this clause. Specifically:

- The design of the three two dwelling-houses follows the contours of the slope to minimise cut and fill. This has been achieved by having a small building footprint for the ground floors, with a larger upper floor level extending behind and supported by columns;
- The Sections demonstrate that cut and fill levels are under 1.5m and the need for batters is limited. All earthworks are to be carried out in accordance with the geotechnical recommendations – refer to previous detailed discussion earlier in this report.

### 3A.5 Vehicular Access and Parking

The proposal complies with the applicable controls in this clause. Specifically:

- All parking spaces are within attached garages;
- Both driveways are over 3m wide and there is adequate turning area to facilitate access to the houses on Lot 2 and Lot 3; and
- The grade of the two proposed driveways will not to exceed 1:5. This is achieved by locating them on the flatter parts of the site.

Note: Screen planting is not able to be provided alongside the driveway to Lot 2 and Lot 3 as there is a limited amount of flat ground to work with and it is necessary to build a retaining wall here. However, there will be no fence along this boundary and the adjoining public land to the south is heavily vegetated. Therefore, there will be no negative visual impacts from not having any screen planting

### 3A.7 Consideration of Views, Shadowing and Privacy

The proposal complies with the applicable controls in this clause. Specifically:

- The placement of rooms and decks on the upper levels of each dwelling limits any opportunities for privacy impacts between them. There will not be any privacy impacts to the existing properties across the road; and
- Each deck is north facing and receives good levels of sunlight. Habitable rooms on the upper levels of each dwelling also face north. Natural light to the rear yards and north windows of adjoining properties is maintained.

#### Any Planning Agreement

The site is not subject to any Planning Agreement.

#### The Regulations

The proposal is accompanied by the information required to be submitted by the *Environmental Planning and Assessment Regulation 2000*.

#### Impacts

The impacts of the proposed development on the natural and built environment will be minimal, as will its social and economic impacts. Specifically, the proposal:

- is in context with the residential locality and adjoining bushland;

- will have minimal impacts on adjoining land use activities;
- will not adversely impact on land resources;
- will have negligible impacts on biodiversity; and
- has been designed with due regard to environmental constraints and in an environmentally sensitive manner.

#### Suitability of the Site

The site is considered to be suitable for the proposal, which has been carefully designed to account for the site's constraints.

#### Any Submissions

Council may publicly notify the proposal in accordance with their policy.

#### Public Interest

It is in the public interest to grant development consent to the proposal. It has been demonstrated that the site is suitable, and impacts to the environment and the amenity of adjoining properties and the locality are minimal.

## CONCLUSION

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The proposed development represents a positive use of an R2 zoned portion of land that would otherwise remain as degraded and prone to severe infestations of noxious weeds. It will also contribute to the low density housing mix within the Queanbeyan urban area.

The inclusion into this application of the three individual dwellings provides the additional detail and information to demonstrate with certainty that the site is suitable for residential development.

The proposal has been designed to have minimal impacts to the environment while working within the constraints of the site. It has also been demonstrated that future residents of the three dwellings will be provided with good levels of amenity.

The proposal is therefore considered worthy of Council's support and in the public interest to be approved.

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# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 6 DA.2021.1259 - BUSHFIRE ASSESSMENT - 2G PHILLIP  
AVENUE



- > Design & Assessment of Development in Bushfire Prone Areas
- > Bushfire Risk Assessment & Management Plans
- > Bushfire Evacuation Plans
- > Building Solutions Advice for Bushfire Prone Areas

## Bushfire Assessment

In relation to

**Proposed Three Lot Residential Subdivision &  
Associated Residential Building Development**

**2G Phillip Avenue, Queanbeyan East  
Lot 1 DP119766**

**February 2021**

**Matt Jones**

*BAppSc Environmental Health  
Grad. Dip Design for Bushfire Prone Areas  
BPAD Level 3 FPAA*

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[www.bushfireconsultants.com.au](http://www.bushfireconsultants.com.au)



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## TABLE of CONTENTS

1. Introduction .....	1
2. Site Description .....	2
3. Proposed Development .....	12
4. Vegetation Classification .....	18
5. Assessment of Slope .....	20
6. Environmental Features or Aboriginal Relics .....	21
7. Bushfire Assessment .....	22
7.1 BUSHFIRE PROTECTION MEASURES .....	22
7.2 ASSESSMENT OF BUSHFIRE ATTACK LEVELS .....	25
7.3 PERFORMANCE CRITERIA .....	25
8. Conclusion .....	32
9. Recommendations .....	33

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## 1. Introduction

Australian Bushfire Assessment Consultants (ABAC) has been commissioned to carry out a bushfire assessment in relation to a proposed subdivision and associated building development of residentially zoned land within Lot 1 DP119766 (No. 2G) Phillip Avenue Queanbeyan East NSW, herein the '*subject land*'.

The subject land and surrounds are mapped as bushfire prone land for the purposes of Section 10.3 of the *Environmental Planning & Assessment Act 1979* (EP&A Act).

Under the provisions of Queanbeyan LEP 2012, the subject land is partly zoned;

- *E2 – Environmental Protection,*
- *E4 – Environmental Living, &*
- *R2 – Low Density Residential.*

The area of the subject land proposed for subdivision and new building development is the entire area zoned R2 – Low Density Residential, herein the '*proposed development area*'. As such, the proposal is assessed based on residential subdivision and new residential building development.

As the land within the site is mapped as bushfire prone land, the purpose of this Bushfire Assessment is to assist in the planning process, to identify the proximity of the proposed development to any potential bushfire threat and to determine what, if any, level of construction and additional infrastructure is required for future buildings in accordance with the NSW Rural Fire Service (RFS) guideline entitled *Planning for Bush Fire Protection 2019* (PBP 2019).

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## 2. Site Description

The subject land is ≈30.3ha in total area, located on the eastern side of Phillip Avenue, and accessed from either Phillip Avenue or Regent Drive (via The Kings Highway) from the northern boundary. The proposed development area is the 2,550sqm southwest corner of the subject property zoned *R2 – Low Density Residential* under the provisions of Queanbeyan LEP 2012, which forms the easternmost extension of the Phillip Avenue (or Queanbeyan East) residential precinct.

The remainder of the subject land (≈30.3ha) will remain undeveloped and managed in accordance with the current E2 & E4 zoning across the area.

The proposed development area is more or less comprised of a relatively cleared (or highly disturbed) & flatter southern half before becoming a steep and partly vegetated northern embankment. The steeper embankment area has also been recently benched and terraced for future development in accordance with determined geotechnical requirements. The proposed development area is effectively at the bottom of a well-defined line area formed by the subject property and adjoining public reserve area (Lot 2 DP874067), well away from or downslope of ridges and steep slopes.

The proposed development area is approximately 100m southeast of the intersection with Elizabeth Crescent which provides through access in either direction. The proposed development area has direct frontage (≈50m) to Phillip Avenue which is ≈140m in total length, has a sealed and guttered carriageway of ≈6m width and does not exceed 10° gradient along any sections. Combined with existing private driveway access / hardstand areas and gutter laybacks, a reasonable turning area is currently provided for larger vehicles at the end of Phillip Avenue.

Whilst Phillip Avenue is managed and gated by the local Authority as no-through public access, practical and emergency vehicle access route is available beyond the end of Phillip Avenue to Wright Park playing fields via an existing sewer service trail. The existing access trail provides a reasonable carriageway of at least 4m width over a relatively flatter gradient not reasonably exceeding 5° along any section. Both heavy

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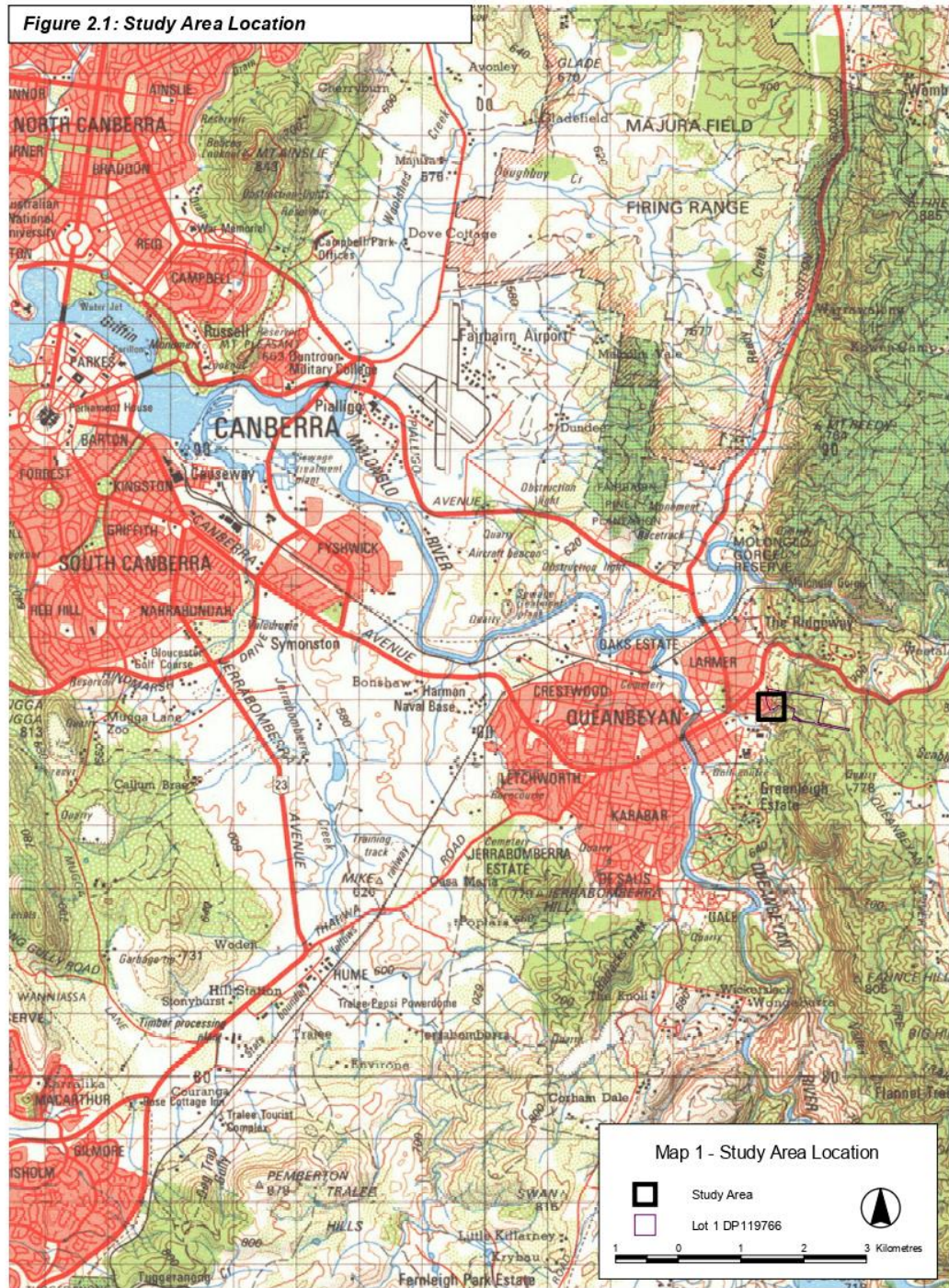
and lighter two-wheel drive vehicles should be able to reasonably access Wright Park playing fields (and beyond to the existing urban roadway network) via this trail under emergency managed circumstances.

The proposed development area is bounded by a well-defined creek / watercourse along the southern boundary and high voltage powerlines / easement which lie just adjacent ( $\approx 15\text{m}$ ) to the east.

The surrounding locality would be best described as existing cleared and managed urban / residential areas to the northwest to southwest, before returning to native woodland and remnant riparian vegetated areas occupying land to the south, east & north of the site.

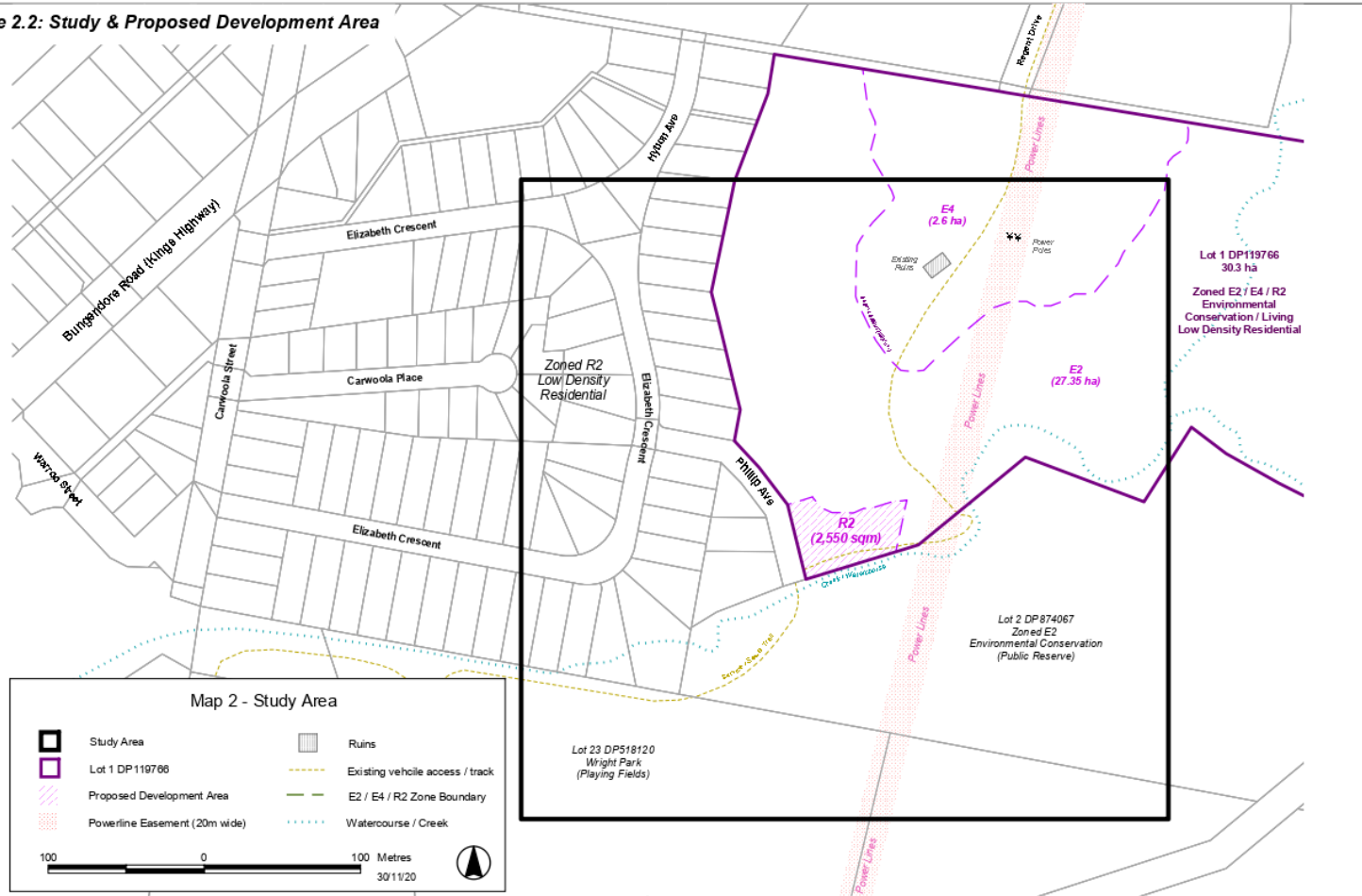
Utility services / supplies available to the proposed development area include reticulated water, sewer connection, overhead electrical lines, and telephone/NBN services. At least 2 existing hydrant outlets are located within vicinity and overhead distribution powerlines are located along Phillip Avenue.

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Figure 2.2: Study & Proposed Development Area



Bushfire Assessment: Proposed Residential Subdivision & Building Development  
 2G Phillip Avenue Queanbeyan East (Lot 86 DP 873809) – February 2021

© ABAC Australian Bushfire Assessment Consultants

Figure 2.3: Zoning & Bushfire Prone Land Map

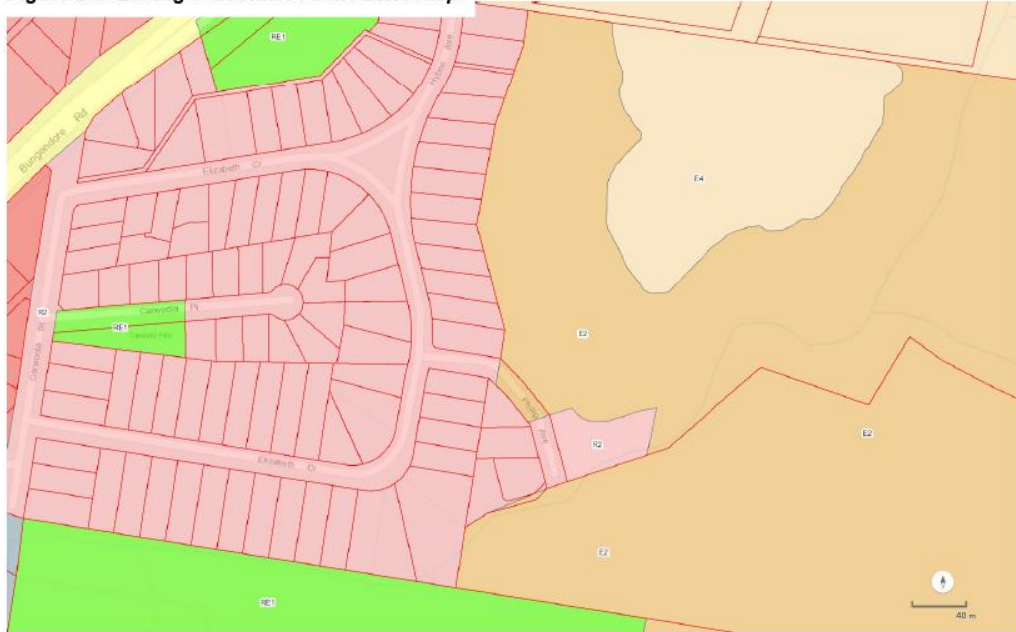
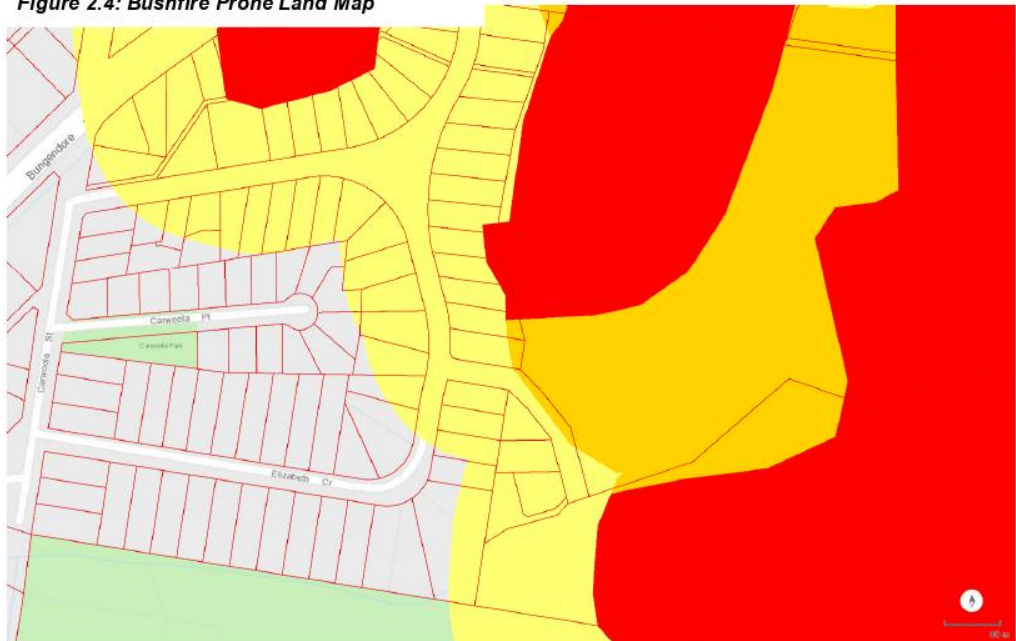


Figure 2.4: Bushfire Prone Land Map



Courtesy: [ePlanning Spatial Viewer \(nsw.gov.au\)](http://ePlanning.SpatialViewer.nsw.gov.au)

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Figure 2.5 shows the photo locations 1-9 in relation to available vehicle access routes.

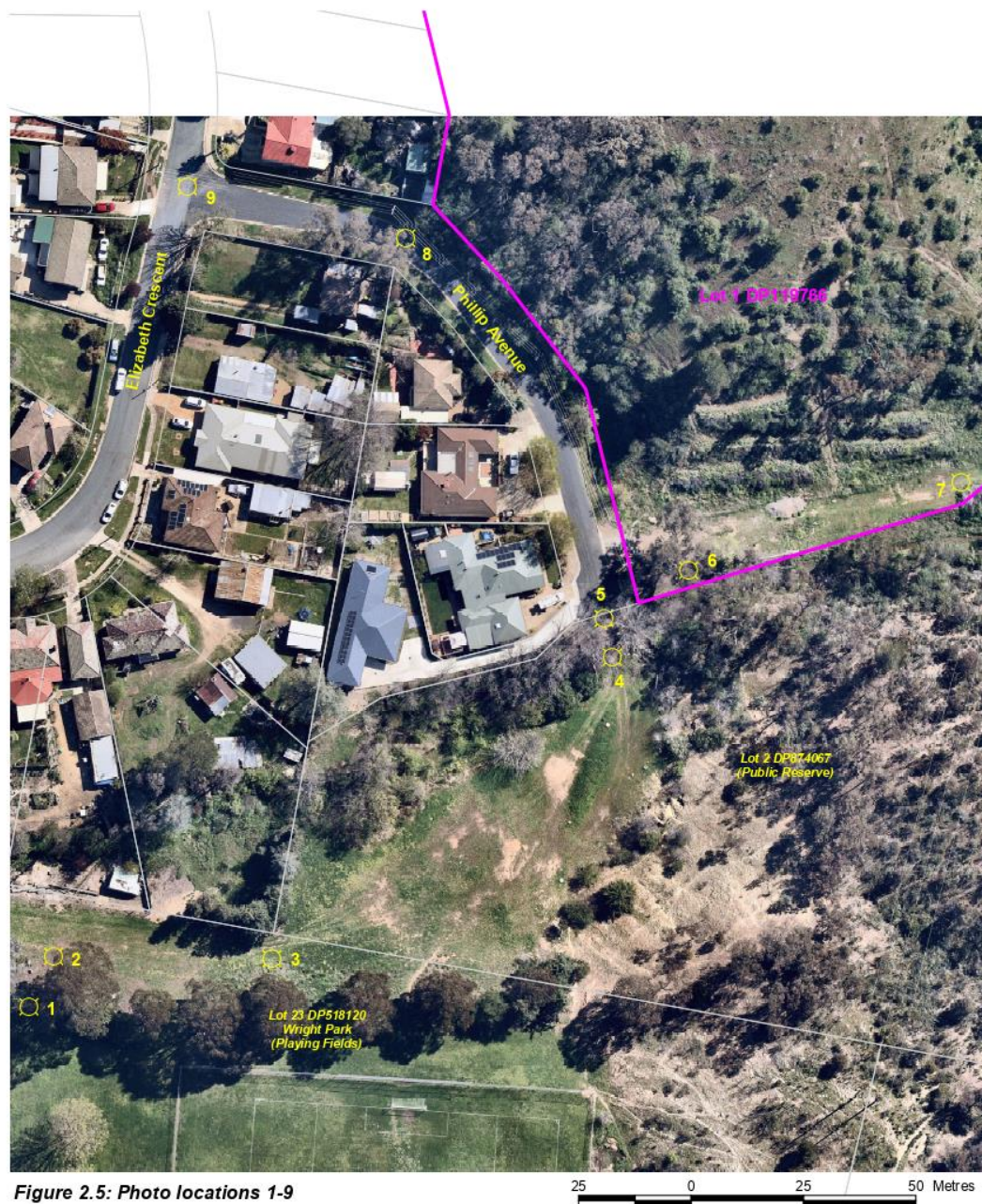


Figure 2.5: Photo locations 1-9



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The following photos show the condition of land on and around the site.



Photo Reference Point 1 – access point from Council service trail & mown APZ onto Wright Park playing fields



Photo Reference Point 2 – views along Council service trail and mown APZ area and vehicle access route



Photo Reference Point 3 – views along Council service trail and mown APZ area



Photo Reference Point 4 – view towards gated creek crossing / Phillip Avenue and associated sewer line access



Photo Reference Point 5 – view towards gated creek crossing and along Phillip Avenue

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Photo Reference Point 6 – views along southern boundary (edge of creek) of development area



Photo Reference Point 7 – views from eastern boundary / extent of development area



Photo Reference Point 8 – views along Phillip Avenue



Photo Reference Point 9 – views along Elizabeth Crescent (Phillip Avenue intersection)



Photo Reference Point 8 – views along Phillip Avenue  
(Elizabeth Crescent intersection)

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*Local / standard Fire fighting appliance demonstrating reasonable accessibility along Phillip Avenue frontage to proposed development area*

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Figure 2.6: Detailed aerial photograph overlay showing proposed development area & service access trail

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### 3. Proposed Development

The proposed development is for the subdivision of the southwestern corner / area (≈2,550sqm) of the subject land, where direct frontage to Phillip Avenue, zoned R2 Low Density Residential to create three new residential allotments identified as Block 1E – 841sqm, Block 2E – 814sqm, & Block 3E – 912sqm.

The residual area of the subject property (≈30ha zoned E2 & E4) will remain vacant pending future development applications.

Block 1E will have direct frontage to Phillip Avenue & Blocks 2E & 3E will be accessed via combined battle-axe property handles of 3.5-4.4m width x 20 & 40m length respectively, facilitating a shared access width of at least 7m extending along the shared access for at least 12m.

Each new allotment will contain a two-storey residential building structure of at least 190sqm in area (footprint), with all proposed new structures within 70m or less of Phillip Avenue. The structures will be partly built into a relative steep northern embankment of proposed development area which has been cleared & benched / terraced for soil stability in accordance with a geotechnical requirements<sup>1</sup> for the site.

All new residential allotments and associated building structures will be connected to existing power and water supply services located along Phillip Avenue.

At least two existing street hydrant outlets are located along Phillip Avenue within vicinity of the proposed development area, reasonably within 90m or less of the proposed new building structures.

Asset Protection Zone (APZ) or fuel reduced / managed areas (by formal easement or equivalent agreement) will be incorporated or identified as part of the proposed development, including;

- 5m wide APZ easement area, over the residual E2 zoned area of the subject property, to the northern boundaries of the proposed new residential allotments,
- 15m wide APZ easement area, over the residual E2 zoned area of the subject property, to the eastern boundaries of the proposed Block 3E, &
- ≈10m wide fuel reduced / managed area (or else 5m managed watercourse buffer) to ensure a cleared and open watercourse / channel for the adjoining creek line to the southern boundary of the proposed development area.

The proposed new residential allotments, associated building development and surrounding infrastructure are as shown in Figures 3.1 – 3.5 as follows.

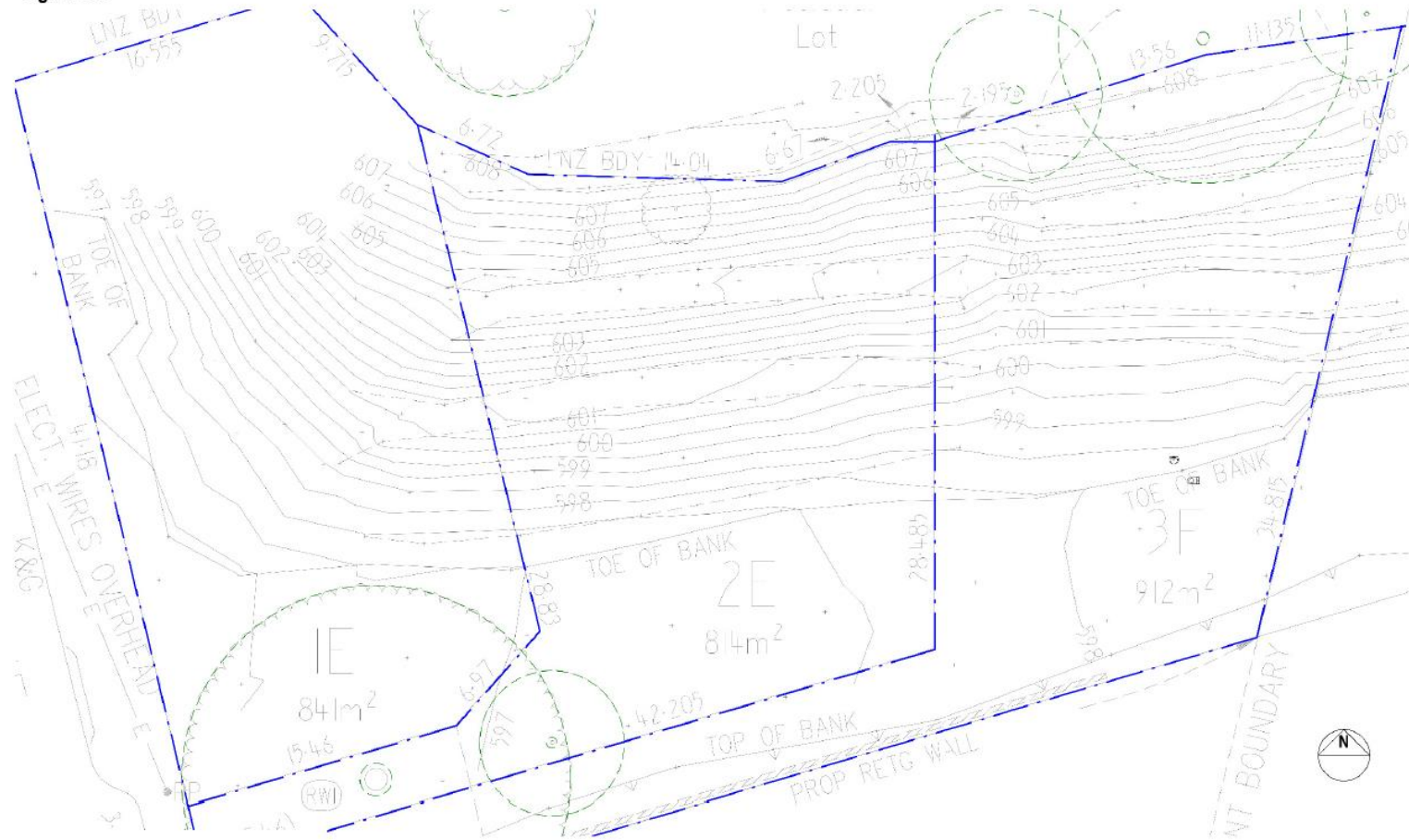
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<sup>1</sup> Geotechnical investigation and slope stability risk assessment report for proposed townhouse development, 2 Phillip Ave, Queanbeyan East NSW, ACT Geotechnical Engineers Pty Ltd, October 2020

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Figure 3.1



Bushfire Assessment: Proposed Residential Subdivision & Building Development  
2G Phillip Avenue Queanbeyan East (Lot 86 DP 873809) – February 2021

Page 13

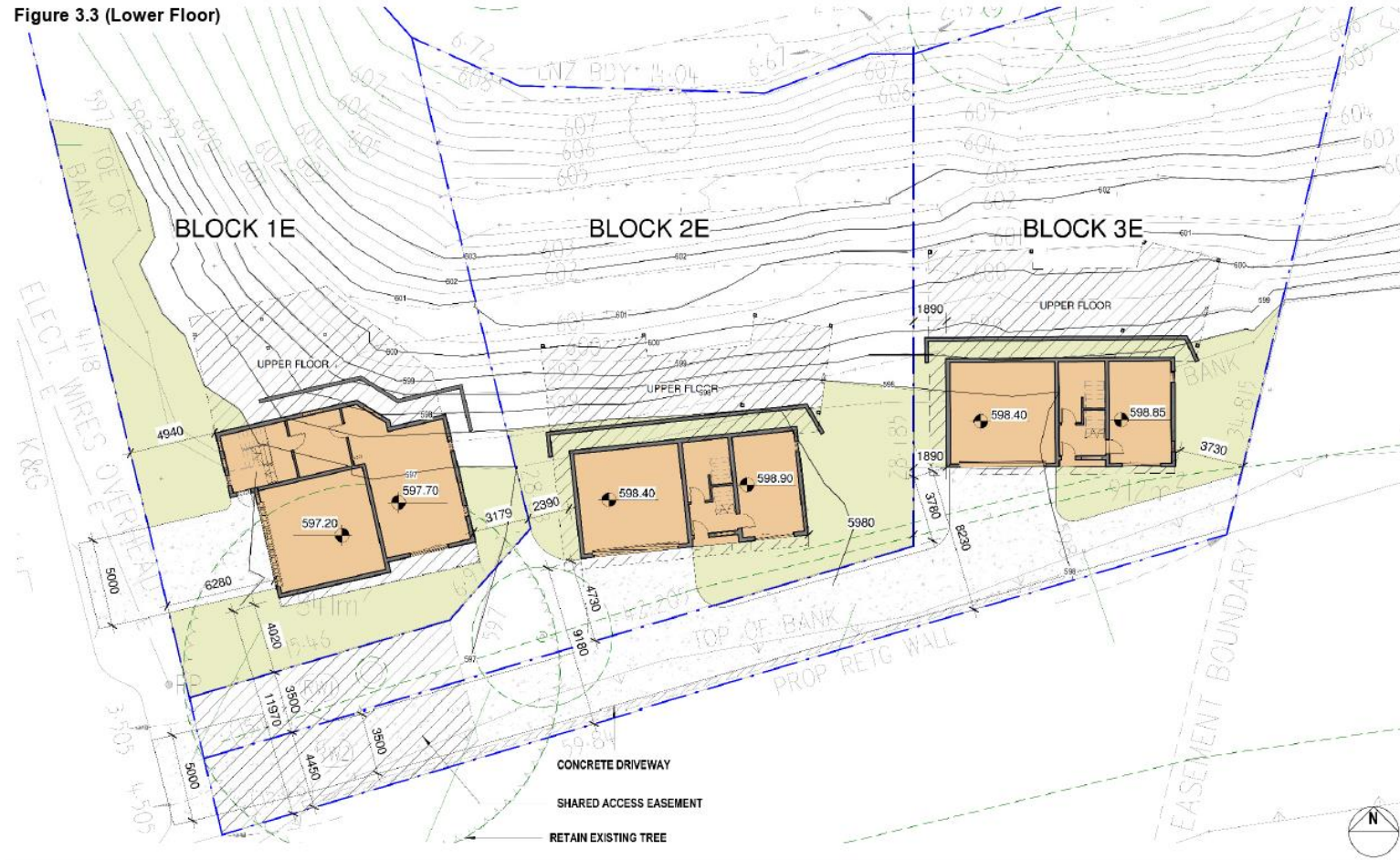
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Figure 3.2 (Upper Floor)



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Figure 3.3 (Lower Floor)

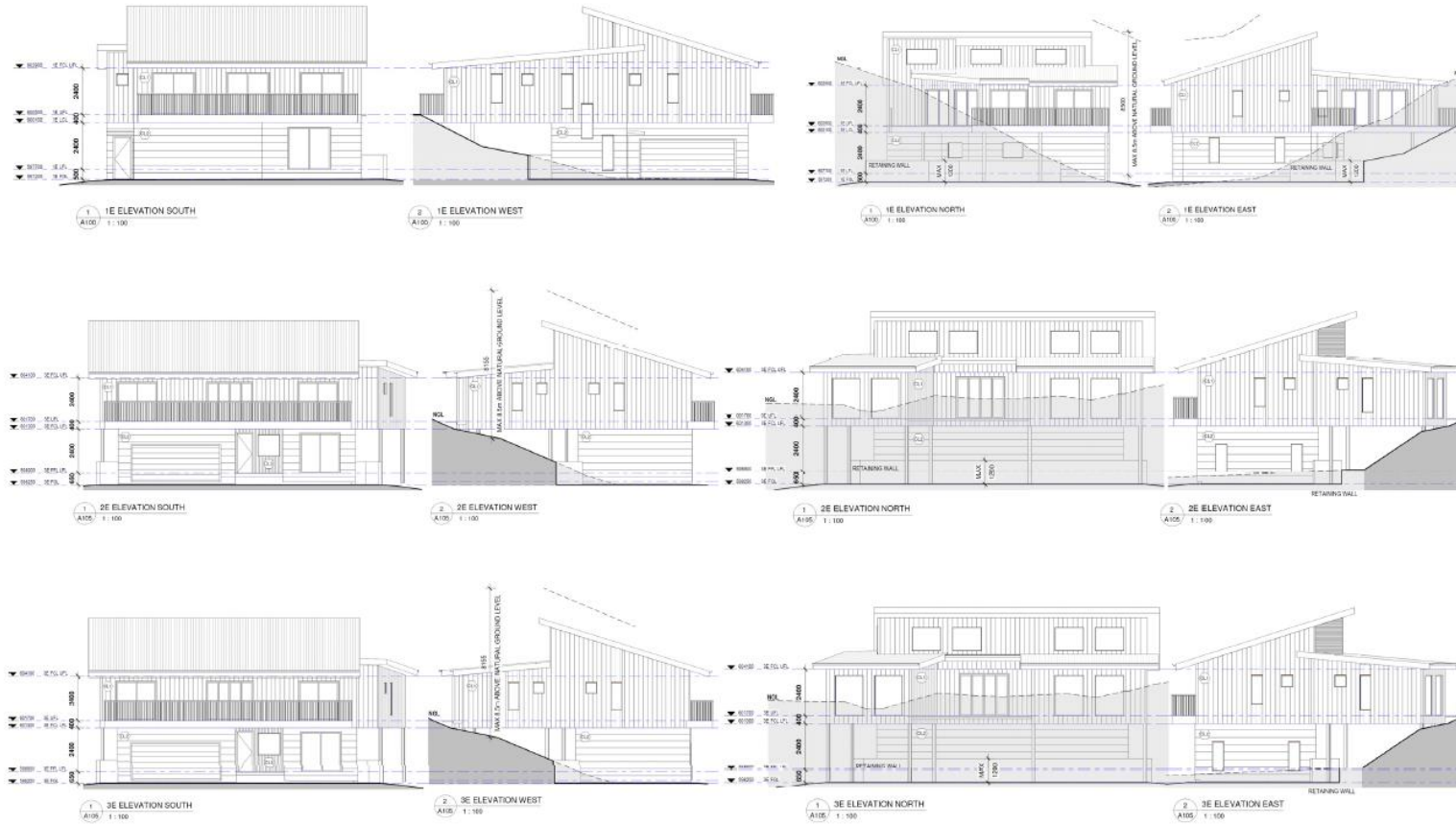


Bushfire Assessment: Proposed Residential Subdivision & Building Development  
2G Phillip Avenue Queanbeyan East (Lot 86 DP 873809) – February 2021

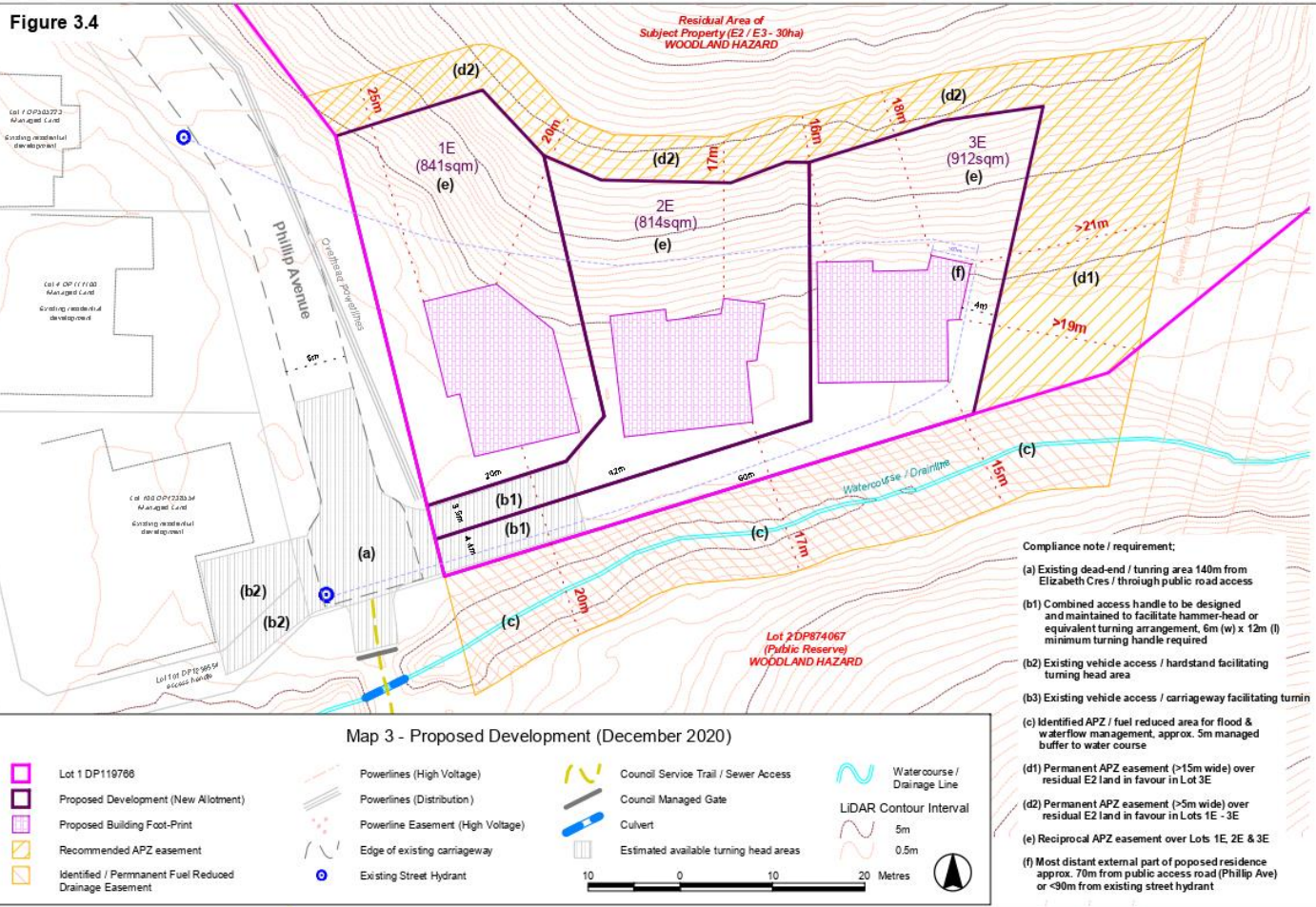


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Figure 3.3 (Elevations)



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#### 4. Vegetation Classification

Vegetation within and directly adjoining the proposed development area is predominantly of highly disturbed and sparse woodland species with a currently understorey of native and exotic grass & weed species. The potential vegetation hazard to the proposed development area would likely persist within the subject property itself (residual E2 & E4 zoned areas) and the adjoining / interfacing area of Lot 2 DP874067 (E2 zoned public reserve land).

A Flora & Fauna Assessment report<sup>2</sup> for the proposed development site has been recently undertaken and concludes that;

*Based on the altitudinal, and geographical position in the landscape, structural components, available bushfire fuels and floristics observed, it is the authors considered opinion:*

- *The native vegetation community that occupies 2.8ha of the 7.836ha, 140m radius to the proposed development on exposed ridgetops, and in the eastern and southern sections of the general landscape, is an intergrade between a woodland form of PCT 294, Nortons Box - Red Box - White Box tussock grass open forest of the southern section of the NSW South Western Slopes Bioregion, with PCT 888, Inland Scribbly Gum - Brittle Gum low woodland of the eastern tablelands, South Eastern Highlands Bioregion. See Appendix 3 for Overviews of Plant Community Types (PCT's) and NSW Vegetation Classifications.*
- *The dominant native vegetation community/formation that occupies the 7.836ha, 140m radius to the proposed development, with respect to the requirements of Planning for Bushfire Protection 2019 (PBP), conforms to WOODLAND.*

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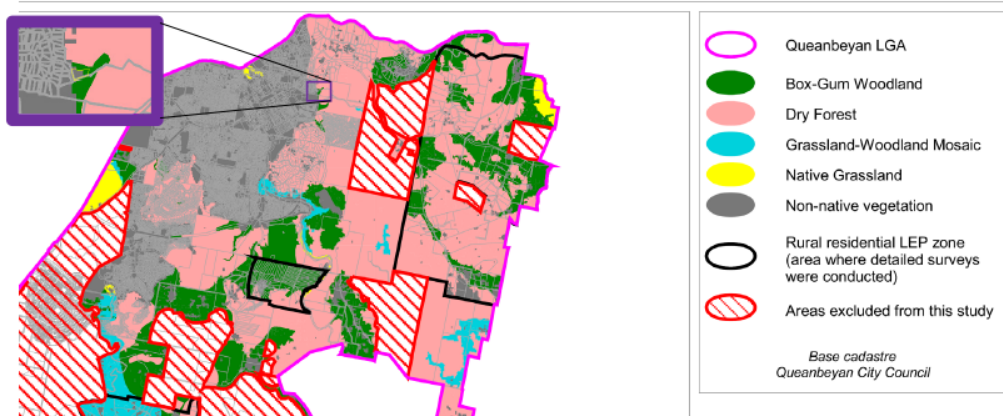
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<sup>2</sup> Flora & Fauna Assessment for the proposed sub-division and development of lands zoned R2, occupying the SW corner of Lot 1/DP 119766: Lot 1/DP 119766 2G Phillip Avenue, Queanbeyan NSW 2620 Queanbeyan-Palerang Regional Council LGA, December 2019 – Unlimited Habitats, Andrew Horton.

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Biodiversity Study Findings<sup>3</sup> undertaken across the Queanbeyan Local Government Area also identifies the proposed development area and immediate surrounds as 'Box-Gum Woodland', *validated vegetation mapping* as extracted and shown Figure 4.1.

Figure 4.1 (Validated vegetation mapping as extracted from Biodiversity Study Findings)



For the purposes of determining Asset Protection Zones (APZs) in relation to the proposed development, the nearest areas of unmanaged vegetation within 140 metres of the site are classified as *woodland*.

Potential riparian / remnant vegetation to the southwest of the proposed development site is also identified within the adjacent creek line / watercourse area given it is not known if this section of creek line is also identified as fuel reduced / managed area.

The provision of APZs as part of the proposal ensures that any part of the proposed residential buildings within the proposed residential allotments would have an asset protection zone of ≥15 metres (flat and/or upslope) to 25 metres (which is greater than the minimum required APZ of 13 metres based on the maximum assessed effective slope of >0-5° *downslope* in relation to woodland vegetation).

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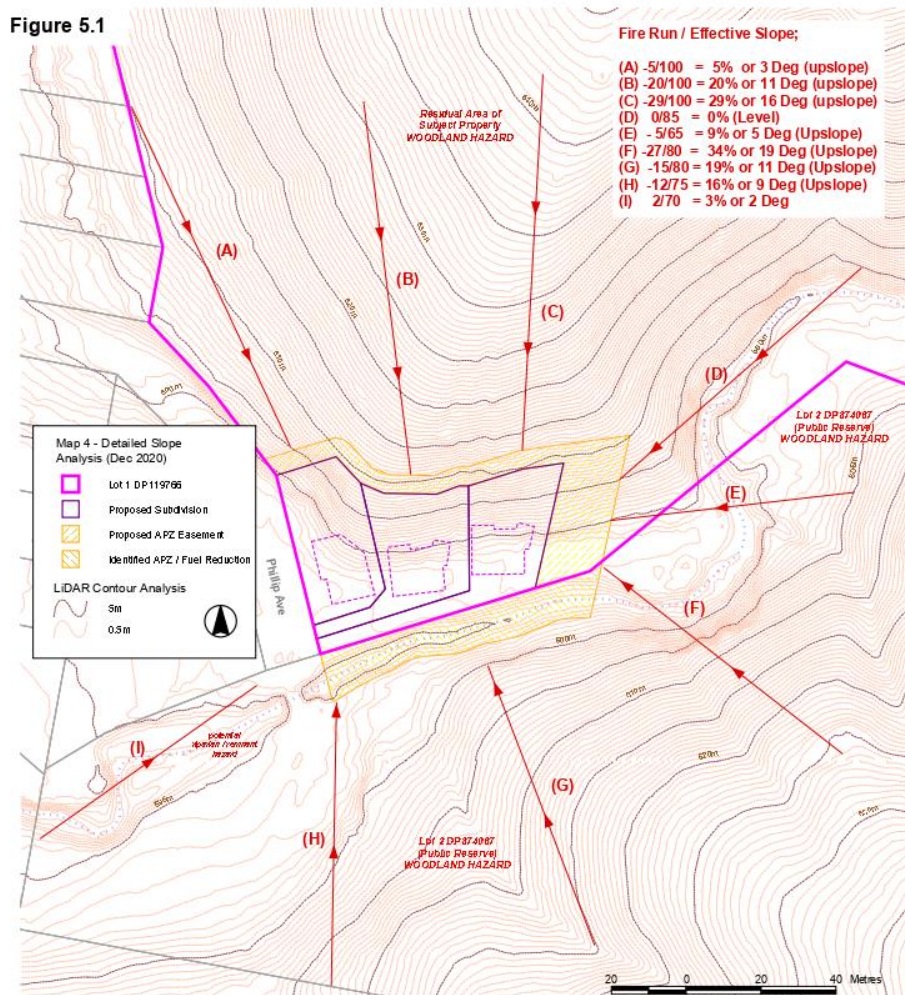
<sup>3</sup> Biodiversity Study Findings Report, Queanbeyan Local Government Area, July 2008 – Bushfire & Environmental Services.

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## 5. Assessment of Slope

The assessment of slope has been undertaken to determine the “effective slope”, that is, the slope of land under areas of classified vegetation within 140 metres of the site.

The analysis of slope was undertaken via analysis of 1 metre Resolution Digital Elevation Model and through field analysis using a hand-held inclinometer and range finder. At least 9 transects have been conservatively considered for distances of >50-100m from the interfacing hazard edge to the proposed development area. Figure 5.1 as follows outlines the assessment of effective for the purpose of this report.



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The slope of land within and adjacent to the site is dominated by relatively steep banks to an adjoining water course / natural creek which runs along the southern boundary of the proposed development area. The proposed development otherwise effectively located at the base of a well-defined gully line.

Given the gully line location of the proposed development area, the “effective slope” toward the potential woodland vegetation is reasonably *upslope* of the site, and steeply averaging >10° upslope of the site.

For the purpose of ongoing APZ management and side cut requirements for the new structures, the proposed development area has also been benched and terraced in accordance with determined geotechnical requirements for site as previously referenced section 3 of this report.

Potential riparian / remnant vegetation to the southwest of the proposed development site is assessed as effectively 0-5° *downslope*.

## 6. Environmental Features or Aboriginal Relics

The Flora & Fauna Assessment report (as previously referenced) for the proposed development site states that;

- *No threatened plant species, were identified on the subject property, or in the area of proposed development, during site, or desktop-based assessment, &*
- *No threatened fauna were noted as permanent residents on the subject property, or in the area of proposed development. Threatened fauna opportunistically habituating, harbouring, foraging, or egressing the general landscape, would experience minimal disruption and impact from the proposed development.*

An AHIMS basic search (AHIMS ID: 555230) was conducted in relation to the site on the 6<sup>th</sup> December 2020 – search result as follows. The results of the search indicate that there are 0 Aboriginal sites recorded in or near the location of the proposal development area. In this regard, the proposal is unlikely to have any impact to known items/relics of Aboriginal cultural heritage on site.

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## 7. Bushfire Assessment

### 7.1 Bushfire Protection Measures

As previously shown Figure 3.4 is an illustration of the proposed subdivision and the proposed bushfire protection measures considered relevant to performance criteria pertaining to residential subdivision. These performance criteria are assessed in detail in Section 7.3 of this assessment.

Notably, the proposed development will incorporate or is designed to ensure:

- an additional proposed APZ easement area ( $\approx 550\text{sqm}$ ) of at least 15m width to the eastern boundary of proposed Block 3E, or else part of the residual area of E2 zoned land between the proposed development site and adjacent high voltage powerline easement;
- an additional proposed APZ easement area ( $\approx 420\text{sqm}$ ) of at least 5m width to the northern boundary of the proposed development area (all Blocks), or else again part of the residual area of E2 zoned land;
- an identified APZ / fuel reduced area ( $\approx 790\text{sqm}$ ) for watercourse clearance and channel maintenance of at least 5m width either side of the adjoining creek / water course which runs along the southern boundary of the proposed development area. The riparian APZ area would be maintained by virtue of non-native shrubs and invasive weed species being required to be continuously removed from within the creek line. Native woodland and associated shrubs do not otherwise readily occur or accumulate within the creek line due to rocky nature of the area and natural water flow / erosion process;
- provision or identification of an additional turning head / hardstand area to facilitate a combined and improved turning area arrangement for larger vehicles at the end of Phillip Avenue;
- all new residential structures would be located no greater than 70m from existing public roadway access and no greater than 90m from existing street hydrant outlets within vicinity; &

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- identification of an available / alternate vehicle access route via an existing Council managed service trail which links the end of Phillip Avenue to cleared and open playing fields within Wright Park to the southwest of the proposed development site and away from the primary woodland hazard.

The additional proposed & identified APZ / fuel reduced easements would reasonably ensure each new structure achieves BAL-29 or lower in accordance with PBP or AS3959.

Vehicle access and egress for the proposed development area would be provided by the existing public roadway arrangement (≈6m wide) and Council service trail linkage which would reasonably facilitate through or alternate access for emergency purposes. By virtue of existing hardstand / driveways areas to neighbouring allotments and shared access handles linked to the end of Phillip Avenue, a reasonable turning area for larger vehicles would also be provided.

Notwithstanding the existing public roadway and available alternate access route, the proposed development area and associate new structures are reasonably within 70m or less of Phillip Avenue (which can be easily accessed by an emergency firefighting vehicle) and 200m or less of a through road system via Elizabeth Crescent. In this regard, the proposed development technically does not require any additional public roadway sections or prescribed property access requirements for bushfire safety compliance.

The proposed development will have direct access to existing reticulated water and overhead powerline supplies which run directly adjacent to the west boundary or frontage of the proposed development area to Phillip Avenue.



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### AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : 1/119766

Client Service ID : 555230

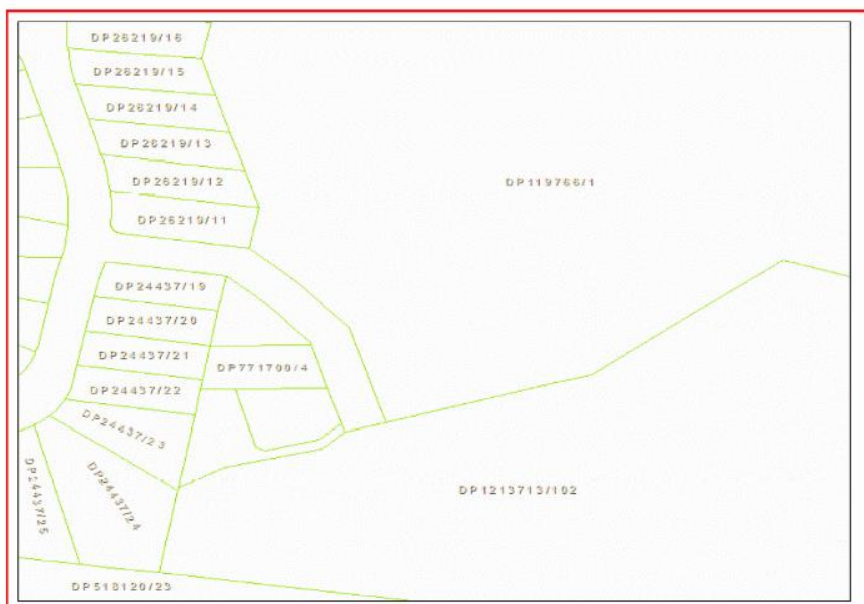
Matthew Jones  
57 Crawford Street  
QUEANBEYAN 2620  
Attention: Matthew Jones  
Email: mattj@bushfireconsultants.com.au

Date: 06 December 2020

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lat. Long From : -35.3482, 149.2514 - Lat. Long To : -35.3469, 149.2535 with a Buffer of 50 meters, conducted by Matthew Jones on 06 December 2020.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

- 0 Aboriginal sites are recorded in or near the above location.**
- 0 Aboriginal places have been declared in or near the above location. \***

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## 7.2 Assessment of Bushfire Attack Levels

Appendix 1 of PBP provides the methods for determining the Bushfire Attack Level (BAL). Once the BAL is determined, construction requirements for the corresponding BAL apply subject to AS3959-2018: *Construction of Buildings in Bushfire Prone Areas*.

The site is in the Southern Ranges fire (weather) area and the relevant Fire Danger Index (FDI) is FDI 100.

Based on the current and anticipated condition of vegetation likely to persist beyond the proposed development area and associated APZ easement areas, the predominant vegetation formation relative to the site is considered woodland.

In relation to the nine fire runs / effective slope transects as previously referred to Section 5 of this report, Table 7.1. as further follows outlines a BAL assessment measured from the nearest building line of the proposed development to the edge of the persisting hazard beyond the proposed development & associated APZ easement areas.

## 7.3 Performance Criteria

Developments for the purposes of subdivision are subject to the specific considerations in chapter 5 of PBP 2019 relating to “Residential and Rural Residential Subdivisions”. The relevant performance criteria are considered in Table 7.2 to Table 7.4 of this report.

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**Table 7.1 – Bushfire Attack Level (BAL) Assessment\***

<b>Distance [FIRE RUN]</b>	<b>Vegetation Location / Direction</b>	<b>Effective Slope</b>	<b>BAL</b>
≥25m [Fire Run A]	WOODLAND Subject Property residual E2 land / NNW	Upslope	19
≥17m [Fire Run B]	WOODLAND Subject Property residual E2 land / N	Upslope	29
≥16m [Fire Run C]	WOODLAND Subject Property residual E2 land / N	Upslope	29
≥21m [Fire Run D]	WOODLAND Subject Property residual E2 land / NE	0-5°	29
≥19m [Fire Run E]	WOODLAND Lot 2 DP874067 public reserve / E	Upslope	19
≥15m [Fire Run F]	WOODLAND Lot 2 DP874067 public reserve / SE	Upslope	29
≥17m [Fire Run G]	WOODLAND Lot 2 DP874067 public reserve / SSE	Upslope	29
≥20m [Fire Run H]	WOODLAND Lot 2 DP874067 public reserve / S	Upslope	19
≥20m [Fire Run I]	WOODLAND Lot 2 DP874067 public reserve / SW	0-5°	29

\* Note: BAL assessment in accordance with PBP Table A1.12.5 - Determination of BAL, FFDI 100 – ; residential developments

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Table 7.2: APZ (Re: Table 5.3a PBP)		
PERFORMANCE CRITERIA	RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA	
The intent may be achieved where:		
ASSET PROTECTION ZONES	<p><i>Potential building footprints must not be exposed to radiant heat levels exceeding 29 kW/m<sup>2</sup> on each proposed lot.</i></p>	As shown Table 7.1 of this report, the nearest building lines to the adjacent hazard achieve BAL-29 (29kW/m <sup>2</sup> ) or lower in accordance PBP Table A1.12.5 - Determination of BAL, FFDI 100 – residential developments.
	<p><i>APZs are managed and maintained to prevent the spread of fire towards the building.</i></p>	As recommended by this report, the entire area of the proposed development site and associated APZ easement / identified fuel reduced areas are to be maintained to the standard of an Inner Protection Area (IPA).
	<p><i>The APZ is provided in perpetuity.</i></p>	As recommended by this report, all APZs and associated APZ easement / identified fuel reduced areas are to be managed in perpetuity in association with the residential dwellings.  Reciprocal APZ easements are also recommended between Blocks 1E, 2E & 3E given the potential for staged building development within the proposed development area.
	<p><i>APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.</i></p>	Practical APZ maintenance to ensure soil stability has been considered and addressed by a formal Geotechnical Assessment report for the proposed development area which states <i>the level of risk to proposed and neighbouring dwellings and to people is "Very Low to Medium", and is no higher than normally acceptable for residential development.</i>  The proposed development area has been benched and terraced to facilitated both practical vegetation management and side cut requirements for siting of the new building structures.
LANDSCAPING	<p><i>Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.</i></p>	As recommended by this report, the entire area of the proposed development site and associated APZ easement / identified fuel reduced areas are to be maintained to the standard of an Inner Protection Area (IPA).  All boundary fencing to the proposed development area is recommended to be non-combustible or otherwise designed and installed in accordance with PBP Section 7.6.

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Table 7.3: Access (Re: Table 5.3b PBP)	
PERFORMANCE CRITERIA	RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA
The intent may be achieved where:	
<b>ACCESS</b>	<p><i>Firefighting vehicles are provided with safe, all-weather access to structures.</i></p> <p>The proposed development area will be accessed by an existing public roadway system which provides a fully sealed and maintained two-wheel drive / all weather carriageway of at least 6m width.</p> <p>The average gradient of the public roadway sections servicing the proposed development area would not reasonably exceed 5° and there are no traffic management devices or other obstructions limiting access for a standard urban fire fighting appliance.</p> <p>Whilst Phillip Avenue is identified and gated as a dead-end access arrangement, practical or emergency managed through vehicle access is otherwise available via an existing Council service &amp; sewer line vehicle access trail linking Phillip Avenue to Wright Park playing fields and beyond to the extended public roadway network.</p> <p>By virtue of the proposed / shared property access handles to service Blocks 2E &amp; 3E, an improved or larger turning area / facility (with handles of at least 12m) would be provided for all traffic entering Phillip Avenue.</p>
	<p><i>The capacity of access roads is adequate for firefighting vehicles.</i></p> <p>Access to the proposed development area is currently provided via fully bitumen sealed and drained roadway sections, designed and constructed for capacity to carry fully laden fire fighting vehicles and anticipated urban traffic.</p>
	<p><i>There is appropriate access to water supply.</i></p> <p>The proposed development will be connected to the existing reticulated town water supply mains which run along Phillip Avenue.</p> <p>At least two existing street hydrants are located along Phillip Avenue and within 90m or less of the proposed development site, with both hydrants located outside of the carriageway or formally identified parking area.</p>

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Table 7.3: Access (Re: Table 5.3b PBP)	
PERFORMANCE CRITERIA	RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA
The intent may be achieved where:	
<b>PERIMETER ROADS</b>	<p><i>Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface.</i></p> <p>The proposed development does not incorporate nor require any additional public roadway sections for lawful access.</p> <p>All new residential building structures will be located within 70m or less from Phillip Avenue and otherwise &lt;200m from through access / egress via Elizabeth Crescent.</p> <p>Vehicle access along the existing public roadway sections is unobstructed along a carriageway of at least 6m width, to a height of at least 4m and would not reasonably exceed 5° gradient along any sections.</p>
<b>ROADS</b>	<p><i>Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating.</i></p> <p>As above, the proposed development does not incorporate nor require any additional public roadway sections.</p>
<b>PROPERTY ACCESS</b>	<p><i>Firefighting vehicles can access the dwelling and exit the property safely.</i></p> <p>All new residential building structures within the proposed development area will be located within 70m or less (by an unobstructed path or property access driveway) from Phillip Avenue.</p> <p>In the event of practical fire fighting operations, a fire fighting appliance would most likely set up to take water from hydrants located along Phillip Avenue (where the speed limit is 50kph) and run standard fire fighting hose lengths within the proposed development area.</p> <p>Whilst no specific access requirements are technically required in this instance, the proposed development would nevertheless facilitate an additional turning area for all traffic entering Phillip Avenue via the shared property access handles to Blocks 2E &amp; 3E (with handles of at least 12m long &amp; 6m combined width).</p>

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Table 7.4: Services (Re: Table 5.3c PBP)		
PERFORMANCE CRITERIA	RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA	
The intent may be achieved where:		
<b>WATER SUPPLIES</b>	<p><i>Adequate water supplies are provided for firefighting purposes.</i></p>	<p>The proposed development will have direct access to an existing reticulated water supply main which runs directly adjacent to the west boundary or frontage of the proposed development area to Phillip Avenue.</p>
	<p>➤ <i>Water supplies are located at regular intervals; and</i></p> <p>➤ <i>The water supply is accessible and reliable for firefighting operations.</i></p>	<p>At least two existing street hydrant outlets are located along Phillip Avenue and are reasonably within 90m or less of the proposed new residential building structures.</p> <p>Where a firefighting appliance is located directly adjacent to the access point from Phillip Avenue, it is reasonable to suggest that the appliance would be located less than one hose length (&lt;30m) from an available street hydrant and a fire fighter using a hose connected to that appliance could enter or defend a building safely in the knowledge that all parts of the building / floors to be protected by the appliance are within 70m (in accordance with AS2419 Clause E6.1.2 Fire hydrant coverage limitations – Fire brigade pumping appliances).</p> <p>The hydrants are located outside of the existing carriageway areas.</p>
	<p><i>Flows and pressure are appropriate.</i></p>	<p>Street hydrants within vicinity of the proposed development site appear to be fully functioning and capable of providing a large supply of water when opened.</p> <p>A formal pressure and flow rate test has not been undertaken at the time of this report.</p>
	<p><i>The integrity of the water supply is maintained.</i></p>	<p>As recommended by this report, any external water supply infrastructure (pipes, hoses pumps &amp; fittings) and supply / storage tank(s) to be incorporated as part of the proposed development are to be of fire-resistant / non-combustible, metal or concrete manufacture.</p>

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Table 7.4: Services (Re: Table 5.3c PBP)	
PERFORMANCE CRITERIA	RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA
The intent may be achieved where:	
<b>ELECTRICITY SERVICES</b> Location of electricity services limits the possibility of ignition of surrounding bush land or fabric of buildings.	As recommended by this report, all power supply cabling within the proposed development area should be located underground.
<b>GAS</b> Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	As recommended by this report, any gas installation(s) is to be consistent with the relevant acceptable solutions of PBP.



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## 8. Conclusion

This bushfire assessment has been prepared in relation to a proposed residential subdivision of land zone R2 – Low Density Residential within Lot 1 DP119766 (No. 2G) Phillip Avenue Queanbeyan East NSW.

The proposed residential subdivision has been assessed in relation to the performance criteria for a residential subdivision development as per Chapter 5 “Residential and Rural Residential Subdivisions” of PBP 2019.

The predominant vegetation has been assessed as woodland and is generally (and steeply) located upslope of the proposed development area and associated APZ easement / identified areas.

APZs for the proposed development area have been identified on the basis of woodland vegetation, with each proposed new building having an APZ or setback of >15m to the potential bushfire hazard. This exceeds the minimum prescribed<sup>4</sup> 12m for woodland vegetation with an effective slope of flat and/or upslope and otherwise reasonably achieves the prescribed 16m for woodland vegetation that may be conservatively considered 0-5° downslope.

In relation to access, the assessment has noted that:

- The proposed development area would be accessed by an existing public roadway arrangement which provides a fully sealed and maintained roadway width of ≈6m and a Council gated (no public vehicle) access arrangement ≤140m in length. In this regard, additional public roadway sections for bushfire safety compliance are technically not required.
- All proposed new building structures are reasonably located within 70m or less of Phillip Avenue (which can be easily accessed by an emergency firefighting vehicle) and 200m or less of a through road system via Elizabeth Crescent. In this

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<sup>4</sup> Minimum distances for APZs – residential development, FFDI 100 areas (<29kW/m<sup>2</sup>, 1090K).

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regard, additional property access or private roadway compliance for bushfire safety compliance is technically not required.

- An existing Council service trail linkage to Wright Park playing fields effectively provides a practical and through means of alternate or emergency access from Phillip Avenue.
- By virtue of existing hardstand / driveways areas to neighbouring allotments and shared access handles linked to the end of Phillip Avenue, reasonable and improved turning head areas (of at least 6 x 12m) for larger vehicles would also be provided – benefiting both the proposed development and existing development along Phillip Avenue.

## 9. Recommendations

The site comprises land described as Lot 1 DP119766 (No. 2G) Phillip Avenue Queanbeyan East NSW. The proposed development has been assessed against the relevant provisions of *Planning for Bush Fire Protection 2019*.

Provided the following recommendations are implemented, the assessment has noted that the proposed development is consistent with the relevant performance criteria of *Planning for Bush Fire Protection 2019*.

The following recommendations are made in relation to the proposed development.

### **Asset Protection Zones**

- A. At the commencement of any associated residential building development, the proposed development area shall be entirely maintained, in perpetuity, to the standard of an Inner Protection Area (IPA) as described in Appendix 4 of *Planning for Bush Fire Protection 2019*.
- B. At the commencement of any associated residential building development, the proposed APZ easement over the interfacing areas (>5-15m) of residual E2 land shall be maintained, in perpetuity, to the standard of an Inner Protection Area (IPA) as described in Appendix 4 of *Planning for Bush Fire Protection 2019*.
- C. At the commencement of any associated residential building development, the identified APZ / fuel reduced area over the interfacing watercourse / drain line

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buffers (≈5m wide either side of the watercourse) shall be maintained, in perpetuity, to the standard of an Inner Protection Area (IPA) as described in Appendix 4 of *Planning for Bush Fire Protection 2019* or equivalent fuel management arrangement.

- D. In the event that the associated residential building development maybe staged, a reciprocal APZ easement arrangement shall be placed across the entire area of the proposed development site to ensure any undeveloped allotment(s) may be lawfully fuel reduced and maintained for APZ purposes to benefit an existing residential building structure.

### **Construction Standards**

- E. All proposed new residential building structures shall be designed and constructed to incorporate at least;
- *AS3959-2018 'Construction of buildings in bushfire prone areas'* Sections 3 & 7 (BAL-29) design / materials, and/or
  - *NASH Standard (1.7.14 updated) 'National Standard Steel Framed Construction in Bushfire Areas' – 2014* as appropriate.
- F. The proposed development shall additionally incorporate sections 7.5, 7.5.1, 7.5.2, 7.5.3 & 7.5.4 (where applicable) of *Planning for Bush Fire Protection 2019*.
- G. Any associated fencing and/or gates within the proposed development area shall be designed and constructed entirely on non-combustible material or otherwise separated away from the proposed development (residential building structures) by at least 6m and shall be of a minimum hardwood design / structure.
- H. Given the potential dead-end access arrangement for Phillip Avenue and for a conservative margin of safety, the proposed new residential building structures should preferably be designed and constructed entirely of non-combustible material or otherwise equivalent to *AS3959-2018 'Construction of buildings in bushfire prone areas'* Sections 3 & 8 (BAL-40) design / materials.

### **Access**

- I. The proposed / shared access handles servicing Block 2E & 3E shall be designed and constructed to have capacity to carry fully laden fire fighting vehicles (up to 23 tonnes).

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- J. Each proposed new residential building structure and associated private access route shall be clearly signposted to assist emergency vehicles easily identify and access the site / residence from Phillip Avenue.
- K. The property signage shall clearly identify;
- property address / street number,
  - distance to furthest most point of the residential building structure from Phillip Avenue, &
  - an available Static Water Supplies (SWS) at the residence – if applicable.

#### **Services and Water Supplies**

- L. Predicated upon the pressure of the available street hydrants being unreliable or not guaranteed during a significant bushfire event, each proposed residential building structure shall incorporate and clearly identify a static water supply / tank (SWS) maintained at 5,000L capacity or greater at all times as available for fire fighting purposes. The SWS shall be designed and located in accordance with PBP requirements, including;
- if located above ground, shall be manufactured of concrete or metal, and if raised have its stands protected (i.e. non-combustible),
  - if located underground, have an access hole of 200mm to allow tankers to refill direct from the tank. A hardened ground surface for truck access shall be supplied within 4 metres of the access hole,
  - outlets shall be 65-70mm Storz, exposed metal fittings and piping only, located at least away (≈5m) from any proposed building development,
  - outlets shall be easily accessible for a firefighting appliance or fire fighters (nearer the vehicle access road or turning areas), and easily identified as a water source for firefighting purposes,
  - outlets should preferably be located in positions whereby they are shielded from any adjacent landscaping / combustible hazards or else not cause fire fighters or occupants accessing the outlet point to be unreasonably exposed to the identified bushfire hazards within and adjacent to the proposed development site.
  - a portable pump (preferably diesel powered) with compatible (dedicated) hoses and fittings to draw water from the storage tank/supply should be incorporated and maintained,
  - all above ground water pipes and fittings / taps external to any building structures should be metal.
  - any fixed / permanent domestic water supply pumps shall be shielded.

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- M. Each proposed residential building structure shall incorporate at least one fixed firefighting hose and reel of reasonable length ( $\approx 36\text{m}$  nominal) so as to reach all the immediate areas surrounding the residential building structure and associated curtilage.
- N. Installed fire hose reels shall be manufactured in accordance with the *Australian/New Zealand Standard AS/NZS 1221:1997 'Fire hose reels'* and installed in accordance with *AS2441-2005 'Installation of fire hose reels'*.
- O. Where applicable, all electrical supply connections within the proposed development area shall be located underground.
- P. Where applicable, any stored or reticulated gas supplies incorporated as part of the proposed development shall comply with PBP requirements, including;
- being install and maintained in accordance with *AS/NZS 1596:2014 'The storage and handling of LP Gas'* and the requirements of relevant authorities. Metal piping is to be used,
  - fixed gas cylinders to be kept clear of all flammable materials to a distance of 10m and shielded on the hazard side of the installation.
  - all gas cylinders installed close to the building to have the release valves directed away from the building and at least 2 metres away from any combustible material.
  - all external / exposed pipes & connections to and from gas cylinders or reticulated supply outlets to be metal.

#### NOTES & DISCLAIMER:

1. *This assessment relates to a proposal to subdivide the subject land only. Only the layout shown in Figures 3.1-3.4 have been considered.*
2. *This Assessment has been based on bushfire protection guidelines as outlined in Planning for Bush Fire Protection 2019 (PBP).*
3. *The adoption of bushfire protection measures cannot guarantee that future buildings will survive a bushfire event on every occasion. This is substantially due to the unpredictable behaviour and nature of fire and the difficulties associated with extreme weather and fire weather conditions.*

#### PRESCRIBED REFERENCES

NSW Rural Fire Service (2019)  
*Planning for Bush Fire Protection 2019*

Standards Australia (2018)  
*AS3959-2018 Construction of buildings in bushfire-prone areas*

# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 7 DA.2021.1259 - BIODIVERSITY REPORT - 2G PHILLIP AVENUE



## **Flora and Fauna Assessment for the proposed sub-division and development of lands zoned R2, occupying the SW corner of Lot 1/DP 119766:**

**Lot 1/DP 119766  
2G Phillip Avenue, Queanbeyan NSW 2620  
Queanbeyan-Palerang Regional Council LGA**

Prepared for:

**Garry Kerans**

December 2019

Prepared by

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Andrew Horton  
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BAM Assessor Accreditation Number: BAAS19012

A horizontal decorative bar with a textured, grey background. It contains four icons, each consisting of a diamond shape followed by text: 'Environmental Assessment', 'Land Management', 'Ecological Restoration', and 'Fire planning'.

◊ Environmental Assessment   ◊ Land Management   ◊ Ecological Restoration   ◊ Fire planning

## Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

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## BUSINESS PROFILE

### Principal – Andrew Horton

- Accredited Biodiversity Assessment Method Assessor. Accreditation Number: **BAAS19012**
- Bachelor of Applied Science in Urban Horticulture. This degree is environmental and ecology based and provided training in fauna and flora assessment, survey methodology and techniques and covered units of competency with equivalency to Level 5 Arboriculture certification for tree risk assessment and reporting.
- Planning for Bushfire Prone Areas Post-Graduate Certificate. Assessment of the Legal issues and Requirements of AS 3959 (Buildings in Bushfire Prone Areas). National Accreditation in Burn planning and Burn Implementation.
- Fire Management Plans (Hazard Reduction and Reserve Management- TYPE 2) for NPWS, OEH.
- Coastal Resource Management Post-Graduate Certificate. Including GIS and Resource Management.
- Bush Regeneration Supervisors Certificate.
- Horticulture Certificate IV.
- Employed in various roles with NSW, NPWS (OEH) including Senior Technical Officer (Scientific), Ranger and Acting Area Manager. Prepared and implemented: **Park Reserve Plans of Management, Plans of Management (various)**, for restoration of bushland and bushfire fuel management in the Sydney Basin, and NSW North Coast for National Parks and Wildlife Service (1995 to 2015); and **Fire Management Planning** - Hazard Reduction and Reserve Management (TYPE 2) for NPWS, OEH in SYD, NNC bioregions.
- Consulting on Environmental and Ecological matters to Bushfire Professionals undertaking assessments and reporting on Compliant Development within Bushfire Prone Lands (Planning for Bushfire Protection), eg: *Bushfire Vegetation & Fire Management Zone Plan, Proposed Redevelopment of the Australian Institute of Police Management, Collins Beach Rd Manly (20/07/08)*. Prepared for GEOSPATIAL INTEGRITY PTY LTD.



**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

- 40 yrs experience conducting Flora and Fauna surveys supporting:
  - Comprehensive surveys of National Park Estate and native environments (NSW North Coast, Sydney Basin, South East Coast, South East Highlands);
  - Contributed to listing of *Herbivory and environmental degradation caused by feral deer* as a key threatening process;
  - Reviews of Environmental factors for NSW, NPWS;
  - Environmental Management Plans; Bushland Restoration; Pest and Weed management; Fire Planning; Precinct Planning and Infrastructure construction in natural environments (eg: Burragorang Lookout, Burragorang SCA, and Pebbly Beach Camping, Yuraygir NP precinct for NSW NPWS).
- Experience with the assessment, recording, preservation, repatriation and rehabilitation of aboriginal and cultural heritage sites of significance.
- Restoration ecologist developing and implementing Bushland and Environmental Management Plans for public reserves/open space for Councils in the greater Sydney Basin and various Sydney Metropolitan Councils, (1985 to 1996). Plan of Management for Bushland, SE section of CSIRO Corporate Business Park, Delhi Rd North Ryde. July 1996.
- Plans of Management (various), for restoration of bushland and bushfire fuel management in the Metropolitan South West Region of NSW, National Parks and Wildlife Service. 1995 to 2015.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

**Abbreviations and terms**

APZ	Asset protection zone
BC Act 2016	NSW, Biodiversity Conservation Act, 2016
DBH	Diameter of tree trunk at breast height
DCP	Development Control Plan
Ecotone	Area where two ecological communities converge
EEC	Endangered Ecological Community
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
GRID	UTM map co-ordinates utilizing datum - GDA94
Insolation	Exposure to light
IPA	Inner Protection Area
LEP	Local Environment Plan
OEH	NSW, Office of Environment and Heritage
OPA	Outer Protection Area
PCT	Plant Community Type (as per Keith 2004, NSW vegetation classification hierarchy which includes NSW Vegetation Formations and Classes and Plant Community Types), and as listed and described in OEH BIONET.
PBP2019	Planning for Bushfire Protection 2019
SEPP	State Environmental Planning Policies
SEH16	Monaro, South Eastern Highlands IBRA Sub-Bioregion
SEH	South Eastern Highlands, IBRA Region
SRZ	Structural root zone
Subject property	Proposed development over R2 zoned lands on Lot 1/DP 119766, 2G Phillip Avenue, Queanbeyan, NSW 2620.
TEC	Threatened Ecological Community

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

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## 1 Legislative context

In regards to the proposed development application, for the R2 zoned portion of Lot 1/DP 119766, 2G Phillip Avenue, Queanbeyan, NSW 2620, this Flora and Fauna Assessment, has considered the following legislation and relevant planning instruments:

- Australian Standard, AS 4970-2009, *Protection of Trees on Development sites*.
- *Queanbeyan Local Environmental Plan, 2012 and Development Control Plan, 2018*. Environmental and Planning Instrument requirements for new development and Vegetation Management on development sites.
- *Rural Fires Regulation 2013, clause 44, Bushfire Assessment; Rural Fires Act 1997 Section 100b*.
- *Rural Fires Regulation 2013, clause 47, Application for a Bushfire Hazard Reduction Certificate*.
- *EP&A Act, 1979*. Part 5 considerations with respect to environment assessment of impacts on threatened species, Endangered Ecological Communities (EEC's), critical habitat. SEPP considerations.
- *EP&A Act, 1979, Section 79BA*.
- *NSW, Biodiversity Conservation Act 2016*. Species, Communities and Key Threatening Processes listed in Schedules 1, 1a, 2 and 3. Clearing of Native Vegetation.
- *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017, 'Vegetation SEPP*.
- *Local Land Services Act, 2013*. Clearing of Native Vegetation.
- *EPBC Act, 1999*. Federally listed threatened species, Endangered Ecological Communities (EEC's), critical habitat considerations.
- *State Environmental Planning Policy (SEPP) Koala Habitat Protection (2019)*.
- *NPW Act 1974*. Native fauna/flora and environmental protection.
- *Biosecurity Act 2015*. The property is situated within the South East Region of the Local Land Services (LLS). The pertinent weed control strategies for this LLS region are: *South East Regional Strategic Weed Management Plan 2017-2022*. Priority weeds for this region can be found at: [https://southeast.lls.nsw.gov.au/data/assets/pdf\\_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf](https://southeast.lls.nsw.gov.au/data/assets/pdf_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf)
- *Planning for Bush Fire Protection*. A guide for councils, planners, fire authorities & developers (2019) – NSW Rural Fire Service. In particular - Appendix 4: Asset Protection Zone Requirements.
- *Standards for Asset Protections Zones (2006)* - NSW Rural Fire Service.
- *Australian Standard AS 3959 - 2018*.
- *10/50 Vegetation Clearing Code of Practice for NSW (10/50)*, in accordance with Section 100Q of the Rural Fires Act 1997.

## Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

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## 2 Aim

The following Flora and Fauna Assessment has been prepared for a proposed development over the R2 zoned portion of Lot 1/DP 119766, 2G Phillip Avenue, Queanbeyan, NSW 2620, which will be referred to from this point as the subject property.

The report primarily provides comment and advice on the extant flora and fauna, dominant vegetation community and any significant environmental attributes, located in and contiguous to R2 zoned lands occupying the south west corner of the subject property. A *Test of Significance*, prepared in accordance with *Section 7.3 of the Biodiversity Conservation Act, 2016*, is included as Appendix 4.

The report also provides comment on the potential modification/removal of vegetation to establish Asset Protection Zones (APZ's), to the proposed development, and determines the vegetation community/formation dominating a 140m radius of the proposed development on the subject property, and as per guidelines provided in Planning for Bushfire Protection 2019 (PBP).

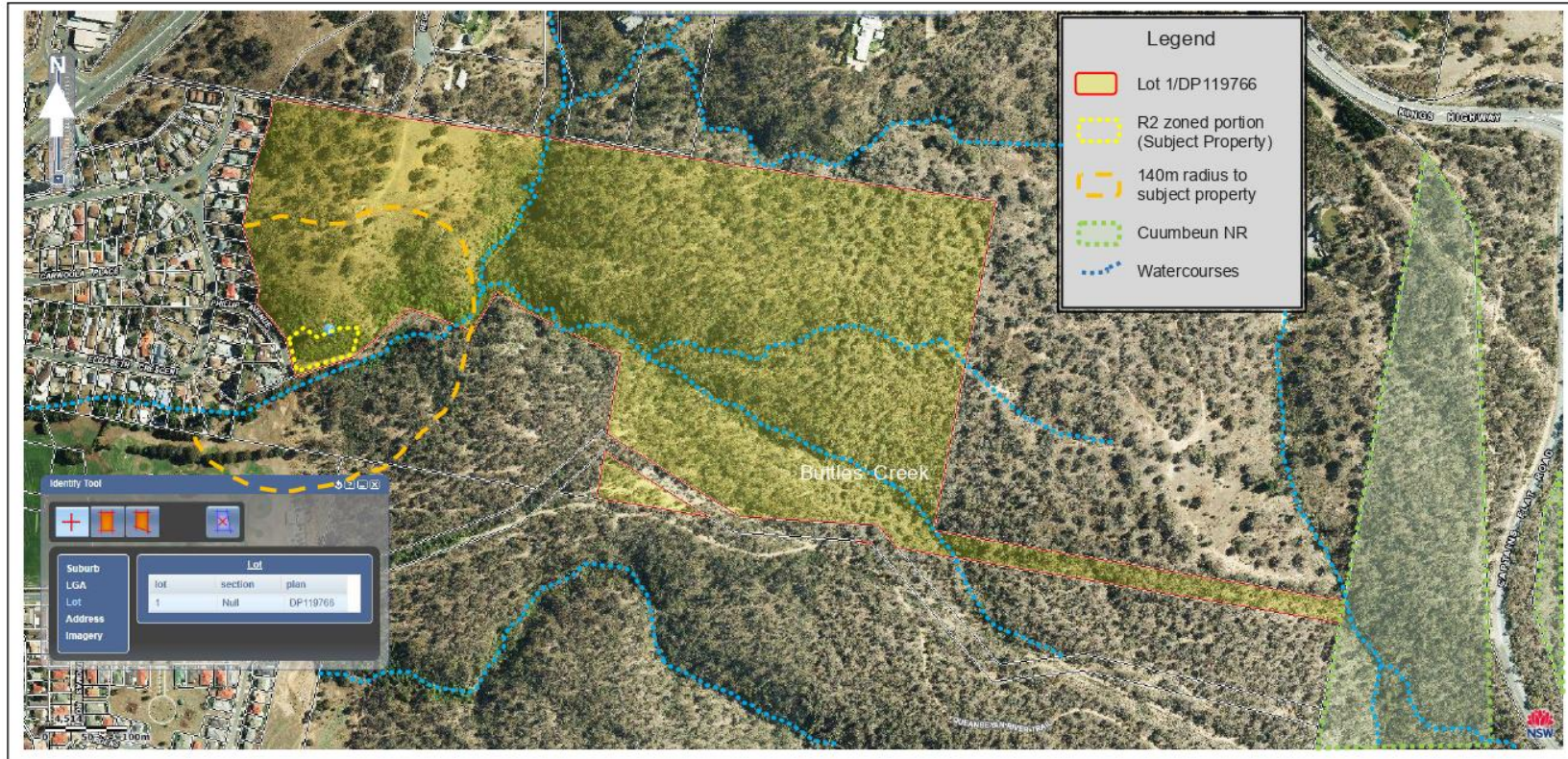
## 3 Background

### 3.1 Description of property

The subject property is identified as:

- The R2 zoned portion of Lot 1/DP 119766, 2G Phillip Avenue, Queanbeyan, NSW 2620, Queanbeyan – Palerang Regional Council LGA, see Plan 2.1 following.
- Lot 1/DP 119766 measures approximately 30ha in size. The R2 zoned portion of Lot 1/DP 119766, measures approximately 0.26ha in size.
- The general topography of the area, is dominated by rolling hills. The subject property comprises a sloped area with an SSE aspect. The subject property is situated altitudinally just below the snow line, of 650m.
- Two 2<sup>nd</sup> order tributaries of the Queanbeyan River meander from the SE and NE, across Lot 1/DP 119766 and intersect with Buttles Creek, a 3<sup>rd</sup> order tributary of the Queanbeyan River, which traverses west along the southern boundary of the subject property.
- The subject property is dominated by exotic/weed vegetation, and contains isolated remnant native trees and shrubs, and a scant coverage of herbs, forbs and graminoids. 0.06ha of the lower slopes, and areas adjacent to and N of Buttles Creek, are cleared of vegetation. Access to the subject property from Phillip Avenue is gained at the western area of the cleared area, and an access trail dominates the cleared area.
- The subject property slopes downward from 614m altitude in the NE corner to 598m on the watercourse running through the SW corner. The area of the subject property, N and adjacent to Buttles Creek, is level ground. A 24<sup>o</sup> sloped area occupies the northern section of the subject property.
- The subject property is zoned: R2 Low Density Residential, with a minimum lot size of 600m<sup>2</sup>, under the Queanbeyan LEP (Queanbeyan Local Environment Plan, 2012, Land Zoning Map LZN 005 - 6470\_COM\_LZN\_005\_020\_20180829.
- The subject property is located in bushfire prone land and in lands identified under the 10/50 Vegetation Clearing Code of Practice.
- A powerline easement runs SSE to NNE directly east, and contiguous to the eastern boundary of the R2 zoned lands.
- The subject property is located on the eastern edge of the city of Queanbeyan, and less than 1km west of Cuumbeun Nature reserve.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620



Plan 3.1: General location

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

**3.1.1 Geology and soils**

The parent geology is the Pittman Formation, composed of interbedded sandstone, siltstone, shale and minor black shale, chert and impure calcareous sandstone (distal quartz turbidites).

A search of ESPADE, identified that two (2), soil types are found on the subject property.

Queanbeyan 8727qn occurs in the western end of the subject property, and Foxlow 8727fo occurs in the eastern section.

Queanbeyan 8727qn, is described as: derived from Ordovician metasediments; shallow (<40 cm), well-drained Rudosols (Lithosols) on crests and upper slopes; moderately deep (<100 cm), moderately well-drained Red Kurosols (Red Podzolic Soils) on side-slopes; moderately deep to deep (<130 cm), imperfectly drained Magnesian Brown Chromosols (Yellow Podzolic Soils) in drainage lines.

Foxlow 8727fo, is described as shallow (5 - 15 cm), well-drained Rudosols (Lithosols) and shallow (<50 cm), moderately to imperfectly drained Yellow Kandosols (Yellow Earths) and Brown Kurosols (Yellow Podzolic Soils) on crests and upper slopes. Shallow (<20 cm), well-drained Rudosols (Lithosols) and shallow (<50 cm), moderately well-drained Magnesian-Natric Red Kurosols (Red Podzolic Soils) on midslopes. Moderately deep (>100 cm), moderately well-drained Yellow Kandosol/ Brown Kurosol intergrades (Yellow Earth/Yellow Podzolic Soil intergrades) on colluvial lower slopes and minor depressions.

**3.1.2 Climate**

Climate statistics for the nearest weather station to the subject property, are provided for Queanbeyan Bowling Club at: [http://www.bom.gov.au/climate/averages/tables/cw\\_070072.shtml](http://www.bom.gov.au/climate/averages/tables/cw_070072.shtml)

Mean annual rainfall for the Queanbeyan Bowling Club weather station is 594.3mm.

Mean annual rainfall records for the Queanbeyan Bowling Club weather station, are incomplete for the years 2015 to 2019.

The annual rainfall records for Canberra Airport since 2017, have seen annual rainfall decrease by 30%.

The subject property is situated altitudinally just below the snow line, of 650m.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

**3.2 Type of development**

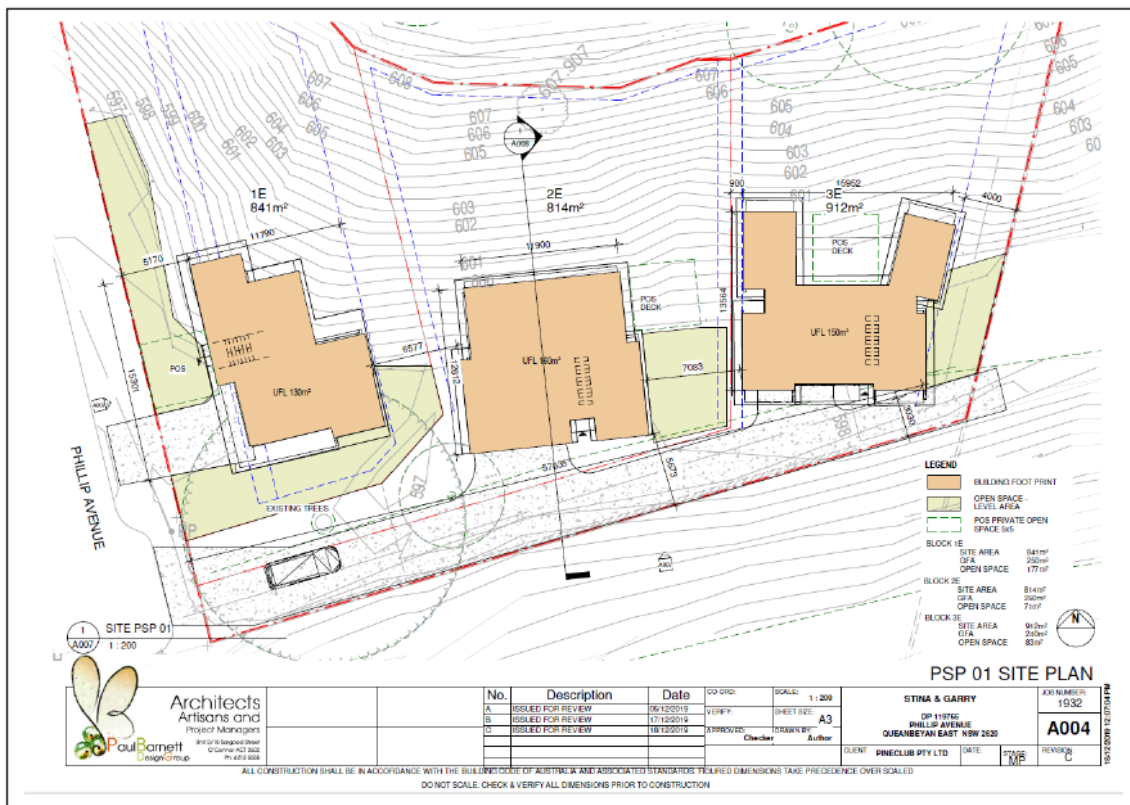
The development application involves the sub-division of R2 zoned lands on Lot 1/DP119766, into three (3) lots, and the construction of separate dwellings on each of the three (3) lots. A preliminary site plan (Plan 3.2.1), is included following.

It also includes the creation of APZ's on the subject property, and may involve clearing/modification of existing vegetation.

Based on preliminary bushfire risk analysis, it is estimated that the maximum total area of vegetation clearing/modification to accommodate proposed APZ's on the subject property, measures 0.22ha, and will predominately involve the clearing of weed and exotic vegetation.

There may also be a requirement to extend proposed APZ's to a distance of 20m N, and E of the subject property, on Lot 1/DP119766. A powerline easement runs SSE to NNE directly east, and contiguous to the eastern boundary of the R2 zoned lands, and the regular 20m wide vegetation management under these transmission lines would provide for APZ compliance to the E and S of the subject property. The area 20m E and SE of the subject property is cleared of vegetation, and meets the requirements of an APZ.

The proposed extension of the APZ, 20m N of the subject property, measures approximately 0.04ha in area. This area is dominated by weed/exotic vegetation.



Plan 3.2.1: Site Layout

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

### 3.3 Desktop Research

Involved searching of data held on available databases and reports and relevant legislation such as:

- Queanbeyan - Palerang Regional Council, LEP and DCP.
- NSW Department of Planning, Industry and Environment, BIONET, Wildlife Atlas, and SEED data portal.
- Publicly available Environmental Reports/databases
- Environmental Planning and Assessment (EPA) Act, 1979.
- EPBC Act, 1999.
- NPW Act 1974
- *Biosecurity Act 2015*. The property is situated within the South East Region of the Local Land Services (LLS).

The pertinent weed control strategies and priority weeds for this LLS region, are contained in the *South East Regional Strategic Weed Management Plan 2017-2022*: [https://southeast.lls.nsw.gov.au/\\_data/assets/pdf\\_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf](https://southeast.lls.nsw.gov.au/_data/assets/pdf_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf)

The pertinent pest animal control strategies and priority pest species for this LLS region, are contained in the: *South East Regional Strategic Pest Animal Plan, 2018-2023*: [https://southeast.lls.nsw.gov.au/\\_data/assets/pdf\\_file/0007/820789/20180702-south-east-pest-plan.pdf](https://southeast.lls.nsw.gov.au/_data/assets/pdf_file/0007/820789/20180702-south-east-pest-plan.pdf)

- RFS, Online tool for identifying lands covered by the 10/50 Vegetation Clearing Code of Practice for New South Wales (10/50 Code).
- Google Earth Spatial Information. Imagery dated 20190804. Build date: 20190305.
- NSW Government, Spatial Services, SIXMAPS online, accessed December, 2019. Spatial Services, NSW Department of Finance and Services. <http://maps.six.nsw.gov.au/>

① Historical records and descriptions for vegetation communities were obtained via; NSW Government SEED PORTAL, BIONET and BIONET ATLAS; Vegetation descriptions in soil landscape reports in ESPADE.

② Geology and Soil descriptions were obtained from: NSW Government, ESPADE. (accessed 201912), <https://www.environment.nsw.gov.au/eSpade2Webapp> and Jenkins, B.R. (2000). *Soil Landscapes of the Canberra 1:100 000 Sheet*, Department of Land and Water Conservation, Sydney

③ Descriptions for Vegetation Communities/Formations, Plant Community Types (PCTs), and Vegetation Structure were obtained via: BIONET Vegetation Classification application; Table A1.2, PBP2019, *Classification of Vegetation Formations (after Keith, 2004)*; and other published literature.

④ Notifiable weeds obtained from: *South East Regional Strategic Weed Management Plan 2017-2022*, [https://southeast.lls.nsw.gov.au/\\_data/assets/pdf\\_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf](https://southeast.lls.nsw.gov.au/_data/assets/pdf_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf)

⑤ Nomenclature for species names: referenced from the NSW FLORA ONLINE, where possible and BIONET ATLAS.



Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

### 3.4 Field assessment

#### 3.4.1 Overview

Assessment of the subject property, occurred over a period of 4 days (3<sup>rd</sup>, 4<sup>th</sup>, 7<sup>th</sup>, and 27<sup>th</sup> of December 2019).

Assessment comprised and was limited to:

- ① Walkthroughs (22hrs), of the vegetation on the subject property and throughout the western section of Lot 1/DP119766, and north western section of Lot 102 /DP1213713, detailing form, habit and condition; noting site characteristics including topography and soils; and characterizing the vegetation, flora and fauna species, using established flora and fauna survey methodology, and parallel transects and the 'random meander' method documented by Cropper (1993), for flora.
- ② Anecdotal recordings of fauna.
- ③ Data transfer and post survey identification/verification of flora species present.
- ④ GRID references were plotted for trees located on the subject property and surrounds, and canopy coverage estimated via aerial photogrammetry using imagery sourced from NSW Govt SIXMAPS (© AAM 2011,2012; © Sinclair Knight Merz 2002,2006,2009; © SPOT image 2005 DFSI Spatial Services NSW).
- ⑤ Measurements of canopy height, were also undertaken.

#### 3.4.2 Methodology

- ① Grids were obtained using a handheld GARMIN OREGON 650 GPS set to Zone 55 and datum GDA94; and spatial data from: Google Earth Spatial Information. Imagery dated 20190804. Build date: 20190305; and NSW Government, Spatial Services, SIXMAPS online, accessed Dec, 2019. <http://maps.six.nsw.gov.au/>
- ② Survey methodology as per *OEH guidelines for Threatened Species and Biodiversity Assessment*.
- ③ Height of tree was obtained using a handheld clinometer and pythagorus' theorem.
- ④ Spotlighting followed the *Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC), 2011, Survey Guidelines for Australia's Threatened Mammals*.
- ⑤ Searches for scats following (Phillips and Callaghan 2011) *the Scat Assessment Technique (SAT)* at a maximum grid spacing of 250 m.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

### 3.5 Vegetation community floristics and structure

The subject property is located in the Monaro (SEH16), South Eastern Highlands IBRA Sub-Bioregion.

The subject property comprises the lower SW section of Lot 1/DP119766, including the northern riparian corridor of Buttles Creek.

The current vehicular access to Lot 1/DP119766, is located in the SW corner of the subject property. The current vehicular access traverses cleared, and level sections of the lower slopes of the subject property, and northern riparian corridor of Buttles Creek.

Buttles Creek runs E to W along the southern boundary of the subject property.

Dwellings and infrastructure previously occupied the ridge and hilltop areas upslope and to the N, and NE of the subject property. Remnants and relics, associated with the former habitation, are scattered throughout Lot 1/DP119766.

#### 3.5.1 Vegetation Community distribution

Provided following, is a general description of the vegetation occurring over the subject property and within a 140m radius of the subject property as shown on Plan 3.1, on p. 7.

The area covering the subject property and within a 140m radius of the subject property, to the NW, N, E, and 30m to the S across Buttles Creek, is either dominated by weed and exotic species such as *Cotoneaster* spp, Sweet briar (*Rosa rubiginosa*), and Hawthorn (*Crataegus monogyna*), or clear of vegetation. It contains, scattered individuals, representative of the extant native vegetation, and measures 4.536ha in size. See Figures 1 and 2, following.



Figure. 1  
Looking N and upslope from the subject property

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620



Figure. 2  
Looking W from the eastern boundary across the mid-slope area within the subject property

Buttles Creek and the riparian corridor, are infested with weeds. These include: Blackberry (*Rubus fruticosus* sp. *Aggregate*); Hawthorn (*Crataegus monogyna*); Honeysuckle (*Lonicera japonica*); Weeping willow (*Salix babylonica*); Cotoneaster (*Cotoneaster* spp); English elm (*Ulmus procera*); Montpellier broom (*Genista monspessulana*); and Apple (*Malus* spp.). There are also scattered individuals, representative of the extant native vegetation along the riparian corridor. See Figure 3, following.



Figure. 3  
Looking E along the riparian corridor of Buttles Creek.

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

An area measuring 0.6ha, and located on the upper slopes, in the northern periphery of the 140m radius of the subject property, contains extant native vegetation.

Extant native vegetation, measuring 2.2ha in size, dominates areas within a 140m radius of the subject property, to the S, and SE of the subject property.

Managed exotic grasslands dominate to the SW within a 140m radius of the subject property, and measure 0.5ha in size.

In summary, the area within a 140m radius of the subject property, measures approximately 7.836ha.

5.036ha of the 140m radius is dominated by weed and exotic species, cleared, or managed exotic grasslands.

2.8ha of the 140m radius is dominated by extant native vegetation.

A limited number of trees occupy the subject property. A list of species and the location of individual trees is provided in Plan 3.5.1 following.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620



Plan 3.5.1  
Tree species occurring within or contiguous to the proposed development footprint for the subject property

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

3.5.2 Floristics

Targeted surveys and/or monitoring, were conducted for the six (6) threatened flora (listed following), noted in BIONET ATLAS search in a 5km radius of the subject property (20190920), within a 140m radius of the subject property.

- Hoary Sunray (*Leucochrysum albicans* var. *tricolor*);
- Button Wrinklewort (*Rutidosia leptorrhynchoides*);
- Small Purple-pea (*Swainsona recta*);
- Black Gum (*Eucalyptus aggregata*);
- Thick Lip Spider Orchid (*Caladenia tessellata*);
- Pale Pomaderis (*Pomaderris pallida*).

A copy of the BIONET ATLAS search, is provided in Appendix 1, which also includes a list of threatened fauna recorded in a 5km radius of the subject property.

A specimen of the State and Commonwealth listed threatened species; Hoary Sunray (*Leucochrysum albicans* var. *tricolor*), shown below, was located at GRID 704680, 6086166, 80m N of the subject property.



Figure 4: Hoary Sunray (*Leucochrysum albicans* var. *tricolor*), located at GRID 704680, 6086166

Survey effort was confounded by conditions of prolonged drought, which have affected NSW for a number of years, and reduced the annual rainfall in the general area of Queanbeyan, and the ACT, by 30%.

As a consequence, the identification, and characterization of the coverage and presence of herbs, forbs, graminoids, and ferns, was restricted by the absence of terrestrial vegetative organs.

### Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

In total ninety (29), native plant species were identified within a 140m radius of the subject property. This comprised, eight (8) tree, and twenty one (21) shrub/herb/forb/graminoid/fem species. One of these species, *Acacia rubida*, was represented in both the canopy and shrub strata.

Box mistletoe (*Amyema miquelii*), is omni-present on all eucalypt box species.

There were thirty six (36), weed species identified within a 140m radius of the subject property. Five (5), weed species, Montpellier broom, Blackberry, Fireweed, Weeping willow, and Lantana, are listed as State Priority Weeds for the South East LLS Region.

Crofton weed, and St. Johns' wort have local management plans under the *South East Regional Strategic Weed Management Plan 2017-2022*.

The characteristic flora noted within a 140m radius of the subject property, are listed following according to the stratum that species occupy. Threatened species are denoted with an Asterix. **Weed species are shown in red.**

A full list of plant species noted on site are provided in Appendix 2 – Tables: 3.5.2.1; 3.5.2.2; and 3.5.2.3.

#### Canopy stratum

The dominant canopy species are:

- Radiata pine (*Pinus radiata*)
- Yellow box (*Eucalyptus melliodora*).
- Apple box (*Eucalyptus bridgesiana*).
- Red box (*Eucalyptus polyanthemos*).
- Inland Scribbly Gum (*Eucalyptus rossii*).
- Large flowered bundy (*Eucalyptus nortonii*).
- Weeping willow (*Salix babylonica*).

Other species include:

- English elm (*Ulmus procera*).
- Apple (*Malus domestica*).
- Peach (*Prunus persica*).
- English oak (*Quercus robur*).

#### Sub-canopy stratum

The dominant sub-canopy species are:

- Radiata pine (*Pinus radiata*)
- Hawthorn (*Crataegus monogyna*).
- Franchet's cotoneaster (*Cotoneaster franchetii*).
- Glauous Cotoneaster (*Cotoneaster glaucophyllous*).
- Orange firethorn (*Pyracantha angustifolia*).
- Red-stemmed wattle (*Acacia rubida*).
- Black cypress (*Callitris endlicherii*).
- Silver cotoneaster (*Cotoneaster panosus*).

Other species include:

- English oak (*Quercus robur*).
- Apple (*Malus domestica*).
- Plum (*Prunus domestica*).
- Silver wattle (*Acacia dealbata*).
- Cootamundra wattle (*Acacia baileyana*).
- Weeping willow (*Salix babylonica*).

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

***Shrub stratum***

The dominant shrub species are:

- Hawthorn (*Crataegus monogyna*).
- Sweet briar (*Rosa rubiginosa*).
- Blackberry (*Rubus fruticosus* sp aggregate).
- Honeysuckle (*Lonicera japonica*).
- Red-stemmed wattle (*Acacia rubida*).
- Box mistletoe (*Amyema miquelii*).
- Native blackthorn (*Bursaria spinosa* spp. *lasiophylla*).
- Montpellier broom (*Genista monspessulana*).
- Saffron thistle (*Carthamus lanatus*).

Other species include:

- Large leaved privet (*Ligustrum lucidum*).
- Dolly bush (*Cassinia aculeata*).
- Sticky hopbush (*Dodonaea viscosa*),
- Narrow-leaved hopbush (*Dodonaea viscosa* subsp. *angustissima*).
- Rosemary grevillea (*Grevillea rosmarinifolia*).
- Urn heath (*Melichrus urceolatus*).
- Narrawa burr (*Solanum cinereum*).
- Spiny-headed mat-rush (*Lomandra longifolia*).

***Ground stratum, vines/twiners, graminoides and forb species***

This stratum is characterized by large unvegetated scree areas, numerous native fauna and human tracks. Vegetated ground stratum areas are more prolific in the riparian zone, and diminish upslope. dominated by drifts of ferns and vines, Grasses are virtually absent.

The dominant species are:

- Snowgrass (*Poa sieberiana* var. *Sieberiana*).
- St. Johns wort (*Hypericum perforatum*).
- Honeysuckle (*Lonicera japonica*).
- Great Mullein (*Verbascum thapsus* subsp. *thapsus*).
- Pattersons' curse (*Echium plantagineum*).
- Ringed Wallaby Grass (*Rytidosperma caespitosum*).
- Prickly Starwort (*Stellaria pungens*).

Other species include:

- Hoary sunray (*Leucochrysum albicans*).
- Hoary sunray (*Leucochrysum albicans* var. *tricolor*)
- Wattle Matt-rush (*Lomandra filiformis*).



Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

3.5.3 Structure

Vegetation, over the subject property, and to the N, and E, and 30m to the S across Buttles Creek, contains scattered individuals, representative of the extant native vegetation, but is either dominated by weed and exotic shrub species, or clear of vegetation. See Figure 5, following.



Figure. 5  
Looking SW across the subject property

Buttles Creek and the riparian corridor are also infested with weeds. Weed species include: Blackberry (*Rubus fruticosus sp. Aggregate*); Hawthorn (*Crataegus monogyna*); Honeysuckle (*Lonicera japonica*); Weeping willow (*Salix babylonica*); Cotoneaster (*Cotoneaster spp*); English elm (*Ulmus procera*); Montpellier broom (*Genista monspessulana*); and Apple (*Malus spp.*). There are also scattered individuals, representative of the extant native vegetation along the riparian corridor.

An area measuring 0.6ha, and located on the upper slopes, in the northern periphery of the 140m radius of the subject property, contains extant native vegetation.

Extant native vegetation, measuring 2.2ha in size, dominates areas within a 140m radius of the subject property, to the S, and SE of the subject property.

Managed exotic grasslands dominate to the SW within a 140m radius of the subject property, and measure 0.5ha in size.

A panorama of photographs, taken from the northern boundary of the 140m radius to the subject property, and showing the general landscape from the E to the SW within the 140m radius to the subject property, is provided following.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620



Figure. 6  
Looking E



Figure. 7  
Looking SE



Figure. 8  
Looking SSE



Figure. 9  
Looking S



Figure. 10  
Looking SSW



Figure. 11  
Looking SW

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

Tree cover on the subject property and within the footprint of proposed APZ's, is sparse and restricted to the individuals identified on Plan 3.6.3. A Canopy coverage estimate of 8% was obtained using photogrammetry.

Coverage of extant native vegetation, within a 140m radius of the subject property, is not continuous, and is characterized by large areas of exposed scree, patches of native grassland, interspersed by faunal and human tracks. Tree Canopy coverage was estimated at 32% using photogrammetry.

Sub-canopy and shrub strata are generally disparate with a depauperate species richness. Native grasslands and exposed scree areas dominate the ground stratum.

The height of significant canopy trees, within the vegetation that occupies the western end of Lot 1/DP119766, is provided following in Table 3.5.3.1.

Species and Location (GRID)	Height (m)	DBH (cm)
Yellow box ( <i>Eucalyptus melliodora</i> ), SW corner of subject property (704679, 6086041)	19.1	66
Apple box ( <i>Eucalyptus bridgesiana</i> ), N riparian corridor of Buttles Creek, just S of subject property (740720, 6086040)	12.4	40
Apple box ( <i>Eucalyptus bridgesiana</i> ), mid-slope on eastern end of subject property (704714720, 6086081)	21.2	60
Radiata pine ( <i>Pinus radiata</i> ), upper slope western end of subject property (704682, 6086079)	11.1	36
Red box ( <i>Eucalyptus polyanthemus</i> ), ridgetop N of subject property on Lot 1/DP119766 (704713, 6086181)	13.1	48
Inland scribbly gum ( <i>Eucalyptus rossii</i> ), ridgetop N of subject property on Lot 1/DP119766 (704740, 6086172)	12.9	38
Black cypress ( <i>Callitris endlicherii</i> ), mid-slope western end of subject property (704678, 6086071)	9.8	27

Vegetation occurring over a 140m radius of the subject property, averages 12.8m in height. Individual trees emergent in the canopy along the gully line of Buttles Creek reach heights of 21m.

Structurally and floristically, the vegetation occupying the area identified in a 140m radius of the subject property, conforms to the NSW vegetation formation WOODLAND, as described in Keith, 2004, and the BIONET.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

### 3.6 Fauna

Diurnal surveys for fauna were conducted 20191203, 04, 07, and 27.

Nocturnal surveys were conducted on 20191203, and 04.

Three (3) x remote sensed cameras were installed on the 20191203, and removed 20191207.

Methodology followed *OEH guidelines for Threatened Species and Biodiversity Assessment* and supplementary CLASS or SPECIES specific, and industry best practice guidelines.

The diurnal survey and/or monitoring, targeted all threatened fauna noted in BIONET ATLAS search in a 5km radius of the subject property (20190920), listed in Appendix 1, whose habitat/forage requirements were met by the environment present on the subject property, and threatened fauna species listed as associated with:

- the Vegetation Groups: Widespread Tablelands Dry Shrub-Tussock Grass Forest; and Tablelands Dry Shrub-Tussock Grass Forest; as described in *Forest Ecosystems: Native Vegetation of the Southern Forests: South-east Highlands, Australian Alps, South-west Slopes, and SE Corner bioregions. Pre-1750. VIS ID 3859.*
- Canberra Plains (Cpn), SEH Monaro, vegetation as described in the *NSW Mitchell Landscapes, v.3.1.*

One (1), threatened Aves species, Gang-gang Cockatoo was noted in a *Pinus radiata* (Grid: 704953, 6086179), adjacent to the subject property, during the site visit on 20191203. See Figure 12, following.



Figure 12: Gang-gang Cockatoo noted in a *Pinus radiata* (Grid: 704953, 6086179)

Visual inspection of all trees for hollows, nests, and other signs of faunal habitation was undertaken.

Targeted diurnal surveys were conducted for:

- Koala (searching for claw marks on trees and scats)
- Microbats (inspecting hollows and cleavage points in bark, culverts, checking for scats).
- Reptiles: Pink-tailed Legless Lizard (*Aprasia parapulchella*), and Rosenberg's Goanna (*Varanus rosenbergi*).

Targeted nocturnal surveys were conducted for:

- Amphibia: Green and Golden Bell Frog (*Litoria aurea*), Southern Bell Frog *Litoria raniformis*).
- Owls.
- Koala.
- Bat spp.

## Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

Consideration of the impacts of the proposed development are also included, and strategies to minimize any potential impact on native fauna, are provided in Section 5, Management Recommendations.

Fauna noted on the subject site are listed in the various class sub-sections, following. Threatened species are denoted with an Asterix. Exotic species are shown in red.

### Aves

1. Laughing kookaburra (*Dacelo novaeguineae*).
2. Australian raven (*Corvus coronoides*).
3. Crimson rosella (*Platycercus elegans*).
4. Gang-gang cockatoo (*Calocephalon fimbriatum*).
5. Pied Currawong (*Strepera graculina*).
6. Australian Magpie (*Gymnorhina tibicen*).
7. Australian magpie lark (*Grallina cyanleuca*).
8. Common bronzewing (*Phaps chalcoptera*).
9. Crested pigeon (*Geophaps lophotes*).
10. Eastern spinebill (*Acanthorhynchus tenuirostris*).
11. Superb fairy wren (*Malurus cyaneus*).
12. Grey fantail (*Rhipidura albiscapa*).
13. Sivereye (*Zosterops lateralis*).
14. White eared honeyeater (*Nesoptilotis leucotis*).
15. Red wattlebird (*Anthochaera carunculata*). Numerous.
16. Galah (*Eolophus roseicapillus*).
17. Australian king-parrot (*Alisterus scapularis*).
18. Satin bower bird (*Ptilonorhynchus violaceus*).
19. Black-faced cuckoo-shrike (*Coracina novaehollandia*).
20. Brown falcon (*Falco berigora*). Noted on perch tree, 100m S of subject property in Lot 102 /DP1213713.
21. Sulphur-crested Cockatoo (*Cacatua galerita*)
22. Noisy miner (*Manorina melanocephala*)
23. Rainbow lorikeet (*Trichoglossus moluccanus*).
24. Blackbird (*Turdus merula*).

### Mammalia

1. Sugar gliders (*Petaurus breviceps*), were heard calling, approximately 250m NE of the subject property at 100hrs, 20191203.
2. Common wombat (*Vombatus ursinus*). Observed at dusk moving from primary burrows in the north eastern section of Lot 1/DP119766, into Buttles' Creek. There are burrows located in the subject property, but appeared to be currently unused.
3. Swamp wallaby (*Wallabia bicolor*). Individuals were observed during daylight throughout the general landscape, and increased numbers including all age classes, during nocturnal survey. At least 6 separate individuals observed moving from sanctuary in the north eastern section, into the western sections of Lot 1/DP119766, searching for forage. See Figures 13 and 14, following.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620



Figure 13: Juvenile Swamp wallaby in Buttles Creek riparian corridor



Figure 14: Adult Swamp wallaby mid slope of subject property

4. Eastern grey kangaroo (*Macropus giganteus*). Common
5. Flying fox sp. (*Pteropus sp.*)
6. Rabbit (*Oryctolagus cuniculus*). Activity concentrated upslope of subject property.
7. Deer sp. Scats noted upslope of subject property.

### Reptilia and Amphibia

1. Copper-tailed Skink (*Ctenotus taeniolatus*).
2. Delicate skink (*Lamprotus delicata*).
3. Monitor claw marks were noted on the trunks of *Eucalyptus rossii*.

### Habitat and animal movement

Evidence of diurnal and nocturnal surveys for native fauna, indicate that habitation, and foraging by native fauna is concentrated in the eastern sections of Lot 1/DP119766 and Lot 102 /DP1213713.

These areas, although characterized by a discontinuous vegetated corridor, provide greater coverage for faunal egress across the landscape, and into areas of extant native vegetation in Cuumbeun Nature Reserve, .

No tree hollows were identified, on the subject property or within the footprint of the proposed development.

No other tree hollows > 5cm, capable of providing harbour to native arboreal fauna were identified in trees on the subject property, or within the footprint of the proposed development. Any tree hollows tended to be < 4cm in diameter.

Evidence of No other evidence of recent habitation by native or exotic mammals was observed.

No drey formations, indicative of permanent habitation by small to mid-range sized arboreal native fauna, were identified on the subject property, or within the footprint of the proposed development.

Rock benching/outcropping and cave/culvert formations are non-existent across the proposed development footprint.

Limited areas of rock benching/outcropping, do occur within 140m radius of the subject property.

## Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

### Koalas

A Comprehensive Koala Plan of Management (CKPoM), does not exist for the Queanbeyan-Palerang Regional Council LGA.

Queanbeyan-Palerang Regional Council LGA is listed in Schedule 1 of the State Environmental Planning Policy (SEPP) Koala Habitat Protection (2019).

The subject property is located on the eastern periphery of Queanbeyan, and less than 1km west of Cuumbeun Nature Reserve.

A list of koala feed trees for the koala management area of the Central and Southern Tablelands can be found at: <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Native-animals/review-of-koala-tree-use-across-nsw-180385.pdf>

No species of Regional High Use koala feed tree, was identified within a 140m radius of the subject property.

No species of Significant Use koala feed tree, was identified within a 140m radius of the subject property.

Four (4), species of Irregular Use koala feed tree were identified within a 140m radius of the subject property. These species are: Large flowered bundy (*Eucalyptus nortonii*), Yellow box (*Eucalyptus melliodora*), Red box (*Eucalyptus polyanthemus*), and Applebox (*Eucalyptus bridgesiana*).

No species of Low Use koala feed tree, was identified within a 140m radius of the subject property.

A physical inspection of a 140m radius of the subject property, was conducted targeting evidence of recent utilization of the site by koalas: checking for presence of koalas in trees; claw marks on tree trunks; and scats; Nocturnal survey conducted on two (2) consecutive nights.

No recent evidence was noted of koalas utilizing the subject property, the western section of Lot 1/DP119766, or the northern section of Lot 102 /DP1213713.

Historical evidence obtained from the BIONET ATLAS, provides two (2), records for koala, 150m SSW of the subject property in 2007, and another 200m NNE of the subject property in 2016. There are no records for koala in the BIONET ATLAS, in a 25km radius, west of the subject property. There is a number of records for koala in Cuumbeun Nature Reserve to the east of the subject property.

Tree canopy structure and coverage is virtually absent across, and upslope of the subject property, providing limited canopy egress for native arboreal mammals, in a 100m radius of the subject property.

More continuous canopy coverage exists, in the eastern sections of Lot 1/DP119766, and Lot 102 /DP1213713, affording safer egress, for arboreal native fauna to cross the landscape into contiguous areas of extant native vegetation in Cuumbeun Nature Reserve.

The proposed development may involve the removal of three (3), Applebox (*Eucalyptus bridgesiana*), which are a listed Irregular Use koala tree species for the Central and Southern Tablelands koala management area. These trees are 21.2m, 16.4m, and 15.6m in height, with diameters of 60cm, 28cm and 16cm.

The proposed development and associated vegetation clearing/modification, primarily involves the removal of weed or exotic plant species, is not deemed a deterrent to koala egress, or significantly impact on the potential for koalas to utilize feed trees in the surrounding landscape. Due to the paucity of canopy connectivity and koala feed tree species, dominance of weed and exotic plant species on and surrounding the R2 zoned area of proposed development, the proposed area of development is not deemed as Core Koala Habitat, as per Clause 9 of the State Environmental Planning Policy (SEPP) Koala Habitat Protection (2019).

Included in the Management recommendations in Section 5, is the compensatory planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the riparian corridor of Buttles Creek.

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

**Microbats**

The environment, and vegetation in the general vicinity of the subject property provides foraging opportunities for microbats.

Bark types and hollow formation in the tree species present on the subject property and within a 140m radius of the subject property, do not provide many opportunities for microbat habitation. No evidence of microbat habitation, was observed in any of the trees located on the subject property.

There are no cave, rock crevice, or culvert formations suitable for habitation by microbats, within or adjacent to the footprint of the proposed development.

**Gang-gang and Glossy black cockatoo**

A Gang-gang cockatoo was noted in a *Pinus radiata* (Grid: 704953, 6086179), E and adjacent to the subject property, during the site visit on 20191203.

Black cypress (*Callitris endlicheri*), Silver wattle (*Acacia dealbata*), Red-stemmed wattle (*Acacia rubida*), are species of feed tree for both cockatoo species, that exist on the subject property and within the footprint for the proposed development.

The potential removal of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*), within the footprint for the proposed development, will be compensated by the planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*), elsewhere on Lot1/DP119766.

Red-stemmed wattle (*Acacia rubida*), is well represented in the landscape. Regardless, measures have been included in the Management recommendations in Section 5, to retain vegetative material, including seed material held on the plant. It is anticipated that a well-developed seed bank exists, and this species will recruit unassisted within the landscape as a result of soil disturbance associated with the proposed development.



Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

### 3.7 Environmental Assessment in respect to Native Vegetation Clearing

The subject property is excluded from the provisions of the Local Land Services Act, 2013, in respect to the Clearing of Native Vegetation.

Environmental Assessment in respect to Native Vegetation Clearing, under the Vegetation in Non-Rural Areas SEPP 2017, and in accordance with the provisions of the BCA Act 2016, and with reference to a search of the Biodiversity Values Map and Threshold Tool, (<https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BOSEMMap>), indicates that there are no identified significant Biodiversity Values on the subject property.

A snapshot of the search undertaken, is provided following in Figure 15. Lot 1/DP119766 is shown shaded in light blue.

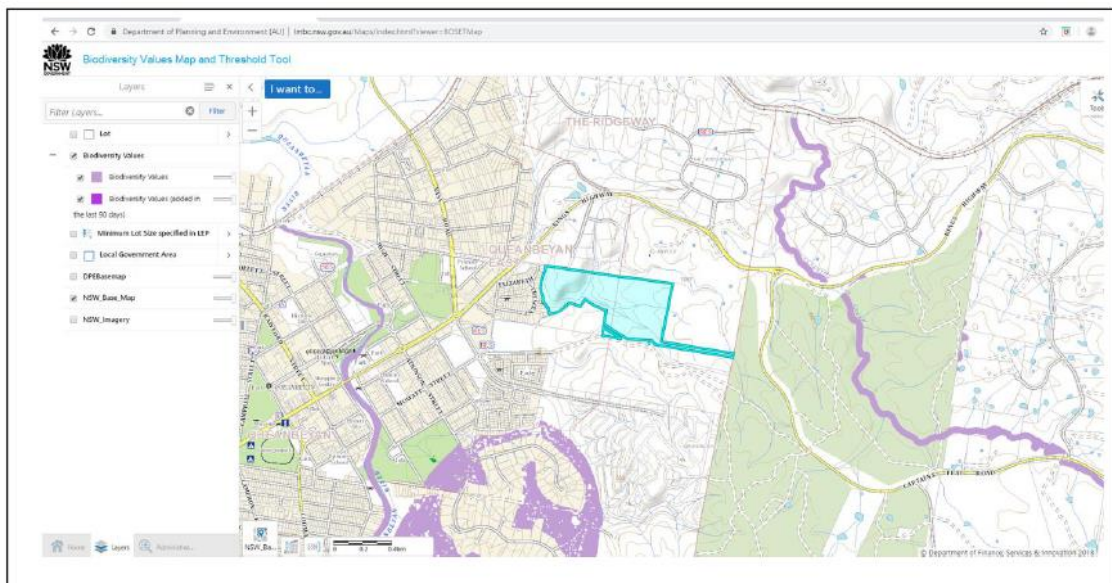


Figure 15. Biodiversity Values Map and Threshold Tool Map search of Lot 1/DP119766 including the subject property

In respect to whether the proposed development exceeds the biodiversity offsets scheme threshold Area Criteria, and meets the requirement for BDAR assessment.

The biodiversity offsets scheme threshold for a property with a minimum lot size of <1 ha, specifies that native vegetation clearing should not exceed 0.25 ha.

The subject property and the proposed development, including the provision of APZ's, measures approximately 0.4ha in size.

The maximum extent of proposed native vegetation clearing, associated with the proposed development, has been estimated at 0.02 ha. It would involve the clearing of: seven (7), native trees as well native shrubs/ground-cover species located in the footprint of the proposed development.

None of the tree, or shrub/ground-cover species, are threatened or protected, and are well represented in extant native vegetation within the surrounding landscape and within the nearby Cuumbeun NR.

It has been indicated, that a substantial area of extant native vegetation, in E2 zoned lands on Lot 1/DP119766, to the east of the proposed development on the subject property, will be retained.

#### Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

Canopy coverage on the subject property is virtually absent, and does not provide an effective or safe corridor for the egress of native arboreal fauna. Significant scat, and visual evidence of activity by European fox (*Vulpes vulpes*); Domestic cat (*Felis catus*), and Domestic dog was observed in the western sections of Lot 1/DP119766 and Lot 102 /DP1213713.

Evidence of diurnal and nocturnal surveys for native fauna, indicate that habitation, and foraging by native fauna is concentrated in the eastern sections of Lot 1/DP119766 and Lot 102 /DP1213713. These areas also provide greater coverage for faunal egress across the landscape into contiguous areas of extant native vegetation in Cuumbeun Nature Reserve.

The Biodiversity Values Map and Threshold Tool and site assessment, indicates that there are no significant Biodiversity Values on the subject property, and the amount of native vegetation clearing associated with the proposed development, does not exceed the biodiversity offsets scheme threshold of 0.25ha for a property with a minimum lot size of < 1ha.

The proposed development does not trigger the requirement for a BDAR assessment.

A Test of Significance, consistent with the requirements of Part 7, Division 1, Section 7.3, has been prepared and is presented as Appendix 4.

Threatened species identified in desktop searches, as occurring within a 5km radius of the subject property, and potentially utilising ecosystems present on the subject property, are presented in Appendix 1. An analysis and estimate of the impact of the proposed development on threatened species utilising, or potentially utilising the subject property, is also presented in Appendix 1.

In summary:

- No threatened plant species, were identified on the subject property, or in the area of proposed development, during site, or desktop-based assessment.
- No threatened fauna were noted as permanent residents on the subject property, or in the area of proposed development. Threatened fauna opportunistically habituating, harbouring, foraging, or egressing the general landscape, would experience minimal disruption and impact from the proposed development.

Activities associated with the proposed development do not represent a Key Threatening Process as detailed in Schedule 4 of the BC Act 2016.

The vegetation dominating the subject property and the area of proposed development, has been identified as CLEARED/MODIFIED, and dominated by weed/exotic vegetation.

It has been determined by the author, as detailed in the Test of Significance, presented as Appendix 4, that the environmental impacts of the proposed development are not significant. It is also proposed, that any impacts should be counterbalanced by Management Recommendations detailed in Section 5. The benefits of these recommendations are summarised following:

- Removal of weed species infesting the subject property, and the area of proposed development, including the northern edge of the Buttles Creek riparian corridor.
- Reduction in harbour to feral animals.
- Consequent reduction in predation of native fauna by feral predators.
- Restoration of the native environment of 'the northern edge of the Buttles Creek riparian corridor.
- Buffering the potential reduction in forage for native herbivores, by planting native herb, and graminoid species, such as Snow grass (*Poa sieberiana*).
- Compensatory planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the northern riparian corridor of Buttles Creek.
- Compensatory planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*).

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

## 4 Discussion and Conclusion

Published Vegetation mapping datasets, for the subject property and surrounding environment, in the NSW Government SEED portal, describe the dominant vegetation community/formation as follows:

① *Forest Ecosystems: Native Vegetation of the Southern Forests: South-east Highlands, Australian Alps, South-west Slopes, and SE Corner bioregions. Pre-1750. VIS ID 3859,*

NSW Formations: 05 Dry Grass/Shrub Forests; NSW Classes: 05b ST Dry Tussock Grass Forests; Vegetation Group: Widespread Tablelands Dry Shrub-Tussock Grass Forest; covering the north and western areas.

Gellie (2005), describes vegetation class 5b as found on red podzolic clay soils where average rainfall ranges between 600 and 800mm. Trees dominants include *Eucalyptus mannifera*, *E. dives*, *E. rossii*, and *E. macrorryncha*, with a common ground cover of *Daviesia leptophylla*, *Joycea pallida*, *Poa sieberiana subsp. sieberiana*, and *Gonocarpus tetragynus*.

NSW Formations: 05 Dry Grass/Shrub Forests; NSW Classes: 05c SWS/ST Dry Grass/Shrub Forests; Vegetation Group: Tablelands Dry Shrub-Tussock Grass Forest; covering the east and southern areas.

Gellie (2005), describes vegetation class 5c as a western and northern variant of vegetation class 5b, occupying the transition between the western Southern Tablelands and the South-West Slopes. Dominant tree species in unit 5c are *Eucalyptus macrorryncha*, *E. nortonii*, and *E. polyanthemos*, over an understorey of mixed grasses and herbs, such as *Danthonia spp*, *Elymus scaber*, *Hydrocotyle laxiflora*, *Daucus glochidiatus*, *Gonocarpus tetragynus* and *Lomandra filiformis subsp. coriacea*.

② *NSW (Mitchell) Landscapes - version 3.1, Over-cleared status*

Ecosystem Meso Grouping: SEH Monaro; Landscape Code: Cpn; Landscape Name: Canberra Plains; Over Cleared Status: Over-cleared Estimate Fraction Cleared: 0.85.

Cpn, Canberra Plains, SEH Monaro, is described as open grassy plains with meandering channels and terraces in Quaternary alluvium of loams and sandy clays with small areas of red-brown sands of source bordering dunes, over Silurian rhyolite and rhyodacite. General elevation 650 to 800 with peaks to 1000. Shallow stony uniform loams on steeper slopes, stony harsh red-brown texture-contrast soils on alluvial fans from ranges, yellow-brown to yellow texture-contrast soils on the alluvium, usually with hard setting and bleached A-horizons. Grasslands of, spear grass (*Austrostipa sp.*), snow grass (*Poa sp.*), with kangaroo grass (*Themeda triandra*) on alluvium, open woodlands of; yellow box (*Eucalyptus melliodora*), Blakely's red gum (*Eucalyptus blakelyi*), red stringybark (*Eucalyptus macrorhyncha*), and black cypress pine (*Callitris endlicheri*), merging into red stringybark, and brittle gum (*Eucalyptus mannifera*) communities on the hills.

Field assessment by the author identified the following:

- The vegetation contiguous to and occupying the footprint for development for the subject property, has been identified as CLEARED or MODIFIED vegetation, and is dominated by weed/exotic species.
- The area within a 140m radius of the subject property, measures approximately 7.836ha. 5.036ha of the 140m radius is dominated by weed and exotic species, cleared, or managed exotic grasslands. by extant native vegetation.
- 2.8ha of the 140m radius, is dominated by extant, native vegetation. This vegetation occupies exposed ridgetops, and the eastern and south western sections of the 140m radius to the subject property. The dominant canopy species are: *Eucalyptus nortonii*, *Eucalyptus polyanthemos*, *Eucalyptus rossii*, and *Eucalyptus bridgesiana*. *Callitris endlicherii*, *Acacia dealbata*, and *Acacia rubida*, dominate the subcanopy. The shrub stratum is dominated by *Bursaria spinosa ssp. lasiophylla*, *Dodonaea viscosa* (S side of Buttles Creek), *Acacia rubida*, *Cassinia aculeata*, and *Dodonaea viscosa subsp. Angustissima* (N side of Buttles Creek). The ground stratum is dominated by native tussock grassland dominated by *Poa sieberiana var. sieberiana*, Wallaby grasses, and *Lomandra filiformis* interspersed by areas of bare scree. *Joycea pallida* grasslands occur in contiguous areas just outside the 140m radius.

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

Based on the altitudinal, and geographical position in the landscape, structural components, available bushfire fuels and floristics observed, it is the authors considered opinion:

- The native vegetation community that occupies 2.8ha of the 7.836ha, 140m radius to the proposed development on exposed ridgetops, and in the eastern and southern sections of the general landscape, is an intergrade between a woodland form of PCT 294, *Nortons Box - Red Box - White Box tussock grass open forest of the southern section of the NSW South Western Slopes Bioregion*, with PCT 888, *Inland Scribbly Gum - Brittle Gum low woodland of the eastern tablelands, South Eastern Highlands Bioregion*. See Appendix 3 for *Overviews of Plant Community Types (PCT's)* and *NSW Vegetation Classifications*.
- The dominant native vegetation community/formation that occupies the 7.836ha, 140m radius to the proposed development, with respect to the requirements of *Planning for Bushfire Protection 2019 (PBP)*, conforms to WOODLAND.

The proposed development over R2 zoned lands on Lot 1/DP119766, does not require BDAR assessment as:

- The Biodiversity Values Map and Threshold Tool and site assessment, indicates that there are no significant Biodiversity Values on the subject property, and the amount of native vegetation clearing associated with the proposed development (0.02ha), does not exceed the biodiversity offsets scheme threshold of 0.25ha for a property with a minimum lot size of < 1ha.
- No threatened plant species, EEC's or TEC's were identified on the subject property, or in the area of proposed development, during site, or desktop-based assessment.
- No threatened fauna were noted as permanent residents on the subject property, or in the area of proposed development.
- Activities associated with the proposed development do not represent a Key Threatening Process as detailed in Schedule 4 of the BC Act 2016.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

## 5 Management Recommendations

As previously mentioned, the proposed development, including establishing vehicle access, and APZ's, involves the removal or modification of trees and vegetation.

Listed following are recommendations aimed at ameliorating the perceived environmental impacts of the proposed development:

- The proposed establishment of vehicular access from Phillip Avenue to the subject property, should consider:
  - ① Providing clearance in the SW corner of the subject property, for the structural root zone of a mature Yellow box (*Eucalyptus melliodora*). Avoid trenching closer than the minimum radius distance of 5.5m allowed for 10% encroachment (see Appendix 5, *Tree Protection Zone and Structural Root Zone Calculations*). Raise the pavement surface of the proposed vehicular access over the existing surface soil profile, and install a permeable layer of base material that provides for root respiration, sub-surface water movement, and buffering against compaction and mechanical damage. Alternatively, establish location of primary and secondary roots, and construct pier and beam bridging within the base layers of the proposed vehicular access, over primary and secondary roots, and install a permeable layer of base material, that provides for root respiration, sub-surface water movement, and buffers against compaction and mechanical damage.
  - ② Weed management in the northern riparian corridor of Buttles Creek, riparian zones should conform with best practice low impact bush regeneration/ecological practice, and measures implemented to mitigate erosion.
- Native vegetation removal for the proposed development, should be undertaken separately to weed/exotic species removal. Native vegetation removed to be mulched, and the native mulch stockpiled, for use in garden establishment. Weed/exotic species vegetation to be removed from site.
- Garden establishment in the proposed development, to include the planting of endemic native herb, and graminoid species, such as Snow grass (*Poa sieberiana*), and Wattle matt-rush (*Lomandra filiformis*), towards buffering a potential reduction in forage for native herbivores.
- Compensatory planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the northern riparian corridor of Buttles Creek.
- Compensatory planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*), on Lot 1/DP119766.

Following, are listed some key principles to guide in the establishment of proposed APZ's.

1. Adherence to the requirements of the tables in Appendix 4 of PBP2019, *Asset Protection Zone Requirements, NSW RFS*, and recommendations in Bushfire Reports prepared for the proposed development.
2. Engage a suitably qualified arborist to advise on removal of any trees. Visually check for presence of any fauna habituating in trees prior to removal, and arrange for removal and relocation of any fauna dislocated during tree removal. If necessary, contact WIRES or other approved local wildlife organization prior to tree removal operations and arrange for potential assistance in removal and relocation of native fauna.

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

3. During clearing of vegetation for proposed APZ's: ① remove any weed species prior to clearing native vegetation; ② retain and relocate fallen dead limbs containing hollows (where practical and safe), and any lopped hollow sections of trees to provide habitat for native fauna; ③ minimise disturbance to existing soil profiles to avoid disturbing terrestrial species and the potential for erosion; ④ minimise disturbance to any rock formations if discovered, to prevent disturbing harbor sites for native fauna (lizards, snakes, small mammals); ⑤ visually check for presence of any fauna habituating in proposed APZ's, prior to mulch/slash native vegetation and retain on site; ⑥ retain any mulched/slashed native vegetation, although the biomass of slashed /mulched vegetation should not exceed ground fuel parameters for an APZ. Mulched vegetation will provide runways and harbor for potential small native mammalian fauna if present or egressing the subject property, and will assist in retaining any soil stored native seed on site. Ensure mulched vegetation is compacted against existing soil profile to reduce capacity for immolation, by excluding air.
4. Areas proposed as an APZ, shall be maintained / landscaped as low threat or excluded vegetation in accordance with clause 2.2.3.2 of AS3959,
5. Vegetation and landscape management for APZ compliance should also consider the principals of the document *Landscape and Building Design for Bushfire Areas*, by Caird Ramsay and Lisle Rudolph published November 2003.
6. Any internal vegetated landscaping (retained or re-introduced) should ensure any readily combustible dry garden mulching, litter and/or combustible trees or shrubs are separated away from building lines, or else should be entirely excluded from the site.
7. Any internal landscaping shall ensure trees retained or planted directly adjacent to internal roadway areas do not significantly overhang or obstruct access of larger vehicle's entering the proposed development and subject property.
8. Any internal landscaping should ensure only fire-retardant trees, shrubs or ground layers are reintroduced.
9. As a suggested principle for the landscaping works, there should be no net gain from the existing landscaped vegetation to be retained as part of the proposed development. If any new vegetated landscaping is essential for other reasons of aesthetics, shading, heritage, then selected vegetation for landscaping works should only use species identified from a recognised list of fire-retardant species or else consistent with recommended plant types for bushfire prone gardens as described in *Asset Protection Zone Requirements, Appendix 4, NSW RFS*, and *Planning for Bush Fire Protection, 2019*.
10. Re-introducing dry native tree / shrub species (particularly where concentrated) such as Banksia, Melaleuca & Acacia species should be avoided, particularly if located directly adjacent to a building line.
11. Where new or re-introduced vegetation will be incorporated as part of the subject development, the same or equivalent area / number of species or biomass should be removed elsewhere from the site.
12. Taller trees and shrubs (>2m high) to be retained, should be selectively pruned and/or thinned to ensure a discontinuous vegetation canopy where practicable.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

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**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

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Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

APPENDIX 1

**BIONET Atlas search in a 5km radius of subject property**

Data from the BioNet BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1Â°; ^^ rounded to 0.01Â°). Copyright the State of NSW through the Office of Environment and Heritage. Search criteria: Public Report of all Valid Records of Threatened (listed on BC Act 2016) or Commonwealth listed Entities in selected area [North: -34.62 West: 150.79 East: 150.89 South: -34.72] returned a total of 260 records of 27 species. Report generated on 20/09/2019 3:04 PM.

Explanation of terms: E = endangered; V = vulnerable; P = protected; C = Critical

Likelihood of occurrence: Known = recorded in 1km radius of subject property; Likely = records exist within 2km radius of subject property or site characteristics meet specific requirements; Possible = habitat/species requirements suitable/species utilises site opportunistically; Unlikely - habitat/species requirements unsuitable

Kingdom	Class	Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat description	Likelihood of occurrence, and nearest recorded occurrence	Potential for impact	Assessment of significance required
Animalia	Amphibia	Hylidae	<i>Litoria aurea</i>	Green and Golden Bell Frog	E1,P	V	1	Habitat suitable along Buttles Creek. Negligible impact on preferred habitat	Possible. 7km S	Nil	No
Animalia	Amphibia	Hylidae	<i>Litoria raniformis</i>	Southern Bell Frog	E1,P	V	1	Habitat suitable along Buttles Creek. Negligible impact on preferred habitat	Possible. 7km S	Nil	No
Animalia	Reptilia	Pygopodidae	<i>Aprasia parapulchella</i>	Pink-tailed Legless Lizard	V,P	V	3	Habitat suitable	Likely. 1.5km SSW	Minimal	No
Animalia	Reptilia	Varanidae	<i>Varanus rosenbergi</i>	Rosenberg's Goanna	V,P		9	Habitat suitable	Likely. 700m NE and SW	Minimal	No
Animalia	Aves	Ardeidae	<i>Botaurus poiciloptilus</i>	Australasian Bittern	E1,P	E	1	Habitat suitable along Buttles Creek. Minimal impact on preferred habitat.	Possible. 2.5km S	Minimal	No
Animalia	Aves	Accipitridae	<i>Circus assimilis</i>	Spotted Harrier	V,P		1	Habitat suitable. Minimal impact on preferred habitat, perch sites or nesting.	Possible. 7km S	Minimal	No
Animalia	Aves	Accipitridae	<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V,P	C	1	Habitat unsuitable.	Unlikely. 7km S	Nil	No
Animalia	Aves	Accipitridae	<i>Hieraetus morphnoides</i>	Little Eagle	V,P		4	Habitat suitable. Minimal impact on preferred habitat, perch sites or nesting.	Likely. 2km WSW and E	Minimal	No

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

Kingdom	Class	Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat description	Likelihood of occurrence, and nearest recorded occurrence	Potential for impact	Assessment of significance required
Animalia	Aves	Cacatuidae	<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V,P,3		22	Habitat suitable. Minimal impact on preferred habitat, forage	Known	Minimal.	See SIS Appendix 4.
Animalia	Aves	Cacatuidae	<i>Calyptrorhynchus lathamii</i>	Glossy Black-Cockatoo	V,P,2		1	Habitat suitable. Minimal impact on preferred habitat, forage	Possible. 5.5km SW	Minimal	See SIS Appendix 4.
Animalia	Aves	Psittacidae	<i>Glossopsitta pusilla</i>	Little Lorikeet	V,P		1	Habitat suitable. Minimal impact on preferred habitat, forage.	Possible. 2.5km S	Minimal	No
Animalia	Aves	Psittacidae	<i>Polytelis swainsonii</i>	Superb Parrot	V,P,3	V	2	Habitat suitable. Minimal impact on preferred habitat, forage or nesting.	Likely. 1.8km S	Minimal	No
Animalia	Aves	Climacteridae	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	V,P		2	Habitat suitable. Minimal impact on preferred habitat, forage or nesting.	Likely. 1.5km S	Minimal	No
Animalia	Aves	Acanthizidae	<i>Chthonicola sagittata</i>	Speckled Warbler	V,P		2	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 2.5km S	Minimal	No
Animalia	Aves	Meliphagidae	<i>Epthianura albifrons</i>	White-fronted Chat	V,P		1	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 7km S	Minimal	No
Animalia	Aves	Meliphagidae	<i>Grantiella picta</i>	Painted Honeyeater	V,P	V	1	Habitat suitable. Minimal impact on preferred habitat, forage or nesting.	Likely. 1.5km S	Minimal	No
Animalia	Aves	Meliphagidae	<i>Meliphreptus gularis gularis</i>	Black-chinned Honeyeater (eastern subspecies)	V,P		1	Habitat suitable. Minimal impact on preferred habitat, forage or nesting.	Possible. 2.5km S	Minimal	No
Animalia	Aves	Neosittidae	<i>Daphoenositta chrysoptera</i>	Varied Sittella	V,P		2	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 4.8km WSW	Minimal	No

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

Kingdom	Class	Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat description	Likelihood of occurrence, and nearest recorded occurrence	Potential for impact	Assessment of significance required
Animalia	Aves	Pachycephalidae	<i>Pachycephala olivacea</i>	Olive Whistler	V,P		1	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 2.5km S	Minimal	No
Animalia	Aves	Artamidae	<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V,P		6	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 3.4km S	Minimal	No
Animalia	Aves	Petroicidae	<i>Melanodryas cucullata cucullata</i>	Hooded Robin (south-eastern form)	V,P		4	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 2.2km SW	Minimal	No
Animalia	Aves	Petroicidae	<i>Petroica boodang</i>	Scarlet Robin	V,P		12	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 2.2km S	Minimal	No
Animalia	Aves	Petroicidae	<i>Petroica phoenicea</i>	Flame Robin	V,P		1	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 7km S		No
Animalia	Aves	Estrildidae	<i>Stagonopleura guttata</i>	Diamond Firetail	V,P		3	Habitat suitable. Minimal impact on preferred habitat, or nesting.	Possible. 2.2km S	Minimal	No
Animalia	Mammalia	Dasyuridae	<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V,P	E	1	Habitat suitable. Minimal impact on preferred habitat, or harbour.	Possible. 7km S	Minimal	No
Animalia	Mammalia	Phascolarctidae	<i>Phascolarctos cinereus</i>	Koala	V,P	V	7	Habitat suitable. Minimal impact on preferred habitat, forage or harbor.	Known. 150m SSW	Minimal	See SIS Appendix 4.
Animalia	Mammalia	Pteropodidae	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V,P	V	6	Habitat suitable. Minimal impact on preferred habitat, or forage.	Likely. 2.1km SW	Minimal	No
Animalia	Mammalia	Vespertilionidae	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	V,P		1	Habitat suitable. Minimal impact on preferred habitat, or forage.	Likely. 2km E	Minimal	No

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

Kingdom	Class	Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat description	Likelihood of occurrence, and nearest recorded occurrence	Potential for impact	Assessment of significance required
Animalia	Mammalia	Vespertilionidae	<i>Myotis macropus</i>	Southern Myotis	V,P		1	Habitat suitable. Minimal impact on preferred habitat, or forage.	Possible. 2.5km SE	Minimal	No
Plantae	Flora	Asteraceae	<i>Leucochrysum albicans</i> var. <i>tricolor</i>	Hoary Sunray		E	45	Known	Known. Recorded 50m north of subject site	Nil	No
Plantae	Flora	Asteraceae	<i>Rutidosia leptorrhynchoides</i>	Button Wrinklewort	E1	E	1	Habitat suitable.	Possible. 4.5km E	Nil	No
Plantae	Flora	Fabaceae (Faboideae)	<i>Swainsona recta</i>	Small Purple-pea	E1	E	3	Habitat suitable	Likely. 2km WSW	Minimal	No
Plantae	Flora	Myrtaceae	<i>Eucalyptus aggregata</i>	Black Gum	V	V	2	Habitat, geology and altitudinal gradient just outside preferred.	Possible. 500m N	Nil	No
Plantae	Flora	Orchidaceae	<i>Caladenia tessellata</i>	Thick Lip Spider Orchid	E1,P,2	V	2	Habitat suitable	Possible. 5.5km NW	Minimal	No
Plantae	Flora	Rhamnaceae	<i>Pomaderris pallida</i>	Pale Pomaderris	V	V	7	Habitat suitable	Possible. 4km S	Nil	No
Animalia	Mammalia	Miniopteridae	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	V		6	Habitat suitable. Minimal impact on preferred habitat, or forage.	2.5km S	Nil	No

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

APPENDIX 2

Table 3.5.2.1 - Native Tree species found on subject site. Species noted outside of, and within 140m of the subject site are shaded in grey.

**Legal status**

E1 = Endangered species under Schedule 1 BC Act, 2016  
 V = Vulnerable species under Schedule 1 BC Act, 2016

P = Protected species under NPW Act 1974  
 C = Endangered species under EPBC Act, 1999

Scientific name	Common Name	Legal status
<i>Acacia dealbata</i>	Silver wattle	
<i>Acacia rubida</i>	Red-stemmed wattle	
<i>Callitris endlicheri</i>	Black cypress pine	
<i>Eucalyptus melliodora</i>	Yellow box	
<i>Eucalyptus polyanthemos</i>	Red box	
<i>Eucalyptus bridgesiana</i>	Apple box	
<i>Eucalyptus nortonii</i>	Large flowered bundy	
<i>Eucalyptus rossii</i>	Inland Scribbly Gum	

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

Table 2.3.4.2 - Native shrub, herb, fern, climbers and forb species found on site. Species noted outside of and within 140m of the subject site are shaded in grey.

**Legal status**

E1 = Endangered species under Schedule 1 BC Act, 2016  
 V = Vulnerable species under Schedule 1 BC Act, 2016

P = Protected species under NPW Act 1974  
 C = Endangered species under EPBC Act, 1999

Scientific name	Common Name	Legal status
<i>Acacia rubida</i>	Red-stemmed wattle	
<i>Amyema miquelii</i>	Box mistletoe	
<i>Bursaria spinosa ssp. lasiophylla</i>	Native blackthorn	
<i>Cassinia aculeata</i>	Dolly bush	
<i>Cheilanthes seiberi</i>	Rock fern	
<i>Dodonaea viscosa</i>	Sticky hopbush	
<i>Dodonaea viscosa subsp. angustissima</i>	Narrow-leaved hopbush	
<i>Echinopogon caespitosus</i>	Hedgehog grass	
<i>Grevillea rosmarinifolia</i>	Rosemary grevillea	
<i>Juncus usitatus</i>		
<i>Leucochrysum albicans</i>	Hoary sunray	
<i>Leucochrysum albicans var. tricolor</i>	Hoary sunray	E, C
<i>Lomandra filiformis</i>	Wattle Matt-rush	
<i>Lomandra longifolia</i>	Spiny-headed mat-rush	
<i>Melichrus urceolatus</i>	Um heath	

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

Table 2.3.4.2 - Native shrub, herb, fern, climbers and forb species found on site. Species noted outside of and within 140m of the subject site are shaded in grey.

**Legal status**

E1 = Endangered species under Schedule 1 BC Act, 2016  
 V = Vulnerable species under Schedule 1 BC Act, 2016

P = Protected species under NPW Act 1974  
 C = Endangered species under EPBC Act, 1999

Scientific name	Common Name	Legal status
<i>Poa sieberiana var. sieberiana</i>	Snowgrass	
<i>Pteridium esculentum</i>	Bracken	
<i>Rytidosperma caespitosum</i>	Ringed Wallaby Grass	
<i>Rytidosperma racemosum var. racemosum</i>	Wallaby grass	
<i>Solanum cinereum</i>	Narrawa burr	
<i>Stellaria pungens</i>	Prickly Starwort	

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

Table 2.3.4.3 – Notifiable weed and exotic species found on site. Species noted outside of and within 140m of the subject site are shaded in grey.

<i>Scientific name</i>	<b>Common Name</b>	<b>Legal status</b>
<i>Acacia baileyana</i>	Cootamundra wattle	
<i>Ageratina adenophora</i>	Crofton weed	<b>Subject to local management programs</b>
<i>Anagallis arvensis</i>	Scarlet pimperell	
<i>Avena fatua</i>	Wild oat	
<i>Carthamus lanatus</i>	Saffron thistle	
<i>Centaureum erythraea</i>	Common centaury	
<i>Chamaecyparis lawsonii</i>	Lawsons' cypress	
<i>Cirsium vulgare</i>	Spear thistle	
<i>Conyza bonariensis</i>	Flaxleaf fleabane	
<i>Cotoneaster franchetii</i>	Franchet's cotoneaster	
<i>Cotoneaster glaucophyllous</i>	Glaucous Cotoneaster	
<i>Cotoneaster panosus</i>	Silver cotoneaster	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Echium plantagineum</i>	Patterson's Curse	
<i>Genista monspessulana</i>	Montpellier Broom	<b>Prohibition on dealings</b> <i>Must not be imported into the State or sold</i>
<i>Hypericum perforatum</i>	St. Johns' wort	<b>Subject to local management programs</b>



Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

Table 2.3.4.3 – Notifiable weed and exotic species found on site. Species noted outside of and within 140m of the subject site are shaded in grey.

<b>Scientific name</b>	<b>Common Name</b>	<b>Legal status</b>
<i>Lantana camara</i>	Lantana	<b>Prohibition on dealings</b> <i>Must not be imported into the State or sold</i>
<i>Ligustrum lucidum</i>	Large-leaved privet	
<i>Lonicera japonica</i>	Honeysuckle	
<i>Malus domestica</i>	Apple	
<i>Pinus radiata</i>	Radiata pine	
<i>Plantago lanceolata</i>	Lambs tongue	
<i>Prunus domestica</i>	Plum	
<i>Prunus persica</i>	Peach	
<i>Pyracantha angustifolia</i>	Orange firethorn	
<i>Quercus robur</i>	English oak	
<i>Rosa rubiginosa</i>	Sweet briar	
<i>Rubus fruticosus sp aggregate</i>	Blackberry	<b>Prohibition on dealings</b> <i>Must not be imported into the State or sold</i>
<i>Rumex brownii</i>	Swamp dock	
<i>Salix babylonica</i>	Weeping willow	<b>Prohibition on dealings</b> <i>Must not be imported into the State or sold</i>
<i>Scabiosa atropurpurea</i>	Pin cushion	
<i>Senecio madagascarensis</i>	Fireweed	<b>Prohibition on dealings</b> <i>Must not be imported into the State or sold</i>

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

Table 2.3.4.3 – Notifiable weed and exotic species found on site. Species noted outside of and within 140m of the subject site are shaded in grey.

<b>Scientific name</b>	<b>Common Name</b>	<b>Legal status</b>
<i>Sida rhombifolia</i>	Paddys lucerne	
<i>Ulmus procera</i>	English elm	
<i>Verbascum thapsus subsp. thapsus</i>	Great Mullein	
<i>Verbena rigida var. rigida</i>	Veined verbena	

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

APPENDIX 3

6.1.1 Overview of Plant Community Type: 294

ID294 Norton's Box (*Eucalyptus nortonii*) - Red Box (*Eucalyptus polyanthemos*) open forest with *Joycea pallida* ground cover on shallow grey sandy loam on granite, Wangra Trail, Woomargama National Park, [AGD66 35°56.148'S 147°17.458'E], 2/5/2006, Jaime Plaza;

<b>PlantCommunity Type ID</b>	294
<b>Common Community Name</b>	Nortons Box - Red Box - White Box tussock grass open forest of the southern section of the NSW South Western Slopes Bioregion
<b>Scientific Community Name</b>	<i>Eucalyptus nortonii</i> , <i>Eucalyptus polyanthemos</i> subsp. <i>vestita</i> / <i>Acacia dealbata</i> , <i>Cassinia arcuata</i> / <i>Joycea pallida</i> , <i>Lomandra filiformis</i> subsp. <i>coriacea</i> , <i>Geranium solanderi</i> var. <i>solanderi</i> , <i>Daucus glochidiatus</i>
<b>Dominant Canopy Species</b>	<i>Eucalyptus nortonii</i> (Large-flowered Bundy); <i>Eucalyptus polyanthemos</i> subsp. <i>polyanthemos</i> ; <i>Eucalyptus polyanthemos</i> subsp. <i>vestita</i> ; <i>Eucalyptus albens</i> (White Box);
<b>Main Associated Species</b>	
<b>Landscape Position</b>	Occurs on slopes in hilly terrain in the south of the South Western Slopes.
<b>Mid Stratum Species</b>	<i>Hibbertia obtusifolia</i> (Hoary Guinea Flower); <i>Acacia dealbata</i> (Silver Wattle); <i>Calytrix tetragona</i> (Common Fringe-myrtle); <i>Cassinia aculeata</i> (Dolly Bush); <i>Pultenaea procumbens</i> ;
<b>Ground Stratum Species</b>	<i>Euchiton gymnocephalus</i> ; <i>Luzula densiflora</i> (Woodrush); <i>Lomandra filiformis</i> subsp. <i>coriacea</i> (Wattle Matt-rush); <i>Myosotis discolor</i> (Forget-me-not); <i>Drosera auriculata</i> ; <i>Elymus scaber</i> var. <i>scaber</i> (Common Wheatgrass); <i>Joycea pallida</i> (Silvertop Wallaby Grass); <i>Geranium retrorsum</i> (Cranesbill Geranium); <i>Rumex brownii</i> (Swamp Dock); <i>Wurmbea dioica</i> subsp. <i>dioica</i> (Early Nancy); <i>Ranunculus sessiliflorus</i> var. <i>sessiliflorus</i> ; <i>Microlaena stipoides</i> var. <i>stipoides</i> (Weeping Grass); <i>Senecio quadridentatus</i> (Cotton Fireweed); <i>Cynoglossum suaveolens</i> (Sweet Hound's-tongue); <i>Geranium solanderi</i> var. <i>solanderi</i> ; <i>Gonocarpus tetragynus</i> (Poverty Raspwort); <i>Dichopogon strictus</i> (Chocolate Lily); <i>Desmodium varians</i> (Slender Tick-trefoil); <i>Austrodanthonia pilosa</i> (Smooth-flowered Wallaby Grass); <i>Daucus glochidiatus</i> (Native Carrot); <i>Poa sieberiana</i> (Snowgrass); <i>Senecio bathurstianus</i> ; <i>Cheilanthes austrotenuifolia</i> (Rock Fern); <i>Senecio tenuiflorus</i> (A fireweed); <i>Hypericum gramineum</i> (Small St John's Wort); <i>Oxalis perennans</i> ; <i>Dichelachne hirtella</i> (Plumegrass); <i>Brachyscome multifida</i> var. <i>multifida</i> ; <i>Elymus scaber</i> var. <i>scaber</i> (Common Wheatgrass); <i>Cymbonotus preissianus</i> (Austral Bear's Ear); <i>Poranthera microphylla</i> (Small Poranthera); <i>Echinopogon ovatus</i> (Forest Hedgehog Grass); <i>Veronica peregrina</i> (Wandering Speedwell); <i>Hydrocotyle laxiflora</i> (Stinking Pennywort); <i>Scutellaria humilis</i> (Dwarf Skullcap); <i>Wahlenbergia stricta</i> subsp. <i>stricta</i> (Tall Bluebell); <i>Senecio prenanthoides</i> ; <i>Acaena novae-zelandiae</i> (Bidgee-widgee);
<b>Other Diagnostic Features</b>	Open forest with a sparse shrub layer and tussock grass ground cover occurring on shallow clay loam soils derived from sedimentary and igneous substrates.
<b>ProfileSource</b>	Benson 294 (Benson unpubl.);
<b>Full Reference Details</b>	Gellie, N. & Fanning, M. (2004) Final report of vegetation ecosystems in new and existing conservation reserves, south west slopes region 2002-2004, version 3. Report to NSW Department of Environment and Conservation: Queanbeyan;
<b>Vegetation Formation</b>	Dry Sclerophyll Forests (Shrub/grass sub-formation)
<b>Vegetation Class</b>	Upper Riverina Dry Sclerophyll Forests
<b>Occurs As Original Vegetation Type</b>	No
<b>Derived from What Community types (PCT IDs)</b>	
<b>Derived from Community Type Comment</b>	
<b>TEC</b>	No
<b>TEC Names</b>	
<b>PCT Status</b>	Approved

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

6.1.2 Overview of Plant Community Type: 294

ID294 Norton's Box (*Eucalyptus nortonii*) - Red Box (*Eucalyptus polyanthemos*) open forest with *Joycea pallida* ground cover on shallow grey sandy loam on granite, Wangra Trail, Woomargama National Park, [AGD66 35°56.148'S 147°17.458'E], 2/5/2006, Jaime Plaza;

<b>PlantCommunity Type ID</b>	294
<b>Common Community Name</b>	Nortons Box - Red Box - White Box tussock grass open forest of the southern section of the NSW South Western Slopes Bioregion
<b>Scientific Community Name</b>	<i>Eucalyptus nortonii</i> , <i>Eucalyptus polyanthemos</i> subsp. <i>vestita</i> / <i>Acacia dealbata</i> , <i>Cassinia arcuata</i> / <i>Joycea pallida</i> , <i>Lomandra filiformis</i> subsp. <i>coriacea</i> , <i>Geranium solanderi</i> var. <i>solanderi</i> , <i>Daucus glochidiatus</i>
<b>Dominant Canopy Species</b>	<i>Eucalyptus nortonii</i> (Large-flowered Bundy); <i>Eucalyptus polyanthemos</i> subsp. <i>polyanthemos</i> ; <i>Eucalyptus polyanthemos</i> subsp. <i>vestita</i> ; <i>Eucalyptus albens</i> (White Box);
<b>Main Associated Species</b>	
<b>Landscape Position</b>	Occurs on slopes in hilly terrain in the south of the South Western Slopes.
<b>Mid Stratum Species</b>	<i>Hibbertia obtusifolia</i> (Hoary Guinea Flower); <i>Acacia dealbata</i> (Silver Wattle); <i>Calytrix tetragona</i> (Common Fringe-myrtle); <i>Cassinia aculeata</i> (Dolly Bush); <i>Pultenaea procumbens</i> ;
<b>Ground Stratum Species</b>	<i>Euchiton gymnocephalus</i> ; <i>Luzula densiflora</i> (Woodrush); <i>Lomandra filiformis</i> subsp. <i>coriacea</i> (Wattle Matt-rush); <i>Myosotis discolor</i> (Forget-me-not); <i>Drosera auriculata</i> ; <i>Elymus scaber</i> var. <i>scaber</i> (Common Wheatgrass); <i>Joycea pallida</i> (Silvertop Wallaby Grass); <i>Geranium retrorsum</i> (Cranesbill Geranium); <i>Rumex brownii</i> (Swamp Dock); <i>Wurmbea dioica</i> subsp. <i>dioica</i> (Early Nancy); <i>Ranunculus sessiliflorus</i> var. <i>sessiliflorus</i> ; <i>Microlaena stipoides</i> var. <i>stipoides</i> (Weeping Grass); <i>Senecio quadridentatus</i> (Cotton Fireweed); <i>Cynoglossum suaveolens</i> (Sweet Hound's-tongue); <i>Geranium solanderi</i> var. <i>solanderi</i> ; <i>Gonocarpus tetragynus</i> (Poverty Raspwort); <i>Dichopogon strictus</i> (Chocolate Lily); <i>Desmodium varians</i> (Slender Tick-trefoil); <i>Austrodanthonia pilosa</i> (Smooth-flowered Wallaby Grass); <i>Daucus glochidiatus</i> (Native Carrot); <i>Poa sieberiana</i> (Snowgrass); <i>Senecio bathurstianus</i> ; <i>Cheilanthes austrotenuifolia</i> (Rock Fern); <i>Senecio tenuiflorus</i> (A fireweed); <i>Hypericum gramineum</i> (Small St John's Wort); <i>Oxalis perennans</i> ; <i>Dichelachne hirtella</i> (Plumegrass); <i>Brachyscome multifida</i> var. <i>multifida</i> ; <i>Elymus scaber</i> var. <i>scaber</i> (Common Wheatgrass); <i>Cymbonotus preissianus</i> (Austral Bear's Ear); <i>Poranthera microphylla</i> (Small Poranthera); <i>Echinopogon ovatus</i> (Forest Hedgehog Grass); <i>Veronica peregrina</i> (Wandering Speedwell); <i>Hydrocotyle laxiflora</i> (Stinking Pennywort); <i>Scutellaria humilis</i> (Dwarf Skullcap); <i>Wahlenbergia stricta</i> subsp. <i>stricta</i> (Tall Bluebell); <i>Senecio prenanthoides</i> ; <i>Acaena novae-zelandiae</i> (Bidgee-widgee);
<b>Other Diagnostic Features</b>	Open forest with a sparse shrub layer and tussock grass ground cover occurring on shallow clay loam soils derived from sedimentary and igneous substrates.
<b>ProfileSource</b>	Benson 294 (Benson unpubl.);
<b>Full Reference Details</b>	Gellie, N. & Fanning, M. (2004) Final report of vegetation ecosystems in new and existing conservation reserves, south west slopes region 2002-2004, version 3. Report to NSW Department of Environment and Conservation: Queanbeyan;
<b>Vegetation Formation</b>	Dry Sclerophyll Forests (Shrub/grass sub-formation)
<b>Vegetation Class</b>	Upper Riverina Dry Sclerophyll Forests
<b>Occurs As Original Vegetation Type</b>	No
<b>Derived from What Community types (PCT IDs)</b>	
<b>Derived from Community Type Comment</b>	
<b>TEC</b>	No
<b>TEC Names</b>	
<b>PCT Status</b>	Approved

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

## NSW Vegetation Classification - Vegetation ID

### Vegetation Community ID 294

**Common Name:** Norton's Box - Red Box - White Box tussock grass open forest of the southern section of the NSW South-western Slopes Bioregion

**Scientific Name:** *Eucalyptus nortonii* - *Eucalyptus polyanthemos* subsp. *vestita* / *Acacia dealbata* - *Cassinia arcuata* / *Joycea pallida* - *Lomandra filiformis* subsp. *coriacea* - *Geranium solanderi* var. *solanderi* - *Daucus glochidiatus*

**Veg. Comm. ID.:** 294 **Original Entry:** J.S. Benson 8/03/2006

**Photo 1:** ID294a\_DX28161.jpg Norton's Box (*Eucalyptus nortonii*) - Red Box (*Eucalyptus polyanthemos*) open forest with *Joycea pallida* ground cover on shallow grey sandy loam on granite, Wangra Trail, Woomargama National Park, [AGD66 35°56.148'S 147°17.458'E], 2/5/2006, Jaime Plaza.



**Photo 2:** ID294b\_DX28098.jpg Red Box (*Eucalyptus polyanthemos*) - White Box (*Eucalyptus albens*) - Red Stringybark (*Eucalyptus macrorhyncha*) open forest at Tunnel Creek in Woomargama National Park, [AGD66 35°52.847'S 147°17.874'E], 1/5/2006, Jaime Plaza.



**Characteristic Vegetation:** (Quantitative Data)

**Trees:** *Eucalyptus nortonii*; *Eucalyptus polyanthemos* subsp. *polyanthemos*; *Eucalyptus polyanthemos* subsp. *vestita*; *Eucalyptus albens*.

**Shrubs/Vines/Epiphytes:** *Acacia dealbata*; *Cassinia aculeata*; *Hibbertia obtusifolia*; *Calytrix tetragona*; *Pultenaea procumbens*.

**Ground Cover:** *Joycea pallida*; *Lomandra filiformis* subsp. *coriacea*; *Poranthera microphylla*; *Geranium solanderi* var. *solanderi*; *Daucus glochidiatus*; *Acaena novae-zelandiae*; *Wahlenbergia stricta* subsp. *stricta*; *Hypericum gramineum*; *Gonocarpus tetragynus*; *Dichondra repens*; *Hydrocotyle laxiflora*; *Cymbonotus preissianus*; *Rumex brownii*; *Myosotis discolor*; *Cynoglossum suaveolens*; *Veronica peregrina*; *Wurmbea dioica* subsp. *dioica*; *Scutellaria humilis*; *Euchiton gymnocephalus*; *Cheilanthes austrotenuifolia*; *Luzula densiflora*; *Microlaena stipoides* var. *stipoides*; *Austrodanthonia pilosa*; *Echinopogon ovatus*; *Elymus scaber* var. *scaber*; *Poa sieberiana*; *Senecio tenuiflorus*; *Dichopogon strictus*; *Ranunculus sessiliflorus* var. *sessiliflorus*; *Oxalis perennans*; *Dichelachne hirtella*; *Senecio quadridentatus*; *Drosera auriculata*; *Desmodium varians*; *Geranium retrorsum*; *Senecio bathurstianus*; *Senecio prenanthoides*; *Brachyscome multifida* var. *multifida*.

**Weed Species:** *Trifolium subterraneum*; *Trifolium campestre*; *Trifolium arvense*; *Bromus diandrus*; *Bromus molliformis*; *Cirsium vulgare*; *Cerastium glomeratum*; *Cerastium vulgare*; *Hypochaeris radicata*; *Briza minor*; *Aira elegantissima*; *Vulpia myuros*; *Orobanche minor*; *Echium plantagineum*.

**Weediness:** High (15-30%) with 10-30% cover.

**Threatened Plants:** Not assessed.

**Threatened Fauna:** Not assessed.

Friday, 27 January 2012

Page 1 of 3

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

*Mean Species Richness:* 40 +/- spp (Gellie & Fanning 2004 in 20 x 20 m plots).

*Rainforest Structure (Webb):* Not applicable.

*Structure (WH):* Open Forest.

*Height Class (WH):* Mid-High; Tall.

*Vegetation Description:* Mid-high to tall open forest dominated by Norton's Box (*Eucalyptus nortonii*) with Red Box (*Eucalyptus polyanthemos*) often with Red Stringybark (*Eucalyptus macrorhyncha*) and White Box (*Eucalyptus albens*). The shrub layer is very sparse and may include *Acacia dealbata*, *Cassinia aculeata* and *Hibbertia obtusifolia*. Grass species include *Joyces pallida*, *Poa sieberiana*, *Elymus scaber* var. *scaber*, *Microlaena stipoides* var. *stipoides*, *Austrodanthonia pilosa* and *Echinopogon ovatus*. Forb species include *Acaena novae-zelandiae*, *Hypericum gramineum*, *Gonocarpus tetragynus*, *Dichondra repens*, *Hydrocotyle laxiflora*, *Cymbonotus preissianus*, *Rumex brownii*, *Geranium* spp. and *Senecio* spp. The graminiose *Lomandra filiformis* subsp. *coriacea* is usually common. Weeds are common in some sites. The rush *Luzula densiflora* is often present. Occurs on shallow clay loam soils derived from sedimentary and igneous substrates (granite) in hill landform pattern on hillslope landform element in the southern part of the NSW South-western Slopes Bioregion. Represented in some reserves but extensively cleared over its range.

*Level of Classification:* Association.

*Classification Confidence Level:* Medium.

*Formation Group:* *Eucalyptus (Mostly Grassy) Box Woodlands of the Tablelands and Western Slopes.*

*State Veg Map (Keith 2004):* Upper Riverina Dry Sclerophyll Forests.

*State Landscape (Mitchell 2002):* Not Assessed.

*NVIS Major Veg Sub-Groups:* *Eucalyptus forests with a grassy understorey.*

*Forest Type (RN 17):* 99 - Red Box (P).

*Authority(s):* (Quantitative Data). Includes vegetation Groups 22 and 25 in Gellie & Fanning (2004) from which characteristic species are listed.

*Interstate Equivalent(s):* Victoria: similar to EVC175\_62 Rainshadow Grassy Woodland or EVC 22: Grassy Dry Forest.

*Mapped/Modelled:* Current extent partly mapped or modelled.

*Plot Sampling:* Inadequate.

*Mapping Info:* Mapped for some reserves by Gellie & Fanning (2004) but not mapped over range. Difficult to distinguish from Long-leaved Box open forest.

*Climate Zone:* Temperate; no dry season (warm summer).

*IBRA Bioregion (v6):* NSW South-western Slopes (>70%); South Eastern Highlands (1-30%).

*IBRA Sub-Region:* Upper Slopes (>70%); Bondo (1-30%); Murrumbateman (1-30%).

*Botanical Division:* South Western Slopes (SWS) (>70%); Southern Tablelands (ST) (1-30%).

*Local Govt. Areas:* Greater Hume (1-30%); Tumbarumba (1-30%); Tumut (1-30%); Yass Valley (1-30%).

*CMAs:* Murray (30-70%); Murrumbidgee (30-70%).

*MD Basin:* Yes.

*Substrate Mass:* Plutonic rocks; Sedimentary rocks.

*Lithology:* Granite; Sandstone; Shale; Siltstone.

*Great Soil Group:* Brown earth; Brown podzolic soil.

*Soil Texture:* Clay loam.

*Landform Patterns:* Hills.

*Landform Elements:* Hillslope.

*Land Use:* Grazing; Nature Conservation.

*Impacts of European Settlement:* Minor reduction (<30%) in extent and/or range.

*Pre-European Extent:* 15000 ha ±30%. Estimated from extant vegetation maps: part range.

*Pre-European Extent Comments:* Estimate based on extrapolation from limited current extent mapping.

*Current Extent:* 8000 ha ±30% or 53% ± 50% of pre-European extent remaining.

*Current Extent Comments:* (Estimated from pre-European map: part range). Some reserves are mapped in Gellie & Fanning (2004).

*Conservation Reserves:* Woomargama NP 950 (E1); Mullengandra NR 70 (E3); Woomargama SCA 1450 (E1).

*Reserves Total Area:* 2470 ha.

*No. Representatives in Reserves:* 3

*Protected Area Explanation:* Woomargama NP, Woomargama SCA and Mullengandra NR from combining vegetation groups 22 and 25 in Gellie & Fanning (2004) but with some areas removed from Woomargama and added to ID268.

*Secure Property Agreements:* None.

*Secure PAs Total Area:* 0 ha.

*No. Representatives in Secure Property Agreements:* 0

*Protected Current Extent:* 30.87% 2470 ha ± 30%.

*No. Representatives in Protected Areas:* 3

*Protected Pre-European Extent:* 16.46% which is adequately protected across distribution.

*Common in 1750:* Code 2a: 15-25% of pre-European extent in protected areas (>10,000 ha).

*Key Sites for Protection:* Requires survey.

*Degree of Fragmentation:* Contiguous stands with high connectivity with >60% extent remaining and low edge to area ratio.

*Recoverability:* Moderate health as structure and/or composition altered. Likely to recover considerably if causal factors and secondary impacts removed.

*Variation & Disturbance:* Tree species vary in dominance over range depending on soils, aspect and position on hillslope. Ground species varies with grazing management and with altitude.

*Fire Regime:* Unknown but now rare due to fragmented landscape.

*Adjoining Communities:* Grades into Apple Box, Blakely's Red Gum or White Box woodland on flats or lower slopes and into Black Cypress Pine on rocky ridges. Grades into other Norton's Box forests in gullies and at higher altitudes. A healthy form of this community (ID306) occurs on higher slopes on quartzite ridges.

*Threatening Processes:* Overgrazing on private land, inappropriate fire and localised weed invasion are the main threats. Pine plantations may threaten some stands.

*Threatening Process List:* Clearing for agriculture; Clearing for pine plantations; Inappropriate fire regimes; Soil erosion, water; gully, tunnel, landslips; Unsustainable grazing and trampling by stock; Weed (exotic) invasion.

Friday, 27 January 2012

Page 2 of 3

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

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*Threat Category:* Near Threatened.

*Threat/Protected Area Code:* NT/2a

*Threat Criteria:* 4; 5.

*Planning Controls:*

*Planning and Management:* Manage fire regimes, control weeds and protect further stands in protected areas.

*Listed Under Legislation:* None.

*Recovery Plan:* Doesn't exist and not required.

*Reference List:* (340). Gellie, N. & Fanning, M. (2004) Final report of vegetation ecosystems in new and existing conservation reserves, south west slopes region 2002-2004, version 3. Report to NSW Department of Environment and Conservation: Queanbeyan.

*Friday, 27 January 2012*

*Page 3 of 3*

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**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

**Overview of Plant Community Type: 888**

<b>PlantCommunity Type ID</b>	888
<b>Common Community Name</b>	Inland Scribbly Gum - Brittle Gum low woodland of the eastern tablelands, South Eastern Highlands Bioregion
<b>Scientific Community Name</b>	Eucalyptus rossii , Eucalyptus mannifera , Eucalyptus dives , Eucalyptus macrorhyncha / Allocasuarina littoralis , Brachyloma daphnoides , Hibbertia obtusifolia , Melichrus urceolatus / Dianella revoluta var. revoluta , Gonocarpus tetragynus , Goodenia hederacea , Joycea pallida
<b>Dominant Canopy Species</b>	Eucalyptus rossii (Inland Scribbly Gum); Eucalyptus mannifera (Brittle Gum); Eucalyptus dives (Broad-leaved Peppermint); Eucalyptus macrorhyncha (Red Stringybark);
<b>Main Associated Species</b>	Eucalyptus dives (Broad-leaved Peppermint); Eucalyptus macrorhyncha (Red Stringybark);
<b>Landscape Position</b>	Occurs on sandy loams mainly derived from fine-grained sedimentary rocks on low ridges of the tableland between 550 and 800m from Moss Vale to Braidwood.
<b>Mid Stratum Species</b>	Hibbertia obtusifolia (Hoary Guinea Flower); Melichrus urceolatus (Urn Heath); Persoonia linearis (Narrow-leaved Geebung); Allocasuarina littoralis (Black She-Oak); Brachyloma daphnoides (Daphne Heath);
<b>Ground Stratum Species</b>	Gonocarpus tetragynus (Poverty Raspwort); Goodenia hederacea (Ivy Goodenia); Joycea pallida (Silvertop Wallaby Grass); Lepidosperma gunnii; Lomandra obliqua; Patersonia sericea (Silky Purple-Flag); Lomandra filiformis (Wattle Matt-rush); Lomandra multiflora (Many-flowered Mat-rush); Dianella revoluta var. revoluta (A Blue Flax Lily);
<b>Other Diagnostic Features</b>	Low woodland or open forest with open understorey of sclerophyll shrubs and ground layer of sedges, grass and forbs.
<b>ProfileSource</b>	DSF p9 (Tozer et al. 2006);
<b>Full Reference Details</b>	Tozer, M.G., Turner, K., Simpson, C., Keith, D.A., Beukers, P., MacKenzie, B., Tindall, D. & Pennay, C., 2010 Native vegetation of southeast NSW: a revised classification and map for the coast and eastern tablelands. Version 1.0;
<b>Vegetation Formation</b>	Dry Sclerophyll Forests (Shrubby sub-formation)
<b>Vegetation Class</b>	Southern Tableland Dry Sclerophyll Forests
<b>Occurs As Original Vegetation Type</b>	No
<b>Derived from What Community types (PCT IDs)</b>	
<b>Derived from Community Type Comment</b>	
<b>TEC</b>	No
<b>TEC Names</b>	
<b>PCT Status</b>	Approved



APPENDIX 4

## Biodiversity Conservation Act 2016 No 63

Current version for 1 July 2019 to date (accessed 24 September 2019 at 13:59)

Part 7 Division 5

### Division 5 Preparation of species impact statements

#### 7.20 Form and content of species impact statement

- (1) A species impact statement for the purposes of this Part must be in writing signed by the principal author of the statement and by the applicant for development consent or the proponent of the activity proposed to be carried out (as the case requires).

See completed SIS, following.

- (2) A species impact statement must include a full description of the proposed development or activity and the information as to matters relating to the impact on threatened species or ecological communities as is required by the regulations.

In summary, the proposed development, involves the sub-division of R2 zoned lands on Lot 1/DP119766, into three (3) lots, and the construction of separate dwellings on each of the three (3) lots.

It also includes the creation of APZ's on the subject property, and may involve clearing/modification of existing vegetation.

Based on preliminary bushfire risk analysis, it is estimated that the maximum total area of vegetation clearing/modification to accommodate proposed APZ's on the subject property, measures 0.22ha, and will predominately involve the clearing of CLEARED/MODIFIED vegetation, dominated by weed and exotic vegetation.

There may also be a requirement to extend proposed APZ's to a distance of 20m N, E and SE of the subject property, on Lot 1/DP119766, and 20m SE of the subject property, on Lot 102 /DP1213713.

The area 20m E and SE of the subject property is cleared of vegetation, and meets the requirements of an APZ. The proposed extension of the APZ, 20m N of the subject property, measures approximately 0.04ha in area. This area is dominated by weed/exotic vegetation.

The proposed development may involve the removal of:

- Three (3), Applebox (*Eucalyptus bridgesiana*), which are a listed Irregular Use koala tree species for the Central and Southern Tablelands koala management area. These trees are 21.2m, 16.4m, and 15.6m in height, with diameters of 60cm, 28cm and 16cm.
- Six (6) Black cypress (*Callitris endlicherii*), two (2) Silver wattle (*Acacia dealbata*), and a number of Red-stemmed wattle (*Acacia rubida*), which may provide forage for Gang-gang and Glossy black cockatoos.

Compensatory Management Recommendations for the development proposal include:

- Planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the northern riparian corridor of Buttles Creek.
- Planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*), on Lot 1/DP119766.
- Retaining mulched vegetative material of Red-stemmed wattle (*Acacia rubida*), including seed material held on the plant.
- Retaining a substantial area of extant native vegetation, in E2 zoned lands on Lot 1/DP119766, to the east of the proposed development on the subject property.
- Garden establishment in the proposed development, to include the planting of endemic native herb, and graminoid species, such as Snow grass (*Poa sieberiana*), and Wattle matt-rush (*Lomandra filiformis*), towards buffering a potential reduction in forage for native herbivores.

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

- (3) A species impact statement must include details of the qualifications and experience in threatened species conservation of the person preparing the statement and of any other person who has conducted research or investigations relied on in preparing the statement.

Please refer to Business Profile – Principal and Author, *Flora and Fauna Assessment for the proposed sub-division and development of lands zoned R2, occupying the SW corner of Lot 1/DP 119766, December 2019.*

- (4) The requirements of this section in relation to information concerning the State-wide conservation status of any species or ecological community are taken to be satisfied by the information in that regard supplied to the principal author of the species impact statement by the Environment Agency Head.
- (5) The regulations may make further provision for or with respect to the form and content of species impact statements.

Part 7 Division 1 Section 7.3

**7.3 Test for determining whether proposed development or activity likely to significantly affect threatened species or ecological communities, or their habitats**

- (1) The following is to be taken into account for the purposes of determining whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats:
- (a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

MINIMAL (short term) to NIL

The clearing/modification of existing vegetation for the proposed development, involves primarily weed/exotic vegetation.

An assessment of the potential impacts on threatened species and Compensatory Management Recommendations are provided following. The proposed development may involve the removal of:

- Three (3), Applebox (*Eucalyptus bridgesiana*), which are a listed Irregular Use koala tree species for the Central and Southern Tablelands koala management area. These trees are 21.2m, 16.4m, and 15.6m in height, with diameters of 60cm, 28cm and 16cm.
- Six (6) Black cypress (*Callitris endlicherii*), two (2) Silver wattle (*Acacia dealbata*), and a number of Red-stemmed wattle (*Acacia rubida*), which may provide forage for Gang-gang and Glossy black cockatoos.

Compensatory Management Recommendations for the development proposal include:

- Planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the northern riparian corridor of Buttles Creek.
- Planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*), on Lot 1/DP119766.
- Retaining mulched vegetative material of Red-stemmed wattle (*Acacia rubida*), including seed material held on the plant.
- Retaining a substantial area of extant native vegetation, in E2 zoned lands on Lot 1/DP119766, to the east of the proposed development on the subject property.
- Garden establishment in the proposed development, to include the planting of endemic native herb, and graminoid species, such as Snow grass (*Poa sieberiana*), and Wattle matt-rush (*Lomandra filiformis*), towards buffering a potential reduction in forage for native herbivores.

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

- (b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:
- (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

NIL. The proposed development does not impact on any EEC, TEC or CEEC.

- (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,

NIL. The proposed development does not impact on any EEC, TEC or CEEC.

- (c) in relation to the habitat of a threatened species or ecological community:

- (i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

NIL. The proposed development does not impact on any EEC, TEC or CEEC.

The one (1) threatened plant species, Hoary Sunray (*Leucochrysum albicans* var. *tricolor*), recorded in a 140m radius of the subject property, occurs 80m upslope and to the N, and will not be impacted by the proposed development.

A nett positive benefit will be achieved by weed removal of weed species that have invaded and dominate the subject property, and the northern riparian corridor of Buttles Creek.

The proposed development may involve the removal of:

- Three (3), Applebox (*Eucalyptus bridgesiana*), which are a listed Irregular Use koala tree species for the Central and Southern Tablelands koala management area. These trees are 21.2m, 16.4m, and 15.6m in height, with diameters of 60cm, 28cm and 16cm.
- Six (6) Black cypress (*Callitris endlicherii*), two (2) Silver wattle (*Acacia dealbata*), and a number of Red-stemmed wattle (*Acacia rubida*), which may provide forage for Gang-gang and Glossy black cockatoos.

Compensatory Management Recommendations for the development proposal include:

- Planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the northern riparian corridor of Buttles Creek.
- Planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*), on Lot 1/DP119766.
- Retaining mulched vegetative material of Red-stemmed wattle (*Acacia rubida*), including seed material held on the plant, for distribution on site.
- Retaining a substantial area of extant native vegetation, in E2 zoned lands on Lot 1/DP119766, to the east of the proposed development on the subject property.
- Garden establishment in the proposed development, to include the planting of endemic native herb, and graminoid species, such as Snow grass (*Poa sieberiana*), and Wattle matt-rush (*Lomandra filiformis*), towards buffering a potential reduction in forage for native herbivores.

- (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

NA. The proposed development does not impact on any EEC, TEC or CEEC.

The dominant native Vegetation Community/PCT, occupying ridgetops, eastern and southern sections of the general landscape, has been determined as an intergrade between PCT 294, Nortons Box - Red Box - White Box tussock grass open forest of the southern section of the NSW South Western Slopes Bioregion, and PCT 888, *Inland Scribbly Gum - Brittle Gum low woodland of the eastern tablelands, South Eastern Highlands Bioregion*.

Both these vegetation communities are well represented in the general landscape, and reserved in the national park estate of Cuumbeun Nature Reserve, to the east of the subject property.

**Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620**

Faunal movement through the landscape is concentrated east of the footprint of the proposed development.

- (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,

The proposed development involves the clearing of CLEARED/MODIFIED vegetation, dominated by weed and exotic vegetation.

The dominant native Vegetation Community/PCT, occupying ridgetops, eastern and southern sections of the general landscape, has been determined as an intergrade between PCT 294, Nortons Box - Red Box - White Box tussock grass open forest of the southern section of the NSW South Western Slopes Bioregion, and PCT 888, *Inland Scribbly Gum - Brittle Gum low woodland of the eastern tablelands, South Eastern Highlands Bioregion*.

Both these vegetation communities are well represented in the general landscape, and reserved in the national park estate of Cuumbeun Nature Reserve, to the east of the subject property.

Compensatory measures have been detailed previously, to compensate for the potential removal of:

- Three (3), Applebox (*Eucalyptus bridgesiana*), which are a listed Irregular Use koala tree species for the Central and Southern Tablelands koala management area. These trees are 21.2m, 16.4m, and 15.6m in height, with diameters of 60cm, 28cm and 16cm.
- Six (6) Black cypress (*Callitris endlicherii*), two (2) Silver wattle (*Acacia dealbata*), and a number of Red-stemmed wattle (*Acacia rubida*), which may provide forage for Gang-gang and Glossy black cockatoos.

Faunal movement through the landscape is concentrated east of the footprint of the proposed development.

- (d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),

NA.

- (e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

- *Clearing of native vegetation (as defined and described in the final determination of the Scientific Committee to list the key threatening process), and listed in Appendix 4 of the Biodiversity Conservation Act, 2016.*

The proposed development may involve the removal of:

- Three (3), Applebox (*Eucalyptus bridgesiana*), which are a listed Irregular Use koala tree species for the Central and Southern Tablelands koala management area. These trees are 21.2m, 16.4m, and 15.6m in height, with diameters of 60cm, 28cm and 16cm.
- Six (6) Black cypress (*Callitris endlicherii*), two (2) Silver wattle (*Acacia dealbata*), and a number of Red-stemmed wattle (*Acacia rubida*), which may provide forage for Gang-gang and Glossy black cockatoos.

Compensatory Management Recommendations for the development proposal include:

- Planting and maintenance of three (3) Applebox (*Eucalyptus bridgesiana*), within the northern riparian corridor of Buttles Creek.
- Planting and maintenance of six (6) Black cypress (*Callitris endlicherii*), and two (2) Silver wattle (*Acacia dealbata*), on Lot 1/DP119766.
- Retaining mulched vegetative material of Red-stemmed wattle (*Acacia rubida*), including seed material held on the plant, for distribution on site.

Activities associated with the proposed development, are estimated to deliver a NETT POSITIVE BENEFIT to the environment, by addressing the impacts of the following Key Threatening Processes.

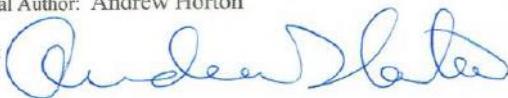
Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

- Invasion, establishment and spread of Lantana (*Lantana camara L. sens. lat.*).
- Invasion and establishment of exotic vines and scramblers.
- Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants.

(2) The Minister may, by order published in the Gazette with the concurrence of the Minister for Planning, issue guidelines relating to the determination of whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats. Any such guidelines may include consideration of the implementation of strategies under the Biodiversity Conservation Program.

Principal Author: Andrew Horton

Signed:



date: 20201030

Applicant/Proponent:

Signed:

date:

Flora and Fauna Assessment –20191210 – 2G Phillip Avenue, Queanbeyan, NSW 2620

APPENDIX 5

EGN 425: Tree Protection Zone and Structural Root Zone Calculator		
Note: Must be used in conjunction with <i>AS 4370 Protection of trees on development sites</i> Version 1 – 3 May 2014		
<b>Tree protection zone (TPZ)</b>		
Diameter at 1.4m above ground (breast height) = <input style="width: 100%;" type="text" value="0.67"/> m Is it a palm, other monocot, cycad or tree fern? <input checked="" type="checkbox"/> No	<b>INSTRUCTIONS</b> 1. Measure the diameter of the tree at 1.4 m above the ground. Insert this number, in metres, into the first field. 2. Indicate in the second field if the tree is a palm, other monocot, cycad or tree fern. The TPZ radius of a tree of this type is 1 m outside the crown of the tree. 3. Plan your works according to the TPZ radius, implementing the below control measures. If trenching must occur within the TPZ, use the encroachment distance provided to determine how close the trench can come to the tree stem/trunk to ensure only 10% encroachment.	
TPZ radius = <input style="width: 100%;" type="text" value="8.0"/> m If trenching must occur within the TPZ, use the below calculation and figure to determine the minimum radius distance (X) to allow for 10% encroachment of the TPZ	<b>TPZ control measures:</b> - Where practical, trench outside the TPZ. Impacting more than 10% of the TPZ can affect the long-term health of the tree. - Where cables must be laid within the TPZ, minimise the extent impacted and for significant encroachments, underbore/directional drill at least 600 mm beneath the ground surface, or if excavating, hand dig or use an air knife. - Where possible, establish and work outside the TPZ. Fence off the TPZ to avoid physical damage to trees.  Where the control measures cannot be met, contact Environmental Services or an arborist to carry out a health and/or stability assessment of the tree.	
Minimum radius distance (X) allowed for 10% encroachment = <input style="width: 100%;" type="text" value="5.5"/> m		
<b>Structural root zone (SRZ)</b>		
Diameter, measured above the root buttress = <input style="width: 100%;" type="text" value="0.67"/> m Is the structural root zone generally symmetrical? <input checked="" type="checkbox"/> Yes	<b>INSTRUCTIONS</b> 1. Measure the diameter of the tree above the root buttress. Insert this number, in metres, into the first field. 2. Indicate in the second field if the structural root zone is generally symmetrical. If it is not symmetrical, an arborist will need to be contacted for advice. 3. Plan your works according to the SRZ radius, implementing the below control measures.	
SRZ radius = <input style="width: 100%;" type="text" value="2.8"/> m	<b>SRZ control measures:</b> - Trench outside the SRZ. Trenching within the SRZ can risk making the tree unstable. - Where cables must be laid within the SRZ, underbore/directional drill at least 600 mm beneath the ground surface, or if excavating, hand dig or use an air knife.  Where the control measures cannot be met, contact Environmental Services or an arborist to carry out a health and/or stability assessment of the tree.	
<span style="background-color: #2c4e64; color: white; padding: 2px 10px; border-radius: 5px;">TPZ &amp; SRZ Calculator</span> <span style="font-size: 1.2em; vertical-align: middle;">+</span>		

# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 8 DA.2021.1259 - COMBINED REDACTED SUBMISSIONS- 2G  
PHILLIP AVENUE QUEANBEYAN EAST

Alex Glouftsis  
QPRC Natural and Built Character Section

Dear Mr Glouftsis

**RE: OBJECTIONS TO DEVELOPMENT APPLICATION DA.2021.1259 – DP119766  
(Lot 1, 2 and 3)**

My family live at (redacted). (redacted). We bought here mid 2020 primarily because of the proximity to the natural landscape. At the time of purchase we asked council about site. We were assured that the site had approval to build a single standalone house and that previous applications had been lodged to build an 'eco village' but such applications had been roundly rejected. It is our hope that the current application will meet the same end.

From our perspective, the DA has several critical deficiencies and presents risks both during construction and at completion. In summary, these are:

- the land is very steep and disturbing it without significant buttressing/retaining walls represents a very high risk of landslide. This risk is not explicitly addressed in the proposal. The site is unsuited to accommodate three closely spaced, two-storey, four-bedroom houses.
- the three four-bedroom houses will impose on the landscape rather than sitting into the landscape. They are inconsistent with the other single storey dwellings on larger blocks in the street.
- the street itself is narrow and difficult to navigate and not suited to the increased on street parking during and after completion.
- a lack of turning area presents risks around access for heavy vehicle traffic during construction (council garbage collection vehicles currently reverse down the street to empty bins).
- risks to neighbourhood children who currently play on and around the road
- The impact to and prevention of public access to the riparian zone and crown land / wildlife corridor
- destruction and/or disruption of the wildlife corridor.
- The proposal shows little interest in restoring the natural values of the surroundings.
- The current owners appear negligent in their current management of the site, allowing weeds to grow out of control, then ripping the site and piling the product in large piles, presenting a significant fire hazard in a bushfire prone area.

A single dwelling of one storey would suit the site quite well. But the proposal in the Development Application, in our opinion is not at all suited this site. And as such, we would like to express our objections to this development application and request that it be rejected like its predecessor.

Yours sincerely

(Redacted)



**9.1 Development Application DA.2021.1259 - Four Torrens Title Lots, Construction of Three Two Storey Dwelling Houses - 2G Phillip Avenue, Queanbeyan East  
Attachment 8 - DA.2021.1259 - Combined Redacted Submissions- 2G Phillip Avenue Queanbeyan East (Continued)**

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Alex Glouftsis  
QPRC Natural and Built Character Section

RE: SUBMISSION OF CONCERNS FOR DEVELOPMENT APPLICATION (DA) .2021.1259 – DP119766  
(Lot 1, 2 and 3)

Dear Mr Glouftsis,

My name is [REDACTED] and I am writing to you in regards to the proposed Development Application (DA.2021.1259) and am wishing to state that I am opposed to it being approved.

I own [REDACTED] It has come to my attention that all the residents of Phillip Avenue have concerns regarding this development and it is therefore my opinion that the development application should therefore be rejected and/or be the subject of further thorough review and assessment.

It seems logical that such a development would only further congest a site that is already congested. I've been informed that a previous development application was rejected on these grounds and there is an understanding that this site only has permission to build a single dwelling which, I would think, is grounds enough for the proposal to be rejected outright.

The issue of upgrading the infrastructure to accommodate such a development is also a concern to me and it may well end up being of exceedingly great cost to the council in order to reach an ultimately detrimental goal for the area concerned and it's existing residents and environment.

I have no feelings of animosity towards the developers. I do not know them and have never met them. Despite this I stand with my fellow local residents and support them in their concerns in regards to this development along with my own strong concerns to the proposal and how it will affect the neighbourhood's standards of living and its effects on the surrounding environment, be it natural and social.

Thank you for taking the time to consider the points put forward by myself and other local residents, Mr Glouftsis.

Alex Glouftsis  
QPRC Natural and Built Character Section

Dear Mr Glouftsis

**RE: SUBMISSION OF CONCERNS FOR DEVELOPMENT APPLICATION (DA) .2021.1259 – DP119766  
(Lot 1, 2 and 3)**

We reside at [REDACTED] which is opposite the site for the proposed Development Application (DA.2021.1259) and therefore will be significantly affected by the proposed development, both short and long term.

The general consensus with neighbours, and particularly those residing in Phillip Avenue is of total astonishment and disbelief the developer is proposing three '2 storey - town-house style residences. I am advised that all residents of Phillip Avenue will also be objecting to this proposal which results in a 100% objection by those immediately affected – they will submit their objections separately.

Upon purchasing our home [REDACTED] Council indicated the original 'approved' plans for this entire site was for one dwelling to be accessed from Phillip Avenue and one dwelling to be accessed from Regent Drive, Kingsway Estate. We raised concerns about the 'temporary fencing' and were informed that a previous DA (with multiple residences) had been rejected and any proposal similar in nature would likely to be rejected again. Noting the challenges associated with this site it was difficult to foresee any significant development being approved. However we accept that the construction of a single dwelling on this site would be a possibility; assuming that construction would be;

- environmentally conducive and utilises the existing 'usable' land, minimising the extent of excavation into the hillside and without impeding on the riparian zone access way;
- designed to meet all regulations and resolve current restrictions and concerns, and
- establish an unobtrusive residence in line with all surrounding residences and natural environment – unlike the current proposal.

However we do **not accept** the current proposal and have **major objections** to the additional (Lot 2 and 3) and seek clarification on the proposed 'residual Lot 4' as noted on the Development Application. Attached for your reference is a diagram which indicates four buildings, this appears to conflict with the DA which suggest three buildings and a fourth residual.

**Development of Land (2 Phillip Avenue)**

Whilst we do not know the particular details of why the previous DA was rejected – this in itself is significant and should not be overlooked. The land presents a number of significant constraints as a building site, notwithstanding the emphasis of maintaining natural surrounds, meeting current environmental regulations and impact to the existing fauna. For example,

- northern side – steep hillside with **significant** topography,
- southern side (and arcing Eastward) – Buttle Creek Waterway,
- eastern side – usable land diminishes to a very narrow width as Buttle Creek arcs towards the northern hillside, and
- western side – limited street frontage which is proposed to have two driveways providing access for three buildings.

Also noting the close proximity to bushland and the recent changes to regulations governing new buildings within 50m of bushland, this would appear to be another major constraint and should only be accepted by meeting all requirements with fire resistant materials.

Given the limited/usable land available (reinforced by a visual sighting) it is **incomprehensible** to envisage how such a small allotment of land, surrounded by extensive bushland and in such close proximity to a waterway, was approved for R2 zoning under the Queanbeyan Local Environmental Plan (QLEP) 2012. Assuming this plan was undertaken due to a growing population and diminishing land availability surely with the establishment of Googong and Tralee developments the concern for 'urban sprawl' should be reassessed.

Queanbeyan is already heavily populated with units and townhouses providing medium density living within the CBD and immediate surrounds. It is difficult to understand some of the principles of these decisions, but particularly when it has extended to the outlying fringes of the township. Many residents of Queanbeyan, including ourselves, have purposely sought a rural aspect when purchasing property and paid a premium price for that comfort and feature. This DA proposal is nothing but totally detrimental to the overall outlook of this locality and with no doubt reduce the value of existing residences.

If current building and environmental regulations prohibit the possibility of any construction it would be worthy of consideration for Council to regain this small allotment of land and maintain as a nature corridor - sustaining the current natural environment and also providing easy access to the surrounding bushland. We would also seek intervention from Council to have the so-called 'temporary fence' removed as a matter of priority.

#### **Phillip Avenue (roadway width, access and parking)**

Phillip Avenue is a very small and narrow street (6m wide) with only one way access in and out. Due to the restricted width and length (compounded by an ineffective turning bay) the current proposal to build three-two storey (4 bdr) residences will have a **major** impact on local pedestrian and vehicle traffic, particularly during construction and post construction. We are **extremely** concerned that;

- during construction, parking on the street to accommodate tradesmans' vehicles (including trailers) and heavy construction vehicles will be unbearable and will significantly disrupt the local residences, traffic and parking on Phillip Avenue;
  - we envisage many potential conflicts being raised between the residents of Phillip Avenue and the tradesmen during this period. If as anticipated should issues arise during the construction period we will have no hesitation in seeking Council's assistance in regulating parking and enforcing safe road use of Phillip Avenue.
- increased traffic (associated with an additional three residences) at the extreme end of the cul-de-sac will create a considerable safety hazard, with a five residences reversing/ utilising the same roadway space to exit driveways to progress out of Phillip Avenue.
  - the current two residences (No. 5 & 7) utilise the 'turn' around bay in order to exit their premises and drive out of Phillip Avenue.
    - Within a space of 6.5m (RHS side of the street) and approximately 6m (LHS – proposed 2<sup>nd</sup> driveway) we would have three driveways converging all into the same space of the existing limited turning bay.

- increasing the number of residences at the end of the tiny cul-de-sac from two to five, but also near doubling the number of residences in this very small avenue (from four to seven) also increases the dangers of using this road – again without considering visiting vehicles.
  - this area is often utilised by neighbourhood children playing, local pedestrians/residents who access the nature corridor on a daily basis and also by many local Queanbeyan residents gaining access to Wright Park.
  
- the current ‘allocated’ space for vehicles to turn at the end of the cul-de-sac does not allow a vehicle to undertake a full 180° turn with a single rotation of the steering wheel – which would be expected with most turning bays. Therefore existing guttering and roadway would require modifications.
  - vehicles turning around at the end of Phillip Avenue are required to either facilitate a two or three-point turn by entering into and reversing out of our driveway or the current neighbouring battle-axe driveway,
    - this is underlined with the large Council Waste Vehicles which will either reverse from the top of Phillip Avenue or will need to perform a five point turn to avoid entering our driveways and causing damage, should heavy rigid truck enter the avenue it is bedlam – to be expected with delivery of building materials.
    - the close proximity of driveways at the end of the cul-de-sac negates a suitable bin collection point at driveways of 5 and 7 Phillip Ave - this would be a similar scenario on the opposite side at the closer to the driveway of 7 Phillip,
      - under the current proposal (Lots 2 & 3) will also have limited options for the placement of their respective waste bins – requires consideration, again a greater turning bay may be the alternate option – but should not impinge on our existing driveways.
    - tradesman’s vehicles with trailers also experience extreme difficulty in turning around and are required to enter our driveway and reverse (multiple times) forcing trailer wheels up/over the opposing gutters/easement to facilitate turning around and exiting Phillip Avenue.
    - any modifications required on roadway and gutters should be financially borne by the developer and not impede on current residences/driveways.

Phillip Avenue commences as a right-hand-turn on top of a blind and curved crescent creating a roadway with very limited vision. Should a single car be parked close to this crescent it creates a dangerous roadway forcing opposing traffic on to the same side of the road. This will be further exacerbated with the anticipated increased traffic associated with three additional residences.

- A ‘No Through Road’ sign was recently erected to assist to reduce the number of vehicles entering the cul-de-sac to turn around and exit – this development will effectively double local vehicle traffic – not considering the anticipated increased ‘visitor’ traffic.

The proposal has not provided any parking allocation beyond ‘garaging’ be it for the occupants and/or visitors for the two rear residences (2 & 3) which share one driveway and given the close proximity to the street frontage of residence (1) it also has limited visitor parking options;

- subsequently, off-street parking within Phillip Avenue will be increased to an unsustainable level as it is not possible to have parking on both sides of the street and retain sufficient space to allow any vehicle entry/exit to/from Phillip Avenue - (in fact it would be

approximately less than 1.5m wide if two car parks were to be parked parallel on opposite sides of the street) - **totally untenable.**

- such restrictions results in a greater number of cars arriving/departing from directly outside our residence/s this imposes significantly on our sense of 'safe' and 'tranquil' country living lifestyle.

Three of the four existing residences in Phillip Avenue have made provisions for 'some' visitor parking within the confines of their own properties. This does not negate the issues that are experienced with small gatherings as there is very limited parking options within the street – again this will be exacerbated with the proposed development.

The proposed second 'shared' driveway servicing Lots 2 & 3 (on and over the riparian zone\*\*) will eliminate the current dedicated parking space at the end of the cul-de-sac, which is also extensively used by families to access the nature corridor and crown land within the area and therefore will exacerbate off-street parking even further;

- noting, this land is an important thoroughfare for native wildlife and is also prone to substantial water seepage off the hillside - which continues into the Buttle Creek as its natural course.

\*\* *Water Management Act 2000* should be referenced in respect of protection of Riparian Zones and comply within minimum requirements in respect of any development.

#### **Existing/upgrading of sewer infrastructure**

As noted on the plans an upgrade to the existing sewer manhole infrastructure is required, however as the existing infrastructure was built in circa 1950 (the original development of this area) it would therefore be reasonable to anticipate that the accompanying pipelines, which extend through to Elizabeth Street and beyond may also require upgrading to meet increased capacity associated with three (4 bdr) residences.

- such upgrade has the potential to disturb current root systems to significant and established trees and impede on current residences – it would be reasonable to expect 'make-good' provisions would be the minimum requirement and any damage and/or upgrade of the infrastructure would be at the cost of the developer.

#### **Buttle Creek and surrounds – environmental impact;**

We have grave concerns on the extent of the environmental impact in terms of visual impact, erosion to the hillside due to the significant excavation necessary to construct and establish proposed buildings, particularly so close to the waterways and noting the importance attributable to this lot of land in terms of wildlife corridors.

- The proposed subdivision for three lots vary in land size (Lot 1- 841m<sup>2</sup>, Lot2 - 814m<sup>2</sup>, Lot 3 – 912) whilst this would appear to be of significant size approximately 2/3rds of this land is unusable – with the northern side of each site being all but vertical hillside – requiring significant retaining to withhold the pressure of land collapse and erosion given the steep topography;
  - Lot 1 indicates a substantial footprint of the residence encroaching on/into the hillside – yet retaining walls only indicated .6m of construction – this may be a misinterpretation on our behalf but requires confirmation that retaining walls are substantial.

- Lot 2 and Lot 3 have retaining walls surrounding the northern side of each residence which would require a similar assessment.
- All land on the northern side of each residence is TOTALLY unusable (being the greater component of each Lot of land) it is nothing short of goat country but at the very least does provide the wildlife corridors as we have witnessed kangaroos ascending this extremely steep hillside on a daily basis.

Construction of retaining walls are proposed to be established on/over the embankment of Buttle Creek will prevent the thoroughfare of native animals – particularly early morning. But more importantly the development of such a wall (providing driveway access for Lots 2 &3) will be in direct opposition to the principles of retaining riparian land. With the potential of four cars utilising this space offering a shared driveway as an alternate to the natural riparian land is neither a safe nor satisfactory solution.

The creek and surrounding land are currently in need of major maintenance. This is because the owners of the property have not shown a responsible attitude in land management and/or removal of noxious weeds and blackberries. Previous clearing of land both on the verge of Phillip Avenue and the hillside has resulted in blackberry re-growth and extensive piles of rubbish (dried/dead blackberry bushes and weeds) being discarded without regard, creating a fire hazard.

Given the lower trajectory of the winter sun and the significant topography of the steep hillside these residences will be cast in shadow during the winter months (pre 10.00am and post 3.30pm) this questions whether residences will meet the minimum NatHERS energy rating.

An existing large native gum tree is designated to be retained and would require a protective surrounding fence prior to and during construction to prevent damage to the horizontal root system (90% found in the top 31mm of soil);

- construction of driveways close to existing established trees are required to have a minimum 3m radius of clearance – this obviously **cannot** be achieved under the current proposal,
- significant damage from large vehicles constantly driving across could result in the death of the tree – which is likely to fall upon current electrical lines, another concern to local residences,
- noting that both driveways are marked either side of this tree would also dictate digging and levelling to a minimum of 50mm – again raising concerns for the survival of the tree with such disturbance of the root system.

The current owners erected the '**temporary**' fence prior to 17 March 2018 which still remains erected today.

- the fence being initially gated and locked was extended right to the embankment of Buttle Creek attempting to restrict walk-way access even though this would be on riparian land,
- signs erected indicating 'that trespassers would be prosecuted' also attempted to deny access to this natural corridor.

Both these actions indicate these land owners/developers are not interested in 'sharing' the natural environmental surrounds and should the DA proceed, it would be reasonable to anticipate the owners to restrict access on the 2nd/shared driveway by erecting a fence-line and/or gate.

#### Other considerations

The overall land available to the owner/developer is enormous encompassing over 31ha with the option to build on a much greater area of land (off Regent Drive). However, they have submitted a DA proposal to subdivide the smallest component of this land (2ha) and propose to build three (4bdr) town house style residences.

As mentioned above, approximately 2/3<sup>ds</sup> of this subdivision are actually vertical hillside (ie. near **impossible** to walk up) therefore being totally unusable and realistically should **not** be factored into the allotment size of the subdivided blocks. Our belief is the developer has included the hillside to alleviate any further land management associated with the vertical land and also on the pretence that each subdivision is of a significant allotment.

We expect that council would closely consider the previous rejection and would ensure that all current building requirements under governing bodies are compliant with current building code regulations and requirements.

With the ever-increasing environmental awareness, it is **imperative** that the Council undertake an independent and current Environmental Study. It is noted that attached to the proposal (as possibly supporting documentation) is a Local Environmental Study (LES) as well other documentation undertaken in **September 1993 (18 years old!)**. Surely these documents would no longer be relevant and been surpassed with changing legislation – requesting this be addressed.

The applicant name(s) is listed as Pineclub Pty Limited. This company was is also registered as Integrated Eco Villages Lodgings – which also had a DA rejected in the Crestwood Estate, Queanbeyan. I am not familiar with the grounds of that rejection but assume a level of similarity.

- This proposed DA has the potential to replicate a similar development especially as the current development has project names of Hidden Valley 1, 2 and 3 – which suggests either an Eco Village style development or those similar to Air Bed 'n Breakfast accommodation which would make this development a **commercial enterprise** but being submitted and disguised as residential construction.
- on face value this looks purely a financially generated decision for the owner and at the detriment to all other considerations, environmental surrounds and neighbours.

We anticipate any approved construction would meet all current building requirements and would be happy discuss our concerns with Council. We hope the current proposal as it stands, with multiple residences is once again rejected.

Yours sincerely



# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 9 DA.2021.1259 - RESPONSE TO SUBMISSIONS - 2G PHILLIP  
AVENUE QUEANBEYAN EAST





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NSW 2620  
Australia

Queanbeyan-Palerang Regional Council  
PO Box 90  
Queanbeyan NSW 2620

**Your Ref: DA.2021.1259**

14 October 2021

Attention: Mr Alex Glouftis

### **Response to Public Submissions**

**Proposed four lot subdivision and construction of three dwelling-houses at Lot 1 DP 119766, 2G Phillip Avenue, Queanbeyan East, NSW (DA.2021.1259)**

Dear Alex,

This letter is written on behalf of the applicant in response to the issues raised in public submissions for DA.2021.1259.

#### **Relevant Background**

The part of the site proposed to be developed was re-zoned from 1(a) Rural A to 2(d) Residential D as part of an amendment to the Queanbeyan Local Environmental Plan 1998 in December 1998 (Amendment No. 4). The purpose of the re-zoning was to permit multi-dwelling housing, specifically, to "...enable it to be developed for three townhouses" (Report to Council Meeting, 7 October 1998 – Ref: TP 249).

A reading of the abovementioned report to Council shows that many of the issues raised by submitters for the current proposal were also raised during the re-zoning process. These were all addressed by the proponent to the satisfaction of Council staff and Councillors.

In 2004 a Development Application (DA) was submitted to Council for the erection of three townhouses on the site. This DA did not contain sufficient information to demonstrate compliance with all of the planning requirements and was subsequently refused by Council.



### Issues Raised in Submissions

Below is a summary of the issues raised in the submissions made during the public exhibition of DA.2021.1259 followed by the applicant's response.

#### ***Issue 1 – Zoning, Permissibility and Potential Use of the Site for Commercial Purposes***

Under the Queanbeyan Local Environmental Plan 2012 (QLEP) the site's zoning was changed from 2 (d) Residential D to R2 – Low Density Residential. While the 2 (d) zone did permit multi-dwelling housing (townhouses), the R2 zone does not. However, like the majority of R2 zoned land in Queanbeyan, the site is also subject to a minimum lot size for subdivision of 600m<sup>2</sup>. Therefore, if a site is sufficiently large enough it may be subdivided into multiple parcels on which it is permitted to construct a single dwelling-house.

The current proposal to subdivide the R2 zoned portion into three Torrens Title lots of over 600m<sup>2</sup> and the construction of a detached dwelling-house within each new lot is permissible in the zone. The proposal is not multi-dwelling housing (townhouses) as defined under the QLEP.

In regards to the issue raised about the potential use of the development as an "eco-village" or similar commercial use, this is a completely unfounded assertion. The proposed use of the development is clearly for three separate dwelling-houses. The developer and long-time owner of the site intends to use the three houses to accommodate family members, one of whom requires considerable family support due to chronic illness. Moreover, an eco-tourist facility (as defined in the QLEP), is not permitted in the R2 zone.

#### ***Issue 2 – Traffic, Car Parking, Access and Manoeuvring***

In regards to on-site parking, the proposal meets the requirements of Council's DCP. Also note that vehicles accessing the two rear houses will exit the site in a forward direction.

The proposal will not remove any on-street car parking spaces. One new kerb crossing is proposed at the end of the Phillip Avenue turning head to provide access to the two rear houses. This new kerb crossing replicates the kerb crossing across the road that provides access to the two houses at 5 and 7 Phillip Avenue.

The end of Phillip Avenue does not have any legal on-street car parking area as this forms part of the turning head. Indeed, installation of the new kerb crossing and driveway will improve manoeuvrability within the turning head.

The capacity and safety of Phillip Avenue to accommodate vehicles from the addition of three houses on the site was assessed by Council as being satisfactory when the site was re-zoned from rural to residential in 1998. Nothing about the configuration or use of Phillip Avenue has changed since then. The only change is the addition of one additional lot and house behind 5 Phillip Avenue.

#### ***Issue 3 – Environmental Impacts***

Impacts to the environment from the proposal will be minimal. The part of the site proposed to be developed is dominated by exotic and weedy vegetation as outlined in the submitted Flora and Fauna Assessment. No threatened flora or fauna species, or endangered ecological communities have been identified within or in proximity to the development area.



A maximum of only 0.02ha of native vegetation will be impacted by the proposal, with a large yellow-box gum (*E. melliodora*) tree located in the front south-west corner of the site to be retained.

In regards to comments about a wildlife corridor, Buttles Creek is an urban waterway with no formal wildlife corridors. Nonetheless, animals within the environmental zoned parts of the site and the large area of Council owned bushland to the south will still be able to move across and up Buttles Creek.

**Issue 4 – Access to the Buttles Creek Riparian Zone**

There is no dedicated riparian zone along either side of Buttles Creek. As can be seen from the submitted survey drawing, the boundary of the site extends right to the northern edge of the creek, and in some places the creek bed extends into the site. Therefore, any access currently obtained from the Phillip Avenue to the northern side of Buttles Creek is obtained via traversing over the site (private property).

The street verge along Phillip Avenue can be used by the public to access the Council owned bushland to the south of the site and through to Wright Park.

**Issue 5 – Impacts to the Buttles Creek Riparian Area**

The land within the site that adjoins Buttles Creek is highly disturbed and heavily degraded. It contains very limited riparian biodiversity. This is demonstrated in the submitted Flora and Fauna Report. Several factors have contributed to the degraded state of the riparian land, including:

- Necessary use of machinery to remove woody weed infestations;
- The land being used as an access track to an electricity easement; and
- Use of the land for informal car, trailer and caravan parking by residents and visitors to Phillip Avenue.

The proposal will have an overall net benefit to riparian land from the creek bank being stabilised, weeds being removed and there being less opportunity for on-going weed infestations.

Lastly, it should be noted that the property across the road from the site (no. 5 and no.7 Phillip Avenue) was permitted to be subdivided around five years ago with a southern boundary that also abuts the creek bed and with no riparian zone or access required to be provided.

**Issue 6 – Suitability of the Site (Earthworks, Stability, Erosion, and Height of Retaining Walls)**

The site is constrained by a steep slope. This is why the proposal also includes the design and construction of each new dwelling as it allows Council to assess the works required for both subdivision and dwelling construction in an integrated way.

A Geotechnical Investigation and Slope Stability Risk Assessment was submitted with the DA. It states the site is suitable for residential development provided recommendations are followed. The design of the proposal is in accordance with the geotechnical recommendations, with accepted procedures for hillside construction incorporated, including:

- Minimising site cut by proposing a small building footprint for the ground floor of each dwelling-house, with a larger upper floor level extending behind and supported by columns; and
- Providing large decks for open space areas.



Retaining walls have been limited in height to a maximum of 1.2m and will be engineered in accordance with the geotechnical requirements.

***Issue 7 - Visual Impacts and Compatibility with the Streetscape and Locality***

A low density subdivision with three detached two storey houses that is compliant with minimum lot sizes and building height limits is not inconsistent with the existing low density character of the locality or the streetscape.

Each house has been architecturally designed by an award winning architectural firm in Canberra (Paul Barnett Design Group) to 'fit into' the surrounding environment.

- Each house is under the maximum permitted building height of 8.5m.
- Earthworks have been minimised as much as possible by having a small building footprint for the ground floors and a larger upper floor level extending behind and supported by columns.
- The house closest to Phillip Avenue presents a frontage to the street, while the other two houses will sit behind and will not be highly visible from the street.
- A variety of external materials, textures and suitably muted colours are proposed.
- The large gum tree at the front of the site that is highly visible from the street is to be retained.

***Issue 8 – Amenity of Future Residents of the New Houses (Solar Access, Useable Outdoor Space)***

Good levels of amenity are provided to future residents of the three houses. In addition to large decks providing a secure area of private open space accessed from upper level habitable rooms, each house also has access to areas of flat ground. Each deck is north facing and will receive good levels of sunlight. Habitable rooms on the upper levels of each house also face north. This, in conjunction with the specified insulation, results in each house exceeding the required NatHERS rating requirements.

***Issue 9 – Existing Management of the Site***

Any concerns about the existing management of the site are not relevant to the consideration of the proposed development. Nonetheless, the current owners advise that the temporary fence is not on public land, rather, it is located on private property to prevent trespassing.

***Issue 10 – Future Management of the Site***

The vegetation within the rear of each of the new house lots will be required to be managed as part of an asset protection zone (APZ) for the mitigation of bushfire risk. This will require the owners to periodically thin out vegetation. Access to the rear of each lot will be able to be obtained from the rear decks (which will be at a similar height to the ground level), or by walking up the slope alongside each house.

Part of the proposal also includes the on-going management of vegetation growing within the creek bed and alongside it as part of bushfire risk mitigation.

The development of the site will improve its long term management due to the on-going presence of residents, the creation of APZs and the permanent replacement of a weed infested area with a low density residential development.



**Issue 11 – Construction Management**

Details regarding construction management are shown in the submitted civil engineering plans. If the proposal is approved Council will impose conditions requiring the developer to prepare and submit a very detailed construction management plan.

In regard to car parking for tradespeople during construction, there will be quite a large area available at the front and within the site, beyond lot 3, for construction vehicles to park and access the build locations.

**Issue 12 – Impacts to Property Values**

Potential impacts from a development on property values (positive or negative) are not an environmental planning consideration.

**Issue 13 – Infrastructure Upgrades (Costs and Impacts)**

The existing water and sewer pipe sizes and capacity are sufficient to cater for the proposed development, with mains to be extended at the developer's expense. Engineering designs have been submitted to demonstrate that the development can be satisfactorily serviced.

The proposal will also incur developer contributions to Council for water and sewer.

**Issue 14 – Long Term Survival of Large Gum Tree**

The large yellow-box gum (*E. melliodora*) tree located in the south-west corner of the site is to be protected during construction works. Council will also condition any consent to ensure that the tree is protected throughout construction works.

Very minimal earthworks will be required in the vicinity of the tree and the new driveway will be clear of the tree's trunk. Development can be carried out in the vicinity of a large gum tree without affecting its long term health and survival. The developer can provide numerous examples of this in the local area (with photos) if requested.

**Issue 15 – New Environmental Study Required**

The site was subject to significant scrutiny and environmental assessment when it was re-zoned. New environmental reports specific to the subject DA have been prepared and submitted as required. The vast majority of the site has an environmental conservation zoning and cannot be developed for residential purposes. The proposed development represents a positive use of the small portion of the site that is zoned for residential purposes that would otherwise remain as degraded and prone to severe infestations of noxious weeds.

Yours sincerely,



Chelsea Newman  
Town Planning Consultant  
Hugh Dennett Pty Ltd



# QUEANBEYAN-PALERANG REGIONAL COUNCIL

## Council Meeting Attachment

22 JUNE 2022

ITEM 9.1 DEVELOPMENT APPLICATION DA.2021.1259 - FOUR  
TORRENS TITLE LOTS, CONSTRUCTION OF THREE  
TWO STOREY DWELLING HOUSES - 2G PHILLIP  
AVENUE, QUEANBEYAN EAST

ATTACHMENT 10 DA.2021.1259 - DRAFT CONDITIONS OF CONSENT - 2G  
PHILLIP AVENUE

**DRAFT CONDITIONS OF CONSENT**  
**DA.2021.1259**

**APPROVED DEVELOPMENT AND PLANS**

**1. APPROVED DEVELOPMENT AND PLANS**

The development referred to in the application is to be carried out in accordance with the approved plans and documents including the following:

Title / Description	Prepared by	Issue/Revision & Date	Date received by Council
Architectural Plans	Paul Barnett Design Group	16/10/2020	18/05/2021
Subdivision Plan	Clarke and Di Pauli	04/07/2019	18/05/2021

Except as modified by any of the following conditions of consent.

*Reason: Development is undertaken in accordance with this consent & is used for the approved purpose only.*

**SPECIAL CONDITIONS**

**2. Comply with General Terms of Approval**

Comply with the General Terms of Approval issued by the NSW Rural Fire Service and Natural Resources Access Regulator contained within Appendix 1 and 2 of this consent.

*Reason: To ensure compliance with relevant conditions enforced by integrated approval authorities.*

**3. Dust Management**

Immediately undertake all measures as appropriate, and/or respond to any Council direction to provide dust suppression on roads leading to, adjacent to and within the site in the event that weather conditions, construction activities and associated traffic to and from the site are giving rise to abnormal generation of dust.

*Reason: To ensure that local residents and activities are not disadvantaged by dust during hours of operation.*

**GENERAL CONDITIONS**

**4. Obtain Construction Certificate**

Obtain a construction certificate/subdivision works certificate from Queanbeyan-Palerang Regional Council or an appropriately accredited private certifier before undertaking any work. Forward a copy of any construction certificate/subdivision works certificate issued by a private certifier to Queanbeyan-Palerang Regional Council at least 2 days before undertaking any work in accordance with that construction certificate/subdivision works certificate.

*Reason: Work is undertaken in accordance this consent & relevant construction standards.*

**5. Obtain Occupation Certificate**

Do not occupy or use the premises until an occupation certificate has been issued by Queanbeyan-Palerang Regional Council or an appropriately accredited private certifier. Provide a copy of any occupation certificate, issued by a private certifier, to Queanbeyan-Palerang Regional Council no later than 2 days after the occupation certificate is issued.

*Reason: Ensure that the building complies with relevant standards.*

**6. Comply with the Building Code of Australia**

All work is to comply with the current edition of the Building Code of Australia.

*Reason: All building work is carried out in accordance with relevant construction standards.*

**7. Construction within Boundaries**

The development including but not limited to footings, walls, roof barges and guttering must be constructed wholly within the boundary of the premises. No portion of the proposed structure shall encroach onto the adjoining properties. Gates must be installed so they do not open onto any footpath or adjoining land.

*Reason: Approved works are to be contained wholly within the subject site.*

**8. Copy to Owner**

A copy of this consent is to be provided to the owner.

*Reason: To ensure the owner is aware of the requirements imposed under the consent.*

**9. Retaining Walls**

Any retaining wall greater than 1000 mm is to be designed and constructed to structural engineer's details. Prior to issue of any construction certificate provide a certified copy of the design to Queanbeyan-Palerang Regional Council.

*Reason: Retaining walls are structurally strong enough to bear the loads put on them.*

**10. Batters**

No batter is to have a gradient greater than 1:4. Batters greater than 1:4 must be retained.

*Reason: Prevent soil erosion, water pollution and the discharge of loose sediment on surrounding land.*



### **11. Siting of retaining wall/s**

Retaining walls for 'cut' sites are to be located such that the entire retaining wall, associated footings and drainage materials are located wholly within the boundary of the allotment.

Where filling is proposed or required, retaining walls are to be located such that the exposed side of the wall, any associated footings and drainage materials are located wholly within the boundary of the filled allotment.

*Reason: To ensure that there is clarity over the ownership of retaining walls and adequate provision is made for the construction of dividing fences.*

### **12. Sequence of construction for retaining wall/s**

Where retaining walls are required along a property boundary, they are to be constructed and inspected prior to any other construction works commencing.

*Reason: To ensure that excavated or backfilled areas are adequately retained and that neighbouring properties are not impacted by the earthworks on this site.*

### **13. Imported Fill**

All fill delivered to site has to be certified Virgin Excavated Natural Material (VENM).

*Reason: Only clean and non-contaminated fill is used on site.*

### **14. Unauthorised Use of Public Land**

No building materials are to be stored or construction activities undertaken on public or adjoining land without prior written approval from Council.

*Reason: To prevent unnecessary disturbance to public land.*

### **15. Work on Adjoining Land Is Limited**

The verge and other adjoining lands must not be used for storage of materials, trade/construction vehicle parking or disturbed by construction activities with the exception of:

- a. Installation of a temporary, stabilised construction access across the verge,
- b. Installation of services,
- c. Construction of an approved permanent verge crossing.

*Reason: To minimise interference with the verge and its accessibility by pedestrians.*

## **CONDITIONS TO BE SATISFIED PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE**

### **16. Water & Sewer Certificate of Compliance - Design**

Prior to the release of a Construction Certificate, a Certificate of Compliance in accordance with the *Water Management Act 2000* must be obtained from Council.

Under Section 306 of the *Water Management Act 2000* Council, as the case requires, may, as a precondition to the issuing a Certificate of Compliance, impose a requirement that a payment is made or works are carried out, or both, towards the provision of water supply and sewerage under Section 64 of the *Local Government Act 1993* and as specified in Schedule 1 of this consent.

Section 64 contributions shall be indexed in accordance with the respective plans and CPI All Groups - Sydney annually.

*Reason: To ensure that supply is available, and/or the hydraulic design is in accordance with the relevant specifications.*

### **17. Subdivision Works Certificate**

The Subdivision Works Certificate Application and accompanying engineering design plans and Certification Report must be submitted to Council prior to the commencement of any works for a subdivision stage.

The engineering plans must comply with the requirements of Council's Design and Construction Specifications and include the following where applicable to a subdivision stage

- a) A Certification Report in accordance with Council's DQS Quality Assurance Design Specification, Clause DQS.04,
- b) This general note - All work must be constructed in accordance with the requirements of Council's QPRC Design and Construction Specifications,
- c) Detailed Water Reticulation design plans conforming to the procedures set out in Council's Water Reticulation Design and Construction Specifications,
- d) Detailed Sewerage design plans conforming to the procedures set out in Council's Sewerage Supply Design and Construction Specifications,
- e) Detailed Stormwater design plans conforming to the procedures set out in Council's Stormwater Drainage and Erosion Control and Stormwater Management Design and Construction Specifications,
- f) Detailed Vehicular Access design plans conforming to the procedures set out in Council's Vehicular Access Design and Construction Specifications.

*Reason: To provide design certification of the subdivision works.*

### **18. Submit a Construction Management Plan**

Prior to release of any Construction Certificate (Building) or Subdivision Works Certificate a Construction Management Plan for the management of soil, water, vegetation, waste, noise, vibration, dust, hazards, traffic and risk for the construction works must be submitted to, and endorsed by, Council. The plan must:

- a) describe the proposed construction works and construction program and,
- b) include a plan as to how construction traffic can be accommodated off road during the construction phase.
- c) set standards and performance criteria to be met by the construction works and,
- d) describe the procedures to be implemented to ensure that the works comply with the standards and performance criteria and,
- e) identify procedures to receive, register, report and respond to complaints and,
- f) nominate and provide contact details for the persons responsible for implementing and monitoring compliance with the plans

*Reason: To ensure that satisfactory measures are in place to provide for environmental management of the construction works and to reduce congestion on the Phillip Avenue caused by construction traffic.*

### **CONDITIONS TO BE SATISFIED PRIOR TO COMMENCEMENT OF WORKS**

#### **19. Appoint PCA (Building)**

Appoint a principal certifying authority before any work is undertaken. Provide details of the appointed principal certifying authority (if not Queanbeyan-Palerang Regional Council) to Queanbeyan-Palerang Regional Council at least 2 days prior to any work being undertaken.

*Reason: To provide for supervision of the subdivision works.*

#### **20. Development Contributions to be Paid**

Prior to the lodgement of the Notice to Commence Work and Appointment of a Principal Certifying Authority the contributions specified in Schedule 1 of this consent must be paid to Council under the provisions of Section 7.11 or 7.12 of the *Environmental Planning and Assessment Act 1979* and Section 64 of the *Local Government Act 1993* for water supply and sewerage.

*Reason: To provide for the funding of augmentation and provision of services and community facilities.*

#### **21. Site Identification**

The site where building work, subdivision work, or demolition work are proposed to be carried out shall be identified by a sign sited in a visually prominent position containing the following information:

- the development application number,
- name, address, and telephone number of the principal certifying authority,

- name of the principal contractor (if any) and 24-hour contact telephone number, and
- a statement that "unauthorised entry to the work site is prohibited".

*Reason: To satisfy the provisions of Clause 136B and 227A of the Environmental Planning and Assessment Regulation 2000.*

## **22. Traffic Management and Section 138 Consent**

Prior to undertaking any works within a public road reserve or affecting the road reserve, a traffic management plan is to be submitted to and approved by Queanbeyan-Palerang Regional Council under Section 138 of the *Roads Act 1993*. Where occupancy of the road reserve is required, a Section 138 application shall accompany the Traffic Management Plan for Local Roads.

*Reason: To ensure that works carried out comply with the Roads Act.*

## **23. Home Building Act Requirements**

Residential building work within the meaning of the Home Building Act 1989 must not be carried out unless the Principal Certifying Authority for the development to which the work relates (not being the council) has given Council written notice of the following information:

- (a) In the case of work for which a principal contractor is required to be appointed:
  - (i) The name and licence number of the principal contractor.
  - (ii) The name of the insurer by which the work is insured under Part 6 of that Act.
- (b) In the case of work to be done by an owner-builder:
  - (i) The name of the owner-builder.
  - (ii) If the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

*Reason: This is a prescribed condition under the provisions of clause 98B of the Environmental Planning and Assessment Regulation 2000.*

## **24. Sediment and Erosion Control Plan**

A Sediment and Erosion Control Plan (S&ECP) for all site works, including road works and access, is to be approved by the principal certifying authority prior to work commencing. The plan is to cover all measures to control erosion and sediment transport in accordance with the NSW Landcom publication *Managing Urban Stormwater -Soils and Construction* (4th Edition 2004- "Blue Book").

Erosion and sediment controls are to be in place before the disturbance of any soils on the site, and are to be maintained during the works and for as long as necessary after the completion to prevent sediment and dirty water leaving the site and/or entering the surface water system outside of the site.

*Reason: To minimise environmental impact associated with any works & to prevent soil erosion/water pollution.*

## **25. Sediment and Erosion Control**

A Sediment and Erosion Control Plan (S&ECP) for all site works, including road works and access, is to be approved by the principal certifying authority prior to work commencing. The

plan is to cover all measures to control erosion and sediment transport in accordance with the NSW Landcom publication *Managing Urban Stormwater - Soils and Construction (4th Edition 2004 - "Blue Book")*.

Erosion and sediment controls are to be in place before the disturbance of any soils on the site, and are to be maintained during the works and for as long as necessary after the completion to prevent sediment and dirty water leaving the site and/or entering the surface water system outside of the site as follows:

- (a) divert uncontaminated run-off around cleared or disturbed areas,
- (b) erect a silt fence to prevent debris escaping into drainage systems or waterways,
- (c) prevent tracking of sediment by vehicles on roads, and
- (d) stockpile topsoil, excavated material, construction and landscaping supplies and debris within the site.

*Reason: To minimise environmental impact associated with any works & to prevent soil erosion/water pollution.*

## **26. Submit Notice of Commencement of Subdivision Work**

A notice to Commence Subdivision Works must be submitted to Council at least two days prior to commencing any subdivision works and nominating Council as the Principal Certifying Authority for the subdivision works.

## **27. Inspection and Test Plans**

The Project Quality Plan shall include inspection and test plans detailing witness points covering at least the following aspects of the works. Witness points shall be signed off by the site foreman or other nominated to do so in the Project Quality Plan:

- installation of sediment and erosion control devices
- site clearing
- site regrading
- preservation measures installed for trees and vegetation
- culvert location and installation including preparation of base, bedding and backfill
- earthworks including longitudinal drainage and subgrade preparation
- pavement materials and construction
- bitumen sealing where applicable
- fencing, signs, guideposts and markings installation

**Advice: If Queanbeyan-Palerang Regional Council is nominated principal certifying authority for the work include as a minimum the following hold points for inspection and release by the principal certifying authority:**

- Culvert/drainage line location and bedding
- Subgrade preparation prior to placement of pavement materials
- Pavement prior to bitumen sealing
- Final inspection of completed entrance works

Release of the above hold points prior to commencement of the next stage of the works will require that the work be acceptable on the basis of visual inspection by the Principal Certifying Authority and satisfactory test results supplied by the applicant's Project Superintendent.

*Reason: To ensure that the works are carried in accordance with quality assurance principles.*

## **28. Retain and Protect Trees within Site and on Adjoining Land**

Trees nominated to be retained on the approved plans must be protected in accordance with 'AS4970-2009 Tree Protection on Development Sites' and the following measures:

- a) Ensure all documentation submitted for a Construction Certificate application details tree retention with the diameter and position of the trunk and canopy clearly and accurately shown on all relevant plans:
- b) During construction, ensure retained trees on the site or adjoining land (if impacted) are protected by cyclone/chain mesh fencing.

The fencing must:

- 1) extend around the drip line of the tree,
- 2) be a minimum of 1.8 metres high
- 3) consist of a minimum of 4 panels
- 4) be erected prior to commencement of any work; and
- 5) remain in place until all site works have been completed.

- c) Comply with the measures outlined within the approved Tree Management Plan (TMP) prepared by an AQF Level 5 Arborist (If applicable).

The principal Certifier must ensure compliance with these requirements, both on the plans, as well as on-site during construction, and prior to the issue of any Occupation Certificate.

*Reason: To ensure that tree(s) are protected from damage during construction.*

## **29. Retain and Protect Trees on Public Land**

All trees located on Council owned or managed lands, including the verge between the property boundary and the street kerb and gutter, must be protected in accordance with 'AS4970-2009 Tree Protection on Development Sites' and the following measures:

- a) During construction, ensure retained trees are protected by cyclone/chain mesh fencing

The fencing must:

- 1) extend around the drip line of the tree,
- 2) be a minimum of 1.8 metres high,
- 3) consist of a minimum of 4 panels,
- 4) be erected prior to commencement of any work; and
- 5) remain in place until all site works have been completed.

- b) Comply with the measures outlined within the approved Tree Management Plan (TMP) prepared by an AQF Level 5 Arborist (If applicable).

Please note that verge surfaces, including soft and hardscape areas, are subject to protection measures during construction according to other Council policies.

*Reason: To ensure that tree(s), including street trees, are protected from damage during construction.*

## **CONDITIONS TO BE SATISFIED DURING DEMOLITION AND/OR BUILDING WORKS**

### **30. Hours of Operation for Works**

All works associated with the construction and/or demolition of this development must be carried out between the following hours unless Queanbeyan-Palerang Regional Council agrees in writing. A written application shall be made to Queanbeyan-Palerang Regional Council if a variation of hours is required.

Weekdays:	7.00am to 6.00pm
Saturdays:	8.00am to 4.00pm
Sundays and Public Holidays:	NIL

*Reason: To reduce the chance of offensive noise being created and to minimise the impacts of the development in its locality.*

### **31. Approval Documents**

Keep a copy of all stamped approved plans, specifications, and documents on site while work is being undertaken.

*Reason: Relevant documentation is available for perusal on site by a council officer, for compliance check.*

### **32. Construction Facilities**

Toilet facilities are to be provided at or in the close vicinity of the work site on which work involved in the erection or demolition of a building is being carried out.

*Reason: To provide adequate facilities to the work site.*

### **33. Unexpected Finds**

The development is to proceed with caution. If any Aboriginal objects are found, works should stop and DECCW notified. If human remains are found work is to stop, the site is to be secured and the NSW Police and NSW Office of Environment and Heritage are to be notified.

*Reason: To ensure objects discovered during construction are protected and notified in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.*

### **34. Implementation of Management Recommendations from Ecological Assessment**

All management recommendations specified in the Flora and Fauna Assessment prepared by Unlimited Habitats and dated December 2019 shall be implemented during construction of the subdivision and dwellings.

*Reason: To ensure mitigation measures are implemented to mitigate potential impacts on flora and fauna in the local area.*

### **35. All Works to Be Confined to the Site**

All demolition, excavation, backfilling, construction, and other activities associated with the development must:-

- a) Be carried out entirely within the allotment boundaries unless otherwise approved by Council.
- b) Comply with the requirements of AS 2601-2001 - The demolition of structures.
- c) If within one metre of the verge, the site must be protected by a hoarding which must be erected prior to the commencement of the demolition works.
- d) Be kept clear of stormwater, sewer manholes and service easements on the site.
- e) Any gates must be installed so they do not open onto any footpath or adjoining land.

*Reason: To ensure that all development activity associated with the development does not pose a hazard to life or property and that the effectiveness of public services is not impaired.*

### **36. Construction Waste Management**

All waste materials generated on-site during construction are to be stored in enclosed containers and deposited in an approved landfill at regular periods.

*Reason: To ensure adequate waste management practices are in place during the construction phase.*

### **37. Works Sites to Be Fenced**

A hoarding/fence must be erected between the development site and public places before commencement of any other work.

*Reason: To ensure that an effective barrier is provided to preserve the safety of people and property in public places.*

### **38. Temporary Vehicle Access**

Temporary vehicle access to the site must be stabilised to prevent the tracking of sediment onto the roads and footpath. Soil, earth, mud or similar materials must be removed from the roadway by sweeping, shovelling, or a means other than washing, on a daily basis or as required. Soil washings from wheels must be collected and disposed of in a manner that does not pollute waters.

*Reason: To minimise transfer of soil from the site onto the road pavement.*

### **39. Submit Survey Plan Showing Boundary Setbacks and Floor Levels**

The building must be set out by a Registered Surveyor in accordance with the datum shown on the approved plans. A survey plan that identifies the location of the building in relation to the allotment boundaries and the height of the finished ground floor must be prepared by a Registered Surveyor upon completion of the ground floor and then submitted to the Principal Certifying Authority.



*Reason: To ensure the building is sited and constructed in accordance with the approved plans.*

#### **40. Protection of Works on Public Roads**

Lighting, fencing, traffic control advanced warning signs must be provided for the protection of works and for the safety and convenience of the public, in accordance with Council's Queanbeyan Design and Construction Specifications .  
Traffic movement in both directions on public roads and vehicular access to private properties must be maintained at all times, during the currency of the works.

*Reason: To ensure an adequate level of public safety and convenience during construction.*

### **CONDITIONS TO BE SATISFIED PRIOR TO ISSUE OF OCCUPATION CERTIFICATE**

#### **41. BASIX Commitments**

Comply with all commitments listed on the stamped BASIX Certificates, or any subsequent modifications, before occupying the premises.

*Reason: To ensure compliance with the requirements of the NSW BASIX certification process.*

#### **42. Colours and Material Finishes**

The is to be finished in materials that have a low reflectivity. Colours are to incorporate the use of muted, natural colours that will blend with, rather than stand out from, the landscape for major features such as walls, roof and fencing.

*Reason: The building is not visually intrusive in the landscape and does not cause glare.*

#### **43. Driveway Requirements**

The development must include the construction of a residential type driveway over Council's footway at the location shown on the approved plans. The driveway must be:

- a. Constructed by a Council approved contractor, at no cost to the Council.
- b. Constructed using plain concrete, or 3% black oxide coloured concrete.
- c. Constructed with a 2% grade falling to the gutter.
- d. At minimum distance of one metre away from any electrical, Telstra, post box installation, other service or tree within the footway area.
- e. Constructed to the width of the existing Vehicle Kerb Crossing.
- f. On a modified layback kerb the driveway shall be a minimum of 3.0m for a single car garage or up to 6.0m for a double garage.
- g. In all urban, village and heritage areas where existing footpaths and/or kerb and gutter are concrete, the driveway cross-over shall be finished in concrete.
- h. In accordance with Councils Development Design Specification D13.

*Reason: To ensure the construction of the driveway on public lands meets Council's requirements.*

#### **44. Erosion and Sediment Control**

Maintain erosion and sedimentation controls for as long as necessary after completion of works to prevent soil erosion, water pollution or the discharge of loose sediment on surrounding land. The controls are to remain in place until all disturbed ground surfaces are rehabilitated/revegetated and stabilised to prevent erosion or sediment loss.

*Reason: To minimise environmental impact associated with any works & to prevent soil erosion/water pollution.*

#### **45. Repair Damaged Public and Private Property**

All damage caused to public and private property during the construction operations and associated activities must be repaired or reinstated prior to Council accepting any Certificate of Completion.

*Reason: To ensure that all public and neighbouring private property in the vicinity of the development is maintained in its pre-development condition.*

#### **46. Fibre-Ready Facilities**

Prior to the issue of any Occupation Certificate satisfactory arrangements are to be made for the provision of fibre-ready facilities to enable fibre to be readily connected to the premises.

*Reason: To satisfy relevant utility authority requirements.*

*Note: Under the Telecommunications Act 1997 fibre-ready facilities for an individual premise includes ducting from the street pit to the proposed location at the premises of the network termination device.*

### **CONDITIONS TO BE SATISFIED PRIOR TO ISSUE OF A SUBDIVISION CERTIFICATE**

#### **47. Application and Final Survey**

An application to obtain a Subdivision Certificate must be made to Council. This must be accompanied by the following documentation:

- a) A final survey plan of subdivision and three copies,
- b) Any s88B instruments required by these conditions of consent
- c) A letter outlining how compliance with each condition of this development consent has been achieved; and
- d) Engineering Construction Certificate Report in accordance with specifications.

*Reason: To enable registration of the subdivision and to ensure compliance with conditions of consent. To provide sufficient signed copies of the subdivision plan for Council, the applicant and the NSW Land and Property Information.*

#### **48. Statement from Surveyor**

Upon the completion of subdivision works and prior to the issue of any Subdivision Certificate a statement prepared by a registered surveyor, must be submitted to the Principal Certifying Authority stating that all water, sewer and stormwater pipelines are completely located within their easements.

*Reason: To ensure works are completed in accordance with Council's requirements.*

#### **49. Water and Sewer Compliance Certificate - Service**

Prior to the release of a Subdivision Certificate, a Certificate of Compliance in accordance with the *Water Management Act 2000* must be obtained from Council.

*Reason: To ensure compliance with Section 6.14 of the Environmental Planning and Assessment Act 1979.*

**Note:** *This certificate is required regardless of any other water and sewer compliance certificate previously obtained, and regardless of whether the development involved alterations to Council's infrastructure.*

#### **50. Electricity Supply**

Prior to Council issuing a subdivision certificate, a Notice of Arrangement (NOA) shall be requested from the electricity authority which states that satisfactory supply arrangements have been made for the provision of electricity to the proposed development.

*Reason: Ensures that satisfactory supply arrangements have been made and that all of the lots in the subdivision are suitably serviced.*

#### **51. Subdivision Works Defects Liability Period - Bond**

The completed subdivision works are subject to a six months defects liability from the date of the issue of the relevant Subdivision Certificate.

The Subdivider must:

- a) Lodge a cash bond with Council with regard to the defects liability period in an amount as calculated from fees set by Council's Management Plan and current at the time of issue of the Subdivision Certificate; and
- b) Submit written authorisation that in the event of any defect not being rectified to the standards specified in Council's Design and Construction Specifications (Version 3.2, dated January 2013) / Googong Design and Construction Specifications (Version 1, dated June 2011), Council may enter the subject land and undertake rectification work and deduct the cost thereof from such Bond monies held by Council and to refund the balance, if any, to the Subdivider.

During the defects liability period the Subdivider will be liable for any part of the subdivision works which fail to perform in the manner outlined in Council's Design and Construction Specifications (or as would reasonably be expected under the design conditions).

*Reason: To ensure works are completed in accordance with Council's requirements.*

## 52. Covenant on the Land

Apply covenants under section 88B of the *Conveyancing Act 1919* to the new lots incorporating the restrictions listed below. Queanbeyan-Palerang Regional Council shall be nominated as the sole party with the power to vary or remove the required covenants.

- a) All requisite sewerage easements,
- b) Creation of a Right of Carriageway 20m wide in favour of proposed Lot 2 and 3 and over proposed Lot 1,
- c) Drainage easements shall be created over all existing and proposed drainage lines including inter-allotment drainage,
- d) Compliance with the Plan of Management for bushfire Asset Protection Zones,
- e) Prohibiting clearing except in accordance with the approved development and the Bushfire Management Plan,
- f) Prohibiting the ringbarking, cutting down, felling, poisoning or destruction in any other manner or the removing of any native trees as shown on the development plan,
- g) All easements specified below and contained in the subdivision must benefit Council as well as particular lots:
  - i. easements to drain water,
  - ii. easements to drain sewer,
  - iii. easements for water supply,
  - iv. easements which Council may require to provide or maintain other services, and

*Reason: To ensure public utility services, access and restrictions are legalised over the land.*

## 53. Separate Connections & Services

A separate sewer connection, stormwater drainage connection, water service, electricity supply and communication service must be provided to each allotment within the subdivision at the Subdivider's expense.

*Note: The Subdivider may, at their own expense, provide a gas connection to such allotment within the subdivision subject to its availability.*

*Note: The Subdivider is responsible for all public utilities and services in the area of work and as such must notify all relevant Authorities and bear all costs associated with any repairs and/or adjustments as those Authorities deem necessary.*

*Reason: To provide access to services for each allotment.*

#### **54. Inspections - Water & Sewer Authority**

Inspections must be performed by the Water and Sewer Authority (Council) when works reach the following stages:

- a) immediately prior to connection of new sewer pipes to the existing sewerage system,
- b) immediately prior to connection of new water pipes to the existing water reticulation,
- c) immediately prior to the backfilling of sewer drainage trenches, and
- d) immediately after installation of any on-site stormwater management system.

Council's Environment, Planning and Development section must be given 24 hours notice of the need for these inspections.

*Note: Any inspections carried out by Council do not imply Council approval or acceptance of the works, and do not relieve the Developer from the requirements to provide an Engineering Construction Certificate Report in accordance with Council's Design and Construction Specifications.*

*Reason: To ensure that hydraulic services are constructed in accordance with Council requirements.*

#### **55. Power Supply**

Easements for electricity supply shall be created on the final plan of subdivision in favour of Essential Energy. Such easements shall be 20 m wide (or such other width as agreed to by Essential Energy) shall be centred on:

- (a) all existing power lines which cross the subdivision and where that part of a subdivision will involve freshly surveyed boundaries; and
- (b) all proposed power lines that will be constructed to provide electricity to the lots within the subdivision; and
- (c) all proposed power lines within the subdivision for which the developer is not required to make a capital contribution, but which would be required to be constructed in the future to provide power to the boundary of each lot.

*Reason: To ensure power supply to the proposed lots.*

#### **56. Submission from Service Authority**

Prior to the issue of any Subdivision Certificate written evidence from the relevant service authority or a suitably accredited person that satisfactory arrangements have been made for the supply of reticulated electricity, telephone services and natural gas to each lot must be submitted to Council.

*Reason: To satisfy relevant utility authority requirements.*

#### **57. Works as Executed Plans of Dedicated Infrastructure**

Prior to the issue of a Subdivision Certificate, a Work-as-Executed package must be provided to Council. This information and engineering data is used to confirm the quality of works, indicate relative asset locations and survey alignments while also noting any other approved

changes in asset types or construction details that may have occurred during the construction phase when compared to the originally approved design.

The final Work-as-Executed drawings, reports and digital data shall accurately reflect material types, specifications and other asset-specific information. The Work-as-Executed package must include:

- a. Marked up and red-lined Council stamped approved engineering plans depicting all new civil infrastructure and assets dedicated to Council,
- b. An accompanying compliant ADAC XML digital file,
- c. Other reports and information provided in accordance with the relevant approval(s).

#### **Work as Executed (WAE) Drawing DWG and PDF Files**

The presentation and content of Work-as-Executed drawing submissions shall be completed in accordance with Queanbeyan-Palerang Regional Council's Engineering Design and Construction Quality Specifications.

The Work-as-Executed drawings are to be provided to Council in both DWG and PDF file formats being printable to A3 size. The Work-as-Executed plans are to be clearly marked up (red-lined) showing all variations from design including changes to levels, alignments and material types. Drawings are to be clearly stamped "WORKS AS EXECUTED" and noted as the "WAE Version" in the revision title block.

Signed Certifications are to be completed on each and all pages of the submitted drawings by the Registered Surveyor certifying the locational accuracy with regard to physical features and assets, cadastral information, contours, levels and the applicable survey datum information.

#### **Asset Design as Constructed (ADAC) XML Files**

A compliant ADAC XML file is required to be submitted as an accompaniment to the Work-as-Executed drawings and package of supporting information. The ADAC XML data shall align with the corresponding Work-as-Executed drawings.

On acceptance of the Work-as-Executed information package, Council will undertake data format and conformance checks of the ADAC XML file to confirm validity and completeness with the accompanying Work-as-Executed drawings. Should significant anomalies, errors or missing information be identified during these checks, the files will be returned to the provider for correction and resubmission, potentially delaying the issue of the Subdivision Certificate and acceptance of assets.

Queanbeyan-Palerang Regional Council require ADAC XML file to be formatted to V5.0. Refer to <https://www.ipweaq.com/adac> for additional information on preparing a ADAC compliant file submission.

*Reason: To provide a record of completed works as accurate asset information.*

#### **58. Street Numbering**

In accordance with *Clause 60(c)* of the *Surveying and Spatial Information Regulation* a schedule of recorded street addresses on Plan Form 6A shall be submitted to Council prior to the release of the Subdivision Certificate.

**Advice:** Convey with Queanbeyan-Palerang Regional Council to determine the street numbering for newly created allotments in accordance with Council's requirements.

*Reason: To ensure compliance with the Surveying and Spatial Information Regulation.*

#### **59. Subdivision PCA Inspections TORRENS**

The applicant shall engage the services of a suitably qualified Superintendent to supervise the construction of the Subdivision in accordance with Councils CQS - Contract Quality System Requirements Specification.

Inspections and/or Hold Points (in accordance with Council's Construction Specifications) shall be undertaken and released by Council (as the Principal Certifying Authority) during the construction of the Subdivision. Works shall not proceed beyond the inspection indicated until Council is satisfied that the requirements of the relevant specification have been met.

*Reason: To ensure that all subdivision infrastructure is constructed in accordance with Councils Construction Specifications.*

#### **60. Certification of Completed Works**

At the completion of works the superintendent of works shall present to Queanbeyan-Palerang Regional Council a Certification Report for civil works and is to include copies of any approvals outlined in this development consent and report on the current status of environmental restoration and revegetation. All project plans, inspection test plans, and results are to be included in the report. The superintendent of works shall be a Civil Engineer or suitably experienced and accredited Registered Surveyor as set out in Council's Specification.

*Reason: To ensure compliance of the works with the terms of the development consent and quality control requirements defects.*

#### **61. Battle Axe Lots - Driveway Construction**

A 3 metre wide concrete driveway must be constructed between the front boundary of the site and the main body of the proposed Lots 2 and 3 within the battleaxe handle, and including its construction over the adjacent Council footway.

*Reason: To provide adequate vehicular access for each allotment.*

#### **62. Work in Accordance with Engineering Specifications**

All construction and restoration work must be carried out strictly in accordance with the approved drawings and Queanbeyan-Palerang Regional Council's current Design and Construction Specifications.

*Reason: To ensure design, construction and restoration work is in accordance with Council's standards and requirements.*

### **PLUMBING AND DRAINAGE**

#### **63. Plumbing and Drainage Installation Regulations**

Plumbing and drainage work must be carried out in accordance with the requirements of the Local Government (General) Regulation 2005, the Plumbing and Drainage Act 2011 and Regulations under that Act and with the Plumbing Code of Australia. Such work must be carried out by a person licensed by the NSW Department of Fair Trading.

*Reason: This is a mandatory condition under the provisions of the Local Government (General) Regulation 2005.*

**64. Inspection of Plumbing and Drainage**

Plumbing and Drainage must be inspected by Council at the relevant stages of construction in accordance with Council's inspection schedule.

*Reason: To ensure compliance with the inspection requirements of Plumbing and Drainage Regulation 2012 and Council's inspection schedule.*

**65. Floor Level to Be 150mm Above Yard Gully**

The floor level of areas with fixtures connected to sewer must be at least 150mm above overflow level of the yard gully and surface water must be prevented from entering the yard gully.

*Reason: To ensure any sewage surcharges occur outside the building and to prevent surface water from entering the sewerage system.*

**66. Heated Water Not to Exceed 50 Degrees C**

All new heated water installation must deliver hot water at the outlet of all sanitary fixtures used primarily for personal hygiene purposes at a temperature not exceeding 50° Celsius.

All heated water installation for any accessible facility must deliver hot water at a temperature not exceeding 45° Celsius.

*Reason: To prevent accidental scalding.*