

Ecological Assessment Report

17 Courtney Dr, Upper Coomera, QLD 4209

Prepared for Courtney Upper Coomera Developments Pty Ltd

26 March 2026
Job 13087

Saunders Havill

PATHWAYS TO SUCCESS

Document Control

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Acronyms and abbreviations

ALA	Atlas of Living Australia
CoGC	City of Gold Coast
DETSI	Department of Environment Tourism Science and Innovation
DSH	Diameter at Standard Height
EAR	Ecological Assessment Report
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
EVNT	Endangered, Vulnerable or Near Threatened as listed under the NCA
FMP	Fauna Management Plan
KHA	Koala Habitat Area
KMP	Koala Management Plan
KPA	Koala Priority Area
MLES	Matters of Local Environmental Significance
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
NCA	*Nature Conservation Act 1992* (Qld)
NCAR	*Nature Conservation (Animals) Regulation 2020* (Qld)
NCPR	*Nature Conservation (Plants) Regulation 2020* (Qld)
NJKHT	Non-Juvenile Koala Habitat Tree
PMR	Protected Matters Report
PMST	Protected Matters Search Tool
PR	*Planning Regulation 2017*
RE	Regional Ecosystem
RVMM	Regulated Vegetation Management Map
RVSM	Regulated Vegetation Supporting Map
SARA	State Assessment and Referral Agency
SAT	Spot Assessment Technique
SDAP	State Development Assessment Provisions
SEQ	South East Queensland
SH	Saunders Havill
SPP	*State Planning Policy 2017* (Qld)
SRZ	Structural Root Zone
TEC	Threatened Ecological Community
TPZ	Tree Protection Zone
VCFMP	Vegetation Clearing and Fauna Management Plan
VMA	*Vegetation Management Act 1999* (Qld)
VMP	Vegetation Management Plan

1. Introduction

Saunders Havill (SH) was engaged by Courtney Upper Coomera Developments Pty Ltd to prepare an Ecological Assessment Report (EAR) for land located at 17 Courtney Drive, Upper Coomera, described as Lot 182 on RP156422. The report accompanies a development application to City of Gold Coast (CoGC) for a reconfiguration of a lot and provides a review of the site ecological values with reference to Commonwealth, State and Local legislation.

Contextually, the site is located approximately 15.8 kilometres (km) north-east of Southport, in the suburb of Upper Coomera (**Figure 1** and **Figure 2**). Situated on the corner of Courtney Drive and Bailey's Mountain Road, surrounding land uses consist of similarly sized rural residential lots. Higher density residential developments exist to the east of the site and patches of vacant bushland surround the area. On-site values are typical of rural residential lots, being highly modified/cleared areas dominated by regrowth Acacias and other planted species with some scattered natives throughout the site. Please refer to **Table 1** below for property summary.

The proposed action is for Reconfigure a Lot (RoL) application, one lot into 63 residential lots, internal roads, drainage area and pedestrian link. The proposed development design is shown at **Appendix A**.

Table 1: Property Summary

Address	Courtney Drive, Upper Coomera, Queensland, 4209
RPD	Part of Lot 182 on RP156422
Area	2.95 ha
Vegetation Management Act 1999 (VMA)	0.63 ha Category C (High Value Regrowth) Least Concern Regional Ecosystem 12.11.24 2.32 ha Category X (non-remnant) vegetation
Essential Habitat *(VMA 1999)*	*Phascolarctos cinereus* (Koala)
Matters of State Environmental Significance (MSES)	MSES – Wildlife habitat (endangered or vulnerable) MSES – Wildlife Habitat (special least concern animal) MSES – Wildlife habitat (Koala habitat areas – core) MSES – Regulated vegetation (essential habitat) MSES – Regulated vegetation (intersecting a watercourse)
Nature Conservation Act 1992	Partially within high-risk area for protected plants
Koala Habitat Provision	Not within Koala Priority Area Contains Regrowth Koala Habitat Area (core)
LGA	City of Gold Coast (CoGC)
Planning Scheme / Local Plan	Gold Coast City Plan
Zone	Emerging Community – Upper Coomera Precinct
Local Environmental Overlays	Koala Habitat Areas Minor waterway & Buffer Area
Existing Land Use	Rural residential
Proposed Land Use	Residential

1.1. Purpose of the Report

The purpose of this EAR is to present the outcomes of field surveys, identify environmental site constraints, assess the potential of the project to impact on ecological features and respond to relevant planning scheme environmental performance objectives. This report was prepared with reference to the requirements of SC6.7 City Plan policy – Ecological site assessments.



LEGEND

Site DCDB

Figure 1

Site Context

FILE REFERENCE
13087 E Figure 1 Site Context A

DATE
19/03/2026

Courtney Drive, Coomera

0 1 2 3 4 5 km

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:150,000

N

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY

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LEGEND

- Qld DCDB
- Site DCDB

Figure 2

Site Aerial

FILE REFERENCE
13087 E Figure 2 Site Aerial A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:1,800

N

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2. Ecological Assessment Methodology and Process

The following steps were undertaken in the preparation of this assessment:

1. Desktop Analysis,
2. Legislation and Policy Review,
3. Field Survey,
4. Impact Assessment and Development Analysis, and
5. Conclusion and Recommendations.

Details of the methodology undertaken for each of the assessment phases is provided in the following sections.

2.1. Desktop Analysis Methodology

Prior to the commencement of field surveys, a desktop analysis was conducted of Commonwealth, State and Local environmental databases and overlay mapping including the following:

- Commonwealth Matters of National Environmental Significance (MNES) protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on and around the site using the Protected Matters Search Tool (PMST);
- Threatened species listed under the *Biodiversity Conservation Act 2016* on and around the site using the threatened biodiversity profile search database;
- Public Environmental Databases including Atlas of Living Australia (ALA);
- State Government Environmental Overlay Mapping including:
    - State Planning Policies (SPP) – SPP Coastal Management, SPP Koala Habitat Protection and SPP (vegetation in non-rural areas).
    - *Native Vegetation Act 2003*.
- Local Planning Scheme Documents and Maps including:
    - *Gold Coast City Plan*
        - 8.2.6 Environmental significance overlay code and associated overlay
        - 9.4.14 Vegetation management code and associated overlay

To supplement the above analysis, a review of historical aerial imagery was undertaken to assist with the broad delineation of vegetation communities and identify historical patterns to local vegetation communities.

2.2. Field Survey Methodology

Field surveys were conducted by two (2) Ecologists on 22 August 2025 utilising the following methods to describe *in situ* ecological features and functionality. The entire site was traversed multiple times to ensure vegetation communities and species were observed. Particular attention was afforded to any threatened flora and habitat for threatened fauna species that were listed as possibly occurring on or within the vicinity of the project area, and specific micro assemblage which may support these threatened species.

2.2.1 Observational survey for significant flora and fauna, habitat trees and biodiversity values

The site was walked to ensure all flora and fauna species were identified and recorded. This included observations of vertebrate fauna present within or proximal to the study area, including faunal lists and status of species significance under the Commonwealth's EPBC Act (using JAMBA, CAMBA, ROKAMBA and the Bonn Convention) and Queensland's *Nature Conservation Act 1992* (NCA).

The observational survey included identification of ecological features and values such as broad vegetation communities, fauna habitats, and ecological corridors. Recording fauna habitat features within the site included identification of habitat trees present. Specific attention was paid to flora and fauna species listed as significant under legislation.

2.2.2 Ground-truthing of vegetation communities

Vegetation was ground-truthed and assessed against current VMA Regional Ecosystem (RE) mapping and pre-clear mapping. Surveys were undertaken in accordance with the requirements of CoGC.

A comprehensive flora survey was undertaken using a methodology consistent with the established formats used by the Queensland Herbarium (Neldner et al. [2005]; Hnatiuk et al. [2009]). Survey methodology comprised an initial visual audit, followed by quantitative assessment of vegetation associations and communities.

2.2.3 Waterway delineation

Following updates to state waterway mapping in December 2023, discrepancies between local and state mapping were present which called for mapping the true extent of waterways on-site. This involved determining the 'top of bank' and 'low flow channel' which are indicated by changes in vegetation, topography and flow.

2.2.4 Scat meander (Koala)

One (1) scat meander was carried out in the eastern extent of the site through mapped Koala habitat and adjoining vegetation. Meanders involve walking a winding transect and checking under all trees meeting specifications encountered. Detailed records of each tree are not recorded unless scats are detected. The location of the meander is recorded.

2.2.5 GPS tree plot

A tree survey was conducted across the site to locate and describe the vegetation values, namely the native mature tree specimens. A handheld GPS device (Trimble) is used to record sub metre accurate locations (in some cases use survey accurate locations), and the following parameters of each tree specimen were recorded:

- tree species, via a combination of observations of the gum nuts, buds, leaves, bark and growth form;
- diameter of the trunk of the tree is measured using the standard method of Diameter at Standard Height (DSH);
- height of the tree is measured using a laser rangefinder with three-point measurement capability (inclinometer);
- canopy spread;
- health assessment (canopy, trunk); and
- habitat values (for example, presence and/or number of hollows, nests, termites, scratches, scats).

The Tree Protection Zone (TPZ) of the tree was calculated using the formula outlined in *Australian Standard AS4970-2009 – Protection of Trees on Development Sites* (TPZ = DSH x 12). In accordance with AS4970-2009, a TPZ should not be less than 2 metres and no greater than 15 metres (except where crown protection is required.) The Structural Root Zone (SRZ) was calculated using the measured DSH and the following formula:

SRZ radius = (DSH x 50) 0.42 x 0.64.

2.2.6 Koala habitat and Spot Activity Technique (SAT) surveys

These surveys were undertaken in the works area in accordance with the methodology developed by the Australian Koala Foundation (as per Phillips & Callaghan 2011). The Spot Assessment Technique (SAT)[1] method is an assessment of Koala activity involving a search for any Koalas and signs of Koala usage. The SAT involves identifying a non-juvenile tree of any species within the site that is either observed to have a Koala or scats or is known to be a food tree or otherwise important for Koalas and recording any evidence of Koala usage of that tree including presence, identifiable scratches or scats. The nearest non-juvenile tree is then identified and the same data recorded. The next closest non-juvenile tree to the first tree is then assessed and so on until thirty (30) trees have been surveyed. Assessment of each tree involves a systematic search for Koala scats beneath the tree within a 1 m radius of the trunk. After approximately two-minutes of searching for scats, the base of the trunk is observed for scratches and the crown for Koala(s) (refer Phillips & Callaghan 2011)[1].

The number of trees showing evidence of Koala activity is expressed as a percentage of the total number of trees sampled to indicate the frequency of Koala usage. One (1) SAT survey was completed within the mapped Koala Habitat Area (KHA) in the eastern portion of the site.

[1] Phillips, S & Callaghan, J 2011, "The *Spot Assessment Technique*: a tools for determining localised levels of habitat use by Koala *Phascolarctos cinereus*", *Australian Zoologist*, 35:3.

3. Desktop Analysis Results

3.1. Environment Protection and Biodiversity Conservation Act 1999

The Australian Government's key piece of environmental legislation is the EPBC Act. The EPBC Act aims to protect and manage matters of environmental significance, which include nationally and internationally important flora, fauna, ecological communities and heritage places.

An EPBC Act Protected Matters Report (PMR) was obtained using the Commonwealth's PMST. The search provides a list of wetlands of international significance, threatened ecological communities (TECs), threatened species and other MNES which have the potential to be temporarily or permanently located within a 5 km search radius from the central point of the development site. A summary of the PMR results relevant to the assessment area is provided in **Table 2**, and the complete results of the PMR are included in **Appendix B**. As the site is not within proximity of a major river or ocean marine species; Sharks, Turtles, Whales, etc., have been excluded from **Table 2** however can be found within **Appendix B**.

Table 2: PMST Summary

Wetlands of International Importance		
Moreton Bay – within Ramsar site		
Threatened Ecological Communities		
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community (Endangered) – Community likely to occur within area. **Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland (Endangered) – Community likely to occur within area** **Lowland Rainforest of Subtropical Australia (Critically Endangered) – Community likely to occur within area.** **Subtropical and Temperate Coastal Saltmarsh (Vulnerable) – Community likely to occur within area** **Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions (Endangered) – Community likely to occur within area.** **White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community (Critically Endangered) – Community may occur within area.**		
Threatened Species		
Scientific Name	**Common Name**	**Status**
Birds		
Anthochaera phrygia	Regent Honeyeater	Critically Endangered
Botaurus poiciloptilus	Australasian Bittern	Endangered
Botaurus poiciloptilus	Australasian Bittern	Endangered
Calidris acuminata	Sharp-tailed Sandpiper	Vulnerable
Calidris canutus	Red Knot	Endangered
Calidris ferruginea	Curlew Sandpiper	Critically Endangered
Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo	Vulnerable
Charadrius leschenaultii	Greater Sand Plover	Vulnerable
Climacteris picumnus victoriae	Brown Treecreeper	Vulnerable

Threatened Species		
Scientific Name	**Common Name**	**Status**
Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot	Endangered
Dasyornis brachypterus	Eastern Bristlebird	Endangered
Erythrotriorchis radiatus	Red Goshawk	Endangered
Falco hypoleucos	Grey Falcon	Vulnerable
Gallinago hardwickii	Latham's Snipe	Vulnerable
Geophaps scripta scripta	Squatter Pigeon	Vulnerable
Grantiella picta	Painted Honeyeater	Vulnerable
Hirundapus caudacutus	White-throated Needletail	Vulnerable
Lathamus discolor	Swift Parrot	Critically Endangered
Limosa lapponica baueri	Nunivak Bar-tailed Godwit	Vulnerable
Macronectes giganteus	Southern Giant-Petrel	Endangered
Macronectes halli	Northern Giant Petrel	Vulnerable
Numenius madagascariensis	Eastern Curlew	Critically Endangered
Pachyptila turtur subantarctica	Fairy Prion	Vulnerable
Rostratula australis	Australian Painted Snipe	Endangered
Stagonopleura guttata	Daimond Firetail	Vulnerable
Sternula nereis nereis	Australian Fairy Tern	Vulnerable
Tringa nebularia	Common Greenshank	Endangered
Turnix melanogaster	Black-breasted Button-quail	Vulnerable
Fish		
Epinephelus daemelii	Black Cod	Vulnerable
Frogs		
Litoria olongburensis	Wallum Sedge Frog	Vulnerable
Mixophyes fleayi	Fleay's Frog	Endangered
Mixophyes iteratus	Giant Barred Frog	Vulnerable
Insects		
Argynnis hyperbius inconstans	Australian Fritillary	Critically Endangered
Phyllodes imperialis smithersi	Pink Underwing Moth	Endangered
Mammals		
Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable
Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll	Endangered
Macroderma gigas	Ghost Bat	Vulnerable
Notamacropus parma	Parma Wallaby	Vulnerable
Petauroides volans	Greater Glider	Endangered

Threatened Species		
Scientific Name	**Common Name**	**Status**
Petaurus australis australis	Yellow-bellied Glider (south-eastern)	Vulnerable
Petrogale penicillata	Brush-tailed Rock-wallaby	Vulnerable
Phascolarctos cinereus	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	Endangered
Potorous tridactylus tridactylus	Long-nosed Potoroo (SE mainland)	Vulnerable
Pseudomys novaehollandiae	New Holland Mouse	Vulnerable
Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable
Xeromys myoides	Water Mouse	Vulnerable
Plants		
Acacia attenuata	-	Vulnerable
Acronychia littoralis	Scented Acronychia	Endangered
Arthraxon hispidus	Hairy-joint Grass	Vulnerable
Baloghia marmorata	Marbled Balogia	Vulnerable
Bosistoa transversa	Three-leaved Bosistoa	Vulnerable
Clematis fawcettii	Stream Clematis	Vulnerable
Corchorus cunninghamii	Native Jute	Endangered
Croton mamillatus	Bahrs Scrub Croton	Critically Endangered
Cryptocarya foetida	Stinking Cryptocarya	Vulnerable
Cryptostylis hunteriana	Leafless Tongue-orchid	Vulnerable
Cupaniopsis shirleyana	Wedge-leaf Tuckeroo	Vulnerable
Diploglottis campbellii	Small-leaved Tamarind	Endangered
Endiandra floydii	Floyd's Walnut	Endangered
Endiandra hayesii	Rusty Rose Walnut	Vulnerable
Fontainea venosa	-	Vulnerable
Leichhardtia longiloba listed as Marsdenia longiloba	Clear Milkvine	Vulnerable
Lepidium peregrinum	Wandering Pepper-cress	Endangered
Macadamia integrifolia	Macadamia Nut	Vulnerable
Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable
Notelaea lloydii	Lloyd's Olive	Vulnerable
Owenia cepiodora	Onionwood	Vulnerable
Persicaria elatior	Knotweed	Vulnerable
Phaius australis	Lesser Swamp-orchid	Endangered
Planchonella eerwah	Shiny-leaved Condoo	Endangered
Plectranthus habrophyllus	-	Endangered

Threatened Species		
Scientific Name	**Common Name**	**Status**
Plectranthus nitidus	Nightcap Plectranthus	Endangered
Randia moorei	Spiny Gardenia	Endangered
Rhodamnia rubescens	Scrub Turpentine	Critically Endangered
Rhodomyrtus psidioides	Native Guava	Critically Endangered
Samadera bidwillii	Quassia	Vulnerable
Sophora fraseri	-	Vulnerable
Syzygium hodgkinsoniae	Red Lilly Pilly	Vulnerable
Thesium australe	Austral Toadflax	Vulnerable
Vincetoxicum woollsii	-	Endangered (listed as *Tylophora woollsii*)
Zieria collina	-	Vulnerable
Reptiles		
Coeranoscincus reticulatus	Three-toed Snake-tooth Skink	Vulnerable
Delma torquata	Adorned Delma	Vulnerable
Hemiaspis damelii	Grey Snake	Endangered

Marine species, including turtles, sharks, whales, albatross, were not included due to absent marine habitat.

3.2. *Nature Conservation Act 1992*

The NCA classifies and protects significant areas (Protected Areas) and protects Queensland's native plant and animal species. The *Nature Conservation (Plants) Regulation 2020* (NCPR) and *Nature Conservation (Animals) Regulation 2020* (NCAR) list plant and animal species presumed extinct, critically endangered, endangered, vulnerable, near threatened, least concern, international or prohibited. The schedules of this regulation were considered in this assessment using a wildlife online database extract with a 5 km radius from the central point of the subject site. The list of threatened species under the NCPR and NCAR with the potential to occur on or near the project are presented in **Table 3** excluding special least concern species. Refer to **Appendix C** for original search results.

Table 3: NCA Wildlife Online Search Results

Scientific Name	Common Name	Status
Amphibians		
Adelotus brevis	Tusked Frog	Vulnerable
Birds		
Erythrotriorchis radiatus	Red Goshawk	Vulnerable
Hirundapus caudacutus	White-throated Needletail	Vulnerable
Calyptorhynchus lathami	Glossy Black Cockatoo	Vulnerable
Calyptorhynchus lathami lathami	Glossy Black Cockatoo (eastern)	Vulnerable
Calidris acuminata	Sharp-tailed Sandpiper	Vulnerable
Gallinago hardwickii	Latham's Snipe	Vulnerable



Scientific Name	Common Name	Status
Ninox strenua	Powerful Owl	Vulnerable
Mammals		
Phascolarctos cinereus	Koala	Endangered
Petauroides volans volans	Southern Greater Gider	Endangered
Plants		
Corynocarpus rupestris subsp. arborescens	Southern Corynocarpus	Vulnerable
Baloghia marmorata	Jointed Baloghia	Vulnerable
Mallotus megadontus	-	Vulnerable
Cryptocarya foetida	Stinking Cryptocarya	Vulnerable
Endiandra wongawallanensis	-	Endangered
Eucalyptus curtisii	Plunkett Mallee	Near Threatened
Rhodamnia rubescens	Scrub Turpentine	Critically Endangered
Rhodomyrtus psidioides	Native Guava	Critically Endangered
Syzygium moorei	Durobby	Vulnerable
Macadamia integrifolia	Macadamia Nut	Vulnerable
Randia moorei	Spiny Gardenia	Endangered
Zieria collina	-	Vulnerable
Cupaniopsis newmanii	Long-leaved Tuckeroo	Near Threatened
Planchonella eerwah	-	Endangered
Corchorus cunninghamii	-	Endangered

The protected plants regulatory framework under the NCA, established survey and approval triggers, and processes for clearing protected plants. The protected plant definition includes all presumed extinct, critically endangered, endangered, vulnerable and/or near threatened plant species listed by name in Schedules 1 and 2 of the NCPR and least concern wildlife, not listed by name but identified as a plant indigenous to Australia in Schedule 6. Furthermore, the plant must be considered *in the wild* in order to be a protected plant.

The NCA identifies *in the wild* as 'in an independent state of natural liberty'. Several factors influence whether a protected plant is *in the wild*:

- the process by which the plant has become established, *i.e.*, either initiated through human intervention or naturally occurring;
- the natural range of the plant species; and/or
- the ecological situation in which the plant is found.

Typically, planted specimens are not considered *in the wild* and an authority or permission is not necessary for the taking of such specimens. The *Operational Policy Wildlife Management*[2] provides further information on this definition.

[2] Department of Environment and Heritage Protection 2015. *When a protected plant in Queensland is considered to be 'in the wild' Operational policy*.

If a specimen is confirmed as *in the wild,* the plant must not be 'taken'—which includes being cleared—unless the taking is under:

- a conservation plan applicable to the plant;
- a license, permit or other authority under a regulation; or
- an exemption under a regulation.

A search of the protected plants flora survey trigger map identified that the site is located partially within a 'high risk area' for protected plants (**Figure 3**). This trigger area is within the fragmented road vegetation located along the eastern border of site. A flora survey and exemption or permit to clear from the administering authority in accordance with the Flora Survey Guideline[3] is required prior to the clearing of vegetation. If there are *in the wild* protected plants on-site that are required to be cleared, the person/entity completing the clearing will need a clearing permit unless an exemption applies. This exemption and permitting process is not triggered under the *Planning Act 2016* or *Planning Regulation 2017* and must be addressed under the NCA.

[3] Department of Environment and Science 2020. *Flora Survey Guidelines - Protected Plants*. Available from:: https://www.qld.gov.au/__data/assets/pdf_file/0028/99901/gl-wl-pp-flora-survey.pdf



LEGEND

- Qld DCDB
- Site DCDB
- High risk area - flora survey trigger

Figure 3

NCA: Protected Plants
Flora Survey Trigger

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY

FILE REFERENCE
13087 E Figure 3 NCA A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:1,800

N

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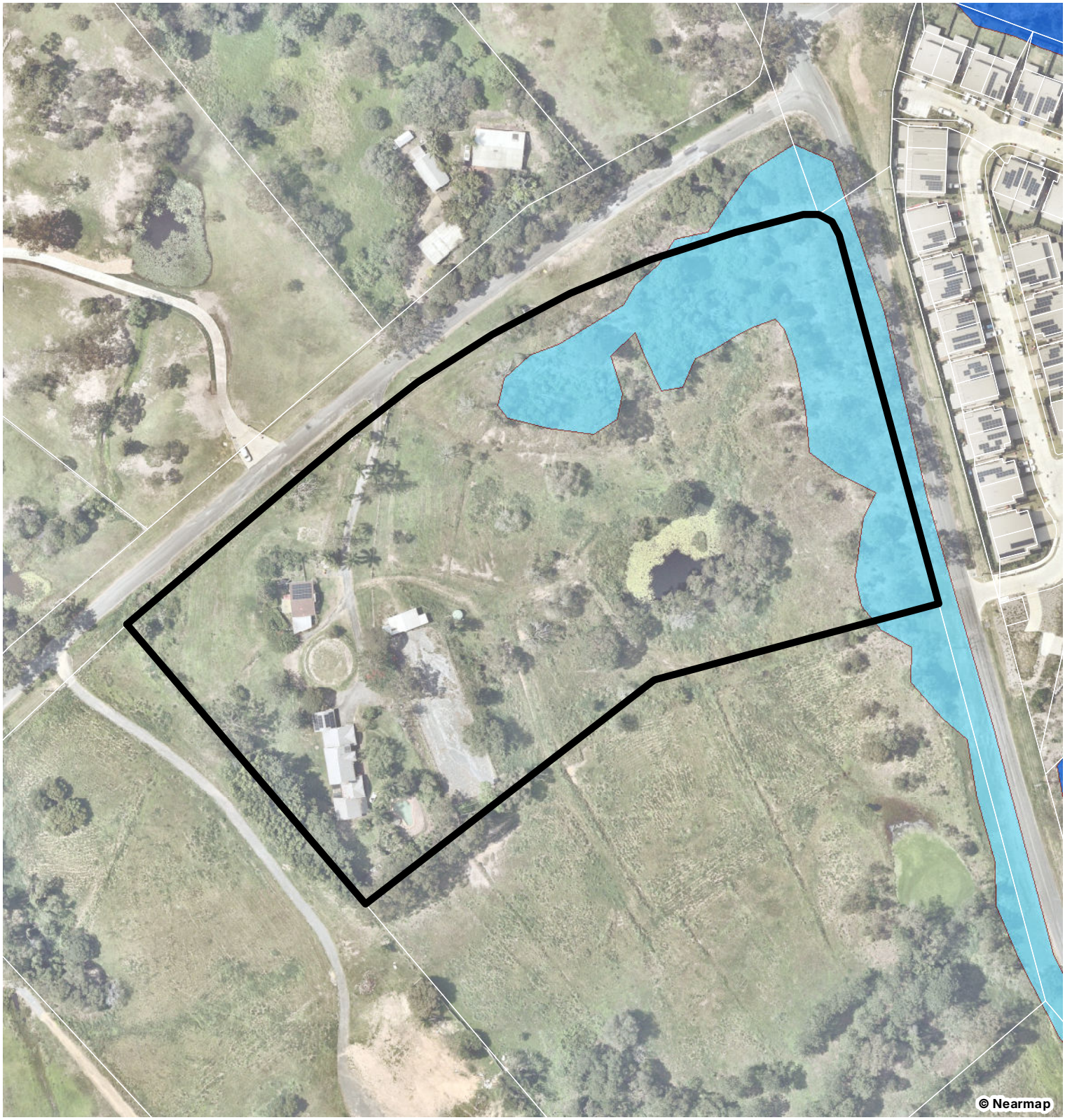
Layer Source: © State of Queensland 2026

3.3. *Vegetation Management Act 1999*

The VMA is the key mechanism by which the Queensland Government protects the State's environmental resources pertaining to vegetation. Under the VMA, a series of maps delineate vegetation features across the landscape, which are each assigned a conservation value directly related to the remaining extent of these features in the landscape. The VMA also protects 'essential habitat' vegetation where listed threatened species have been or are known to occur.

The Regulated Vegetation Management Map (RVMM) shows vegetation categories used to determine clearing requirements. Generally, Category A, B, C or R are subject to clearing regulations under the VMA whereas impacts to Category X vegetation are less regulated. Category A, B, C or R vegetation can only be cleared in accordance with an exemption, accepted development vegetation clearing code, area management plan or development approval. The Regulated Vegetation Supporting Map (RVSM) defining regional ecosystems, wetlands, watercourses and essential habitat, accompanies the RVMM. When approval for clearing native vegetation is required under the *Planning Act 2016*, an assessment against the State Code 16: 'Native Vegetation Clearing' of the State Development Assessment Provisions (SDAP) is required.

The subject site is mapped as predominantly Category X (non-remnant) vegetation with small portion of Category C (high-value regrowth) along the eastern boundary (**Figure 4**). The mapped Category C vegetation is also identified as 'Least Concern' RE12.11.24 (**Figure 5**). Pre-clear RE mapping shows the entirety of the site mapped as RE12.11.24 which is described as '*Eucalyptus carnea* or *E. tindaliae, Corymbia intermedia +/- E. siderophloia* or *E. crebra* woodland on metamorphics +/- interbedded volcanics'. This mapped vegetation is exempt to clear under the *Planning Regulation 2017* (PR), Schedule 21 'exempt clearing work', Part 2, Section 2, item (g) which states that clearing works are exempt for an urban purpose in an urban area for vegetation that is regulated regrowth vegetation. As the site contains only Category C (high-value regrowth) regulated vegetation to be removed for a residential development under 'Emerging Community' zoning, it meets the requirements for exempt clearing. As such, a response to State Code 16 is not required.



LEGEND

- Qld DCDB
- Site DCDB

Regulated Vegetation

- Category A area - *Vegetation Offset/Compliance notices/VDecs*
- Category B area - *Remnant vegetation*
- Category C area - *High value regrowth vegetation*
- Category R area - *Reef regrowth watercourse vegetation*
- Category X area
- Water
- Area not categorised

Figure 4

VMA Regulated Vegetation Management Map

FILE REFERENCE
13087 E Figure 4 RVM A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

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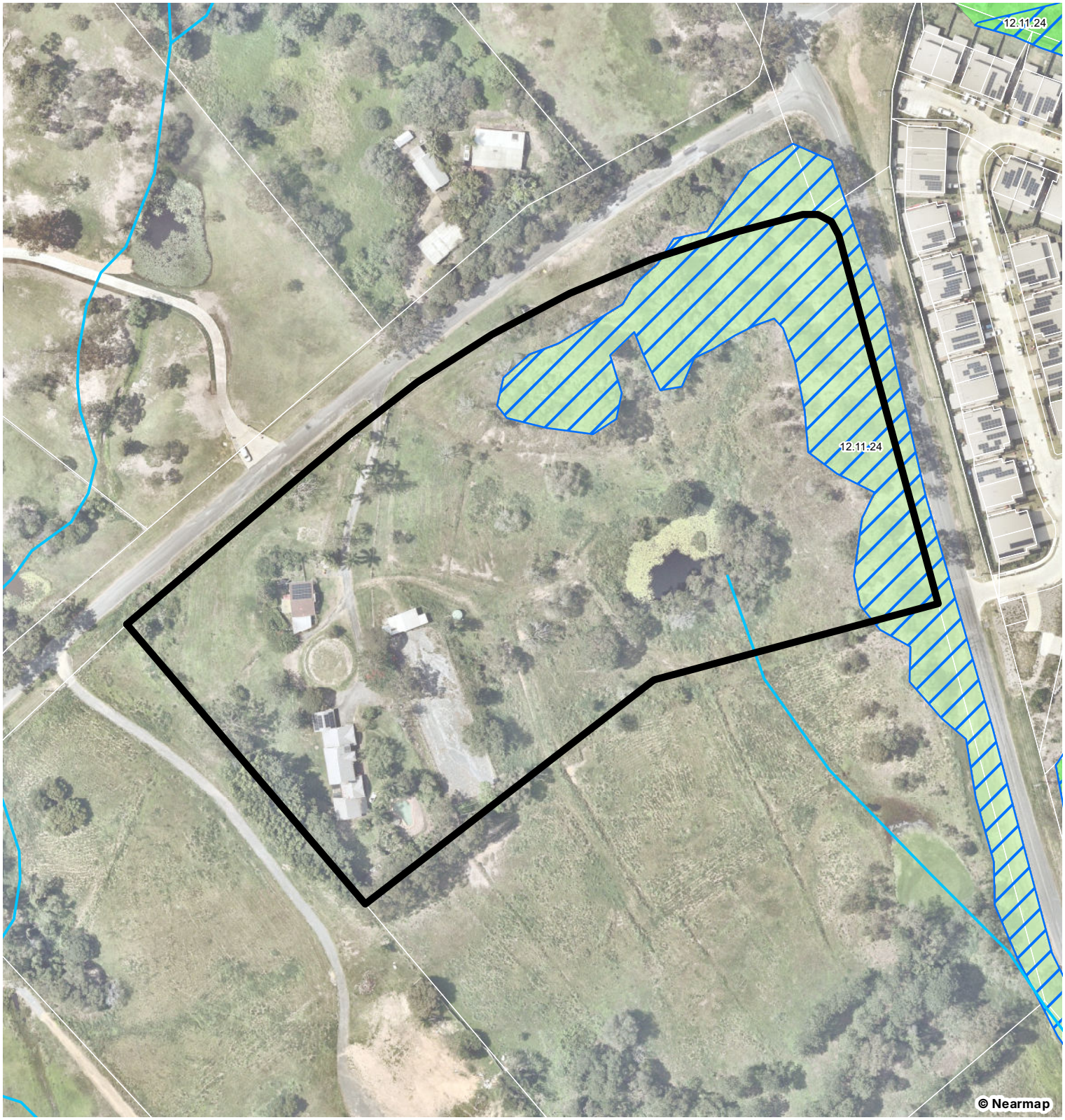
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Layer Source: © State of Queensland 2026



LEGEND

- Site DCDB
- Qld DCDB
- VM Watercourses
- VM Essential Habitat
- VM Wetland

Vegetation Management Regional Ecosystems

- Category A or B area containing endangered regional ecosystems
- Category A or B area containing of concern regional ecosystems
- Category A or B area that is a least concern regional ecosystem
- Category C area containing endangered regional ecosystems
- Category C area containing of concern regional ecosystems
- Category C area that is a least concern regional ecosystem

Figure 5

Vegetation Management Regional Ecosystem Map

FILE REFERENCE
13087 E Figure 5 VMRE A

DATE
19/03/2026

Courtney Drive, Coomera

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3.4. Koala Habitat Provisions

South East Queensland Koala habitat protection mechanisms are incorporated into the PR. Schedule 10 Part 10 of the PR sets out what is and is not prohibited or assessable development in a KHA. Where inside a Koala Priority Area (KPA), the provisions of Schedule 11 of the PR apply unless certain criteria are met (Part 10 Division 2 Section 16 A (2)). Where outside of a KPA, development that involves interfering with a Koala Habitat Area is assessable, also unless certain criteria apply (Part 10 Division 3 Section 16 B (2)). Development for extractive industries in key resource areas is dealt with under Part 10 Division 4. Development that is assessable outside of a KPA is referrable to the State and must address SDAP Code 25: 'Development in Southeast Queensland Koala Habitat Areas'.

The site is not mapped within a KPA, however KHA is mapped within the eastern and northern extents of the site (**Figure 6**). The proposed development is seeking to remove the entirety of the mapped KHA due to the poor quality of the habitat and its isolation form larger patches of Koala habitat rendering it unused by Koalas. Due to this impact, a response to SDAP Code 25 is required and supplied as separate documentation.

3.5. Fisheries Act 1994

The *Fisheries Act 1994* regulates the use, conservation and improvement of Queensland's fisheries resources and fish habitats. The legislation controls the impact from coastal development on marine fish habitat, including protected marine plants, declared fish habitat areas and waterway barrier works. Development proposals that modify or have a temporary or permanent loss of fish habitat or passage are assessed by the Department of Primary Industries.

No DPI defined Waterways for Waterway Barrier Works are mapped across the site, therefore a referral to State Assessment and Referral Agency (SARA) and a response to State Code 18: 'Constructing or raising waterway barrier works in fish habitats' is not required.



LEGEND

- Qld DCDB
- Site DCDB
- Koala Habitat Areas
- Koala Priority Areas

Figure 6

Koala Priority Areas and Koala Habitat Areas

FILE REFERENCE
13087 E Figure 6 Koala A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

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3.6. Biosecurity Act 2014

The *Biosecurity Act 2014*, which commenced on 1 July 2016, establishes a framework to regulate and control invasive plants and animals. Under the *Biosecurity Act 2014*, landowners are responsible for taking all reasonable and practical steps to minimise the risks associated with invasive plants and animals under their control. This responsibility is known as the general biosecurity obligation.

The *Biosecurity Act 2014* categorises restricted matter (restricted plants and animals) into the following:

- Category 1: must be reported to an inspector within 24 hours (includes Red Imported Fire Ants, amongst others).
- Category 2: must be reported within 24 hours Biosecurity Queensland on 13 25 23.
- Category 3: must not be distributed either by sale or gift or released into the environment.
- Category 4: must not be moved.
- Category 5: must not be kept.
- Category 6: must not be fed (animals).
- Category 7: Must be euthanised (animals).

Restricted matters observed in the site area discussed in **Section 4**.

3.7. Other Queensland Environmental Legislation

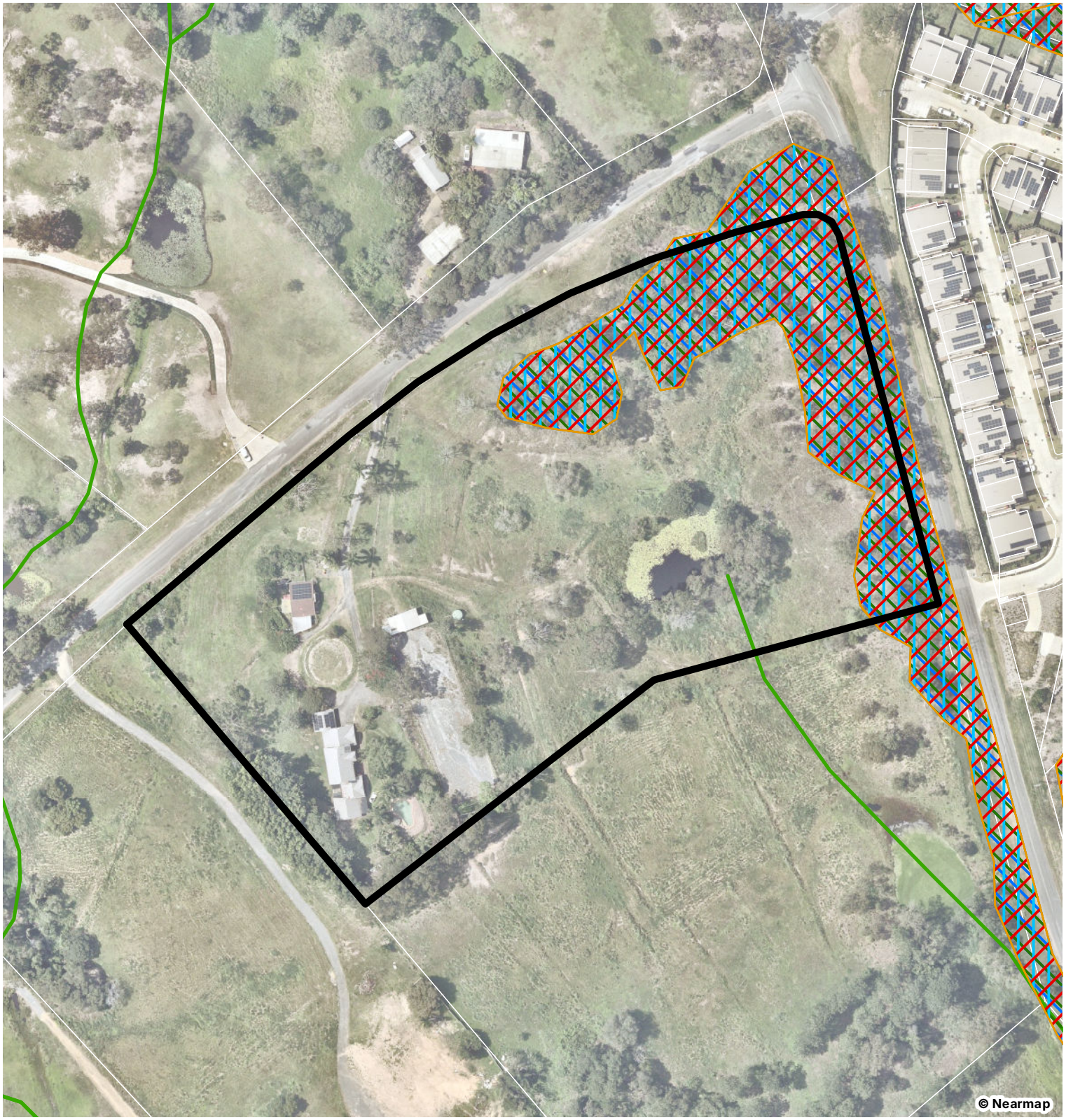
Other Queensland environmental legislation has been reviewed in the context of the proposed development and is presented in **Table 4**.

Table 4: Summary of Other Queensland Environmental Legislation

Legislation/ policy	Purpose	Relevance to proposed development
Coastal Protection and Management Act 1995	Seeks to protect the coastal resources of the coastal zone.	**Does not apply** The site does not contain any coastal areas and therefore the proposed development does not trigger an assessment against the relevant state provision — State code 8: 'Coastal development and tidal works'.
Water Act 2000	Provides a framework for sustainable management of Queensland's water resources and quarry material. Under the *Water Act 2000*, a riverine protection permit is required to be obtained if works within a waterway result in filling or excavation unless these works meet an exemption.	**Does not apply** Operational work within a watercourse as defined under the *Water Act 2000* may trigger the requirement for a riverine protection permit if exemption requirements cannot be met. A review of Queensland Globe indicates a drainage feature is mapped on-site as defined under the *Water Act 2000*. Drainage features are not considered watercourses, therefore a riverine protection permit is not required.



Legislation/ policy	Purpose	Relevance to proposed development
State Planning Policy 2017	The SPP provides interim development assessment requirements which ensures that state interests are considered by local government when assessing development applications where the local government planning scheme does not yet integrate the State interests in the planning scheme. MSES are categorised under Biodiversity, Coastal Environment or Water Quality.	The site is mapped MSES – Wildlife habitat (endangered or vulnerable, special least concern animal and Koala habitat areas – core) and MSES – Regulated vegetation (essential habitat and intersecting a watercourse) (**Figure 7**). MSES mapping overlays and requirements of the SPP are required to be incorporated into the CoGC City Plan and are reflected in the planning scheme overlays (**Section 3.8**). Compliance with the SPP is addressed through the provisions of the planning scheme.



LEGEND

- Qld DCDB
- Site DCDB
- MSES Wildlife habitat (endangered or vulnerable)
- MSES Wildlife habitat (special least concern animal)
- MSES Wildlife habitat (SEQ koala habitat - core)
- MSES Regulated vegetation (intersecting a watercourse)
- MSES Regulated vegetation (essential habitat)

Figure 7

Matters of State Environmental Significance

FILE REFERENCE
13087 E Figure 7 MSES A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
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3.8. Town Planning Instruments

The subject site is situated within the jurisdiction of City of Gold Coast (CoGC) and subject to the provisions of the *Gold Coast City Plan 2021*.

3.8.1 Gold Coast City Plan

Under the Gold Coast City Plan (v9), the subject site is zoned as 'Emerging Community' (**Figure 8**).

The purpose of the Emerging Community zone is to:

a) *identify land that is suitable for urban purposes and protect land that may be suitable for urban development in the future.*
b) *manage the timely conversion of non-urban land to urban purposes.*
c) *prevent or discourage development that is likely to compromise appropriate longer term land use.*

Under the City Plan, the overall site is affected by the following ecologically relevant overlays:

- Environmental Significant Priority Species – Koala Habitat Areas (**Appendix D**, **Map 18**)
- No '*Significant Vegetation Management*' overlay mapping was identified on site therefore this overlay does not apply (**Figure 9**).
- Significant Wetlands and Watercourse – Waterway and Buffer Area (**Figure 10**).

A response to *Table 8.2.6-2: Environmental significance overlay code – for assessable development* is provided in **Appendix E.**



LEGEND

Site DCDB

Qld DCDB

Zoning

Medium density residential

Emerging community

Rural

Figure 8

Gold Coast City Plan: Zoning

FILE REFERENCE
13087 E Figure 8 Zoning A

DATE
19/03/2026

Courtney Drive, Coomera

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GDA 2020 MGA Z56

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LEGEND

- Site DCDB
- Qld DCDB

Vegetation Management

- High priority vegetation
- General priority vegetion
- Medium priority vegetation
- Regulated vegetation
- Vegetation protection order

Figure 9

Gold Coast City Plan:
Environmental Significance
Vegetation Management

FILE REFERENCE
13087 E Figure 9 Vegetation Management A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

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LEGEND

- Site DCDB
- Qld DCDB

Wetlands and Waterways

- Major waterway
- Minor waterway
- Local significant wetlands
- Wetland and waterways buffer area
- Canals and Lakes
- State significant wetlands
- State significant aquatic systems

Figure 10

Gold Coast City Plan:
Waterways and Wetlands

FILE REFERENCE
13087 E Figure 10 Wetlands and Waterways A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

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4. Ecological Survey Results

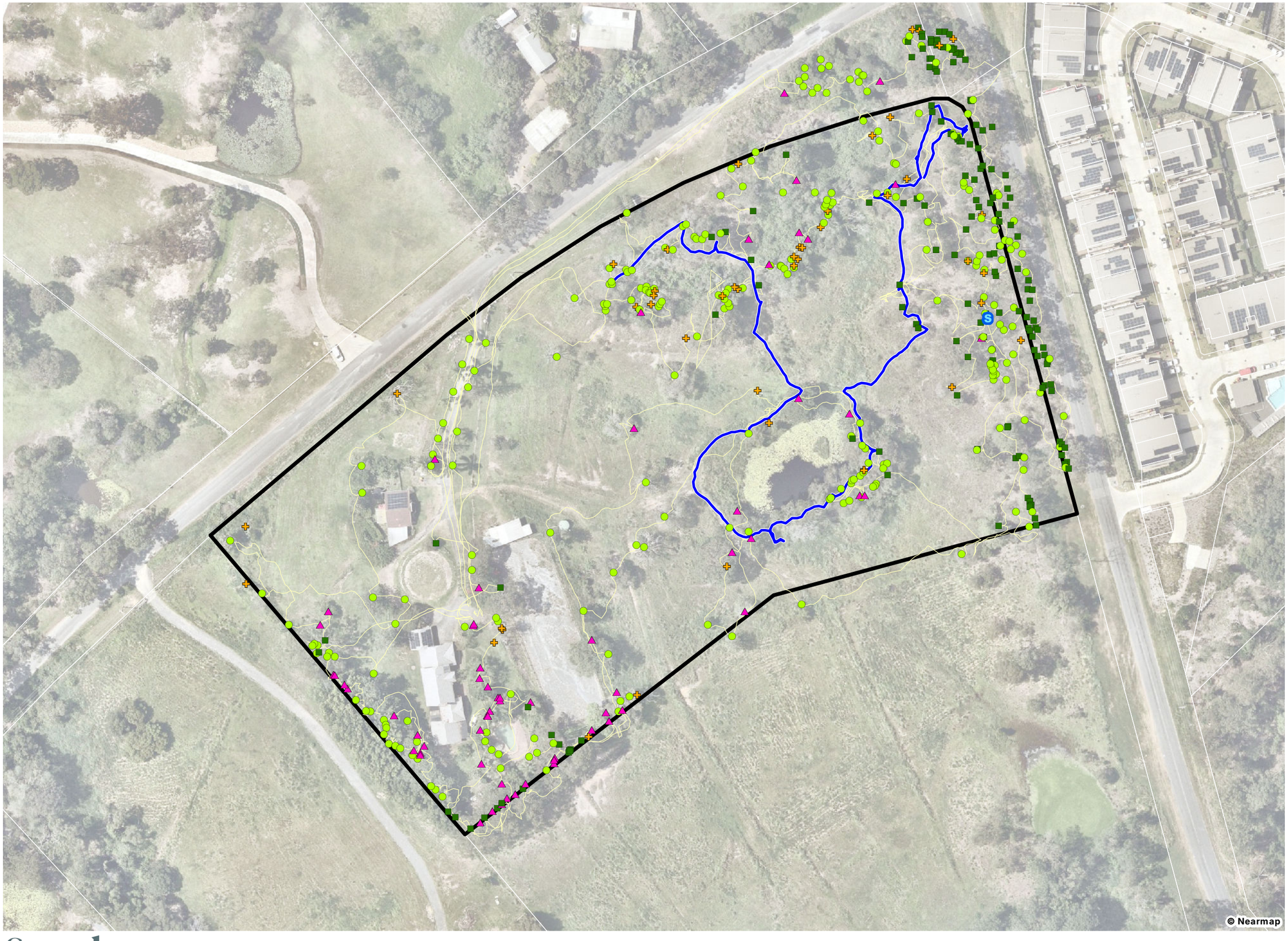
Two ecologists from Saunders Havill assessed the entire area proposed for residential development on 22 August 2025, with weather conditions generally clear and dry throughout. The site was walked to ensure all vegetation communities and species were inspected and recorded. Particular attention was paid to any threatened flora and habitat for any threatened fauna species that were listed as possibly occurring on or within the vicinity of the site, and specific micro-assemblages which may support these threatened species. Refer **Plan 1** for resultant field survey effort.

4.1. General Site Observations

The following observations have been made based on detailed field survey:

- The site consists of a rural residential property with associated dwelling, granny flat, storage sheds, on-site dam and animal paddocks typical of larger lot land use.
- The vast majority of the site is mapped as Category X (non-remnant) vegetation with the eastern portion mapped as RE 12.11.24 Category C (high-value regrowth) combining with road reserve vegetation. The vegetation was observed to contain species that reflect the mapped RE, however, the site has been subject to heavy disturbance and the dominant species within the KHA mapping is Acacia species, not Koala food trees.
- The site is surrounded by a mix of similarly sized rural properties, higher density residential developments and vacant bushland. The site itself has undergone wholesale clearing and maintenance for paddock uses, resulting in highly disturbed weed infested areas across the majority of the site. Vegetation composition generally consists of a mix of native and exotic species with the majority of the site dominated by regrowth Acacia species.
- Koala habitat is mapped along the eastern boundary. Koala habitat in this area was confirmed, though NJKHTs were sparse. The majority of Koala trees within the KHA exist within the adjoining road reserve which is currently being assessed for a major upgrade with associated clearing, further isolating this patch of KHA.
- A small locally significant waterway is mapped through the centre of the site. On-site assessments determined a complete lack of any waterway features in association with this mapping.

01. FIELD SURVEY EFFORT



Notes:
The information on this plan is not suitable for any purpose other than the expressed use of the Client. Property dimensions, areas, numbers of lots and contours and other physical features may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of Saunders Havill.Unless a development approval states otherwise, this is not an approved plan.

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Updated data available at
http://qldspatial.information.qld.gov.au/catalogue/

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LEGEND

- Qld DCDB
- Site DCDB

Field Survey Effort

- GPS Track Log
- Scat Meander
- SAT Survey Location

GPS Tree Plot

Non-juvenile Koala habitat tree	[161]
Native tree	[267]
Dead/stag tree	[45]
Non-native tree	[63]

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

0 10 20 30 40 50 m

1:1,200 @ A3 | Transverse Mercator | GDA 2020 | Zone 56

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COURTNEY UPPER COOMERA DEVELOPMENTS PTY

COURTNEY DRIVE, COOMERA

Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 01 Field Survey Effort A

4.1.1 Koala Habitat Area / Category C (High-value Regrowth) vegetation

The area of mapped KHA on site encompasses the total area of mapped Category C (high-value regrowth) area along the eastern boundary of site which is classified as 'Least Concern' Regional Ecosystem 12.11.24. Some native species reflective of the RE were identified including *Eucalyptus carnea* (White Mahogany), *Eucalyptus tindaliae* (Tindale's Stringybark) and *Eucalyptus siderophloia* (Northern Grey Ironbark), confirming the occurrence of the KHA. However, the KHA is dominated by regrowth Acacia species rather than Non-juvenile Koala Habitat trees (NJKHT). The shrub and ground layers are highly disturbed and dominated by regrowth Acacias with areas of high density weed infestation consisting of *Urena lobata* (Urena Burr) and *Tecoma stans* (Yellow Bells) with *Ageratum houstonianum* (Blue Billygoat Weed) and exotic grasses.

The KHA mapped on site also extends into the neighbouring Baileys Mountain Road road reserve which bounds the site's eastern boundary. The southern portion of this road reserve, south-east of the site, has been nearly completely cleared of trees for a road upgrade. This road upgrade is proposed to extend into the roadside KHA that directly connects to the mapped KHA on site, and its removal will further degrade the habitat quality and connectivity of the KHA on site. Species-specific searches were undertaken for Koala utilising the scat meander and SAT survey techniques. Despite the scat meander covering the majority of the KHA, no scats were observed from both techniques. Paired with no direct sightings of the species during surveys, field surveys detected no evidence of Koala on site.



Photo set 1: Mapped Koala Habitat Area/Category C vegetation along the eastern boundary.

4.1.2 Balance Category X (non-remnant) vegetation

The balance of the site consists of mostly open cleared lawn areas comprising grasses and weed species. Two distinct vegetation areas exist within the mowed lawns, surrounding the on-site dam and dwelling.

Vegetation surrounding the on-site dam is dominated by Acacia species with a handful of NJKHTs and non-native/weed trees. The vegetation surrounding the dwelling is dominated by native planted ornamental vegetation consisting of high densities of species such as *Ficus obliqua* (Small-leaved Fig), *Archonotophoenix cunninghamiana* (Bangalow palm), and *Grevilia robusta* (Silky Oak) with some infill non-native ornamental species.




Photo set 2: Maintained lawns within the site




Photo set 3: Dam Vegetation (left), dwelling vegetation (right)

4.1.3 Locally mapped 'Minor' waterway

A local minor waterway is mapped through the centre of the site in association with the constructed dam which is also mapped under State legislation as a drainage feature. This waterway is mapped as beginning in the southern portion of a northern neighbouring lot, across Courtney Drive, and continues south through the site and a southern adjoining rural residential property, linking a constructed dam on each property before travelling over 300 m further south and joining Yaun Creek. There is no culvert linking the mapped waterway across Courtney Drive.

On-ground assessments confirmed the waterway more closely reflects State mapping as a drainage feature, completely lacking any waterway features such as bed, banks, riparian vegetation, or perennial/ephemeral waterflow present. As such, it is considered that local minor waterway mapping is not reflected on-ground (**Photo set 4**).

Additionally, offsite connectivity of the mapped waterway is unlikely to be retained long-term given the residential zoning and lack of waterway values on- and off-site. A current development application on the lot directly south of the site similarly proposes to entirely remove the mapped waterway, which continues onto the southern site linking constructed dams present on each property. The removal of this waterway

from the southern neighbouring site will remove any connectivity on site to higher order waterways. Given the zoning and lack of waterway values, regardless of whether the southern development application is approved it is likely that offsite connectivity of this drainage feature will be reduced or removed in the future.

A full response to the relevant *Table 8.2.6-2* for assessable development outcomes within significant overlay codes can be found in **Appendix E**.



Photo set 4: Council mapped waterway in the centre of the site (left), and offsite waterway connectivity (right)

4.1.4 Connectivity

Connectivity values are largely absent from site. The mapped KHA is completely disconnected from larger patches of KHA in all directions. Roads impede fauna movement values to the east and north, being Baileys Mountain Road and Courtney Drive, respectively. Properties adjacent to the site and within the locality to the south and west demonstrate similar vegetated status, being predominantly cleared, further impeding movement of fauna offsite. Notably, there are several residential developments in the wider area (Lot 900SP313554 and 590SP218180), a submitted development application directly to the south of site, and the Baileys Mountain Road reserve east of the site has been cleared to facilitate a proposed road upgrade. These developments limit the connectivity of the on-site KHA and indicate the planning intention of the area is for higher density housing, with a greater loss of vegetation and connectivity expected in the future.



Photo set 5: Adjacent land-uses and minimal connectivity potential from on-site KHA. North, South, East, West shown in clockwise direction.

4.2. Flora Survey Results

Flora was assessed during site surveys on the 22 August 2025 with the following section giving an overview of the general flora characteristics across the site.

4.2.1 Native flora species

- A total of ninety-seven (97) species of flora were detected on-site during surveys, inclusive of forty-nine (49) native species and forty-eight (48) exotic/weed species (

- **Table** 5).
- Field observations identified the mapped Category C (high-value regrowth) areas of RE 12.11.24 to be highly disturbed dominated by Acacia species with infill weeds. Scattered NJKHTs are present in low densities.
- The vast majority of the site consists of Category X (non-remnant) vegetation which was observed on-ground to contain cleared paddocks, planted ornamental species, and modified rural vegetation.
- Of the 48 exotic species recorded, eight (8) are listed as 'invasive – restricted' under the *Biosecurity Act 2014*
- A GPS Tree Plot Survey was carried out on-site locating and identifying trees with a DSH ≥100 mm (measured at 1.4 m above ground). Trees meeting these criteria were located within and proximal to the proposed development area refer to **Plan 1** for tree plot and **Appendix F** for Tree Schedule.

Table 5: Native Flora Species Observed On-Site

Scientific Name	Common Name
Acacia concurrens	Black Wattle
Acacia disparrima	Hickory Wattle
Acacia fimbriata	Brisbane Wattle
Acacia leiocalyx	Early Flowering Black Wattle
Acacia melanoxylon	Australian Blackwood
Allocasuarina littoralis	Black She-oak
Angophora leiocarpa	Smooth-barked Apple
Araucaria cunninghamii	Hoop Pine
Archontophoenix cunninghamiana	Bangalow Palm
Brachychiton acerifolius	Illawara Flame Tree
Brachychiton rupestris	Narrow-leaved Bottle Tree
Callistemon salignus	White Bottlebrush
Chrysocephalum apiculatum	Yellow Buttons
Corymbia citriodora	Spotted Gum
Corymbia henryi	Large-leaved Spotted Gum
Corymbia intermedia	Pink Bloodwood
Corymbia tessellaris	Moreton Bay Ash
Elymus repens	Couch Grass
Eucalyptus acmenoides	White Mahogany
Eucalyptus carnea	Broad-leaved White Mahogany
Eucalyptus crebra	Narrow-leaved Ironbark
Eucalyptus major	Grey Gum
Eucalyptus microcorys	Tallowwood
Eucalyptus propinqua	Small-fruited Grey Gum
Eucalyptus saligna	Sydney Blue Gum
Eucalyptus seeana	Narrow-leaved Red Gum
Eucalyptus siderophloia	Grey Ironbark
Eucalyptus tereticornis	Forest Red Gum
Eucalyptus tindaliae	Tindale's Stringybark
Ficinia nodosa	Club Rush
Ficus obliqua	Small-leaved Fig
Fimbristylis nutans	A Fringe Rush
Gahnia aspera	Saw Sedge
Glochidion sumatranum	Umbrella Cheese Tree
Goodenia rotundifolia	Star Goodenia
Grevillea robusta	Silky Oak
Hydrocotyle acutiloba	Pennywort

Scientific Name	Common Name
Jagera pseudorhus	Foam Bark
Lepidosperma gladiatum	Sword Sedge
Lophostemon confertus	Brush Box
Lophostemon suaveolens	Swamp Box
Melaleuca viminalis	Weeping Bottlebrush
Melaleuca Saligna	Weeping Tea Tree
Nymphaea violacea	Native Water Lily
Parsonsia straminea	Monkey Rope
Smilax australis	Barbed-wire Vine
Syzygium australe	Brush Cherry
Themeda triandra	Kangaroo Grass
Corymbia torelliana	Cadaghi

4.2.2 Introduced species

A total of forty-eight (48) flora species detected on-site were identified to be introduced to Australia or the local region (**Table 6**). Of these species, eight (8) are classified as 'restricted invasive' species under the *Biosecurity Act 2014* and will require some form of targeted management on-site. Further, these restricted species are assigned management priority under the Gold Coast City.

Table 6: Introduced Flora Species Observed On-Site

Scientific Name	Common Name	Restricted under Biosecurity 2014	CoGC Management Priority
Ageratum houstonianum	Blue Billygoat weed		
Alternanthera brasiliana	Purple Joyweed		
Andropogon virginicus	Whiskey Grass		
Asparagus aethiopicus	Asparagus Fern	Category 3	Medium
Beaucarnea recurvata	Ponytail Palm		
Bidens pilosa	Cobbler's Pegs		
Bougainvillea glabra	Bougainvillea		
Brachiaria decumbens	Signal Grass		
Bromeliade sp.	Bromeliade		
Cinnamomum camphora	Camphor Laurel	Category 3	Medium
Commelina benghalensis	Wandering Jewel		
Conyza sumatrensis	Tall Fleabane		
Crassocephalum crepidioides	Thickhead		
Cyperus rotundus	Nutgrass		
Delonix regia	Poinciana		
Emilia sonchifolia	Emilia		
Heptapleurum actinophyllum	Umbrella Tree		
Ipomoea indica	Morning Glory		



Scientific Name	Common Name	Restricted under Biosecurity 2014	CoGC Management Priority
Jacaranda mimosifolia	Jacaranda		
Lagerstroemia indica	Crepe Myrtle		
Lantana camara	Lantana	Category 3	Low
Mangifera indica	Mango		
Melinis minutiflora	Molasses Grass		
Melinis repens	Red Natal Grass		
Monstera deliciosa	Monstera		
Murraya paniculata	Mock Orange		
Panicum maximum	Green Panic		
Pinus elliottii	Slash Pine		
Plumeria sp	Frangipani		
Ravenala madagascariensis	Travellers Palm		
Salvinia molesta	Salvinia		
Sanseviera trifasciata	Mother-in-law's Tongue		
Schinus terebinthifolius	Broadleaf Pepper Tree	Category 3	Medium
Senecio madagascariensis	Fireweed	Category 3	Low
Senna pendula	Easter Cassia		
Sida cordifolia	Flannel weed		
Sida rhombifolia	Common Sida		
Solanum chrysotrichum	Giant Devil's Fig		
Solanum mauritianum	Wild Tobacco		
Solanum torvum	Devil's Fig		
Spathodea campanulata	African Tulip Tree	Category 3	Low
Sphagneticola trilobata	Singapore Daisy	Category 3	Medium
Strelitzia nicolai	Giant Bird of Paradise		
Syagrus romanzoffiana	Cocos Palm		
Taraxacum officinale	Common Dandelion		
Tecoma stans	Yellow Bells	Category 3	Medium
Tipuana tipu	Tipuana		
Urena lobata	Urena Burr		

4.2.3 Threatened flora

The EPBC Act PMR listed six (6) TECs considered to have the potential to be found within the area (**Section 3.1**). In addition, thirty-two (32) flora species are listed under the EPBC Act as possibly occurring on-site or within a 5 km radius; no naturally occurring EPBC flora species were recorded at the time of assessment.

- The Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland Ecological community which occurs in coastal catchments, mostly at elevations of less than 20 m above sea level that are typically found within 30 km of the coast, however, distance can vary by catchment. The canopy layer is dominated by *Casuarina glauca* (Swamp



Oak) and generally reflected in RE12.1.1. **No species composition that matches with the detailed characteristics were identified on-site.**

- Coastal Swamp Sclerophyll Forest of New South Wales and Southeast Queensland community associated with freshwater (to brackish) wetlands on low-lying coastal areas. In typically intact forest, the canopy is often layered, with a typical canopy where one melaleuca species dominates or mixed melaleuca and eucalypts. This TEC is often associated with RE12.2.7, 12.3.4, 12.3.4a, 12.3.5, 12.3.6 and 12.3.20. **Although *Melaleuca* species are present on-site they are not dominant and do not fit the species composition or detailed characteristics associated with this TEC.**
- The Lowland Rainforest of Subtropical Australia TEC typically has high species richness. In the northern extent of NSW, this TEC is known to be associated with dry rainforests, northern warm temperate rainforests, and subtropical rainforests. This TEC is part of a number of RE communities including RE 12.3.1, 12.5.13, 12.8.3, 12.8.4, 12.8.13, 12.11.1, 12.11.10, 12.12.1 and 12.12.16. **No species composition, associated RE's, or matches with the detailed characteristics were identified on-site.**
- The Subtropical and Temperate Coastal Saltmarsh (hereafter Coastal Saltmarsh) ecological community occurs within a relatively narrow margin of the Australian coastline. This community is largely associated with Least Concern RE 12.1.2 (Saltpan vegetation including grassland and herb land on marine clay plains). **Desktop analysis and field surveys confirmed that regional ecosystem 12.1.2 does not occur on-site nor any environment which would support this ecological community.**
- White Box – Yellow Box – Blakely's Red Gum Grassy Woodlands and Derived Native Grasslands are characterised by a species-rich understorey of native tussock grasses, herbs and scattered shrubs, and the dominance, or prior dominance, of White Box, Yellow Box or Blakely's Red Gum trees. In Queensland the ecological community is a primary component of the following Regional Ecosystems: 11.8.2a, 11.8.8, 11.9.9a, 13.3.1, 13.11.8, 13.12.8 and 13.12.9. It can also be a smaller component of the following regional ecosystems: 11.3.23, 12.8.16 (only at the far western edge of the bioregion), 13.3.4, 13.11.3 and 13.11.4. These regional ecosystems range in conservation status from 'not of concern at present' to 'endangered'. **None of these RE communities occur on site or within the immediate vicinity of the site.**
- The Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions occurs in the New South Wales North Coast and South Eastern Queensland (SEQ) IBRA bioregions and on Curtis Island in the Brigalow Belt North IBRA Bioregion (DoE 2013). The ecological community is found on alluvial landforms, including floodplains, the riparian zones of parent rivers and other order tributaries, alluvial flats, floodplain/alluvial terraces and periodically flooded depressions. Components of this ecological community are recognised as endangered under this framework, including 12.3.2, 12.3.2a, 12.3.3, 12.3.3a, 12.3.3b, 12.3.3d, 12.3.4a, 12.3.7, 12.3.7c, 12.3.7d, 12.3.10, 12.3.11, 12.3.11a, 12.3.11b, 12.3.12, 12.3.14a, 12.3.15 and 12.3.19. **None of these RE communities occur on site or within the immediate vicinity of the site.**

No TECs were identified as being present on-site.

A search of the NCA Wildlife Online database listed fifteen (15) threatened flora species as possibly occurring within the area (**Appendix C**). None of these species were recorded within the site or surrounds with habitat to support these species absent from the area.

For the purposes of this report, a significant flora species was a species:



- Scheduled as Critically Endangered, Endangered, Vulnerable or Conservation Dependent under the Commonwealth EPBC Act; and/or
- Scheduled as Endangered, Vulnerable, or Near Threatened (EVNT) under the Queensland NCA; and/or
- Identified by Council as a locally significant species.

No significant flora species as defined under the EPBC or NCA nor habitat to support them were encountered on-site.

4.2.4 GPS tree plot survey

A GPS tree plot survey was carried out on-site locating and identifying all trees with a DSH ≥100 mm (measured at 1.4 m above ground) within the development area. Trees meeting these criteria were located within and proximal to the proposed development area including any neighbouring vegetation within 10 m of the boundary. Data for the GPS Tree Plot Survey have been extracted and summarised below. Refer to **Plan 1** for the Tree Plot and **Appendix F** for the Tree Schedule.

- The GPS Tree Plot Survey recorded fifty-two (52) tree species including dead stags, comprised of thirty-four (34) native species and eighteen (18) invasive or introduced species. Introduced species equated to 11.76% of the trees recorded during surveys. A total of five-hundred and thirty-six (536) trees were recorded including forty-five (45) dead stags, where one of these trees were identified to contain habitat features in the form of three (3) small hollows.
- The dominant species recorded within the site is *Acacia disparrima* (Hickory Wattle), making up 35.82% of the trees recorded via GPS survey. This is followed by Dead/stag trees at 8.40% and *Eucalyptus siderophloia* (Northern Grey Ironbark) at 8.02%.
- Other tree species on site 14 species each account for less than 10% of the total trees. Combined with the very immature nature of the trees found, this indicates that the site has seen significant disturbance, with historical large-scale degradation of on-site habitat values.
- The DSH of recorded trees of the Tree Plot Survey indicates that 74.44% of trees recorded during the GPS survey have a total DSH of 299 mm or less. Of the total trees, 6.72% were recorded with a DSH of 500 mm or greater. There were no trees with a DSH greater than 800 mm, which is often the threshold for significant trees under local planning schemes. These percentages corroborate the site's immature state and highly modified values as there are very few large, mature specimens.
- The following tables and charts (inclusive of **Table 7** and **8**, and **Chart 1** and **2**) show a visual summary of the GPS tree plot coordinated on site giving larger context into the vegetation found.

Table 7: GPS Tree Plot Breakdown by Percentage

Scientific Name	Common Name	Number Recorded	Percentage of Total (%)
Acacia disparrima	Hickory Wattle	192	35.82%
Dead/Stag	-	45	8.40%
Eucalyptus siderophloia	Northern Grey Ironbark	43	8.02%
Archontophoenix cunninghamiana	Bangalow Palm	18	3.36%
Eucalyptus tindaliae	Tindale's Stringybark	17	3.17%
Ficus obliqua	Small-leaved Fig	16	2.99%
Lophostemon confertus	Brush Box	16	2.99%
Acacia concurrens	Black Wattle	15	2.80%
Eucalyptus tereticornis	Forest Red Gum	14	2.61%
Syagrus romanzoffiana	Cocos Palm	13	2.43%
Corymbia torelliana	Cadaghi	11	2.05%
Grevillea robusta	Silky Oak	10	1.87%
Corymbia intermedia	Pink Bloodwood	9	1.68%
Eucalyptus acmenoides	White Mahogany	9	1.68%
Eucalyptus saligna	Sydney Blue Gum	9	1.68%
Jacaranda mimosifolia	Jacaranda	8	1.49%
Lophostemon suaveolens	Swamp Box	7	1.31%
Eucalyptus major	Grey Gum	7	1.31%
Corymbia henryi	Large-leaved Spotted Gum	6	1.12%
*Schinus terebinthifoli**u**s*	Broad Leaf Pepper Tree	6	1.12%
Pinus elliottii	Slash pine	5	0.93%
Eucalyptus microcorys	Tallowwood	5	0.93%
Corymbia citriodora	Spotted Gum	5	0.93%
Tipuana tipu	Tipuana	4	0.75%
Heptapleurum actinophyllum	Umbrella Tree	4	0.75%
Eucalyptus carnea	Broad-leaved White Mahogany	4	0.75%
Pinus elliotii	Slash Pine	3	0.56%
Araucaria cunninghamii	Hoop Pine	3	0.56%
Jagera pseudorhus	Foam Bark	3	0.56%
Melaleuca viminalis	Weeping Bottlebrush	2	0.37%
Brachychiton rupestris	Narrow-leaved Bottle Tree	2	0.37%
Acacia leiocalyx	Early-flowering Black Wattle	2	0.37%
Angophora leiocarpa	Smooth-barked Apple	2	0.37%
Mangifera indica	Mango	2	0.37%
Corymbia tessellaris	Moreton Bay Ash	2	0.37%



Tecoma stans	Yellow Bells	1	0.19%
Allocasuarina littoralis	Black She-oak	1	0.19%
Ravenala madagascariensis	Travellers Palm	1	0.19%
Eucalyptus seeana	Narrow-leaved Red Gum	1	0.19%
Acacia melanoxylon	Australian Blackwood	1	0.19%
Beaucarnea recurvata	Ponytail Palm	1	0.19%
Lagerstroemia indica	Crepe Myrtle	1	0.19%
Brachychiton acerifolius	Illawarra Flame Tree	1	0.19%
Eucalyptus propinqua	Small-fruited Grey Gum	1	0.19%
Melaleuca saligna	Weeping Tea Tree	1	0.19%
Spathodea campanulata	African Tulip Tree	1	0.19%
Eucalyptus crebra	Narrow-leaved Ironbark	1	0.19%
Syzygium australe	Brush Cherry	1	0.19%
Cinnamomum camphora	Camphor Laurel	1	0.19%
Delonix regia	Poinciana	1	0.19%
Glochidion sumatranum	Umbrella Cheese Tree	1	0.19%
Plumeria sp.	Frangipani	1	0.19%
Grand Total		**536**	**100%**

Chart 1: GPS tree plot results. Percent of tree species across total trees plotted.

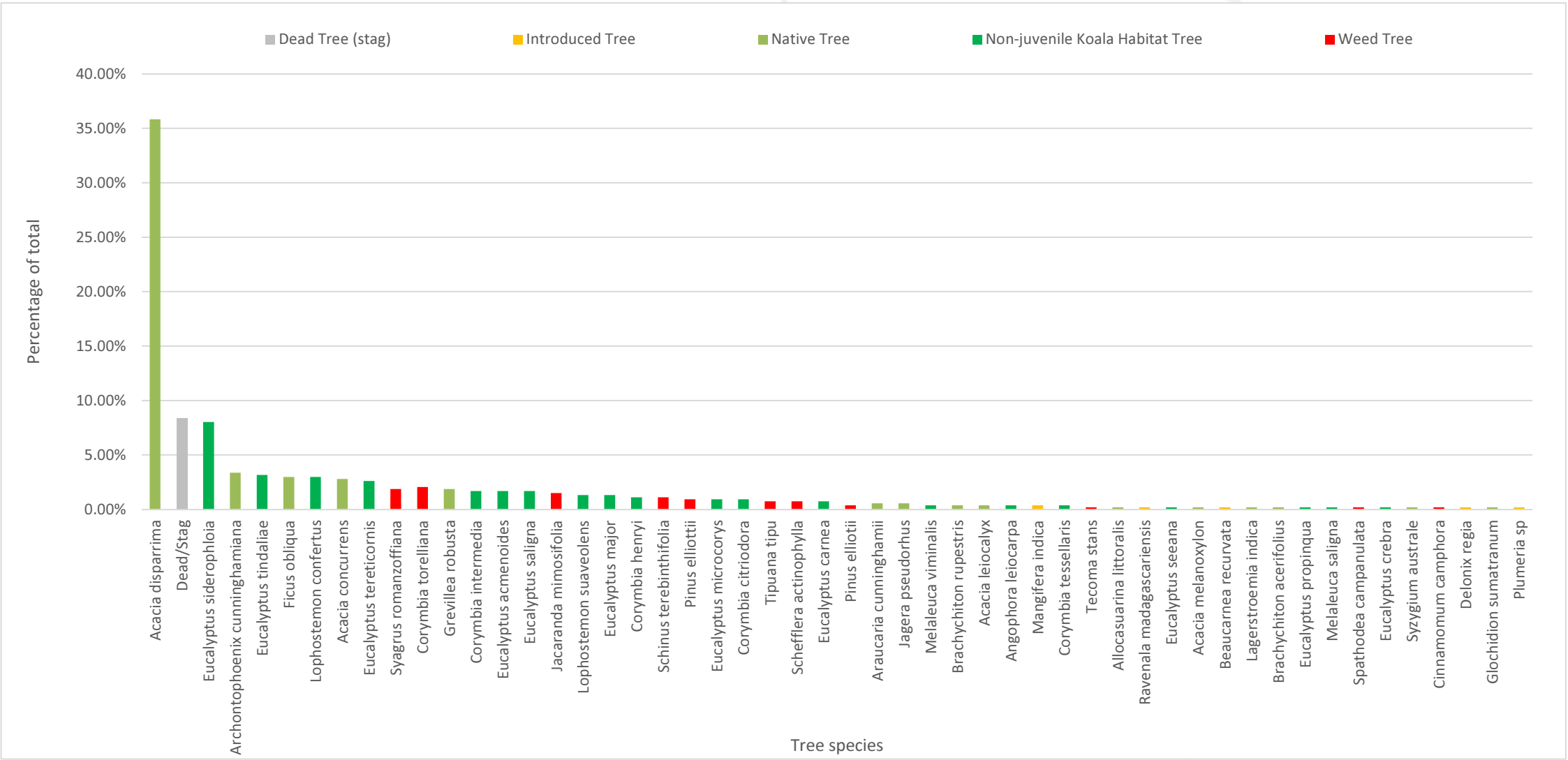
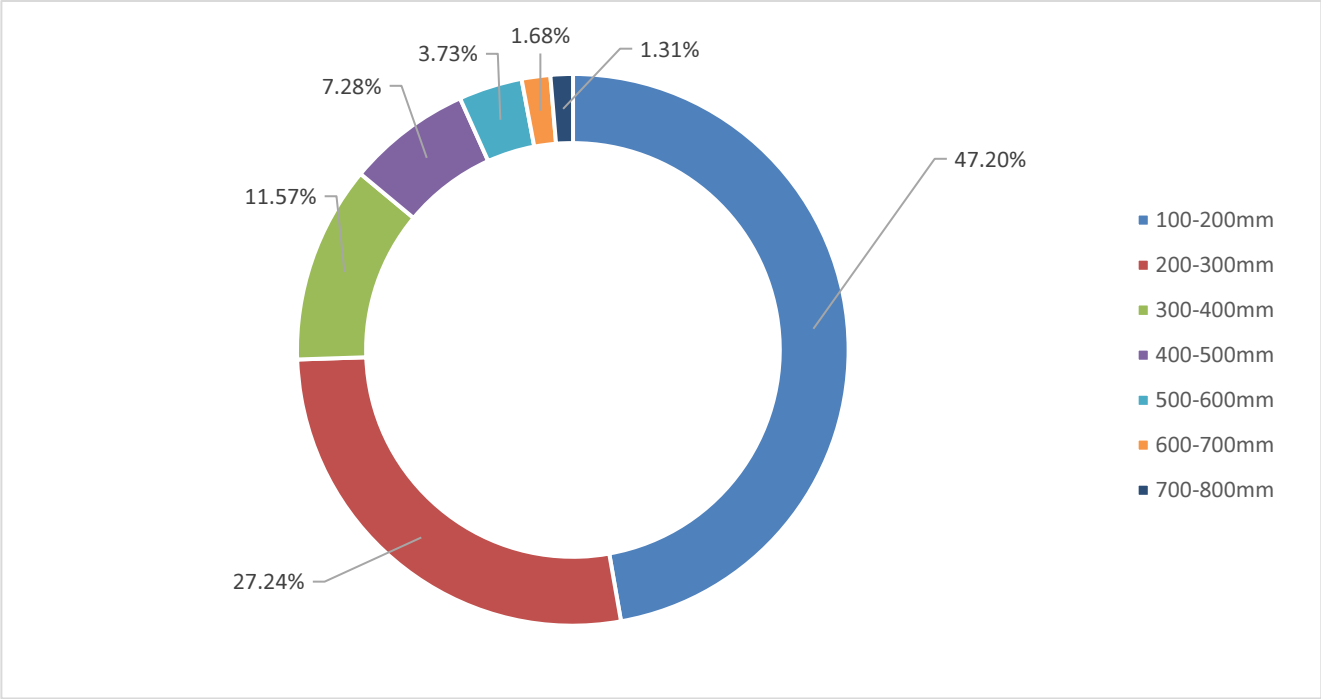


Table 8: GPS Tree Plot DSH Summary

Tree DSH (mm)	Number of Trees Recorded	Percentage of Total (%)
100-200	253	47.20%
200-300	146	27.24%
300-400	62	11.57%
400-500	39	7.28%
500-600	20	3.73%
600-700	9	1.68%
700-800	7	1.31%
Grand Total:	**536**	**100%**

Chart 2: GPS Tree Plot DSH Summary Chart



4.3. Fauna Survey Results

A basic fauna assessment was conducted across the site to identify and describe on-ground habitat features (e.g. habitat trees, fallen logs, termite mounts, roosting sites etc.), signs of fauna activity (e.g. scats, tracks, scratch marks on trees, nests etc.) and observations of species present within the area. Consideration was also given to the ecological significance of the site in the context of the local area and the broader region.

The following observations have been made based on field survey:

- As the majority of the site has undergone historical and on-going modification for rural uses any microhabitat features such as fallen logs and leaf litter are confined to vegetated areas of the site. Furthermore, the vegetated areas on-site are dominated by exotic weed species, particularly at the ground layer. Therefore, it is considered unlikely that the site provides diverse habitat features to support a high number of native species. This is reflected in the species observed on-site during surveys, as the majority are highly mobile generalist species accustomed to urban environments.
- Thirty-seven (37) fauna species were observed on-site or as fly-over species; thirty-six (36) birds and one (1) frog (**Table 9**). All species recorded are considered native species common to the local area.

Table 9: Fauna Species List

Scientific Name	Common Name	Conservation status
Birds		
Anas superciliosa	Pacific Black Duck	Least Concern
Ardea intermedia	Intermediate Egret	Least Concern
Cacatua galerita	Sulphur-crested Cockatoo	Least Concern
Cacatua sanguinea	Little Corella	Least Concern
Colluricincla harmonica	Grey Shrike-thrush	Least Concern
Coracina novaehollandiae	Black-faced Cuckoo-shrike	Least Concern
Corvus orru	Torresian Crow	Least Concern
Coturnix ypsilophora	Brown Quail	Least Concern
Cracticus nigrogularis	Pied Butcherbird	Least Concern
Cracticus tibicen	Australian Magpie	Least Concern
Cracticus torquatus	Grey Butcherbird	Least Concern
Dacelo novaeguineae	Laughing Kookaburra	Least Concern
Dicrurus bracteatus	Spangled Drongo	Least Concern
Gallinula tenebrosa	Dusky Moorhen	Least Concern
Geopelia humeralis	Bar-shouldered Dove	Least Concern
Gerygone olivacea	White-throated Gerygone	Least Concern

Scientific Name	Common Name	Conservation status
Grallina cyanoleuca	Magpie-lark	Least Concern
Lichenostomus chrysops	Yellow-faced Honeyeater	Least Concern
Lichmera indistincta	Brown Honeyeater	Least Concern
Malurus cyaneus	Superb Fairy-wren	Least Concern
Manorina melanocephala	Noisy Miner	Least Concern
Megalurus timoriensis	Tawny Grassbird	Least Concern
Meliphaga lewinii	Lewin's Honeyeater	Least Concern
Melithreptus albogularis	White-throated Honeyeater	Least Concern
Merops ornatus	Rainbow Bee-eater	Least Concern
Oriolus sagittatus	Olive-backed Oriole	Least Concern
Pachycephala rufiventris	Rufous Whistler	Least Concern
Pardalotus striatus	Striated Paradalote	Least Concern
Philemon corniculatus	Noisy Friarbird	Least Concern
Porphyrio melanotus	Australasian Swamp Hen	Least Concern
Psophodes olivaceus	Eastern Whipbird	Least Concern
Rhipidura leucophrys	Willie Wagtail	Least Concern
Sphecotheres vieilloti	Australasian Figbird	Least Concern
Taeniopygia bichenovii	Double-barred Finch	Least Concern
Threskiornis spinicollis	Straw-necked Ibis	Least Concern
Trichoglossus haematodus moluccanus	Rainbow Lorikeet	Least Concern
Frogs		
Littoria fallax	Eastern Sedge Frog	Least Concern

4.3.1 Threatened fauna species

The EPBC Act PMST lists fifty-three (53) fauna species listed as Threatened under the EPBC Act with the potential to occur within 5 km of the site (**Appendix B**). Additionally, the NCA lists eleven (11) fauna species listed as Threatened with the potential to occur within 5 km of the site (**Appendix C**). Assessments have identified that all flora and fauna species listed as threatened under the EPBC Act and NCA are considered unlikely to occur on-site. This conclusion is due to the highly modified nature of the site, which contains largely cleared characteristics and limited connectivity potential.

No fauna species listed as threatened under the EPBC Act nor NCA were directly observed on-site.

***Phascolarctos cinereus* (Koala)**

Regrowth vegetation is mapped on-site along the eastern boundaries, with mapping extending off-site into road vegetation. This area is mapped as KHA which is expected to include canopy species dominated by Koala habitat trees, including Eucalyptus, Corymbia, Angophora, Lophostemon and Melaleuca species. However, the majority of mapped KHA on site is dominated by *Acacia disparrima* (Hickory Wattle) and other Acacia species. Targeted searches were conducted through potential habitat within the eastern portion of the site to determine use of this KHA, including a scat meander and targeted SAT survey. No scats or direct observations of the species were recorded on-site during these targeted surveys or incidentally during tree plotting surveys (**Plan 1**).

A review of online databases (ALA and Biomaps) returned records of the Koala on the southern adjoining lot and in the wider surrounding area. However, the neighbouring sighting is dated 1982 and therefore is not a contemporary or accurate indicator of species presence. More abundant recent records of the species (2024) occur 500 m north of the site, within a connected patch of KHA further along Baileys Mountain Road. Only twelve (12) records occur within 2 km of the site, all of which were recorded within highly connected patches of KHA. The majority of Koala sightings within the Upper Coomera locality are further west, associated with Cedar Creek and Mount Tamborine National Park or within parkland and retained bush east of the Pacific Motorway.

While there are some NJKHTs present within the mapped KHA on site, evidence suggests very limited and temporary usage of the site. The mapped KHA on site must be entirely removed to facilitate the project. It is considered that given this area is completely fragmented from other patches of high-quality KHA, this loss is unlikely to significantly impact any movement potential for Koala. Regardless, as the proposed development will impact KHA referral to Department of Environment Tourism Science and Innovation (DETSI) is required and an assessment against SDAP code 25 will be provided in conjunction with this report.

5. Development Impact Assessment

5.1. Proposed Development

The proposed development is for the creation of sixty-three (62) residential lots, associated roads and infrastructure, drainage areas, and pedestrian linkage (**Appendix A**). Under the CoGC City Plan the site is zoned as 'Emerging Community', with the proposed development aligning with the planning intent of the area in providing low intensity dwellings.

In order to deliver the proposed project, clearing of vegetation will occur across the entirety of the site. Assessments determined that the site is not considered to provide significant fauna movement potential due to surrounding and current land uses. The majority of the proposed development will occur within cleared areas that have long been highly modified and maintained for rural residential uses. Vegetation, where present, is reflective of the historical and current land use and is dominated by regrowth Acacia species and planted native ornamental species. The highest value vegetation was identified along the eastern boundary of the site in conjunction with core KHA mapping, however, likely due to the large-scale fragmentation and disturbance to this vegetation no evidence of Koala use was observed during field surveys. Large scale earthworks to facilitate the project are also proposed to occur within the centrally located locally mapped waterway, which field surveys also determined is not represented on site by any habitat values.

Koala habitat

A polygon of KHA is present along the eastern boundary of site. Field survey identified scattered NJKHTs within this mapping, though this potential habitat was identified as extremely low quality and disturbed. The proposed development does not meet any exemption requirements and so referral to SARA and an assessment against State Code 25 is required and will be submitted as separate documentation.

CoGC 'Minor' Waterway

To facilitate the project, large scale earthworks will require the unavoidable removal of the centrally located locally-mapped waterway on site. This mapping connects constructed dams on site and in the neighbouring southern site. Field surveys determined the mapped waterway is reflective of a drainage feature, which likely experiences overland flow only following heavy rain events. The lack of waterway values present on site are considered not representative of the local mapping.

Additionally, downstream connectivity of this waterway is unlikely to remain long-term. The site and adjoining lots are zoned as 'Emerging Community', and a development application on the lot directly south of site is proposing to remove its portion of the waterway. This would entirely isolate the waterway mapping on site and remove any connection to downstream values, causing further degradation. Given the zoning and lack of values on-ground it is considered that regardless of the current application, connectivity from this waterway mapping is unlikely to be sustained long-term.

A response to the relevant local environmental significance overlay code is provided in **Appendix E**.

5.2. Offsets

Under the *Environmental Offset Act 2014* biodiversity offsets are required for any clearing of matters of State or Local Environmental Significance (MSES and MLES). Core Koala habitat is considered an MSES and therefore clearing of KHA requires offsets where not covered by exemptions.

A proponent may deliver an environmental offset in any of the following ways:

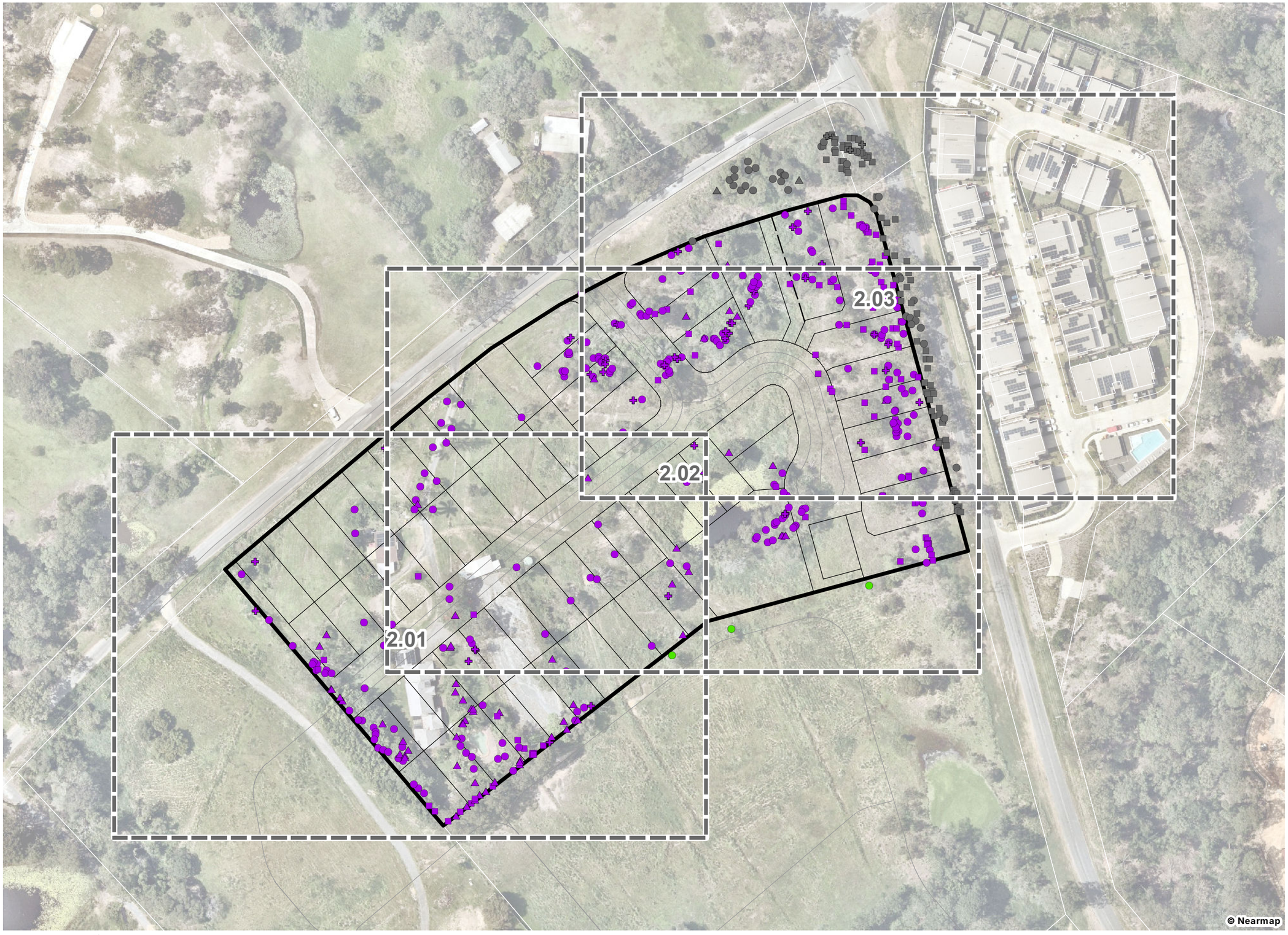
- Financial settlement offsets a payment
- Proponent-driven offsets which includes land-based offsets and/or delivery of actions in Direct Benefit Management Plan
- a combination of these approaches.

The proposed development will result in the unavoidable removal of **30 NJKHTs** within mapped KHA onsite, outside of applicable exemptions. This is impact is discussed in greater detail in the accompanying SDAP Code 25 response. A financial settlement offset for the loss of 30 non-exempt NJKHTs within KHA would total approximately $27,600.

Alternatively, an on-ground offset of planting of NJKHTs at a 3:1 ratio could be implemented.

The proposed development is intending to have minimal impact on City of Gold Coast MLES. Furthermore, no MLES requiring offsets are proposed to be impacted by the development, refer **Plan 2** – Development layout and **Appendix E** – local code responses.

2.00 DEVELOPMENT ASSESSMENT



Notes:
The information on this plan is not suitable for any purpose other than the expressed use of the Client. Property dimensions, areas, numbers of lots and contours and other physical features may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of Saunders Havill. Unless a development approval states otherwise, this is not an approved plan.
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LEGEND

- Qld DCDB
- Site DCDB

Layout Detail (indicative)

- Proposed Lots
- Proposed Easements
- Proposed Roads and Footpaths

GPS Tree Plot

- Native tree to retain in neighbouring property [3]
- Non-juvenile Koala habitat tree to remove as part of this application [86]
- Native tree to remove as part of this application [227]
- Dead/stag tree to remove as part of this application [41]
- Non-native tree to remove as part of this application [61]
- Non-juvenile Koala habitat tree to remove as part of proposed Baileys Mount Road upgrade [75]
- Native tree to remove as part of proposed Baileys Mount Road upgrade [37]
- Dead/stag tree to remove as part of proposed Baileys Mount Road upgrade [4]
- Non-native tree to remove as part of proposed Baileys Mount Road upgrade [2]

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

0 10 20 30 40 50 m

1:1,400 @ A3 | Transverse Mercator | GDA 2020 | Zone 56

Saunders Havill
BOWENHILLS | SPRINGFIELD
1300 123 744 | mail@saundershavill.com

COURTNEY UPPER COOMERA DEVELOPMENTS PTY

COURTNEY DRIVE, COOMERA

Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 02 Development Assessment A

2.01 DEVELOPMENT ASSESSMENT



Notes:
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LEGEND

- Qld DCDB
- Site DCDB

Layout Detail (indicative)

- Proposed Lots
- Proposed Easements
- Proposed Roads and Footpaths

GPS Tree Plot (w/ TPZ)

Native tree to retain in neighbouring property	[3]
Non-juvenile Koala habitat tree to remove as part of this application	[86]
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Dead/stag tree to remove as part of proposed Baileys Mount Road upgrade	[4]
Non-native tree to remove as part of proposed Baileys Mount Road upgrade	[2]

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

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1:650 @ A3 | Transverse Mercator | GDA 2020 | Zone 56

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COURTNEY UPPER COOMERA DEVELOPMENTS PTY

COURTNEY DRIVE, COOMERA

Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 02_1 Development Assessment A

2.02 DEVELOPMENT ASSESSMENT



Notes:
The information on this plan is not suitable for any purpose other than the expressed use of the Client. Property dimensions, areas, numbers of lots and contours and other physical features may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of Saunders Havill. Unless a development approval states otherwise, this is not an approved plan.

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LEGEND

- Qld DCDB
- Site DCDB

Layout Detail (indicative)

- Proposed Lots
- Proposed Easements
- Proposed Roads and Footpaths

GPS Tree Plot (w/ TPZ)

- Native tree to retain in neighbouring property [3]
- Non-juvenile Koala habitat tree to remove as part of this application [86]
- Native tree to remove as part of this application [227]
- Dead/stag tree to remove as part of this application [41]
- Non-native tree to remove as part of this application [61]
- Non-juvenile Koala habitat tree to remove as part of proposed Baileys Mount Road upgrade [75]
- Native tree to remove as part of proposed Baileys Mount Road upgrade [37]
- Dead/stag tree to remove as part of proposed Baileys Mount Road upgrade [4]
- Non-native tree to remove as part of proposed Baileys Mount Road upgrade [2]

AMENDMENTS

Issue	Date	Description	Drawn	Checked
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2.03 DEVELOPMENT ASSESSMENT



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LEGEND

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Date: 19/03/2026

13087 E 02_1 Development Assessment A

5.3. Potential Impacts

The key potential ecological impacts associated with the development proposal are described in the following subsections.

5.3.1 Vegetation clearing

Vegetation clearing is required across the entirety of the site in order to provide a functional development which fulfils the planning intent of the area. The removal of vegetation on-site will have minimal impact on the availability of habitat for flora and fauna within the local landscape, as the vegetation on-site constitutes low value habitat and is not considered integral for landscape connectivity. The vegetation within the proposed impact area is considered to contain highly modified and generally fragmented values. Importantly, ecological field surveys did not identify any unique or significant biodiversity values within the proposed development area. While disturbed, vegetation clearing does not fall under exemptions for KHA and referral to SARA and an assessment against SDAP Code 25 will be required. This document will be provided as separate documentation.

5.3.2 Weeds

Increased vehicle movement during the construction phase has the potential to increase the spread of weeds in the area. Large stands of invasive weeds and exotic plants were observed onsite, including eight (8) which are classified as restricted invasive species under the *Biosecurity Act 2014*. Therefore, the site currently contains significant spreading of invasive species, largely due to rural residential land uses. Regardless, mitigation measures will be implemented where cleared vegetation is disposed of in order to appropriately prevent further spread. With implementation of standard mitigation measures, the project is likely to result in a negligible impact to ecological values due to the potential introduction/spread of weeds. Further, the proposed development will result in the removal and management of pre-existing weed species located on-site.

5.3.3 Vehicle movements

During construction, an increase in vehicles will be required on the subject site. Direct impacts from vehicle movements on threatened species and vegetation communities can include:

- damage or destruction of vegetation or fauna habitat by vehicles traversing these areas; and
- fauna strike.

Indirect impacts include:

- interference of fauna through visual and noise impacts. This in turn can affect feeding, roosting, breeding or nesting behaviour;
- introducing and/or spreading weeds or feral animals carried on or in vehicles, resulting in deterioration or loss of vegetation and important fauna habitat; and
- damage or destruction of vegetation and fauna habitat through smothering by dust generated by vehicles traversing the project area.

With implementation of standard mitigation measures, the project is likely to result in a temporary and minor impact to ecological values due to vehicular movements. It was observed that the fauna species within the proposed development area are generalist, largely avi-fauna species, with specialised species likely to avoid the open space in favour of the larger areas of dense bushland within the wider region. As the site has been used historically and currently as rural residential land, with urban areas recently



developing within the local region, it is anticipated that fauna already exhibit avoidance behaviour which is not likely to be increased by the development of the site.

5.3.4 Earthworks

Construction activities have the potential to generate dust emissions. However, dust emissions during construction will be temporary. Surrounding land uses within the vicinity of the site are likely to currently generate higher levels of dust than a typical patch of bushland in a rural area. The main sources of dust are typically generated via:

- wheel-generated dust from the haul roads created for the construction phase;
- dust lift-off from exposed surfaces (e.g. construction roads and pads);
- earthworks, including construction of the embankments, and moving, dumping and shaping material; and
- vegetation and soil clearing of the land.

Excessive deposition of dust on leaves of plants can suppress the growth and photosynthesis, resulting in reduced habitat quality for fauna. High levels of airborne dust can irritate the respiratory systems of fauna and potentially result in ingestion of dust-coated seeds and other foods. Excessive deposition of dust on open water bodies may also degrade water quality and overall habitat quality for fauna. With implementation of standard mitigation measures, the project is likely to result in a temporary and minor impact to ecological values due to the generation of dust. Retained areas will also provide a refuge for fauna away from construction activities.

5.3.5 Light emissions during construction

Artificial light can affect both nocturnal and diurnal animals by disrupting behavioural patterns, with quality of light (e.g. wavelength, colour), intensity and duration potentially evoking different faunal responses. Impacts from increased light levels can include disorientation from, or attraction toward, artificial sources of light; mortality from collisions with structures; and effects on light-sensitive cycles of species (e.g. breeding and migration for fauna and flowering in plants). An artificial increase in lighting can also affect abundance of predators.

Presence and intensity of artificial light in the project area will temporarily increase during the construction phase; however, night works will not be common. Lighting will be directed to construction areas within the project area. Some light spillages will be inevitable and is likely to be contained. Works on the proposed development are intended to occur through the daylight, therefore limiting the need for artificial light sources. Potential impacts associated with light emissions will be temporary and unlikely to be significant. Current light emissions from dwellings on-site and surrounding residential areas are likely to already emit an avoidance response from fauna species. Therefore, the project area is unlikely to significantly increase impact from lighting.

With implementation of standard mitigation measures, the project is likely to result in a negligible impact to ecological values due to the use of light pollution during construction.

5.3.6 Noise and vibration

Noise levels greater than existing ambient noise levels are expected during the construction within the project area. Sources of noise are likely to consist of noise in short, intense pulses from mobile plant



equipment, and more prolonged noise, with consistent vibration, pitch and volume from generators, excavators and pumps, in addition from noise from vehicles.

Both steady continuous and single noise events have the potential to lead to ecological impacts. Construction noise is expected to elicit some avoidance response from fauna using the surrounding vegetation though, with consideration of the extent of habitat available in the study area, this is likely to be a temporary and negligible to minor impact. Additionally, as is the case with lighting, noise emissions from surrounding residential areas and dwellings on-site are likely to already emit an avoidance response from fauna species. Therefore, the project area is likely to result in a negligible impact from noise compared to baseline conditions.

5.3.7 Waste disposal

Inappropriate disposal of non-hazardous wastes can attract vermin and other wildlife to site. This may exacerbate potential impacts (e.g. road mortality). Litter may also enter surrounding environments. Due to the current and long-standing rural residential uses of the site litter and general waste is already relatively prevalent within the site. The proposed development will result in the removal of dumped waste particularly from the proposed district park areas. With implementation of standard mitigation measures, the project is likely to result in a negligible impact to ecological values due to the generation and handling of waste.

5.3.8 Hazardous and dangerous goods

Spills and leaks from transfers (e.g. fuel and/or chemicals) and inadequate storage of dangerous goods and hazardous wastes could result in point-source contamination of surrounding land. Direct adverse impacts could include toxic impacts on vegetation (resulting in degradation or loss of vegetation and habitats), direct toxic impacts on fauna (from contact, inhalation or ingestion) or indirect impacts on threatened and migratory species from habitat loss. Direct adverse impacts on surface and groundwater quality are also possible.

With the application of standard mitigation and management measures, impacts from liquid and solid waste disposal will be avoided or localised and small in scale. Further to this, the likelihood of significant spillages is considered low. Therefore, the project is likely to result in a negligible impact to ecological values due to potential spills and leaks.

5.3.9 Increased human presence

Increased human activity during construction has the potential to disturb fauna within adjacent habitat areas. Resulting impacts to fauna include heightened vigilance and predator avoidance, which can disrupt foraging and roosting efficiency or deter wildlife from using particular areas. Impacts essentially represent a reduction in core habitat due to edge effects, although as mentioned within the ecological survey results section of this report, edge effects are largely already present within the site, with species avoidance already evident due to residential land uses on and surrounding. The project is likely to result in a temporary and minor impact to ecological values due to increased human presence on site during the construction period.

5.4. Ongoing Disturbance

After completion of construction, the ongoing presence of infrastructure and increased human activity can continue to have adverse direct and indirect impacts. The key continuing risks to ecological values include:

- weed incursion;
- vehicle movements;
- noise and light; and
- increased human presence.

Each potential impact associated with ongoing use of the site is described in detail in the following sections.

5.4.1 Weed incursion

Landscaping may introduce new and exotic species to the area; however, the development intends to only utilise native species for landscaping purposes. Regardless, weed incursion is often ongoing and can be difficult to prevent. However, the problem is often mostly constrained to edges of bushland that abut gardens and riparian zones of urban waterways. As mentioned throughout this report invasive and introduced species are abundant throughout the site as a result of historical and on-going land uses. This includes a high number of restricted invasive species being present within the project area. Hence, the development is not considered to have a high risk of significant impacts to surrounding flora and fauna from introducing new weed species.

With implementation of standard mitigation measures, the project is likely to result in a minor impact to ecological values due the introduction and spread of weed species.

5.4.2 Vehicle strike

Upon completion of the development, vehicle traffic will increase (compared to baseline conditions), increasing the likelihood of fauna strike. The probability of fauna strike is reduced due to the fact that most fauna will generally avoid urban areas. As the proposed development is within an area already trafficked due to the surrounding urban landscape, the likelihood of vehicle strike is not considered to be significant due to the likelihood species already avoid the area. Additionally, areas on-site noted to contain higher-value habitat, i.e. regrowth vegetation, currently contain no evidence of fauna usage and will be removed as a part of the project. Notwithstanding, a low number of macropods, as well as reptiles (i.e. snakes and lizards attracted to heated bitumen roads) may occasionally enter the area and be at risk of vehicular strike.

5.4.3 Noise and light

Noise levels are likely to increase once the development is complete as there will be increased vehicular and pedestrian traffic in comparison to baseline conditions. Sounds associated with newly established dwellings will be the primary source of noise impact. However, this is expected to be minor with surrounding areas already containing similarly sized residential housing lots.

Artificial light from new development may affect nocturnal and diurnal animals by disrupting patterns, with quality of light (e.g. wave length and colour), intensity and duration potentially evoking different responses. Impacts from increased light levels include disorientation from or attraction toward artificial

sources of light; mortality from collisions with structures; and effects on light- sensitive cycles of species (e.g. breeding and migration for fauna and flowering in plants). The presence and intensity of artificial light will have most impact at the edge of adjacent vegetation communities. However, as the development is intended to occur within areas already highly disturbed due to rural residential land uses, the project is likely to result in a negligible impact to wildlife due to light spillage.

5.4.4 Increased human presence

Increased human activity associated with land uses within the development has the potential to disturb fauna that exist within the broader area. Examples of impacts included heightened vigilance and predator avoidance, which can disrupt foraging and roosting efficiency, or deter wildlife from using particular areas. As the area is already utilised for human activity with urban areas and new developments surrounding all sides human presence is already relatively high. Therefore, increased human presence as a result of this project is expected to have a minor impact to wildlife and vegetation.

5.5. Management and Mitigation Measures

5.5.1 Vegetation Management Plan

A Vegetation Management Plan (VMP) should form part of the broader management document submitted as part of the operational works drawings for the project site.

The VMP should cover clearing of all vegetation listed in this report in addition to all trees mapped as significant individual trees. It should include details on:

- trees marked for removal;
- all civil works likely to impact existing vegetation;
- temporary and permanent exclusion and protection fencing;
- roles and responsibilities for site contractors, the developer and the consultant group;
- stockpiling and site access locations;
- a clearing sequence plan showing the commencement of clearing and direction of removal (this should be in conjunction with the Fauna Management Plan (FMP) to allow for the appropriate flushing of fauna towards safe havens and/or the application of an appropriate relocation program);
- links to weed management and revegetation proposals; and
- stock piling and reuse of cleared vegetation.

5.5.2 Fauna Management Plan

A Fauna Management Plan (FMP) should be prepared for potential impacts of the construction phase covering the loss of vegetated areas, isolated trees and likely barriers and impediments to local dispersal.

The FMP should link closely with the VMP, or be included as part of a combined Vegetation Clearing and Fauna Management Plan (VCFMP), and include details on:

- species confirmed and likely to use the site, focusing on those most likely impacted by development works;

- a list of relevant State and Commonwealth legislation constraints and controls for fauna potentially affected by development works;
- a plan showing existing habitat opportunities and locations;
- details of the threats to existing fauna species;
- the clearing sequence plan from the VMP;
- management and mitigation measures – i.e. temporary use of fauna exclusion fencing;
- description of fauna spotter role, contacts and certification; and
- specific fauna management procedures for potential or known habitat trees.

5.5.3 Koala Management Plan

Due to the presence of mapped Koala habitat areas on site, a Koala Management Plan (KMP) is required to be prepared to specifically address the potential impacts of the construction phase on Koalas.

The KMP should link closely with the VMP, and FMP and include details on:

- Identification of risks to Koala's from clearing and construction activities
- Identification of management measures that will be implemented to address the risks to Koalas
- Detailed processes and measures that will be implemented to address accidental injury or death of Koalas
- Confirmation of how the proposed clearing activities will comply with the requirements of the Nature Conservation Koala Conservation Plan 2017
- Outline of detailed processes for implementing the management plan

6. Conclusion

This EAR was prepared on behalf of Courtney Upper Coomera Developments Pty Ltd who seek to develop land at 17 Courtney Drive, Upper Coomera, for the purposes of creating a residential development with associated roads and infrastructure, detention and drainage areas. Overall, the proposed development will require the removal of only highly modified and disturbed vegetation to fulfill the zoning intent of the local region. The report accompanies a development application to CoGC and provides a review of the site ecological values with reference to Commonwealth, State and Local legislation.

Overall, the following conclusions can be made:

- The site is surrounded by similarly sized rural properties, higher density residential developments, and further in the landscape, vacant bushland. The site itself has undergone historical clearing and on-going maintenance resulting in highly disturbed vegetation across the majority of the site. Vegetation composition is generally dominated by regrowth *Acacia* species with a mix of native and exotic species with the majority as planted ornamental species.
- The vast majority of the site is mapped as Category X (non-remnant) vegetation with a small portion of Category C (high-value regrowth) vegetation along the eastern boundary of the site. Field observations identified this area to be reflective of mapped RE 12.11.24 where characteristics of highly disturbed vegetation were observed. Invasive and regrowth species were identified throughout the tree, shrub and ground layer.
- Connectivity value in all directions is considered highly limited due to surrounding Baileys Mountain road and Courtney Drive in the east and north respectively, and similar sized cleared lots to the south and west limiting fauna movement off site.
- One CoGC local mapped 'minor' waterway is present across the site. This waterway lacks any definable waterway features and at best reflects a low-lying drainage channel which reflects the *Water Act 2014* drainage feature mapping. This waterway is proposed to be removed due to lack of any discernible waterway features as well as the likely removal of downstream features for a neighbouring development.
- The site is situated outside of a Koala Priority Area however Koala habitat is mapped on-site along the eastern boundary. Potential Koala habitat was confirmed in the east, though NJKHTs were sparse with the area dominated by Acacia regrowth. At present, impacts to Koala Habitat require referral to SARA where a report addressing *SDAP Code 25: Development in Southeast Queensland Koala Habitat Areas* will be provided within the development application.
- A total of ninety-seven (97) species of flora were detected on-site during surveys, inclusive of forty-nine (49) native species and forty-eight (48) exotic/weed species.
- Thirty-seven (37) fauna species were observed on-site or as fly-over species; thirty-five (35) birds and one (1) amphibian. All species recorded are considered species common to the local area.
- **No EPBC or NCA threatened flora or fauna species were observed on-site.**
- Whilst some vegetation with Koala habitat values was confirmed to occur on site, no direct (sightings) or indirect (scats) evidence of Koala presence was recorded during site surveys.

- In order to deliver the proposed project, clearing of vegetation across the site will occur. It is considered that the mapped habitat values on site consists of low-quality habitat due to high levels of disturbance. This clearing is considered to have a low impact to the overall biodiversity values of the landscape of Upper Coomera.

7. Appendices

Appendix A

Proposed Layout

Appendix B

Environment Protection and Biodiversity Conservation Act 1999

Protected Matters Search Tool Results

Appendix C

Wildlife Online NCA 1992

Appendix D

Environmental Searches

Appendix E

Response to Environmental Significance Overlay Code

Gold Coast City Plan V11

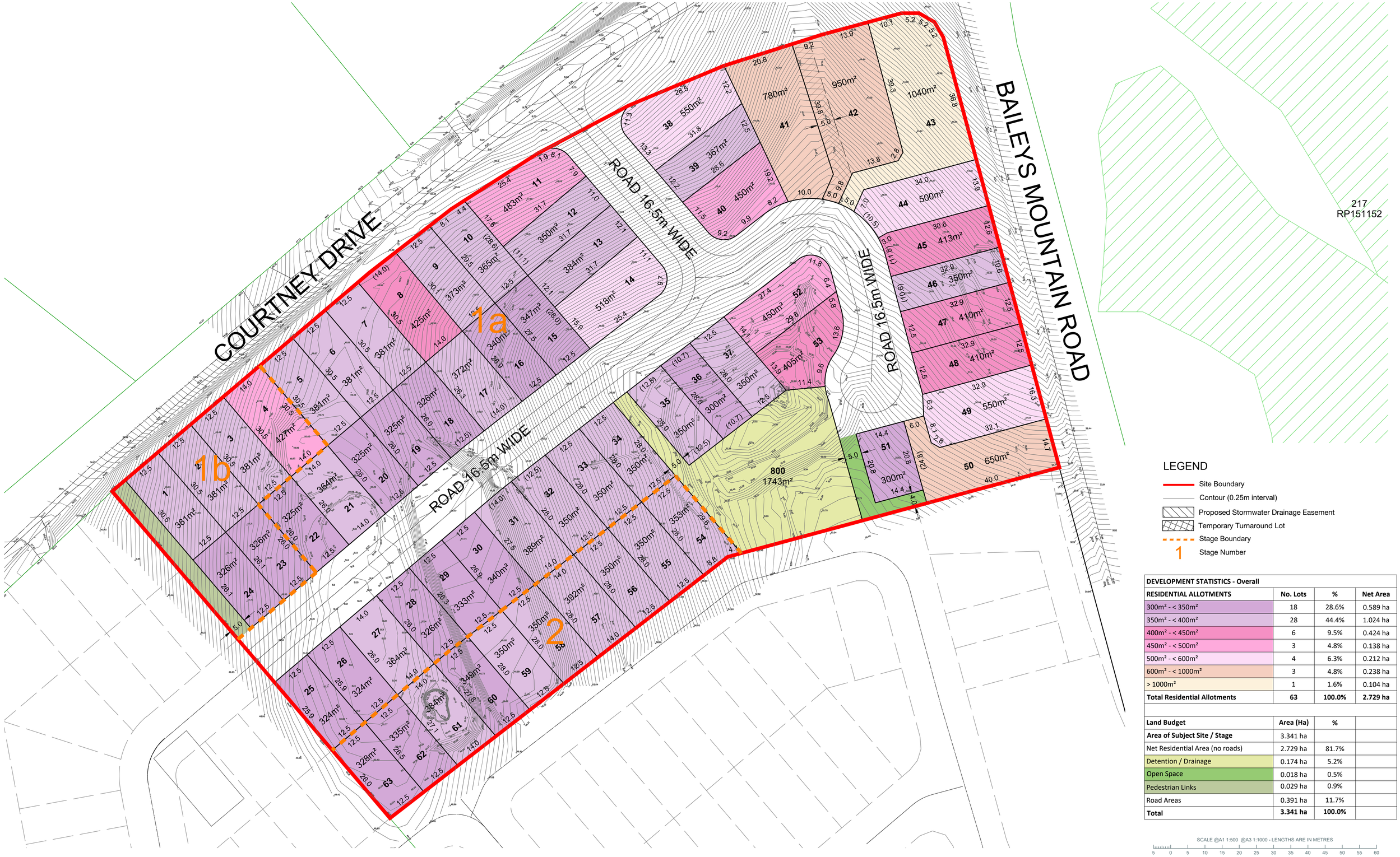
Appendix F

Tree Schedule

Appendix A

Proposed Layout

PROPOSAL PLAN



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	18	28.6%	0.589 ha
350m² - < 400m²	28	44.4%	1.024 ha
400m² - < 450m²	6	9.5%	0.424 ha
450m² - < 500m²	3	4.8%	0.138 ha
500m² - < 600m²	4	6.3%	0.212 ha
600m² - < 1000m²	3	4.8%	0.238 ha
> 1000m²	1	1.6%	0.104 ha
Total Residential Allotments	**63**	**100.0%**	**2.729 ha**

Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	3.341 ha		
Net Residential Area (no roads)	2.729 ha	81.7%	
Detention / Drainage	0.174 ha	5.2%	
Open Space	0.018 ha	0.5%	
Pedestrian Links	0.029 ha	0.9%	
Road Areas	0.391 ha	11.7%	
Total	**3.341 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

5 0 5 10 15 20 25 30 35 40 45 50 55 60

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N

CLIENT
COURTNEY UPPER COOMER DEVELOPMENTS PTY LTD

SITE ADDRESS
17 COURTNEY DRIVE, UPPER COOMERA

RP DESCRIPTION
LOT 182 ON RP156422

DRAWN
AB

DATE
23/03/2026

DRAWING NO.
13087 P 01 Rev B - PRO 01

Appendix B

Environment Protection and Biodiversity Conservation Act 1999 Protected Matters Search Tool Results

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 25-Mar-2026

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	100
Listed Migratory Species:	40

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	48
Whales and Other Cetaceans:	2
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	42
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Moreton bay	Within 10km of Ramsar site	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area	In feature area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community likely to occur within area	In feature area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to occur within area	In feature area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	Community likely to occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Anthochaera phrygia](#) Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Ardenna grisea](#) Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Botaurus poiciloptilus](#) Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
[Calyptorhynchus lathami lathami](#) South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Climacteris picumnus victoriae](#) Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area	In feature area
[Cyclopsitta diophthalma coxeni](#) Coxen's Fig-Parrot [59714]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Dasyornis brachypterus](#) Eastern Bristlebird [533]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat known to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
[Turnix melanogaster](#) Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FISH			
[Epinephelus daemelii](#) Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat may occur within area	In buffer area only
FROG			
[Litoria olongburensis](#) Wallum Sedge Frog [1821]	Vulnerable	Species or species habitat may occur within area	In feature area
[Mixophyes fleayi](#) Fleay's Frog [25960]	Endangered	Species or species habitat likely to occur within area	In feature area
[Mixophyes iteratus](#) Giant Barred Frog, Southern Barred Frog [1944]	Vulnerable	Species or species habitat may occur within area	In buffer area only
INSECT			
[Argynnis hyperbius inconstans](#) Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Phyllodes imperialis smithersi](#) Pink Underwing Moth [86084]	Endangered	Species or species habitat may occur within area	In buffer area only
MAMMAL			
[Chalinolobus dwyeri](#) Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dasyurus maculatus maculatus (SE mainland population)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Notamacropus parma			
Parma Wallaby [89289]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Orcaella heinsohni			
Australian Snubfin Dolphin [81322]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Petauroides volans			
Greater Glider (southern and central) [254]	Endangered	Species or species habitat known to occur within area	In feature area
Petaurus australis australis			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petrogale penicillata			
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area
Potorous tridactylus tridactylus			
Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pteropus poliocephalus			
Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In feature area
Sousa sahulensis			
Australian Humpback Dolphin [87942]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Xeromys myoides Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
PLANT			
Acacia attenuata [10690]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Acronychia littoralis Scented Acronychia [8582]	Endangered	Species or species habitat may occur within area	In buffer area only
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Baloghia marmorata Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat known to occur within area	In feature area
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Clematis fawcettii Stream Clematis [4311]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Coleus habrophyllus listed as Plectranthus habrophyllus [91378]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Coleus nitidus listed as Plectranthus nitidus Nightcap Plectranthus, Silver Plectranthus [91380]	Endangered	Species or species habitat may occur within area	In feature area
Corchorus cunninghamii Native Jute [14659]	Endangered	Species or species habitat known to occur within area	In feature area
Croton mamillatus Bahrs Scrub Croton [84796]	Critically Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat known to occur within area	In feature area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area	In feature area
Cupaniopsis shirleyana Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat may occur within area	In feature area
Diploglottis campbellii Small-leaved Tamarind [21484]	Endangered	Species or species habitat may occur within area	In buffer area only
Endiandra floydii Floyd's Walnut, Crystal Creek Walnut [52955]	Endangered	Species or species habitat known to occur within area	In feature area
Endiandra hayesii Rusty Rose Walnut, Velvet Laurel [13866]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Fontainea venosa [24040]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Leichhardtia longiloba listed as Marsdenia longiloba Clear Milkvine [91911]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lepidium peregrinum Wandering Pepper-cress [14035]	Endangered	Species or species habitat may occur within area	In buffer area only
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat known to occur within area	In feature area
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Notelaea lloydii Lloyd's Olive [15002]	Vulnerable	Species or species habitat may occur within area	In feature area
Owenia cepiodora Onionwood, Bog Onion, Onion Cedar [11344]	Vulnerable	Species or species habitat may occur within area	In feature area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area	In feature area
Planchonella eerwah Shiny-leaved Condoo, Black Plum, Wild Apple [17340]	Endangered	Species or species habitat known to occur within area	In feature area
Randia moorei Spiny Gardenia [10577]	Endangered	Species or species habitat known to occur within area	In feature area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Samadera bidwillii Quassia [29708]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Sophora fraseri [8836]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Syzygium hodgkinsoniae Smooth-bark Rose Apple, Red Lilly Pilly [3539]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area
Vincetoxicum woollsii listed as Tylophora woollsii [40080]	Endangered	Species or species habitat may occur within area	In feature area
Zieria collina [2178]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Coeranoscincus reticulatus Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Hemiaspis damelii Grey Snake [1179]	Endangered	Species or species habitat may occur within area	In feature area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
SHARK			
Sphyrna lewini			
Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus			
Common Noddy [825]		Species or species habitat may occur within area	In buffer area only
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Calonectris leucomelas			
Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Fregata ariel			
Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area	In buffer area only
Fregata minor			
Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Macronectes giganteus](#)			
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
[Macronectes halli](#)			
Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Phaethon lepturus](#)			
White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In buffer area only
[Thalassarche cauta](#)			
Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
[Thalassarche impavida](#)			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche melanophris](#)			
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche salvini](#)			
Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche steadi](#)			
White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Marine Species			
[Caretta caretta](#)			
Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area	In buffer area only
[Chelonia mydas](#)			
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Dermochelys coriacea](#)			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Eretmochelys imbricata](#) Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In buffer area only
[Lepidochelys olivacea](#) Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Mobula alfredi as Manta alfredi](#) Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
[Mobula birostris as Manta birostris](#) Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
[Natator depressus](#) Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Orcaella heinsohni](#) Australian Snubfin Dolphin [81322]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Sousa sahulensis as Sousa chinensis](#) Australian Humpback Dolphin [87942]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Terrestrial Species			
[Cuculus optatus](#) Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area	In feature area
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Limosa lapponica](#) Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Pandion haliaetus](#) Osprey [952]		Breeding known to occur within area	In feature area
[Tringa nebularia](#) Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Department of Defence		
AAFC 222 Squadron - Coomera [DD_5054]	QLD	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus			
Common Noddy [825]		Species or species habitat may occur within area	In buffer area only
Anseranas semipalmata			
Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area	In buffer area only
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat likely to occur within area	In buffer area only
[Pandion haliaetus](#) Osprey [952]		Breeding known to occur within area	In feature area
[Phaethon lepturus](#) White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In buffer area only
[Pterodroma cervicalis](#) White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
[Rostratula australis as Rostratula benghalensis (sensu lato)](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Migration route may occur within area	In feature area
[Symposiachrus trivirgatus as Monarcha trivirgatus](#) Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche salvini			
Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Reptile			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area	In buffer area only
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
Eretmochelys imbricata			
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Lepidochelys olivacea			
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat known to occur within area	In buffer area only
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Whales and Other Cetaceans			[Resource Information]
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			

Current Scientific Name	Status	Type of Presence	Buffer Status
Orcaella heinsohni Australian Snubfin Dolphin [81322]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sousa sahulensis Australian Humpback Dolphin [87942]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Saltwater Creek	Conservation Park	QLD	In buffer area only

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Alder Mixed Use Precinct - Potential Future Urban Development Project	2023/09601		Assessment	In buffer area only
Coomera Woods Master Planned Development, 49 & 51 George Alexander Way, Coomera, Qld	2017/8134		Assessment	In buffer area only
Kerkins Levee Rehabilitation Project, Phases 2-8	2004/1435		Completed	In feature area
Low impact industrial development and associated infrastructure, Old Pacific Highway, Coomera	2013/6819		Completed	In buffer area only
Oxenford quarry extractive boundary realignment, Oxenford, Qld	2018/8356		Assessment	In buffer area only
Stage 1 Coomera Connector	2020/8646		Post-Approval	In buffer area only
Controlled action				
Clearing of vegetation for the Gainsborough Greens residential subdivision	2013/6751	Controlled Action	Post-Approval	In buffer area only
Coomera Woods master planned residential development, Qld	2015/7610	Controlled Action	Completed	In buffer area only
Gold Coast International Marine Precinct	2008/4002	Controlled Action	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Jacobs Well Airport	2004/1361	Controlled Action	Completed	In buffer area only
Jacobs Well Airport Project	2003/947	Controlled Action	Completed	In buffer area only
Nambucca Crescent residential subdivision Pimpama, QLD	2014/7190	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Clearing of vegetaion for a residential subdivision on Karingal Drive, Pimpama, QLD	2013/6716	Not Controlled Action	Completed	In buffer area only
Clearing of vegetation for a residential development at 278, 282 ,294 & 298 Kopps Road, Oxenford	2013/6869	Not Controlled Action	Completed	In buffer area only
Coomera Hospital and Health Precinct	2021/8946	Not Controlled Action	Completed	In buffer area only
Coomera Town Centre shopping centre development, Coomera Qld	2014/7292	Not Controlled Action	Completed	In buffer area only
Coomera Woods Protection Zone, 49 George Alexander Way, Coomera Qld	2018/8214	Not Controlled Action	Completed	In buffer area only
Development of the Heritage Park Sporting Precinct, Rifle Range Road, Pimpama, Qld	2016/7831	Not Controlled Action	Completed	In buffer area only
Development of the Pimpama Junction Shopping Centre Precinct	2013/6772	Not Controlled Action	Completed	In buffer area only
Develop Stage 1 & 2 (Lots 21, 23 & 24), Coomera Urban Village, Cnr Foxwell Rd & Finnegan Wy, Coomera	2014/7124	Not Controlled Action	Completed	In buffer area only
Dreamworld Town Centre Development	2001/484	Not Controlled Action	Completed	In buffer area only
GCCC Northern Wastewater Strategy and associated Reclaimed Water Scheme - Stage	2001/282	Not Controlled Action	Completed	In buffer area only
Heavy Rail Duplication Project, Coomera to Helensvale, Qld	2014/7392	Not Controlled Action	Completed	In buffer area only
Helensvale Waste Transfer Station Expansion, QLD	2012/6581	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Mixed use development, Lot 138, 62 Finnegan Way, Coomera, Qld	2015/7488	Not Controlled Action	Completed	In buffer area only
Pimpama School, Coomera, Qld	2018/8252	Not Controlled Action	Completed	In buffer area only
Prawn Aquaculture Expansion	2001/322	Not Controlled Action	Completed	In buffer area only
Residential development, Big Sky Estate (Stages 5-8), Coomera	2015/7535	Not Controlled Action	Completed	In buffer area only
Residential Development Stages 4 & 9-10 Big Sky Estate, Coomera, QLD	2014/7192	Not Controlled Action	Completed	In buffer area only
Residential subdivision, 152 Yawalpah Road, Pimpama, Qld	2013/6914	Not Controlled Action	Completed	In buffer area only
Residential subdivision, 54-64 Karingal Drive, Pimpama, Qld	2013/6739	Not Controlled Action	Completed	In buffer area only
Residential subdivision, Reserve Road	2004/1333	Not Controlled Action	Completed	In buffer area only
Road Extension - Foxwell Road, Coomera	2021/8990	Not Controlled Action	Completed	In buffer area only
To develop high and medium density residential dwellings, commercial precincts and open space areas,	2014/7291	Not Controlled Action	Completed	In buffer area only
Upgraded sewerage infrastructure in the Helensvale/Coombabah catchment	2004/1427	Not Controlled Action	Completed	In buffer area only
Vegetation clearing for the Gainsborough Park Residential Estate	2012/6667	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
Waterway Downs Urban Estate Development	2010/5730	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
Coomera, QLD	2013/7104	Referral Decision	Completed	In buffer area only
Coomera high school, Coomera, Qld	2018/8240	Referral Decision	Completed	In buffer area only
New School, Foxwell Road, Coomera, Qld	2018/8333	Referral Decision	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Referral decision				
Residential Development on Finnegan Way, Coomera, QLD	2012/6685	Referral Decision	Completed	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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Appendix C

Wildlife Online NCA 1992

Queensland WildNet species list

Location search by: Specified Central Point
Sighting record period: Records since 1980
Species: All
Sensitive species: All
Conservation significant: Yes
Vetting stage: All
Latitude: -27.8638
Longitude: 153.2835
Distance: 5km
Kingdom: All
Phylum: All
Class: All
Order: All
Family: All
Genus: All
Status jurisdiction: All
Status code: All
Establishment: All
Pest status: All
Conservation plan: All
Species profile: All
Protected area: All
Conservation area: All
Recovery plan: All
Date extracted: Wednesday 25 Mar 2026 05:02:08
The number of records retrieved = 67

Disclaimer

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Information about your Species lists request is logged for quality assurance, user support and product enhancement purposes only.

The information provided should be appropriately acknowledged as being derived from WildNet database when it is used. As the WildNet Program is still in a process of collating and vetting data, it is possible the information given is not complete. Go to the WildNet database webpage (https://www.qld.gov.au/environment/plants-animals/species-information/wildnet) to find out more about WildNet and where to access other WildNet information products approved for publication. Feedback about WildNet species lists should be emailed to wildlife.online@des.qld.gov.au.

WN Taxon ID	Kingdom	Class	Family	Scientific name	Common name	NCA status	EPBC status	Superseded	Establishment	Sensitive species	Sighting records	Specimen records	Sighting summary
18168	Animalia	Actinopterygii	Eleotridae	Mogurnda adspersa	southern purplespotted gudgeon		E	No	QA	No	1	0	1
706	Animalia	Amphibia	Limnodynastidae	Adelotus brevis	tusked frog	V		No	QA	No	47	46	47
1728	Animalia	Aves	Accipitridae	Erythrotriorchis radiatus	red goshawk	E	E	No	QA	No	1	0	1
1971	Animalia	Aves	Apodidae	Hirundapus caudacutus	white-throated needletail	V	V	No	QAI	No	4	0	4
1171	Animalia	Aves	Cacatuidae	Calyptorhynchus lathami	glossy black-cockatoo	V		No	QA	No	2	0	2
22494	Animalia	Aves	Cacatuidae	Calyptorhynchus lathami lathami	glossy black-cockatoo (eastern)	V	V	No	QA	No	73	0	73
1905	Animalia	Aves	Laridae	Sternula albifrons	little tern	SL	V	No	QAI	No	1	0	1
1702	Animalia	Aves	Pandionidae	Pandion haliaetus cristatus	eastern osprey	SL		No	QAI	No	7	0	7
1874	Animalia	Aves	Scolopacidae	Calidris acuminata	sharp-tailed sandpiper	V	V	No	QAI	No	2	0	2
1857	Animalia	Aves	Scolopacidae	Gallinago hardwickii	Latham's snipe	V	V	No	QAI	No	2	0	2
1841	Animalia	Aves	Scolopacidae	Tringa stagnatilis	marsh sandpiper	SL		No	QAI	No	2	0	2
1107	Animalia	Aves	Strigidae	Ninox strenua	powerful owl	V		No	QA	No	18	0	18
1825	Animalia	Aves	Threskiornithidae	Plegadis falcinellus	glossy ibis	SL		No	QAI	No	5	0	5
836	Animalia	Mammalia	Ornithorhynchidae	Ornithorhynchus anatinus	platypus	SL		No	QA	No	11	0	11
860	Animalia	Mammalia	Phascolarctidae	Phascolarctos cinereus	koala	E	E	No	QA	No	198	0	198
2455	Animalia	Mammalia	Pseudocheiridae	Petauroides volans volans	southern greater glider	E	E	No	QA	No	1	0	1
962	Animalia	Mammalia	Pteropodidae	Pteropus poliocephalus	grey-headed flying-fox	C	V	No	QA	No	9	0	9
838	Animalia	Mammalia	Tachyglossidae	Tachyglossus aculeatus	short-beaked echidna	SL		No	QAI	No	2	0	2
11702	Plantae	Equisetopsida	Amaryllidaceae	Proiphys cunninghamii	Moreton Bay lily	SL		No	NTQ	No	3	1	3
41645	Plantae	Equisetopsida	Apocynaceae	Leichhardtia coronata		V		No	NTQ	No	1	1	1
12776	Plantae	Equisetopsida	Arecaceae	Livistona australis	cabbage tree palm	SL		No	NTQ	No	1	0	1
41723	Plantae	Equisetopsida	Blechnaceae	Blechnum medium		SL		No	NTQ	No	1	0	1
41991	Plantae	Equisetopsida	Blechnaceae	Blechnum spinulosum		SL		No	NTQ	No	2	1	2
41611	Plantae	Equisetopsida	Blechnaceae	Telmatoblechnum indicum		SL		No	NTQ	No	1	0	1
16766	Plantae	Equisetopsida	Campanulaceae	Lobelia purpurascens	white root	SL		No	NTQ	No	3	0	3
9895	Plantae	Equisetopsida	Corynocarpaceae	Corynocarpus rupestris subsp. arborescens	southern corynocarpus	V		No	NTQ	No	1	1	1
14432	Plantae	Equisetopsida	Dryopteridaceae	Lastreopsis decomposita	trim shield fern	SL		No	NTQ	No	1	1	1
14433	Plantae	Equisetopsida	Dryopteridaceae	Lastreopsis marginans	glossy shield fern	SL		No	NTQ	No	1	1	1
11369	Plantae	Equisetopsida	Euphorbiaceae	Baloghia marmorata	jointed baloghia	V	V	No	NTQ	No	2	2	2
22330	Plantae	Equisetopsida	Euphorbiaceae	Mallotus megadontus		E		No	NTQ	No	2	2	2
17577	Plantae	Equisetopsida	Lauraceae	Cryptocarya foetida	stinking cryptocarya	V	V	No	NTQ	No	2	2	2
41803	Plantae	Equisetopsida	Lauraceae	Endiandra wongawallanensis		E		No	NTQ	No	15	13	15
11705	Plantae	Equisetopsida	Laxmanniaceae	Cordyline congesta	Boonah palm lily	SL		No	NTQ	No	2	0	2
11706	Plantae	Equisetopsida	Laxmanniaceae	Cordyline stricta	narrow-leaved palm lily	SL		No	NTQ	No	1	0	1
10791	Plantae	Equisetopsida	Leguminosae	Sophora fraseri	brush sophora	V	V	No	NTQ	No	1	0	1
17256	Plantae	Equisetopsida	Myrtaceae	Eucalyptus curtisii	Plunkett mallee	NT		No	NTQ	No	1	1	1
14255	Plantae	Equisetopsida	Myrtaceae	Rhodamnia rubescens	scrub turpentine	CR	CE	No	NTQ	No	2	0	2
16290	Plantae	Equisetopsida	Myrtaceae	Rhodomyrtus psidioides	native guava	CR	CE	No	NTQ	No	2	0	2
16048	Plantae	Equisetopsida	Myrtaceae	Syzygium moorei	Durobby	V	V	No	NTQ	No	1	1	1
14087	Plantae	Equisetopsida	Orchidaceae	Acianthus fornicatus	pixie caps	SL		No	NTQ	Yes	2	2	2
9260	Plantae	Equisetopsida	Orchidaceae	Chiloglottis sylvestris		SL		No	NTQ	Yes	1	1	1

WN Taxon ID	Kingdom	Class	Family	Scientific name	Common name	NCA status	EPBC status	Superseded	Establishment	Sensitive species	Sighting records	Specimen records	Sighting summary
17506	Plantae	Equisetopsida	Orchidaceae	Cymbidium suave		SL		No	NTQ	Yes	2	0	2
13280	Plantae	Equisetopsida	Orchidaceae	Dendrobium aemulum	ironbark orchid	SL		No	NTQ	Yes	2	0	2
14634	Plantae	Equisetopsida	Orchidaceae	Dendrobium monophyllum		SL		No	NTQ	Yes	1	0	1
14631	Plantae	Equisetopsida	Orchidaceae	Dendrobium speciosum		SL		No	NTQ	Yes	1	0	1
5671	Plantae	Equisetopsida	Orchidaceae	Dockrillia teretifolia	rat's tail orchid	SL		No	NTQ	Yes	1	0	1
17354	Plantae	Equisetopsida	Polypodiaceae	Drynaria rigidula		SL		No	NTQ	No	1	0	1
11696	Plantae	Equisetopsida	Polypodiaceae	Platycerium bifurcatum		SL		No	NTQ	No	4	0	4
11697	Plantae	Equisetopsida	Polypodiaceae	Platycerium superbum	staghorn fern	SL		No	NTQ	No	3	0	3
6668	Plantae	Equisetopsida	Polypodiaceae	Pyrrosia confluens		SL		No	NTQ	No	1	0	1
16746	Plantae	Equisetopsida	Proteaceae	Macadamia integrifolia	macadamia nut	V	V	No	NTQ	No	4	0	4
16748	Plantae	Equisetopsida	Proteaceae	Macadamia tetraphylla		V	V	No	NTQ	No	1	0	1
18116	Plantae	Equisetopsida	Pteridaceae	Adiantum aethiopicum		SL		No	NTQ	No	3	0	3
21888	Plantae	Equisetopsida	Pteridaceae	Adiantum atroviride		SL		No	NTQ	No	1	0	1
18031	Plantae	Equisetopsida	Pteridaceae	Adiantum hispidulum		SL		No	NTQ	No	5	0	5
9284	Plantae	Equisetopsida	Pteridaceae	Adiantum hispidulum var. hispidulum		SL		No	NTQ	No	2	0	2
12106	Plantae	Equisetopsida	Pteridaceae	Adiantum hispidulum var. whitei		SL		No	NTQ	No	1	1	1
14887	Plantae	Equisetopsida	Pteridaceae	Adiantum silvaticum		SL		No	NTQ	No	1	1	1
9723	Plantae	Equisetopsida	Pteridaceae	Pellaea falcata		SL		No	NTQ	No	1	0	1
13800	Plantae	Equisetopsida	Pteridaceae	Pellaea paradoxa	heart fern	SL		No	NTQ	No	2	0	2
12191	Plantae	Equisetopsida	Rubiaceae	Randia moorei	spiny gardenia	E	E	No	NTQ	No	4	3	4
13637	Plantae	Equisetopsida	Sapindaceae	Cupaniopsis newmanii	long-leaved tuckeroo	NT		No	NTQ	No	5	2	5
5210	Plantae	Equisetopsida	Sapotaceae	Planchonella eerwah		E	E	No	NTQ	No	2	2	2
12604	Plantae	Equisetopsida	Sparrmanniaceae	Corchorus cunninghamii		E	E	No	NTQ	No	2	0	2
13017	Plantae	Equisetopsida	Sterculiaceae	Brachychiton acerifolius	flame tree	SL		No	NTQ	No	1	0	1
13998	Plantae	Equisetopsida	Thelypteridaceae	Christella dentata	creek fern	SL		No	NTQ	No	6	0	6
12308	Plantae	Equisetopsida	Xanthorrhoeaceae	Xanthorrhoea macronema		SL		No	NTQ	No	1	0	1

CODES

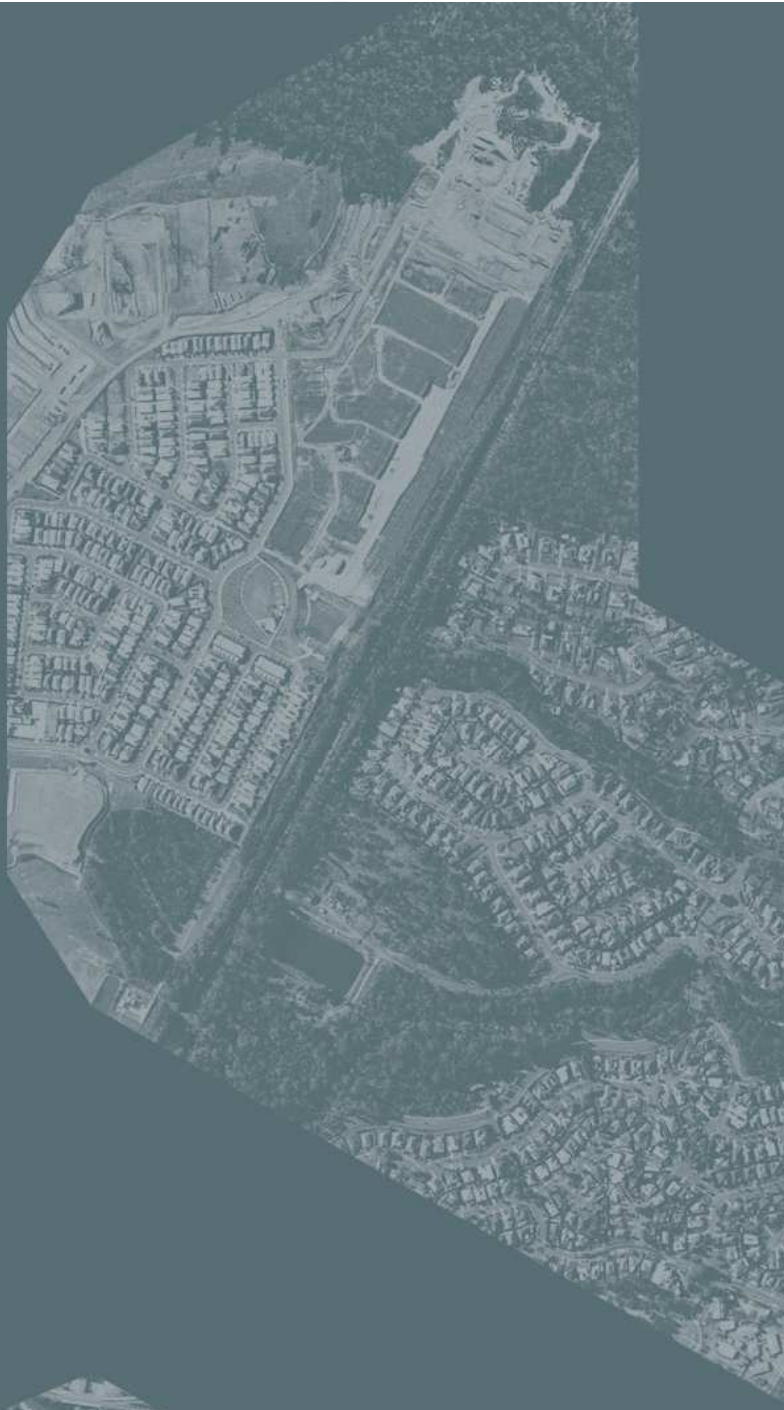
NCA - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992*. The codes are Extinct (EX), Extinct in the Wild (PE), Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).

EPBC - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999*. The values of EPBC are Extinct (EX), Extinct in the Wild (XW), Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas). This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon. This number is output as 999 if it equals or exceeds this value.

Appendix D

Environmental Searches



Environmental Searches

17 Courtney Dr, Upper Coomera, QLD 4209

CFMG Capital Limited

Our Reference: J13087
26 March 2026



Saunders Havill

PATHWAYS TO SUCCESS

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Property attributes	
Address	17 Courtney Dr, Upper Coomera, QLD 4209
Lot/plan(s)	182RP156422
Area (ha)	Total area: 3.34 hectares (ha)
Local government area	Gold Coast City Council

1. Federal Matters of National Environmental Significance

1.1 Protected Matters

A Protected Matters Report was generated from the environment.gov.au website and returned the following results. These matters may occur within a 5 km radius of the site and are protected under the *Environment Protection and Biodiversity Conservation Act 1999*.

World Heritage Properties	None
National Heritage Places	None
Wetlands of International Importance (Ramsar Wetlands)	1
Great Barrier Reef Marine Park	None
Commonwealth Marine Area	None
Listed Threatened Ecological Communities	6
Listed Threatened Species	100
Listed Migratory Species	40

1.2 Listed Threatened Ecological Communities

Community	Status	RE Mapped (On-site or within 100m of site)
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	No
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	No
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	No
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	No
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	No
Lowland Rainforest of Subtropical Australia	Critically Endangered	No

2. State Matters			
2.1 Vegetation Management Act 1999 and subordinate legislation			
Regional Ecosystem	VMA status	Category	Area (ha)
12.11.24	Least Concern	C	0.64
Non-Remnant Vegetation	None	X	2.69
Essential Habitat		Present	
Wetland/s			
Bioregion		Coastal bioregions and sub-regions	
2.2 Nature Conservation Act 1992 and subordinate legislation			
Protected Plants Flora Survey Trigger Map		Within high risk area	
2.3 Koala Habitat Mapping			
Koala Priority Area (KPA)		Not within	
Koala Habitat Areas		Koala Habitat Area (Core)	
2.4 State Planning Policy Interactive Mapping System (selected environmental matters)			
SPP - Biodiversity		MSES - Wildlife habitat (endangered or vulnerable species) MSES - Wildlife habitat (special least concern animal) MSES - Wildlife habitat (Koala habitat areas - core) MSES - Regulated vegetation (intersecting a watercourse) MSES - Regulated vegetation (essential habitat)	
SPP - Coastal Environment		N/A	
SPP - Water Quality		N/A	
SPP - Natural Hazards Risk and Resilience		Potential Impact Buffer Medium Potential Bushfire Intensity	
2.5 Development Assessment Mapping System			
DAMS - Coastal Protection		N/A	
DAMS - Fish Habitat Areas		N/A	
2.6 Water Act 2000			
Watercourse Identification		Water Act 2000 - Drainage Feature	

2.7 Highest Astronomical Tide (HAT)

Highest Astronomical Tide	N/A

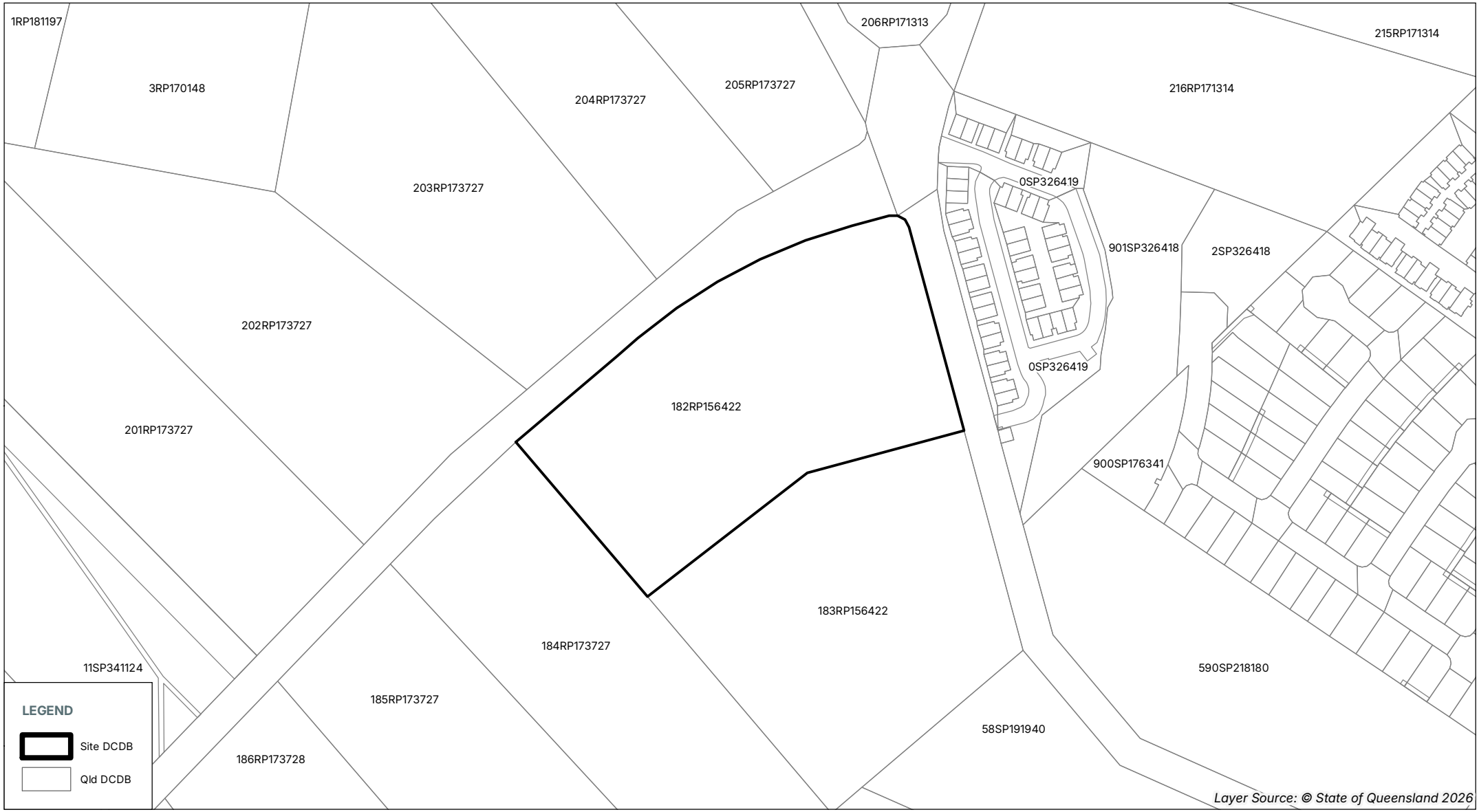
3. Local matters — Gold Coast City Council	
Zoning	Emerging community zone
Precinct	Upper Coomera Precinct
Overlay — Environmental Significance Biodiversity Areas	Nil
Overlay — Environmental Significance Priority Species	Priority species - Koala habitat areas
Overlay — Environmental Significance Vegetation Management	Nil
Overlay — Environmental Significance Wetlands and Watercourse	Wetlands and watercourse - Waterway

Site context

J13087 (26 March 2026)

Environmental Searches

Map 1. Lot/Plan(s)



Environmental Searches

Map 2. Aerial Image (Current)



Environmental Searches

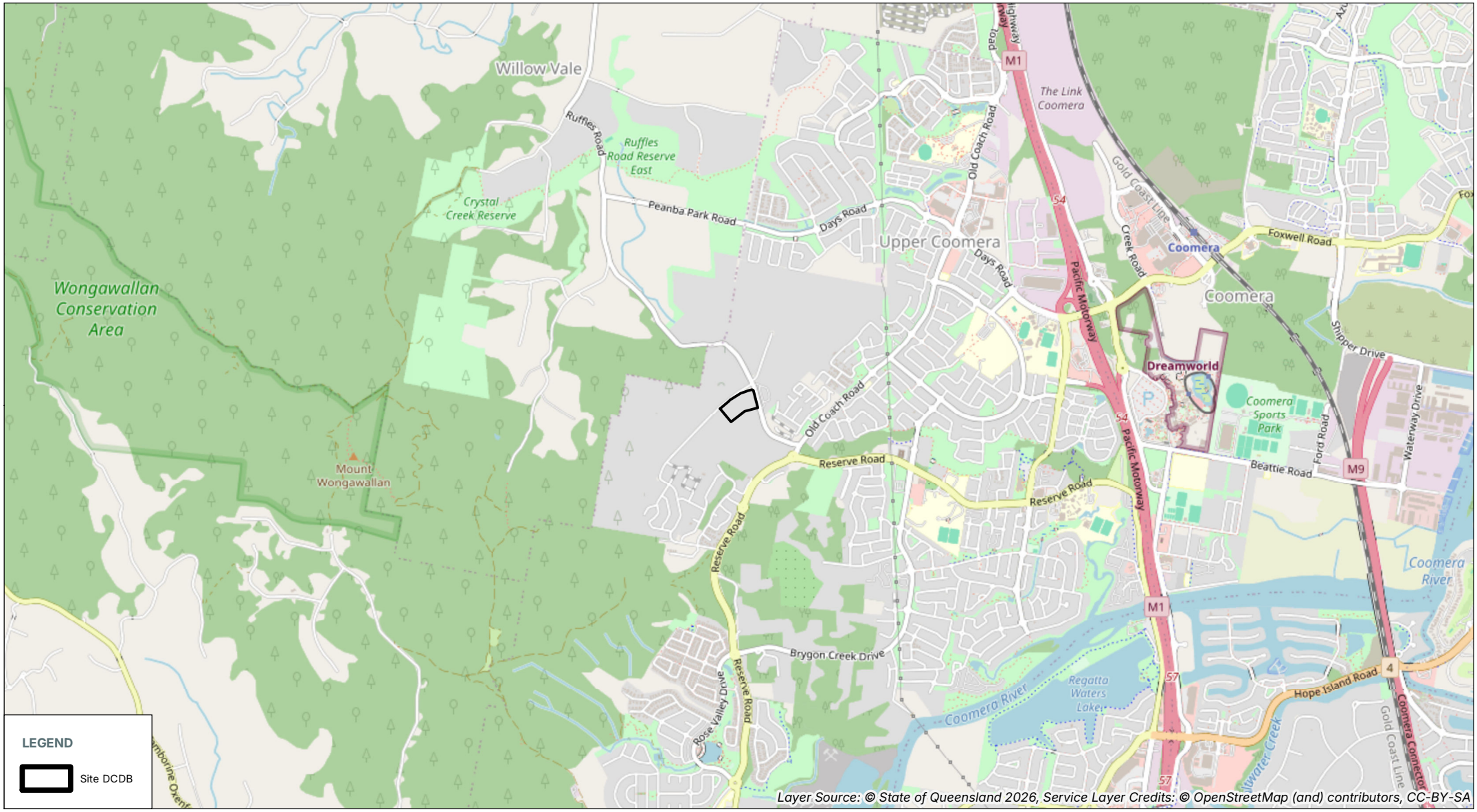
Map 3. Aerial Image (Historical)



, Service Layer Credits:

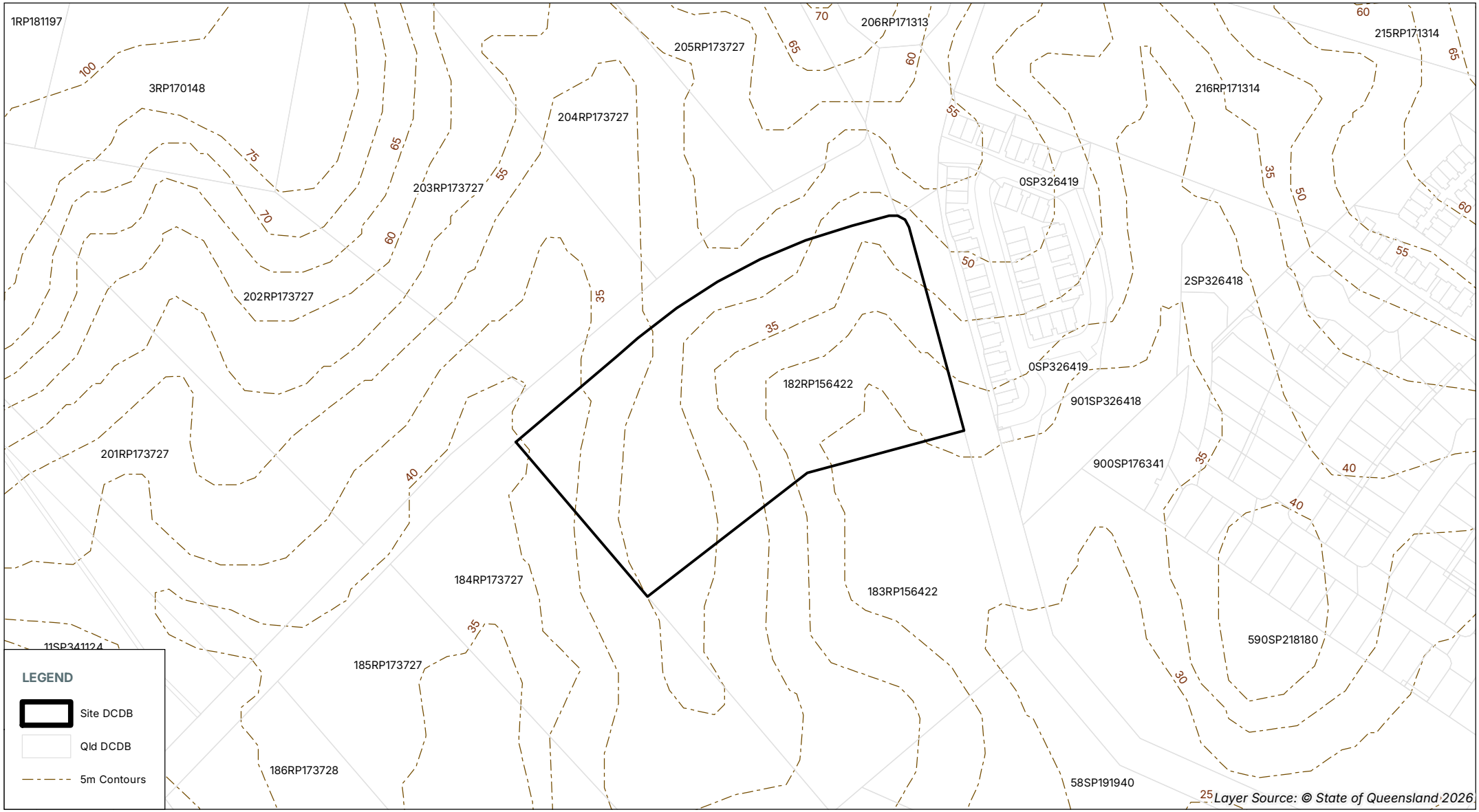
Environmental Searches

Map 4. Locality



Environmental Searches

Map 5. Contours (5m)



Environmental Searches

Map 6. Hillshade



State matters

J13087 (26 March 2026)

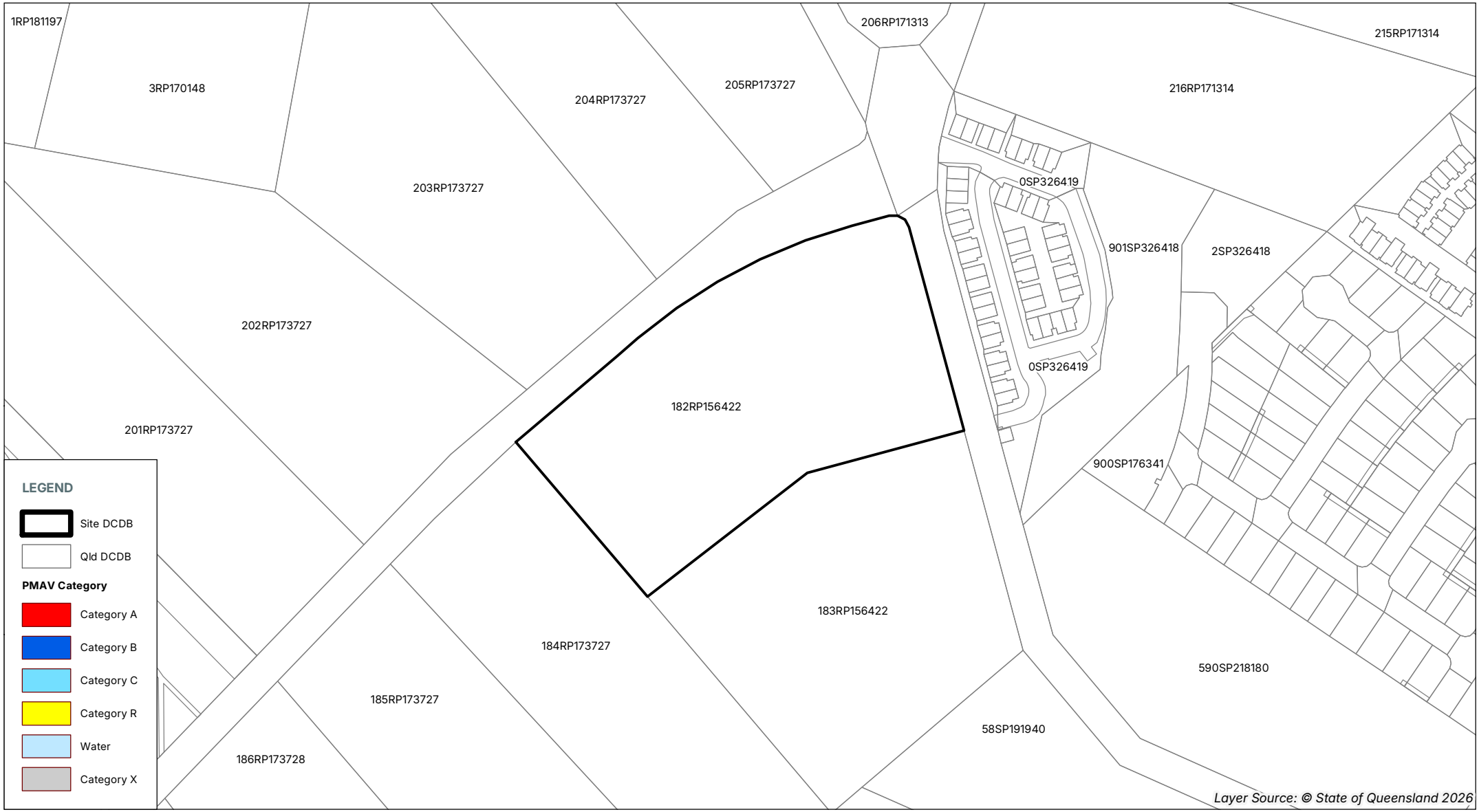
Environmental Searches

Map 7. Regulated Vegetation Management Map



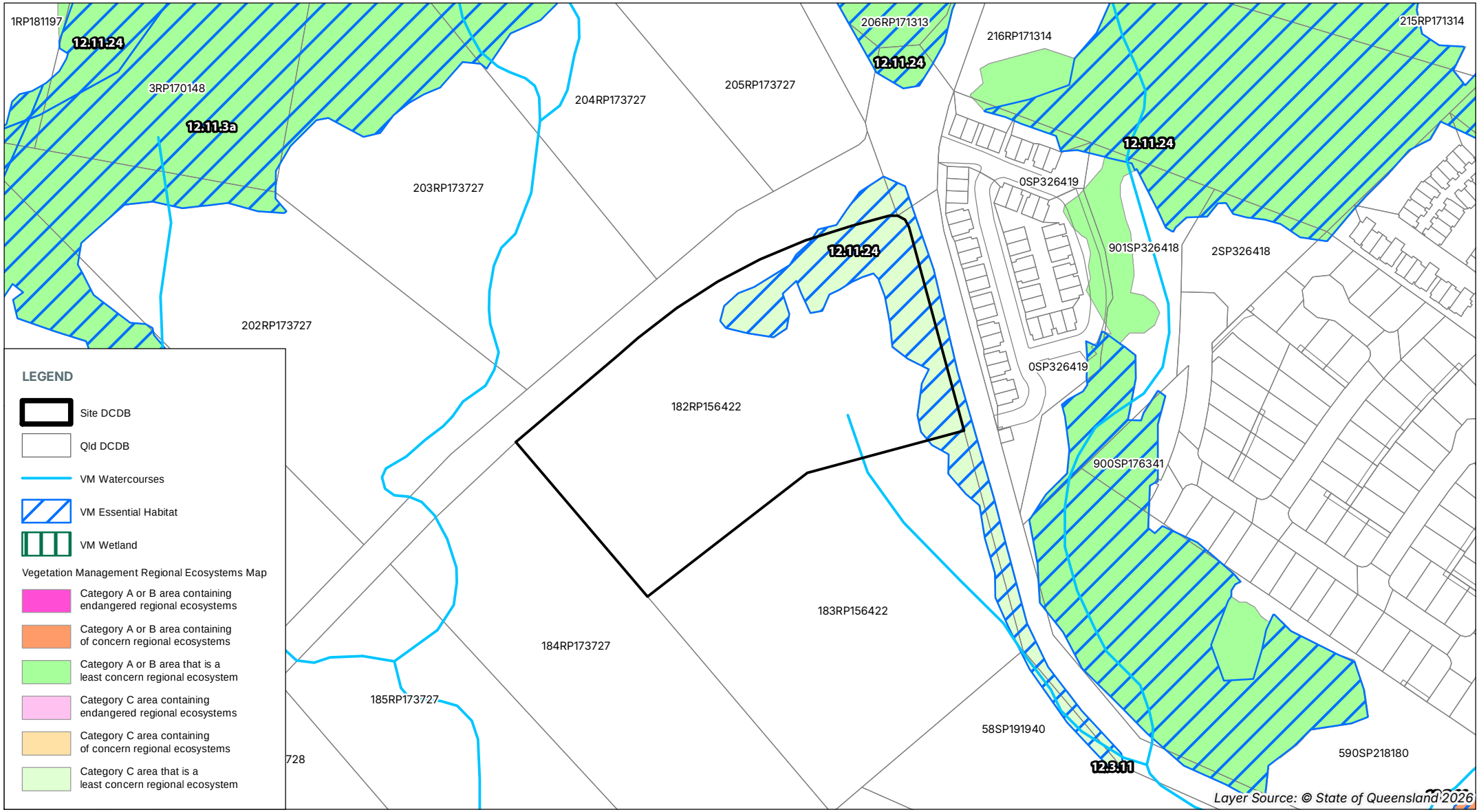
Environmental Searches

Map 8. Property Maps Assessable Vegetation



Environmental Searches

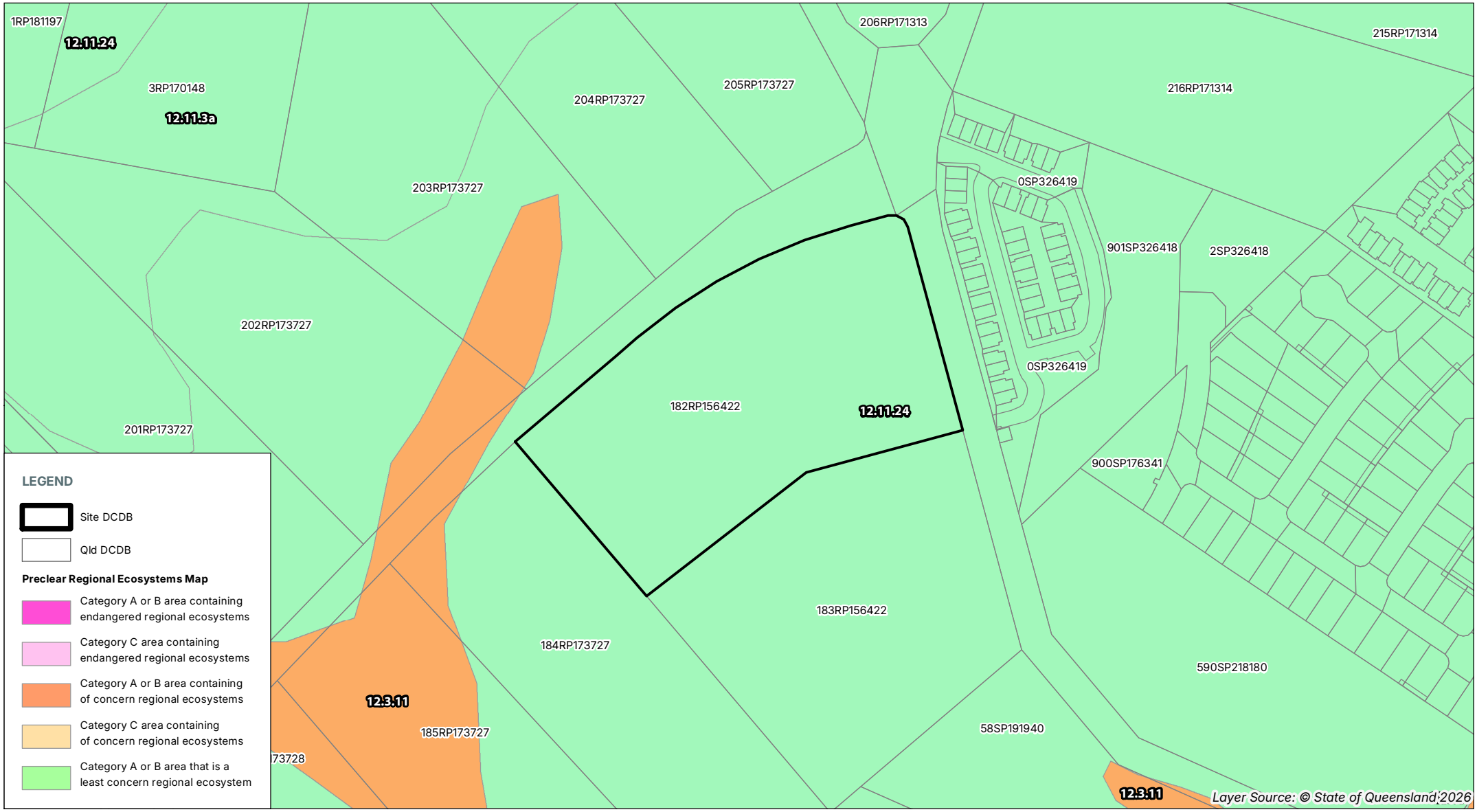
Map 9. Vegetation Management Regional Ecosystem Mapping



Disclaimer: Regional ecosystem locations are indicative only. For precise RE mapping, please visit:
https://qldglobe.information.qld.gov.au/ and enable the Vegetation management regional ecosystem map layers.

Environmental Searches

Map 10. Pre-clear Regional Ecosystems



Environmental Searches

Map 11. Protected Plants Flora Survey Trigger Map



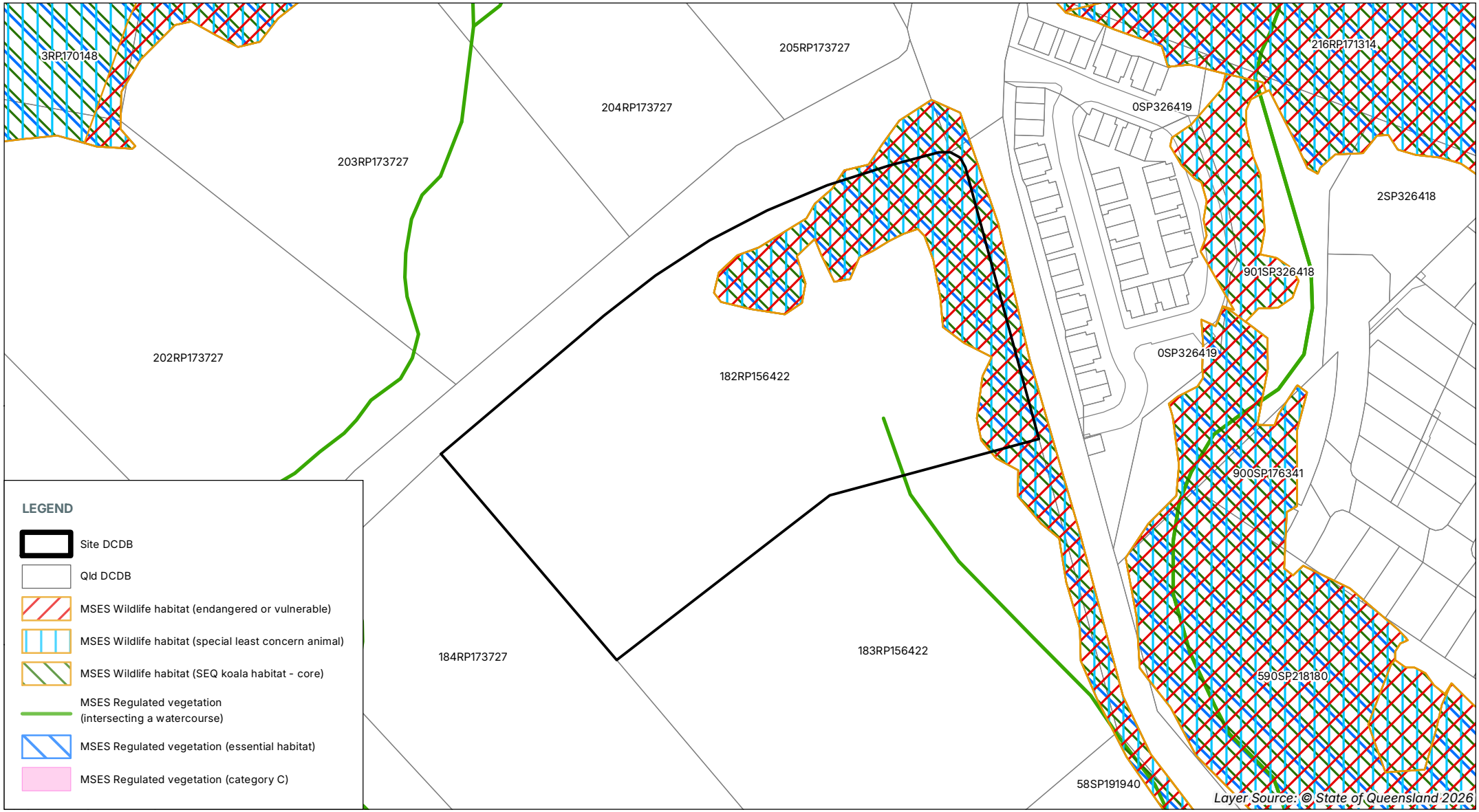
Environmental Searches

Map 12. Koala Priority Areas and Koala Habitat Areas



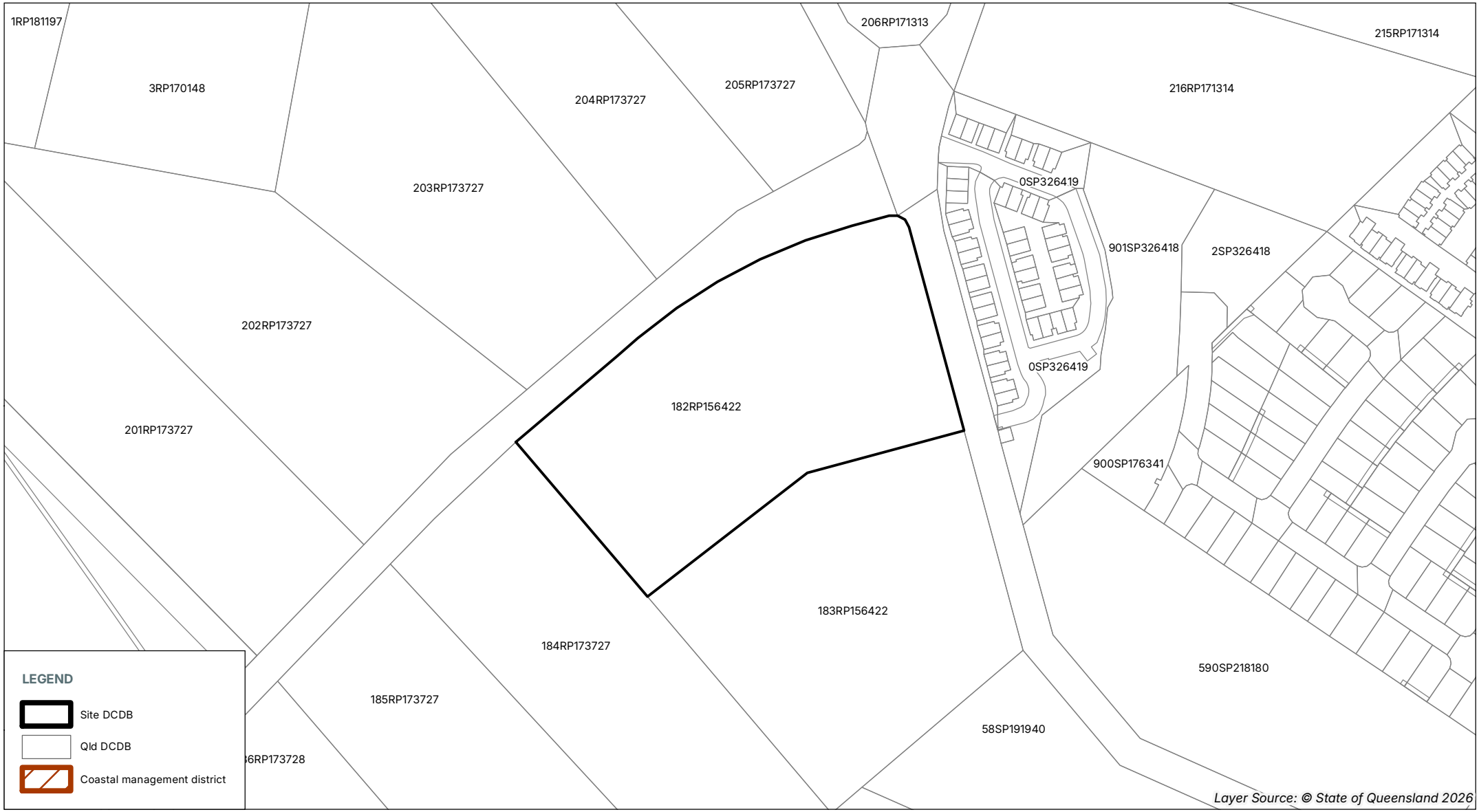
Environmental Searches

Map 13. SPP - Biodiversity



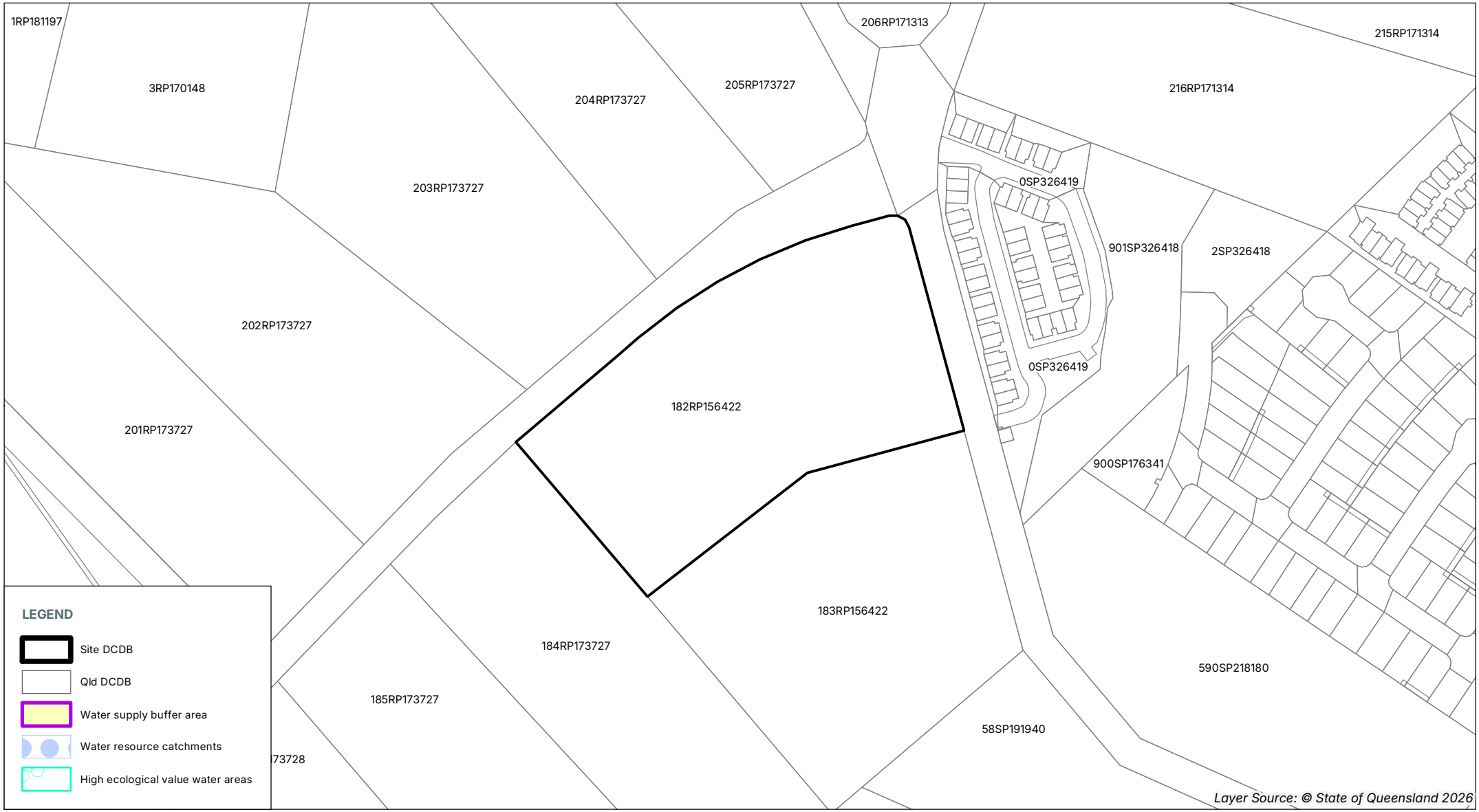
Environmental Searches

Map 14. SPP - Coastal Environment



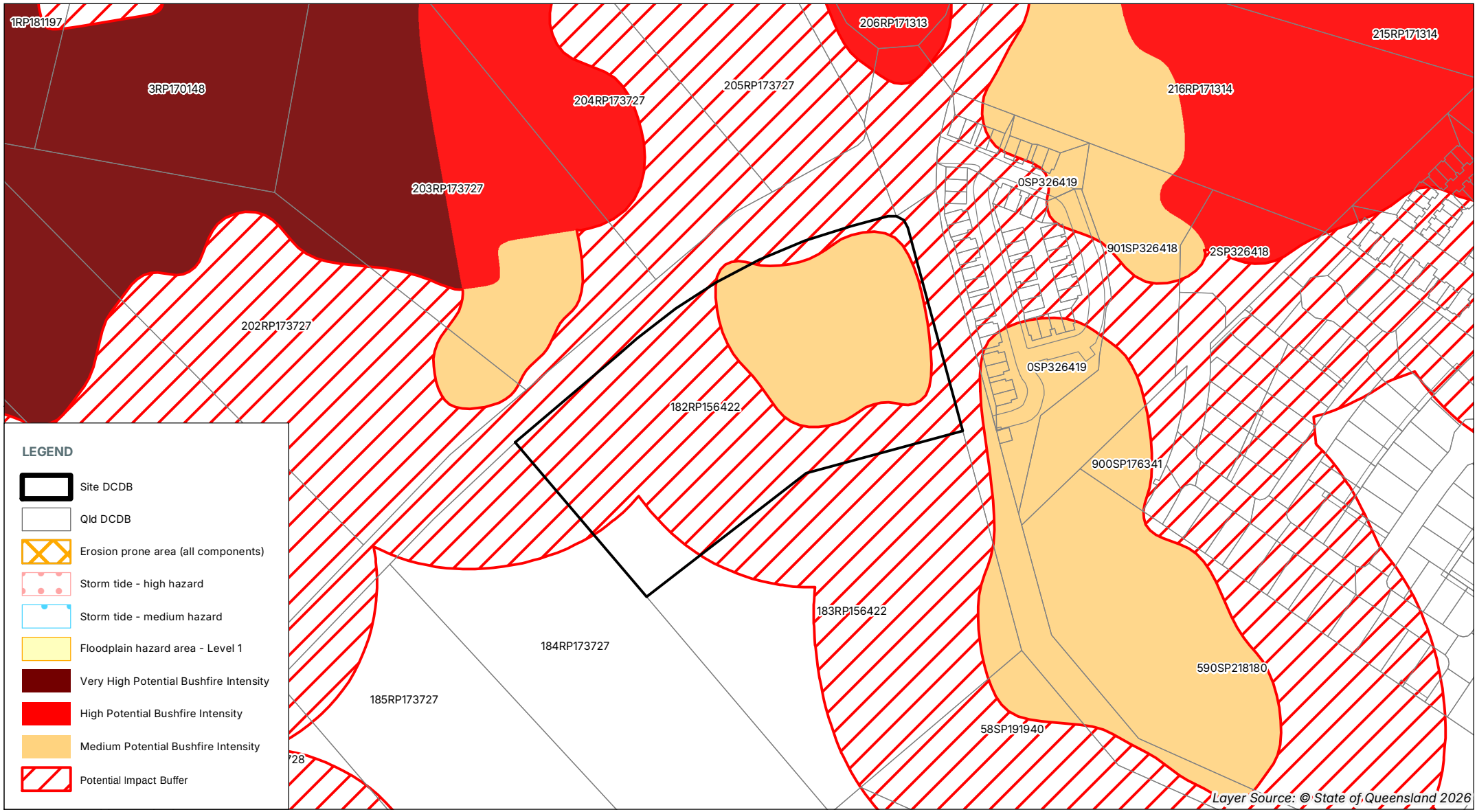
Environmental Searches

Map 15. SPP - Water Quality



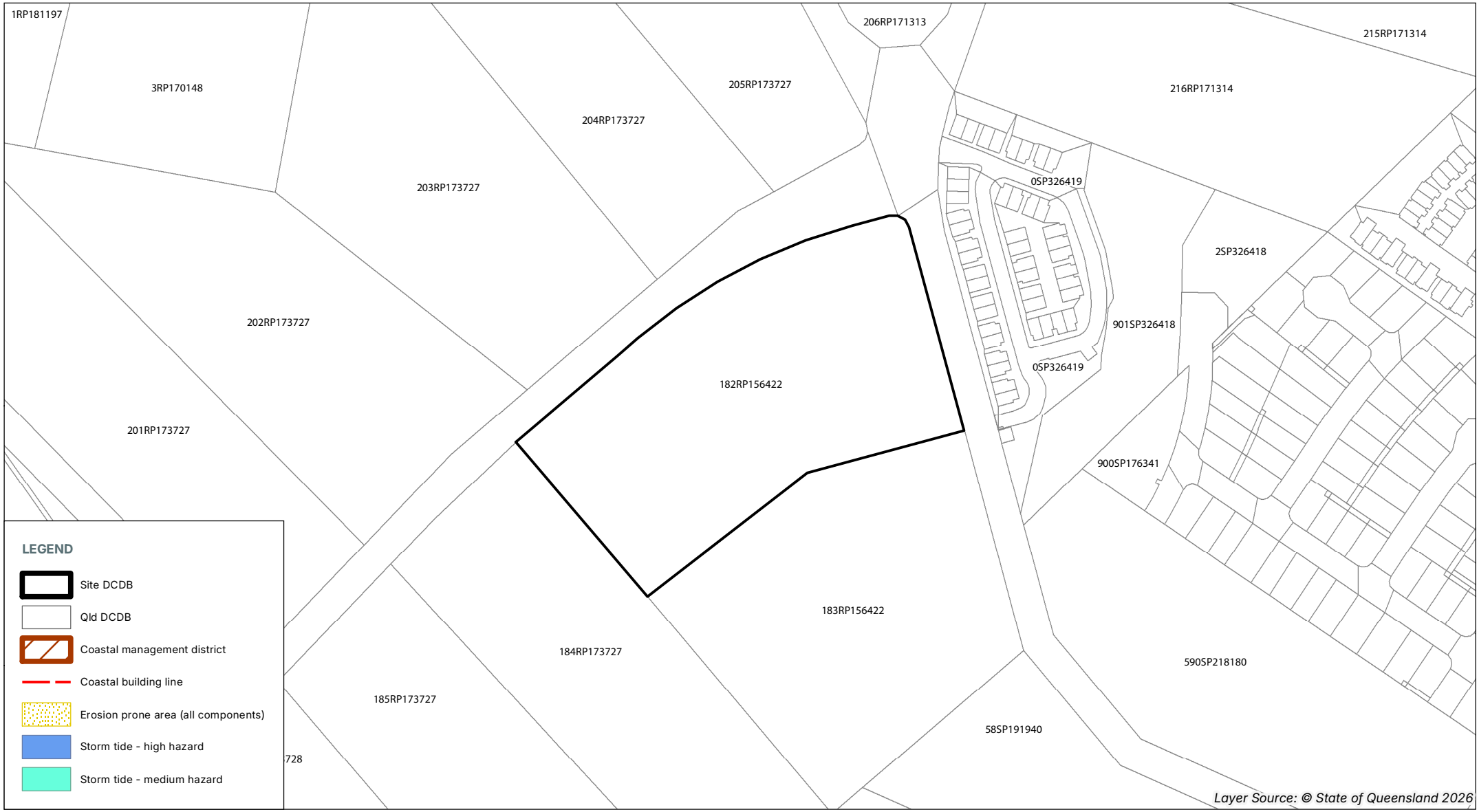
Environmental Searches

Map 16. SPP - Natural Hazards Risk and Resilience



Environmental Searches

Map 17. DAMS - Coastal Protection



Environmental Searches

Map 18. DAMS - Fish Habitat Areas



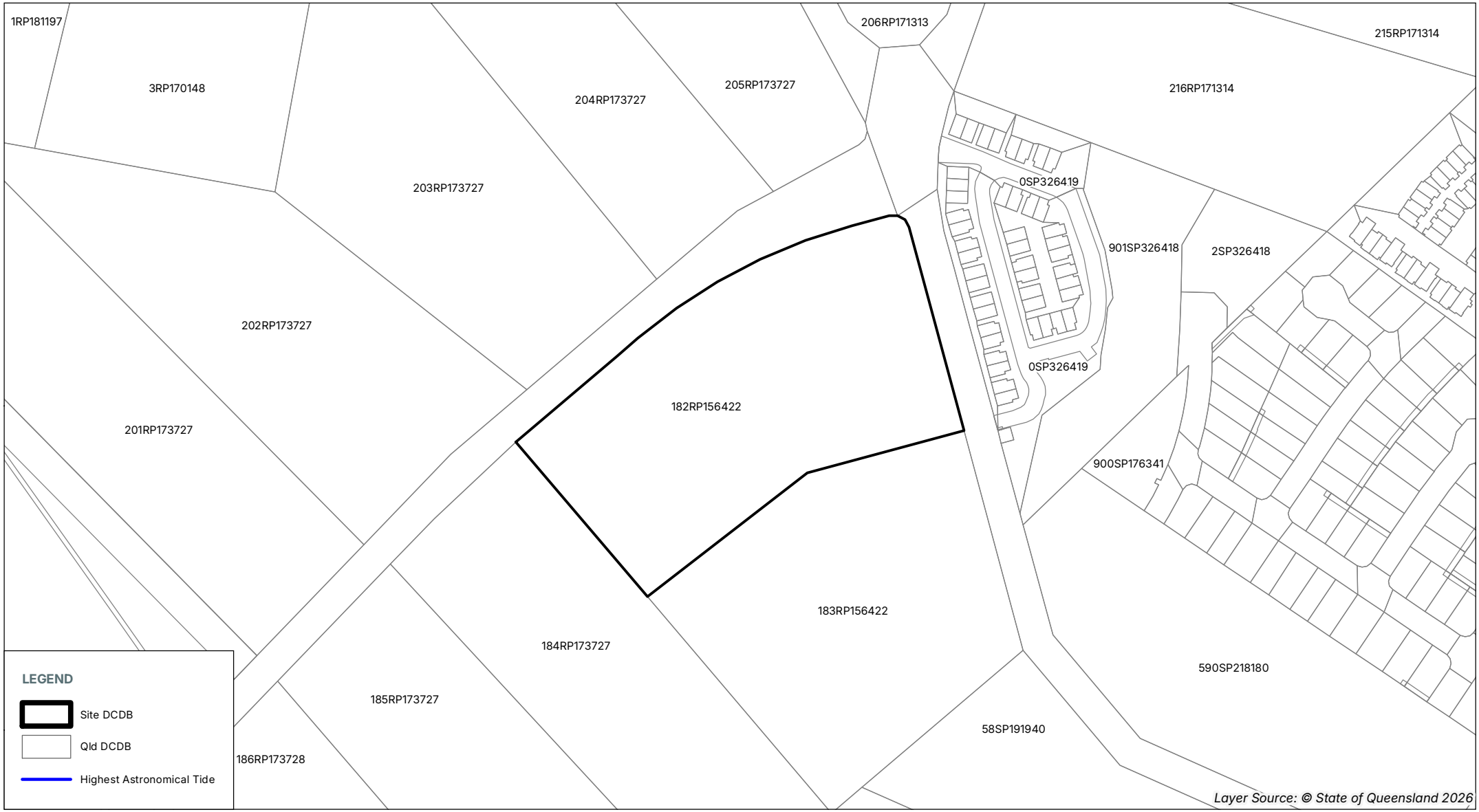
Environmental Searches

Map 19. Water Act 2000



Environmental Searches

Map 20. Highest Astronomical Tide

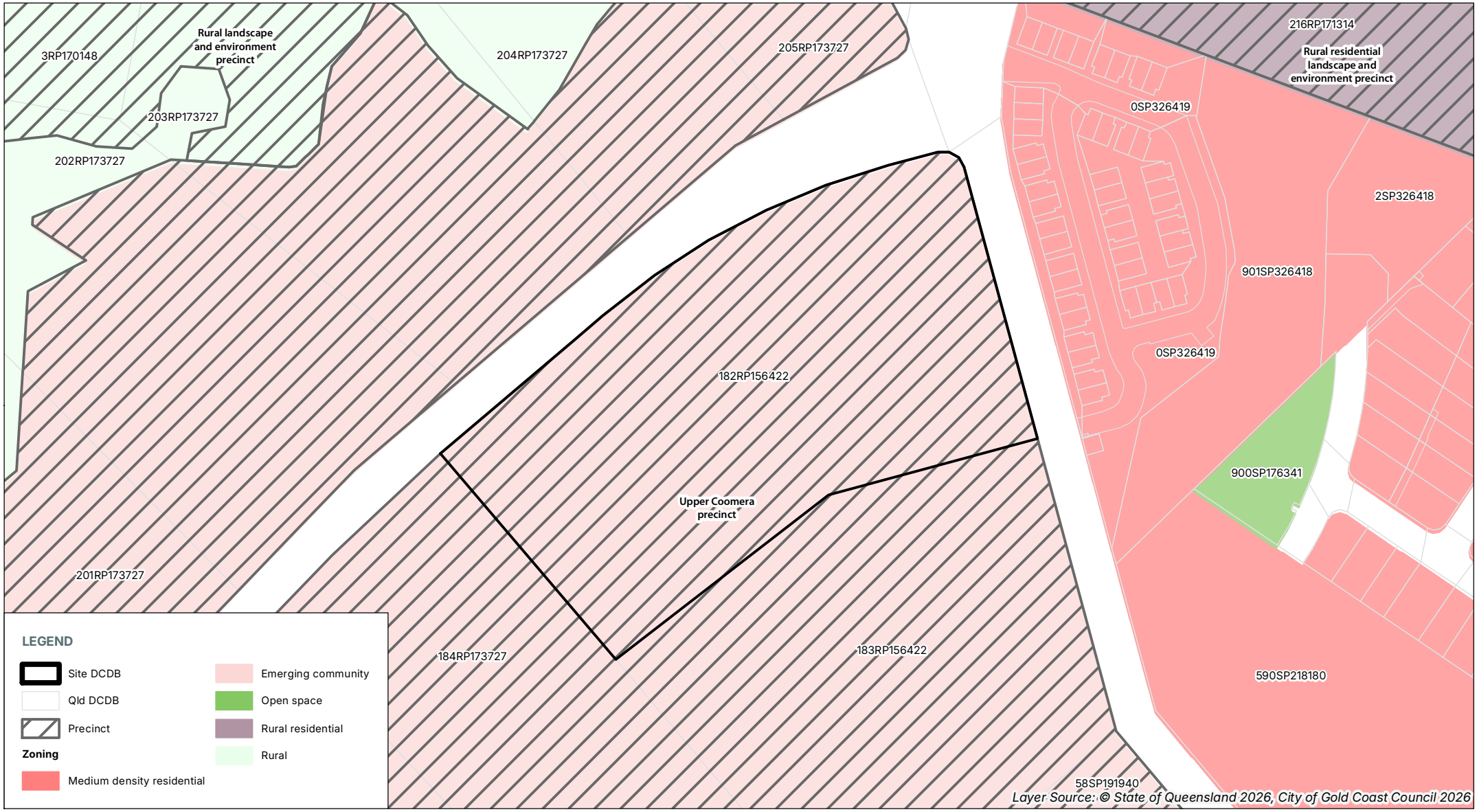


Local matters – City of Gold Coast Council

J13087 (26 March 2026)

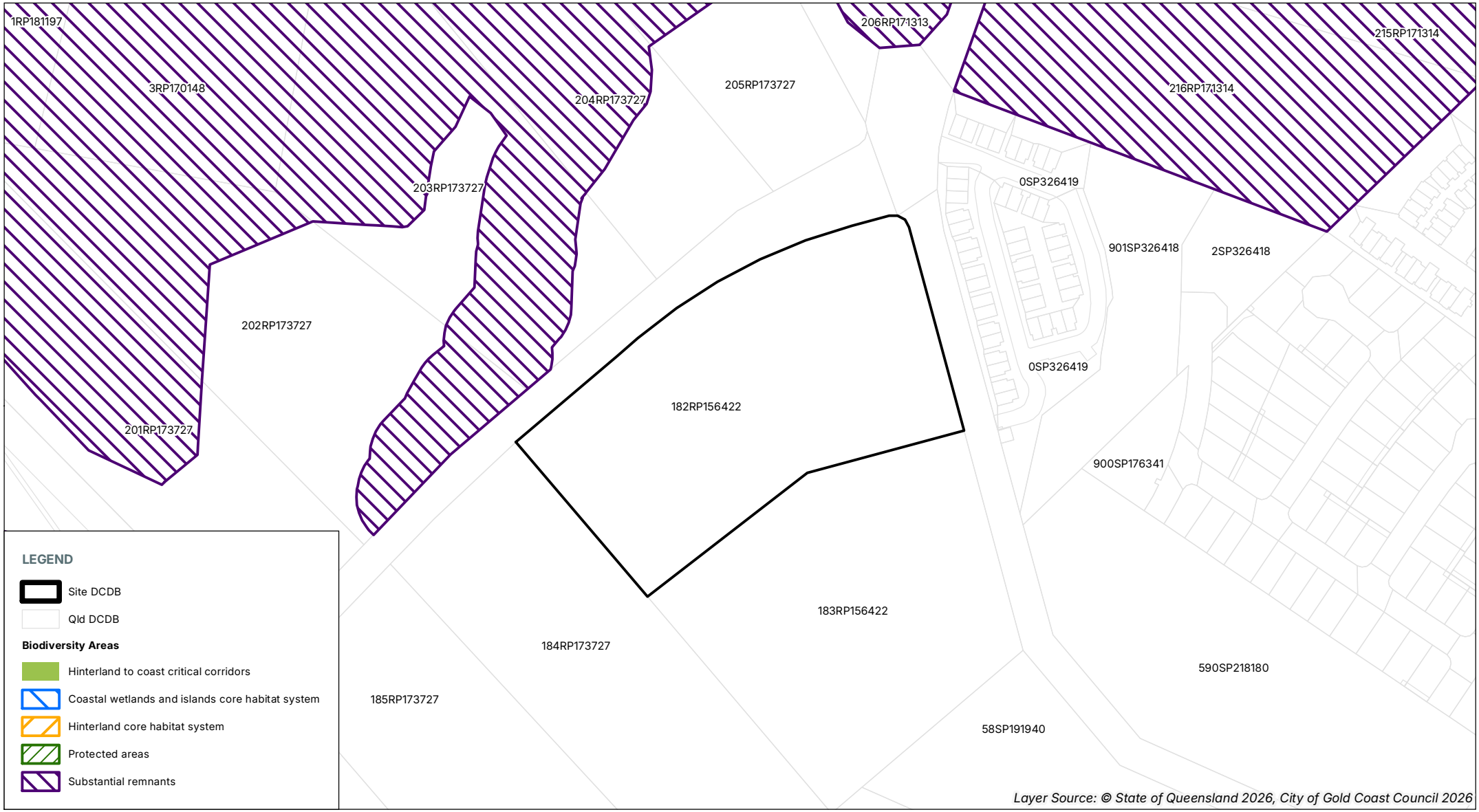
Environmental Searches

Map 21. City of Gold Coast Council Zoning



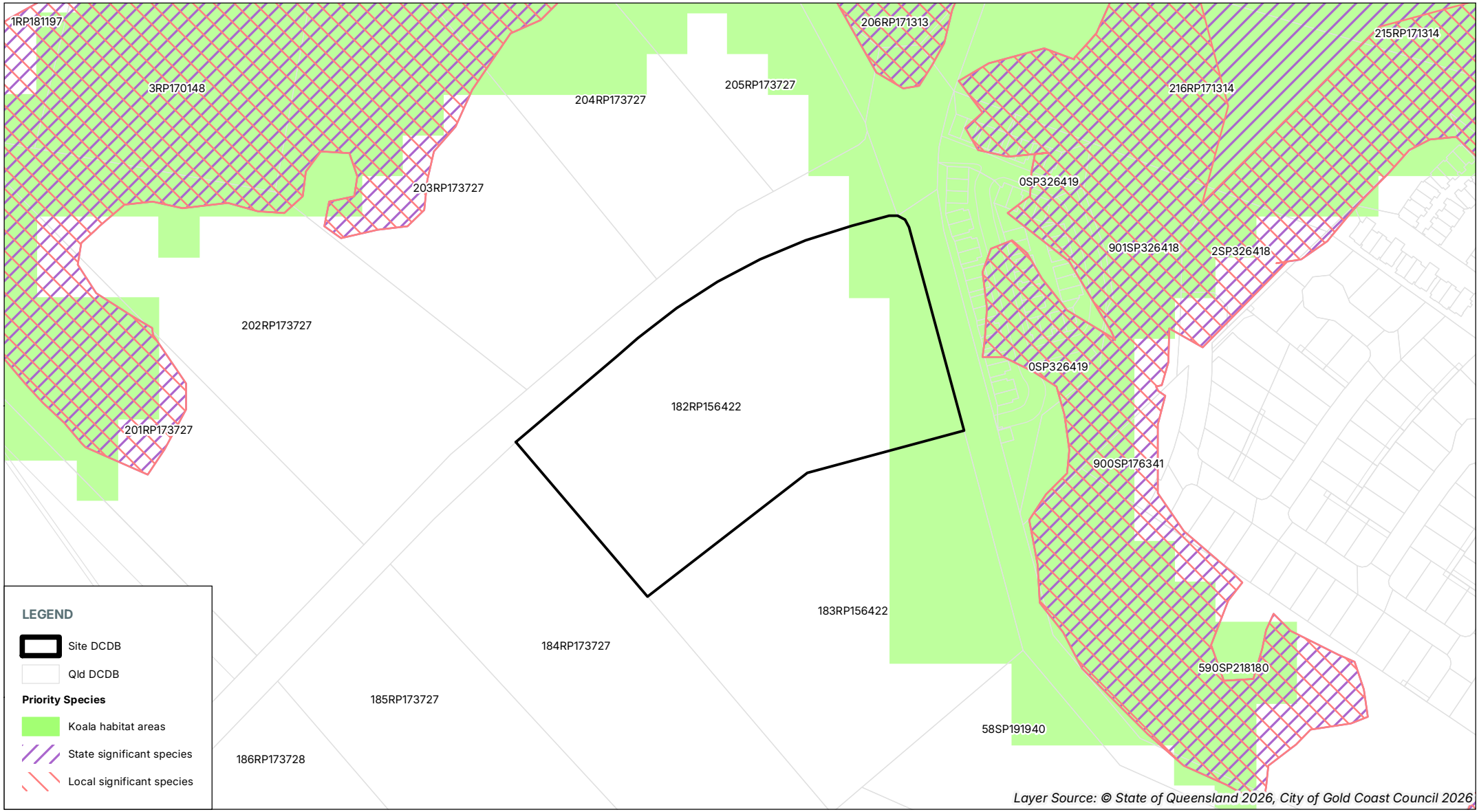
Environmental Searches

Map 22. Biodiversity Areas



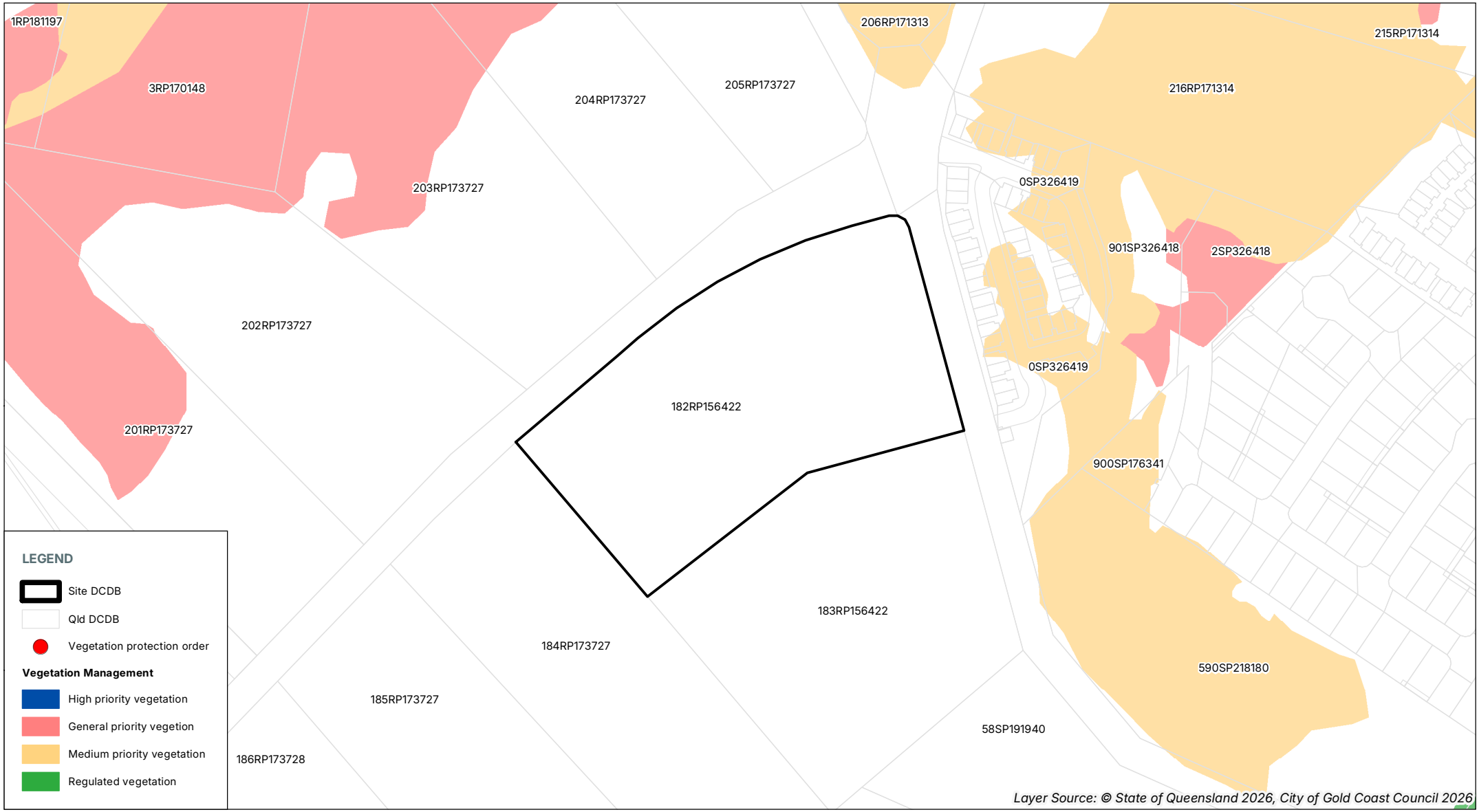
Environmental Searches

Map 23. Priority Species



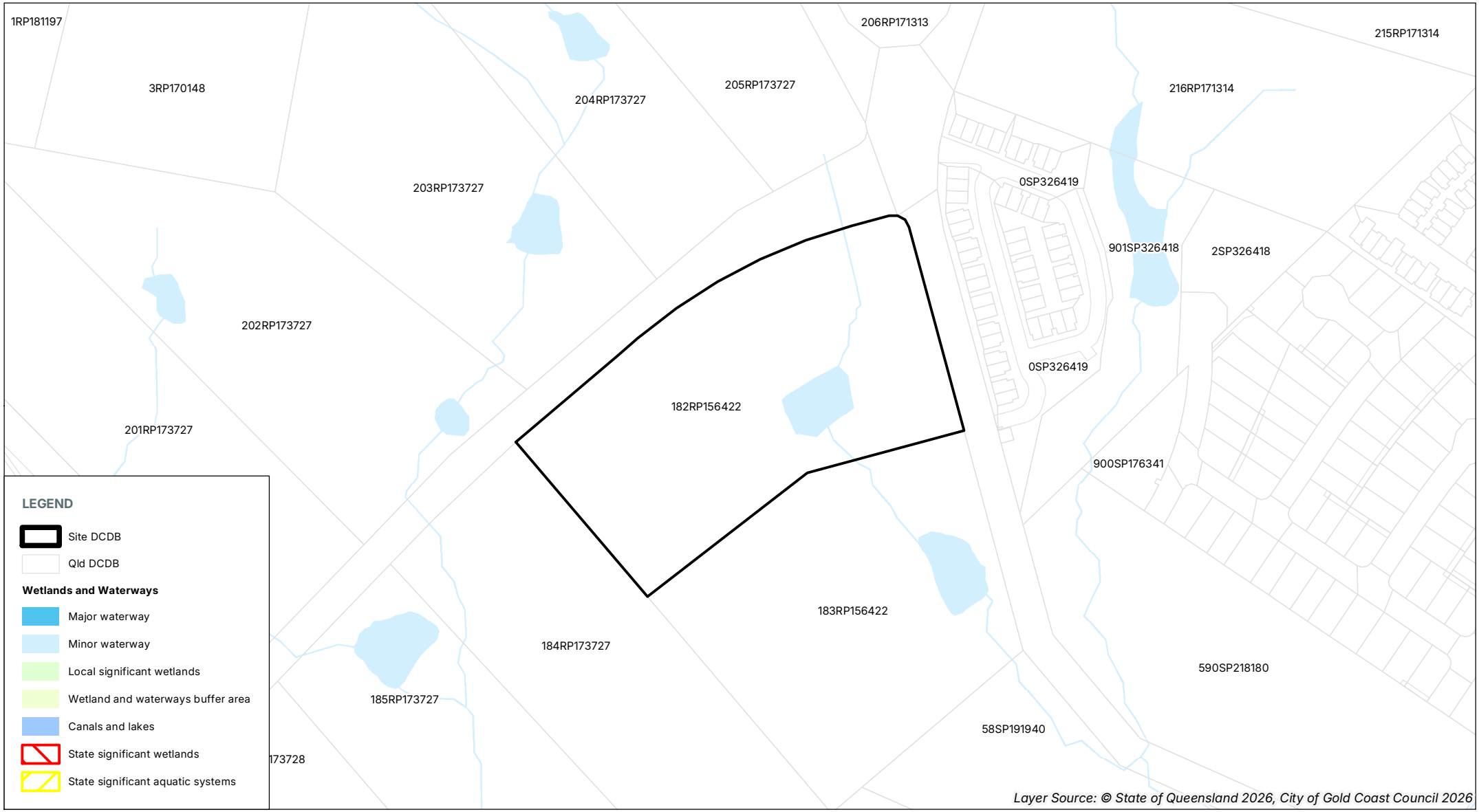
Environmental Searches

Map 24. Vegetation Management



Environmental Searches

Map 25. Wetlands and Waterways



Appendix E

Response to Environmental Significance Overlay Code

Gold Coast City Plan V11

Response to Table 8.2.6-2: Environmental significance overlay code – for assessable development

Performance outcomes	Acceptable outcomes	Response
Ecological site assessment		
PO1 All matters of environmental significance on and adjacent to the development site are identified and protected. Note - An Ecological Site Assessment prepared in accordance with SC6.7 City Plan policy – Ecological site assessments, is Council's preferred method for addressing this performance outcome.	**AO1** Proposed works do not impact on: a) areas identified on **Environmental significance – vegetation management overlay map**; b) buffers to wetlands and waterways being: i. 100 m from the mapped boundary of a State significant aquatic area, as identified on **Environmental significance – wetlands and waterways overlay map**; ii. 100 m from the outer landward boundary of a State significant wetland, as identified on **Environmental significance – wetlands and waterways overlay map**; iii. 100 m from the outer landward boundary of a Local significant wetland, as identified on Environmental significance **– wetlands and waterways overlay map**; iv. 60 m from the outer bank of a Major Waterway identified on **Environmental significance – wetlands and waterways overlay map**; or **v.** 30 m from the outer bank of a Waterway identified on **Environmental significance – wetlands and waterways overlay map**; and	**PO1 – COMPLIES** Under local *Environmental significance – Wetlands and Waterways,* a locally significant waterway was identified on site (**Figure 10**). Under the *Environmental significance – Priority species overlay map,* the eastern portion of the site was identified as containing Koala Habitat Area. All matters of environmental significance mapped by CoGC have been identified and addressed. The site is zoned as 'Emerging Community' within the Upper Coomera precinct; therefore the area is earmarked for residential development projects such as this. In order to fulfil the planning intent of the project site, major earthworks across the site are required. Project design has been informed by this Ecological Assessment Report, considering the on-ground values of the site, and proposes to remove this mapped waterway from site due to the mass degradation of waterway features identified during field surveys (**Plan 2**). The proposed development will occur within areas that have long been modified and maintained for rural residential uses. Vegetation within these areas is reflective of the historical and current land uses, with the majority of mapped waterway being maintained lawn. Native vegetation is scattered and largely restricted to the eastern boundary, surrounding the constructed dam and surrounding the dwelling where majority of vegetation is dominated by regrowth Acacia. <u>Local Waterway</u> The mapped waterway extends offsite to the south where the adjoining lot has a current Development Application lodged with council. If approved, this neighbouring development will remove the downstream values of this waterway, functionally removing any

Performance outcomes	Acceptable outcomes	Response
		upstream values that might occur on site. As this application is considered close to approval, it is likely that this will occur. The mapped waterway is reflective of low-lying drainage channel (mapped as such under the *Water Act 2014*), lacking bed and bank features with invasive ground species dominating the area. Therefore, these areas are not considered to reflect true waterway values and instead are a result of heavy modification of natural flow within the area.
	c) individual trees within areas mapped on the environmental significance – priority species overlay map.	<u>Vegetation Clearing</u> Vegetation clearing will occur across the entirety of the site which includes a mapped area of *Environmental Significance - Priority Species* along the eastern boundary of the site. This mapping is inclusive of the MSES – Koala Habitat area. This portion of mapped area is proposed to be entirely removed as a part of the project. While this area is mapped as KHA, it is dominated by regrowth Acacia species Overall, it is considered unlikely that Koala would utilise the site at present given lack of evidence on site and complete lack of connectivity to larger, high quality, patches of KHA. The removal of the highly modified and largely fragmented vegetation on-site is unlikely to further reduce already limited movement potential. Additionally, vegetation within the connected area of mapped KHA along Bailey's Mountain Road is set to be cleared, and has already been cleared in parts, as a part of a road upgrade. This road upgrade will further impact the habitat on site, degrading and further isolating it from potential connectivity. As removal of Koala Habitat trees are taking place within Koala Habitat Area, referral to DETSI and a response to SDAP Code 25 will be required. A response to SDAP Code 25 and a Koala Management Plan will be supplied within this development application. An offset consistent with the *Environmental Offsets Act 2014* and in

Performance outcomes	Acceptable outcomes	Response
		accordance with *SC6.9 City Plan policy – Environmental offsets* will be required and supplied as a part of the project.
Biodiversity areas		
PO2 Development does not impact on Protected Areas as identified on the **Environmental significance–biodiversity areas overlay map.**	**AO2.1** No acceptable outcome provided.	**AO2.1 – NOT APPLICABLE** The subject site is not situated in areas mapped as Protected Areas as identified on the *Environmental significance–biodiversity areas* overlay map.
PO3 Development within the Hinterland to Coast Critical Corridors as identified on the **Environmental significance –biodiversity areas overlay map** is located and designed to: a) provide corridors of sufficient dimensions and characteristics that will enable adequate movement of fauna through the site; b) protect in situ matters of environmental significance and associated buffers; c) protect in situ, vegetation identified on the **Environmental significance – vegetation management overlay map** and habitat for native flora and fauna; d) link matters of environmental significance, existing corridors and/or conservation estate/reserves on adjacent properties; e) maintain and improve upon the regional connectivity of the Hinterland to Coast Critical Corridors; and f) allow for the rehabilitation of disturbed, cleared or modified areas that form part of the Hinterland to Coast Critical Corridors. Note: Recommendations provided in an ecological site assessment (prepared in	**AO3.1** No acceptable outcome provided.	**AO3.1 – NOT APPLICABLE** The subject site is not situated within the Hinterland to Coast Critical Corridor as identified on the *Environmental significance – biodiversity areas* overlay map.

Performance outcomes	Acceptable outcomes	Response
accordance with SC6.7 City Plan policy – Ecological site assessments) are Council's preferred method for determining corridor dimensions.		
PO4 Development within Hinterland Core Habitat Systems, Coastal Wetlands and Islands Core Habitat Systems and Substantial Remnant Areas as identified on the **Environmental significance – biodiversity areas overlay map** is located and designed to: a) protect in situ matters of environmental significance and associated buffers; b) protect in situ vegetation identified on the **Environmental significance – vegetation management overlay map** and habitat for native flora and fauna; and **c)** allow for the rehabilitation of disturbed, cleared or modified areas.	**AO4** No acceptable outcome provided.	**P04 – NOT APPLICABLE** The assessment area is not identified within the Hinterland Core Habitat Systems as identified on the *Environmental significance – biodiversity areas overlay map.*
Wetland and waterway		
PO5 Buffers are provided to wetlands and waterways identified on the **Environmental significance – wetlands and waterways overlay map** to ensure the: a) protection of matters of environmental significance mapped on-site or identified through an ecological site assessment; b) unimpeded movement of fauna along the waterway; c) water quality is maintained;	**AO5.1** Buffers at least 100m wide are provided between the development and the mapped boundary of a state significant aquatic area, as identified on ***environmental significance – wetlands and waterways overlay map.***	**AO5.1 – NOT APPLICABLE** The subject site is not situated in or near areas mapped as state significant aquatic areas as identified on the *Environmental significance–wetlands and waterways* overlay map.
	AO5.2 Buffers at least 100 m wide are provided between the development and the outer landward boundary of a state significant wetland, as identified on ***environmental significance – wetlands and waterways overlay map.***	**AO5.2 – NOT APPLICABLE** The subject site is not situated in or near areas mapped as state significant wetland as identified on the *Environmental significance–wetlands and waterways* overlay map.

Performance outcomes	Acceptable outcomes	Response
d) bank stability; and e) protection of property and infrastructure. Note: The buffer width for wetlands is measured from the outer, landward boundary of the mapped wetland, as shown on Environmental significance – wetland and waterways overlay map. Note: Recommendations provided in an ecological site assessment (prepared in accordance with SC6.7 City Plan policy – Ecological site assessments) is Council's preferred method for determining alternative buffer widths. Note Artificial waterways are to be addressed through the Coastal erosion hazard overlay code and map. Where a waterbody contains both natural and artificial banks, the natural banks are to be assessed in accordance with this performance outcome.	**AO5.3** Buffers at least 100 m wide are provided between the development and the outer landward boundary of a local significant wetland as identified on the ***environmental significance – wetlands and waterways overlay map.***	**AO5.3 – NOT APPLICABLE** The subject site is not situated as containing areas mapped as local significant wetland as identified on the *Environmental significance–wetlands and waterways* overlay map.
	AO5.4 Buffers at least 60m wide are provided between the development and the outer bank of a Major Waterway as identified on the ***Environmental significance – wetlands and waterways overlay map***.	**AO5.4 – NOT APPLICABLE** The subject site is not situated in or near areas mapped as a Major Waterway as identified on the *Environmental significance–wetlands and waterways* overlay map.
	AO5.5 Buffers at least 30m wide are provided between the development and the outer bank of a waterway as identified on the ***Environmental significance – wetlands and waterways overlay map***.	**PO5 - COMPLIES** One 'minor waterway' as identified on the *Environmental significance – wetlands and waterways overlay* is mapped on-site. Field surveys identified it as lacking key waterway features. Bed, bank, and flow path were absent, and the majority of the watercourse is dominated by maintained lawn areas. The limited standing vegetation across the mapped watercourse is dominated by regrowth *Acacia* species with scattered native eucalypts. Field surveys determined the area reflects a low-lying drainage corridor which the proposed development intends to remove the entirely (**Appendix F**). Additionally, a development application on the lot directly south of the site (Lot 183) proposes to remove the downstream features of the waterway mapped over Lot 182. This development has been submitted to council and is awaiting final stages of approval. If this neighbouring development goes ahead, waterway values on site will be completely fragmented on site, effectively removing any connectivity to offsite waterway values. This fragmentation will effectively remove any limited potential waterway values on site. Therefore, the proposed development is not considered to have significant effects on locally mapped waterways, as values on site

Performance outcomes	Acceptable outcomes	Response
		are not representative of the mapping and are expected to further degrade with the loss of any connectivity following approval of the neighbouring development.
Vegetation management		
PO6 Regulated vegetation is protected in situ when it is: identified on the **Environmental significance – vegetation management overlay map**; and within biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map.**	**AO6** Development does not impact on regulated vegetation.	**PO6 – NOT APPLICABLE** No mapped biodiversity areas as identified on the *Environmental significance – biodiversity areas overlay map* are present on-site.
PO7 Development is designed to maintain regulated vegetation and minimise disturbance when it is: A) identified on the **Environmental significance – vegetation management overlay map**; and outside of biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map.**	**AO7** Development avoids impacts on regulated vegetation.	**PO7 – NOT APPLICABLE** No mapped biodiversity areas as identified on the *Environmental significance – vegetation management overlay map* are present on-site.
PO8 High priority vegetation as identified on the **Environmental significance – vegetation management overlay map** is protected in situ.	**AO8** No acceptable outcome provided.	**PO8 – NOT APPLICABLE** The subject site is not situated in or near areas mapped as High Priority Vegetation as identified on the *Environmental significance–vegetation management* overlay map.
PO9 Medium and general priority vegetation as identified on the **Environmental significance – vegetation management overlay map** within biodiversity areas as identified on the **Environmental significance –biodiversity areas overlay map** is protected in situ.	**AO9** No acceptable outcome provided.	**PO9 – NOT APPLICABLE** No mapped biodiversity areas as identified on the *Environmental significance – biodiversity areas overlay map* are present on-site.

Performance outcomes	Acceptable outcomes	Response
PO10 Vegetation is protected when it is: A) identified as medium priority vegetation on the **Environmental significance – vegetation management overlay map**; and located outside the biodiversity areas identified on the **Environmental significance – biodiversity areas overlay map.**	**AO10** Vegetation is not damaged when it is: a) identified as medium priority vegetation on the Environmental significance – vegetation management overlay map; and b) located outside the Environmental significance –biodiversity areas overlay map. OR Where all attempts have been made to avoid and minimise damage to vegetation as stated above, any significant residual impact is offset consistent with the *Environmental Offsets Act 2014*, at a ratio of 3:1 (area) in accordance with **SC6.9 City Plan policy – Environmental offsets**. OR Damage to medium priority vegetation identified on the **Environmental significance – vegetation management overlay map** and located outside the biodiversity areas identified on the **Environmental significance – biodiversity areas overlay map** is for committed development.	**AO10 – NOT APPLICABLE** No mapped Medium Priority Vegetation as identified on the *Environmental significance–vegetation management overlay map* are present on-site.
PO11 Disturbance to vegetation is minimised when it is: a) identified as General priority vegetation on the **Environmental significance – vegetation management overlay map**; and b) located outside the **Environmental significance – biodiversity areas overlay map**.	**AO11** Development avoids impacts on general priority vegetation. Any damage is minimised to the greatest extent possible.	**PO11 – NOT APPLICABLE** No mapped areas of *Environmental Significance – Vegetation management overlay map* or *Biodiversity areas overlay map* occur on site. In order to fulfill the planning intent of the area and provide a functioning residential area with sufficient infrastructure and roads, complete vegetation removal will be required. On-ground surveys identified these areas to contain highly modified characteristics largely dominated by regrowth *Acacia* species, therefore not presenting significant habitat for fauna.
PO12	**AO12**	**PO12 – NOT APPLICABLE**

Performance outcomes	Acceptable outcomes	Response
Buffers are provided that protect the long-term viability of high priority and regulated vegetation located on or adjacent to the site.	Buffers at least 30 m wide are provided between the development and any retained vegetation identified as high priority or regulated vegetation on the **Environmental significance – vegetation management overlay map** on or adjacent to the site.	No High Priority or Regulated Vegetation as identified under the *Environmental significance - vegetation management* overlay map is not present on- or adjacent to the proposed development area.
Priority species		
PO13 Assessable Koala feed and shelter trees are protected in situ when they are located: a) in Koala habitat areas as identified on the **Environmental significance – priority species overlay map**; and b) within biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map**.	**AO13** Development does not impact on assessable Koala feed and shelter trees.	**PO13 – COMPLIES** The eastern boundary of the site contains Koala Habitat Areas as identified on the *Environmental significance – priority species* overlay map. Field surveys determined that the site generally offers minimal opportunity for Koala movement and suitable Koala habitat due to high levels of disturbance and fragmentation. Overall, it is considered unlikely that Koala would utilise the site at present given lack of evidence on site and high levels of fragmentation due to roads and large cleared areas, intersecting the site from higher quality habitat. Furthermore, vegetation within the mapped KHA is dominated by *Acacia disparrima* (Hickory Wattle) reflecting the disturbed, regrowth nature of this vegetation. Ultimately the removal of the highly modified and largely fragmented vegetation on-site is unlikely to isolate or decrease the availability of habitat to the extent that the species is likely to decline, particularly due to the already currently fragmented state of this vegetation. It is not considered appropriate to retain Koala habitat trees within the site given the fragmented nature of these trees and low likelihood of occurrence.

Performance outcomes	Acceptable outcomes	Response
PO14 Assessable Koala feed and shelter trees are protected when they are: a) in Koala habitat areas as identified on the **Environmental significance – priority species overlay map**; and b) outside biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map**.	**AO14** Development avoids impacts on assessable Koala feed and shelter trees. Any damage is minimised to the greatest extent possible.	**PO14 – COMPLIES** The proposed development will remove a total of seventy (86) NJKHTs on site for the development including thirty (30) NJKHTs from within mapped Koala habitat. This removal is considered unavoidable to fulfill the planning intent of the area and provide a functioning residential area with sufficient infrastructure and roads. On-ground surveys identified these areas as containing highly modified characteristics largely dominated by regrowth *Acacia* species, therefore not presenting significant habitat for fauna. As impacts to Koala habitat areas is proposed outside of exemptions, referral to DETSI and a response to SDAP Code 25 is necessary. A response to SDAP Code 25 and a Koala Management Plan will be supplied within this development application. An offset consistent with the *Environmental Offsets Act 2014* and in accordance with *SC6.9 City Plan policy – Environmental offsets* will be required and supplied as a part of the application.
PO15 Site design provides safe Koala movement opportunities by incorporating measures to maintain connectivity between areas of Koala habitat on and adjacent to the site. Note: *DEHP's Koala-Sensitive Design Guideline* should be consulted for suitable measures to provide for safe Koala movement.	**AO15** No acceptable outcome provided.	**PO15 – COMPLIES** Currently, no connectivity exists between on- and off-site Koala habitat due to fragmentation of roads and large cleared areas. The project proposes to entirely remove the fragmented Koala habitat found on site, decreasing the risk of transient Koala using high risk pathways to access food trees. This removal will not impact on the connectivity of Koala habitat within the surrounding area.
PO16 During the clearing and construction phases, measures are incorporated to protect Koalas from death or injury.	**AO16** Threats to Koalas as a result of clearing and construction activities are mitigated by: a) ensuring no tree in which a Koala is present or a tree with a crown overlapping a tree containing a Koala is cleared; b) undertaking clearing of vegetation in stages, and ensuring:	**PO16 – COMPLIES** With the implementation of standard mitigation measures, the project will minimise impact to ecological values including safe movement to Koala. Clearing of vegetation across the site will be conducted under the provisions of a Vegetation Management Plan, Fauna Management Plan, and Koala Management Plan. A Vegetation Management Plan and Fauna Management Plan will be developed for the proposed development and submitted for

Performance outcomes	Acceptable outcomes	Response
	i. no more than 1 ha is cleared per day for sites less than 6 ha in size; ii. no more than 2 ha is cleared per day for sites greater than 6 ha in size; iii. that between each stage there is at least 12 hours where no clearing occurs; and iv. Koala habitat is always linked to allow Koalas to move out of the site; c) use of qualified Koala spotters; d) prohibition of domestic dogs and security dogs on site; and **e)** use of Koala safety fencing.	approval prior to commencing operational works on-site. These plans will outline: • trees marked for removal • all civil works likely to impact existing vegetation • temporary and permanent exclusion and protection fencing • roles and responsibilities for site contractors, the developer and the consultant group • stockpiling and site access locations • a clearing sequence plan showing the commencement of clearing and direction of removal. This should be in conjunction with the FMP to allow for the appropriate flushing of fauna towards safe havens • links to weed management and revegetation proposals • stock piling and reuse of cleared vegetation • management and mitigation measures – i.e., temporary use of fauna exclusion fencing • description of fauna spotter role, contacts and certification; and • specific fauna management procedures for potential or known habitat trees
PO17 State significant species, and their habitat, are protected in situ when it is: a) identified on the **Environmental significance – priority species overlay map,** or through an ecological site assessment; and **b)** within biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map.**	**AO17** Development does not impact on State significant species, and their habitat.	**PO17 – COMPLIES** No biodiversity areas as identified on the *Environmental significance – biodiversity areas overlay map* are present on-site. The eastern boundary of the site contains Koala Habitat Areas as identified on the *Environmental significance – priority species* overlay map. It was identified that the site in general offers minimal opportunity for Koala movement and suitable Koala habitat due to high levels of disturbance and fragmentation. Overall, it is considered unlikely that Koala would utilise the site at present given lack of evidence on site and high levels of fragmentation, due to roads and large cleared areas, from higher quality habitat. Furthermore, vegetation within the mapped KHA is dominated by

Performance outcomes	Acceptable outcomes	Response
		Acacia disparrima (Hickory Wattle) further reflecting the disturbed, regrowth nature of this vegetation. Ultimately the removal of the highly modified and largely fragmented vegetation on-site is unlikely to isolate or decrease the availability of habitat to the extent that the species is likely to decline, particularly due to the already currently fragmented state of this vegetation. It is not considered appropriate to retain Koala habitat trees within the site given the fragmented nature of these trees and low likelihood of occurrence.
PO18 Development protects state significant species, and their habitat or is designed to minimise and mitigate impacts on habitat values when it is: a) identified on the **Environmental significance – priority species overlay map**; and b) outside of biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map.**	**AO18.1** Development avoids impacts on state significant species, and their habitat.	**AO18.1 – COMPLIES** Habitat for state significant species, as identified on the *Environmental significance – priority species overlay map*, is mapped on-site in conjunction with the Koala Habitat mapping along the eastern boundary. Assessments have identified that, with the exception of Koala, all flora and fauna species listed as threatened under the EPBC Act and NCA were considered unlikely to occur on-site. This was determined from the lack of records of threatened species on-site and limited recent records proximal to the site. The lack of records is attributable to the highly modified nature of the site and surrounds over a long period of time. Ultimately this has limited potential habitat to support threatened species as well as fauna movement opportunities. Potential for and minimising of the proposed development impacts on potential Koala habitat has been discussed throughout this report and through above code responses.
	AO18.2 Where development impacts on state significant species and their habitat, the following occurs: flora species are propagated and used in rehabilitation and landscaping on-site; and fauna species are safely relocated by a qualified fauna spotter catcher.	**AO18.2 – COMPLIES** Given the current land-uses surrounding the site and potential for continued development local area due to emerging community zoning, it is not considered suitable to utilise NJKHTs in landscaping of the development area of the site. This may encourage Koala into areas with significant threats, including highly trafficked roads.

Performance outcomes	Acceptable outcomes	Response
PO19 Local significant species, and their habitat, are protected in situ when it is: a) identified on the **Environmental significance – priority species overlay map,** or through an ecological site assessment; and **b)** within biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map.**	**AO19** Development does not impact on local significant species, and their habitat.	**PO19 – NOT APPLICABLE** No locally significant species habitat as identified on the *Environmental significance – priority species overlay map* is present on site.
PO20 Development protects local significant species, and their habitat or is designed to minimise and mitigate impacts on habitat values when it is: a) identified on the **Environmental significance – priority species overlay map**; and b) outside of biodiversity areas as identified on the **Environmental significance – biodiversity areas overlay map.**	**AO20.1** Development avoids impacts on local significant species, and their habitat. **AO20.2** Where development impacts on local significant species and their habitat, the following occurs: a) flora species are propagated and used in rehabilitation and landscaping on-site; and b) fauna species are safely relocated by a qualified fauna spotter catcher.	**PO20 – COMPLIES** No locally significant species habitat as identified on the *Environmental significance – priority species overlay map* is present on site. All species recorded are considered species common to the local area. Koala is considered the only threatened species with potential to occur in the area, however this is still considered a low likelihood due to the absence of direct or indirect evidence of Koala usage on site observed during site surveys, and the limited recent records and the lack of evidence of Koala presence in the area. However, the presence of suitable Koala habitat vegetation on-site indicates potential for this species to utilise the area. Clearing of vegetation across the site will be conducted under the provisions of a Vegetation Management Plan, Fauna Management Plan and Koala Management Plan, these plans outline the use of a fauna spotter catcher prior any clearing. Therefore, the removal of vegetation across the site is not considered to pose a significant risk of impact to locally significant species or their habitat.
Fauna management		
PO21	AO21	**PO21 – COMPLIES**

Performance outcomes	Acceptable outcomes	Response
Development design and location provides for the safe movement of native fauna through the site.	Where infrastructure crosses native fauna movement paths, the design of new development incorporates fauna friendly movement solutions. Note: Fauna friendly movement solutions developed in accordance with the *Queensland Government Fauna Sensitive Road Design Manual Volume 2: Preferred Practices; and the QLD Government Koala-Sensitive Design Guidelines* is Council's preferred method for addressing this outcome.	Connectivity value to the north and east is limited by roads, Bailey's Mountain Road and Courtney Drive respectively. Properties adjacent to the site and within the locality demonstrate similar vegetated status being predominantly cleared areas with patches of vegetation. Notably, the adjacent lots are proposed for development and are currently awaiting council approval. This, coupled with surrounding higher density developments and zoning of the area, gives an indication of the planning intent of the area with urbanisation slowly increasing. Furthermore, vegetation along Baileys Mountain Road just south-east of the site has been cleared to facilitate infrastructure upgrades. Therefore, assessments indicate that the wider region is not considered to provide significant fauna movement potential. Given the site and the majority of the surrounding area is zoned for emerging community, removal of vegetation is expected in order to fulfil the planning intent of the area. Development on-site proposes to remove the vegetation as the surrounding region continues to grow to meet population needs.
PO22 Where fauna habitat is proposed to be damaged, management strategies must be implemented to ensure: a) the native fauna is safely relocated to an area of similar habitat; b) the sequence of habitat disturbance ensures that fauna is not isolated from adjoining areas of habitat; c) fauna relocation occurs immediately prior to habitat disturbance; d) accredited and experienced spotter catchers, licensed by the Queensland Parks and Wildlife Service, are to be present on the site to direct	**AO22** No acceptable outcome provided.	**PO22 – COMPLIES** Where fauna habitat is proposed to be damaged management strategies will be implemented. Clearing of vegetation across the site will be conducted under the provisions of a Vegetation Management Plan and Fauna Management Plan.

Performance outcomes	Acceptable outcomes	Response
and undertake the removal and relocation of fauna; and e) where possible, damaged habitat and nesting sites are rehabilitated outside of development areas. Note: A Fauna Management Plan prepared by a suitably qualified person and in accordance with SC6.8 City Plan policy – Environmental management plans is Council's preferred method for addressing this outcome.		
Tenure, ownership and management arrangements		
PO23 Matters of environmental significance and associated buffers, mapped areas as identified on the **Environmental significance – vegetation management overlay map** proposed for retention and areas requiring rehabilitation are suitably protected in perpetuity and will: a) enable necessary fire management in accordance with an approved fire management plan and any adopted bushfire management plan; b) allow unimpeded movement of native fauna through matters of environmental significance and associated buffers; c) enable maintenance access and regular management; d) enable auditing and reporting of maintenance and management activities; e) provide for public access along major waterways, where such access is consistent with the ecological functions; f) allow for linkages and buffers to adjacent areas of ecological significance; and	**AO23** Matters of environmental significance and associated buffers, mapped areas as identified on the **Environmental significance – vegetation management overlay map** proposed for retention and areas requiring rehabilitation are transferred to Council ownership as Public Open Space. OR Where not required for public access, matters of environmental significance and associated buffers, and mapped areas as identified on the **Environmental significance – vegetation management overlay map** proposed for retention and areas requiring rehabilitation are retained in private ownership and protected under a statutory covenant (under the *Land Title Act 1994*). Note: Where the area is adjacent to existing public open space, or is a buffer to a major waterway, Council's preference is for the land to be dedicated as Public Open Space.	**PO23 – NOT APPLICABLE** No matters of environmental significance and associated buffers, mapped areas as identified on the *Environmental significance – vegetation management overlay map* are present on site. As such, no rehabilitation will be requires under this performance outcome for the removal of the on site vegetation.

Performance outcomes	Acceptable outcomes	Response
g) allow for a coordinated approach to the management of adjacent areas of conservation estate.		
PO24 An Open Space Management Plan prepared in accordance with **SC6.12 City Plan policy – Landscape work** is prepared for areas to be dedicated to Council as Public Open Space.	**AO24** No acceptable outcome provided.	**PO24 – NOT APPLICABLE** No open space areas are proposed with this development.
PO25 A Covenant Management Plan is prepared for areas to be protected under a statutory covenant. The management plan must include the following details: a) rehabilitation area and strategy of works; b) weed eradication and control requirements; c) how the covenant area will be maintained and managed in perpetuity; d) feral and domestic animal exclusion requirements; and e) required maintenance access. Note: A Covenant Management Plan is prepared by a suitably qualified person and in accordance with SC6.8 City Plan policy – Environmental management plans is Council's preferred method for addressing this performance outcome.	**AO25** No acceptable outcome provided.	**PO25 – NOT APPLICABLE** No open space areas are proposed with this development.
Rehabilitation		
PO26 Disturbed, cleared or modified areas are rehabilitated where they form part of: an ecological corridor; or	**AO26** No acceptable outcome provided.	**PO26 – NOT APPLICABLE** No rehabilitation is proposed to occur on site as a part of this project.

Performance outcomes	Acceptable outcomes	Response
matters of environmental significance and associated buffers; or areas identified within an Ecological Site Assessment as requiring rehabilitation. Note : A Rehabilitation Management Plan prepared in accordance with the ***South East Queensland Ecological Restoration Framework*** and SC6.8 City Plan policy – Environmental management plans is Council's preferred method for addressing this outcome.		

Appendix F

Tree Schedule

Tree Schedule - 13087
Courtney Drive, Coomera (Courtney Upper Coomera Developments Pty Ltd)
Date: 2026.03.26

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
1	*Acacia disparrima*	Hickory Wattle	300		300	94	8.0	5.0	3.6	2.0	Regular	-	Thinning	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
2	*Acacia disparrima*	Hickory Wattle	170	150 140 140	301	95	11.0	8.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
3	*Acacia disparrima*	Hickory Wattle	150	119	191	60	11.0	4.0	2.3	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
4	*Acacia disparrima*	Hickory Wattle	120	120 120	208	65	8.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
5	*Acacia disparrima*	Hickory Wattle	190	140	236	74	9.0	4.0	2.8	1.8	Regular	-	Thinning	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
6	*Dead/Stag*		250	150 150	328	103	9.0	5.0	3.9	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
7	*Acacia disparrima*	Hickory Wattle	190	150	242	76	13.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
8	*Acacia disparrima*	Hickory Wattle	190	160	248	78	10.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
9	*Acacia disparrima*	Hickory Wattle	270		270	85	8.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
10	*Acacia disparrima*	Hickory Wattle	310	290	424	133	7.0	10.0	5.1	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
11	*Acacia disparrima*	Hickory Wattle	310		310	97	11.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
12	*Dead/Stag*		290		290	91	11.0	4.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
13	*Acacia disparrima*	Hickory Wattle	180	150 150 150	316	99	10.0	7.0	3.8	2.0	Regular	-	Thinning	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
14	*Acacia disparrima*	Hickory Wattle	290		290	91	12.0	5.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
15	*Acacia disparrima*	Hickory Wattle	280	260	382	120	12.0	5.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
16	*Acacia disparrima*	Hickory Wattle	250		250	79	12.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
17	*Acacia disparrima*	Hickory Wattle	200	160	256	80	13.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
18	*Acacia disparrima*	Hickory Wattle	250	250	354	111	13.0	6.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
19	*Acacia disparrima*	Hickory Wattle	250	100	269	85	12.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
20	*Eucalyptus tereticornis*	Forest Red Gum	710		710	223	22.0	12.0	8.5	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
21	*Eucalyptus tereticornis*	Forest Red Gum	140	80	161	51	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
22	*Acacia disparrima*	Hickory Wattle	260		260	82	9.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
23	*Eucalyptus tereticornis*	Forest Red Gum	190		190	60	12.0	5.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
24	*Eucalyptus tereticornis*	Forest Red Gum	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
25	*Acacia disparrima*	Hickory Wattle	150	150	212	67	5.0	2.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
26	*Dead/Stag*		160	150	219	69	9.0	4.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
27	*Dead/Stag*		240	140	278	87	6.0	3.0	3.3	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
28	*Acacia disparrima*	Hickory Wattle	300	250 250 180 169	525	165	14.0	9.0	6.3	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
29	*Jagera pseudorhus*	Foambark	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
30	*Jagera pseudorhus*	Foambark	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
31	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
32	*Corymbia torelliana*	Cadaghi	140	120	184	58	7.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
33	*Eucalyptus tereticornis*	Forest Red Gum	138		138	43	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
34	*Acacia disparrima*	Hickory Wattle	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
35	*Acacia disparrima*	Hickory Wattle	490	200 120	543	170	14.0	12.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
36	*Acacia disparrima*	Hickory Wattle	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
37	*Dead/Stag*		150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
38	*Acacia disparrima*	Hickory Wattle	290	280	403	127	10.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
39	*Acacia disparrima*	Hickory Wattle	300	200	361	113	13.0	11.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
40	*Corymbia torelliana*	Cadaghi	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
41	*Eucalyptus siderophloia*	Northern Grey Ironbark	380	370	530	167	20.0	11.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
42	*Acacia disparrima*	Hickory Wattle	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
43	*Glochidion sumatranum*	Large-leaved Cheese Tree	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
44	*Acacia concurrens*	Black Wattle	190		190	60	7.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
45	*Dead/Stag*		180	160	241	76	9.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
46	*Acacia concurrens*	Black Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
47	*Acacia disparrima*	Hickory Wattle	160	120	200	63	7.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
48	*Acacia concurrens*	Black Wattle	180		180	57	7.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
49	*Dead/Stag*		200		200	63	5.0	2.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
50	*Acacia disparrima*	Hickory Wattle	250	210	326	103	12.0	6.0	3.9	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
51	*Lophostemon confertus*	Brush Box	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
52	*Eucalyptus tindaliae*	Tindale's Stringybark	320		320	101	10.0	5.0	3.8	2.1	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
53	*Lophostemon confertus*	Brush Box	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
54	*Dead/Stag*		160		160	50	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
55	*Corymbia torelliana*	Cadaghi	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
56	*Acacia disparrima*	Hickory Wattle	200	180 150 150	343	108	12.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
57	*Acacia disparrima*	Hickory Wattle	200		200	63	12.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
58	*Melaleuca saligna*	Willow Bottlebrush	160	150	219	69	9.0	5.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
59	*Dead/Stag*		140		140	44	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
60	*Acacia concurrens*	Black Wattle	140		140	44	8.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
61	*Acacia disparrima*	Hickory Wattle	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
62	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
63	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
64	*Eucalyptus acmenoides*	White Mahogany	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
65	*Eucalyptus siderophloia*	Northern Grey Ironbark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
66	*Eucalyptus acmenoides*	White Mahogany	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
67	*Eucalyptus siderophloia*	Northern Grey Ironbark	210		210	66	12.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
68	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
69	*Acacia disparrima*	Hickory Wattle	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
70	*Acacia disparrima*	Hickory Wattle	120		120	38	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
71	*Eucalyptus tindaliae*	Tindale's Stringybark	350		350	110	7.0	2.0	4.2	2.1	Regular	-	-	-	-	-	Typical	Major	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
72	*Eucalyptus major*	Mountain Grey Gum	120		120	38	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
73	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
74	*Eucalyptus siderophloia*	Northern Grey Ironbark	110		110	35	8.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
75	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	18.0	6.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
76	*Eucalyptus major*	Mountain Grey Gum	250		250	79	15.0	7.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
77	*Dead/Stag*		170	150	227	71	7.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
78	*Acacia disparrima*	Hickory Wattle	250		250	79	9.0	3.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
79	*Acacia disparrima*	Hickory Wattle	170	130	214	67	11.0	4.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
80	*Acacia disparrima*	Hickory Wattle	220		220	69	13.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
81	*Corymbia intermedia*	Pink Bloodwood	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
82	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
83	*Acacia disparrima*	Hickory Wattle	300		300	94	4.0	3.0	3.6	2.0	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
84	*Dead/Stag*		150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
85	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
86	*Acacia disparrima*	Hickory Wattle	120		120	38	3.0	1.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
87	*Acacia disparrima*	Hickory Wattle	170		170	53	9.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
88	*Eucalyptus siderophloia*	Northern Grey Ironbark	170		170	53	12.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
89	*Eucalyptus acmenoides*	White Mahogany	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
90	*Eucalyptus siderophloia*	Northern Grey Ironbark	180		180	57	11.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
91	*Acacia disparrima*	Hickory Wattle	180	160	241	76	7.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
92	*Acacia disparrima*	Hickory Wattle	160	160	226	71	11.0	5.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
93	*Eucalyptus siderophloia*	Northern Grey Ironbark	260		260	82	15.0	7.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
94	*Eucalyptus siderophloia*	Northern Grey Ironbark	210		210	66	15.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
95	*Acacia disparrima*	Hickory Wattle	270		270	85	10.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
96	*Dead/Stag*		200		200	63	7.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
97	*Acacia disparrima*	Hickory Wattle	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
98	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
99	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	15.0	7.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
100	*Acacia disparrima*	Hickory Wattle	150	140	205	64	10.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
101	*Eucalyptus siderophloia*	Northern Grey Ironbark	180		180	57	12.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
102	*Acacia disparrima*	Hickory Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
103	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
104	*Acacia disparrima*	Hickory Wattle	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
105	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
106	*Pinus elliottii*	Slash Pine	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
107	*Lophostemon suaveolens*	Swamp Box	130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
108	*Acacia disparrima*	Hickory Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
109	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
110	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
111	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
112	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
113	*Acacia disparrima*	Hickory Wattle	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
114	*Acacia disparrima*	Hickory Wattle	160	150	219	69	11.0	6.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
115	*Acacia disparrima*	Hickory Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
116	*Dead/Stag*		150	120	192	60	8.0	4.0	2.3	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
117	*Acacia disparrima*	Hickory Wattle	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
118	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
119	*Eucalyptus tindaliae*	Tindale's Stringybark	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
120	*Eucalyptus siderophloia*	Northern Grey Ironbark	300	250	391	123	17.0	9.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
121	*Acacia disparrima*	Hickory Wattle	130	130	184	58	7.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
122	*Acacia concurrens*	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
123	*Eucalyptus siderophloia*	Northern Grey Ironbark	150	130	198	62	8.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
124	*Eucalyptus tereticornis*	Forest Red Gum	200		200	63	9.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
125	*Eucalyptus siderophloia*	Northern Grey Ironbark	230		230	72	14.0	6.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
126	*Eucalyptus siderophloia*	Northern Grey Ironbark	140		140	44	10.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
127	*Eucalyptus tindaliae*	Tindale's Stringybark	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
128	*Eucalyptus tereticornis*	Forest Red Gum	290		290	91	16.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
129	*Acacia disparrima*	Hickory Wattle	170	170	240	76	9.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
130	*Eucalyptus siderophloia*	Northern Grey Ironbark	210		210	66	13.0	6.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
131	*Acacia leiocalyx*	Early-flowering Black Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
132	*Lophostemon suaveolens*	Swamp Box	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
133	*Acacia disparrima*	Hickory Wattle	490		490	154	14.0	8.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
134	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	6.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain in neighbouring lot		Native Tree	-
135	*Acacia melanoxylon*	Australian Blackwood	190		190	60	4.0	2.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain in neighbouring lot		Native Tree	-
136	*Pinus elliottii*	Slash Pine	320		320	101	12.0	6.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
137	*Acacia disparrima*	Hickory Wattle	150	130	198	62	8.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
138	*Corymbia torelliana*	Cadaghi	400	350	532	167	14.0	8.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
139	*Dead/Stag*		520		520	163	9.0	8.0	6.2	2.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
140	*Acacia disparrima*	Hickory Wattle	140		140	44	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
141	*Grevillea robusta*	Silky Oak	290		290	91	11.0	5.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain in neighbouring lot		Native Tree	-
142	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	220		220	69	5.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
143	*Acacia disparrima*	Hickory Wattle	200		200	63	9.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
144	*Corymbia torelliana*	Cadaghi	120		120	38	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
145	*Acacia disparrima*	Hickory Wattle	250	160	297	93	8.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
146	*Dead/Stag*		200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
147	*Pinus elliottii*	Slash Pine	480		480	151	16.0	9.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
148	*Pinus elliottii*	Slash Pine	310		310	97	12.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
149	*Acacia disparrima*	Hickory Wattle	150	140	205	64	8.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
150	*Acacia disparrima*	Hickory Wattle	220		220	69	12.0	7.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
151	*Eucalyptus tereticornis*	Forest Red Gum	290		290	91	15.0	6.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
152	*Acacia disparrima*	Hickory Wattle	410	350	539	169	15.0	9.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
153	*Acacia disparrima*	Hickory Wattle	340	300	453	142	13.0	8.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
154	*Acacia disparrima*	Hickory Wattle	480	300	566	178	11.0	12.0	6.8	2.6	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
155	*Acacia disparrima*	Hickory Wattle	400	270	483	152	10.0	8.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
156	*Grevillea robusta*	Silky Oak	280		280	88	11.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
157	*Tipuana tipu*	Tipuana	360	250	438	138	11.0	12.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
158	*Tecoma stans*	Yellow Bells	110		110	35	3.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
159	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
160	*Acacia disparrima*	Hickory Wattle	220		220	69	11.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
161	*Dead/Stag*		150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
162	*Jacaranda mimosifolia*	Jacaranda	160		160	50	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
163	*Jacaranda mimosifolia*	Jacaranda	200		200	63	11.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
164	*Corymbia henryi*	Large-leaved Spotted Gum	400		400	126	15.0	7.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
165	*Corymbia henryi*	Large-leaved Spotted Gum	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
166	*Corymbia henryi*	Large-leaved Spotted Gum	230		230	72	15.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
167	*Corymbia henryi*	Large-leaved Spotted Gum	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
168	*Corymbia torelliana*	Cadaghi	600	400	721	227	14.0	13.0	8.7	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
169	*Syagrus romanzoffiana*	Cocos Palm	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
170	*Cinnamomum camphora*	Camphor Laurel	140		140	44	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
171	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
172	*Eucalyptus saligna*	Sydney Blue Gum	490		490	154	20.0	12.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
173	*Syagrus romanzoffiana*	Cocos Palm	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
174	*Tipuana tipu*	Tipuana	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
175	*Eucalyptus tereticornis*	Forest Red Gum	330		330	104	18.0	9.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
176	*Eucalyptus saligna*	Sydney Blue Gum	240		240	75	15.0	9.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
177	*Syagrus romanzoffiana*	Cocos Palm	250		250	79	7.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
178	*Corymbia henryi*	Large-leaved Spotted Gum	200		200	63	14.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
179	*Eucalyptus saligna*	Sydney Blue Gum	140		140	44	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
180	*Plumeria sp*	Frangipani	150	110	186	58	4.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
181	*Syagrus romanzoffiana*	Cocos Palm	310		310	97	12.0	5.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
182	*Syagrus romanzoffiana*	Cocos Palm	190		190	60	8.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
183	*Syagrus romanzoffiana*	Cocos Palm	150		150	47	9.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
184	*Syzygium australe*	Brush Cherry	250	200	320	101	11.0	6.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
185	*Syagrus romanzoffiana*	Cocos Palm	180	180	255	80	7.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
186	*Syagrus romanzoffiana*	Cocos Palm	250	200	320	101	8.0	5.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
187	*Syagrus romanzoffiana*	Cocos Palm	180		180	57	7.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
188	*Archontophoenix cunninghamiana*	Bangalow Palm	150		150	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
189	*Syagrus romanzoffiana*	Cocos Palm	300		300	94	7.0	5.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
190	*Archontophoenix cunninghamiana*	Bangalow Palm	160		160	50	6.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
191	*Archontophoenix cunninghamiana*	Bangalow Palm	180	150 130	268	84	7.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
192	*Archontophoenix cunninghamiana*	Bangalow Palm	140	120	184	58	6.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
193	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	200		200	63	7.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
194	*Melaleuca viminalis*	Weeping Bottlebrush	150	100	180	57	6.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
195	*Jacaranda mimosifolia*	Jacaranda	280	280 280 180	517	163	5.0	5.0	6.2	2.5	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
196	*Beaucarnea recurvata*	Ponytail Palm	140	140 140 130	275	86	5.0	5.0	3.3	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
197	*Tipuana tipu*	Tipuana	470		470	148	10.0	8.0	5.6	2.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
198	*Dead/Stag*		150	150	212	67	6.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
199	*Dead/Stag*		100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
200	*Dead/Stag*		120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
201	*Acacia disparrima*	Hickory Wattle	130		130	41	6.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
202	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
203	*Schefflera actinophylla*	Umbrella Tree	400		400	126	3.0	3.0	4.8	2.3	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
204	*Jacaranda mimosifolia*	Jacaranda	350		350	110	3.0	3.0	4.2	2.1	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
205	*Brachychiton rupestris*	Narrow-leaved Bottle Tree	480		480	151	6.0	4.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
206	*Eucalyptus saligna*	Sydney Blue Gum	680		680	214	18.0	12.0	8.2	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
207	*Delonix regia*	Poinciana	600	250	650	204	10.0	11.0	7.8	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
208	*Araucaria cunninghamii*	Hoop Pine	370	250	447	140	16.0	8.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
209	*Acacia disparrima*	Hickory Wattle	440		440	138	12.0	9.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
210	*Melaleuca viminalis*	Weeping Bottlebrush	300	160	340	107	6.0	4.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
211	*Archontophoenix cunninghamiana*	Bangalow Palm	480		480	151	11.0	5.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
212	*Archontophoenix cunninghamiana*	Bangalow Palm	340		340	107	6.0	4.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
213	*Araucaria cunninghamii*	Hoop Pine	420		420	132	12.0	7.0	5.0	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
214	*Archontophoenix cunninghamiana*	Bangalow Palm	490		490	154	12.0	7.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
215	*Archontophoenix cunninghamiana*	Bangalow Palm	160	150	219	69	5.0	3.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
216	*Acacia disparrima*	Hickory Wattle	300		300	94	8.0	5.0	3.6	2.0	Regular	-	Thinning	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
217	*Archontophoenix cunninghamiana*	Bangalow Palm	400		400	126	7.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
218	*Archontophoenix cunninghamiana*	Bangalow Palm	490		490	154	12.0	6.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
219	*Archontophoenix cunninghamiana*	Bangalow Palm	470		470	148	8.0	5.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
220	*Archontophoenix cunninghamiana*	Bangalow Palm	260		260	82	4.0	3.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
221	*Araucaria cunninghamii*	Hoop Pine	340		340	107	11.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
222	*Archontophoenix cunninghamiana*	Bangalow Palm	400		400	126	9.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
223	*Syagrus romanzoffiana*	Cocos Palm	250	240	347	109	6.0	5.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
224	*Archontophoenix cunninghamiana*	Bangalow Palm	300		300	94	7.0	5.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
225	*Dead/Stag*		650		650	204	14.0	8.0	7.8	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Yes	-	-	-	Remove as part of this application		Dead Tree (stag)	-
226	*Lagerstroemia indica*	Crape Myrtle	180		180	57	8.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
227	*Grevillea robusta*	Silky Oak	400		400	126	16.0	8.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
228	*Grevillea robusta*	Silky Oak	500		500	157	16.0	9.0	6.0	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
229	*Brachychiton rupestris*	Narrow-leaved Bottle Tree	700		700	220	10.0	9.0	8.4	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
230	*Grevillea robusta*	Silky Oak	500		500	157	16.0	9.0	6.0	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
231	*Acacia disparrima*	Hickory Wattle	230	230 150	358	113	9.0	7.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
232	*Dead/Stag*		200	150	250	79	5.0	3.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
233	*Grevillea robusta*	Silky Oak	300		300	94	13.0	5.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
234	*Dead/Stag*		250		250	79	8.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
235	*Grevillea robusta*	Silky Oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
236	*Mangifera indica*	Mango	120	120	170	53	4.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
237	*Mangifera indica*	Mango	160	130	206	65	5.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
238	*Eucalyptus saligna*	Sydney Blue Gum	580		580	182	19.0	12.0	7.0	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
239	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
240	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
241	*Acacia disparrima*	Hickory Wattle	150	100	180	57	7.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
242	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
243	*Eucalyptus saligna*	Sydney Blue Gum	200		200	63	9.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
244	*Acacia disparrima*	Hickory Wattle	130	100	164	52	9.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
245	*Acacia disparrima*	Hickory Wattle	150	100 100	206	65	6.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
246	*Pinus elliottii*	Slash Pine	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Non-native Tree	-
247	*Acacia concurrens*	Black Wattle	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
248	*Acacia concurrens*	Black Wattle	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
249	*Acacia disparrima*	Hickory Wattle	320		320	101	12.0	8.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
250	*Acacia disparrima*	Hickory Wattle	410		410	129	13.0	8.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
251	*Acacia disparrima*	Hickory Wattle	150		150	47	8.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
252	*Acacia disparrima*	Hickory Wattle	180		180	57	8.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
253	*Acacia disparrima*	Hickory Wattle	200		200	63	12.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
254	*Acacia disparrima*	Hickory Wattle	150		150	47	5.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
255	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
256	*Acacia disparrima*	Hickory Wattle	380		380	119	9.0	6.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
257	*Corymbia torelliana*	Cadaghi	210		210	66	7.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-native Tree	-
258	*Lophostemon confertus*	Brush Box	360		360	113	12.0	5.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
259	*Allocasuarina littoralis*	Black She-oak	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
260	*Eucalyptus siderophloia*	Northern Grey Ironbark	200		200	63	11.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
261	*Acacia concurrens*	Black Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
262	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
263	*Eucalyptus seeana*	Narrow-leaved Red Gum	440		440	138	15.0	8.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
264	*Lophostemon confertus*	Brush Box	150		150	47	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
265	*Lophostemon confertus*	Brush Box	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
266	*Corymbia intermedia*	Pink Bloodwood	300		300	94	15.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
267	*Lophostemon confertus*	Brush Box	240		240	75	8.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
268	*Acacia disparrima*	Hickory Wattle	290		290	91	12.0	6.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
269	*Lophostemon confertus*	Brush Box	280		280	88	9.0	5.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
270	*Eucalyptus tindaliae*	Tindale's Stringybark	380		380	119	15.0	7.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
271	*Lophostemon confertus*	Brush Box	330		330	104	14.0	7.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
272	*Eucalyptus microcorys*	Tallowwood	290		290	91	15.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
273	*Eucalyptus propinqua*	Small-fruited Grey Gum	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
274	*Lophostemon confertus*	Brush Box	250	180	308	97	10.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
275	*Corymbia intermedia*	Pink Bloodwood	310		310	97	17.0	8.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
276	*Corymbia intermedia*	Pink Bloodwood	450		450	141	18.0	9.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
277	*Eucalyptus acmenoides*	White Mahogany	290		290	91	16.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
278	*Acacia disparrima*	Hickory Wattle	190		190	60	10.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
279	*Lophostemon confertus*	Brush Box	240		240	75	15.0	7.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
280	*Eucalyptus siderophloia*	Northern Grey Ironbark	170		170	53	12.0	5.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
281	*Corymbia intermedia*	Pink Bloodwood	240		240	75	13.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
282	*Eucalyptus acmenoides*	White Mahogany	460		460	145	19.0	9.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
283	*Acacia disparrima*	Hickory Wattle	210		210	66	8.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
284	*Acacia disparrima*	Hickory Wattle	180		180	57	7.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
285	*Eucalyptus acmenoides*	White Mahogany	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
286	*Lophostemon confertus*	Brush Box	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
287	*Eucalyptus siderophloia*	Northern Grey Ironbark	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
288	*Corymbia intermedia*	Pink Bloodwood	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
289	*Lophostemon confertus*	Brush Box	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
290	*Acacia disparrima*	Hickory Wattle	190		190	60	7.0	5.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
291	*Acacia disparrima*	Hickory Wattle	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
292	*Angophora leiocarpa*	Smooth-barked Apple	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
293	*Eucalyptus tindaliae*	Tindale's Stringybark	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
294	*Eucalyptus tindaliae*	Tindale's Stringybark	130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
295	*Eucalyptus tindaliae*	Tindale's Stringybark	150		150	47	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
296	*Jagera pseudorhus*	Foam bark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
297	*Acacia disparrima*	Hickory Wattle	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
298	*Acacia disparrima*	Hickory Wattle	180		180	57	10.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
299	*Acacia disparrima*	Hickory Wattle	160		160	50	9.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
300	*Angophora leiocarpa*	Smooth-barked Apple	500		500	157	16.0	9.0	6.0	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
301	*Eucalyptus microcorys*	Tallowwood	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
302	*Eucalyptus tindaliae*	Tindale's Stringybark	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
303	*Eucalyptus acmenoides*	White Mahogany	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
304	*Eucalyptus acmenoides*	White Mahogany	220		220	69	10.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
305	*Eucalyptus tindaliae*	Tindale's Stringybark	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
306	*Eucalyptus tindaliae*	Tindale's Stringybark	210	140	252	79	12.0	7.0	3.0	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
307	*Eucalyptus tindaliae*	Tindale's Stringybark	240		240	75	9.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
308	*Eucalyptus tindaliae*	Tindale's Stringybark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
309	*Eucalyptus crebra*	Narrow-leaved Ironbark	280		280	88	14.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
310	*Eucalyptus tindaliae*	Tindale's Stringybark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
311	*Eucalyptus tindaliae*	Tindale's Stringybark	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
312	*Eucalyptus tindaliae*	Tindale's Stringybark	240		240	75	11.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
313	*Acacia disparrima*	Hickory Wattle	130		130	41	3.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
314	*Corymbia tessellaris*	Moreton Bay Ash	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
315	*Acacia disparrima*	Hickory Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
316	*Corymbia tessellaris*	Moreton Bay Ash	170		170	53	10.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
317	*Eucalyptus siderophloia*	Northern Grey Ironbark	160		160	50	7.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
318	*Lophostemon suaveolens*	Swamp Box	100	100	141	44	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
319	*Acacia disparrima*	Hickory Wattle	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
320	*Acacia disparrima*	Hickory Wattle	340		340	107	8.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
321	*Acacia disparrima*	Hickory Wattle	230	170	286	90	7.0	5.0	3.4	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
322	*Acacia disparrima*	Hickory Wattle	200		200	63	7.0	2.0	2.4	1.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
323	*Acacia disparrima*	Hickory Wattle	220	170 170 140	355	111	8.0	7.0	4.3	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
324	*Acacia disparrima*	Hickory Wattle	170	140	220	69	8.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
325	*Acacia disparrima*	Hickory Wattle	160		160	50	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
326	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
327	*Acacia disparrima*	Hickory Wattle	180	170	248	78	9.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
328	*Acacia disparrima*	Hickory Wattle	220		220	69	8.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
329	*Acacia disparrima*	Hickory Wattle	170		170	53	8.0	2.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
330	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
331	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
332	*Dead/Stag*		100		100	31	6.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
333	*Dead/Stag*		110		110	35	8.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
334	*Dead/Stag*		130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
335	*Acacia disparrima*	Hickory Wattle	110	80	136	43	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
336	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
337	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
338	*Dead/Stag*		150		150	47	8.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
339	*Acacia disparrima*	Hickory Wattle	130	80 70	168	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
340	*Corymbia torelliana*	Cadaghi	210		210	66	7.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
341	*Acacia disparrima*	Hickory Wattle	260	230 200 190 150 140	489	153	7.0	12.0	5.9	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
342	*Dead/Stag*		120	100 110	191	60	5.0	4.0	2.3	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
343	*Acacia disparrima*	Hickory Wattle	240		240	75	8.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
344	*Eucalyptus tereticornis*	Forest Red Gum	760		760	239	16.0	11.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
345	*Acacia disparrima*	Hickory Wattle	160		160	50	8.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
346	*Acacia disparrima*	Hickory Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
347	*Acacia disparrima*	Hickory Wattle	140	110	178	56	6.0	2.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
348	*Acacia disparrima*	Hickory Wattle	180		180	57	9.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
349	*Dead/Stag*		110		110	35	4.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
350	*Acacia disparrima*	Hickory Wattle	160	140	213	67	11.0	5.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
351	*Corymbia torelliana*	Cadaghi	120	60	134	42	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
352	*Acacia disparrima*	Hickory Wattle	210		210	66	9.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
353	*Acacia disparrima*	Hickory Wattle	120	119	169	53	5.0	2.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
354	*Acacia disparrima*	Hickory Wattle	190	120	225	71	7.0	4.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
355	*Acacia disparrima*	Hickory Wattle	190		190	60	8.0	5.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
356	*Acacia disparrima*	Hickory Wattle	170	150	227	71	7.0	2.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
357	*Dead/Stag*		250		250	79	13.0	2.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
358	*Dead/Stag*		200		200	63	8.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
359	*Acacia disparrima*	Hickory Wattle	220		220	69	9.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
360	*Dead/Stag*		190	120	225	71	8.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
361	*Dead/Stag*		190	190	269	84	6.0	4.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
362	*Dead/Stag*		190		190	60	5.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
363	*Corymbia torelliana*	Cadaghi	120		120	38	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
364	*Schefflera actinophylla*	Umbrella Tree	110	100 80	169	53	7.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
365	*Dead/Stag*		170		170	53	3.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
366	*Acacia disparrima*	Hickory Wattle	170		170	53	7.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
367	*Acacia disparrima*	Hickory Wattle	180		180	57	9.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
368	*Dead/Stag*		190	180	262	82	7.0	3.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
369	*Acacia disparrima*	Hickory Wattle	280	240	369	116	12.0	5.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
370	*Acacia disparrima*	Hickory Wattle	200		200	63	6.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
371	*Acacia disparrima*	Hickory Wattle	170	200 160	307	97	11.0	2.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
372	*Acacia disparrima*	Hickory Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
373	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
374	*Acacia disparrima*	Hickory Wattle	250	240	347	109	12.0	3.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
375	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
376	*Eucalyptus siderophloia*	Northern Grey Ironbark	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
377	*Corymbia citriodora*	Spotted Gum	230		230	72	9.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
378	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
379	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
380	*Acacia disparrima*	Hickory Wattle	310	220 200 140	452	142	9.0	7.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
381	*Eucalyptus siderophloia*	Northern Grey Ironbark	360		360	113	15.0	8.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
382	*Acacia disparrima*	Hickory Wattle	200		200	63	6.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
383	*Eucalyptus siderophloia*	Northern Grey Ironbark	160	130	206	65	9.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
384	*Eucalyptus tereticornis*	Forest Red Gum	160	160	226	71	6.0	5.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
385	*Eucalyptus tereticornis*	Forest Red Gum	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
386	*Eucalyptus siderophloia*	Northern Grey Ironbark	140		140	44	8.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
387	*Acacia disparrima*	Hickory Wattle	260	200 170 200	420	132	8.0	8.0	5.0	2.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
388	*Eucalyptus siderophloia*	Northern Grey Ironbark	340		340	107	13.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
389	*Dead/Stag*		180	130	222	70	7.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
390	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	13.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
391	*Acacia disparrima*	Hickory Wattle	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
392	*Eucalyptus carnea*	Broad-leaved White Mahogany	170		170	53	9.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
393	*Eucalyptus tereticornis*	Forest Red Gum	630	140 190	673	211	17.0	15.0	8.1	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
394	*Eucalyptus siderophloia*	Northern Grey Ironbark	290	100	307	96	14.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
395	*Dead/Stag*		220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
396	*Lophostemon suaveolens*	Swamp Box	230		230	72	7.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
397	*Acacia disparrima*	Hickory Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
398	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
399	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
400	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
401	*Acacia disparrima*	Hickory Wattle	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
402	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
403	*Acacia disparrima*	Hickory Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
404	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
405	*Acacia disparrima*	Hickory Wattle	140	80	161	51	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
406	*Eucalyptus siderophloia*	Northern Grey Ironbark	380	250	455	143	9.0	7.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
407	*Acacia disparrima*	Hickory Wattle	160		160	50	4.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
408	*Eucalyptus siderophloia*	Northern Grey Ironbark	240		240	75	13.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
409	*Eucalyptus tereticornis*	Forest Red Gum	110		110	35	6.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
410	*Acacia leiocalyx*	Early-flowering Black Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
411	*Eucalyptus siderophloia*	Northern Grey Ironbark	370		370	116	14.0	9.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
412	*Eucalyptus siderophloia*	Northern Grey Ironbark	230		230	72	9.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
413	*Acacia disparrima*	Hickory Wattle	220		220	69	12.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
414	*Acacia disparrima*	Hickory Wattle	220		220	69	6.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
415	*Acacia disparrima*	Hickory Wattle	200	90	219	69	8.0	3.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
416	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
417	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
418	*Acacia disparrima*	Hickory Wattle	270	130 170	345	108	8.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
419	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
420	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	120		120	38	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
421	*Acacia disparrima*	Hickory Wattle	370	160	403	127	7.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
422	*Acacia disparrima*	Hickory Wattle	210		210	66	7.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
423	*Acacia disparrima*	Hickory Wattle	140	140 140	242	76	7.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	Major	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
424	*Acacia disparrima*	Hickory Wattle	180	150 160	284	89	8.0	4.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
425	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
426	*Acacia disparrima*	Hickory Wattle	120	90	150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
427	*Acacia disparrima*	Hickory Wattle	110	110	156	49	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
428	*Acacia disparrima*	Hickory Wattle	220	190	291	91	10.0	3.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
429	*Dead/Stag*		170		170	53	5.0	2.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
430	*Dead/Stag*		120	110	163	51	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
431	*Acacia disparrima*	Hickory Wattle	140	110	178	56	8.0	3.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
432	*Acacia disparrima*	Hickory Wattle	260		260	82	9.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
433	*Acacia disparrima*	Hickory Wattle	140		140	44	6.0	7.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
434	*Acacia disparrima*	Hickory Wattle	180	130	222	70	9.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
435	*Eucalyptus siderophloia*	Northern Grey Ironbark	300	300 280	508	160	13.0	5.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
436	*Acacia disparrima*	Hickory Wattle	110		110	35	8.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
437	*Acacia disparrima*	Hickory Wattle	170	110	202	64	8.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
438	*Dead/Stag*		220	120	251	79	6.0	6.0	3.0	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
439	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	200	160 200 190	376	118	4.0	6.0	4.5	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
440	*Acacia disparrima*	Hickory Wattle	250	210	326	103	8.0	5.0	3.9	2.1	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
441	*Grevillea robusta*	Silky Oak	320		320	101	14.0	5.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
442	*Grevillea robusta*	Silky Oak	250		250	79	12.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
443	*Acacia disparrima*	Hickory Wattle	350	320	474	149	8.0	7.0	5.7	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
444	*Schefflera actinophylla*	Umbrella Tree	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
445	*Dead/Stag*		200	190	276	87	7.0	4.0	3.3	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
446	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
447	*Corymbia henryi*	Large-leaved Spotted Gum	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
448	*Corymbia citriodora*	Spotted Gum	190		190	60	12.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
449	*Corymbia citriodora*	Spotted Gum	330		330	104	13.0	6.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
450	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
451	*Archontophoenix cunninghamiana*	Bangalow Palm	190		190	60	3.0	2.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
452	*Archontophoenix cunninghamiana*	Bangalow Palm	200		200	63	7.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
453	*Archontophoenix cunninghamiana*	Bangalow Palm	140		140	44	3.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
454	*Archontophoenix cunninghamiana*	Bangalow Palm	170		170	53	8.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
455	*Corymbia torelliana*	Cadaghi	460		460	145	9.0	7.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
456	*Syagrus romanzoffiana*	Cocos Palm	180		180	57	7.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
457	*Syagrus romanzoffiana*	Cocos Palm	140		140	44	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
458	*Eucalyptus saligna*	Sydney Blue Gum	420		420	132	14.0	8.0	5.0	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
459	*Eucalyptus saligna*	Sydney Blue Gum	480	120 110	507	159	16.0	8.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
460	*Ravenala madagascariensis*	Traveller Palm	130		130	41	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
461	*Eucalyptus saligna*	Sydney Blue Gum	130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
462	*Ficus obliqua*	Small Leaf Fig	530	320 260 100 190 230 210	771	242	12.0	14.0	9.2	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
463	*Ficus obliqua*	Small Leaf Fig	350	250 190 280 300 110	634	199	12.0	9.0	7.6	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
464	*Ficus obliqua*	Small Leaf Fig	270	170 110 90 240	424	133	8.0	8.0	5.1	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
465	*Ficus obliqua*	Small Leaf Fig	280	110 180 240 90	434	136	11.0	9.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
466	*Ficus obliqua*	Small Leaf Fig	330	120 120 90	382	120	8.0	8.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
467	*Ficus obliqua*	Small Leaf Fig	350	330 180 140 110	544	171	11.0	9.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
468	*Pinus elliotii*	Slash Pine	110		110	35	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
469	*Tipuana tipu*	Tipuana	440	430 310	689	216	14.0	13.0	8.3	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
470	*Spathodea campanulata*	African Tulip Tree	360	170	398	125	7.0	5.0	4.8	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
471	*Brachychiton acerifolius*	Illawarra flame tree	290	270	396	124	11.0	7.0	4.8	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
472	*Schefflera actinophylla*	Umbrella Tree	140	110 90 90 90	237	74	8.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
473	*Ficus obliqua*	Small Leaf Fig	280	150 140	347	109	13.0	12.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
474	*Ficus obliqua*	Small Leaf Fig	310	220 100	393	123	12.0	12.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
475	*Ficus obliqua*	Small Leaf Fig	320	219	388	122	8.0	12.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
476	*Ficus obliqua*	Small Leaf Fig	410	190 120 130 240	541	170	11.0	12.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
477	*Ficus obliqua*	Small Leaf Fig	410	230 120 80 160 150	538	169	9.0	12.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
478	*Ficus obliqua*	Small Leaf Fig	390	210 180 210 130 130	554	174	12.0	10.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
479	*Ficus obliqua*	Small Leaf Fig	380	310 210 120 140	564	177	11.0	12.0	6.8	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
480	*Pinus elliotii*	Slash Pine	180		180	57	6.0	2.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
481	*Pinus elliotii*	Slash Pine	130		130	41	4.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
482	*Ficus obliqua*	Small Leaf Fig	500	370 180 360 190	765	240	13.0	12.0	9.2	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
483	*Ficus obliqua*	Small Leaf Fig	540	260 210 280 140 160 130 130 220	780	245	11.0	12.0	9.4	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
484	*Ficus obliqua*	Small Leaf Fig	440	190 190 160 210 150 120 120	622	195	11.0	8.0	7.5	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
485	*Jacaranda mimosifolia*	Jacaranda	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
486	*Jacaranda mimosifolia*	Jacaranda	130	90	158	50	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
487	*Jacaranda mimosifolia*	Jacaranda	140	110 90	199	63	7.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
488	*Jacaranda mimosifolia*	Jacaranda	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
489	*Acacia disparrima*	Hickory Wattle	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
490	*Grevillea robusta*	Silky Oak	520		520	163	15.0	7.0	6.2	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
491	*Acacia concurrens*	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
492	*Acacia concurrens*	Black Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
493	*Acacia concurrens*	Black Wattle	170	160	233	73	6.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
494	*Acacia concurrens*	Black Wattle	170		170	53	5.0	5.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
495	*Acacia concurrens*	Black Wattle	240		240	75	7.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
496	*Acacia concurrens*	Black Wattle	140		140	44	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
497	*Dead/Stag*		190		190	60	3.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
498	*Eucalyptus major*	Mountain Grey Gum	240		240	75	7.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
499	*Dead/Stag*		300		300	94	3.0	1.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
500	*Lophostemon confertus*	Brush Box	250		250	79	7.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
501	*Eucalyptus siderophloia*	Northern Grey Ironbark	340		340	107	17.0	5.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
502	*Corymbia intermedia*	Pink Bloodwood	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
503	*Eucalyptus siderophloia*	Northern Grey Ironbark	170		170	53	11.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
504	*Eucalyptus major*	Mountain Grey Gum	110		110	35	9.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
505	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	14.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
506	*Lophostemon confertus*	Brush Box	240		240	75	14.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
507	*Dead/Stag*		230		230	72	11.0	3.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
508	*Lophostemon suaveolens*	Swamp Box	190		190	60	11.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
509	*Lophostemon confertus*	Brush Box	100		100	31	4.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Non-juvenile Koala Habitat Tree	-
510	*Lophostemon suaveolens*	Swamp Box	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Non-juvenile Koala Habitat Tree	-
511	*Dead/Stag*		230		230	72	5.0	3.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
512	*Eucalyptus major*	Mountain Grey Gum	370		370	116	17.0	9.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
513	*Eucalyptus acmenoides*	White Mahogany	590	120	602	189	21.0	13.0	7.2	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
514	*Corymbia intermedia*	Pink Bloodwood	300		300	94	14.0	8.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
515	*Lophostemon confertus*	Brush Box	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
516	*Lophostemon suaveolens*	Swamp Box	230		230	72	13.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
517	*Corymbia citriodora*	Spotted Gum	190		190	60	9.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
518	*Eucalyptus major*	Mountain Grey Gum	660		660	207	17.0	11.0	7.9	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
519	*Acacia disparrima*	Hickory Wattle	130	90	158	50	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
520	*Eucalyptus microcorys*	Tallowwood	270		270	85	14.0	7.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
521	*Eucalyptus major*	Mountain Grey Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
522	*Acacia disparrima*	Hickory Wattle	190		190	60	5.0	2.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
523	*Acacia concurrens*	Black Wattle	110	80	136	43	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
524	*Corymbia intermedia*	Pink Bloodwood	180		180	57	12.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
525	*Corymbia citriodora*	Spotted Gum	210		210	66	11.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
526	*Eucalyptus microcorys*	Tallowwood	170		170	53	11.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
527	*Eucalyptus siderophloia*	Northern Grey Ironbark	230		230	72	11.0	3.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
528	*Eucalyptus microcorys*	Tallowwood	200		200	63	11.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
529	*Eucalyptus tindaliae*	Tindale's Stringybark	250		250	79	8.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
530	*Eucalyptus siderophloia*	Northern Grey Ironbark	430		430	135	15.0	8.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
531	*Acacia disparrima*	Hickory Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
532	*Eucalyptus carnea*	Broad-leaved White Mahogany	120		120	38	3.0	1.0	2.0	1.4	Regular	-	-	-	Epicormic	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
533	*Eucalyptus carnea*	Broad-leaved White Mahogany	220		220	69	8.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
534	*Eucalyptus carnea*	Broad-leaved White Mahogany	410		410	129	15.0	6.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
535	*Eucalyptus siderophloia*	Northern Grey Ironbark	460		460	145	18.0	13.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Present	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
536	*Eucalyptus siderophloia*	Northern Grey Ironbark	280		280	88	14.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-



State Code 25 Response

State Development Assessment Provisions v3.4

17 Courtney Drive, Upper Coomera, QLD, 4209

Prepared for Courtney Upper Coomera Developments Pty Ltd

26 March 2026



Saunders Havill

PATHWAYS TO SUCCESS

Document control

Document: SDAP v3.4 State Code 25 Response17 Courtney Drive, Upper Coomera, QLD 4209 prepared by Saunders Havill for Courtney Upper Coomera Developments Pty Ltd.

Document Issue

Issue	Date	Prepared By	Checked By
Issue A	2026.03.26	HW	TM

Prepared by
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Acronyms and abbreviations

CoGC	City of Gold Coast
DA	Development Application
DSH	Diameter at Standard Height
DETSI	Department Environment, Tourism, Science and Innovation
DSDILGP	Department of State Development, Infrastructure, Local Government and Planning
Ha	Hectare
KHA	Koala Habitat Area
KPA	Koala Priority Area
KMP	Koala Management Plan
km	Kilometres
m	Metres
mm	Millimeters
MSES	Matters of State Environmental Significance
NJKHT	Non-Juvenile Koala Habitat Tree
PO	Performance Outcome
PR	*Planning Regulation 2017* (Qld)
RE	Regional Ecosystem
ROL	Reconfiguration of a Lot
SARA	State Assessment Referral Agency (part of DILGP)
SAT	Spot Assessment Technique
SDAP	State Development Assessment Provision
SH	Saunders Havill
VCFMP	Vegetation Clearing and Fauna Management Plan
WHIMP	Wildlife and Habitat Impact Mitigation Plan
WPMP	Wildlife Protection and Management Plan

1. Introduction

Saunders Havill (SH) was engaged by Courtney Upper Coomera Developments Pty Ltd (the client) to complete site investigations and prepare a report to demonstrate compliance with State Development Assessment Provision (SDAP) *State Code 25: Development in Southeast Queensland Koala habitat areas* (v3.4), implemented by the Department of State Development, Infrastructure and Planning (DSDILP). This report provides a response to State Code 25 for land located at 17 Courtney Drive, Upper Coomera QLD, 4209 (described as Lot 182 on RP156422). This code response is in conjunction with a Reconfiguring a Lot (ROL) Development Application (DA) to City of Gold Coast (CoGC) that proposes to reconfigure one (1) lot into sixty-three (63) lots as well as associated drainage and infrastructure. This report reviews the site's ecological values in accordance with State Code 25 and provides an impact assessment for the proposed development. The proposed development consists of 63 new residential allotments, internal road, internal pathway, services, easements and a drainage basin. Included in this report is a review of the site ecological values in the context of Commonwealth, State and Local environmental legislation.

Key site details are presented in **Table 1** below.

Table 1: Property summary

Address	17 Courtney Drive, Upper Coomera, QLD, 4209
Lot/plan	182RP156422
Area	3.34 hectares (ha)
Vegetation Management Act 1999	0.63 ha Category C (High Value Regrowth) RE 12.11.24 2.71 ha Category X (non-remnant) vegetation
Fisheries Act 1994	Not present
Matters of State Environmental Significance (MSES)	MSES – Wildlife habitat (endangered or vulnerable) MSES – Wildlife Habitat (special least concern animal) MSES – Wildlife habitat (Koala habitat areas – core) MSES – Regulated vegetation (essential habitat) MSES – Regulated vegetation (intersecting a watercourse)
Koala habitat	Wholly outside Koala Priority Area Koala Habitat Area (core)
Local government area	City of Gold Coast
Planning scheme, zoning	Emerging community – Upper Coomera Precinct
Environmental Significance Overlays	Wetlands and Watercourse – Minor waterway Wetlands and Watercourse – Wetlands and waterways buffer area
Existing land use	Rural residential
Proposed land use	Residential Development (1 into 63 lots)

1.1. Site Context and Characteristics

Contextually, the site is located approximately 15.8 kilometres (km) north-east of Southport, in the suburb of Upper Coomera. Situated on the corner of Courtney Drive and Bailey's Mountain Road, surrounding land uses consist of similarly sized rural residential lots. Higher density residential development exists to the east and further to the west of the site and patches of vacant bushland surround the area. On-site values were typical of rural residential lots, being largely cleared land with areas of highly modified vegetation dominated by regrowth Acacia and other planted species and scattered natives.

The context of the site and a recent aerial image are presented in **Figure 1** and **Figure 2**, respectively.

Under the *Planning Regulation 2017* (PR) February 2020 amendments to the Koala habitat provisions, the site is located outside a Koala Priority Area (KPA). A patch of core Koala Habitat Area (KHA) is mapped as occurring along the eastern border of the subject site (**Figure 3**). This area is also mapped as Category C (high-value regrowth) vegetation described as '*Least Concern*' Regional Ecosystem (RE) 12.11.24 (**Figure 4** and **Figure 5**).

Under the *Gold Coast City Plan 2016*, the site is zoned as Emerging Community within the Upper Coomera Precinct. The site is situated on the western edge of a large medium density urban area, within an adjoining low-density zoning. New developments have recently been built or are under construction to the east, and further developments are currently seeking approval through council neighbouring the site to the south and west. Koala movement opportunity is limited on site as surrounding rural and residential areas contain highly modified/cleared and maintained landscapes, and the site is bound by roads along the north and east.

There is some possibility for connectivity to the north and east where vegetation is present in the surrounding landscape, however this is impeded by the bounding roads. The eastern road in particular, Baileys Mountain Road, is well-trafficked and currently subject to an upgrade and poses a major risk to ground-moving fauna. Additionally, the northern vegetation is scattered through another rural residential property and is likely similarly disturbed, reflected in its lack of KHA mapping. No connected habitat exists in any other direction as the site is entirely surrounded by rural residential properties that are majorly cleared with large sections of maintained lawns.

Despite the presence of Non-Juvenile Koala Habitat Trees (NJKHTs) within the project site, the highly modified nature, presence of surrounding residential area including roads, and highly modified landscapes and fencing has significantly limited the potential for Koala to occur on-site. To fulfil the planning intent of the region the entire site, including 0.63 ha of mapped core KHA, is

proposed for impact. Given the lack of habitat and connectivity values and low utilisation levels on site this impact is not expected to create significant adverse effects on Koala.

As the development proposes to interfere with the Koala habitat on the premises, a response to State Code 25 is required to demonstrate compliance with performance outcomes (POs).



LEGEND

Site DCDB

Figure 1

Site Context

FILE REFERENCE
13087 E Figure 1 Site Context A

DATE
19/03/2026

Courtney Drive, Coomera

0 1 2 3 4 5 km

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:150,000

N

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY

Saunders Havill
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LEGEND

- Qld DCDB
- Site DCDB

Figure 2

Site Aerial

FILE REFERENCE
13087 E Figure 2 Site Aerial A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:1,800

N

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LEGEND

- Qld DCDB
- Site DCDB
- Koala Habitat Areas
- Koala Priority Areas

Figure 3

Koala Priority Areas and Koala Habitat Areas

CLIENT

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FILE REFERENCE
13087 E Figure 3 Koala A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

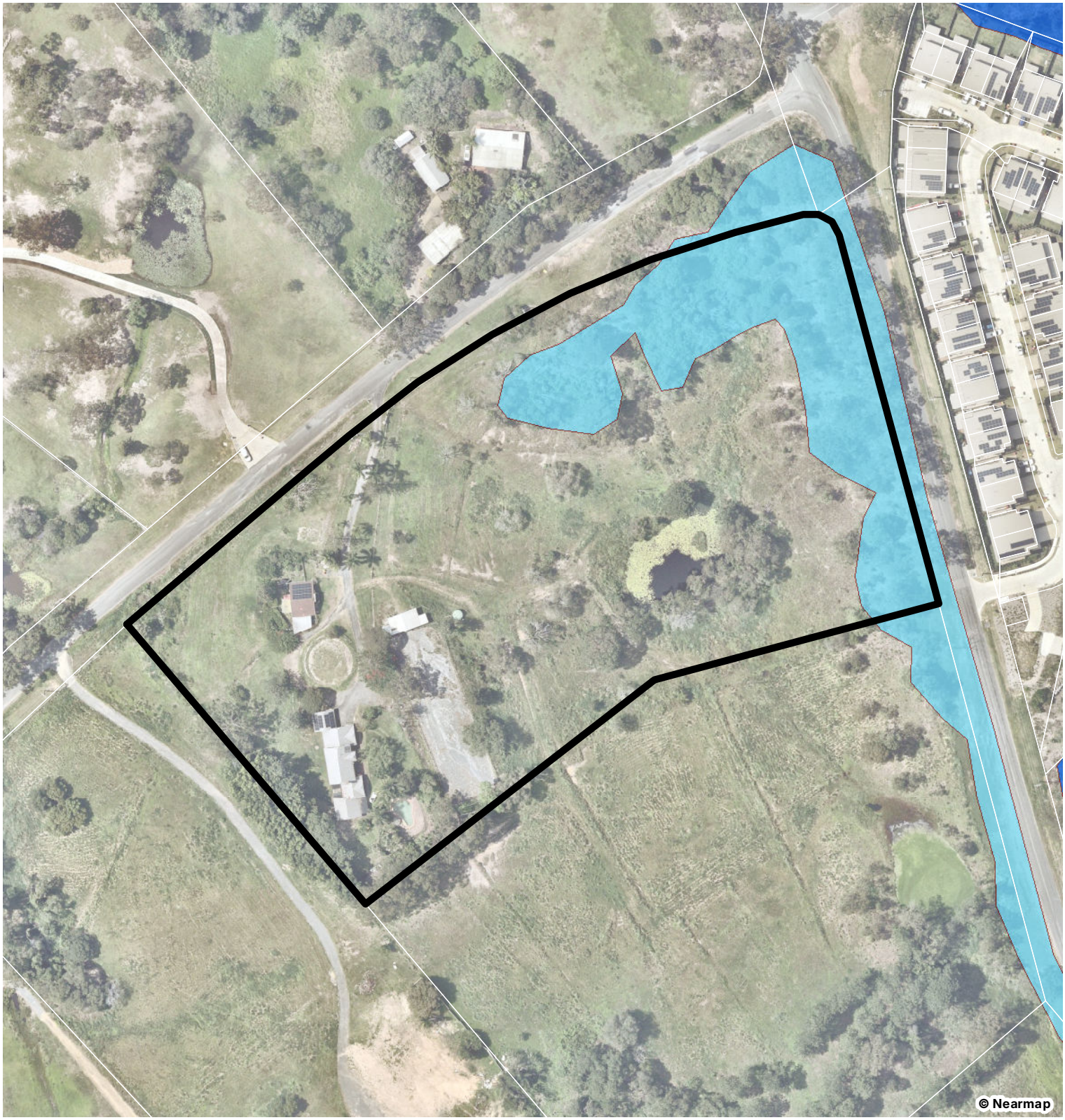
SCALE (A4)
1:1,800

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LEGEND

- Qld DCDB
- Site DCDB

Regulated Vegetation

- Category A area - *Vegetation Offset/Compliance notices/VDecs*
- Category B area - *Remnant vegetation*
- Category C area - *High value regrowth vegetation*
- Category R area - *Reef regrowth watercourse vegetation*
- Category X area
- Water
- Area not categorised

Figure 4

VMA Regulated Vegetation Management Map

FILE REFERENCE
13087 E Figure 4 RVM A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:1,800

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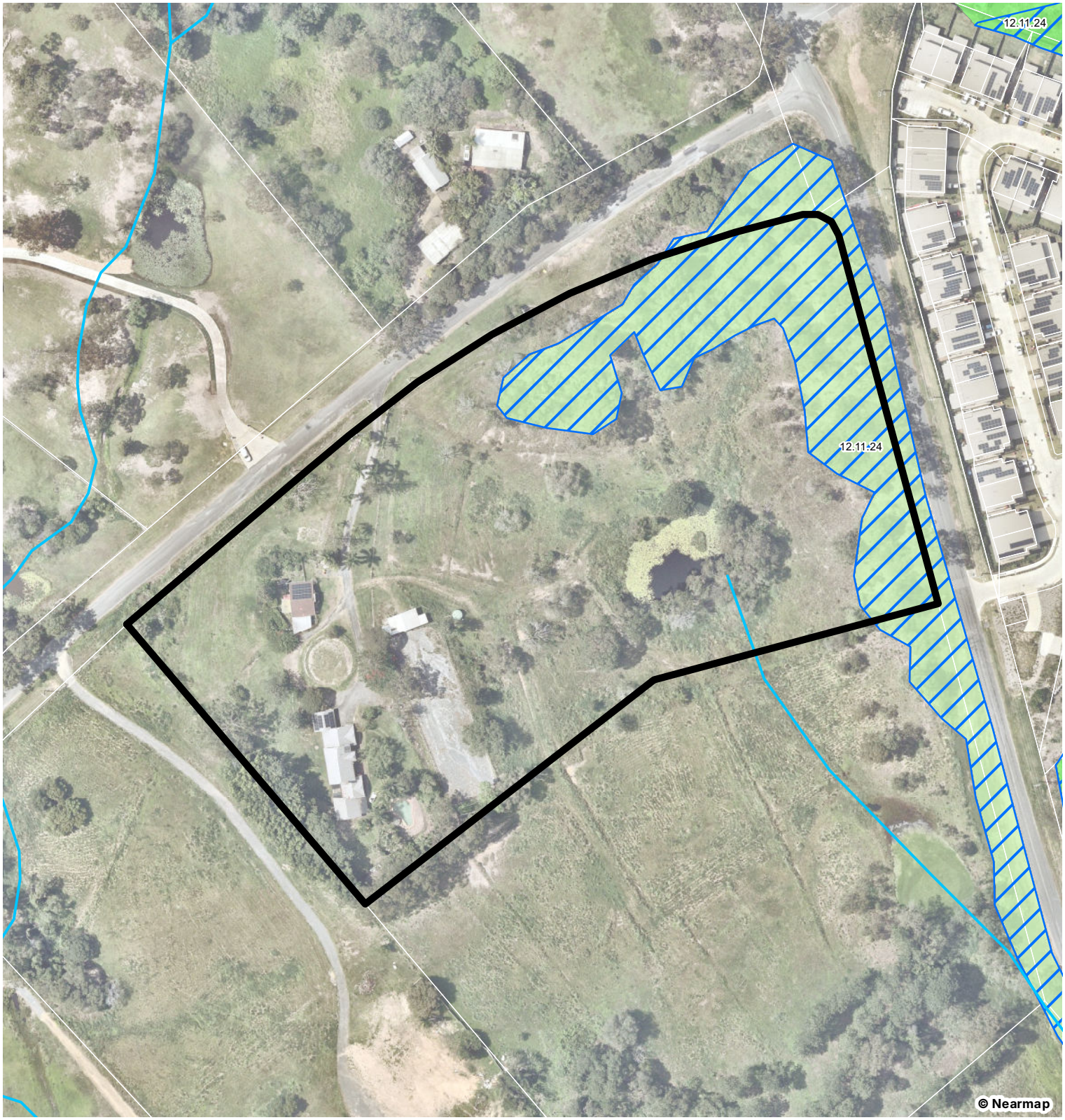
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LEGEND

- Site DCDB
- Qld DCDB
- VM Watercourses
- VM Essential Habitat
- VM Wetland

Vegetation Management Regional Ecosystems

- Category A or B area containing endangered regional ecosystems
- Category A or B area containing of concern regional ecosystems
- Category A or B area that is a least concern regional ecosystem
- Category C area containing endangered regional ecosystems
- Category C area containing of concern regional ecosystems
- Category C area that is a least concern regional ecosystem

Figure 5

Vegetation Management Regional Ecosystem Map

FILE REFERENCE
13087 E Figure 5 VMRE A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:1,800

N

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2. Planning Regulation 2017

The clearing of Koala habitat for development is regulated under the PR. The PR was amended on 7 February 2020 to strengthen protections over Koala habitat with respect to development. The amendments saw the introduction of KPAs and KHAs. Whether or not a site is located within a KPA and / or contains KHAs determines the level of restrictions imposed and the response or referral pathway required for the site.

DSDILGP's State Assessment and Referral Agency (SARA) Development Assessment Mapping System identifies the site as being located entirely outside a Koala Priority Area, although it contains KHAs (**Figure 3**). As per Schedule 10, Part 10, Division 2, Section 16A of the PR (refer extract below), the removal of a KHA is not prohibited where located inside of a KPA.

Part 10 Koala habitat in SEQ region

Division 1 Preliminary

16 Application of part

This part applies in relation to development on a lot that is completely or partly in the SEQ region.

Division 2 Prohibited development

16A Prohibited development—development interfering with koala habitat in koala priority area and koala habitat area

(1) Development is prohibited development to the extent the development involves interfering with koala habitat in an area that is both—

(a) a koala priority area; and

(b) a koala habitat area.

Under Schedule 10, Part 10, Division 3, Subdivision 1, Section 16B, the proposal is considered assessable development as it proposes to interfere with a KHA outside the KPA (refer extract below). Under Subdivision 2, Table 1, the proposal is assessable under the SDAP. The SDAP code assessment relevant to Koala is *State Code 25: Development in South East Queensland Koala habitat areas*.

Division 3 Development interfering with koala habitat in koala habitat areas outside koala priority areas

Subdivision 1 Assessable development

16B Assessable development—development interfering with koala habitat in koala habitat areas outside koala priority areas

(1) Development is assessable development to the extent the development involves interfering with koala habitat in an area that—

(a) is a koala habitat area; but

(b) is not a koala priority area.

2.1. Exemptions

There are eighty-six (86) NJKHTs on site required to be impacted by the proposed development. Fifty-four (54) of these NJKHTs are within the 0.63 ha area of mapped KHA. Two exemptions are applicable to this site for clearing native vegetation mapped as KHA.

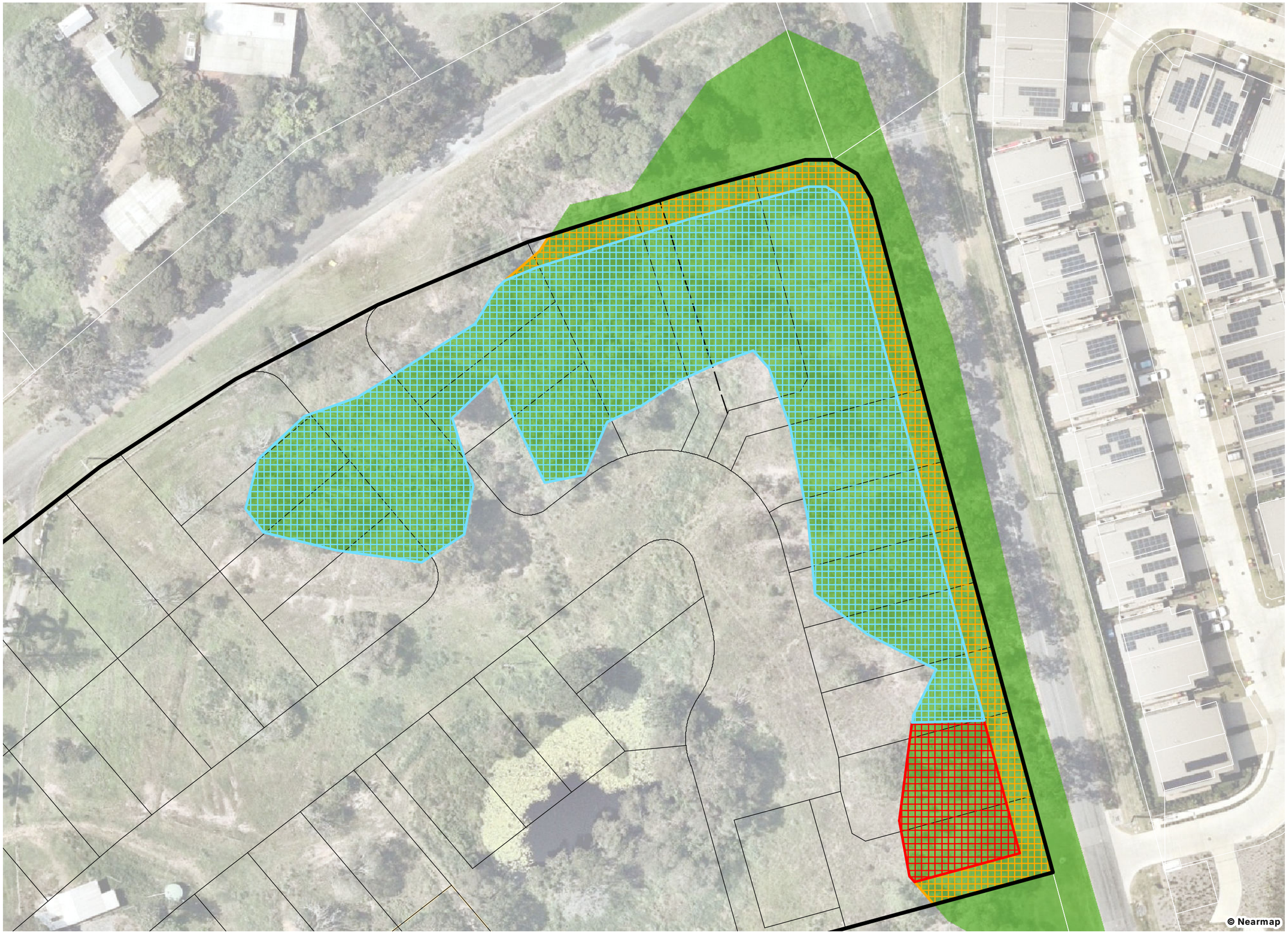
- SDAP v3.4 State Code 25 Response

Firstly, a one-off exemption to clear up to 500 m^2 of KHA is available for each premises. This exempted development purpose is outlined in paragraph (k) of the exempted development definition in Schedule 24 of the PR. This is a one-off exemption meaning once the 500 m^2 limit has been reached it cannot be used again.
In addition, paragraph (k) also states that this exemption applies in addition to any other relevant type of exempted development.

The second exemption, outlined in paragraph (l), allows for the clearing of native vegetation in a KHA to a maximum area of 5 metres (m) wide for the construction or maintenance of a fence, road, track, irrigation channel, contour bank or other linear infrastructure (other than a power line or drainage and erosion control structure).

Analysis of the mapped KHA on site shows that clearing of a total 0.16 ha can be carried out under the two exemptions outlined above, including the exempt removal of twenty-four (24) NJKHTs (**Plan 1**). The remaining 0.47 ha of KHA, inclusive of thirty (30) NJKHTs, is not exempt development and as such will require response to SDAP Code 25 as discussed above.

01. KOALA HABITAT AREA EXEMPTIONS



Notes:
The information on this plan is not suitable for any purpose other than the expressed use of the Client. Property dimensions, areas, numbers of lots and contours and other physical features may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of Saunders Havill.Unless a development approval states otherwise, this is not an approved plan.
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LEGEND

- Qld DCDB
- Site DCDB
- Koala Habitat Areas (KHA)

Layout Detail (indicative)

- Proposed Lots
- Proposed Easements
- Proposed Roads and Footpaths
- KHA 500m^2 clearing exemption
- KHA 5m boundary clearing exemption
- KHA Not exempt (4,700m^2)

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

0 5 10 15 20 m

1:700 @ A3 | Transverse Mercator | GDA 2020 | Zone 56

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COURTNEY DRIVE, COOMERA

Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 01 KHA Exemptions A

3. Koala Habitat Field Assessment

Two (2) Ecologists from SH assessed the project area on 22 August 2025 with weather conditions generally fine and sunny, with very limited rainfall during the field survey. Refer to **Table 2** for summarised weather conditions during the field survey effort.

Table 2: Weather conditions

Date	Min Temperature (°C)	Max Temperature (°C)	Rainfall (mm)
22 August 2025	13.4	21.1	41.2

**Extracted from Gold Coast Seaway (Station 040764)*

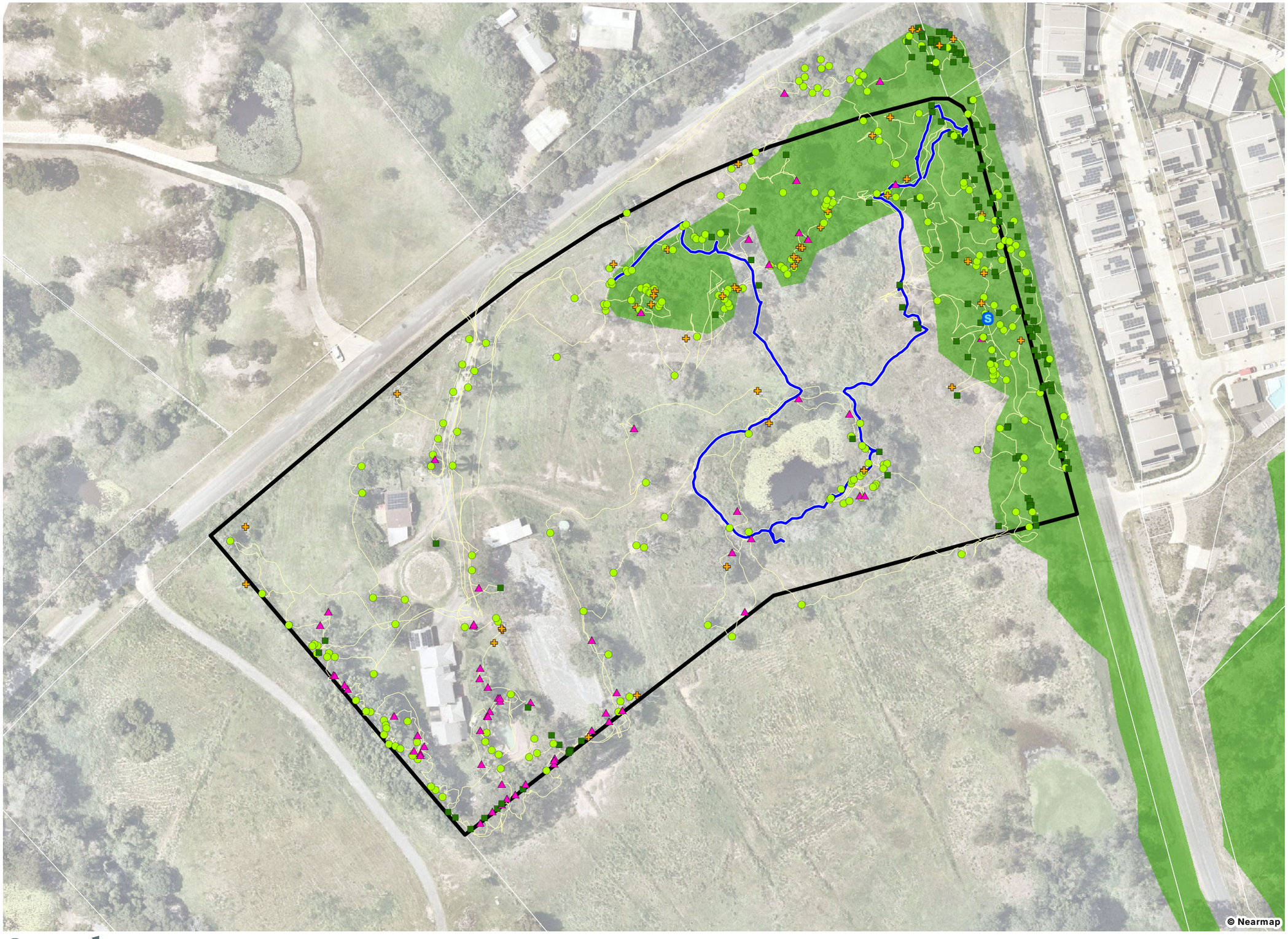
The entire site was walked to ensure all vegetation communities and species were recorded. Specifically in relation to assessing potential Koala usage of the site, the following was undertaken;

- All vegetation >100 millimetres (mm) Diameter at Standard Height (DSH) across the site was surveyed via a full GPS tree plot and non-juvenile Koala habitat trees (NJKHTs) identified;
- Incidental searches for Koalas and Koala scats were undertaken as part of tree surveying activities;
- One (1) Spot Assessment Technique (SAT) survey[1] was undertaken within the area of mapped KHA. One (1) scat meander was completed throughout the KHA and surrounding area; and
- The connectivity between the mapped KHA and other areas of potential habitat was analysed and existing threats to safe Koala movement identified.

The full ecological findings are outlined in **Section 3.1** and **Section 3.2** below.

[1] Phillips, S & Callaghan, J 2011, "The *Spot Assessment Technique*: a tools for determining localised levels of habitat use by Koala *Phascolarctos cinereus*", *Australian Zoologist*, 35:3.

02.FIELD SURVEY EFFORT



Notes:
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LEGEND

- Qld DCDB
- Site DCDB
- Koala Habitat Areas

Field Survey Effort

- GPS Track Log
- Scat Meander
- SAT Survey Location

GPS Tree Plot

Non-juvenile Koala habitat tree	[161]
Native tree	[267]
Dead/stag tree	[45]
Non-native tree	[63]

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

0 10 20 30 40 50 m

1:1,200 @ A3 | Transverse Mercator | GDA 2020 | Zone 56

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COURTNEY UPPER COOMERA DEVELOPMENTS PTY

COURTNEY DRIVE, COOMERA

Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 02 Field Survey Effort A

3.1. General Site Observations

The following observations have been made based on detailed field survey.

- The site is mapped majority as Category X (non-remnant) vegetation with an area of Category C (high-value regrowth) vegetation along the eastern borer of site. On-ground vegetation values are considered generally consistent with the mapping, though reflective of a highly disturbed state.
- The area of mapped KHA on site is dominated by regrowth Acacia species with scattered NJKHTs throughout. Limited non-native canopy species exist within the KHA; however, the shrub and ground layer are highly modified, comprising mostly regrowth Acacia and nonnative invasives. Nonnative and ornamental native species surround the dwelling in the western portion of site.
- A constructed dam exists at the centre of the site through a mapped local waterway, however no waterway features were observed.
- One (1) hollow bearing tree, and one (1) tree with termite nests / nests were observed during the site survey. Therefore, vegetation on-site is considered largely unsuitable for hollow dependant arboreal fauna, and/or hollow nesting birds.
- One (1) SAT survey and one (1) scat meander were undertaken within the KHA and the entire site was GPS tree plotted, with incidental scat searches conducted at each tree. No evidence of Koala was found during survey, implying low utilisation of the site.

3.2. Koala Habitat Field Assessment Results

The site is highly modified as a result of existing and historical rural residential land uses. It contains a residential dwelling in the west with associated storage areas, hardstand area, and constructed dam. The majority of the site is mapped as Category X (non-remnant) vegetation which comprises large areas of maintained lawns. Where vegetation is present in this mapping it is dominated by ornamental native species with infill non-native ornamental species and scattered NJKHTs.

The majority of NJKHTs on the site are scattered through the mapped Category C (high-value regrowth)/KHA area, along the eastern border of the site. Despite containing the highest proportion of NJKHTs, vegetation is still dominated by regrowth *Acacia* species. The understorey is highly disturbed and weeded, with *Ageratum houstonianum* (Blue Billygoat Weed) and exotic grasses dominating the ground layer and dense stands of *Tecoma stans* (Yellow Bells) and *Urena lobata* (Urena Burr) present in the shrub layer.

Vegetation and Koala usage surveys were undertaken across the property (**Plan 1)**. Full tree plot details are contained within the Tree Schedule provided as **Appendix B**. The findings of the site assessments are discussed in depth through the following sections.

3.2.1 Spot Assessment Technique (SAT) & Scat Meander

The Spot Assessment Technique (SAT) method was completed during field survey to provide an indication of Koala activity, if any, on site. The SAT involves identifying a non-juvenile tree of any species within the site that is either observed to have a Koala or scats, or is known to be a food tree or otherwise important for Koalas, and recording any evidence of Koala usage of that tree including physical presence, identifiable scratches or scats. The nearest non-juvenile tree is then identified, and the same data recorded. The next closest non-juvenile tree to the first tree is then assessed, and so on until 30 trees have been surveyed.

The number of trees showing evidence of Koala activity is expressed as a percentage of the total number of trees sampled to indicate the frequency of Koala usage. Assessment of each tree involves a systematic search for Koala scats beneath the tree within a 1 m radius of the trunk. After approximately two minutes of searching for scats, the base of the trunk is observed for scratches and the crown for Koala.

A Scat meander simply consists of a walk around a non-specified area to identify any potential scat evidence not identified during a SAT survey. This is useful on smaller sites as the entire site can be assessed, and it is less likely that evidence of threatened species will be missed.

One (1) SAT survey and one (1) scat meander were completed on site to provide an indication of Koala presence and usage. The results of this SAT survey are summarised below in **Table 4**, and

the full results contained within **Appendix C.** Despite the presence of potential Koala food trees, and directly assessing 54 NJKHTs within the Koala habitat, SAT surveys did not detect the presence of Koalas or Koala scats. Therefore, Koala usage of the site is *Low* in accordance with the usage categories outlined by Phillips and Callaghan 2011[2].

Table 3: SAT survey summary

SAT survey ID	Number of trees with scats	Evidence of Koala activity (%)	Koala use (east coast med-high)
1	0	0.00 %	Low

3.2.2 Mapped Koala Habitat Area

Field surveys confirmed that a 0.63 ha area of mapped core KHA area exists along the eastern border of the site encompassing the total mapped Category C (high-value regrowth) vegetation. Field surveys confirmed that characteristic species reflecting the mapped '*Least* Concern' RE 12.11.24 are present, including *Eucalyptus carnea* (White Mahogany), *Eucalyptus tindaliae* (Tindale's Stringybark), and *Eucalyptus siderophloia* (Northern Grey Ironbark). These species exist as scattered NJKHTs, with vegetation disturbed and dominated by regrowth *Acacia* species. The shrub and ground layers are highly weed infested, consisting of *Urena lobata* (Urena Burr) and *Tecoma stans* (Yellow Bells) with *Ageratum houstonianum* (Blue Billygoat Weed) and exotic grasses.

The KHA mapping extends into the neighbouring Baileys Mountain Road reserve directly south of the site's southern boundary. This road reserve has been nearly completely cleared of trees for a road upgrade. This road upgrade is proposed to extend further into the roadside KHA that directly connects to KHA vegetation on site, which will further degrade the habitat quality of on-site KHA.

Species-specific searches were undertaken for Koala utilising the scat meander and SAT survey techniques. The SAT survey was conducted within KHA mapping, and the scat meander within KHA mapping and adjoining vegetation. Additionally, searches for Koala scats were undertaken incidentally as part of GPS tree plotting surveys. No scats were observed, and no direct sightings of the species occurred during surveys. This suggests a very low level of Koala use, likely only as a temporary resource by individuals.

The GPS tree plot undertaken across the site confirmed the vegetation reflects high-value regrowth, with approximately 75% of trees recorded as having a DSH of less than 300 mm (**Table**

[2] Phillips, S & Callaghan, J 2011, "The *Spot Assessment Technique*: a tools for determining localised levels of habitat use by Koala *Phascolarctos cinereus*", *Australian Zoologist*, 35:3.

- SDAP v3.4 State Code 25 Response

3) indicating the immature status of the vegetation. No trees on site recorded a DSH greater than 800 mm, further corroborating the impact of historical clearing on site limiting mature vegetation.

Table 4: GPS Tree Plot DSH Count

Tree DSH (mm)	Number of Trees Recorded	Percentage of Total (%)
100-200	253	47.20%
200-300	146	27.24%
300-400	62	11.57%
400-500	39	7.28%
500-600	20	3.73%
600-700	9	1.68%
700-800	7	1.31%
Grand Total:	**536**	**100%**

3.2.3 Category X (non-remnant) Vegetation

The balance of the site consists of mostly open cleared lawn areas which are either frequently maintained or un-maintained grasses and weeds as a result of property degradation. Two distinct vegetation areas exist within the mowed lawns, vegetation surrounding the on-site dam and surrounding the dwelling.

Vegetation surrounding the on-site dam is dominated by *Acacia disparrima* (Hickory Wattle) with non-native trees and scattered NJKHTs. The vegetation surrounding the dwelling is dominated by native ornamental vegetation consisting of high densities of species such as *Ficus obliqua* (Small-leaved Fig), *Archonotophoenix cunninghamiana* (Bangalow palm), and *Grevilia robusta* (Silky Oak) with some infill non-native ornamental species.

These areas reflect the non-remnant mapping as vegetation is limited, instead dominated by maintained lawns. The NJKHT species within this area include *Eucalyptus siderophloia* (Northern Grey Ironbark), *Eucalyptus Saligna* (Sydney Blue Gum) and *Corymbia henryi* (Large-leaved Spotted Gum). For a full breakdown of trees found during field surveys please refer to **Appendix B**.

3.2.4 Habitat connectivity

An analysis of the habitat connectivity opportunities from the subject site to surrounding potential habitat was undertaken during field survey. Data collected has been collated and assessed via desktop analysis post-field survey to identify the degree of potential habitat connectivity between the mapped KHA area on the site and other KHA patches, and the existing potential safe movement opportunities present for Koala.

As discussed in **Section 3.1**, a mapped KHA patch is located in the eastern portion of the site and contains scattered NJKHTs with a highly modified understory.



- SDAP v3.4 State Code 25 Response

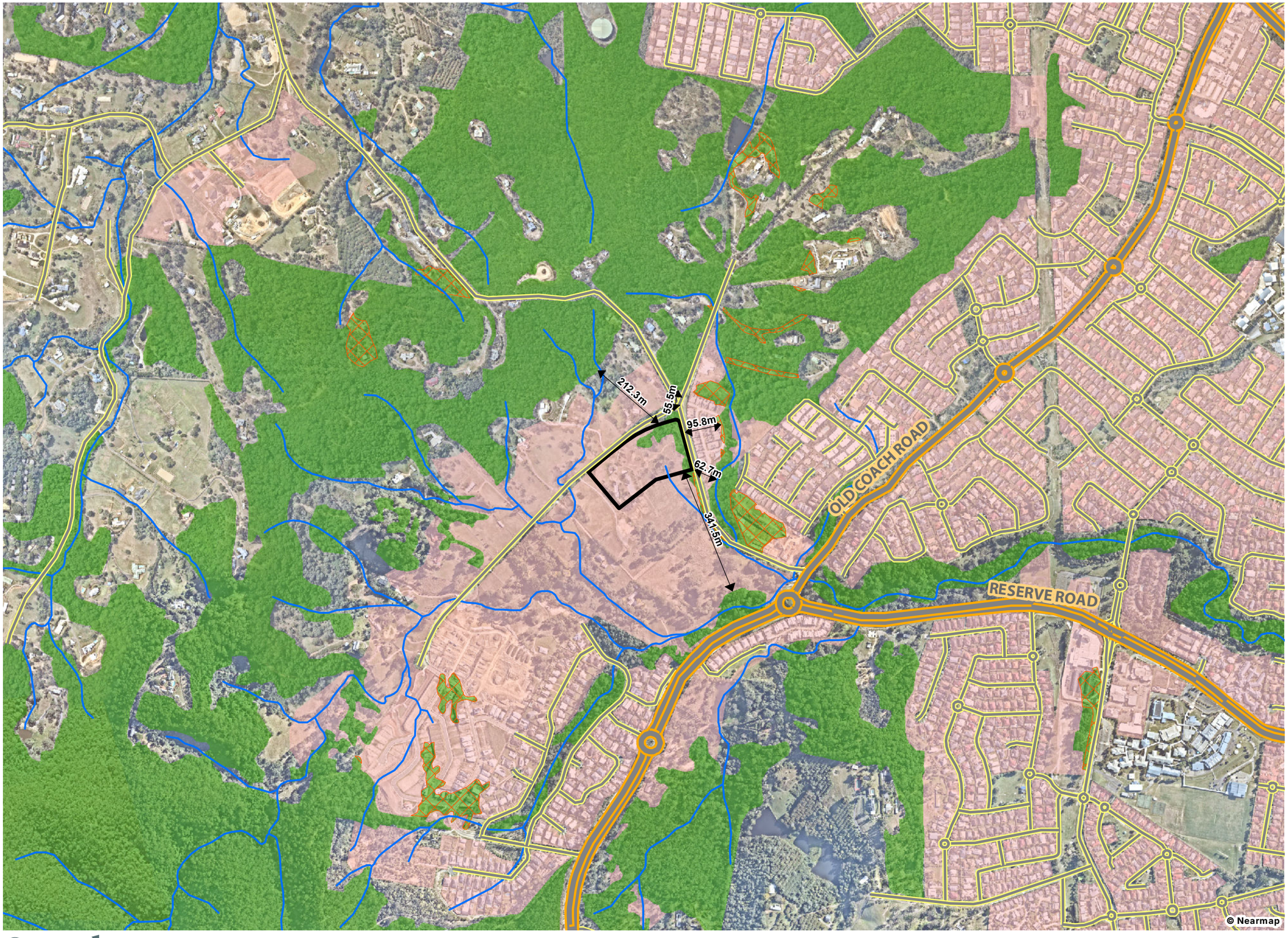
The *State Code 25: Development in South East Queensland Koala habitat areas* defines 'connectivity' and 'highly connected patches as per the definitions below:

> *"**Connectivity** means patches of mapped Koala habitat areas that are linked to each other in a larger network of mapped Koala habitat areas. Connectivity can be achieved in two different ways through:*
>
> 1. *Physical connections between mapped Koala habitat areas which include areas of native vegetation; and*
> 2. *The ability for Koalas to safely move between patches of mapped Koala habitat areas without increasing the risk of injury or death of a Koala."*
>
> AND
>
> *"**Highly connected patches** means mapped Koala habitat areas that are less than 200 m apart"*

Plan 2 shows connectivity from the site. Connectivity is generally poor as the site is bound by roads to the north and east and cleared areas to the south and west. A development is proposed in these adjoining southern cleared areas that is currently submitted to council and awaiting approval. The only highly connected patches of KHA at current are to the north and east of the site, approximately 55 – 95 m from site. In reality however, connectivity to the eastern patches of KHA is virtually removed by the presence of residential development and Bailey's Mountain Road, which is being upgraded. Connectivity to the northern KHA patch is also greatly limited as it is surrounded by Courtney Drive, Bailey's Mountain Road, and Jenkins Court. These roads create barriers to Koala movement by increasing the risk of vehicle strike.

Surrounding development and rural residential land uses has greatly reduced or removed any other connectivity to broader KHA in the area isolating the onsite KHA. The next closest KHA patch is further than 200 m from site, intersected by Courtney Drive, and would require transit through multiple disturbed rural residential properties that likely contain barriers and threats to the Koala such as fences and dogs. Therefore, it is considered that the patch of KHA present on the site does not have any viable connectivity to other areas of mapped Koala habitat, and whilst meeting the definition of a highly connected patch it is not considered a safe physical connection of movement for Koalas.

03.CONNECTIVITY ASSESSMENT



Notes:
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LEGEND

- Site DCDB

Connectivity

- Koala Habitat Areas
- Watercourses and Drainage Features

Impediments

- Major/Arterial Roads
- Minor/Feeder Roads
- Rail Network
- Residential/Industrial Zones
- Cleared or disturbed Koala habitat areas within project context area

AMENDMENTS				
Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

0 100 200 300 400 m

1:10,000 @ A3 | Transverse Mercator | GDA 2020 | Zone 56

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COURTNEY UPPER COOMERA DEVELOPMENTS PTY

COURTNEY DRIVE, COOMERA

Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 03 Connectivity Assessment A

3.2.5 Existing Risks to Safe Koala Movement

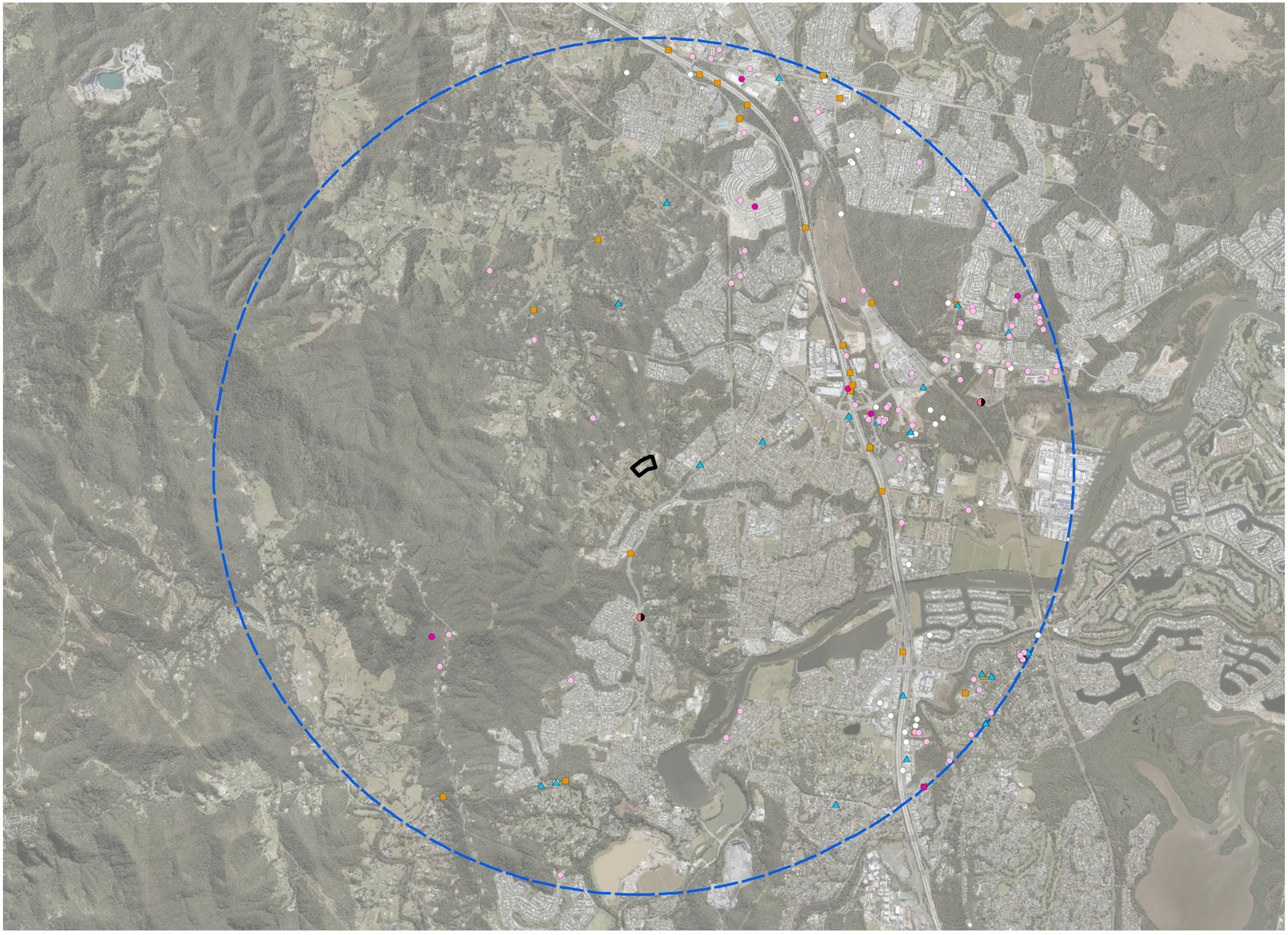
There currently exists significant barriers to safe Koala movement when transiting into and out of the mapped patch of KHA on site. Fauna movement into and out of the site is impeded in all directions by adjacent residential land uses and future development, Courtney drive in the north, and Baileys Mountain Road in the east (**Photo Set 1**). Koalas on site would face dangers posed by crossing the residential roads. As such, connectivity is fragmented and poor, with minimal native vegetation retained within this area increasing the amount of time Koalas would need to spend on the ground, further increasing the potential for predation/attack and vehicle strike.



Photo Set 1 – Connectivity barriers off site with large stretches of cleared areas (left) and residential roads (right) present in all directions.

The Koala Hospital records for the surrounding area (**Plan 4**), identifies instances of sick and injured Koalas recorded within 5 kilometres (km) of the site. Whilst few records are present directly surrounding the site, this is mostly likely a result of the lack of Koala presence in this area due to the extensive residential development and lack of suitable habitat. Where present, Koala hospital data reflects the threats posed to Koala in urban environments, with many records situated along roads. Some of the closest records are of injured Koala along Old Coach Road and Reserve Road. This data highlights both the limited Koala usage surrounding the site, and the potential threats to Koala.

04.KOALA HOSPITAL DATA



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LEGEND

- Site DCDB
- Site 5km Buffer

Qld Koala hospital records (all)

- Deceased
- Injured
- Sick and/or wasted
- Sick & Injured
- Orphaned
- Other incident type/ category not recorded

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

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COURTNEY DRIVE, COOMERA

Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 04 Koala Hospital A

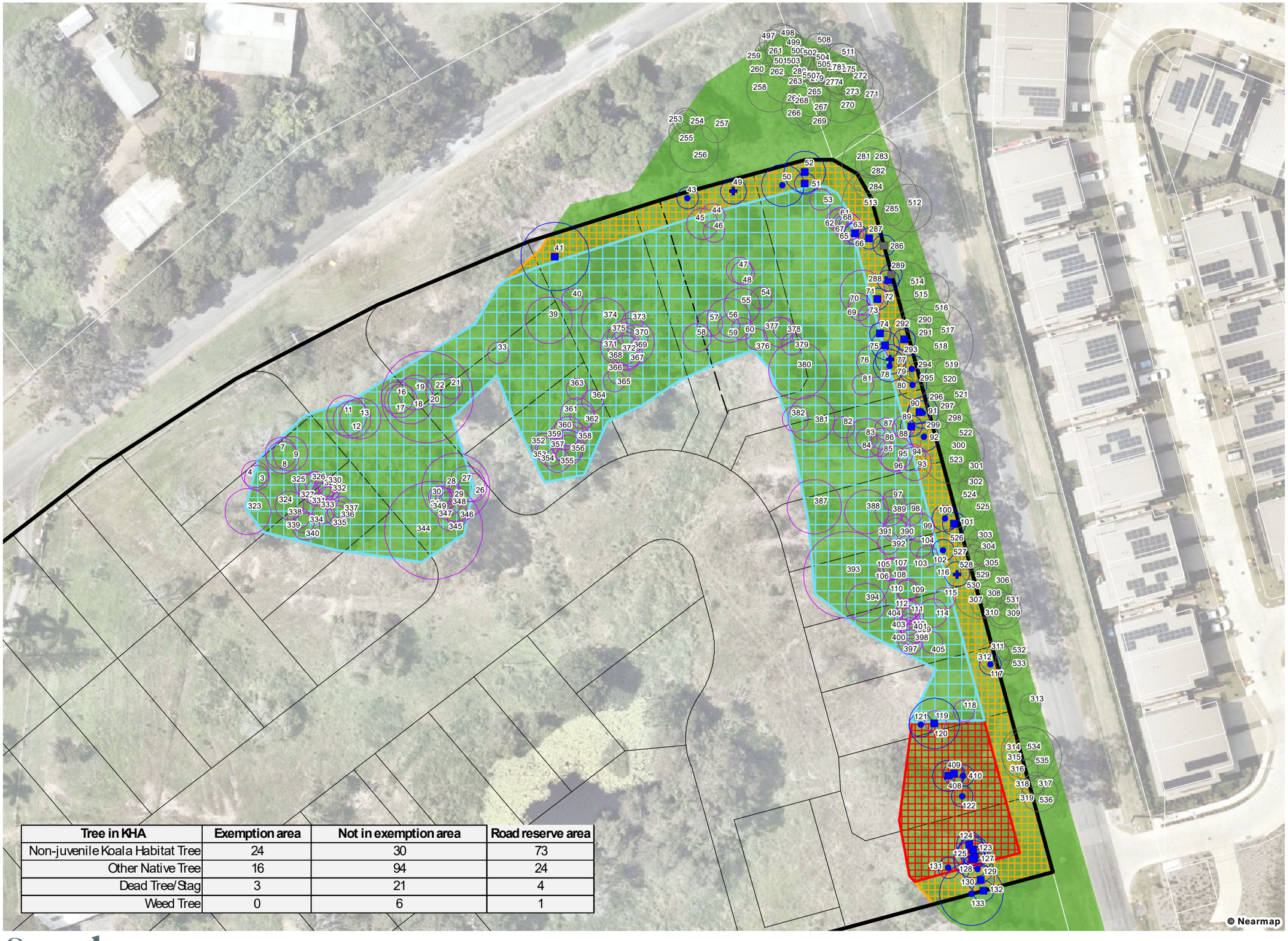
4. Proposed Development

The proposed development is for a residential development (1 into 63 lots) with new internal roads, internal pathways, services, easements and a detention basin area. The site is currently zoned as 'Emerging Community' under the *Gold Coast City Plan 2016*. The proposal is considered consistent with surrounding and future land uses; being residential developments. Refer to **Appendix A** for the development layout and **Plan 4** for Development Assessment in the mapped KHA.

It is understood that to facilitate the development, clearing of vegetation on site will be required and impacts to mapped KHA are proposed. The proposed development will result in the removal of **30 NJKHTs** from within the mapped KHA outside of exemptions (**Plan 4**). To compensate for any impacts to the mapped KHA, a financial Environmental Offset is to be delivered in accordance with the *Queensland Environmental Offsets Policy*.

Sections 5 and **6** detail the management and mitigation measures to be implemented as part of this development proposal to manage the proposed impacts.

05. DEVELOPMENT ASSESSMENT (KOALA HABITAT AREAS)



Tree in KHA	Exemption area	Not in exemption area	Road reserve area
Non-juvenile Koala Habitat Tree	24	30	73
Other Native Tree	16	94	24
Dead Tree/Stag	3	21	4
Weed Tree	0	6	1

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LEGEND

- Qld DCDB
- Site DCDB
- Koala Habitat Areas (KHA)

Layout Detail (indicative)

- Proposed Lots
- Proposed Easements
- Proposed Roads and Footpaths

GPS Tree Plot within KHA (w/ TPZ)

Native, Location

- Non-juvenile Koala Habitat Tree
- Native Tree
- Dead Tree (stag)
- Weed Tree
- Remove (in exempt area)
- Remove (not in exempt area)
- Remove (road reserve)
- KHA 500m² clearing exemption
- KHA 5m boundary clearing exemption
- KHA Not exempt (4,700m²)

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

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Address / RPD: Coomera, QLD

Date: 19/03/2026

13087 E 05 Development Assessment A

5. Management and Mitigation Measures

5.1. Koala-safe Road Design and Placement

Correct road design and placement can reduce the threat of vehicle strike and habitat fragmentation to Koalas. Generally, internal road speed limits will be 50 km/h as per standard practice for a residential area.

5.2. Educational Signage and Community Awareness

Community awareness and support can help protect Koala habitat and prevent disease caused by anthropogenic stressors. Community awareness can also help reduce the number of Koalas killed on roads and attacked by domestic dogs. Awareness signage may be constructed to caution drivers to potential wildlife usage and to raise community awareness and ecological stewardship for Koala protection. In the case of the proposed development, which will consist of a limited number of new residential allotments, and limited interface with areas of adjacent Koala habitat, educational signage is not considered necessary in this instance.

5.3. Landscaping

The streetscape within the new residential dwellings is intended to be planted with an assortment of locally native species that are typically suitable for landscaping. Street and park trees will not specifically include any primary or secondary Koala food trees and will focus on the inclusion of non-invasive native trees. The intent of this approach is to minimise the attraction for Koalas to move into the residential estate, therefore lowering the risk for Koala injury.

5.4. Management Plans

In addition to design enhancements, a number of management plans will be prepared specific for the management of Koala during construction and operation including the following.

5.4.1 Koala Management Plan (KMP)

A KMP which includes specific Koala mitigation measures also accompanies this report. Within the kmP, potential adverse impacts to Koalas are identified and outlined, with risk assessments, management frameworks and action plans to thoroughly assess and monitor the area during works. Specific actions and mitigation measures will include engagement of a Fauna Spotter Catcher, details of possible required temporary fencing, stop works procedures, and pre and post-clearing wildlife management reporting.

5.4.2 Vegetation Clearing and Fauna Management Plan (VCFMP)

A Vegetation Clearing and Fauna Management Plan (VCFMP) should form part of the broader management document submitted as part of the operational works drawings for the project site. This document will be submitted to local council for assessment.

The VCFMP should cover clearing of all vegetation listed in this report and include details on:

- trees marked for removal;
- all civil works likely to impact existing vegetation;
- temporary protection fencing;
- roles and responsibilities for site contractors, the developer and the consultant group;
- stockpiling and site access locations;
- a clearing sequence plan showing the commencement of clearing and direction of removal to allow for the appropriate flushing of fauna towards safe havens;
- fauna species surveyed as using the site, focusing on those most likely impacted by development works;
- a list of relevant State and Commonwealth legislation constraints and controls for fauna potentially affected by development works;
- a plan showing existing habitat opportunities and locations;
- details of the threats to existing fauna species;
- management and mitigation measures – i.e. temporary use of fauna exclusion fencing;
- description of fauna spotter role, contacts and certification; and
- specific fauna management procedures for potential or known habitat trees;
- links to weed management and revegetation proposals; and
- stock piling and reuse of cleared vegetation.

5.5. Koala Habitat Area Offsets

To meet the Performance Outcomes of the *SDAP Code 25: Development in South East Queensland Koala habitat areas*, an environmental offset is required to compensate for the proposed impacts to NJKHT within Koala habitat areas. The environmental offset for impacts on Koala habitat areas will be required to be provided to Department Environment, Tourism, Science and Innovation (DETSI) and will need to be in accordance with the requirements of the *Queensland Environmental Offset Policy.*

The proposed development will impact **30 NJKHTs** within the mapped KHA outside of exemptions. To compensate for the removal of **30 NJKHTs**, and to comply with the performance

■ SDAP v3.4 State Code 25 Response

outcomes of State Code 25, a financial Environmental Offset will be provided. The DETSI Environmental Offset Calculator indicates that a financial offset obligation of ~**$27,600** will be required to offset the impacts associated with removal of **30 NJKHT** within Koala habitat area.

6. State Development Assessment Provisions

It is acknowledged that the proposed development will interfere with a KHA outside of the KPA (**Plan 4**).

Under Schedule 10, Part 10, Division 3, Subdivision 1, Section 16B, the proposal is considered assessable development and is therefore to be referred to the chief executive of DETSI for assessment under State Code 25. The purpose of the code is to ensure that development in South East Queensland:

1. *does not cause an unacceptable impact on mapped Koala habitat areas;*
2. *is designed and located to avoid impacts or, where the matters of state environmental significance cannot be reasonably avoided, impacts are reasonably minimised and mitigated; and*
3. *does not result in a significant residual impact on a matter of state environmental significance unless the significant residual impact is acceptable, and an offset is provided.*

A response to relevant performance outcomes of State Code 25 is provided in Table 5.

Table 5: Response to State Code 25, Table 25.3 Reconfiguring a Lot.

Performance outcomes	Response
PO6 Development supports **connectivity** between **highly connected patches** of **mapped Koala habitat areas**.	**Complies with PO6** As outlined in this report, the area of mapped KHA on the site is already highly fragmented and isolated from other mapped KHA. The only highly connected areas of KHA are separated from the vegetation on site by Baileys Mountain Road, Jenkins Court, and completed residential and commercial developments. As such, the KHA on site is not functionally or safely connected to any other KHA mapping. The removal of 30 NJKHTs within KHA mapping on site will not reduce connectivity between highly connected patches of mapped KHA, as no connectivity to other areas of KHA currently exits.
PO7 Interfering with Koala habitat as a **result of the development** does not compromise **safe Koala movement** by preventing **fragmentation** of patches of **mapped Koala habitat areas**.	**Complies with PO7** As outlined in this report, the area of mapped KHA on the site is already highly fragmented and isolated from other others of mapped KHA. The next closest area of KHA is 55m away and is separated from the KHA on site by Baileys Mountain Road. The mapped KHA on site although, is considered highly connected due to the distance, connectivity to patches of higher quality connected habitat is severed by main roads not contributing to safe Koala movement. The mapped KHA on site is surrounded by cleared rural residential properties that has already compromised the ability of Koalas to safely move in and out of the mapped KHA on the site. The surrounding residential dwellings and adjacent roads already pose existing risks and barriers to safe Koala movement. No evidence of Koala usage of the site was observed. Therefore, the removal of the 30 NJKHTs within the KHA mapped on site as proposed by the development is not considered to impact safe Koala movement, as safe Koala movement into and out of the site is already comprised, and the area of mapped KHA already highly fragmented and isolated from other areas of mapped KHA. No

Performance outcomes	Response
	fragmentation of KHA will occur as a result of the development as the entire KHA patch on site will be removed, and there are no other functionally connected patches of KHA.
PO8 Interfering with Koala habitat as a **result of the development** supports **connectivity** between **highly connected patches** of **mapped Koala habitat areas**.	As outlined in this report, the area of mapped KHA on the site is already highly fragmented and isolated from other others of mapped KHA. The next closest area of KHA is 55m away and is separated from the KHA on site by Baileys Mountain Road. The mapped KHA on site although, is considered highly connected due to the distance, connectivity to patches of higher quality connected habitat is severed by main roads not contributing to safe Koala movement. The mapped KHA on site is surrounded by cleared rural residential properties that has already compromised the ability of Koalas to safely move in and out of the mapped KHA on the site. The surrounding residential dwellings and adjacent roads already pose existing risks and barriers to safe Koala movement. No evidence of Koala usage of the site was observed. Therefore, the mapped KHA on site is not considered to be part of highly connected patches of KHA and does contribute to connectivity of mapped KHA. In addition, the development proposes to impact 30 NJKHTs within the mapped KHA patch. The proposed impacts will not reduce connectivity with other mapped KHA, as no connectivity to other areas of KHA currently exits. Therefore, the proposed impacts to the patch of KHA mapped on site as proposed by the development is not considered to impact connectivity between highly connected patches of mapped KHA.
PO9 Development supports **safe Koala movement** by preventing **fragmentation** of patches of **mapped Koala habitat areas**.	**Complies with PO9** As outlined in the above code responses, the area of mapped KHA on the site is already highly fragments and isolated from the broader areas of KHA within Upper Coomera. While the next closest mapped patch of KHA is 55 m away, it is separated from site by the intersection of Baileys Mountain Road, Courtney Drive and Jenkins Court. While this distance to other patches considers the KHA mapped on site as highly connected, it is

Performance outcomes	Response
	severed by a three-road intersection which is not contributing to safe Koala movement. To avoid this intersection Koalas would be forced to cross large, cleared areas to further compromising the Koala connectivity of the site. The surrounding cleared areas and adjacent roads already pose existing risks and barriers to safe Koala movement. As such, no evidence of Koala usage of the site was observed. Therefore, the removal of the 30 NJKHTs within the mapped KHA mapped on site as proposed by the development is not considered to impact safe Koala movement, as safe Koala movement into and out of the site is already comprised, and the area of mapped KHA already highly fragmented and isolated from other areas of mapped KHA. The removal of the entire area of mapped KHA on site will ensure further fragmentation of KHA does not occur.
PO10 Development within a mapped Koala habitat area is undertaken in a way that prevents the risk of injury or death of Koalas.	**Complies with PO10** A KMP has been developed to comply with PO10, and accompanies this report. The KMP is developed by a suitably qualified person and addresses: 1. activities that may cause injury or death of Koalas from construction activities; and 2. acceptable measures to avoid and mitigate injury or death of Koalas from construction activities 3. compliance with the sequential clearing and Koala spotter requirements under section 10 and 11 of the Nature Conservation (Koala) Conservation Plan 2017. More specifically, the KMP addresses mitigation measures and risk management via the utilisation of the protocols within the attached KMP as well as the subsequent VCFMP outlining further mitigation measures (to be issued at Operational Works stage). Within these, potential impacts to Koalas are identified and outlined, with risk assessments, management frameworks and action plans to thoroughly assess and monitor the area during activity. Specific actions and mitigation measures include

Performance outcomes	Response
	engagement of a Fauna Spotter Catcher, development of a WPMP, a WHIMP, a VCFMP, temporary fencing, staged clearing, stop works procedures, and post-clearing and construction works Wildlife Management Report. More specific outlines can be found in the KMP.
PO11 Development is designed and sited to: 1. avoid impacts on **matters of state environmental significance**; or 2. minimise and mitigate impacts on **matters of state environmental significance** after demonstrating avoidance is not reasonably possible; and 3. provide an **offset** if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable **significant residual impact** on a **matter of state environmental significance**. *Statutory note: For Brisbane core port land, an offset may only be applied to development on land identified as E1 Conservation/Buffer, E2 Open Space or Buffer/Investigation in the **Brisbane Port LUP precinct plan**.*	**Complies with PO11** The site is mapped as containing MSES in the form for the mapped KHA, which is associated with the patch of vegetation occurring along the eastern boundary of site. The proposed development will result in the removal of 30 NJKHTs within the mapped KHA area. Given the current lack of viable connectivity, the overall poor quality of the mapped KHA, and the demonstrated existing threats to safe Koala movement present around the site, it is considered that the proposed development has avoided and minimised impacts to this mapped KHA to the greatest extent possible in order to provide residential development in accordance with the land use under Gold Coast City Plan. Mitigation measures have been proposed in the form of the accompanying KMP and the additional vegetation clearing and fauna management plans required to be prepared and implemented as part Operational Works and construction stages of the development. Specifically, within the KMP, potential adverse impacts to Koalas are identified and outlined, with risk assessments, management frameworks and action plans to thoroughly assess and monitor the area during activity. Specific actions and mitigation measures include engagement of a Fauna Spotter Catcher, development of a WPMP, a WHIMP, VCFMP, temporary fencing, staged clearing, stop works procedures, and post-clearing and construction works Wildlife Management Report. More specific outlines

Performance outcomes	Response
	can be found in the KMP. A VCFMP is anticipated to be produced at the Operational Works stage. Following the implementation of the above mitigation measures, it is recognized that an environmental offset in accordance with the Queensland Environmental Offset Policy will be required in order to comply with PO11. The proposed development will impact 30 NJKHT within the mapped KHA on the site outside of exemptions. In order to compensate for the removal of 30 NJKHTs from within KHA, and to comply with the performance outcomes of State Code 25, a financial Environmental Offset will be provided. The DETSI Environmental Offset Calculator indicates that a financial offset obligation of ~$27,600 will be required to offset the impacts associated with removal of 30 NJKHT within Koala habitat area.

7. Conclusion

This State Code 25 Response Report was prepared on behalf of Courtney Upper Coomera Developments Pty Ltd to demonstrate compliance with State Development Assessment Provision *State Code 25: Development in Southeast Queensland Koala habitat areas* (v3.4) for a proposed development located at 17 Courtney Drive, Upper Coomera, QLD, 4209 (described as Lot 182 on RP156422). The proposed development is for a ROL to facilitate the creation of 63 new residential allotments, internal road, internal pathway, services, easements and a drainage/detention area.

As detailed in this report, the site is highly modified with sparse native canopy trees scattered across the site and the vast majority of vegetation instead dominated by regrowth Acacia. The development proposes to remove a total of 30 NJKHTs from within the patch of mapped KHA located along the eastern boundary of the site, outside of exemptions. This patch of mapped KHA occurring on the site is isolated, fragmented, and lacks any connectivity to other mapped KHA. No evidence of Koala usage was observed during field surveys. Given the site is surrounded by cleared rural residential lots and busy local roads in all directions, the long-term viability of this isolated patch of potential Koala habitat on the site is compromised and established risks to safe Koala Movement are present in the surrounding landscape. The proposed development will not increase the fragmentation of the mapped KHA on site or increase risks to Koala movement. Therefore, in combination with the mitigation measures outlined in this report and the accompanying KMP, it is considered that the provision of an environmental offset to compensate for the removal of 30 NJKHTs from within the mapped KHA is the most appropriate ecological outcome.

8. Appendices

Appendix A

Proposed Development Layout

Appendix B

Tree Schedule

Appendix C

SAT Survey Results

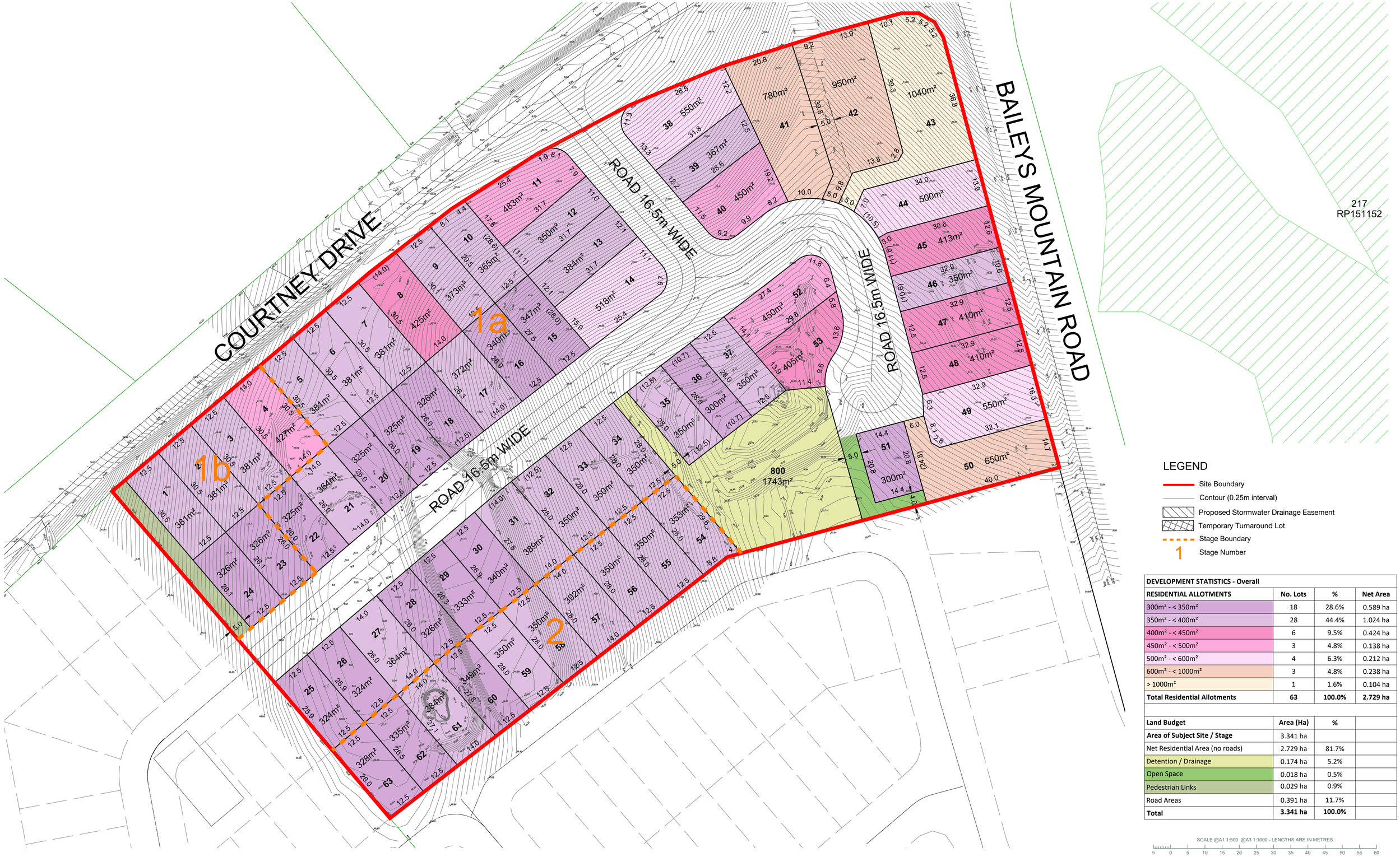
Appendix D

Koala Management Plan (KMP)

Appendix A

Proposed Development Layout

PROPOSAL PLAN



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	18	28.6%	0.589 ha
350m² - < 400m²	28	44.4%	1.024 ha
400m² - < 450m²	6	9.5%	0.424 ha
450m² - < 500m²	3	4.8%	0.138 ha
500m² - < 600m²	4	6.3%	0.212 ha
600m² - < 1000m²	3	4.8%	0.238 ha
> 1000m²	1	1.6%	0.104 ha
Total Residential Allotments	**63**	**100.0%**	**2.729 ha**

Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	3.341 ha		
Net Residential Area (no roads)	2.729 ha	81.7%	
Detention / Drainage	0.174 ha	5.2%	
Open Space	0.018 ha	0.5%	
Pedestrian Links	0.029 ha	0.9%	
Road Areas	0.391 ha	11.7%	
Total	**3.341 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

5 0 5 10 15 20 25 30 35 40 45 50 55 60

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PROJECTION: SURVEY COORDINATES AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025
CONTOURS: AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025

N

CLIENT
COURTNEY UPPER COOMER DEVELOPMENTS PTY LTD

SITE ADDRESS
17 COURTNEY DRIVE, UPPER COOMERA

RP DESCRIPTION
LOT 182 ON RP156422

DRAWN
AB

DATE
23/03/2026

DRAWING NO.
13087 P 01 Rev B - PRO 01

Appendix B

Tree Schedule

Tree Schedule - 13087
Courtney Drive, Coomera (Courtney Upper Coomera Developments Pty Ltd)
Date: 2026/03/26

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
1	*Acacia disparrima*	Hickory Wattle	300		300	94	8.0	5.0	3.6	2.0	Regular	-	Thinning	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
2	*Acacia disparrima*	Hickory Wattle	170	150 140 140	301	95	11.0	8.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
3	*Acacia disparrima*	Hickory Wattle	150	119	191	60	11.0	4.0	2.3	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
4	*Acacia disparrima*	Hickory Wattle	120	120 120	208	65	8.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
5	*Acacia disparrima*	Hickory Wattle	190	140	236	74	9.0	4.0	2.8	1.8	Regular	-	Thinning	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
6	*Dead/Stag*		250	150 150	328	103	9.0	5.0	3.9	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
7	*Acacia disparrima*	Hickory Wattle	190	150	242	76	13.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
8	*Acacia disparrima*	Hickory Wattle	190	160	248	78	10.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
9	*Acacia disparrima*	Hickory Wattle	270		270	85	8.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
10	*Acacia disparrima*	Hickory Wattle	310	290	424	133	7.0	10.0	5.1	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
11	*Acacia disparrima*	Hickory Wattle	310		310	97	11.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
12	*Dead/Stag*		290		290	91	11.0	4.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
13	*Acacia disparrima*	Hickory Wattle	180	150 150 150	316	99	10.0	7.0	3.8	2.0	Regular	-	Thinning	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
14	*Acacia disparrima*	Hickory Wattle	290		290	91	12.0	5.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
15	*Acacia disparrima*	Hickory Wattle	280	260	382	120	12.0	5.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
16	*Acacia disparrima*	Hickory Wattle	250		250	79	12.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
17	*Acacia disparrima*	Hickory Wattle	200	160	256	80	13.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
18	*Acacia disparrima*	Hickory Wattle	250	250	354	111	13.0	6.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
19	*Acacia disparrima*	Hickory Wattle	250	100	269	85	12.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
20	*Eucalyptus tereticornis*	Forest Red Gum	710		710	223	22.0	12.0	8.5	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
21	*Eucalyptus tereticornis*	Forest Red Gum	140	80	161	51	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
22	*Acacia disparrima*	Hickory Wattle	260		260	82	9.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
23	*Eucalyptus tereticornis*	Forest Red Gum	190		190	60	12.0	5.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
24	*Eucalyptus tereticornis*	Forest Red Gum	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
25	*Acacia disparrima*	Hickory Wattle	150	150	212	67	5.0	2.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
26	*Dead/Stag*		160	150	219	69	9.0	4.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
27	*Dead/Stag*		240	140	278	87	6.0	3.0	3.3	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
28	*Acacia disparrima*	Hickory Wattle	300	250 250 180 169	525	165	14.0	9.0	6.3	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
29	*Jagera pseudorhus*	Foambark	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
30	*Jagera pseudorhus*	Foambark	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
31	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
32	*Corymbia torelliana*	Cadaghi	140	120	184	58	7.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
33	*Eucalyptus tereticornis*	Forest Red Gum	138		138	43	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
34	*Acacia disparrima*	Hickory Wattle	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
35	*Acacia disparrima*	Hickory Wattle	490	200 120	543	170	14.0	12.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
36	*Acacia disparrima*	Hickory Wattle	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
37	*Dead/Stag*		150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
38	*Acacia disparrima*	Hickory Wattle	290	280	403	127	10.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
39	*Acacia disparrima*	Hickory Wattle	300	200	361	113	13.0	11.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
40	*Corymbia torelliana*	Cadaghi	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
41	*Eucalyptus siderophloia*	Northern Grey Ironbark	380	370	530	167	20.0	11.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
42	*Acacia disparrima*	Hickory Wattle	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
43	*Glochidion sumatranum*	Large-leaved Cheese Tree	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
44	*Acacia concurrens*	Black Wattle	190		190	60	7.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
45	*Dead/Stag*		180	160	241	76	9.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
46	*Acacia concurrens*	Black Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
47	*Acacia disparrima*	Hickory Wattle	160	120	200	63	7.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
48	*Acacia concurrens*	Black Wattle	180		180	57	7.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
49	*Dead/Stag*		200		200	63	5.0	2.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
50	*Acacia disparrima*	Hickory Wattle	250	210	326	103	12.0	6.0	3.9	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
51	*Lophostemon confertus*	Brush Box	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
52	*Eucalyptus tindaliae*	Tindale's Stringybark	320		320	101	10.0	5.0	3.8	2.1	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
53	*Lophostemon confertus*	Brush Box	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
54	*Dead/Stag*		160		160	50	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
55	*Corymbia torelliana*	Cadaghi	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
56	*Acacia disparrima*	Hickory Wattle	200	180 150 150	343	108	12.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
57	*Acacia disparrima*	Hickory Wattle	200		200	63	12.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
58	*Melaleuca saligna*	Willow Bottlebrush	160	150	219	69	9.0	5.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
59	*Dead/Stag*		140		140	44	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
60	*Acacia concurrens*	Black Wattle	140		140	44	8.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
61	*Acacia disparrima*	Hickory Wattle	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
62	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
63	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
64	*Eucalyptus acmenoides*	White Mahogany	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
65	*Eucalyptus siderophloia*	Northern Grey Ironbark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
66	*Eucalyptus acmenoides*	White Mahogany	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
67	*Eucalyptus siderophloia*	Northern Grey Ironbark	210		210	66	12.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
68	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
69	*Acacia disparrima*	Hickory Wattle	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
70	*Acacia disparrima*	Hickory Wattle	120		120	38	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
71	*Eucalyptus tindaliae*	Tindale's Stringybark	350		350	110	7.0	2.0	4.2	2.1	Regular	-	-	-	-	-	Typical	Major	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
72	*Eucalyptus major*	Mountain Grey Gum	120		120	38	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
73	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
74	*Eucalyptus siderophloia*	Northern Grey Ironbark	110		110	35	8.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
75	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	18.0	6.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
76	*Eucalyptus major*	Mountain Grey Gum	250		250	79	15.0	7.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
77	*Dead/Stag*		170	150	227	71	7.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
78	*Acacia disparrima*	Hickory Wattle	250		250	79	9.0	3.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
79	*Acacia disparrima*	Hickory Wattle	170	130	214	67	11.0	4.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
80	*Acacia disparrima*	Hickory Wattle	220		220	69	13.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
81	*Corymbia intermedia*	Pink Bloodwood	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
82	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
83	*Acacia disparrima*	Hickory Wattle	300		300	94	4.0	3.0	3.6	2.0	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
84	*Dead/Stag*		150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
85	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
86	*Acacia disparrima*	Hickory Wattle	120		120	38	3.0	1.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
87	*Acacia disparrima*	Hickory Wattle	170		170	53	9.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
88	*Eucalyptus siderophloia*	Northern Grey Ironbark	170		170	53	12.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
89	*Eucalyptus acmenoides*	White Mahogany	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
90	*Eucalyptus siderophloia*	Northern Grey Ironbark	180		180	57	11.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
91	*Acacia disparrima*	Hickory Wattle	180	160	241	76	7.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
92	*Acacia disparrima*	Hickory Wattle	160	160	226	71	11.0	5.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
93	*Eucalyptus siderophloia*	Northern Grey Ironbark	260		260	82	15.0	7.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
94	*Eucalyptus siderophloia*	Northern Grey Ironbark	210		210	66	15.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
95	*Acacia disparrima*	Hickory Wattle	270		270	85	10.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
96	*Dead/Stag*		200		200	63	7.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
97	*Acacia disparrima*	Hickory Wattle	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
98	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
99	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	15.0	7.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
100	*Acacia disparrima*	Hickory Wattle	150	140	205	64	10.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
101	*Eucalyptus siderophloia*	Northern Grey Ironbark	180		180	57	12.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
102	*Acacia disparrima*	Hickory Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
103	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
104	*Acacia disparrima*	Hickory Wattle	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
105	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
106	*Pinus elliottii*	Slash Pine	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
107	*Lophostemon suaveolens*	Swamp Box	130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
108	*Acacia disparrima*	Hickory Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
109	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
110	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
111	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
112	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
113	*Acacia disparrima*	Hickory Wattle	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
114	*Acacia disparrima*	Hickory Wattle	160	150	219	69	11.0	6.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
115	*Acacia disparrima*	Hickory Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
116	*Dead/Stag*		150	120	192	60	8.0	4.0	2.3	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
117	*Acacia disparrima*	Hickory Wattle	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
118	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
119	*Eucalyptus tindaliae*	Tindale's Stringybark	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
120	*Eucalyptus siderophloia*	Northern Grey Ironbark	300	250	391	123	17.0	9.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
121	*Acacia disparrima*	Hickory Wattle	130	130	184	58	7.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
122	*Acacia concurrens*	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
123	*Eucalyptus siderophloia*	Northern Grey Ironbark	150	130	198	62	8.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
124	*Eucalyptus tereticornis*	Forest Red Gum	200		200	63	9.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
125	*Eucalyptus siderophloia*	Northern Grey Ironbark	230		230	72	14.0	6.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
126	*Eucalyptus siderophloia*	Northern Grey Ironbark	140		140	44	10.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
127	*Eucalyptus tindaliae*	Tindale's Stringybark	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
128	*Eucalyptus tereticornis*	Forest Red Gum	290		290	91	16.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
129	*Acacia disparrima*	Hickory Wattle	170	170	240	76	9.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
130	*Eucalyptus siderophloia*	Northern Grey Ironbark	210		210	66	13.0	6.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
131	*Acacia leiocalyx*	Early-flowering Black Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
132	*Lophostemon suaveolens*	Swamp Box	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
133	*Acacia disparrima*	Hickory Wattle	490		490	154	14.0	8.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
134	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	6.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain in neighbouring lot		Native Tree	-
135	*Acacia melanoxylon*	Australian Blackwood	190		190	60	4.0	2.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain in neighbouring lot		Native Tree	-
136	*Pinus elliottii*	Slash Pine	320		320	101	12.0	6.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
137	*Acacia disparrima*	Hickory Wattle	150	130	198	62	8.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
138	*Corymbia torelliana*	Cadaghi	400	350	532	167	14.0	8.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
139	*Dead/Stag*		520		520	163	9.0	8.0	6.2	2.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
140	*Acacia disparrima*	Hickory Wattle	140		140	44	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
141	*Grevillea robusta*	Silky Oak	290		290	91	11.0	5.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain in neighbouring lot		Native Tree	-
142	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	220		220	69	5.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
143	*Acacia disparrima*	Hickory Wattle	200		200	63	9.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
144	*Corymbia torelliana*	Cadaghi	120		120	38	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
145	*Acacia disparrima*	Hickory Wattle	250	160	297	93	8.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
146	*Dead/Stag*		200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
147	*Pinus elliottii*	Slash Pine	480		480	151	16.0	9.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
148	*Pinus elliottii*	Slash Pine	310		310	97	12.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
149	*Acacia disparrima*	Hickory Wattle	150	140	205	64	8.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
150	*Acacia disparrima*	Hickory Wattle	220		220	69	12.0	7.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
151	*Eucalyptus tereticornis*	Forest Red Gum	290		290	91	15.0	6.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
152	*Acacia disparrima*	Hickory Wattle	410	350	539	169	15.0	9.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
153	*Acacia disparrima*	Hickory Wattle	340	300	453	142	13.0	8.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
154	*Acacia disparrima*	Hickory Wattle	480	300	566	178	11.0	12.0	6.8	2.6	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
155	*Acacia disparrima*	Hickory Wattle	400	270	483	152	10.0	8.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
156	*Grevillea robusta*	Silky Oak	280		280	88	11.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
157	*Tipuana tipu*	Tipuana	360	250	438	138	11.0	12.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
158	*Tecoma stans*	Yellow Bells	110		110	35	3.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
159	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
160	*Acacia disparrima*	Hickory Wattle	220		220	69	11.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
161	*Dead/Stag*		150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
162	*Jacaranda mimosifolia*	Jacaranda	160		160	50	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
163	*Jacaranda mimosifolia*	Jacaranda	200		200	63	11.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
164	*Corymbia henryi*	Large-leaved Spotted Gum	400		400	126	15.0	7.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
165	*Corymbia henryi*	Large-leaved Spotted Gum	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
166	*Corymbia henryi*	Large-leaved Spotted Gum	230		230	72	15.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
167	*Corymbia henryi*	Large-leaved Spotted Gum	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
168	*Corymbia torelliana*	Cadaghi	600	400	721	227	14.0	13.0	8.7	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
169	*Syagrus romanzoffiana*	Cocos Palm	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
170	*Cinnamomum camphora*	Camphor Laurel	140		140	44	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
171	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
172	*Eucalyptus saligna*	Sydney Blue Gum	490		490	154	20.0	12.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
173	*Syagrus romanzoffiana*	Cocos Palm	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
174	*Tipuana tipu*	Tipuana	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
175	*Eucalyptus tereticornis*	Forest Red Gum	330		330	104	18.0	9.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
176	*Eucalyptus saligna*	Sydney Blue Gum	240		240	75	15.0	9.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
177	*Syagrus romanzoffiana*	Cocos Palm	250		250	79	7.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
178	*Corymbia henryi*	Large-leaved Spotted Gum	200		200	63	14.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
179	*Eucalyptus saligna*	Sydney Blue Gum	140		140	44	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
180	*Plumeria sp*	Frangipani	150	110	186	58	4.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
181	*Syagrus romanzoffiana*	Cocos Palm	310		310	97	12.0	5.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
182	*Syagrus romanzoffiana*	Cocos Palm	190		190	60	8.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
183	*Syagrus romanzoffiana*	Cocos Palm	150		150	47	9.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
184	*Syzygium australe*	Brush Cherry	250	200	320	101	11.0	6.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
185	*Syagrus romanzoffiana*	Cocos Palm	180	180	255	80	7.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
186	*Syagrus romanzoffiana*	Cocos Palm	250	200	320	101	8.0	5.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
187	*Syagrus romanzoffiana*	Cocos Palm	180		180	57	7.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
188	*Archontophoenix cunninghamiana*	Bangalow Palm	150		150	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
189	*Syagrus romanzoffiana*	Cocos Palm	300		300	94	7.0	5.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
190	*Archontophoenix cunninghamiana*	Bangalow Palm	160		160	50	6.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
191	*Archontophoenix cunninghamiana*	Bangalow Palm	180	150 130	268	84	7.0	5.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
192	*Archontophoenix cunninghamiana*	Bangalow Palm	140	120	184	58	6.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
193	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	200		200	63	7.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
194	*Melaleuca viminalis*	Weeping Bottlebrush	150	100	180	57	6.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
195	*Jacaranda mimosifolia*	Jacaranda	280	280 280 180	517	163	5.0	5.0	6.2	2.5	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
196	*Beaucarnea recurvata*	Ponytail Palm	140	140 140 130	275	86	5.0	5.0	3.3	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
197	*Tipuana tipu*	Tipuana	470		470	148	10.0	8.0	5.6	2.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
198	*Dead/Stag*		150	150	212	67	6.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
199	*Dead/Stag*		100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
200	*Dead/Stag*		120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
201	*Acacia disparrima*	Hickory Wattle	130		130	41	6.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
202	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
203	*Schefflera actinophylla*	Umbrella Tree	400		400	126	3.0	3.0	4.8	2.3	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
204	*Jacaranda mimosifolia*	Jacaranda	350		350	110	3.0	3.0	4.2	2.1	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
205	*Brachychiton rupestris*	Narrow-leaved Bottle Tree	480		480	151	6.0	4.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
206	*Eucalyptus saligna*	Sydney Blue Gum	680		680	214	18.0	12.0	8.2	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
207	*Delonix regia*	Poinciana	600	250	650	204	10.0	11.0	7.8	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
208	*Araucaria cunninghamii*	Hoop Pine	370	250	447	140	16.0	8.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
209	*Acacia disparrima*	Hickory Wattle	440		440	138	12.0	9.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
210	*Melaleuca viminalis*	Weeping Bottlebrush	300	160	340	107	6.0	4.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
211	*Archontophoenix cunninghamiana*	Bangalow Palm	480		480	151	11.0	5.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
212	*Archontophoenix cunninghamiana*	Bangalow Palm	340		340	107	6.0	4.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
213	*Araucaria cunninghamii*	Hoop Pine	420		420	132	12.0	7.0	5.0	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
214	*Archontophoenix cunninghamiana*	Bangalow Palm	490		490	154	12.0	7.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
215	*Archontophoenix cunninghamiana*	Bangalow Palm	160	150	219	69	5.0	3.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
216	*Acacia disparrima*	Hickory Wattle	300		300	94	8.0	5.0	3.6	2.0	Regular	-	Thinning	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
217	*Archontophoenix cunninghamiana*	Bangalow Palm	400		400	126	7.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
218	*Archontophoenix cunninghamiana*	Bangalow Palm	490		490	154	12.0	6.0	5.9	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
219	*Archontophoenix cunninghamiana*	Bangalow Palm	470		470	148	8.0	5.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
220	*Archontophoenix cunninghamiana*	Bangalow Palm	260		260	82	4.0	3.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
221	*Araucaria cunninghamii*	Hoop Pine	340		340	107	11.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
222	*Archontophoenix cunninghamiana*	Bangalow Palm	400		400	126	9.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
223	*Syagrus romanzoffiana*	Cocos Palm	250	240	347	109	6.0	5.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
224	*Archontophoenix cunninghamiana*	Bangalow Palm	300		300	94	7.0	5.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
225	*Dead/Stag*		650		650	204	14.0	8.0	7.8	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Yes	-	-	-	Remove as part of this application		Dead Tree (stag)	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
226	*Lagerstroemia indica*	Crape Myrtle	180		180	57	8.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
227	*Grevillea robusta*	Silky Oak	400		400	126	16.0	8.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
228	*Grevillea robusta*	Silky Oak	500		500	157	16.0	9.0	6.0	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
229	*Brachychiton rupestris*	Narrow-leaved Bottle Tree	700		700	220	10.0	9.0	8.4	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
230	*Grevillea robusta*	Silky Oak	500		500	157	16.0	9.0	6.0	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
231	*Acacia disparrima*	Hickory Wattle	230	230 150	358	113	9.0	7.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
232	*Dead/Stag*		200	150	250	79	5.0	3.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
233	*Grevillea robusta*	Silky Oak	300		300	94	13.0	5.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
234	*Dead/Stag*		250		250	79	8.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
235	*Grevillea robusta*	Silky Oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
236	*Mangifera indica*	Mango	120	120	170	53	4.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
237	*Mangifera indica*	Mango	160	130	206	65	5.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
238	*Eucalyptus saligna*	Sydney Blue Gum	580		580	182	19.0	12.0	7.0	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
239	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
240	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
241	*Acacia disparrima*	Hickory Wattle	150	100	180	57	7.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
242	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
243	*Eucalyptus saligna*	Sydney Blue Gum	200		200	63	9.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
244	*Acacia disparrima*	Hickory Wattle	130	100	164	52	9.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
245	*Acacia disparrima*	Hickory Wattle	150	100 100	206	65	6.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
246	*Pinus elliottii*	Slash Pine	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Non-native Tree	-
247	*Acacia concurrens*	Black Wattle	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
248	*Acacia concurrens*	Black Wattle	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
249	*Acacia disparrima*	Hickory Wattle	320		320	101	12.0	8.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
250	*Acacia disparrima*	Hickory Wattle	410		410	129	13.0	8.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
251	*Acacia disparrima*	Hickory Wattle	150		150	47	8.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
252	*Acacia disparrima*	Hickory Wattle	180		180	57	8.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
253	*Acacia disparrima*	Hickory Wattle	200		200	63	12.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
254	*Acacia disparrima*	Hickory Wattle	150		150	47	5.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
255	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
256	*Acacia disparrima*	Hickory Wattle	380		380	119	9.0	6.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
257	*Corymbia torelliana*	Cadaghi	210		210	66	7.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-native Tree	-
258	*Lophostemon confertus*	Brush Box	360		360	113	12.0	5.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
259	*Allocasuarina littoralis*	Black She-oak	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
260	*Eucalyptus siderophloia*	Northern Grey Ironbark	200		200	63	11.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
261	*Acacia concurrens*	Black Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
262	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
263	*Eucalyptus seeana*	Narrow-leaved Red Gum	440		440	138	15.0	8.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
264	*Lophostemon confertus*	Brush Box	150		150	47	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
265	*Lophostemon confertus*	Brush Box	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
266	*Corymbia intermedia*	Pink Bloodwood	300		300	94	15.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
267	*Lophostemon confertus*	Brush Box	240		240	75	8.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
268	*Acacia disparrima*	Hickory Wattle	290		290	91	12.0	6.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
269	*Lophostemon confertus*	Brush Box	280		280	88	9.0	5.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
270	*Eucalyptus tindaliae*	Tindale's Stringybark	380		380	119	15.0	7.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
271	*Lophostemon confertus*	Brush Box	330		330	104	14.0	7.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
272	*Eucalyptus microcorys*	Tallowwood	290		290	91	15.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
273	*Eucalyptus propinqua*	Small-fruited Grey Gum	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
274	*Lophostemon confertus*	Brush Box	250	180	308	97	10.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
275	*Corymbia intermedia*	Pink Bloodwood	310		310	97	17.0	8.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
276	*Corymbia intermedia*	Pink Bloodwood	450		450	141	18.0	9.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
277	*Eucalyptus acmenoides*	White Mahogany	290		290	91	16.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
278	*Acacia disparrima*	Hickory Wattle	190		190	60	10.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
279	*Lophostemon confertus*	Brush Box	240		240	75	15.0	7.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
280	*Eucalyptus siderophloia*	Northern Grey Ironbark	170		170	53	12.0	5.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
281	*Corymbia intermedia*	Pink Bloodwood	240		240	75	13.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
282	*Eucalyptus acmenoides*	White Mahogany	460		460	145	19.0	9.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
283	*Acacia disparrima*	Hickory Wattle	210		210	66	8.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
284	*Acacia disparrima*	Hickory Wattle	180		180	57	7.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
285	*Eucalyptus acmenoides*	White Mahogany	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
286	*Lophostemon confertus*	Brush Box	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
287	*Eucalyptus siderophloia*	Northern Grey Ironbark	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
288	*Corymbia intermedia*	Pink Bloodwood	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
289	*Lophostemon confertus*	Brush Box	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
290	*Acacia disparrima*	Hickory Wattle	190		190	60	7.0	5.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
291	*Acacia disparrima*	Hickory Wattle	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
292	*Angophora leiocarpa*	Smooth-barked Apple	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
293	*Eucalyptus tindaliae*	Tindale's Stringybark	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
294	*Eucalyptus tindaliae*	Tindale's Stringybark	130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
295	*Eucalyptus tindaliae*	Tindale's Stringybark	150		150	47	8.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
296	*Jagera pseudorhus*	Foam bark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
297	*Acacia disparrima*	Hickory Wattle	160		160	50	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
298	*Acacia disparrima*	Hickory Wattle	180		180	57	10.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
299	*Acacia disparrima*	Hickory Wattle	160		160	50	9.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
300	*Angophora leiocarpa*	Smooth-barked Apple	500		500	157	16.0	9.0	6.0	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
301	*Eucalyptus microcorys*	Tallowwood	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
302	*Eucalyptus tindaliae*	Tindale's Stringybark	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
303	*Eucalyptus acmenoides*	White Mahogany	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
304	*Eucalyptus acmenoides*	White Mahogany	220		220	69	10.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
305	*Eucalyptus tindaliae*	Tindale's Stringybark	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
306	*Eucalyptus tindaliae*	Tindale's Stringybark	210	140	252	79	12.0	7.0	3.0	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
307	*Eucalyptus tindaliae*	Tindale's Stringybark	240		240	75	9.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
308	*Eucalyptus tindaliae*	Tindale's Stringybark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
309	*Eucalyptus crebra*	Narrow-leaved Ironbark	280		280	88	14.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
310	*Eucalyptus tindaliae*	Tindale's Stringybark	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
311	*Eucalyptus tindaliae*	Tindale's Stringybark	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
312	*Eucalyptus tindaliae*	Tindale's Stringybark	240		240	75	11.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
313	*Acacia disparrima*	Hickory Wattle	130		130	41	3.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
314	*Corymbia tessellaris*	Moreton Bay Ash	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
315	*Acacia disparrima*	Hickory Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
316	*Corymbia tessellaris*	Moreton Bay Ash	170		170	53	10.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
317	*Eucalyptus siderophloia*	Northern Grey Ironbark	160		160	50	7.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
318	*Lophostemon suaveolens*	Swamp Box	100	100	141	44	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
319	*Acacia disparrima*	Hickory Wattle	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
320	*Acacia disparrima*	Hickory Wattle	340		340	107	8.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
321	*Acacia disparrima*	Hickory Wattle	230	170	286	90	7.0	5.0	3.4	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
322	*Acacia disparrima*	Hickory Wattle	200		200	63	7.0	2.0	2.4	1.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
323	*Acacia disparrima*	Hickory Wattle	220	170 170 140	355	111	8.0	7.0	4.3	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
324	*Acacia disparrima*	Hickory Wattle	170	140	220	69	8.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
325	*Acacia disparrima*	Hickory Wattle	160		160	50	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
326	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
327	*Acacia disparrima*	Hickory Wattle	180	170	248	78	9.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
328	*Acacia disparrima*	Hickory Wattle	220		220	69	8.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
329	*Acacia disparrima*	Hickory Wattle	170		170	53	8.0	2.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
330	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
331	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
332	*Dead/Stag*		100		100	31	6.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
333	*Dead/Stag*		110		110	35	8.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
334	*Dead/Stag*		130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
335	*Acacia disparrima*	Hickory Wattle	110	80	136	43	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
336	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
337	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
338	*Dead/Stag*		150		150	47	8.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
339	*Acacia disparrima*	Hickory Wattle	130	80 70	168	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
340	*Corymbia torelliana*	Cadaghi	210		210	66	7.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
341	*Acacia disparrima*	Hickory Wattle	260	230 200 190 150 140	489	153	7.0	12.0	5.9	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
342	*Dead/Stag*		120	100 110	191	60	5.0	4.0	2.3	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
343	*Acacia disparrima*	Hickory Wattle	240		240	75	8.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
344	*Eucalyptus tereticornis*	Forest Red Gum	760		760	239	16.0	11.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
345	*Acacia disparrima*	Hickory Wattle	160		160	50	8.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
346	*Acacia disparrima*	Hickory Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
347	*Acacia disparrima*	Hickory Wattle	140	110	178	56	6.0	2.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
348	*Acacia disparrima*	Hickory Wattle	180		180	57	9.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
349	*Dead/Stag*		110		110	35	4.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
350	*Acacia disparrima*	Hickory Wattle	160	140	213	67	11.0	5.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
351	*Corymbia torelliana*	Cadaghi	120	60	134	42	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
352	*Acacia disparrima*	Hickory Wattle	210		210	66	9.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
353	*Acacia disparrima*	Hickory Wattle	120	119	169	53	5.0	2.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
354	*Acacia disparrima*	Hickory Wattle	190	120	225	71	7.0	4.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
355	*Acacia disparrima*	Hickory Wattle	190		190	60	8.0	5.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
356	*Acacia disparrima*	Hickory Wattle	170	150	227	71	7.0	2.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
357	*Dead/Stag*		250		250	79	13.0	2.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
358	*Dead/Stag*		200		200	63	8.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
359	*Acacia disparrima*	Hickory Wattle	220		220	69	9.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
360	*Dead/Stag*		190	120	225	71	8.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
361	*Dead/Stag*		190	190	269	84	6.0	4.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
362	*Dead/Stag*		190		190	60	5.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
363	*Corymbia torelliana*	Cadaghi	120		120	38	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
364	*Schefflera actinophylla*	Umbrella Tree	110	100 80	169	53	7.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-native Tree	-
365	*Dead/Stag*		170		170	53	3.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
366	*Acacia disparrima*	Hickory Wattle	170		170	53	7.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
367	*Acacia disparrima*	Hickory Wattle	180		180	57	9.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
368	*Dead/Stag*		190	180	262	82	7.0	3.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
369	*Acacia disparrima*	Hickory Wattle	280	240	369	116	12.0	5.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
370	*Acacia disparrima*	Hickory Wattle	200		200	63	6.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
371	*Acacia disparrima*	Hickory Wattle	170	200 160	307	97	11.0	2.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
372	*Acacia disparrima*	Hickory Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
373	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
374	*Acacia disparrima*	Hickory Wattle	250	240	347	109	12.0	3.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
375	*Acacia disparrima*	Hickory Wattle	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
376	*Eucalyptus siderophloia*	Northern Grey Ironbark	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
377	*Corymbia citriodora*	Spotted Gum	230		230	72	9.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
378	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
379	*Eucalyptus siderophloia*	Northern Grey Ironbark	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
380	*Acacia disparrima*	Hickory Wattle	310	220 200 140	452	142	9.0	7.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
381	*Eucalyptus siderophloia*	Northern Grey Ironbark	360		360	113	15.0	8.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
382	*Acacia disparrima*	Hickory Wattle	200		200	63	6.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
383	*Eucalyptus siderophloia*	Northern Grey Ironbark	160	130	206	65	9.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
384	*Eucalyptus tereticornis*	Forest Red Gum	160	160	226	71	6.0	5.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
385	*Eucalyptus tereticornis*	Forest Red Gum	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
386	*Eucalyptus siderophloia*	Northern Grey Ironbark	140		140	44	8.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
387	*Acacia disparrima*	Hickory Wattle	260	200 170 200	420	132	8.0	8.0	5.0	2.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
388	*Eucalyptus siderophloia*	Northern Grey Ironbark	340		340	107	13.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
389	*Dead/Stag*		180	130	222	70	7.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Dead Tree (stag)	-
390	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	13.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
391	*Acacia disparrima*	Hickory Wattle	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
392	*Eucalyptus carnea*	Broad-leaved White Mahogany	170		170	53	9.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
393	*Eucalyptus tereticornis*	Forest Red Gum	630	140 190	673	211	17.0	15.0	8.1	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
394	*Eucalyptus siderophloia*	Northern Grey Ironbark	290	100	307	96	14.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
395	*Dead/Stag*		220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
396	*Lophostemon suaveolens*	Swamp Box	230		230	72	7.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
397	*Acacia disparrima*	Hickory Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
398	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
399	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
400	*Acacia disparrima*	Hickory Wattle	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
401	*Acacia disparrima*	Hickory Wattle	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
402	*Acacia disparrima*	Hickory Wattle	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
403	*Acacia disparrima*	Hickory Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
404	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
405	*Acacia disparrima*	Hickory Wattle	140	80	161	51	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
406	*Eucalyptus siderophloia*	Northern Grey Ironbark	380	250	455	143	9.0	7.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
407	*Acacia disparrima*	Hickory Wattle	160		160	50	4.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
408	*Eucalyptus siderophloia*	Northern Grey Ironbark	240		240	75	13.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
409	*Eucalyptus tereticornis*	Forest Red Gum	110		110	35	6.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
410	*Acacia leiocalyx*	Early-flowering Black Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application	Within Koala Habitat Area	Native Tree	-
411	*Eucalyptus siderophloia*	Northern Grey Ironbark	370		370	116	14.0	9.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
412	*Eucalyptus siderophloia*	Northern Grey Ironbark	230		230	72	9.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
413	*Acacia disparrima*	Hickory Wattle	220		220	69	12.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
414	*Acacia disparrima*	Hickory Wattle	220		220	69	6.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
415	*Acacia disparrima*	Hickory Wattle	200	90	219	69	8.0	3.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
416	*Acacia disparrima*	Hickory Wattle	130		130	41	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
417	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
418	*Acacia disparrima*	Hickory Wattle	270	130 170	345	108	8.0	6.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
419	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
420	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	120		120	38	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
421	*Acacia disparrima*	Hickory Wattle	370	160	403	127	7.0	5.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
422	*Acacia disparrima*	Hickory Wattle	210		210	66	7.0	3.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
423	*Acacia disparrima*	Hickory Wattle	140	140 140	242	76	7.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	Major	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
424	*Acacia disparrima*	Hickory Wattle	180	150 160	284	89	8.0	4.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
425	*Acacia disparrima*	Hickory Wattle	120		120	38	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
426	*Acacia disparrima*	Hickory Wattle	120	90	150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
427	*Acacia disparrima*	Hickory Wattle	110	110	156	49	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
428	*Acacia disparrima*	Hickory Wattle	220	190	291	91	10.0	3.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
429	*Dead/Stag*		170		170	53	5.0	2.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
430	*Dead/Stag*		120	110	163	51	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
431	*Acacia disparrima*	Hickory Wattle	140	110	178	56	8.0	3.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
432	*Acacia disparrima*	Hickory Wattle	260		260	82	9.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
433	*Acacia disparrima*	Hickory Wattle	140		140	44	6.0	7.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
434	*Acacia disparrima*	Hickory Wattle	180	130	222	70	9.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
435	*Eucalyptus siderophloia*	Northern Grey Ironbark	300	300 280	508	160	13.0	5.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
436	*Acacia disparrima*	Hickory Wattle	110		110	35	8.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
437	*Acacia disparrima*	Hickory Wattle	170	110	202	64	8.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
438	*Dead/Stag*		220	120	251	79	6.0	6.0	3.0	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
439	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	200	160 200 190	376	118	4.0	6.0	4.5	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
440	*Acacia disparrima*	Hickory Wattle	250	210	326	103	8.0	5.0	3.9	2.1	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
441	*Grevillea robusta*	Silky Oak	320		320	101	14.0	5.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
442	*Grevillea robusta*	Silky Oak	250		250	79	12.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
443	*Acacia disparrima*	Hickory Wattle	350	320	474	149	8.0	7.0	5.7	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
444	*Schefflera actinophylla*	Umbrella Tree	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
445	*Dead/Stag*		200	190	276	87	7.0	4.0	3.3	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Dead Tree (stag)	-
446	*Schinus terebinthifolia*	Broad-leaved Pepper Tree	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
447	*Corymbia henryi*	Large-leaved Spotted Gum	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
448	*Corymbia citriodora*	Spotted Gum	190		190	60	12.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
449	*Corymbia citriodora*	Spotted Gum	330		330	104	13.0	6.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
450	*Acacia disparrima*	Hickory Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
451	*Archontophoenix cunninghamiana*	Bangalow Palm	190		190	60	3.0	2.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
452	*Archontophoenix cunninghamiana*	Bangalow Palm	200		200	63	7.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
453	*Archontophoenix cunninghamiana*	Bangalow Palm	140		140	44	3.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
454	*Archontophoenix cunninghamiana*	Bangalow Palm	170		170	53	8.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
455	*Corymbia torelliana*	Cadaghi	460		460	145	9.0	7.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
456	*Syagrus romanzoffiana*	Cocos Palm	180		180	57	7.0	3.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
457	*Syagrus romanzoffiana*	Cocos Palm	140		140	44	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
458	*Eucalyptus saligna*	Sydney Blue Gum	420		420	132	14.0	8.0	5.0	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
459	*Eucalyptus saligna*	Sydney Blue Gum	480	120 110	507	159	16.0	8.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
460	*Ravenala madagascariensis*	Traveller Palm	130		130	41	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
461	*Eucalyptus saligna*	Sydney Blue Gum	130		130	41	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-juvenile Koala Habitat Tree	-
462	*Ficus obliqua*	Small Leaf Fig	530	320 260 100 190 230 210	771	242	12.0	14.0	9.2	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
463	*Ficus obliqua*	Small Leaf Fig	350	250 190 280 300 110	634	199	12.0	9.0	7.6	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
464	*Ficus obliqua*	Small Leaf Fig	270	170 110 90 240	424	133	8.0	8.0	5.1	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
465	*Ficus obliqua*	Small Leaf Fig	280	110 180 240 90	434	136	11.0	9.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
466	*Ficus obliqua*	Small Leaf Fig	330	120 120 90	382	120	8.0	8.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
467	*Ficus obliqua*	Small Leaf Fig	350	330 180 140 110	544	171	11.0	9.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
468	*Pinus elliotii*	Slash Pine	110		110	35	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
469	*Tipuana tipu*	Tipuana	440	430 310	689	216	14.0	13.0	8.3	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
470	*Spathodea campanulata*	African Tulip Tree	360	170	398	125	7.0	5.0	4.8	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
471	*Brachychiton acerifolius*	Illawarra flame tree	290	270	396	124	11.0	7.0	4.8	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
472	*Schefflera actinophylla*	Umbrella Tree	140	110 90 90 90	237	74	8.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
473	*Ficus obliqua*	Small Leaf Fig	280	150 140	347	109	13.0	12.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
474	*Ficus obliqua*	Small Leaf Fig	310	220 100	393	123	12.0	12.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
475	*Ficus obliqua*	Small Leaf Fig	320	219	388	122	8.0	12.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
476	*Ficus obliqua*	Small Leaf Fig	410	190 120 130 240	541	170	11.0	12.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
477	*Ficus obliqua*	Small Leaf Fig	410	230 120 80 160 150	538	169	9.0	12.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
478	*Ficus obliqua*	Small Leaf Fig	390	210 180 210 130 130	554	174	12.0	10.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
479	*Ficus obliqua*	Small Leaf Fig	380	310 210 120 140	564	177	11.0	12.0	6.8	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
480	*Pinus elliotii*	Slash Pine	180		180	57	6.0	2.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
481	*Pinus elliotii*	Slash Pine	130		130	41	4.0	1.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
482	*Ficus obliqua*	Small Leaf Fig	500	370 180 360 190	765	240	13.0	12.0	9.2	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
483	*Ficus obliqua*	Small Leaf Fig	540	260 210 280 140 160 130 130 220	780	245	11.0	12.0	9.4	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
484	*Ficus obliqua*	Small Leaf Fig	440	190 190 160 210 150 120 120	622	195	11.0	8.0	7.5	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
485	*Jacaranda mimosifolia*	Jacaranda	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
486	*Jacaranda mimosifolia*	Jacaranda	130	90	158	50	7.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
487	*Jacaranda mimosifolia*	Jacaranda	140	110 90	199	63	7.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
488	*Jacaranda mimosifolia*	Jacaranda	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Non-native Tree	-
489	*Acacia disparrima*	Hickory Wattle	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
490	*Grevillea robusta*	Silky Oak	520		520	163	15.0	7.0	6.2	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of this application		Native Tree	-
491	*Acacia concurrens*	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
492	*Acacia concurrens*	Black Wattle	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
493	*Acacia concurrens*	Black Wattle	170	160	233	73	6.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
494	*Acacia concurrens*	Black Wattle	170		170	53	5.0	5.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
495	*Acacia concurrens*	Black Wattle	240		240	75	7.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
496	*Acacia concurrens*	Black Wattle	140		140	44	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Native Tree	-
497	*Dead/Stag*		190		190	60	3.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
498	*Eucalyptus major*	Mountain Grey Gum	240		240	75	7.0	4.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
499	*Dead/Stag*		300		300	94	3.0	1.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
500	*Lophostemon confertus*	Brush Box	250		250	79	7.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
501	*Eucalyptus siderophloia*	Northern Grey Ironbark	340		340	107	17.0	5.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
502	*Corymbia intermedia*	Pink Bloodwood	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
503	*Eucalyptus siderophloia*	Northern Grey Ironbark	170		170	53	11.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
504	*Eucalyptus major*	Mountain Grey Gum	110		110	35	9.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
505	*Eucalyptus siderophloia*	Northern Grey Ironbark	220		220	69	14.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
506	*Lophostemon confertus*	Brush Box	240		240	75	14.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
507	*Dead/Stag*		230		230	72	11.0	3.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
508	*Lophostemon suaveolens*	Swamp Box	190		190	60	11.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
509	*Lophostemon confertus*	Brush Box	100		100	31	4.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Non-juvenile Koala Habitat Tree	-
510	*Lophostemon suaveolens*	Swamp Box	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade		Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Koala Habitat Area	Native Status	Additional Notes
511	*Dead/Stag*		230		230	72	5.0	3.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Dead Tree (stag)	-
512	*Eucalyptus major*	Mountain Grey Gum	370		370	116	17.0	9.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
513	*Eucalyptus acmenoides*	White Mahogany	590	120	602	189	21.0	13.0	7.2	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
514	*Corymbia intermedia*	Pink Bloodwood	300		300	94	14.0	8.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
515	*Lophostemon confertus*	Brush Box	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
516	*Lophostemon suaveolens*	Swamp Box	230		230	72	13.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
517	*Corymbia citriodora*	Spotted Gum	190		190	60	9.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
518	*Eucalyptus major*	Mountain Grey Gum	660		660	207	17.0	11.0	7.9	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
519	*Acacia disparrima*	Hickory Wattle	130	90	158	50	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
520	*Eucalyptus microcorys*	Tallowwood	270		270	85	14.0	7.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
521	*Eucalyptus major*	Mountain Grey Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
522	*Acacia disparrima*	Hickory Wattle	190		190	60	5.0	2.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
523	*Acacia concurrens*	Black Wattle	110	80	136	43	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
524	*Corymbia intermedia*	Pink Bloodwood	180		180	57	12.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
525	*Corymbia citriodora*	Spotted Gum	210		210	66	11.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
526	*Eucalyptus microcorys*	Tallowwood	170		170	53	11.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
527	*Eucalyptus siderophloia*	Northern Grey Ironbark	230		230	72	11.0	3.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
528	*Eucalyptus microcorys*	Tallowwood	200		200	63	11.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
529	*Eucalyptus tindaliae*	Tindale's Stringybark	250		250	79	8.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
530	*Eucalyptus siderophloia*	Northern Grey Ironbark	430		430	135	15.0	8.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
531	*Acacia disparrima*	Hickory Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Native Tree	-
532	*Eucalyptus carnea*	Broad-leaved White Mahogany	120		120	38	3.0	1.0	2.0	1.4	Regular	-	-	-	Epicormic	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
533	*Eucalyptus carnea*	Broad-leaved White Mahogany	220		220	69	8.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
534	*Eucalyptus carnea*	Broad-leaved White Mahogany	410		410	129	15.0	6.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
535	*Eucalyptus siderophloia*	Northern Grey Ironbark	460		460	145	18.0	13.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Present	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-
536	*Eucalyptus siderophloia*	Northern Grey Ironbark	280		280	88	14.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove as part of road upgrade	Within Koala Habitat Area	Non-juvenile Koala Habitat Tree	-

Appendix C

SAT Survey Results

Spot Assessment Technique (SAT)				
Date:	22.08.2025	**Site:** J12753	**SAT ID:**	1
Tree No.	**Scientific Name**	**Common Name**	**DBH**	**Scats**
1	*Eucalyptus siderophloia*	Grey Ironbark	280	N
2	*Eucalyptus siderophloia*	Grey Ironbark	210	N
3	*Acacia disparrima*	Hickory Wattle	150	N
4	*Eucalyptus carnea*	Broad-leaved White Mahogany	150	N
5	*Eucalyptus tereticornis*	Forest Red Gum	690	N
6	*Eucalyptus siderophloia*	Grey Ironbark	370	N
7	*Acacia disparrima*	Hickory Wattle	300	N
8	*Eucalyptus siderophloia*	Grey Ironbark	350	N
9	*Eucalyptus tereticornis*	Forest Red Gum	200	N
10	*Eucalyptus siderophloia*	Grey Ironbark	270	N
11	*Eucalyptus siderophloia*	Grey Ironbark	200	N
12	*Eucalyptus siderophloia*	Grey Ironbark	440	N
13	*Acacia disparrima*	Hickory Wattle	280	N
14	*Corymbia citriodora*	Spotted Gum	240	N
15	*Acacia concurrens*	Black Wattle	160	N
16	*Acacia disparrima*	Hickory Wattle	210	N
17	*Melaleuca quinquenervia*	Broad-leaved Paperbark	170, 150	N
18	*Eucalyptus tereticornis*	Forest Red Gum	160, 150	N
19	*Eucalyptus siderophloia*	Grey Ironbark	450	N
20	*Eucalyptus major*	Grey Gum	260	N
21	*Lophostemon suaveolens*	Swamp Box	100	N
22	*Eucalyptus siderophloia*	Grey Ironbark	210	N
23	*Acacia disparrima*	Hickory Wattle	350	N
24	*Eucalyptus siderophloia*	Grey Ironbark	120	N
25	*Eucalyptus siderophloia*	Grey Ironbark	100	N
26	*Eucalyptus microcorys*	Tallowwood	150, 80	N
27	*Acacia disparrima*	Hickory Wattle	100	N
28	*Eucalyptus carnea*	Broad-leaved White Mahogany	230	N
29	*Acacia concurrens*	Black Wattle	150	N
30	*Lophostemon confertus*	Swamp Box	280	N
		Total Scats	0	
		Percentage	0.00	
		East Coast (med-high) Activity Category	Low	

Appendix D

Koala Management Plan (KMP)



Koala Management Plan (KMP)

State Development Assessment Provisions v3.4 (Qld)

17 Courtney Dr, Upper Coomera, QLD, 4209

Prepared for Courtney Upper Coomera Developments Pty Ltd Pty Ltd

26 March 2026

Job 13087

Saunders Havill

PATHWAYS TO SUCCESS

Document Control

Document: SDAP v3.4 – Koala Management Plan (KMP), 17 Courtney Drive, Upper Coomera, QLD 4209 prepared by Saunders Havill (SH) for Courtney Upper Coomera Developments Pty Ltd .

Document Issue

Issue	Date	Prepared By	Checked By
Issue A	2026.03.26	HW	TM

Prepared by
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ABN 24 144 972 949
www.saundershavill.com

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Acronyms and Abbreviations

Legislation, policies, and guidelines

Draft Code	*Draft Code of Practice for the Welfare of Animals Affected by Land-clearing and Other Habitat Impacts*
EMP Guidelines	*Environmental Management Plan Guidelines*, *prepared by the Commonwealth of Australia, 2014*
VMA	*Vegetation Management Act 1999* (Qld)

Government departments

COGC	City of Gold Coast
DETSI	Department Environment, Tourism, Science and Innovation (Qld)
DSDMIP (Qld)	Department of State Development, Manufacturing, Infrastructure and Planning

General terms

DBH	Diameter at Breast Height
Ha	hectares
KHA	Koala Habitat Area
KMP	Koala Management Plan
Km	Kilometres
KPA	Koala Priority Area
mm	Millimetres
RE	Regional Ecosystems
SAT	Spot Assessment Technique
SDAP	State Development Assessment Provisions
SH	Saunders Havill
VCFMP	Vegetation Clearing and Fauna Management Plan
WHIMP	Wildlife Habitat Impact Mitigation Plan
WPMP	Wildlife Protection and Management Plan

1. Introduction

Saunders Havill (SH) was engaged by Courtney Upper Coomera Developments Pty Ltd to prepare a Koala Management Plan (KMP) to demonstrate compliance with the State Development Assessment Provisions (SDAP) *State Code 25: Development in Southeast Queensland Koala habitat areas* (v3.4), implemented by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP). Specifically, this KMP is required to demonstrate compliance with performance outcomes within the State Code 25, where the KMP must include:

1. *activities that may cause injury or death of koalas from construction activities; and*
2. *acceptable measures to avoid and mitigate injury or death of koalas from construction activities.*

This KMP has been prepared in accordance with the document *Environmental Management Plan Guidelines*, *prepared by the Commonwealth of Australia, 2014* (EMP Guidelines). The purpose of this KMP is to provide a single explanatory management document for the inclusion in the design, construction, and operation of the development. The objectives of this KMP are as follows:

1) To highlight the existing flora, fauna, and ecosystem values on the subject site and in surrounding areas.
2) Describe key results from survey data, including Koala occurrence and the availability and quality of habitat.
3) Identify key direct and indirect impacts on Koalas and describe proposed avoidance and mitigation measures; and,
4) List out actions and legislative requirements to be implemented to manage construction impacts.

1. Project Description

The subject site is located at located at 17 Courtney Drive, Upper Coomera, QLD, 4209 and described as Lot 182 on RP156422. Contextually, the site is located approximately 15.8 kilometres (km) north-east of Southport, in the suburb of Upper Coomera. Situated on the corner of Courtney Drive and Bailey's Mountain Road, surrounding land uses consist of similarly sized rural residential lots. Higher density residential developments exist to the east of the site and patches of vacant bushland surround the area. On-site values were typical of rural residential lots, being highly modified/cleared areas dominated by regrowth acacias and other planted species with some scattered natives throughout the site.

The context of the site and a recent aerial image are presented in **Figure 1** and **Figure 2** respectively. The proposed development consists of 63 new residential allotments, internal roads, internal pathway, services, easements and a detention/drainage area. It will require vegetation clearing across the entire site.

Refer to **Figure 1** for site context and **Figure 2** for site aerial and **Plan 1** for the development assessment.



LEGEND

Site DCDB

Figure 1

Site Context

FILE REFERENCE
13087 E Figure 1 Site Context A

DATE
19/03/2026

Courtney Drive, Coomera

0 1 2 3 4 5 km

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:150,000

N

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY

Saunders Havill
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- Qld DCDB
- Site DCDB

Figure 2

Site Aerial

FILE REFERENCE
13087 E Figure 2 Site Aerial A

DATE
19/03/2026

Courtney Drive, Coomera

0 10 20 30 40 50 m

COORDINATE SYSTEM
GDA 2020 MGA Z56

SCALE (A4)
1:1,800

N

CLIENT

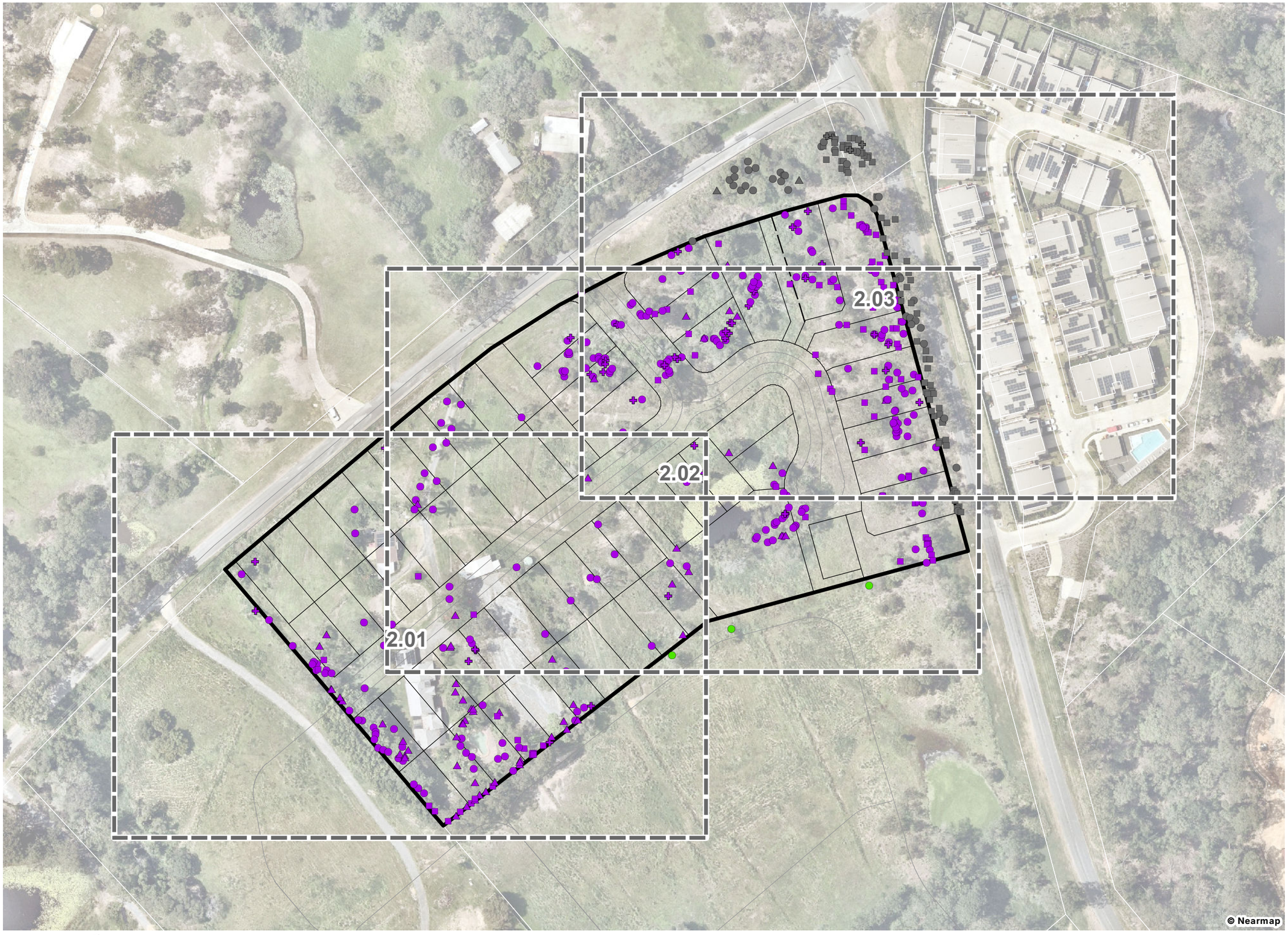
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1.00 DEVELOPMENT ASSESSMENT



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- Site DCDB

Layout Detail (indicative)

- Proposed Lots
- Proposed Easements
- Proposed Roads and Footpaths

GPS Tree Plot

Native tree to retain in neighbouring property	[3]
Non-juvenile Koala habitat tree to remove as part of this application	[86]
Native tree to remove as part of this application	[227]
Dead/stag tree to remove as part of this application	[41]
Non-native tree to remove as part of this application	[61]
Non-juvenile Koala habitat tree to remove as part of proposed Baileys Mount Road upgrade	[75]
Native tree to remove as part of proposed Baileys Mount Road upgrade	[37]
Dead/stag tree to remove as part of proposed Baileys Mount Road upgrade	[4]
Non-native tree to remove as part of proposed Baileys Mount Road upgrade	[2]

AMENDMENTS

Issue	Date	Description	Drawn	Checked
A	19/03/2026	Preliminary	HW	LB

N

0 10 20 30 40 50 m

1:1,400 @ A3 | Transverse Mercator | GDA 2020 | Zone 56

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Date: 19/03/2026

13087 E 02 Development Assessment A

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1.02 DEVELOPMENT ASSESSMENT



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1.03 DEVELOPMENT ASSESSMENT



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13087 E 02_1 Development Assessment A

2. Summary of Ecological values

Field surveys were undertaken across the site by two (2) Ecologists from SH on 22 August 2025. This included one (1) Spot Assessment Technique (SAT) survey[1] to confirm vegetation habitat structure and status, targeted searches for presence of Koala, and searches for indirect evidence of Koala in the forms of scats where habitat was considered of suitable size and structure to potentially support Koala. Incidental searches for Koala scats were also undertaken during tree plot surveys across the entire site as well as a general scat meander throughout the mapped Koala Habitat Area (KHA).

As detailed in the State Code 25 Response and Ecological Assessment Report, the site is considered isolated and fragmented from surrounding viable koala habitat areas due to local roads to the east and north, and large areas of cleared rural residential land to the south and west which is also largely under a development application with CoGC for a substantial residential development and ecological corridors. Whilst the mapped KHA contains suitable koala food and shelter trees as per the definitions in SDAP Code 25, adequate consideration needs to be given to the zoned intent of the land for urban / residential purposes to cater for the growing southeast Queensland population. Given the limited vegetation on site which, where present, is dominated by regrowth *Acacia* species with only scattered Non-Juvenile Koala Habitat Trees (NJKHT), the onsite KHA is considered to be low quality. Paired with the lack of connectivity to other viable areas of mapped KHA the long-term viability of the isolated patch of koala habitat on-site is compromised. Retention of the KHA would not provide any stepping-stone connectivity or patch habitat for the koala given its fragmentation from other viable areas of koala habitat.

Regulated Vegetation Management Mapping at the time of the application maps the majority of the site as Category X (non-remnant) vegetation, with the eastern KHA vegetation mapped as Category C (high-value regrowth) vegetation containing Least Concern RE 12.11.24 (**Figure 3**). Field surveys confirmed there are scattered species characteristic of this RE present. The site is not mapped within a Priority Koala Area but is mapped as containing a small patch (0.63 ha) of mapped Koala Habitat Area (core - regrowth) (**Figure 4**).

Canopy species throughout the KHA mapping are dominated by *Acacia disparrima* (Hickory Wattle) with scattered eucalypt vegetation including, *Eucalyptus siderophloia* (Northern Grey Ironbark), *Eucalyptus tindaliae* (Tindale's Stringybark), *Lophostemon confertus* (Swamp Box), *Eucalyptus tereticornis* (Forest Red Gum), *Corymbia torelliana* (Cadaghi) *Corymbia Intermedia* (Pink Bloodwood), *Lophostemon suaveolens* (Swamp Box), *Eucalyptus major* (Grey Gum), *Corymbia henryi* (Large-leaved Spotted Gum),

[1] Phillips, S & Callaghan, J 2011, "The *Spot Assessment Technique*: a tools for determining localised levels of habitat use by Koala *Phascolarctos cinereus*", *Australian Zoologist*, 35:3.

Eucalyptus microcorys (Tallowwood), *Corymbia citriodora* (Spotted Gum), *Eucalyptus carnea* (Broad-leaved White Mahogany), as well as other species of *Eucalyptus, Melaleuca* and *angophora* found in small amounts. The vegetation on site meets the definition of Koala habitat and is proposed for removal as part of the development.

Figure 3: Regulated Vegetation Management Map

Figure 4: Koala Habitat Areas

3. Impacts to the Koala

The following direct and indirect impacts have been identified as having potential to occur as a result of construction.

Construction Impacts

- Loss of habitat.
- Loss of 54 non-juvenile koala habitat trees within mapped KHA and an additional 32 from the balance of the site.
- Potential for injury or mortality caused by vegetation clearing.
- Potential for injury or mortality caused by increased traffic.
- Potential for injury or mortality caused by domestic dogs and cats.
- Potential for injury or mortality from koalas getting trapped in machinery and / or excavated pits and holes.
- Potential for injury or morality caused by vehicles use during construction.
- Potential for injury or morality caused by increased stress from construction noise.
- Species displacement into surrounding habitat areas.

3.1. Risk Assessment

Each of the identified potential impacts were analysed in the context of the proposed action within the Risk Assessment Table (refer **Table 1**) to identify where avoidance and mitigation measures are to be focused.

Table 1: Risk Assessment

Impact	Likelihood	Consequence	Risk Rating
Construction Phase			
Loss of habitat	Almost certain (A)	Minor (2)	**High**
Loss of **54** NJKHT's	Almost certain (A)	Minor (2)	**High**
Indirect loss of habitat through edge effects	Almost certain (A)	Minor (2)	**High**
Injury and mortality due to vegetation clearing	Unlikely (D)	Major (4)	**Moderate**
Injury and mortality from domestic dogs and cats	Unlikely (D)	Major (4)	**Moderate**
Injury and mortality from falling and getting trapped into excavated pits and holes	Unlikely (D)	Major (4)	**Moderate**
Injury and mortality due to stress caused from noise, vibration and dust impacts	Unlikely (D)	Major (4)	**Moderate**
Injury and mortality due to Weed introduction (garden escapees)	Unlikely (D)	Major (4)	**Moderate**
Injury and mortality due to loss of food sources	Unlikely (D)	Major (4)	**Moderate**
Injury and mortality due to increased vehicle usage	Unlikely (D)	Major (4)	**Moderate**
Species displacement into other habitat areas	Possible (C)	Minor (2)	**Moderate**

As identified from the risk assessment above, management measures will focus on avoiding and mitigating impacts caused by:

- Loss of habitat.
- Risk of injury and death caused by:
    - Falling into excavated pits / holes
    - Taking refuge in machinery during nightfall
    - Wild dog predation
    - Domestic dogs and cats
    - Loss of food sources
    - Swimming pools and backyards
    - Weed introduction (garden escapees)
    - Altering hydrological flows
    - Excavation/compaction/changes in ground levels
    - Stress cause from noise, vibration and dust impacts
    - Increased human and traffic activity
    - vegetation clearing; and
    - vehicle strike.
- Barriers to dispersal into surrounding habitat areas.

4. KMP Framework

This KMP focuses on the management and safety of Koalas during the construction of the project. To achieve the objectives of the KMP, as detailed in **Section 1**, the implementation of specific management actions at each stage of project design and construction will occur. Management task and actions relevant to the project are explained throughout the following subsections. Specific actions are converted to schedules within **Section 4** and documented using the S.M.A.R.T criteria (Specific, Measurable, Achievable, Reasonable and Time Specific).

4.1. General Management

4.1.1 Roles and Responsibilities

The successful implementation of this KMP requires a number of key personnel to complete various roles. While many of the contractors for the project are yet to be appointed, these will be specified within on-site working versions of the KMP.

Environmental Coordinator

SH is the Environmental Coordinator for the project and is responsible for the development of this KMP and documentation for overarching environmental management. SH will be responsible for managing non-compliance by appointed contractors and sub-contractors, including establishing additional management procedures.

Administering Authority

CoGC is the government approval authority for the Local Government Area and issuer of development and operational approvals for the project.

Site Coordinator

The Site Coordinator is a representative of the project team (typically the Project Engineer) and is responsible for coordinating the project consultants and construction contractor.

Site Supervisor

The Site Supervisor is a representative of the Construction Contractor (to be appointed) and is responsible for overseeing all pre-clearing, clearing and construction activities. The Site Supervisor is responsible for ensuring all pre-clearing, clearing and construction activities are undertaken in accordance with this KMP and subsequent environmental management documentation. The Site Contractor will be responsible for engaging and commissioning the Fauna Spotter Catcher.

Fauna Spotter Catcher

A Department of Environment, Tourism, Science, and Innovation (DETSI) approved Fauna Spotter Catcher is a person who holds a rehabilitation permit with an extended authority issued by DETSI specifying the holder may take, keep or use an animal whose habitat is about to be destroyed by a human activity. A DETSI approved Fauna Spotter Catcher will be engaged by the Proponent for pre-construction and construction stages of the project. It is noted that the Fauna Spotter Catcher must hold a Rehabilitation Permit and a copy of this permit along with their contact details will be passed on to the Environmental Coordinator. The engaged Fauna Spotter Catcher will be responsible for undertaking pre-clearing surveys of the site and preparing all required pre-clearing and post-clearing reporting. The Fauna Spotter Catcher must be present on site during all clearing activities and is responsible for the relocation of native fauna.

Koala Spotter Catcher

Under Part 3, Section 11 of the *Nature Conservation (Koala) Conservation Plan 2017* an approved Koala Spotter is a person who has qualifications and experience, or demonstrated skills and knowledge, in— (a) locating koalas in koala habitats; or (b) conducting arboreal fauna surveys. The person must ensure the clearing is carried out in the presence of a koala spotter who has the primary role of locating koalas in the trees for the person. This person may be the same or a different person from the Fauna Spotter Catcher as long as they have all relevant qualifications and permits for both. In relation to the stop works procedures, works are not to recommence until the koala spotter reviews how the incident occurred and signs off that appropriate measures are in place to ensure that no further injury can occur.

Contacting RSPCA on 1300 ANIMAL is the first priority when a koala is injured. Although, there are other places in the SEQ Koala network that a koala can be taken to if it is unable to be taken to RSPCA, such as:

- Moggill Koala Rehabilitation Centre
- Currumbin Wildlife Hospital
- Australia Zoo Wildlife Hospital.

A list of key contacts for the project is contained in **Table 2.**

Table 2: Key Management Personnel

Role	Nominated Person	Company
Proponent/ Project Coordinator	Harry Wilson	Courtney Upper Coomera Developments Pty Ltd
Environmental Coordinator	Liam Brzezinski	Saunders Havill Pty Ltd
CoGC Contact	To Be Assigned (TBA)	City of Gold Coast

Role	Nominated Person	Company
SARA Contact	TBA	TBA
Site Coordinator	TBA	TBA
Principal Site Contractor	TBA	TBA
Registered Fauna Spotter	TBA	TBA
Registered Koala Spotter	TBA	TBA

4.1.2 Environmental Training

The KMP will be issued to all site contractors and sub-contractors and will be made available within the site construction office. Elements of compliance with the KMP will form part of the responsibility of the Principal Site Contractor. Training on the KMP will be incorporated as part of the broader environmental management and workplace health and safety procedures for the site. This will include the following management plan actions:

1) Providing a copy of the KMP to all site contractors and sub-contractors.
2) Requirements of the KMP discussed during site induction.
3) Making available the final copy of the KMP within the site construction office.
4) Requirements of the KMP to be incorporated into workplace checklists, work method statement and toolbox talks.
5) Monthly review and report on compliance with the KMP as part of the Principal Contractor's role.

4.2. Construction Management

4.2.1 Fauna

The sequential clearing of site vegetation will be undertaken in accordance with fauna management protocols implemented by a Fauna Spotter Catcher registered by DETSI. Additionally, the adoption of a leading practice fauna management model to guide works prior, during and post construction. This model is cited as the *Draft Code of Practice for the Welfare of Animals Affected by Land-clearing and Other Habitat Impacts*, endorsed by the Australia Zoo Wildlife Warriors and Voiceless (the Draft Code). Under the Draft Code, the following procedures will apply to all clearing works:

Action 1- Engagement of Fauna Spotter Catcher

This action requires that the developer engage a Fauna Spotter Catcher with full registrations and licences provided in accordance with the DETSI.

Action 2- Fauna Spotter Catcher to prepare a Wildlife Protection and Management Plan (WPMP)

The WPMP will include the following information:

- description of the project with reference to impacts on wildlife and wildlife habitat;
- pre-development plan of the site showing habitat areas, features, corridors, riparian habitats and adjacent areas;
- results of any fauna surveys including pre-clearance surveys; and
- a wildlife and habitat impact assessment based on the proposed development works.

Action 3- Prepare a Wildlife and Habitat Impact Mitigation Plan (WHIMP)

Following the completion of the WPMP, the Fauna Spotter Catcher will prepare a more detailed WHIMP, which will provide details on:

- measures required to be completed to minimise wildlife and habitat impacts during operational works;
- wildlife capture and removal plan;
- contingency plan for wildlife requiring euthanasia, other veterinary procedures or captive care;
- wildlife storage and housing plan;
- wildlife release and disposal plan; and
- post works measures to minimise impacts on wildlife.

Action 4 – Role of Fauna Spotter Catcher and a Koala spotter at Pre-Start Meeting

Prior to the commencement of any construction works, a pre-start meeting is to be held between the project manager, site foreperson, plant operators and Local Government representatives (if required). At the pre-start meeting, the Fauna / Koala Spotter Catcher is to outline the clearing process and the requirements of the WPMP.

Action 5 – During Construction

The Fauna Spotter Catcher and a Koala spotter with is to be on-site during all phases of construction which involve potential impacts on wildlife or habitat. This will enable the Fauna Spotter Catcher to make any necessary adjustments to the WPMP to cater for any specific issues encountered during the clearing works.

Action 6 – Post Works Reporting (Wildlife Management Report)

During the course of all site works, including the pre-clearance surveys, the Fauna Spotter Catcher is to keep an accurate record of all animals encountered, captured, incidents and disposals for each stage of the project. The records should form part of the post-works Wildlife Management Report to be issued

under licence requirements to DETSI. The Wildlife Management Report should consist of the following three sections:

1. *Wildlife Habitat Management Plan* – Aspects of the planning, design, construction and ongoing operation of the project in which risks to wildlife have been identified. This plan should also include recommendations and outline the type, frequency and timeframes for monitoring.
2. *Wildlife Capture and Disposal Plan* – Should contain the following details for each captured animal:
    a. Species.
    b. Identification name or number.
    c. Sex (M, F or unknown).
    d. Approximate Age or Age Class (neonate, juvenile, sub-adult, adult).
    e. Time and date of capture.
    f. Method of capture.
    g. Exact point of capture (GPS coordinates).
    h. State of health.
    i. Incidents associated with capture likely to affect health.
    j. Veterinary intervention or treatments.
    k. Time held in captivity.
    l. Disposal method (euthanasia, translocation, re-release).
    m. Date and time of disposal.
    n. Detailed of disposal (GPS points of release).
    o. For released animals, location relative to point of capture.
3. *Animal Injury and Euthanasia Report* – similar details for the Wildlife Capture and Disposal Plan should be included in this report.

4.2.2 Vegetation Management / Sequential Clearing

Vegetation clearing over the development footprint will occur in a series of stages, sequentially and most likely in accordance with an endorsed Vegetation Clearing and Fauna Management Plan (VCFMP) to be provided at the Operational Works stage. If required, the VCFMP will detail fauna exclusion fencing to be installed around construction areas to prevent fauna from dispersing into these hostile areas.

Sequential clearing means the clearing of vegetation that:

- ensures any Koalas in the area being cleared have enough time to move out of the clearing zone without human intervention. For sites with an area of more than 3 ha, this means:
    i. vegetation clearing is to be carried out in stages, where the total area to be cleared in any one stage:
        - is no greater than 50 % of the area of a site that is 6 ha or smaller;
        - is no greater than 3 ha or 3 % of the area of a site that is larger than 6 ha.
    ii. between each stage and the next, there is at least one 12-hour period commencing at 6 pm on one day and concluding at 6 am the following day, during which no trees are cleared on the site.
    iii. no tree in which a Koala is present, or a tree with a crown overlapping a tree in which a Koala is present, is cleared until the tree is vacated by the Koala.
- ensures vegetation clearing is directed away from threatening processes, or hostile environments, and towards any retained vegetation or habitat links, ensuring that:
    i. Koalas are not pressured, through loss of habitat, to cross roads or move through developed or disturbed areas, such as residential areas or areas that require movement of greater than 100 m over cleared ground to reach suitable habitat;
    ii. Koalas are not isolated to an "island" of habitat between hostile environments, such as road and cleared areas, unless there are no other more suitable habitat areas in which to direct Koalas; and
    iii. Koalas can safely leave the site of clearing and relocate to adjacent habitat through maintained habitat links.

The following additional controls for the appointed DETSI Fauna Spotter Catcher during vegetation clearing include:

1. No further vegetation clearing is to commence or continue without the presence of the appointed DETSI endorsed Fauna Spotter Catcher.
2. All trees scheduled for removal will be checked on the day of their removal (prior to the start of operations) for the presence of Koalas by the appointed DETSI endorsed Fauna Spotter Catcher.
3. The appointed DETSI endorsed Fauna Spotter Catcher is responsible for ensuring, throughout the duration of the clearing operations, that no tree in which a Koala is present, or a tree with a crown overlapping a tree in which a Koala is present, or a tree identified as being a risk to Koalas, should not be felled, damaged or interfered with until the Koala has moved from the clearing zone on its own volition.

4. Where a Koala is present within a clearing zone, the tree will be marked with distinctive flagging (and other advisory means as required) and machinery operators will be briefed on the location of the area. No clearing works can occur within 20 m of the tree retaining a Koala until the animal has moved on via its own volition (where the strategy is to allow the Koala to move of its own accord, overnight). On the following day, the tree and retained area, are to be checked again prior to their removal. If necessary, the procedure is repeated until the Koala has moved.
5. In the event that the Koala is sick or injured and needs medical attention, DETSI will be contacted and trapping by the Fauna Spotter Catcher may be required to allow the Koala to receive medical attention. Actions will be guided by DETSI and the Fauna Spotter Catcher.

4.2.3 Adaptive Management and Management Strategy

An adaptive management strategy is to be applied to this KMP to enable it to alter as necessary to better protect Koala from injury or mortality if required. As a part of this strategy the following minimal protocols are to be applied in the event of koala injury or mortality as a result of clearing or construction:

1. Clearing and construction is immediately ceased.
2. The DETSI is notified in writing within 48 hours of the Koala injury or mortality occurring via 13 74 68 (as detailed within **Section 5**).
3. Measures for minimising impacts to Koalas as a result of clearing and construction are revised, in consultation with a suitably qualified person to reduce the likelihood of Koala injury or mortality before clearing and construction recommences.

5. Management Activities

Several management activities have been identified within this KMP and broadly explained through **Section 4**. **Table 3** provides environmental management commitments to be implemented during construction works. Specific details relevant to each management commitment are provided, including timing, funding, responsible parties, and monitoring to ensure each commitment can be achieved. Each suite of management activities is categorised into pre-construction, during construction and operational measures. This KMP will be reviewed annually, or at the completion of each phase of the project, and where necessary edited.

Table 3: Management Roles and Responsibilities

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
PRE-COMMENCEMENT MANAGEMENT ACTIONS				
1. **Provide a copy of the KMP to all contractors and subcontractors and retain a final copy at the construction office on-site, always.**	Proponent to provide to principal contractor. Principal Contractor to all sub-contractors	As part of contractor appointment and throughout construction.	Contractor costs associated with action to be included in tender scope funded by Proponent.	Provision for supplying the KMP to the Principal Contractor will occur with contractual appointment. The Principal Contractor is responsible for providing evidence that each appointed sub-contractor has been provided the KMP.

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
2. **Key KMP Criteria to be included on the Workplace Health and Safety and Environmental Management work method statement.**	Prepared by the principal contractor as part of other site induction checklists	Checklist to be completed prior to commencement and issued as part of all site inductions.	Principal Contractor via Proponent	The site induction process requires all visitors and works at the site to read and acknowledge work method statements as part of a signed checklist. This is provided to and signed by each new entrant to the site as part of induction procedures.
3. **Contractor will review project compliance with the KMP, on a monthly basis, if required.**	Principal Contractor in their role as Superintendent for the project.	Monthly	Principal Contractor via Proponent	Review of compliance on a monthly basis. Any non-compliances must be reported immediately.
4. **Engagement of DETSI approved Fauna Spotter Catcher -** ensure Fauna Spotter Catcher retains all necessary licenses and accreditations .	Proponent (or as passed onto Principal contractor)	Before clearing commences on any stage of works and during construction including any post construction reporting	Proponent	Pre-clearance report issued to the Environmental Coordinator prior to commencement of works. Fauna Spotter Catcher on site during all works. Pre-clearance reports to be posted on project website.
5. **Engagement of DETSI approved Koala Spotter -** ensure Koala Spotter Catcher retains all	Proponent (or as passed onto Principal contractor)	Before clearing commences on any stage of works and during construction including any post construction reporting	Proponent	Pre-clearance report issued to the Environmental Coordinator prior to commencement of works. Koala Spotter Catcher can be the same or different to the



Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
necessary licenses and accreditations.				above, as long as all permits and qualifications are present for both.
6. **Develop Wildlife Protection and Management Plan** (Prepared in accordance with elements of the Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing).	Fauna Spotter Catcher	Before construction commences	Proponent	Prior to commencement of clearing in any stage.
7. **Develop Wildlife and Habitat Impact Mitigation Plan** (Prepared in accordance with elements of the Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing).	Fauna Spotter Catcher	Before construction commences	Proponent	Prior to commencement of clearing in any stage
8. **Attendance of Fauna Spotter Catcher at Pre-Start Meeting.**	Fauna Spotter Catcher / Principal contractor	At the pre-start meeting for each new stage of clearing and construction works	Proponent	Fauna Spotter Catcher to sign pre-start attendance checklist.
9. **Install temporary fauna exclusion fence or other suitable barrier around construction areas to**	Contractors	After the clearing is completed and prior to construction occurring within the development area.	Proponent	Fence is to be monitored monthly by the Principal Contactor.



Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
prevent koala access into construction zone.				
DURING CONSTRUCTION MANAGEMENT ACTIONS				
10. All clearing of koala habitat is to occur in a staged and sequential pattern enabling the directional flushing of native animals as guided by the suitably qualified Fauna Spotter Catcher.	Principal Contractor and or appointed clearing sub-contractor.	At the time of clearing works for each stage	Proponent	Management Action 10 for staged and sequential clearing may also be guided by the VCFMP if conditioned. Monitoring occurs as part of pre-start and completion inspections if required by officers from CoGC. Refer section **4.2.2.**
11. Stop works procedures for clearing vegetation supporting any Koalas until such time that any present Koalas vacate the vegetation or are relocated by a suitable qualified person.	Fauna Spotter Catcher / Principal Contractor and or appointed clearing sub-contractor.	During clearing no tree in which a Koala is present, or a tree with a crown overlapping a tree in which a Koala is present, or a tree identified as being a risk to Koalas, to be felled, damaged, or interfered with until the Koala has moved from the clearing zone of its own volition.	Proponent	Where a Koala is present within a clearing zone, the tree will be marked with distinctive flagging (and other advisory means as required) and machinery operators will be briefed on the location of the area. No clearing works can occur within 20 m of the tree retaining a Koala until the animal has moved on via its own volition (where the strategy is to allow the Koala to move of its own accord, overnight). On the following day, the tree and retained area, are to be checked again

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
				prior to their removal. If necessary, the procedure is repeated until the Koala has moved. In the event the Koala is sick or injured and needs medical attention, DETSI will be contacted and trapping by the Fauna Spotter Catcher may be required to allow the Koala to receive medical attention.
12. **All construction clearing to occur within regulations of operating hours.**	Principal Contractor and or appointed clearing sub-contractor.	At all times	Proponent	**Limiting construction noise in the morning and evening:** Many local councils limit construction activity on weekdays to early morning (QLD before 6:30am) and late night (QLD after 6:30pm) to prevent disruption while residents are at home, resting or doing family activities **Prohibition of loud noises outside permitted hours:** Regulations often state that certain types of noisy machinery (e.g., excavators, jackhammers) cannot be operated outside

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
				of specified hours. This includes weekends and public holidays. where noise control will be more stringent These restrictions are enforced to ensure that excessive noise and premature noise do not disturb the peace and quiet of residents.
13. **A Post clearing and construction works Wildlife Management Report is to be prepared by the appointed Fauna Spotter Catcher at the completion of each stage of works.** (Prepared in accordance with elements of the *Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing*).	Fauna Spotter/Catcher	Records to be kept during construction and final report submitted at completion of works	Proponent	If the risk of injury to a healthy, independent koala is not immediate, the hazard should be removed, where possible and safe to do so, and the koala should be observed and allowed the opportunity to move away from the risk independently. When a koala is not presenting obvious signs of sickness or injury, but it is unclear whether its behaviour is normal or abnormal, advice must be sought from a local koala rehabilitation organisation or, alternatively, the RSPCA 24 hour Emergency Hotline: 1300 ANIMAL (1300 264 625) - Refer to *Code of Practice for Rehabilitation of Sick, Injured, or Orphaned*

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
				Koalas in Queensland Nature Conservation Act 1992 for further rehabilitation guidelines (**Appendix A**).

Appendices

Appendix A

Code of Practice - for Rehabilitation of Sick, Injured, or Orphaned Koalas in Queensland (*Nature Conservation Act 1992*)

Appendix A

Code of Practice - for Rehabilitation of Sick, Injured, or Orphaned Koalas in Queensland (*Nature Conservation Act 1992*)

Code of Practice

for

Rehabilitation of Sick, Injured, or Orphaned Koalas in Queensland

Nature Conservation Act 1992

ABN 46 640 294 485

Queensland Government

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The Department of Environment and Science acknowledges Aboriginal peoples and Torres Strait Islander peoples as the Traditional Owners and custodians of the land. We recognise their connection to land, sea and community, and pay our respects to Elders past and present.
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Acknowledgements

This Code of Practice has been prepared by the Department of Environment and Science in consultation with the Department of Agriculture and Fisheries, the Royal Society for the Prevention of Cruelty to Animals Queensland, the SEQ Wildlife Hospital Network (Australia Zoo Wildlife Hospital, Currumbin Wildlife Hospital, Moggill Koala Rehabilitation Centre, and RSPCA Wildlife Hospital), South East Queensland First Nations representatives, and the koala rehabilitation community.

1. Purpose of this Code of Practice

1.1. The purpose of this Code of Practice: Rehabilitation of Sick, Injured, or Orphaned Koalas in Queensland (Code of Practice) is to:

1.1.1. ensure rehabilitation (including rescue, care, and release) practices lead to the best possible conservation outcomes for koalas (*Phascolarctos cinereus*);

1.1.2. ensure appropriate welfare outcomes for sick, injured, or orphaned koalas;

1.1.3. minimise risks to human health and safety; and

1.1.4. ensure a collaborative approach with First Nations peoples where possible, including fostering ongoing working relationships, consultation, and obtaining permissions from Traditional Owners and Elders where relevant.

1.2. This Code of Practice does the following things:

1.2.1. outlines the fundamental principles underpinning this Code of Practice;

1.2.2. outlines overarching objectives for koala rehabilitation and specific objectives for each aspect of koala rehabilitation; and

1.2.3. provides a set of minimum standards for each key aspect of koala rehabilitation, specifically:

Part 1 provides a framework for the rescue of sick, injured, or orphaned koalas under section 55(2) or section 202 of the Nature Conservation (Animals) Regulation 2020, to ensure that koalas are rescued in a way that minimises the likelihood of their harm or death.

Part 2 provides a framework for the care of koalas under section 208 of the Nature Conservation (Animals) Regulation 2020 to ensure that koalas are cared for in a way that is likely to result in their rehabilitation and return to the wild;

Part 3 provides a framework for the release of koalas under section 16A of the Nature Conservation (Koala) Conservation Plan 2017 to ensure that rehabilitated koalas are released in the most suitable locations; and

Part 4 provides a framework for the safe transport of koalas under section 206 of the Nature Conservation (Animals) Regulation 2020, as well as outlining other requirements regarding records, wildlife rehabilitation organisations, and training.

1.3. This Code of Practice was made under section 174A of the *Nature Conservation Act 1992* (the NC Act), with consideration to other relevant legislation, including the Nature Conservation (Animals) Regulation 2020 (the NC Animals Regulation), Nature Conservation (Koala) Conservation Plan 2017 (the NC Koala Plan), *Animal Care and Protection Act 2001*, *Veterinary Surgeons Act 1936*, and *Work Health and Safety Act 2011*.

1.4. Words in italics, apart from species names and legislation, are defined in section 20 of this Code of Practice.

1.5. Unless stated otherwise, terms used in this Code of Practice have the same meaning as those used in the NC Act.

1.6. Failure to comply with any provision of this Code of Practice or condition of a permit may result in suspension or cancellation of a current permit and may impact upon subsequent permit applications. It may also result in enforcement action being taken under the NC Act.

2. General information

2.1. All koalas in Queensland are protected animals and are classified as 'endangered' under the Queensland NC Act and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

2.2. The Department of Environment and Science (department) is the agency responsible for administering the NC Act, including the assessment, licensing, and enforcement of koala rehabilitation activities undertaken by individuals and organisations.

2.3. The Department of Agriculture and Fisheries (DAF) is the agency responsible for administering the *Animal Care and Protection Act 2001*.

2.4. DAF and the Royal Society for the Prevention of Cruelty to Animals (RSPCA) Queensland are the agencies responsible for enforcing the *Animal Care and Protection Act 2001*.

2.5. A person who rescues a koala, but is not a licensed rehabilitator, must surrender it to a licensed rehabilitator (such as a *SEQ Wildlife Hospital*) or conservation officer in accordance with section 56(2) of the NC Animals Regulation.

2.6. A person or organisation engaging in koala care or release must be licenced under a valid rehabilitation permit. Licensed individuals or entities are referred to herein as 'permit holders'.

2.7. This Code of Practice applies to all individuals, organisations and members of organisations operating under a rehabilitation permit that authorises koala rehabilitation, including rescue, care and/or release.

2.8. It is the responsibility of the permit holder to ensure compliance with the provisions of this Code of Practice.

2.9. To ensure compliance with local government laws, koala rehabilitators may also require local government approval to conduct the activity at the specified location.

2.10. This Code of Practice does not exempt a person or other entity from compliance with any Act, regulation, or other statutory instrument.

2.11. This Code of Practice has been prepared by the department in consultation with DAF, RSPCA, the *SEQ Wildlife Hospital Network* (Australia Zoo Wildlife Hospital, Currumbin Wildlife Hospital, Moggill Koala Rehabilitation Centre, and RSPCA Wildlife Hospital), South East Queensland First Nations representatives, and the koala rehabilitation community.

2.12. This Code of Practice is current at the time of publication and may be subject to periodic review.

3. Principles underpinning this Code of Practice

3.1. The fundamental principles underpinning this Code of Practice that should guide koala rehabilitators at all times in the conduct of their activities are:

3.1.1. **Koala welfare:** Under section 17 of the *Animal Care and Protection Act 2001*, a person in charge of an animal during its rescue, treatment, care, or release has a statutory duty of care to appropriately provide for the animal's welfare. A main objective of koala rehabilitation is to ensure appropriate welfare outcomes for sick, injured, or orphaned koalas, within reasonable, humane, ethical, and sustainable means. The rehabilitation and release of koalas to the wild must **not** be pursued to the detriment of the welfare of the koala.

3.1.2. **Koala conservation:** Koalas are listed as endangered in Queensland. The rescue, care, and release of koalas to the wild (collectively referred to as koala rehabilitation) can have a positive impact on koala conservation. However, inappropriate release of koalas may have significant detrimental effects on local ecosystems and koala communities. The potential for adverse conservation outcomes must be considered and avoided throughout each aspect of a koala's rehabilitation.

3.1.3. **Human health and safety:** There are generic, situation-specific, and species-specific risks to persons involved in koala rehabilitation that must be considered and minimised. Anyone involved in any aspect of koala rehabilitation should contact their general practitioner or local immunisation provider for more information on appropriate disease prevention measures including any recommended or required vaccinations.

3.1.4. **Fair, reasonable, and appropriate measures:** in deciding what is fair, reasonable, and appropriate, with respect to all aspects of koala rehabilitation, regard must be had to:

3.1.4.1. the environment and circumstances of the animal; and

3.1.4.2. the steps a reasonable person would reasonably be expected to have taken under the circumstances.

4. Objectives for koala rehabilitation

4.1. The overarching objectives for koala rehabilitation are to:

4.1.1. contribute to the conservation of koalas by promptly returning suitably rehabilitated koalas to their *rescue site* or a suitable release site as close as practicable to their rescue site;

4.1.2. ensure appropriate welfare outcomes for sick, injured, or orphaned koalas by providing appropriate husbandry, care, pain relief, and veterinary treatment when required, including timely euthanasia in cases with a poor prognosis, as per the Guideline - Determining Whether a Koala Requires Euthanasia;

4.1.3. ensure human health and safety; and

4.1.4. ensure a collaborative approach with First Nations peoples where possible, including fostering ongoing working relationships, consultation, and obtaining permissions from Traditional Owners and Elders where relevant.

4.2. Additional outcomes of the rehabilitation of sick, injured, or orphaned koalas may include:

4.2.1. contribution to the body of knowledge on the ecology, conservation, management, veterinary care, husbandry, and behaviour of koalas; and

4.2.2. contribution to the education of the general public, business and industry professions on issues related to the conservation and welfare of koalas.

4.3. Capacity to care:

4.3.1. 'Capacity to care' relates to the capacity of a koala rehabilitator or rehabilitation organisation to provide for the essential needs of rescued animals as well as have the resources necessary to appropriately prepare koalas for release back into the wild.

4.3.2. A rehabilitator or rehabilitation organisation's capacity to care may be exceeded when the need for rehabilitation services exceeds the ability of koala rehabilitators and rehabilitation organisations to provide appropriate care. This is likely to occur during significant environmental or weather events, and times of limited volunteer resources.

4.3.3. When the capacity to care is exceeded and animal welfare standards are likely to be compromised, there are three acceptable management options for koala rehabilitators or rehabilitation organisations, which are, in order of preference:

4.3.3.1. the rehabilitator or rehabilitation organisation refers the koala(s) to another licensed individual or organisation with a current capacity to care for the koala(s);

4.3.3.2. the rehabilitator or rehabilitation organisation increases their capacity to care by expanding or pooling resources;

4.3.3.3. the rehabilitator or rehabilitation organisation contacts the treating veterinarian to discuss lowering the euthanasia threshold in combination with proper veterinary assessment and prognosis of koalas in care. In circumstances that involve major or catastrophic events, lowering the threshold for euthanasia is a more appropriate response than **not** rescuing koalas in distress.

4.3.4. The lowering of animal welfare standards such that they are **not** consistent with this Code

of Practice is **not** an acceptable response to exceeding the capacity to care and may be in breach of section 17 of the *Animal Care and Protection Act 2001*.

4.3.5. Koala rehabilitators and rehabilitation organisations should develop protocols and procedures that clearly define appropriate actions and responses in the event of catastrophic events or other circumstances in which their defined capacity to care may be exceeded. For example: Policies and procedures relating to the establishment of good communication, collaboration, and pooling of resources between organisations during major wildlife events.

5. Interpretations

5.1. Objectives

5.1.1. Objectives are the intended outcome(s) for each section of this Code of Practice.

5.2. Standards

5.2.1. Standards describe the specific actions required to achieve acceptable levels of animal welfare and successful koala rehabilitation. These are the minimum standards that must be met, and persons should aim to exceeds these standards wherever possible. They can be identified in the text by the heading ‘Standards’ and use of the word ‘must’.

Part 1: Rescue

6. Rescue and handling

6.1. Objective

6.1.1. To ensure that koala rescues (under sections 55 and 202 of the NC Animals Regulation or valid rehabilitation permit for koalas) are conducted using appropriate methods to minimise risks to human safety and additional stress, pain, and injury to the koala.

6.2. Standards

6.2.1. Rescuers must be suitably trained, for example, in accordance with the training standards outlined in section 19 of this Code of Practice.

6.2.2. Rescuers must only rescue koalas that are:

6.2.2.1. sick;

6.2.2.2. injured;

6.2.2.3. orphaned.

In some circumstances, this may include koalas without obvious signs of sickness or injury but are displaying abnormal behaviour. Examples of abnormal koala behaviour include:

a. being trapped inside or on a building, backyard, or section of road (e.g., roundabout, bridge, median strip, tunnel); and

b. climbing or sitting atop a streetlight, telegraph pole or similar artificial structure.

Examples of normal koala behaviour include:

a. utilising trees other than *Eucalyptus* species (e.g., palm tree, banana tree, leopard tree);

b. utilising trees near a roadside or house;

c. travelling through backyards along the ground or across fence structures; and

d. remaining in the same tree throughout the day.

N.B. When a koala is **not** presenting obvious signs of sickness or injury, but it is unclear whether its behaviour is normal or abnormal, advice must be sought from a local koala rehabilitation organisation or, alternatively, the RSPCA 24hr Emergency Hotline: 1300 ANIMAL (1300 264 625).

6.2.3. If the risk of injury to a healthy, independent koala is not immediate, the hazard should be removed, where possible and safe to do so, and the koala should be observed and allowed the opportunity to move away from the risk independently.

6.2.4. To ensure human health and safety, rescuers must:

6.2.4.1. assess the risks to themselves and members of the public prior to a rescue attempt;

6.2.4.2. not attempt to conduct a koala rescue if doing so may put themselves or other

persons at risk of serious injury; and

6.2.4.3. use appropriate personal protective equipment (PPE) such as long sleeve shirts, long trousers, covered footwear, and thick gloves.

6.2.5. Prior to a rescue attempt, rescuers must:

6.2.5.1. assess the risks to the koala from the rescue equipment and/or technique(s), and environmental hazards, including hot ambient temperatures, heavy rainfall, or high winds;

6.2.5.2. ensure there is a sufficient number of trained personnel for the situation, size, and temperament of the koala(s);

6.2.5.3. take into consideration the koala's injuries and pain, noting that these may not always be externally visible or obvious, when designing their rescue plan; and

6.2.5.4. where the difficulty of a rescue is compounded by the presence of other persons or dangers such as heavy traffic, seek the assistance of local authorities (i.e., the Department of Transport and Main Roads, Queensland Fire and Emergency Services, Queensland Police Service, or local Council) to mitigate these factors.

6.2.6. Rescuers must employ the most appropriate rescue equipment and technique(s) for the condition and location of the koala, and be trained in its use, including:

6.2.6.1. disengaging the koalas recurved claws before removing it from any tree or branch;

6.2.6.2. a canvas bag, blanket, thick towel, or thick gloves can be suitable for catching a koala on the ground;

6.2.6.3. a long pole with flagging or halo at the top is suitable for encouraging a koala to move down towards the ground;

6.2.6.4. in certain circumstances, a hoop net is suitable for preventing a koala from climbing back up a tree or containing a koala on the ground;

6.2.6.5. when a koala is unable to be rescued by use of the above equipment and technique(s), having a suitably trained and qualified tree climber retrieve the koala;

6.2.6.6. a ground trap is suitable for a koala that is unable to be safely rescued by use of the above equipment and technique(s). All reasonable efforts must be made to ensure that the trap does not pose a risk, or contribute to the detriment in health of any koala(s), other wildlife, or person(s);

6.2.6.7. covering a koala's head with a towel, blanket or bag will often assist with calming it down; and

6.2.6.8. koalas must be placed in a suitable transport container as soon as possible to prevent overheating. Preferred containers should be top-opening and consist of a solid plastic base with wire sides and top. The container must be promptly covered with a cotton cage cover, or similar material, to minimise stress but allow for airflow into the container.

6.2.7. The following rescue equipment and/or technique(s) must **not** be used by rescuers:

6.2.7.1. grabbing the koala around the chest;

6.2.7.2. noosing;

6.2.7.3. the use of a projectile or net-gun;

6.2.7.4. deliberately forcing a koala to jump from a height; or

6.2.7.5. the felling, pruning, or shaking of the tree and/or parts of the tree containing the koala.

6.2.8. The following rescue equipment and technique must **only** be used when all other appropriate rescue equipment and techniques have been unsuccessful in rescuing the koala, **and** when assessed and approved by a veterinarian of the department, or when a veterinarian of the department cannot be contacted (e.g., outside of business hours), assessed and approved by a veterinarian of the RSPCA:

6.2.8.1. use of a tranquiliser dart, projected from a blow pipe. A fall-blanket must be used in this scenario to minimise the risk of injury to the koala.

6.2.9. Rescuers must make all reasonable efforts to avoid causing unnecessary pain, suffering, exacerbation of injuries, spread of disease, and disturbance to other wildlife, and protect the koala from additional stressors, such as loud noises, other animals, and extreme weather.

6.2.10. Rescuers must cease attempting to catch a koala if it begins exhibiting excessive signs of stress during a rescue. Examples include prolonged crying or panting, prolonged increased respiratory rate (normal respiratory rate is 10-15 breaths/minute), ongoing vocalisation (grunting, low whining, or high-pitched sounds), or continuous ear flicking.

Attempts must only recommence when the koala is no longer exhibiting excessive signs of stress and a minimum of ten minutes has passed since the last capture attempt.

6.2.11. For female koalas with a dependent juvenile, rescuers must, where possible:

6.2.11.1. keep the mother and juvenile together throughout the entire rescue;

6.2.11.2. avoid dislodging the juvenile when capturing the mother to prevent injury;

6.2.11.3. allow the juvenile to remain on the mothers back during capture.

6.2.12. When a female koala and her dependant juvenile cannot remain together throughout the rescue, rescuers must **not:**

6.2.12.1. rescue the mother and leave the juvenile behind; or

6.2.12.2. rescue the juvenile and leave the mother behind without making all reasonable efforts to rescue the mother, enabling them to remain together throughout rehabilitation.

6.2.13. If the koala is a female that exhibits signs of having a pouch young (e.g., elongated teat), the surrounding area must be searched for the pouch young. If the suspected pouch young is found, the mother and pouch young must **only** be re-united when;

6.2.13.1. supervised by a veterinarian; or

6.2.13.2. the rescuer can establish with reasonable certainty that the pouch young belongs to the female (e.g., their proximity to one another, and the presence of no additional koalas within the immediate vicinity).

6.2.14. If the koala is reasonably suspected to be a dependent juvenile (e.g., pouch young or back young), the surrounding area must be searched for the mother. If the suspected mother is found, the suspected mother and juvenile must **only** be re-united under veterinary supervision.

6.2.15. To prevent the spread of disease, if multiple koalas are rescued (e.g., during a natural disaster), rescuers must ensure:

6.2.15.1. thorough cleaning of hands, personal protective equipment (PPE) and rescue equipment using veterinary disinfectant containing quaternary ammonium compounds or similar, for example F10 at 1:125 solution.

6.2.15.2. koalas are placed in separate containers. The exception to this is a mother and her confirmed juvenile (i.e., the juvenile was in the mother's pouch or on the mother at the time of rescue, or the rescuer can establish with reasonable certainty that the juvenile belongs to the female), which should stay together (unless one or both are severely injured). Rescuers must label each container with the rescue location, date, and rescuer's name.

6.2.16. Rescuers must ensure that any rescued koala is taken as soon as practicable to the closest appropriate veterinarian to receive an assessment, appropriate pain relief, and treatment.

6.2.17. In South East Queensland (SEQ), a rescuer must ensure that:

6.2.17.1. rescued koalas are taken as soon as practicable to a SEQ Wildlife Hospital, having regard to the koala's welfare, and the proximity and opening hours for these facilities; and

6.2.17.2. if a koala is initially taken to another, closer, veterinary clinic for first aid, then a SEQ Wildlife Hospital must be contacted as soon as practicable (e.g., from the initial veterinary clinic), and any SEQ Wildlife Hospital advice must be adhered to. N.B. RSPCA and Australia Zoo Wildlife Hospital can be contacted 24/7.

6.2.18. All moving/transport of koalas must be in accordance with section 16 of this Code of Practice.

6.2.19. Following veterinary assessment and/or treatment, koala rehabilitators must follow any instructions from a veterinarian regarding whether koalas require care or release, and any specific needs regarding the koala's care or release. In SEQ, in circumstances where advice is received from more than one veterinarian, any instructions from the SEQ Wildlife Hospital Network (Australia Zoo Wildlife Hospital, Currumbin Wildlife Hospital, Moggill Koala Rehabilitation Centre and RSPCA Wildlife Hospital) take precedence.

Part 2: Care

7. Monitoring

7.1. Objective

7.1.1. To monitor the health of a koala undergoing treatment and/or care so that issues can be promptly identified and managed. The type and frequency of monitoring will vary with the age or stage of development, type of injury or illness and required treatment.

7.2. Standards

7.2.1. Carers must be suitably trained, for example, in accordance with the training standards outlined in section 19 of this Code of Practice.

7.2.2. Monitoring a koala must include:

7.2.2.1. manually assessing body condition (standardised score out of 10);

7.2.2.2. checking for signs of injury, illness, and parasites;

7.2.2.3. assessing hydration levels;

7.2.2.4. determining how much leaf has been consumed, and noting the koala's preference for species of leaf;

7.2.2.5. noting the quantity and quality of faecal pellets (if multiple koalas are held within the same enclosure, the quantity of faecal pellets should be divided by the number of koalas held within the enclosure) and urine; and

7.2.2.6. assessing behaviour and looking for indications of pain, distress, and activity.

7.2.3. Carers must monitor the health of orphaned pouch young or a koala in critical care housing at least twice per day and weigh them at least twice per week.

7.2.4. Carers must monitor the health of orphaned juveniles (excluding pouch young) or a koala in intermediate care at least twice per day and weigh them at least once per week.

7.2.5. Carers must conduct a close visual assessment of a koala in pre-release housing at least once per day to determine if veterinary care is needed.

7.2.6. Carers must regularly monitor the temperature (i.e., using a digital probe thermometer) of any artificial heat source (e.g., blankets, hot water bottles and electric heat mats) within artificial pouches and enclosures containing thermal support, to ensure appropriate temperatures are maintained.

7.2.7. Unless otherwise advised by a veterinarian from the SEQ Wildlife Hospital Network, carers must return a koala to the closest appropriate veterinarian for a follow-up examination;

7.2.7.1. when monitoring shows unexpected results potentially indicating illness or disease; or

7.2.7.2. at any time period the treating veterinarian advises; and

7.2.7.3. with any moving/transport of koalas being in accordance with section 16 of this Code of Practice.

N.B. Within SEQ, the closest appropriate veterinarian and treating veterinarian means the closest SEQ Wildlife Hospital.

8. Controlling disease transmission between animals

8.1. Objective

8.1.1. To prevent the spread of diseases among koalas undergoing treatment and/or care. Koalas that are exposed to stressors may be more susceptible to contracting and expressing infectious diseases.

8.2. Standards

8.2.1. Carers must ensure that any koala suspected of, or known to be carrying, an infectious disease be taken immediately to the closest appropriate veterinarian.

8.2.2. Carers must use dedicated cleaning equipment for each enclosure.

8.2.3. Carers must ensure all transport containers, enclosures, enclosure furniture, food containers, and water containers are thoroughly cleaned with an appropriate cleaner and then disinfected after each occupant, using veterinary disinfectant containing quaternary ammonium compounds or similar, for example F10 at 1:125 solution. Any remaining traces of chemical disinfectants must be rinsed off.

8.2.4. Carers must prevent any domestic pets from coming into contact with koalas, or their transport containers, enclosures, enclosure furniture, food containers, and water containers. Carers must ensure that koala enclosures and transport containers are designed and/or positioned so the koala cannot hear or see domestic pets.

8.2.5. Carers must wash their hands thoroughly with soap or disinfectant before and after handling each animal in care.

8.2.6. Other species undergoing rehabilitation must **not** be kept in the same enclosure as a koala.

9. Food and water

9.1. Objectives

9.1.1. To ensure the koala has a feeding and watering regime that encourages rapid recovery, supports growth in juveniles, and assists with the maintenance of foraging behaviour necessary for survival in the wild.

9.2. Standards

9.2.1. Carers must ensure clean, fresh drinking water is available at all times and changed daily, except in the case of orphaned juveniles (e.g., pouch young).

9.2.2. Water containers must be designed and positioned to avoid spillage and contamination and must be appropriate for the size, age, and mobility of the koala.

9.2.3. Carers must ensure fresh leaves are available for the koala to eat at all times and replaced daily. At a minimum, branches from at least three different preferred koala feed species, with mature and young leaves, must be provided, and sprayed with water prior to offering. Suitable leaf from genera such as *Lophostemon, Melaleuca, and Casuarina* should also be provided weekly.

9.2.4. Branches must be placed in holders that contain clean water. The water must be emptied and refilled daily, and the holders must be disinfected thoroughly daily.

9.2.5. Carers may harvest leaves at least every two days and store prior to use. Stored leaves must not be accessible to pets, pests, and wild animals and must be protected from contamination, and nutritional and moisture loss (i.e., stored under cover in containers of fresh water for a maximum of two days). Branches must not be placed on or dragged across the ground as they may become contaminated.

9.2.6. If multiple koalas are kept within the same enclosure, carers must place branches in multiple locations so that koalas can feed simultaneously at a minimum of three leaf stations for one koala, and an additional two leaf stations for each additional koala.

9.2.7. Carers must feed an orphaned koala milk formula that is appropriate for its stage of development and condition.

9.2.8. Carers must ensure a majority of feeds for pouch young (post pap) are completed at night to replicate natural conditions and nocturnal behaviours.

9.2.9. Carers may offer contaminant-free soil to a koala in the intermediate and pre-release stages of care. Pieces of bark and termite mound may also be provided.

9.2.10. Koalas are very prone to humanisation and imprinting. All care must be taken to minimise social interactions with humans and natural behaviours must be allowed to develop.

10. Hygiene

10.1. Objective

10.1.1. To maintain clean care facilities so diseases are prevented or contained.

10.2. Standards

10.2.1. Carers must remove:

10.2.1.1. faeces from enclosures on a daily basis; and

10.2.1.2. uneaten leaf every day and ensure that any day-old leaf (recycled) is removed within a maximum of two days after it was originally offered.

10.2.2. Carers must gently and promptly clean koalas when soiled with faeces, urine, or uneaten food, with as little disturbance to the koala as possible.

10.2.3. Carers must clean:

10.2.3.1. food and water containers on a daily basis. Cleaning involves the use of water and detergent if soiled followed by disinfection using veterinary disinfectant containing quaternary ammonium compounds or similar, for example F10 at 1:125 solution. Carers must ensure that any remaining traces of chemical disinfectants are rinsed off food and water containers;

10.2.3.2. enclosure furniture, bedding, weighing bags and pouches whenever soiled; and

10.2.3.3. bottles and teats used for feeding orphaned juveniles prior to every feed by sterilization.

10.2.4. Carers must wash their hands and clean all food preparation surfaces and equipment prior to preparing animal food.

10.2.5. Carers must ensure that equipment used for cleaning transport containers, enclosures, enclosure furniture, food containers, and water containers is safe to use and separate from those used domestically.

11. General housing requirements

11.1. Objectives

11.1.1. To ensure a koala undergoing treatment and/or care is housed in enclosures that keep it safe, secure, and free from additional stress.

11.2. Standards

11.2.1. Carers must ensure that all koalas are kept in appropriate housing for their stage of development and condition, commencing in the type of housing advised by the treating veterinarian, and moving to progressively larger enclosures whenever suitable weight gains and improvements in health are achieved. As necessary, carers should seek further advice from the treating veterinarian regarding progressing a koala to a larger enclosure.

11.2.2. Orphaned koalas may be progressed through the following housing:

11.2.2.1. unfurred pouch young housing;

11.2.2.2. furred pouch young housing;

11.2.2.3. juvenile care housing [A];

11.2.2.4. juvenile care housing [B]; and

11.2.2.5. pre-release housing.

Orphaned koalas may be progressed through housing in accordance with the following weights shown in the table below. The weights should be used as a **guide only** as there can be significant differences in weight depending on age (particularly in early stages of development) and sex. As necessary, seek further advice from the treating veterinarian:

Unfurred pouch young housing	Furred pouch young housing	Juvenile care housing [A]	Juvenile care housing [B]	Pre-release housing	Release to the wild
100g - 300g	300g - 700g	700g – 2kg	2kg – 2.5kg	2.5kg – 4kg	As determined by the treating veterinarian

11.2.3. Sick or injured koalas may be housed in the following housing and must **only** change between housing types when advised by the treating veterinarian:

11.2.3.1. critical care housing;

11.2.3.2. intermediate care housing; and

11.2.3.3. pre-release housing.

11.2.4. Carers must ensure enclosures are:

11.2.4.1. maintained in accordance with any specific standards for the type of housing, as per sections 12–14 of this Code of Practice.

11.2.4.2. escape-proof and designed and/or positioned so the koala cannot hear or see domestic pets and protects the koala from physical contact with wild animals, pests and domestic pets;

11.2.4.3. sufficiently designed to protect a koala from climatic extremes and provide adequate shade and protection from the elements;

11.2.4.4. safe for a koala to live in by excluding hazards that might harm it and positioned so the koala is not exposed to strong vibrations, noxious smells (e.g., wood smoke) or loud noises (e.g., radios, televisions and vehicles);

11.2.4.5. designed so carers can readily access the koala;

11.2.4.6. constructed from non-toxic materials that can be easily cleaned and disinfected; and

11.2.4.7. sufficiently spacious for individuals to avoid undue conflict with any co-housed koalas.

11.2.5. Carers must ensure that orphaned pouch young are kept in artificial pouches made from soft fibres with no loose threads.

12. Orphaned koala housing

12.1. Objectives

12.1.1. To reduce activity for a short period of time to facilitate frequent monitoring, treatment and feeding, and to provide a mobile koala with enough space to allow some physical activity and greatly reduced interactions between the koala and humans, while enabling it to be readily caught for monitoring or treatment.

12.2. Standards – Unfurred pouch young housing

12.2.1. Unfurred pouch young housing must provide sufficient space for the koala to sit upright and to stretch its body and limbs.

12.2.2. The use of an Intensive Care Unit (ICU), such as a humidicrib, is essential for unfurred pouch young.

12.2.3. Unfurred pouch young housing must provide a constant temperature appropriate to the koala's stage of development. The temperature within the ICU must remain between 34°C – 36°C depending on the stage of development and requirements of the individual koala.

12.2.4. The temperature in unfurred pouch young housing must be regularly monitored using a digital thermometer, with minimal disturbance to the koala.

12.2.5. Electrical heat sources must be regulated by a thermostat.

12.2.6. Unfurred pouch young housing must contain a prop for the koala to hold on to (e.g., rolled up towels or teddy bear).

12.2.7. Unfurred pouch young housing must be designed and/or positioned so that visual and auditory stimuli are reduced.

12.2.8. Substrate used in unfurred pouch young housing must be soft (e.g., blankets, towels, hospital padding) and replaced when soiled.

12.2.9. Unfurred pouch young housing must have a roof.

12.2.10. Unfurred pouch young housing must be adequately ventilated without allowing excessive draughts.

12.3. Standards – Furred pouch young housing

12.3.1. Furred pouch young housing must provide sufficient space for the koala to sit upright and to stretch its body and limbs.

12.3.2. The use of an Intensive Care Unit (ICU), such as a humidicrib, is essential for stages of furred pouch young development.

12.3.3. Furred pouch young housing must provide a constant temperature appropriate to the koala's stage of development.

12.3.4. The temperature in furred pouch young housing must be regularly monitored using a digital thermometer, with minimal disturbance to the koala.

12.3.5. Electrical heat sources must be regulated by a thermostat.

12.3.6. Furred pouch young housing must contain a prop for the koala to hold on to (e.g., rolled up towels or teddy bear).

12.3.7. Furred pouch young housing must be designed and/or positioned so that visual and auditory stimuli are reduced.

12.3.8. Substrate used in unfurred pouch young housing must be soft (e.g., blankets, towels, hospital padding) and replaced when soiled.

12.3.9. Furred pouch young must experience a light–dark cycle that replicates outside conditions.

12.3.10. Furred pouch young housing must have a roof.

12.3.11. Furred pouch young housing must be adequately ventilated without allowing excessive draughts.

12.4. Standards – Juvenile care housing [A]

12.4.1. Juvenile care housing [A] must provide sufficient space for the koala to move freely whilst being conveniently sized for capture.

12.4.2. Juvenile care housing [A] must;

12.4.2.1. have a maximum of 4 koalas per enclosure;

12.4.2.2. have dimensions of at least 2m (L) x 2m (H) x 2m (W) for one koala. For each additional koala housed, additional floor dimensions of at least 2m x 1m is required. Carers should seek to exceed these dimensions whenever possible for better animal welfare and management;

12.4.2.3. have a minimum of three vertical branches, each with a fork, and two slanted poles for one koala. Additional vertical branches and forks are required for each additional koala housed.

12.4.3. A juvenile koala must experience a light–dark cycle that replicates outside conditions. This may be achieved by using a well-lit room or constructing an enclosure in a sheltered area outside.

12.4.4. The temperature in juvenile care housing [A] must be regularly monitored using a digital thermometer, with minimal disturbance to the koala.

12.4.5. Juvenile care housing [A] must have a roof.

12.4.6. Juvenile care housing [A] must be designed and/or positioned so that visual and auditory stimuli are reduced.

12.4.7. Orphaned koalas should be exposed to other koalas of a similar stage of development during the juvenile care stage [A/B] but must be kept as single sexes only once they begin exhibiting signs of sexual maturity (e.g., mounting, aggression between sexes).

12.5. Standards – Juvenile care housing [B]

12.5.1. Juvenile care housing [B] must provide sufficient space for the koala to move freely whilst being conveniently sized for capture.

12.5.2. Juvenile care housing [B] must;

12.5.2.1. have a maximum of 4 koalas per enclosure;

12.5.2.2. have dimensions of at least 2m (L) x 2m (H) x 2m (W) for one koala. For each additional koala housed, additional floor dimensions of at least 2m x 1m is required. Carers should seek to exceed these dimensions whenever possible for better animal welfare and management;

12.5.2.3. have a minimum of three vertical branches, each with a fork, and three slanted poles for one koala. Additional vertical branches and forks are required for each additional koala housed.

12.5.3. A juvenile koala must experience a light–dark cycle that replicates outside conditions. This may be achieved by using a well-lit room or constructing an enclosure in a sheltered area outside.

12.5.4. The temperature in juvenile care housing [B] must be regularly monitored using a digital thermometer, with minimal disturbance to the koala.

12.5.5. Juvenile care housing [B] must be sufficiently designed to protect a koala from climatic extremes and provide adequate shade and protection from the elements.

12.5.6. Juvenile care housing [B] must be designed and/or positioned so that visual and auditory stimuli are reduced.

12.5.7. Orphaned koalas should be exposed to other koalas of a similar stage of development during the juvenile care stage [A/B] but must be kept as single sexes only once they begin exhibiting signs of sexual maturity (e.g., mounting, aggression between sexes).

13. Sick or injured koala housing

13.1. Objectives

13.1.1. To reduce activity for a short period of time to facilitate frequent monitoring, treatment and feeding for koalas affected by *critical* injury and/or illness. To provide a mobile koala with enough space to allow some physical activity and greatly reduced interactions between the koala and humans, while enabling it to be readily caught for monitoring or treatment.

13.2. Standards – Critical care

13.2.1. In SEQ, koalas that require critical care must be cared for:

13.2.1.1. at the SEQ Wildlife Hospital of the treating veterinarian; or

13.2.1.2. if unable to be cared for at the SEQ Wildlife Hospital of the treating veterinarian – at another SEQ Wildlife Hospital; or

13.2.1.3. if unable to be cared for at any of the SEQ Wildlife Hospitals – by an appropriately trained koala rehabilitator (for example, see section 19 of this Code of Practice) who has been specifically authorised by the department to care for a particular koala.

13.2.2. Outside of SEQ, koalas that require critical care must be cared for:

13.2.2.1. by a veterinarian; or

13.2.2.2. at a veterinary clinic; or

13.2.2.3. by an appropriately trained koala rehabilitator (for example, see section 19 of this Code of Practice) who has been specifically authorised by the treating veterinarian to care for a particular koala, or otherwise authorised by the department.

13.2.3. Critical care housing must provide sufficient space for the koala to sit upright and to stretch its body and limbs.

13.2.4. Critical care housing must:

13.2.4.1. have a maximum of one koala per enclosure. The exception to this is a mother and her dependent juvenile;

13.2.4.2. have dimensions of at least 1.2m (L) x 0.8m (H) x 0.7m (W); and

13.2.4.3. contain a prop for the koala to hold on to (e.g., rolled up towels, or teddy bear if young) or an upright fork if they are able to hold it.

13.2.5. The temperature in critical care housing must be regularly monitored using a digital thermometer, with minimal disturbance to the koala.

13.2.6. Electrical heat sources must be regulated by a thermostat.

13.2.7. A koala in critical care housing must experience a light–dark cycle that replicates outside conditions.

13.2.8. Critical care housing must be designed and/or positioned so that visual and auditory stimuli are reduced.

13.2.9. Critical care housing must have a roof.

13.2.10. Critical care housing must be adequately ventilated without allowing excessive draughts.

13.3. Standards – Intermediate care

13.3.1. In SEQ, koalas that require intermdiate care must be cared for:

13.3.1.1. at the SEQ Wildlife Hospital of the treating veterinarian; or

13.3.1.2. if unable to be cared for at the SEQ Wildlife Hospital of the treating veterinarian – at another SEQ Wildlife Hospital; or

13.3.1.3. if unable to be cared for at any of the SEQ Wildlife Hospitals – by an appropriately trained koala rehabilitator (for example, see section 19 of this Code of Practice) who has been specifically authorised by the department to care for a particular koala.

13.3.2. Outside of SEQ, koalas that require intermediate care must be cared for:

13.3.2.1. by a veterinarian; or

13.3.2.2. at a veterinary clinic; or

13.3.2.3. by an appropriately trained koala rehabilitator (for example, see section 19 of this Code of Practice) who has been specifically authorised by the treating veterinarian to care for a particular koala, or otherwise authorised by the department.

13.3.3. Intermediate care housing must provide sufficient space for the koala to move about whilst being conveniently sized for capture.

13.3.4. Intermediate care housing must;

13.3.4.1. have a maximum of one koala per enclosure. The exception to this is a mother and her dependent juvenile;

13.3.4.2. have dimensions of at least 3m (L) x 2m (H) x 2m (W). Carers should seek to exceed these dimensions whenever possible for better animal welfare and management; and

13.3.4.3. have a minimum of three vertical branches, each with a fork, and three slanted poles.

13.3.5. A koala in intermediate care housing must experience a light–dark cycle that replicates outside conditions.

13.3.6. Intermediate care housing must have a roof or be sufficiently designed to protect a koala from climatic extremes and provide adequate shade and protection from the elements.

13.3.7. Intermediate care housing must be designed and/or positioned so that visual and auditory stimuli are reduced.

13.3.8. Sexually mature females must be housed separately from sexually mature males; and adult males must be housed as far as possible from other adult males.

14. Pre-release housing

14.1. Objectives

14.1.1. To give the koala the opportunity to gain physical condition, acclimatise to current weather conditions and practice natural behaviour. At this stage of care, interactions between the koala and humans will be almost eliminated except for the presence of the carer(s) in the enclosure during necessary activities.

14.2. Standards

14.2.1. In SEQ, koalas that require pre-release care must be cared for:

14.2.1.1. at the SEQ Wildlife Hospital of the treating veterinarian; or

14.2.1.2. if unable to be cared for at the SEQ Wildlife Hospital of the treating veterinarian – at another SEQ Wildlife Hospital; or

14.2.1.3. if unable to be cared for at any of the SEQ Wildlife Hospitals – by an appropriately trained koala rehabilitator (for example, see section 19 of this Code of Practice) who has been specifically authorised by the department to care for a particular koala.

14.2.2. Pre-release housing must provide sufficient space for the koala to move freely, express a range of natural behaviours and withdraw from co-housed koalas.

14.2.3. Pre-release housing must;

14.2.3.1. have a floor area of at least 36m^2 per koala. Carers should seek to exceed these dimensions whenever possible for better animal welfare and management;

14.2.3.2. have a minimum of one large, live tree per koala, suitable to allow a koala to develop advanced climbing skills and/or build muscle tone;

14.2.3.3. contain natural habitat elements, including multiple tree forks per koala and branches oriented both vertically and horizontally of different thicknesses and textures, suitable to allow a koala to perform a range of natural behaviours; and

14.2.3.4. have internal and external walls, at least 1.2 metres high, constructed of materials which prevent the escape of koalas (and prevent entry of wild koalas). These walls should be at least 2 metres away from the nearest internal or external branch to prevent escape (and prevent entry of wild koalas).

14.2.4. Pre-release housing must provide areas where the koala can gain exposure to prevailing weather conditions and areas where it can shelter.

14.2.5. Pre-release housing must be designed and/or positioned so that exposure to humans is kept to the minimum required for feeding, cleaning, and conducting close visual assessments.

14.2.6. Sexually mature females must be housed separately from sexually mature males; and adult males must be housed as far as possible from other adult males.

Part 3: Release

15. Release of koalas

15.1. Objective

15.1.1. To ensure that koalas released to the wild have a high chance of survival and, where possible, can re-join a local breeding population to contribute to the conservation of the species with minimal negative environmental impacts.

15.2. Standards

15.2.1. Koala releasers must be suitably trained, for example, in accordance with the training standards outlined in section 19 of this Code of Practice.

15.2.2. Koala releasers must only release koalas that have been assessed by a veterinarian and determined by the treating veterinarian to be physically and behaviourally fit for release. Koala releasers must release a koala as soon as practicable after this assessment. In SEQ, the treating veterinarian must be a veterinarian from the SEQ Wildlife Hospital Network.

15.2.3. A koala must only be deemed physically fit for release if:

15.2.3.1. it has adequately recovered from any pre-existing injury;

15.2.3.2. reasonable steps have been taken to determine the koala is free of disease;

15.2.3.3. its weight and body condition are within the normal range for the koala's age and sex, or its weight and body condition is equal to or exceeds that of when it was admitted to a veterinarian; and

15.2.3.4. it has adapted to prevailing climatic conditions.

15.2.4. In accordance with the NC Koala Plan, a koala must be released as close as practicable to the place where it was rescued; up to a maximum distance of 10 kilometres for a koala that was rescued as an adult, and up to a maximum distance of 20 kilometres for a koala that was rescued as an orphan.

15.2.5. The release site must also be suitable for the koala's release. A suitable release site is one that:

15.2.5.1. contains appropriate habitat, shelter, water and food resources;

15.2.5.2. is free of immediate hazards or risks (i.e., not a roadside);

15.2.5.3. is known **not** to be subject to imminent land-clearing or significant development; and

15.2.5.4. meets all other requirements in this section (section 15) of this Code of Practice.

15.2.6. If the rescue site is suitable for the koala's release, then the koala must be released there.

15.2.7. If the rescue site is **not** suitable for release, koala releasers must ensure that the koala is released at a suitable release site as close as practicable to the rescue site.

15.2.8. Unless otherwise approved by the department, an infertile koala may **only** be released at the rescue site. Infertile koalas must **not** be released at any site that the treating veterinarian or koala releaser reasonably suspects to be at, or close to, *carrying capacity* for koalas, or at any site they reasonably suspect to have a high proportion of infertile koalas compared to fertile koalas.

15.2.9. For koalas in SEQ, the Guideline - Selection of Release Sites for Rehabilitated Koalas in South East Queensland provides additional guidance on the release of rehabilitated koalas.

15.2.10. In circumstances where a koala is proposed to be released at a location other than its rescue site, a releaser must make reasonable efforts to ensure that the koala is not being moved from or into different Traditional Owner's Country without first consulting with the relevant Traditional Owners.

15.2.11. Koala releasers must conduct an *on-site confirmation* of any proposed release site prior to releasing the koala to ensure it is a suitable release site.

15.2.12. Where a rehabilitated koala is proposed to be released on private property, approval must be obtained from the private owner prior to the release.

15.2.13. Where a rehabilitated koala is proposed to be released on Council owned or controlled land, approval must be obtained from the Council prior to the release. In circumstances where Council land is subject to a lease, approval must also be obtained from the lease holder.

15.2.14. Koalas must **not** be released into a protected area (e.g., a national park) or State forest unless all other release site options have been exhausted, and approval has been obtained from the department. For example, approval from the Ranger in Charge of a national park.

15.2.15. If no suitable release site can be identified for a koala through the above processes, the department may advise of a suitable release site.

15.2.16. If the rescue site of a koala is unknown, it must **not** be released without approval from the department.

15.2.17. Ensuring that risks to human health and safety are minimised, the release of koalas must take place as close as reasonably possible to the normal period of activity (e.g., early morning, or mid to late afternoon) to allow for the koala to immediately investigate its environment and avoid predation.

15.2.18. Koalas must **not** be released in weather conditions that are likely to cause significant hardship or reduced chances of survival.

15.2.19. Koala releasers must remain near the release site for a reasonable amount of time that is suitable to closely observe the koala’s movement into the wild, for example, up to ten minutes. If a koala sustains or presents one or more of the following while the releaser is at or near the release site, the koala must be transported back to the treating veterinarian to be reassessed:

15.2.19.1. the koala sustains an injury during transport, or immediately sustains an injury following release; or

15.2.19.2. the koala does not attempt to, or appears to be unable to climb a tree; or

15.2.19.3. the koala is seen not using all four limbs when walking or climbing.

15.2.20. Koala releasers should return to the release site at least once within 48 hours of release to conduct a similar observation of the koala. If the koala cannot be found and may have dispersed from the release site, reasonable attempts to locate the koala should be made, for example, up to ten minutes.

15.2.21. Tagging, banding, or other marking, including microchipping, may only be performed by a person who is authorised by the department to tag wildlife or by a registered veterinary surgeon, and must only be performed as part of a department approved program.

15.2.22. Any moving/transport of koalas must be in accordance with section 16 of this Code of Practice.

Part 4: General

16. Transportation

16.1. Objective

16.1.1. To avoid unnecessary transport of koalas and to ensure that any necessary transport occurs in such a way that minimises koala stress, injury, or escape.

16.2. Standards

16.2.1. Koala rehabilitators must only transport koalas:

16.2.1.1. when necessary for koala rehabilitation (e.g., from the rescue site to a veterinary clinic, between a veterinary clinic and the premises of a koala rehabilitator when necessary, or to a release site);

16.2.1.2. where koala transport is the sole purpose of the trip; and

16.2.1.3. via the route that takes the shortest possible time.

16.2.1.4. the exception to the above is the instance of orphaned juveniles. A koala rehabilitator may transport an orphaned juvenile to and from the carer's residence and place of work, and other reasonable locations but **only** while the juvenile requires feeding or care during this time, and providing there will be no breach of any provisions within this Code of Practice;

16.2.2. To avoid unnecessary pain or distress to the koala, koala rehabilitators must use transport containers that:

16.2.2.1. are appropriate for the size and condition of the koala;

16.2.2.2. prevent injury (e.g., fitted with padding such as cloth towels on the base);

16.2.2.3. prevent escape;

16.2.2.4. prevent rolling or tipping during transit;

16.2.2.5. are hygienic;

16.2.2.6. minimise light, noise, strong smells, visual stimulation;

16.2.2.7. are suitably ventilated;

16.2.2.8. provide protection from direct sunlight, wind, and rain;

16.2.2.9. include fresh leaf during longer trips; and

16.2.2.10. minimise stress (e.g., cover container with a breathable cloth, provide a rolled-up towel for a koala to hold on to).

16.2.3. Orphaned pouch young require a suitable artificial pouch. Koala rehabilitators must safely secure this pouch within a suitable transport container (e.g., cage, box, or basket). Artificial warmth may also be required, koala rehabilitators must ensure that this is **not** positioned in contact with the koala or transport pouch.

16.2.4. Koala rehabilitators must monitor containers during transport to ensure temperatures remain appropriate for the age and condition of the koala. In most circumstances, a range of 34-36°C is appropriate for an unfurred pouch young, a range of 28–32°C is appropriate for a furred pouch young, and a range of 20–25°C is appropriate for an adult.

16.2.5. Koala rehabilitators must not transport koalas:

16.2.5.1. in a hessian sack (koala's claws can become entangled and threads can irritate the eye or be inhaled);

16.2.5.2. in the back of an uncovered utility vehicle;

16.2.5.3. in a car boot that is separate from the main cabin;

16.2.5.4. on a rescuer's lap; or

16.2.5.5. whilst any domestic animal is in the vehicle.

16.2.6. The use of medication to facilitate transport must be assessed and approved by a veterinarian.

16.2.7. Koala rehabilitators must **not** hold a sick, injured, or orphaned koala without providing appropriate veterinary care when such veterinary care is reasonably accessible. For example, a person must not hold a koala that has been struck by a vehicle or attacked by a dog overnight, when access to 24-hour veterinary treatment is available.

17. Records

17.1. Objective

17.1.1. To maintain comprehensive records of sick, injured, or orphaned koalas. These records can be used to track and review individual case histories and identify trends and represent a useful resource for koala rehabilitators, regulators, veterinarians, educators, and research organisations.

17.2. Standards

17.2.1. Koala rehabilitators must keep records for all koalas they rescue, care for, and release.

17.2.2. All records must be maintained in a form that can be readily examined, analysed, and clearly understood, and be made available to a conservation officer of the department upon request. If the department advises of a method for entering records, that method must be adhered to.

17.2.3. Rescuers must record:

17.2.3.1. time and date of rescue;

17.2.3.2. exact location of rescue (including co-ordinates);

17.2.3.3. reason for rescue;

17.2.3.4. method of rescue (e.g., ground capture, flagging, koala trap);

17.2.3.5. brief description of health or injuries;

17.2.3.6. approximate age or age class (neonate, juvenile, sub-adult, adult, aged);

17.2.3.7. sex (M, F, Unknown);

17.2.3.8. any identifying numbers or tags;

17.2.3.9. veterinarian the koala was taken to; and

17.2.3.10. time and date of admission.

17.2.4. Carers must record:

17.2.4.1. date a koala enters their care;

17.2.4.2. veterinarian or rehabilitator that the koala was received from;

17.2.4.3. all monitoring observations, including weight, amount of leaf/milk consumed, faecal counts, and behavioural observations, at the required frequency (see section 7 of this Code of Practice);

17.2.4.4. date a koala leaves their care; and

17.2.4.5. veterinarian or rehabilitator that the koala was relinquished to.

17.2.5. Koala releasers must record:

17.2.5.1. time and date of release;

17.2.5.2. exact location of release (including co-ordinates);

17.2.5.3. whether the koala was released at its rescue site; and

17.2.5.4. if not, the results of the assessment showing the rescue site to be unsuitable, and the results of all other assessments supporting the eventual release site.

18. Wildlife rehabilitation organisations

18.1. Objective

18.1.1. To identify the roles and responsibilities of koala rehabilitation organisations and persons operating under a group rehabilitation permit.

18.2. Standards

18.2.1. An organisation conducting koala rehabilitation activities in Queensland must be a legal entity (incorporated association or Australian company) and hold a valid rehabilitation permit issued under the NC Act by the department.

18.2.2. A voluntary wildlife rehabilitation organisation with a rehabilitation permit must ensure that:

18.2.2.1. all members engaged in koala rehabilitation (rescue, care, and/or release) comply with this Code of Practice;

18.2.2.2. the organisation and its members comply with the conditions of their rehabilitation permit;

18.2.2.3. the organisation provides a current copy of the rehabilitation permit to members stating the period of membership and what species the member is endorsed to care for, together with the total number of animals that the member is entitled to hold, under the group rehabilitation permit;

18.2.2.4. the organisation provides new and inexperienced members with appropriate and ongoing training and mentoring relating to koala rehabilitation;

18.2.2.5. membership lists are updated and forwarded annually within 20 business days at the close of each financial year to Permissions Management, the Department of Environment and Science, palm@DES.qld.gov.au or GPO Box 2454, Brisbane QLD 4001; Additionally, organisations in SEQ must keep up to date lists of all members available for inspection at all times by the department;

18.2.2.6. a process is established for handling alleged breaches of this Code of Practice , or non-compliance with other relevant rules of the organisation;

18.2.2.7. a procedure is established for responding to complaints against members either from external or internal parties (all new members must be given copies of this procedure); and

18.2.2.8. all members are given timely, clear, and detailed directions by the organisation concerning the activities that the member may carry out under the rehabilitation permit.

18.2.3. The organisation must advise the department in writing within 20 business days of any person who is no longer a member and that they are no longer permitted to operate under the permit.

18.2.4. If the organisation becomes aware that a member operating under the permit does **not** comply with this Code of Practice, the organisation must:

18.2.4.1. identify the actions or steps needed to be taken by the member to comply with this Code of Practice and the associated time frames;

18.2.4.2. take responsibility for the individuals' actions under the group permit, and either:

18.2.4.2.1. limit the authority of the member to operate under the permit; or

18.2.4.2.2. instruct the person in writing that they are no longer permitted to operate under the permit.

18.2.5. Members of a voluntary wildlife care organisation authorised to rehabilitate koalas require written approval from the permit holder to lawfully rehabilitate koalas under the organisation's rehabilitation permit. The document Information Sheet – Authorising a relevant person under a rehabilitation permit outlines the requirements and process for rehabilitation permit holders to authorise a relevant person to care for sick, injured, or orphaned protected animals under their rehabilitation permit. The document Form – Rehabilitation permit authorisation is to be completed by the permit holder for the member showing their details of membership and species permitted to be cared for. This form must be carried by the member at all times when dealing with animals under the authority.

19. Training

19.1. Objective

19.1.1. To ensure koala rehabilitators have the appropriate knowledge and skills to safeguard the welfare of koalas in their care.

19.2. Standards

19.2.1. All newly permitted koala rehabilitators must complete a suitable training course for new koala rehabilitators, and must not undertake the rescue, care, or release of koalas until this training is complete.

19.2.2. A suitable training course for new koala rehabilitators is one that, at a minimum:

19.2.2.1. teaches the standards described in this Code of Practice, with practical and written assessment components relating to rescue, care, and release of koalas;

19.2.2.2. teaches health and safety issues associated with koala rehabilitation (e.g., disease transmission, zoonoses, managing hazardous chemicals and operating in hazardous locations);

19.2.2.3. focuses on what a person will be able to do as a result of completing the course (i.e., be competency-based);

19.2.3. A suitable training course for new koala rehabilitators should also:

19.2.3.1. within the rescue component, include awareness training regarding the need for euthanasia in various circumstances, normal koala behaviour in urban environments, and the risks associated with unnecessary rescue;

19.2.3.2. within the care component:

a. include a training module for ‘General koala care’, that would enable a carer to appropriately:

i. undertake care of koalas relevant to the developmental stage of the koala and/or level of care required;

ii. maintain their facility in a way that is suitable for the relevant developmental stage of the koala and/or level of care required;

iii. monitor all facets of a koala’s health (as per this Code of Practice);

iv. identify suitable leaf for feeding koalas; and

v. understand the need for euthanasia in certain circumstances.

b. include an optional training module for ‘Advanced koala care’, that would enable a carer to appropriately care for sick or injured koalas.

19.2.3.3. within the release component, include awareness training that in many circumstances koalas are required to be released back at their rescue site, and for SEQ based courses that they should include training on application of the Guideline - Selection of Release Sites for Rehabilitated Koalas in South East Queensland; and

19.2.3.4. be accompanied by ongoing in-field support from *experienced koala*

rehabilitators.

19.2.4. All previously permitted koala rehabilitators must attend a suitable refresher training course every three years and provide proof of recent training when they apply for renewal of rehabilitation permits.

19.2.5. A suitable refresher training course is one that, at a minimum:

19.2.5.1. teaches the standards described in this Code of Practice, with practical and written assessment components relating to rescue, care, and release of koalas; and

19.2.5.2. teaches health and safety issues associated with koala rehabilitation (e.g., disease transmission, zoonoses, managing hazardous chemicals and operating in hazardous locations).

19.2.6. Training may be provided by a Wildlife Rehabilitation Organisation, or another suitable organisation, and should be delivered by trainers with significant, relevant experience. For example, an advanced koala care module should be delivered by a trainer with suitable veterinary care experience.

20. Definitions

Animal — any member of the animal kingdom (other than humans) as defined in the *Nature Conservation Act 1992.*

Carrying capacity — the maximum number of koalas that a site can sufficiently sustain before it suffers significant deterioration.

Code of Practice — the Code of Practice: Rehabilitation of Sick, Injured, or Orphaned Koalas in Queensland.

Conservation officer — a person who is appointed as such by the responsible Minister under the *Nature Conservation Act 1992.*

Critical — when the animal is affected by: major traumatic injuries, difficult breathing, major bleeding, serious head injury, or disembowelment; or is showing any signs of severe pain or discomfort; or has obvious injuries or illness that might cause the death of the animal; or is rescued or found in circumstances which might reasonably be expected to have caused such injuries or illness, even if they are **not** apparent (for example: dog attack); or the animal is moribund.

Department — the Department of Environment and Science.

Euthanasia — to achieve humane destruction of a koala, as per the Guideline: Determining Whether a Koala Requires Euthanasia.

Experienced koala rehabilitator — a person with a minimum of three (3) years, ongoing demonstrated wildlife rehabilitation experience specific to koalas.

Koala rehabilitator — a person who is engaged in the rehabilitation (rescue, care, and release) of sick, injured, or orphaned wildlife and is operating under a valid rehabilitation permit either as an individual or as member of a rehabilitation organisation.

NC Act — the *Nature Conservation Act 1992*.

NC Animals Regulation — the Nature Conservation (Animals) Regulation 2020.

NC Koala Plan — the Nature Conservation (Koala) Conservation Plan 2017.

On-site confirmation — an in-person visual inspection of the release site, conducted by a koala rehabilitator prior to the release of a koala, to confirm whether the release site is currently suitable for release.

Orphaned — a koala that was rescued at a stage of development where it was or would have been dependent on its mother but was kept, fed, and cared for by a person, in place of its mother due to the mother being deceased or temporarily sick or injured.

Permit — a rehabilitation permit issued under the *Nature Conservation Act 1992.*

Protected wildlife — an animal that is prescribed as such in the *Nature Conservation Act 1992.*

Rehabilitation — a multi-phase process aiming to address the welfare needs of koalas that are found sick, injured, or orphaned, and contribute positively to koala conservation, including rescue, care (if necessary), and release of koalas to the wild, in such a way that they can, where possible, successfully re-join local breeding populations.

Rehabilitation organisation — a corporation or association holding a valid rehabilitation permit whose members engage in the rehabilitation of sick, injured, or orphaned wildlife.

Rescue — limited to koalas that are, or are reasonably suspected to be, sick, injured, or orphaned, as per section 6.2.2. of this Code of Practice.

Rescue site — the location where the koala was rescued.

SEQ Wildlife Hospital — a veterinary clinic or facility of the SEQ Wildlife Hospital Network.

SEQ Wildlife Hospital Network — Australia Zoo Wildlife Hospital, Currumbin Wildlife Hospital, Moggill Koala Rehabilitation Centre, and RSPCA Wildlife Hospital.

SEQ or South East Queensland — the local government areas of Brisbane City Council, Gold Coast City Council, Ipswich City Council, Lockyer Valley Regional Council, Logan City Council, Moreton Bay Regional Council, Noosa Shire Council, Redland City Council, Scenic Rim Regional Council, Somerset Regional Council, Sunshine Coast Regional Council, and Toowoomba Regional Council.

Treating veterinarian — in SEQ, the closest SEQ Wildlife Hospital. Outside of SEQ, the closest suitably experienced and qualified veterinarian to assess, treat, and care for koalas.

Veterinary surgeon — a person registered as a veterinary surgeon under the *Veterinary Surgeons Act 1936*.

Veterinary treatment — the conduct and application of veterinary surgery and veterinary medicine when applied to sick, injured, or orphaned animals by a veterinarian.

Wildlife — a protected animal as defined in the *Nature Conservation Act 1992.*

Zoonosis (plural zoonoses) — any infectious disease that can be transmitted from both wild and domestic animals to humans.

Disclaimer

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Human Rights compatibility

The Department of Environment and Science is committed to respecting, protecting and promoting human rights. Under the *Human Rights Act 2019*, the department has an obligation to act and make decisions in a way that is compatible with human rights and, when making a decision, to give proper consideration to human rights. When acting or making a decision under this Code of Practice, officers must comply with that obligation (refer to Comply with Human Rights Act).

Approved by

Ben Klaassen	30 June 2023
Signature	Date

Deputy Director-General
Queensland Parks and Wildlife Service and Partnerships

Enquiries:
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BUSHFIRE MITIGATION REPORT
FM 7438-5
for
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD
at
17 COURTNEY DRIVE
UPPER COOMERA

PREPARED BY
ELDON BOTTCHER ARCHITECT PTY LTD
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25/03/2026

BRONZE MEMBER
Fire Protection Association Australia

Member Australian Institute of Architects

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DISCLAIMER

Experienced fire fighters with extensive knowledge of building have prepared this Report. Their practical knowledge of fire fighting has been backed up by academic study.

However, fire is an element of nature. Small natural occurrences can disastrously affect the outcome of the best planning. Human actions similarly can have disastrous results.

Whilst every care has been taken in the formulation of this management report, there can be no guarantee that even the strictest adherence to its recommendations can guarantee safety of life and property.

The authors of this report accept no responsibility for any damage to life or property caused by fire or any other cause to persons using land or structures, which could in any way be construed to be the subject of this report.

The report has been commissioned as the land falls within an area deemed a fire risk by the local authority.

As such, it must be recognized that structures upon this land and those using the structures could be deemed at risk.

Logo by LogoInstant

Very Important Note;
This report is valid for the following periods;

a) A maximum time of 5 years from date of preparation.
b) The currency of the legislation referred to in Section 1 Report Brief
c) Changes to any legislation generally that may impact on the report outcomes.
d) Changes to vegetation, both on and off site, which may impact on the results of this report.
e) Any other changes that may impact on the report in any manner.

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THIS REPORT IS ONLY TO BE USED FOR PROJECTS IDENTIFIED IN THE REPORT AND REPRESENTED ON THE SITE PLAN ACCOMPANYING THE REPORT.

INTRODUCTION

This Fire Management Report has been written for the benefit of future occupants of this proposed site and developed in accordance with the requirements of;

- The Council/1 Town Plan,
- SPP 07/2017.
- Queensland Planning Act 2016
- "Bushfire Resilient Communities Technical Reference Guide for the State Planning Policy State Interest" Natural Hazards, Risk and Resilience-Bushfire" published by QFES and Queensland Government.
- Natural hazards, risk and resilience-Bushfire State Planning Policy-state interest guidance material published by Queensland Government
- Bushfire Resilient Building Guidance for Queensland Homes published by CSIRO and Queensland Government
- Integrating Building Work in planning schemes-Guidance for local governments- Queensland Government
- The National Construction Code
- Queensland Bushfire Plan published by Queensland Government prepared by QFES.
- Australian Standard AS3959,
- International Fire Safety Engineering Guidelines
- Australian Fire Engineering Guidelines

The report has been prepared as supporting documentation for a Material Change of Use (Building) /Reconfiguration of Lot Application. This report version has been further amended to include Koala Habitat and a revised site plan and to recognise a new ownership entity.

1.1. **Address:**
17 Courtney Drive Upper Coomera.

1.2. **Local Authority**
Council/1

1.3. **R.P.D.**
Lot 182 on RP156422

1.4. **Site area**
33410m^2

1.5. **Responsible Fire Authority**
QFD for Structural all

1.6. **Potential Bushfire Hazard Rating.**
The draft risk rating maps prepared for the State Government show the ratings on this property ranging from Medium to being in a Bushfire Hazard Buffer Area.
It must be noted that State Government has revised the mapping and there may be changes to previously mapped areas.

1.7. **Land tenure.**
Freehold

1.8. **Adjoining owners are:**
Freehold

1.9. **Current Land Use:**
Rural

1.10. **Fire danger Index.**
FFDI 40 (nominated by AS 3959 as advised by Queensland Government Dept. of Housing and Public Works)

1.11. **Topography**
Rolling Hills

1.12. Predominant Wind Direction

The predominate wind direction is from the South East. In times of severe fire weather, the wind direction will be from the North West. The Topography will create microclimates, which will cause swirling, which will modify the apparent wind direction according to primary direction and velocity.

1.13. Slope

upslope

1.14. Aspect

Southeast

1.15. Fuel Type

Fuel Type and location

LOT	REGIONAL ECOSYSTEM	VHC	VHC DESCRIPTION	COMMENTS
182 RP156422	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Subject site Existing vegetation will be removed
183 RP156422	Grassland			Subject of existing development application
184 & 185 RP173727	Grassland			Subject of existing development application
186 RP173178	Grassland			Subject of existing development application
590 SP219180	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Vegetation is self-rehabilitating to a Riverine Rainforest status and does not constitute a threat due to this. EBA did the BFM for the subdivision on this site which is currently under construction
58 SP191940	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Vegetation mass is not adequate to constitute a threat EBA did the BFM for the proposed development on this site
57 SP214370	12.3.11	8.2	Wet eucalypt tall woodland	Vegetation mass is not adequate to constitute a threat
56 RP162858	No mapped Regional Ecosystem			Mapped threat vegetation no longer exists
187 RP173728	No mapped Regional Ecosystem			Vegetation mass is not adequate to constitute a threat
201 RP173727	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Threat vegetation is more than 100m from the subject site
202 RP173727	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Threat vegetation is more than 100m from the subject

				site
203 RP173727	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Threat vegetation is more than 100m from the subject site
204 RP173727	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Threat vegetation is more than 100m from the subject site
205 RP173727	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Threat vegetation is more than 100m from the subject site
206 RP171313	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Threat vegetation is more than 100m from the subject site. Minor vegetation mass on footpath does not constitute a threat.
901 SP326418	12.11.24 (12.11.5a)	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	Vegetation is self-rehabilitating to a Riverine Rainforest status and does not constitute a threat due to this.

1.16. Fire History
There is no evidence of a recent fire event.

1.17. Location of Access Tracks
The site is served by a sealed road system.

1.18. Location of Fire Breaks
There are formal firebreaks consisting of developed land and low threat vegetation combined with a sealed road system for widths more that 100m from the proposed Lots in all directions.

1.19. Location of existing firefighting Infrastructure
The site is served by reticulated water.

1.20. Historical and Cultural Sites
There is no evidence of Historical and Cultural sites on the property.

1.21. Koala Habitat
The site is partially located in a Koala Habitat Area
.

2. SITE AND HAZARD ASSESSMENT

2.1. Discussion with Responsible Fire Authority

The fires management report has not been discussed with the First Officer of the Rural Fire Brigade, due to a Commissioners Directive in relation to advice provided by Rural Fire Brigade members.

2.2. Vegetation Types

The vegetation type predominate to this site are as scheduled in section 1.15.

2.3. Potential Bushfire Hazard Rating.

Desktop study, site inspection and assessment against the State Planning Policy Mapping Methodology generally does not confirm the intent of either Local Government or State Mapping in that the area is in a Potential Bushfire Hazard Area, and the relevant aspects required for Town Planning and Building are to be addressed.

2.4. Building Construction

All building envelopes are not in a Designated Risk Area when calculated in accordance with the SPP.

Construction is not required to be in accordance with Australian Standard AS 3959 2018 Construction of Buildings in Bush Fire-Prone Areas as the site is not in a Designated Bushfire Prone Area when calculated in accordance with SPP.

2.5. Ecological Requirements

There are specific ecological requirements in relation to koala habitat areas.

Note;
The Category of Bushfire Attack referred to in the Australian Standard is different to the Hazard/Risk area referred to above.

Extensive modification of the existing vegetation types including that on adjoining sites could result in a change of Category of Bushfire Attack and therefore variation in the Level of construction required.

It is the responsibility of the owner of each individual site to ensure that plantings after their occupation of the site do not reduce the safety of their buildings in a manner, which could require a higher level of Construction than that originally utilised.

3. RISK MANAGEMENT PLAN

3.1. Agencies / Persons Responsible

The responsible Fire Authority is the Queensland Fire Department being responsible for Structural Fires

It is the responsibility of the Developers and Owners of the properties to ensure that the relevant measures required by this Management Report are in place prior to inspection by the Council and the Building Certifier and to ensure that those measures are in place prior to the occupation of any buildings, which are the subject of this report. It is the responsibility of Council and Building Certifiers to ensure that relevant measures within their responsibility are in place prior to the issuance of any certification.

3.2. Bushfire Safety Objective

The objective of this report is to minimise potential risk to life and property by protecting the buildings from the effects of bushfire.

3.3. Aims

The aims to achieve this objective are to mitigate the effect of the bushfire attack mechanisms of: -

3.3.1. Radiant Heat
3.3.2. Direct Flame Contact
3.3.3. Wind
3.3.4. Ember Attack
3.3.5. Smoke

3.4. Functional Requirements

The functional requirements to achieve this objective are: -

3.4.1. The provision of safe conditions for fire fighters
3.4.2. The provision of safe conditions for residents
3.4.3. Ensure adequate and safe access to and from the property.
3.4.4. Ensure adequate and safe water supply to the property and the establishment of firefighting water reserves.
3.4.5. Provide a system of fire breaks and trails to protect the building component.
3.4.6. Remove vegetation that is considered dangerous and a hazard in Fire Conditions
3.4.7. To ascertain the required standard of construction of the buildings in accordance with the requirements of the National Construction Code and the Australian Standard for Construction in Bushfire Prone Areas or the provision of a satisfactory alternative solution
3.4.8. Facilitate the return to “normalcy “

3.5. Proposed Fire Fighting Infrastructure

3.5.1. The proposed buildings are to be served by a reliable reticulated water supply.

3.6. Building Construction

Construction is not required to be in accordance with National Construction Code/Building Code of Australia, which refers to either the Australian Standard for Construction in Bushfire Prone Areas or NASH Standard-Steel Framed Construction in Bushfire Areas as Deemed to Satisfy Solutions as the site is not in a Designated Bushfire Prone Area when calculated in accordance with SPP.

3.7. Street Numbering

Numbering is to be installed in accordance with the current Street Numbering System at time of completion of building.

3.8. Insurance

Failure to comply with this management report may have a detrimental effect upon the Insurance of the subject Buildings.

3.9. Emergency Response Procedures

In the event of Fire Emergency, assistance is to be obtained by dialling 000.

3.9.1. The owner should read thoroughly the brochures contained and those recommended at the rear of this report. They contain valuable information that could assist in the saving of lives and property in a fire event!

3.10. Community Awareness Strategies

3.10.1. Each subsequent owner is to be provided with a copy of this Fire Management report with an alert placed on either Title or Council Rate searches that the Report is in existence and is to be made available to ensuing owners.

3.11. Administering Staff

It is the responsibility of the developers and owners to ensure compliance with this Report and the Town Plan, and to ensure that each of the new owners is provided with a copy of this report.

It is the responsibility of the Council and the Building Certifier to ensure that the relevant measures required by this management report are in place prior to the final completion stage inspection of any buildings on any sites which are the subject of this report as noted in Clause 3.1 of this report.

It is the responsibility of the ensuing owners of the properties to maintain the properties in the conditions outlined in this report.

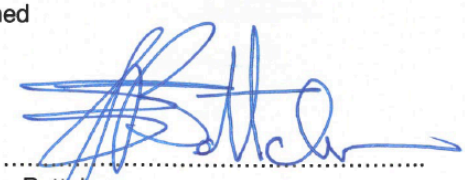
FIRE MANAGEMENT ACTION SUMMARY AND SCHEDULE

DEVELOPMENT REQUIREMENTS	BUILDING REQUIREMENTS	MAINTENANCE
	Buildings not required to comply with the National Construction Code/Building Code of Australia.	Building materials are to be maintained in "as new "condition to preserve the integrity of the relevant materials.

4. APPENDICES

4.1. Form 15
4.2. Site Plans
4.3. Profiles

Signed

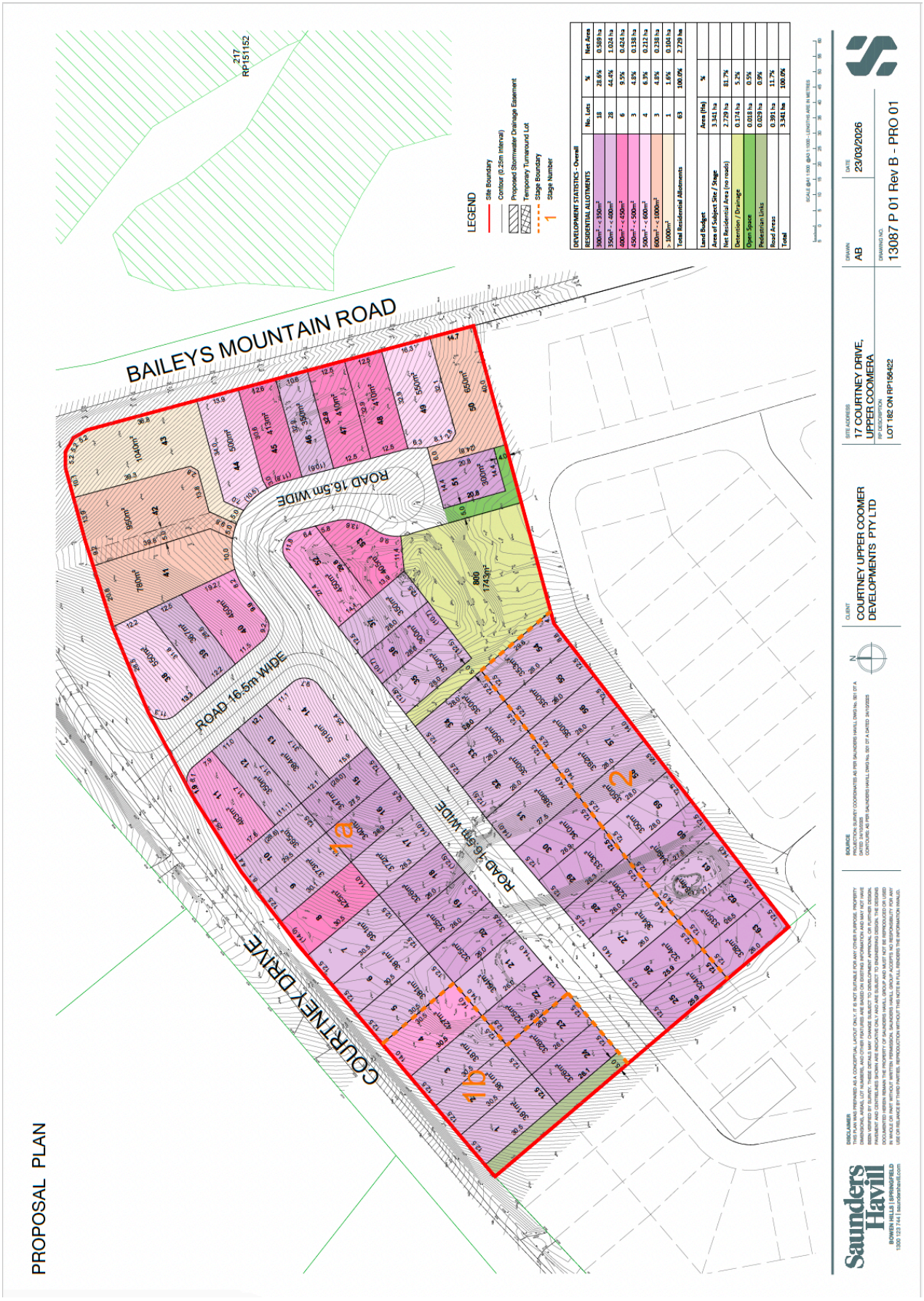


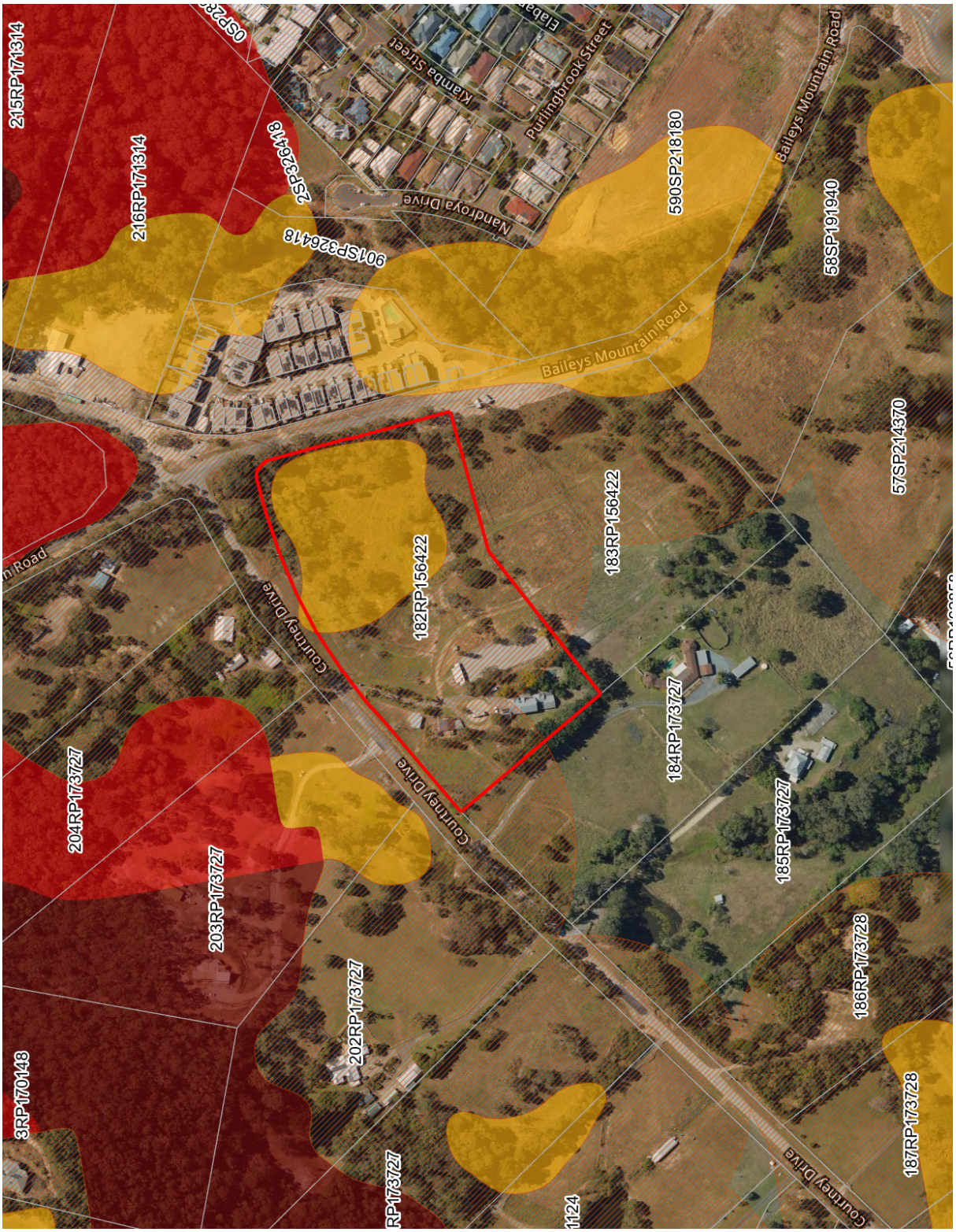
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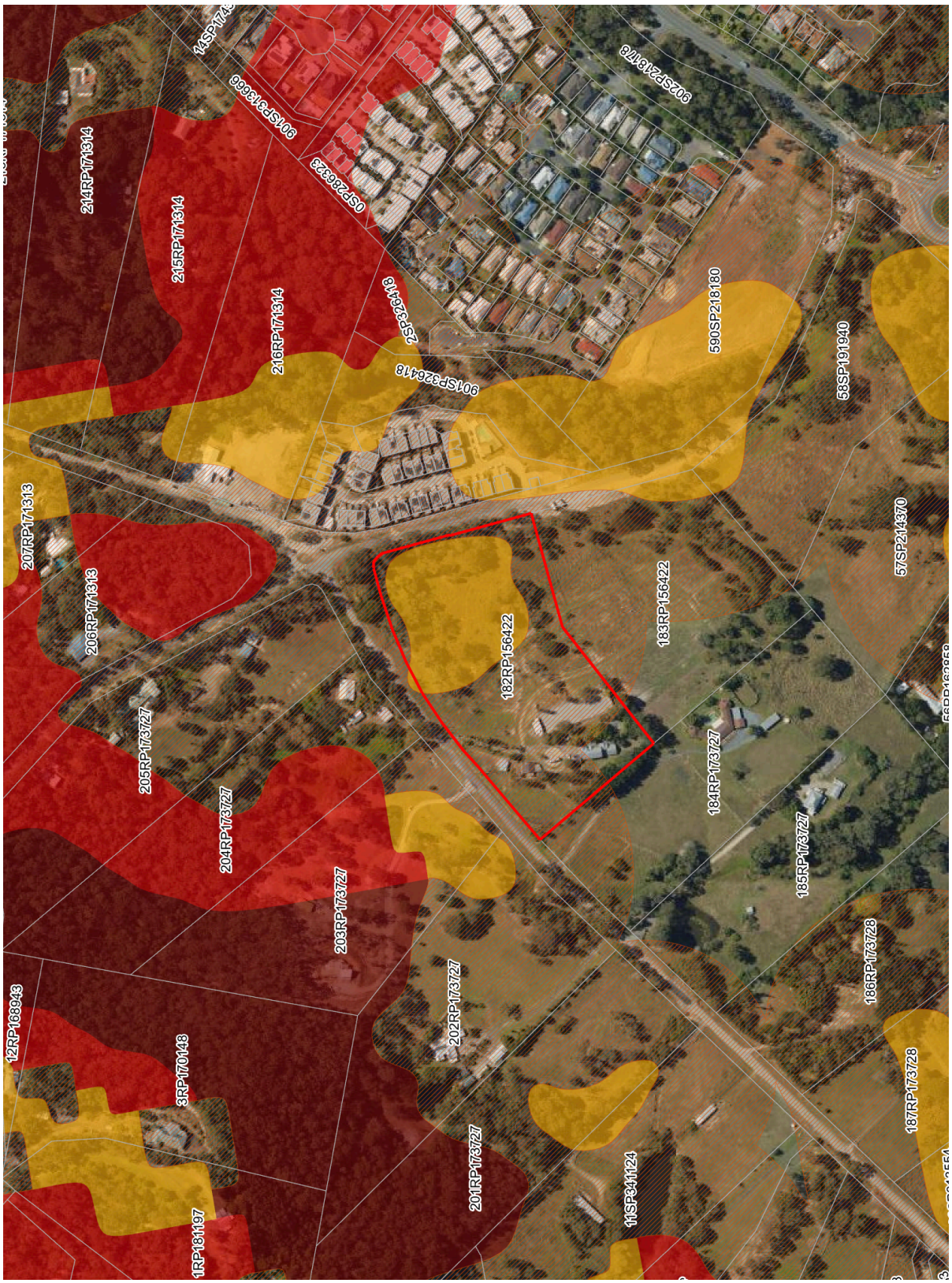
Eldon Bottcher
Grad. Dip DBPA (UWS) Dip. Arch. (QIT), Cert. R.F.M. (USQ), F.R.A.I.A., M.A.I.E.S. AIFireE
Architect
BPAD-L3 Practitioner

BPAD
Bushfire
Planning & Design
Accredited Practitioner
Level 3

APPENDIX 5.1
SITE PLANS


PROPOSAL PLAN
BAILEYS MOUNTAIN ROAD
ROAD 16.5m WIDE
ROAD 16.5m WIDE
ROAD 16.5m WIDE
COURTNEY DRIVE
217 RP151152
LEGEND
Site Boundary
Contour (0.25m interval)
Proposed Stormwater Drainage Easement
Temporary Turnaround Lot
Stage Boundary
Stage Number
DEVELOPMENT STATISTICS - Overall
RESIDENTIAL ALLOTMENTS
No. Lots
%
Net Area
300m² - < 350m²
350m² - < 400m²
400m² - < 450m²
450m² - < 500m²
500m² - < 600m²
600m² - < 1000m²
> 1000m²
Total Residential Allotments
Land Budget
Area (Ha)
Area of Subject Site / Stage
Net Residential Area (no roads)
Detention / Drainage
Open Space
Pedestrian Links
Road Areas
Total
SITE ADDRESS
17 COURTNEY DRIVE, UPPER COOMERA
RP DESCRIPTION
LOT 182 ON RP186422
CLIENT
COURTNEY UPPER COOMER DEVELOPMENTS PTY LTD
DRAWN
AB
DATE
23/03/2026
DRAWING NO.
13087 P 01 Rev B - PRO 01
Saunders Havill
BOWEN HILLS | SPRINGFIELD
1300 123 744 | saundershavill.com


215RP171314
216RP171314
2SP326418
901SP326418
Nandroya Drive
Kamba Street
Purlingbrook Street
Baileys Mountain Road
590SP218180
58SP191940
57SP214370
183RP156422
182RP156422
184RP173727
185RP173727
186RP173728
187RP173728
204RP173727
203RP173727
202RP173727
3RP170148
Courtney Drive


14SP174
90ZSP216178
90ISP213866
0SP286528
214RP171314
215RP171314
216RP171314
2SP326418
90ISP326418
590SP218180
58SP191940
57SP214370
207RP171313
206RP171313
205RP173727
204RP173727
203RP173727
202RP173727
201RP173727
182RP156422
183RP156422
184RP173727
185RP173727
186RP173728
187RP173728
12RP168943
3RP170148
1RP181197
11SP341124

APPENDIX 5.2
PROFILE

ELDON BOTTCHER

EDUCATION AND QUALIFICATIONS
Graduate Diploma in Design in Bushfire Prone Areas
University of Western Sydney
Diploma in Architecture
Queensland Institute of Technology
Certificate of Rural Fire Management
University of Southern Queensland
Registered Architect
Queensland
A+ Architect
Australian Institute of Architects
FPA Australia Certified Practitioner (BPAD-Level 3-16935)
Bushfire Planning and Design (BPAD-LEVEL 3), Alternate Solutions & DTS

PROFESSIONAL MEMBERSHIPS
Fellow
Australian Institute of Architects
Member
Australian Institute of Emergency Services
Member
Australian Institute of Engineers Society of Fire Safety
Member
Queensland Environmental Law Association.
Member Board of Experts
Bushfire Building Council of Australia
Associate Member
Institution of Fire Engineers
Corporate Member
Fire Protection Association of Australia

PROFESSIONAL EXPERIENCE
Director
Eldon Bottcher Architect Pty Ltd since 1978

Bushfire Assessment and Planning Consultant since 1998 with Involvement in more than 7,000 Bushfire Mitigation Projects ranging from single dwellings to major subdivisions, burn plans and general mitigation advice.

Group Officer
Albert Rural Fire Brigades Group
Queensland Fire and Rescue Service
Group Officer
Gold Coast Rural Fire Brigades Group
Queensland Fire and Rescue Service
Group Officer
South East Regional Support Group
Queensland Fire and Rescue Service
Planning Officer
Gold Coast Rural Fire Brigades Group
Queensland Fire and Rescue Service
Life Member
Guanaba Rural Fire Brigade
Member
Clagiraba Rural Fire Brigade

Member Practice Committee AIA Qld Chapter
AIA Qld Chapter advisor to AIA National to NCC
AIA delegate to Building Industry and Research Consultation Panel on Bushfire Hazard advising Queensland State Bushfire Committee

BBCA representation to Australian Standards Committee FP20 (AS 3959 & AS 5414)

Research Consultant to Queensland University of Technology Scenic Rim Black Saturday Recovery Project

FPAA State Committee
Member (Bushfire**)**

OTHER BUSHFIRE RELATED COURSES AND TRAINING
I.C.S./AIIMS (40 hr. course) in Incident Command Systems
Certificate 4 (Workplace Training and Assessment)
RFSQ Level 1
RFSQ Level 2 (Officer)
RFSQ Fire Management 1
RFSQ Crew Leader
Certificate II in Public Safety (Firefighting Operations)
Fire Weather 1
QELA Expert Witness Workshop 2020

BUSHFIRE RELATED AWARDS
Planning Institute of Australia
National Planning Award
State Planning Award
Gold Coast Bushfire Management Strategy
(Co-Initiator and Member of Preparation Committee)

Australian Government
National Medal
Long and Distinguished Service to Fire fighting
Queensland Fire and Rescue Service
Diligent and Ethical Service Medal + Clasp
Service to Fire fighting

Queensland Government
Australia Day Medallion
Services to Rural Fire Fighting
Queensland Government
Year of the Volunteer Medallion
Services to Fire fighting

UDIA
Best Consultancy Team Award in 2007.

SERVICES OFFERED

Bushfire management Reports

Bushfire Safety Engineering

Bushfire Planning and Design

Bushfire Hazard Assessment

Performance Solutions

Expert Witnessing
(See Planning and Environment Court of Queensland Determination
File No. BD 624 of 2005 sections 28 to 35)

Continuing Professional Development Lectures

Tertiary Education Lectures and Tutorials

Town Planning Bushfire Codes for Local Authorities

Bushfire Burn Planning

General consultancy relating to all aspects of Bushfire

© 3/02/25

END OF REPORT



COURTNEY UPPER
COOMERA
DEVELOPMENTS PTY LTD

C/- CFMG CAPITAL
LIMITED

Saunders Havill

17 COURTNEY DRIVE
UPPER COOMERA QLD 4209

LANDSCAPE CONCEPT PLAN • MARCH 2026 • 13087 ISSUE A

Saunders Havill

Prepared by:
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Bowen Hills QLD 4006
T. 1300 123 744
ABN 24 144 972 949

CFMG CAPITAL LIMITED

Prepared for:
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

C/- CFMG CAPITAL LIMITED

bradc@cfmgcapital.com.au

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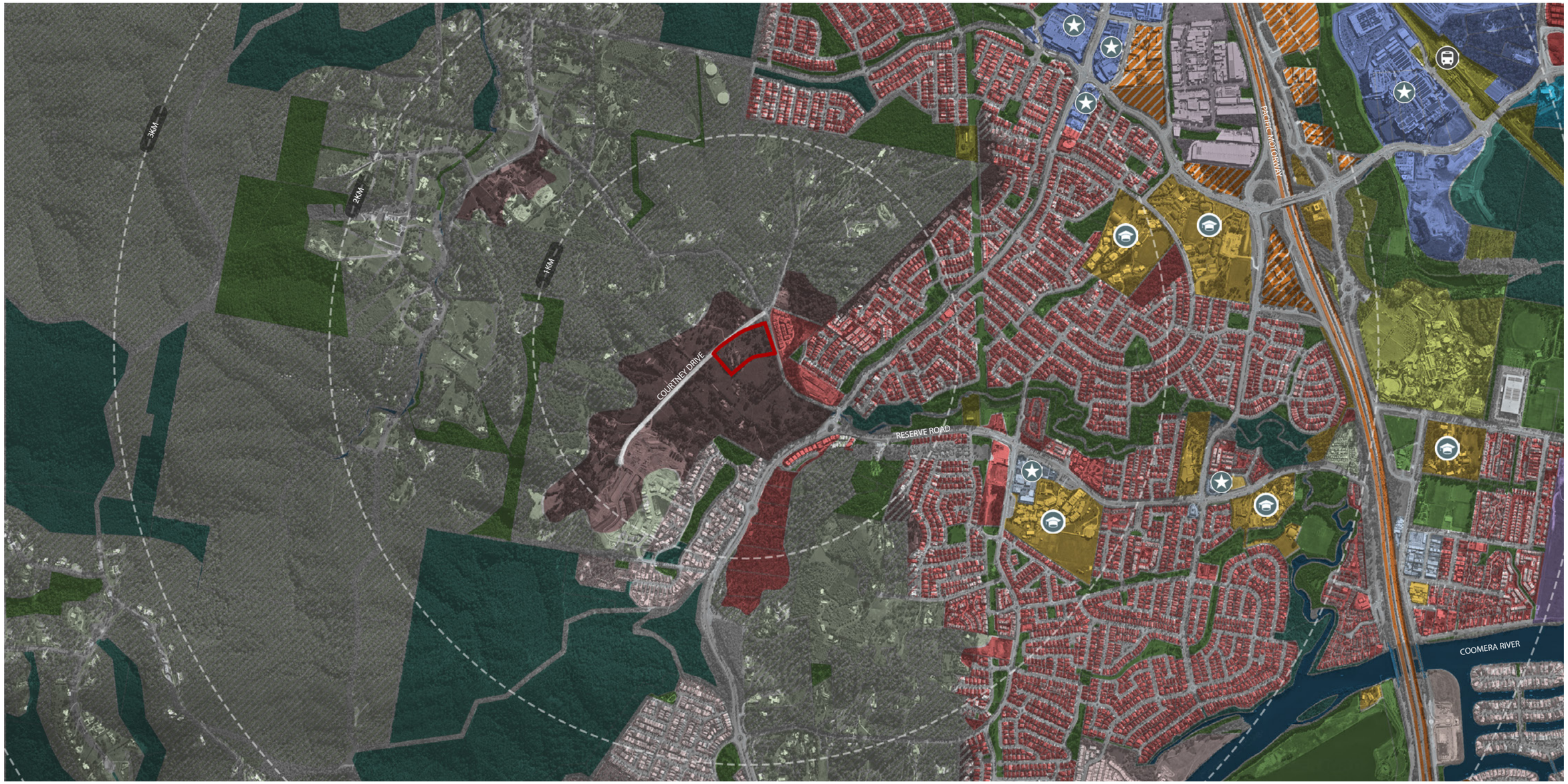
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04 SITE ANALYSIS
05 LANDSCAPE MASTER PLAN
06 LANDSCAPE STAGING PLAN
07 DETENTION DRAINAGE BASIN
08 INDICATIVE PLANT PALETTE

SITE CONTEXT



LEGEND

- RURAL RESIDENTIAL
- LOW DENSITY RESIDENTIAL
- MEDIUM DENISTY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- CONSERVATION
- SPORT AND RECREATION
- OPEN SPACE
- MAJOR TOURISM
- NEIGHBOURHOOD CENTRE
- CENTRE
- LOW IMPACT INDUSTURY
- WATERFRONT AND MARINE INDUSTRY
- COMMUNITY FACILITIES
- MIXED USE
- INNOVATION
- SHOPPING
- SCHOOLS
- COOMERA TRAIN STATION
- 1KM CATCHMENT

SITE ANALYSIS



LEGEND

SITE BOUNDARY

EXISTING WATERBODY













LANDSCAPE MASTERPLAN



LEGEND

SITE BOUNDARY

1. VEHICLE ACCESS VIA COURTNEY DRIVE
2. INTERNAL ROAD
   - Refer Civil
3. INDICATIVE LOT LAYOUT
4. INDICATIVE FOOTPATHS THROUGHOUT
   - Refer Civil
5. STREET TREES THROUGHOUT
6. DETENTION DRAINAGE BASIN
   - See page 06 for further details.
7. RETAINING WALLS
   -Refer Civil



SEMI PERMEABLE FENCE
- To lots adjoining basin



TIMBER BOLLARDS WITH
LOCKING RAIL



MODDEX TR20 SAFETY RAILING
- Or similar

LANDSCAPE MASTERPLAN - STAGING PLAN



LEGEND

SITE BOUNDARY

STAGE BOUNDARY

DETENTION DRAINAGE BASIN



LEGEND

SITE BOUNDARY

1. DETENTION DRAINAGE BASIN
2. MAINTENANCE ACCESS
3. INTERNAL ROAD
4. INDICATIVE FOOTPATHS THROUGHOUT - REFER CIVIL
5. ACCESS BEYOND SITE BOUNDARY SUBJECT TO FUTURE DESIGN
6. TIMBER BOLLARDS WITH LOCKING RAIL
7. SEMI PERMEABLE FENCE - TO LOTS ADJOINING BASIN
8. MODDEX TR20 SAFETY RAILING OR SIMILAR

INDICATIVE PLANT PALETTE

TREES


1


2


3


4


5


6

BIO-BASIN


7


8


9


10


11


12

LEGEND

TREES

1. BUCKINGHAMIA CELSISSIMA
2. TRISTANIOPSIS LUSCIOUS
3. ELAEOCARPUS EUMUNDI
4. WATERHOUSEA FLORIBUNDA
5. LOPHOSTEMON CONFERTUS
6. SYZYGIUM TIERNEYANUM

BIO-BASIN

7. CAREX APPRESSA
8. FICINIA-NODOSA
9. IMPERATA CYLINDRICA
10. LOMANDRA LONGIFOLIA
11. POA LABILLARDIERI
12. THEMEDA TRIANDRA

NOTE: PLANT SPECIES ARE ONLY INDICATIVE AND ARE TO BE CONFIRMED WITHIN FUTURE OPW APPLICATIONS

SaundersHavill

PATHWAYS TO SUCCESS

Saunders Havill

Prepared by:
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ABN 24 144 972 949
saundershavill.com

OSKA CONSULTING GROUP

ENGINEERING INFRASTRUCTURE REPORT

Proposed Residential Subdivision

17 Courtney Drive, Upper Coomera

Lot 182 on RP156422

For Courtney Upper Coomera Developments Pty Ltd

26 March 2026

Document No: OSK7105-0004-C

DOCUMENT CONTROL SHEET

Title:	Engineering Infrastructure Report
Document No:	OSK7105-0004
Original Date of Issue:	1 December 2025
Project Manager:	Thomas Watt
Author:	Ben Grant
Client:	Courtney Upper Coomera Developments Pty Ltd
Client Contact:	Brad Cook - Courtney Upper Coomera Developments Pty Ltd
Client Reference:	17 Courtney Drive, Upper Coomera
Synopsis:	This report examines the existing infrastructure and future engineering impacts for the proposed development of the site, including the availability of services and the provision of water and sewerage servicing the development site and determines the demand on these systems from the proposed development.

Reviewed by RPEQ	Reg. No.	Signed	Date
Thomas Watt	16222		26 March 2026

Revision/Checking History			
Revision No	**Date**	**Checked By**	**Issued By**
A	2 December 2025	Scott Newland	Ben Grant
B	28 January 2026	James Antilla	Thomas Watt
C	26 March 2026	Thomas Watt	Roshan Beddyson

Distribution		
Recipient	**No of Copies**	**Method**
Courtney Upper Coomera Developments Pty Ltd - Brad Cook	1	PDF

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Table 3: Proposed Development Water Demand 6

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Figure 2: Aerial Image of the Site (Source: MetroMaps – Image taken 14 June 2025) 2

APPENDICES

Appendix A: Saunders Havill; *Detail Plan* (Ref: 12753 S 01 DT A)

Appendix B: Saunders Havill; Concept Plan (Ref: 13087 P 01)

Appendix C: OSKA Consulting Group; Preliminary Bulk Earthworks Plan and Sections (Ref: OSK7105 - P010-P013)

Appendix D: OSKA Consulting Group; Preliminary Roadworks Plan & Sections (Ref: OSK7105 – P020-P025)

Appendix E: OSKA Consulting Group; Preliminary Services Plan (Ref: OSK7105 – P030)

Appendix F: Before You Dig Australia Plans

1.0 INTRODUCTION

1.1 Background

OSKA Engineers has been commissioned by Courtney Upper Coomera Developments Pty Ltd to prepare an Engineering Infrastructure Report (EIR) to support a Development Application (DA) to the City of Gold Coast (CoGC) for the proposed Residential Subdivision situated at 17 Courtney Drive, Upper Coomera. The subject site is described as Lot 182 on RP156422.

The purpose of this report is to demonstrate that the proposed development can be connected to Council's existing stormwater drainage, sewerage, water systems and other utility services.

2.0 SITE DESCRIPTION

2.1 Location

The subject site is located at 17 Courtney Drive, Upper Coomera. The site fronts Courtney Drive to the north, Baileys Mountain Road to the east and has existing residential properties to the south and west. The site covers a total combined area of 3.340ha, with details as summarised in *Table 1* and as located in *Figure 1.*

Table 1: Site Description

Client	Lot and Property Description	Street Address
Courtney Upper Coomera Developments Pty Ltd	*Lot 182 on RP156422*	*17 Courtney Drive, Upper Coomera*

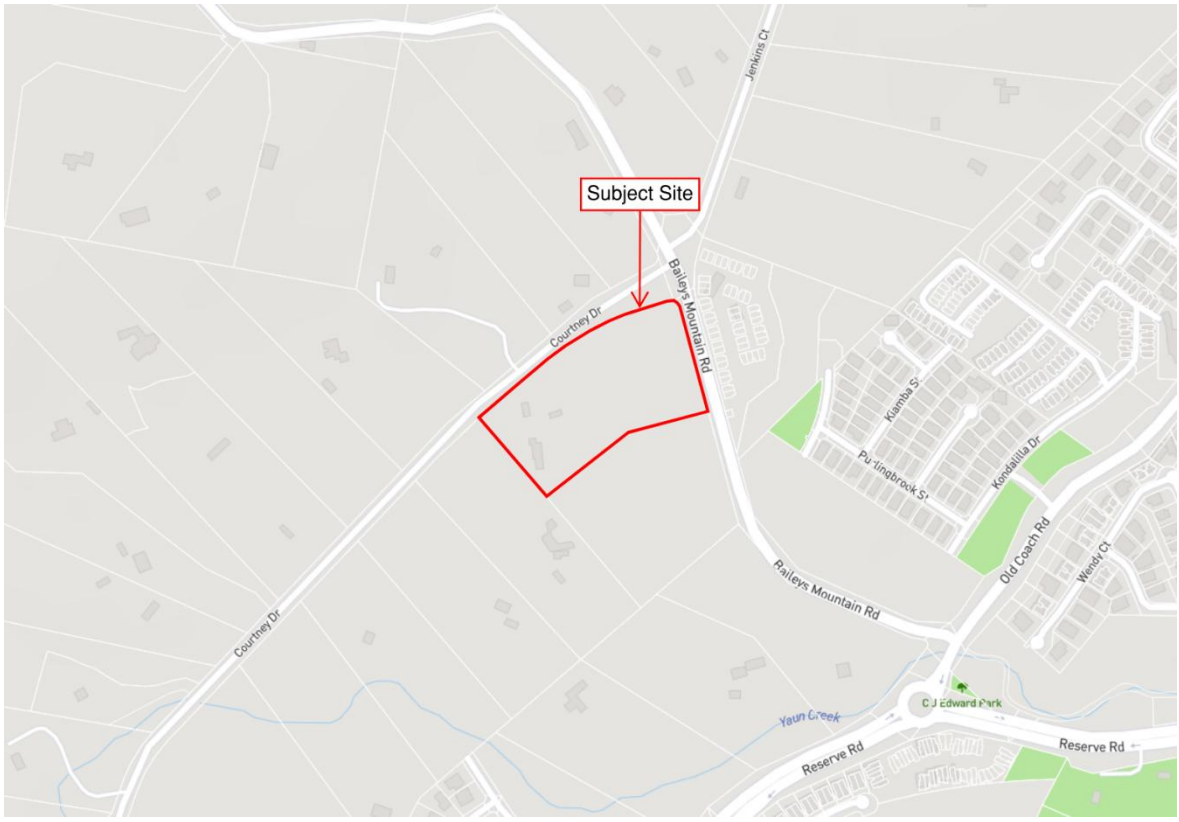


Figure 1: Locality Plan (Source: MetroMaps)

2.2 Site Topography

The majority of the site generally grades to south towards the existing dam on site with a small portion in the north-west of the site that grades towards Courtney Drive. The existing site is relatively steep with spot heights ranging from approximately RL 30.60m AHD to 51.20m AHD. Based on the provided survey and aerial information, any stormwater runoff from the site either drains to the existing dam within the site or to Courtney Drive.

Refer to the site survey prepared by Saunders Havill; Detail Plan (Ref: 12753 S 01 DT A) included as Appendix A.

2.3 Vegetation and Land Use

The subject site currently consists of two residential dwellings with two detached sheds and a bitumen driveway that runs through to the south-west part of the site. The majority of the subject site is covered in grassed areas with multiple trees throughout the site and a dam in the south-eastern part of the site. Access to the site is gained via an existing bitumen driveway from Courtney Drive to the north.

An aerial photograph taken on the 24 June 2025 of the subject site is included in *Figure 2.*



Figure 2: Aerial Image of the Site (Source: MetroMaps – Image taken 14 June 2025)

2.4 Proposed Development

The proposed development for the site consists of a two stage 63 lot residential subdivision with lot areas ranging between 300-1,040m^2. Access to the proposed development will be gained via one of two new road connections from Courtney Drive and from the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) which will provide access to all lots.

Refer to Appendix B for the proposed layout details prepared by Saunders Havill; Concept Plan (Ref: 13087 P 01).

3.0 EARTHWORKS

Earthworks will be required across the site to facilitate the development. The proposed site grading will require a combination of cut and fill to construct the proposed roadways, allotment pads and direct the development's overland flow to the proposed basin extents.

Retaining walls will be required within the development site to facilitate construction of building pads, stormwater drainage and facilitate sewer servicing for the development. To minimise slopes across the proposed allotments retaining walls up to a maximum height of 3m will be required, with walls generally higher than 1.6m to be tiered in accordance with Council requirements.

Earthworks will be constructed in accordance with Section 3 of the CoGC Land Development Guidelines (LDG's), and all relevant Australian Standards. Any areas of filling of the site will be to a Level 1 compaction standard in accordance with the Planning Scheme Policy and AS3798.

The proposed road reserves that terminate at the common boundary with the neighbouring lot (Lot 184 RP 173727) will include a temporary batter to tie in with existing levels if the proposed road reserve as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) has not yet been constructed. Once the neighbouring lot is developed, these respective road reserves can be graded and tied in neatly.

For further details, see schematic drawing showing the proposed roadworks as illustrated in the OSKA Consulting Group; Preliminary Bulk Earthworks Plan and Sections (Ref: OSK7105 - P010-P013) included as Appendix C.

3.1 Sediment & Erosion Controls

Sediment and erosion control devices (S&EC) employed on the site shall be designed and constructed in accordance with the Institution of Engineers, Soil Erosion and Sediment Control Guidelines (IESESC) and City of Gold Coast requirements.

Future Operational Works applications will provide additional details on the sediment and erosion control details proposed for the site. A water quality basin has been proposed for the major catchment of the development and typically it is proposed that this will be utilised as a sediment basin during construction. The OSKA Engineers Conceptual Stormwater Management Plan provides high level sediment and erosion control intents.

For further details, see OSKA Engineers, Conceptual Stormwater Management Plan (Ref: OSK7105-0002).

4.0 ROADWORKS

The proposed development will be accessed via Courtney Drive and the proposed road reserves as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116). Access will be provided to be via a new intersection on Courtney Drive for the majority of the internal lots with the northern lots being accessed from Courtney Drive and the southern lots being accessed from the proposed road reserve as part of the future development at 31-53 Courtney Drive.

The design of the internal roads has been undertaken in accordance with CoGC's Planning Scheme Policy. Internal roadworks across the site will be provided by new 16.5m residential access streets, with a 7.5m pavement. Road grades will vary between a minimum of 0.5% and a maximum of 16%. Final road levels will be set to ensure that driveways can be provided to all allotments with a desirable maximum grade of 16.6% wherever possible.

External roadworks will be required to facilitate the construction of the intersection access point to the proposed development from Courtney Drive. Please refer to the Traffic Impact Assessment prepared by Modus Traffic and Transport Engineering for further details.

A widening of the road pavement has been proposed along Courtney Drive to ensure that half the road of the ultimate Courtney Drive carriageway and road reserve were completed. The works will extend along the complete site frontage and taper back to tie in with the existing roadway.

For further details, see schematic drawing showing the proposed roadworks as illustrated in the OSKA Consulting Group; Preliminary Roadworks Plan & Sections (Ref: OSK7105 – P020-P025) included as Appendix D.

5.0 STORMWATER

The majority of captured stormwater from the proposed subdivision is to be directed to the proposed Council owned dual use bioretention-detention basin. This Council Stormwater basin has been designed to comply with the requirements of the CoGC LDG's. Internal council stormwater drainage will be provided to convey site flows in accordance with the LDG's and QUDM requirements.

For further details, see OSKA Engineers, Conceptual Stormwater Management Plan (Ref: OSK7105-0002).

6.0 SEWERAGE

The internal sewerage reticulation will provide 150mm PVC-U sewer reticulation across the site within the proposed road reserve to service each new lot. Due to the existing topography of the site, the proposed development will discharge at multiple sewer connection points.

There is an existing Ø225mm PVC sewer main within Baileys Mountain Road that runs to the south towards Old Coach Road. The majority of the proposed lots (5 – 22 and 25 – 53) will connect to this main via the existing manhole adjacent to proposed Lot 50. Lots 1 – 4 and 23 and 24 will connect to a proposed sewer main within Courtney Drive to be constructed with the development at 31-53 Courtney Drive (Ref: ROL/2024/116). Lots 54 – 63 will connect to a proposed sewer main which will also be constructed with the development at 31-53 Courtney Drive (Ref: ROL/2024/116).

For further details, see schematic drawings showing the existing sewer infrastructure and the proposed modifications to the existing network as illustrated in the OSKA Consulting Group; Preliminary Services Plan (Ref: OSK7105 – P030) included as Appendix E.

The proposed demands upon the existing sewer network due to the proposed development have been calculated in accordance with the SEQ Water Supply and Sewerage Design & Construction Code (SEQ WS&S D&C Code), as amended by the CoGC Desired Standard of Service (DSS) and Water & Sewer demand tables.

Table 2: Proposed Development Sewerage Demand

Land Use Category	Number of Dwellings	Loading (EP/dwelling)	Total EP
Detached Dwelling	63	2.79	175.77

Total EP = 175.77
Total ET = 63

ADWF = 200L/EP/d x EP
= 200L/EP/d x 175.77
= 35,154 L/d
= 0.407 L/s

PDWF = C2 x 200L/EP/d x EP
$C2 = 4.7 \times (EP)^{-0.105}$
C2 = 2.73
= 2.73 x 200L/EP/d x 175.77
= 95,970.42 L/d
= 1.111L/s

PWWF = 5 x 200L/EP/d x EP
= 1 000 x 175.77
= 175,770 L/d
= 2.034 L/s

The proposed development will create an Average Dry Weather Flow (ADWF) of 0.407 L/s, a Peak Dry Weather Flow (PDWF) of 1.111 L/s and a Peak Wet Weather Flow (PWWF) of 2.034 L/s. The sewer infrastructure required to service the proposed development will need to be of sufficient capacity to cater for these flows.

7.0 WATER

In accordance with Council's ''WSSIP Planned Water Supply Infrastructure'', a trunk watermain extension along Baileys Mountain Road and along Courtney Drive will be constructed, creating a closed loop water network. A preliminary watermain alignment has been shown on the attached servicing layout plans, however the ultimate alignment, and property boundary offsets will be subject to further detailed design. This watermain is also proposed under the adjacent development (Ref: ROL/2024/116) which has not yet been constructed. If this watermain is not constructed at the time of development of the subject site, it will need to be constructed to service the proposed development. A second connection to the proposed internal water reticulation network will be provided by the adjacent development within Road 1.

For further details, see schematic drawings showing the existing water infrastructure and the proposed modifications to the existing network as illustrated in the OSKA Consulting Group; Preliminary Services Plan (Ref: OSK7105 – P030) included as Appendix E.

The proposed demands upon the existing water network due to the proposed development have been calculated in accordance with the SEQ Water Supply and Sewerage Design & Construction Code (SEQ WS&S D&C Code), as amended by the CoGC Desired Standard of Service (DSS) and Water & Sewer demand tables.

Table 3: Proposed Development Water Demand

Land Use Category	Number of Dwellings	Loading (EP/dwelling)	Total EP
Detached Dwelling	63	2.79	175.77

EP / ET Conversion Rate = 2.79 EP / ET
Total EP = 175.77

Peaking Factors (Single Detached)
MDMM/AD = 1.75
PD/AD = 2.12
PH/PD = 2.84
PH/AD = 6.03

Average Day Demand (AD) = 220L/EP/d + NRW (20L/EP/d)
= (220L/EP/d x 175.77) + (20L/EP/d x 175.77)
= 42,184.8 L/d
= 0.488 L/s

Peak Day Demand (PD) = (PD/AD x 220L/EP/d x EP) + (NRW x EP)
= (2.12 x 220 x 175.77) + (20 x 175.77)
= 85,494.53 L/d
= 0.990 L/s

Peak Hour Demand (PH) = (PH/AD x 220L/EP/d x EP) + (NRW x EP)
= (6.03 x 220 x 175.77) + (20 x 175.77)
= 236,691.88 L/d
= 2.739 L/s

The proposed development will create a total Average Day Demand (AD) of 0.488 L/s, a Peak Day Demand (PD) of 0.990 L/s and a Peak Hour Demand (PH) of 2.739 L/s.

The firefighting requirements for this development area are 15L/s for 2 hours (Urban Area Flows: Residential). The water infrastructure required to service the proposed development will need to be of sufficient capacity to cater for these flows

8.0 ELECTRICAL, TELSTRA AND GAS

Electrical, Telecommunications and Gas services are all available to connect to the site. Electrical services are available along Courtney Drive, Telecommunication services are available along Courtney Drive and Baileys Mountain Road and Gas services are available along Baileys Mountain Road.

The proposed connection and load requirements and any necessary upgrades will need to be determined as part of more detailed investigations.

Before You Dig Australia Plans are included in Appendix F.

9.0 CONCLUSIONS

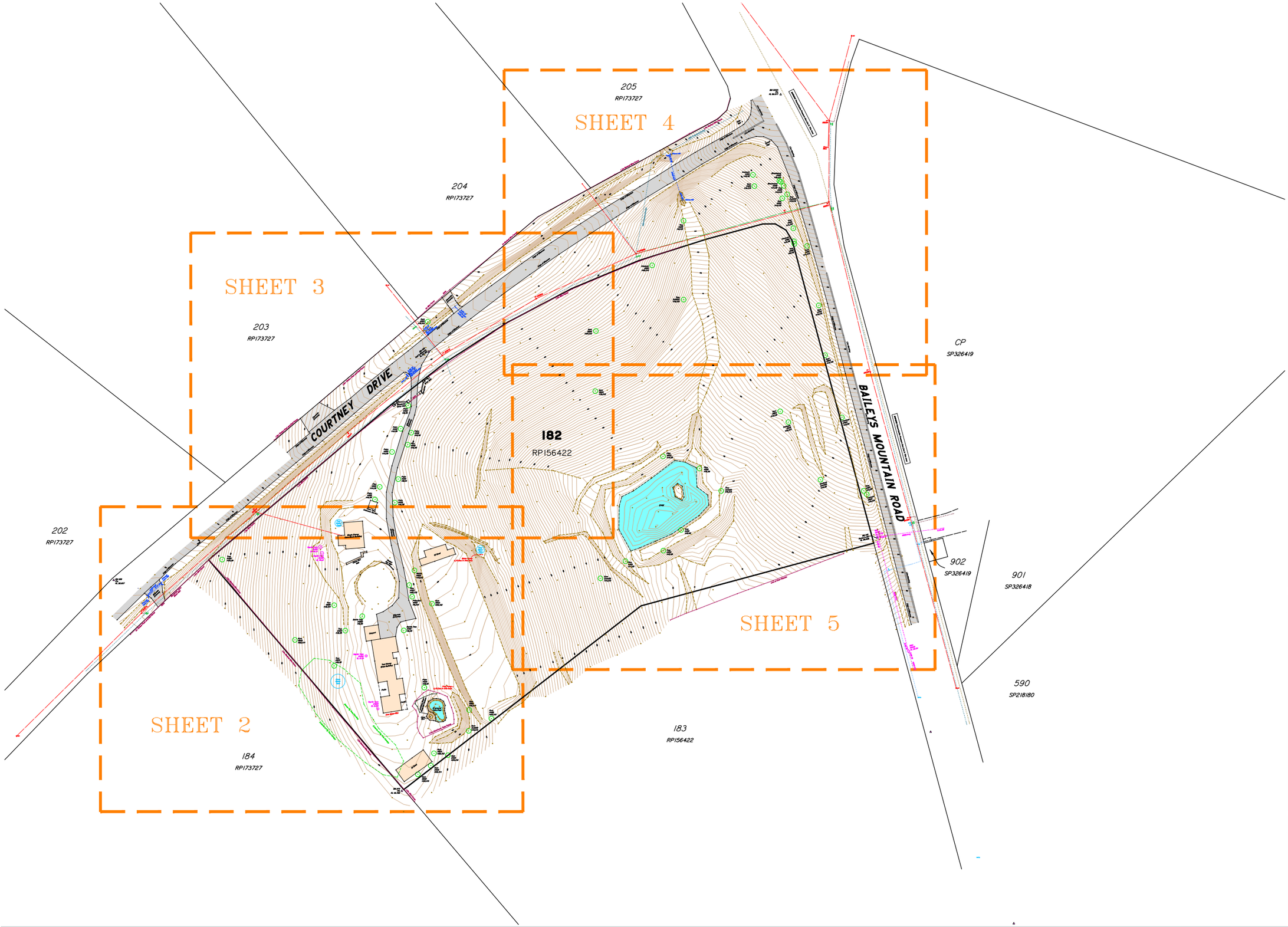
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This Engineering Infrastructure Report has detailed the existing infrastructure and the provision of services to the proposed development and determined the proposed demand on the existing water and sewerage infrastructure. The location of the existing water and sewerage reticulation infrastructure as well as the proposed connection points for the development have been shown on the servicing plans in addition to the proposed roadworks.

APPENDIX

A

Saunders Havill; Detail Plan (Ref: 12753 S 01 DT A)



LEGEND

Quality levels are shown on linetypes along with service type eg. E(A) — First Letter is the Service (Elec) and the second is Quality Level (A)

	by Survey	by Records
U/G ELECTRICITY	E(A) E(B)	E(C) E(D)
O/H ELECTRICITY	E E	E E
O/H TELECOMMUNICATIONS	T T	T T
U/G TELECOMMUNICATIONS	T(A) T(B)	T(C) T(D)
U/G DRAINAGE	D(A) D(B)	D(C) D(D)
SEWERAGE	S(A) S(B)	S(C) S(D)
WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	// //	

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
Electricity Manhole	EMH
Electricity Pit	EPit
Traffic Signal Pit	TrPit
Traffic Light	TL
Telecommunications Manhole	TMH
Telecommunications Pit	TPit
Tree / Shrub	

ABBREVIATIONS

MH	Manhole
SL	Surface Level
IL	Invert Level
BM	Bench Mark
Ø	Diameter
RCP	Reinforced Concrete Pipe
GI	Galvanised Iron
Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)

NOTES

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Quality Level B - (significant risk reduction) Provides relative subsurface feature locations in three dimensions. The minimum requirement for QL-B is relative spatial position, this can be achieved via an electromagnetic frequency locating device. An electronic location provided by a DBYD Certified Locator to QL-B standard would have a maximum horizontal tolerance of plus or minus 300mm and a maximum vertical tolerance of plus or minus 500mm.

Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

PROJECT COORDINATE SYSTEM NOTES

Horizontal Meridian is MGA2020 (Zone 56) See IS339894
Project coordinates are based on plane or ground distances.
The coordinate origin is based on truncated values for C9301.

Base Point for MGA transformations: C9301
Project Coordinate: 28 005.934 E, 918 020.115 N
MGA2020 Coordinate: 528 005.934 E, 6 918 020.115 N
Rotation Project to MGA: none
Scale Factor: Project x 0.9995957 = MGA
Reverse Scale Factor: MGA x 1.0004045 = Project

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BOWEN HILLS | SPRINGFIELD
1300 123 744 | mail@saundershavill.com

N

ISSUES

NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION
LOT 182 ON RP156422

LOCALITY:
UPPER COOMERA
LOCAL GOVERNMENT:
GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.
ORIGIN OF LEVELS: PM 27784
RL OF ORIGIN: 6.614
CONTOUR INTERVAL: 0.20m

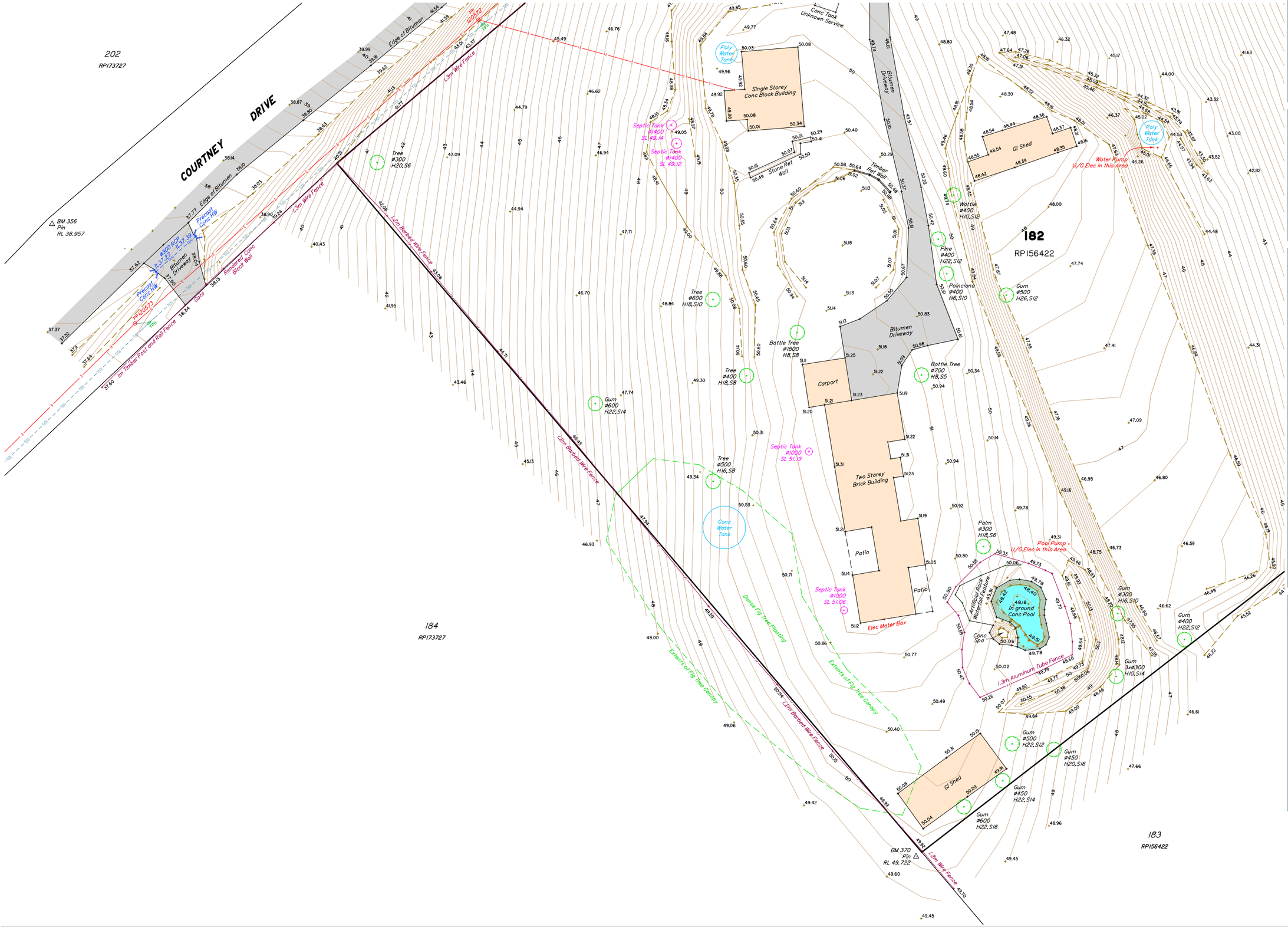
CLIENT
KASA GROUP HOLDINGS PTY LTD

SCALE
1:750@A1
1:1500@A3
0 5 10 30m

PROJECT
17 COURTNEY DRIVE, COOMERA

DRAWING TITLE
DETAIL PLAN
(SHEET 1 of 5)

DRAWING NO.
12753 S 01 DT A



LEGEND

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WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	// //	

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
Electricity Manhole	EMH
Electricity Pit	EPit
Traffic Signal Pit	TrPit
Traffic Light	TL
Telecommunications Manhole	TMH
Telecommunications Pit	TPit
Tree / Shrub	

ABBREVIATIONS

MH	Manhole
SL	Surface Level
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BM	Bench Mark
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RCP	Reinforced Concrete Pipe
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N

ISSUES				
NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION: LOT 182 ON RP156422

LOCALITY: UPPER COOMERA

LOCAL GOVERNMENT: GOLD COAST CITY

SURVEYED	DATE
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LEVEL DATUM: AHD Der.

ORIGIN OF LEVELS: PM 27784

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CONTOUR INTERVAL: 0.20m

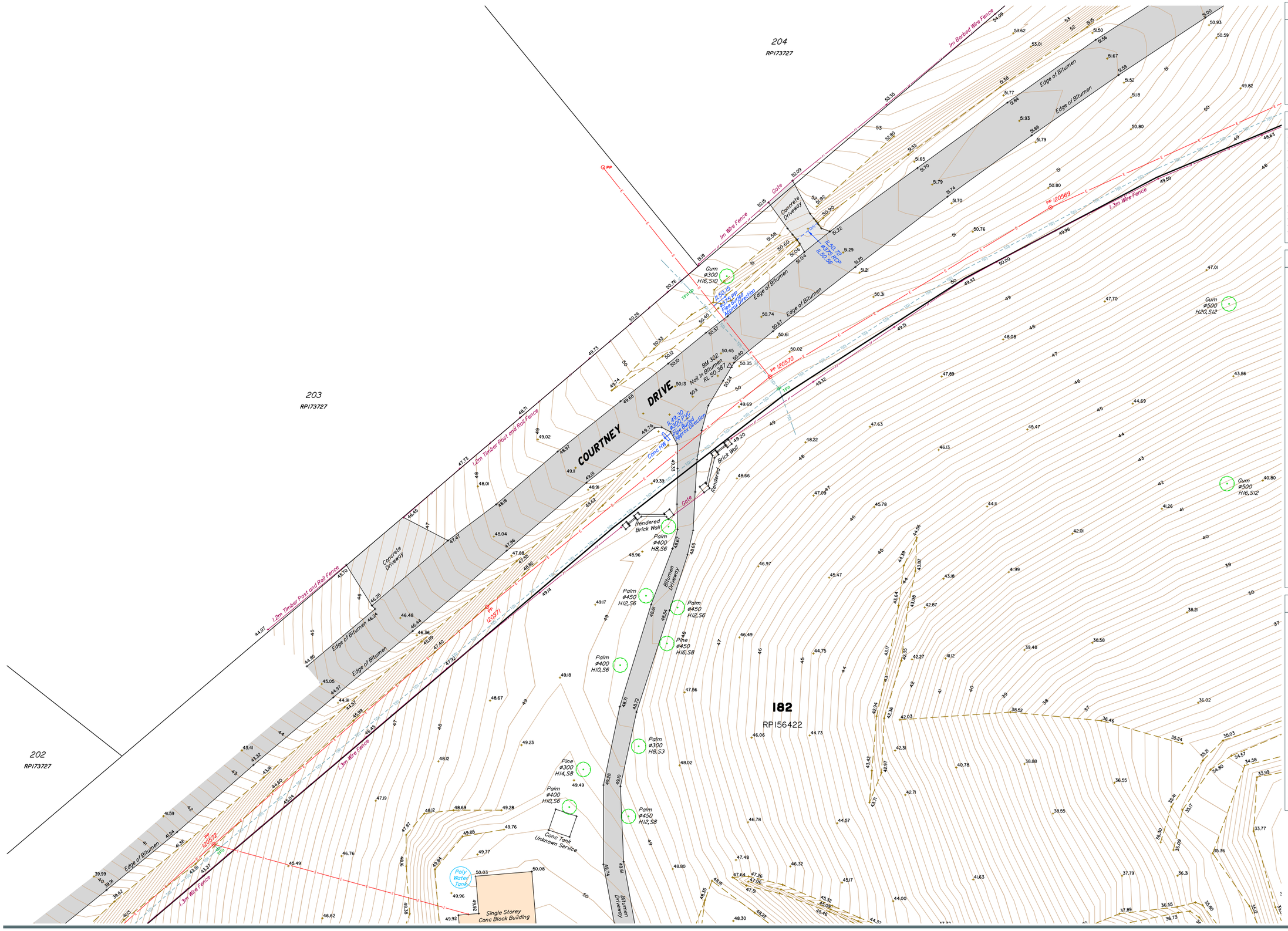
CLIENT: KASA GROUP HOLDINGS PTY LTD

SCALE: 1:250@A1 1:500@A3 (0 2.5 5 12.5m)

PROJECT: 17 COURTNEY DRIVE, COOMERA

DRAWING TITLE: DETAIL PLAN (SHEET 2 of 5)

DRAWING NO.: 12753 S 01 DT A



LEGEND

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SEWERAGE	S(A) S(B)	S(C) S(D)
WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	//	//

SYMBOLS

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Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
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Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

Saunders Havill
BOWEN HILLS | SPRINGFIELD
1300 123 744 | mail@saundershavill.com

N

ISSUES				
NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION
LOT 182 ON RP156422

LOCALITY:
UPPER COOMERA

LOCAL GOVERNMENT:
GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.

ORIGIN OF LEVELS: PM 27784
RL OF ORIGIN: 6.614

CONTOUR INTERVAL: 0.20m

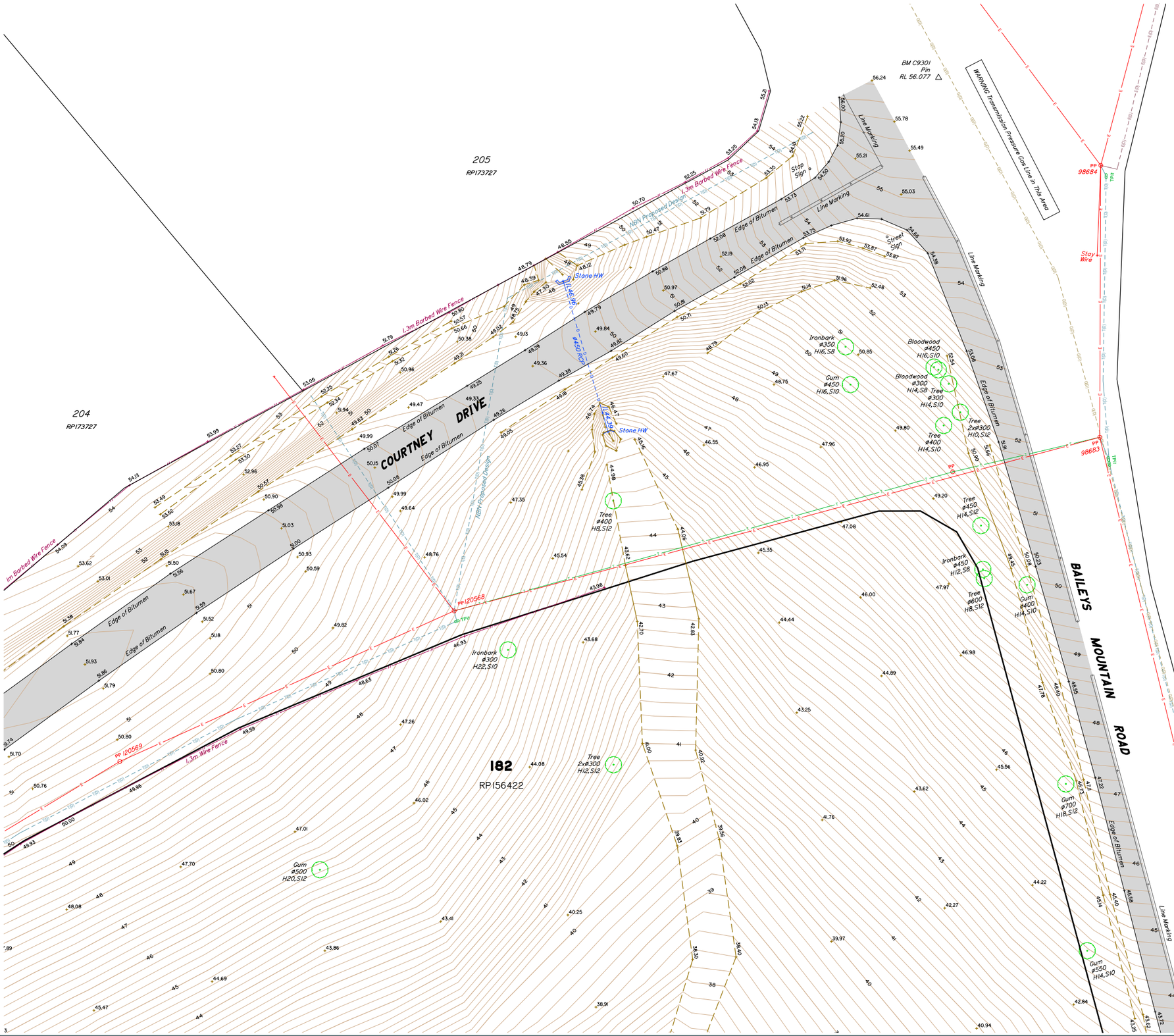
CLIENT
KASA GROUP HOLDINGS PTY LTD

SCALE
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1:500@A3
0 2.5 5 12.5m

PROJECT
17 COURTNEY DRIVE, COOMERA

DRAWING TITLE
DETAIL PLAN
(SHEET 3 of 5)

DRAWING NO.
12753 S 01 DT A



LEGEND

Quality levels are shown on linetypes along with service type eg. E(A) – First Letter is the Service (Elec) and the second is Quality Level (A)

	by Survey	by Records
U/G ELECTRICITY	E(A) – E(B)	E(C) – E(D)
O/H ELECTRICITY	E – E	E – E
O/H TELECOMMUNICATIONS	T – T	T – T
U/G TELECOMMUNICATIONS	T(A) – T(B)	T(C) – T(D)
U/G DRAINAGE	D(A) – D(B)	D(C) – D(D)
SEWERAGE	S(A) – S(B)	S(C) – S(D)
WATER	W(A) – W(B)	W(C) – W(D)
GAS	G(A) – G(B)	G(C) – G(D)
FENCE	// – //	

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
Electricity Manhole	EMH
Electricity Pit	EPit
Traffic Signal Pit	TrPit
Traffic Light	TL
Telecommunications Manhole	TMH
Telecommunications Pit	TPit
Tree / Shrub	

ABBREVIATIONS

MH	Manhole
SL	Surface Level
IL	Invert Level
BM	Bench Mark
Ø	Diameter
RCP	Reinforced Concrete Pipe
GI	Galvanised Iron
Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)

NOTES

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The title boundaries shown hereon have been reinstated as per Saunders Havill Identification survey plan IS339894. All other boundaries were not verified or marked at the time of survey, but were determined by existing title dimensions and occupation (where available), not by field measurement. As such, these dimensions could be out of date and incorrect by modern standards. This plan should not be used for building to boundary, or to prescribed set-backs, without further boundary survey.

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* No responsibility can be accepted by Saunders Havill Group Pty Ltd, for any damage caused to any underground service or any loss or injury so suffered if enquiry and verification have not been completed in accordance with this note.

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ISSUES				
NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION
LOT 182 ON RP156422

LOCALITY:
UPPER COOMERA
LOCAL GOVERNMENT:
GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.
ORIGIN OF LEVELS: PM 27784
RL OF ORIGIN: 6.614
CONTOUR INTERVAL: 0.20m

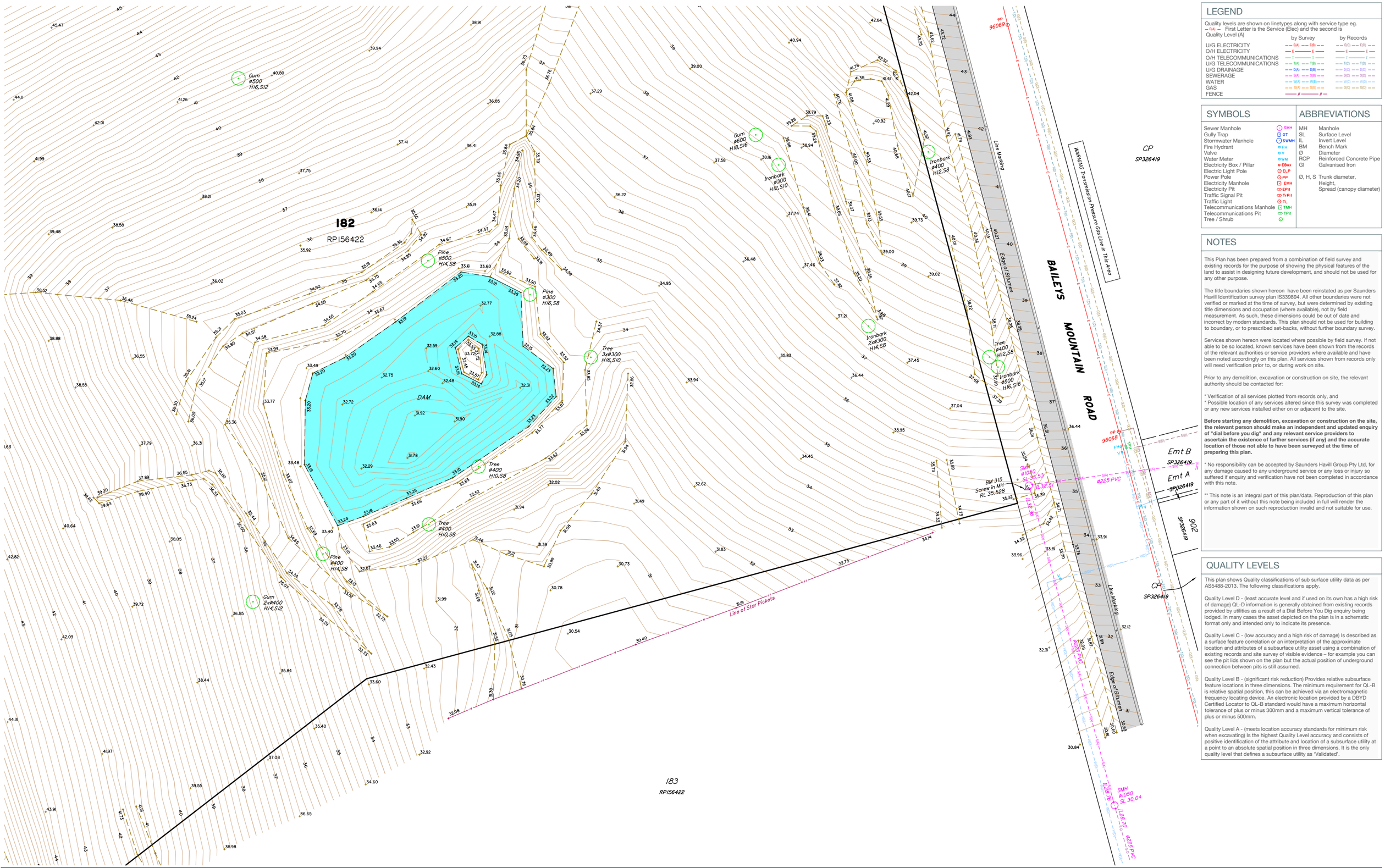
CLIENT
KASA GROUP HOLDINGS PTY LTD

SCALE
1:250@A1
1:500@A3
0 2.5 5 12.5m

PROJECT
17 COURTNEY DRIVE, COOMERA

DRAWING TITLE
DETAIL PLAN
(SHEET 4 of 5)

DRAWING NO.
12753 S 01 DT A



LEGEND

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	by Survey	by Records
U/G ELECTRICITY	E(A) E(B)	E(C) E(D)
O/H ELECTRICITY	E E	E E
O/H TELECOMMUNICATIONS	T T	T T
U/G TELECOMMUNICATIONS	T(A) T(B)	T(C) T(D)
U/G DRAINAGE	D(A) D(B)	D(C) D(D)
SEWERAGE	S(A) S(B)	S(C) S(D)
WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	// //	

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
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ABBREVIATIONS

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ISSUES

NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION
LOT 182 ON RP156422

LOCALITY:
UPPER COOMERA
LOCAL GOVERNMENT:
GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.
ORIGIN OF LEVELS: PM 27784
RL OF ORIGIN: 6.614
CONTOUR INTERVAL: 0.20m

CLIENT
KASA GROUP HOLDINGS PTY LTD

SCALE
1:250@A1
1:500@A3
0 2.5 5 12.5m

PROJECT
17 COURTNEY DRIVE, COOMERA

DRAWING TITLE
DETAIL PLAN
(SHEET 5 of 5)

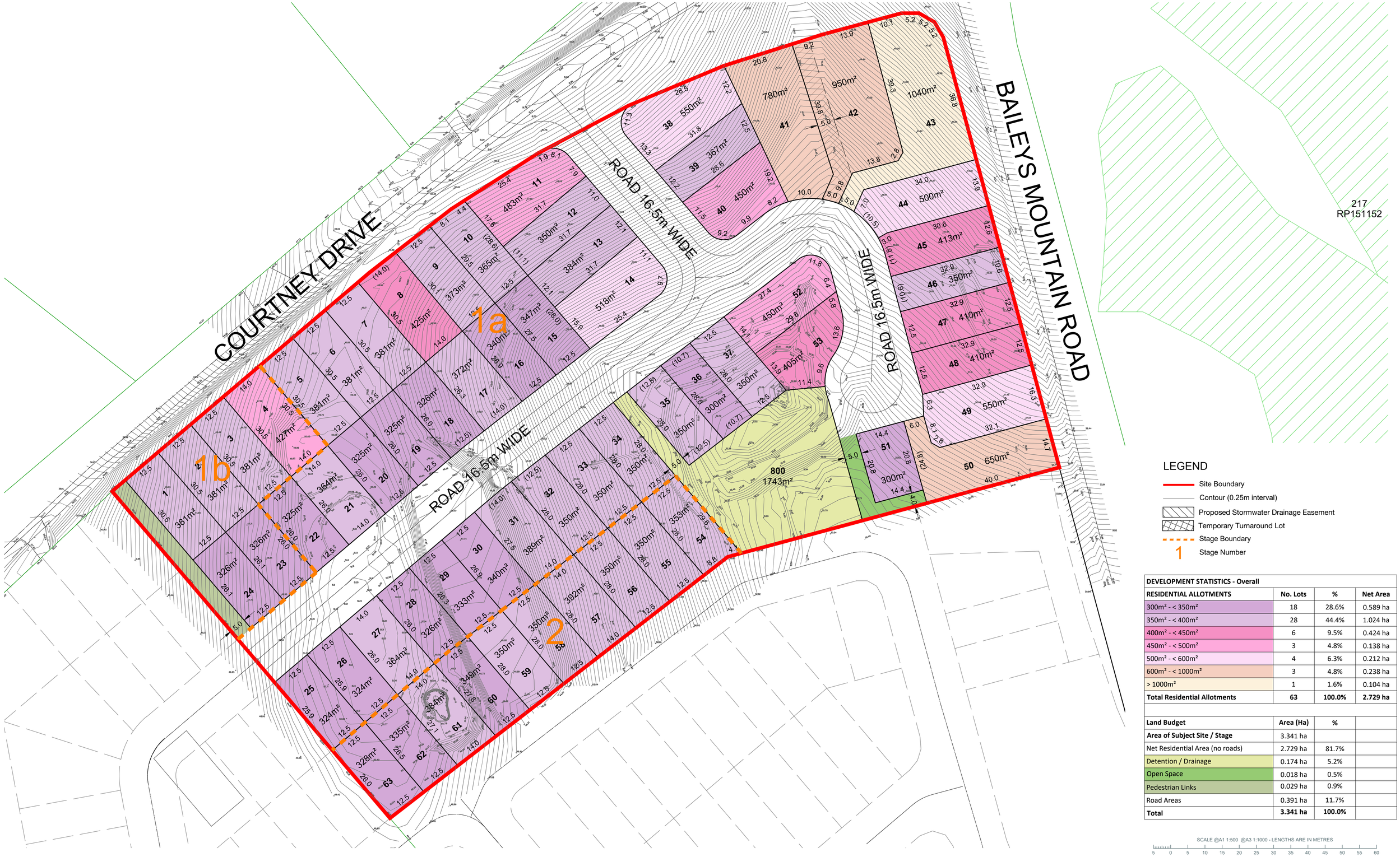
DRAWING NO.
12753 S 01 DT A

APPENDIX

B

Saunders Havill; Concept Plan (Ref: 13087 P 01)

PROPOSAL PLAN



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	18	28.6%	0.589 ha
350m² - < 400m²	28	44.4%	1.024 ha
400m² - < 450m²	6	9.5%	0.424 ha
450m² - < 500m²	3	4.8%	0.138 ha
500m² - < 600m²	4	6.3%	0.212 ha
600m² - < 1000m²	3	4.8%	0.238 ha
> 1000m²	1	1.6%	0.104 ha
Total Residential Allotments	**63**	**100.0%**	**2.729 ha**

Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	3.341 ha		
Net Residential Area (no roads)	2.729 ha	81.7%	
Detention / Drainage	0.174 ha	5.2%	
Open Space	0.018 ha	0.5%	
Pedestrian Links	0.029 ha	0.9%	
Road Areas	0.391 ha	11.7%	
Total	**3.341 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

5 0 5 10 15 20 25 30 35 40 45 50 55 60

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DISCLAIMER
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SOURCE
PROJECTION: SURVEY COORDINATES AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025
CONTOURS: AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025

N

CLIENT
COURTNEY UPPER COOMER DEVELOPMENTS PTY LTD

SITE ADDRESS
17 COURTNEY DRIVE, UPPER COOMERA

RP DESCRIPTION
LOT 182 ON RP156422

DRAWN
AB

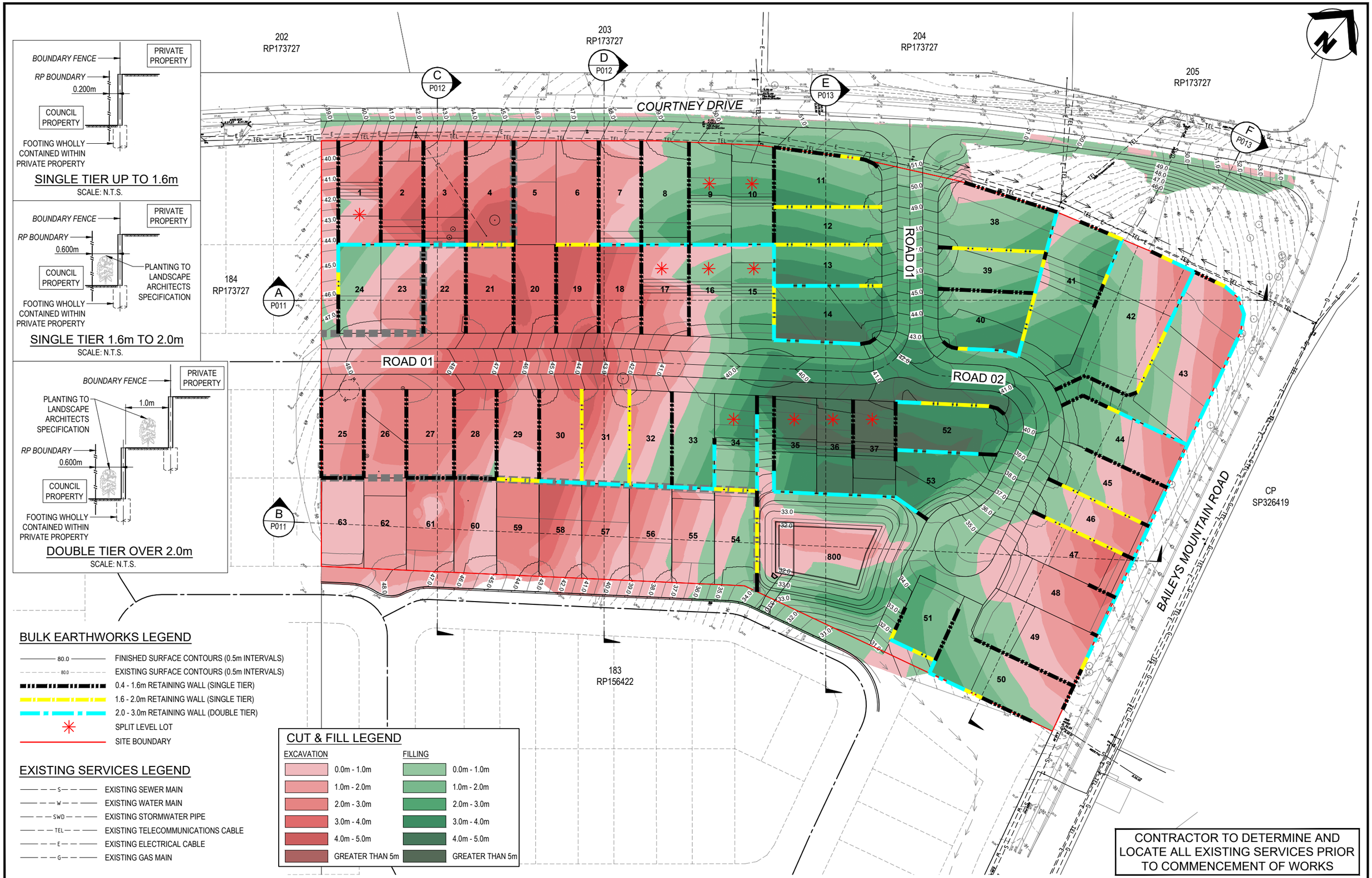
DATE
23/03/2026

DRAWING NO.
13087 P 01 Rev B - PRO 01

APPENDIX

C

OSKA Consulting Group; Preliminary Bulk Earthworks Plan and Sections (Ref: OSK7105 - P010-P013)



REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE

1:500 AT A1 | 1:1000 AT A3 | 0 | 10 | 20m

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT

PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE

FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE

PRELIMINARY BULK EARTHWORKS PLAN

DRAWING NUMBER: OSK7105-P010

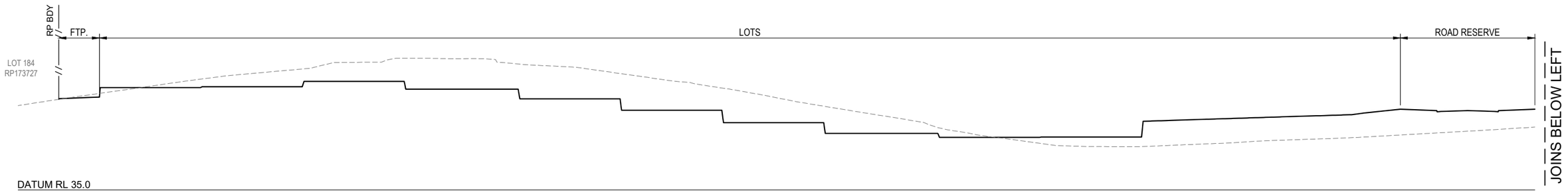
REVISION: 2

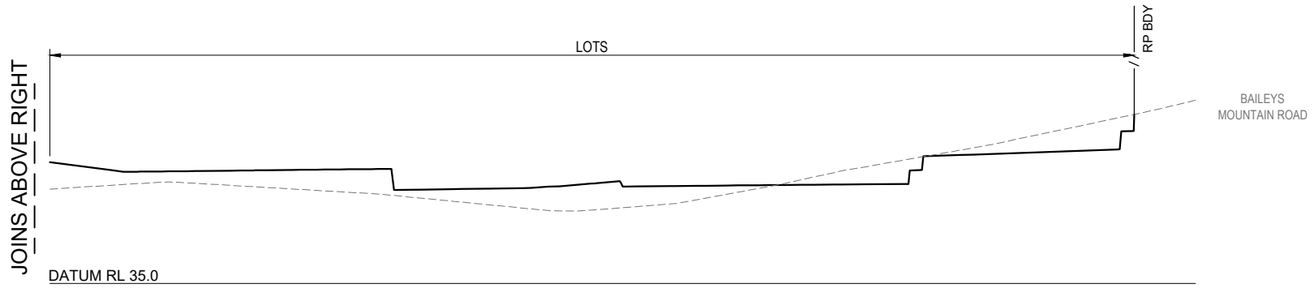
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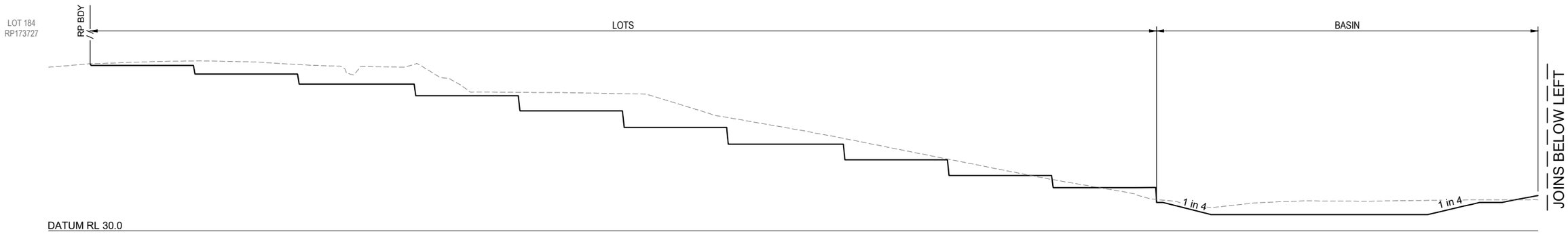
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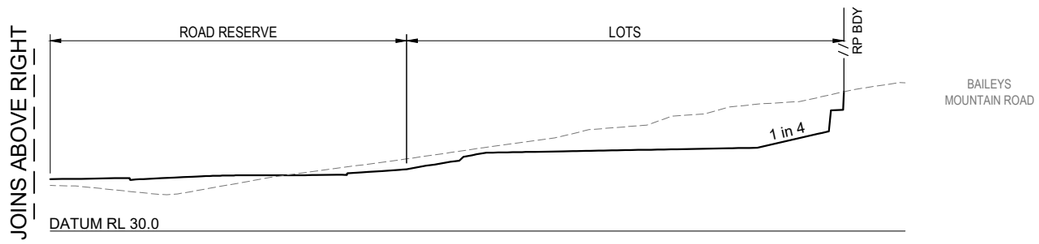
EXISTING SURFACE





SECTION A
1:250 AT A1 P010





SECTION B
1:250 AT A1 P010

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE
1:250 AT A1 0 5 10m
1:500 AT A3

CLIENT
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE
FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE
PRELIMINARY BULK EARTHWORKS SECTIONS - SHEET 1 OF 3

DRAWING NUMBER
OSK7105-P011

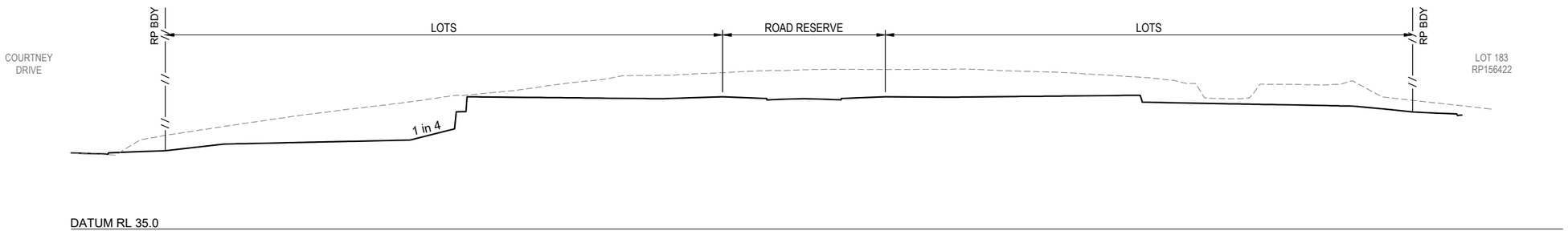
REVISION
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Date/Time Plotted: 27-Mar-26 Plotted By: Natasha Sayer

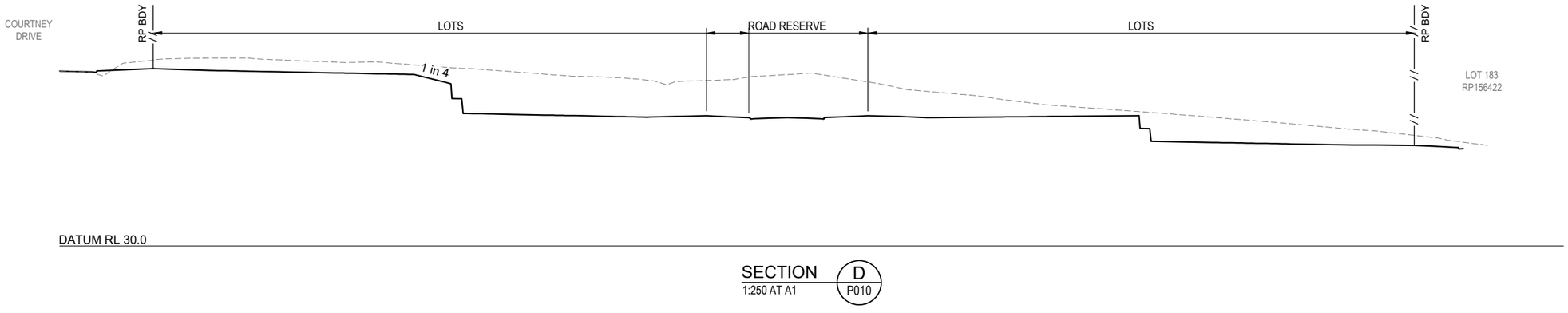
LEGEND

DESIGN SURFACE

EXISTING SURFACE



SECTION C
1:250 AT A1
P010



SECTION D
1:250 AT A1
P010

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE
1:250 AT A1
1:500 AT A3
0 5 10m

CLIENT
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE
FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE
PRELIMINARY BULK EARTHWORKS SECTIONS - SHEET 2 OF 3

DRAWING NUMBER
OSK7105-P012

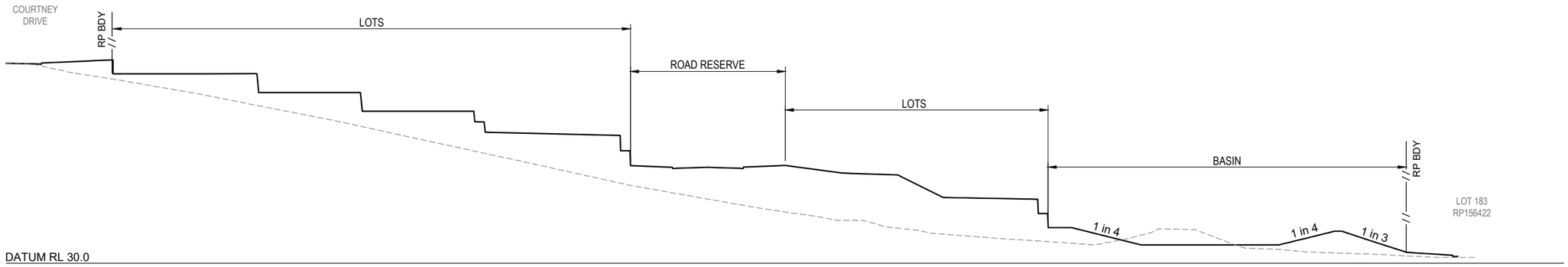
REVISION
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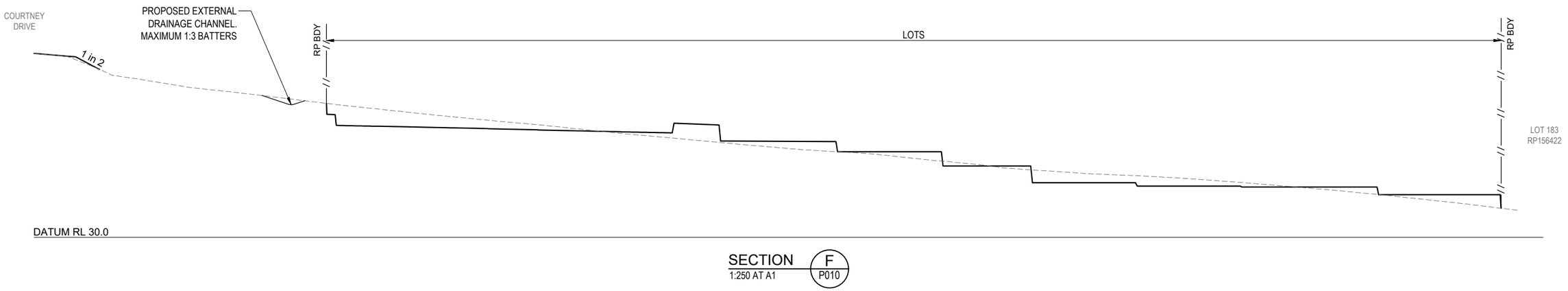
LEGEND

DESIGN SURFACE

EXISTING SURFACE



SECTION E
1:250 AT A1 P010



SECTION F
1:250 AT A1 P010

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
1	ISSUED FOR INFORMATION	M.S.	27-03-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

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DRAWING IS NOT TO BE SCALED

SCALE

1:250 AT A1 0 5 10m
1:500 AT A3

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT

PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE

FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE

PRELIMINARY BULK EARTHWORKS SECTIONS - SHEET 3 OF 3

DRAWING NUMBER

OSK7105-P013

REVISION

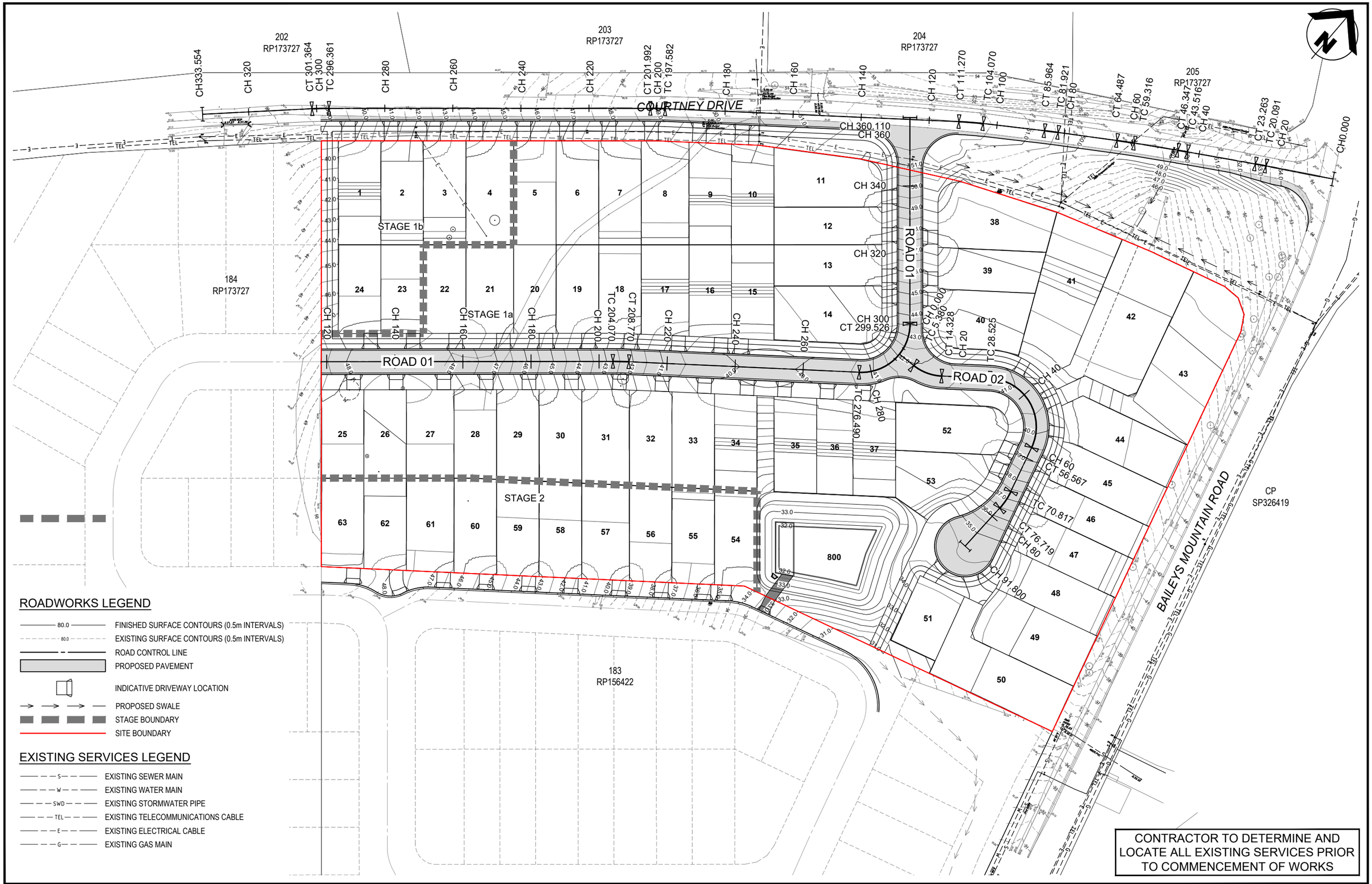
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Date/Time Plotted: 27-Mar-26 Plotted By: Natasha Sayer

APPENDIX

D

OSKA Consulting Group; Preliminary Roadworks Plan & Sections (Ref: OSK7105 – P020-P025)



ROADWORKS LEGEND

- 80.0 — FINISHED SURFACE CONTOURS (0.5m INTERVALS)
- 80.0 — EXISTING SURFACE CONTOURS (0.5m INTERVALS)
- ROAD CONTROL LINE
- PROPOSED PAVEMENT
- INDICATIVE DRIVEWAY LOCATION
- PROPOSED SWALE
- STAGE BOUNDARY
- SITE BOUNDARY

EXISTING SERVICES LEGEND

- S — EXISTING SEWER MAIN
- W — EXISTING WATER MAIN
- SWD — EXISTING STORMWATER PIPE
- TEL — EXISTING TELECOMMUNICATIONS CABLE
- E — EXISTING ELECTRICAL CABLE
- G — EXISTING GAS MAIN

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE

1:500 AT A1 | 1:1000 AT A3 — 0 10 20m

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT

PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE

FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE

PRELIMINARY ROADWORKS PLAN

DRAWING NUMBER: OSK7105-P020

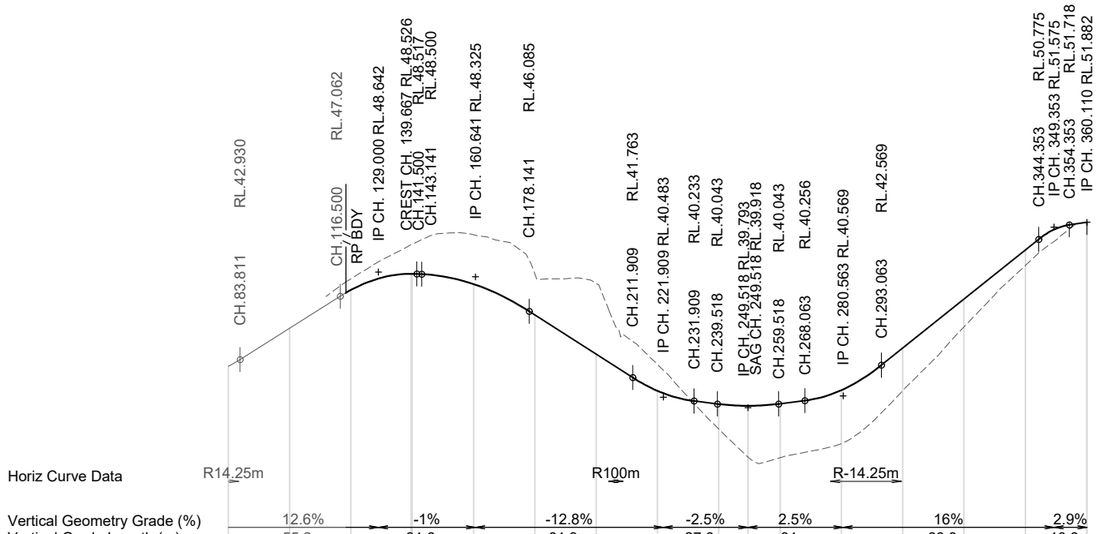
REVISION: 2

OSK7105-P020 A1 Plot 26 March 2026

LEGEND

DESIGN SURFACE

EXISTING SURFACE

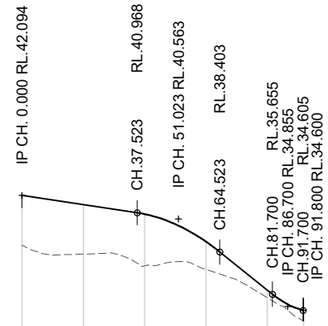


Horiz Curve Data		R14.25m					R100m					R-14.25m							
Vertical Geometry Grade (%)		12.6%		-1%		-12.8%		-2.5%		2.5%		16%		2.9%					
Vertical Grade Length (m)		55.2m		31.6m		61.3m		27.6m		31m		68.8m		10.8m					
Vertical Curve Length (m)	L 20		L 25		L 35		L 20		L 20		L 25		L 10						
Vertical Curve Radius (m)	R 164.756		R 183.298		R 296.61		R 194.175		R 400		R 185.185		R 76.058						
DATUM R.L.26.000																			
NAT. SURFACE			48.200	50.428	50.458	51.076	48.522	47.902	42.614	38.406	36.582	36.539	37.454	40.914	45.062	49.065	51.880	51.882	
CUT / FILL			-0.730	-1.902	-1.933	-3.224	-2.675	-4.614	-1.719	1.625	3.335	3.516	3.486	2.765	1.817	1.013	-0.001	0.000	
DESIGN LEVELS	42.492	44.976	47.471	48.526	48.525	47.852	45.847	43.287	40.896	40.031	39.918	40.055	40.939	43.679	46.879	50.079	51.879	51.882	
CHAINAGE	80	100	120	139.667	140	160	180	200	220	240	249.518	260	280	300	320	340	360	360.11	

CONTROL LINE LONGITUDINAL SECTION - ROAD 01

HORIZ. SCALE 1:1000 (A1)

VERT. SCALE 1:200 (A1)



Horiz Curve Data	R-14.25m		R14.25m		R20m	
Vertical Geometry Grade (%)	-3%		-16%		-5%	
Vertical Grade Length (m)	51m		35.7m		5.1m	
Vertical Curve Length (m)		L 27			L 10	
Vertical Curve Radius (m)		R 207.692			R 90.909	
DATUM R.L.23.000						
NAT. SURFACE	38.844	38.265	37.505	37.264	35.427	33.910
CUT / FILL	3.250	3.229	3.374	1.813	0.500	0.690
DESIGN LEVELS	42.094	41.494	40.879	39.078	35.927	34.600
CHAINAGE	0	20	40	60	80	91.8

CONTROL LINE LONGITUDINAL SECTION - ROAD 02

HORIZ. SCALE 1:1000 (A1)

VERT. SCALE 1:200 (A1)

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
1	ISSUED FOR INFORMATION	M.S.	27-03-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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SCALE

1:1000 AT A1 (1:2000 AT A3) 0 20 40m HOR

1:200 AT A1 (1:400 AT A3) 0 4 8m VERT

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT

PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE

FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE

PRELIMINARY ROADWORKS LONGITUDINAL SECTIONS - SHEET 1 OF 2

DRAWING NUMBER

OSK7105-P021

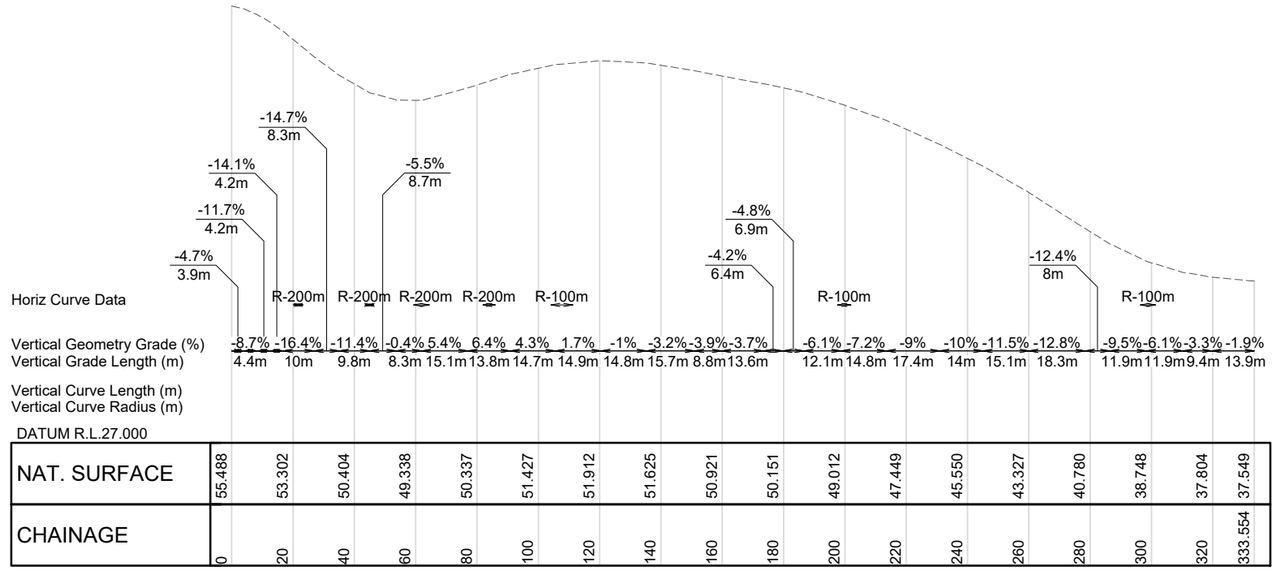
REVISION

1

OSK7105-P021.dwg | Plan By: Tamara Sayer

LEGEND

EXISTING SURFACE



NAT. SURFACE	55.488	53.302	50.404	49.338	50.337	51.427	51.912	51.625	50.921	50.151	49.012	47.449	45.550	43.327	40.780	38.748	37.804	37.549	
CHAINAGE	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	333.554	

CONTROL LINE LONGITUDINAL SECTION - COURTNEY DRIVE

HORIZ. SCALE 1:1000 (A1)
VERT. SCALE 1:200 (A1)

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
1	ISSUED FOR INFORMATION	M.S.	27-03-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE
1:1000 AT A1 (1:2000 AT A3) 0 20 40m HOR
1:200 AT A1 (1:400 AT A3) 0 4 8m VERT

CLIENT
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

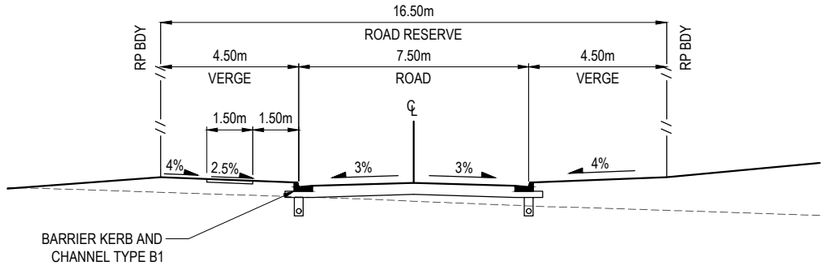
STAGE / PHASE
FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE
PRELIMINARY ROADWORKS
LONGITUDINAL SECTIONS - SHEET 2 OF 2

DRAWING NUMBER
OSK7105-P022

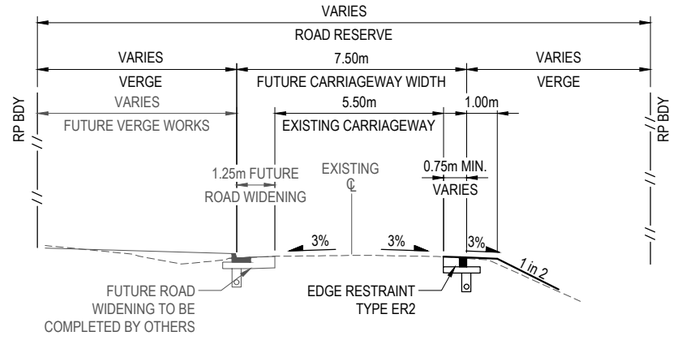
REVISION
1

OSK7105-P022-Rev1.pdf



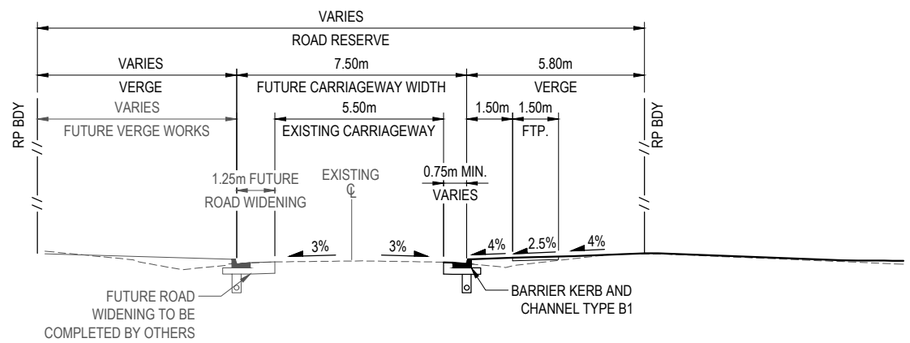
TYPICAL SECTION - ROAD 01 & ROAD 02

SCALE 1:100 AT A1



TYPICAL SECTION - COURTNEY DRIVE CH.0 TO CH.111

SCALE 1:100 AT A1



TYPICAL SECTION - COURTNEY DRIVE CH.111 TO CH.299

SCALE 1:100 AT A1

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
1	ISSUED FOR INFORMATION	M.S.	27-03-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE

1:100 AT A1 / 1:200 AT A3 — 0 2 4m

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT

PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE

FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE

PRELIMINARY ROADWORKS TYPICAL SECTIONS

DRAWING NUMBER

OSK7105-P025

REVISION

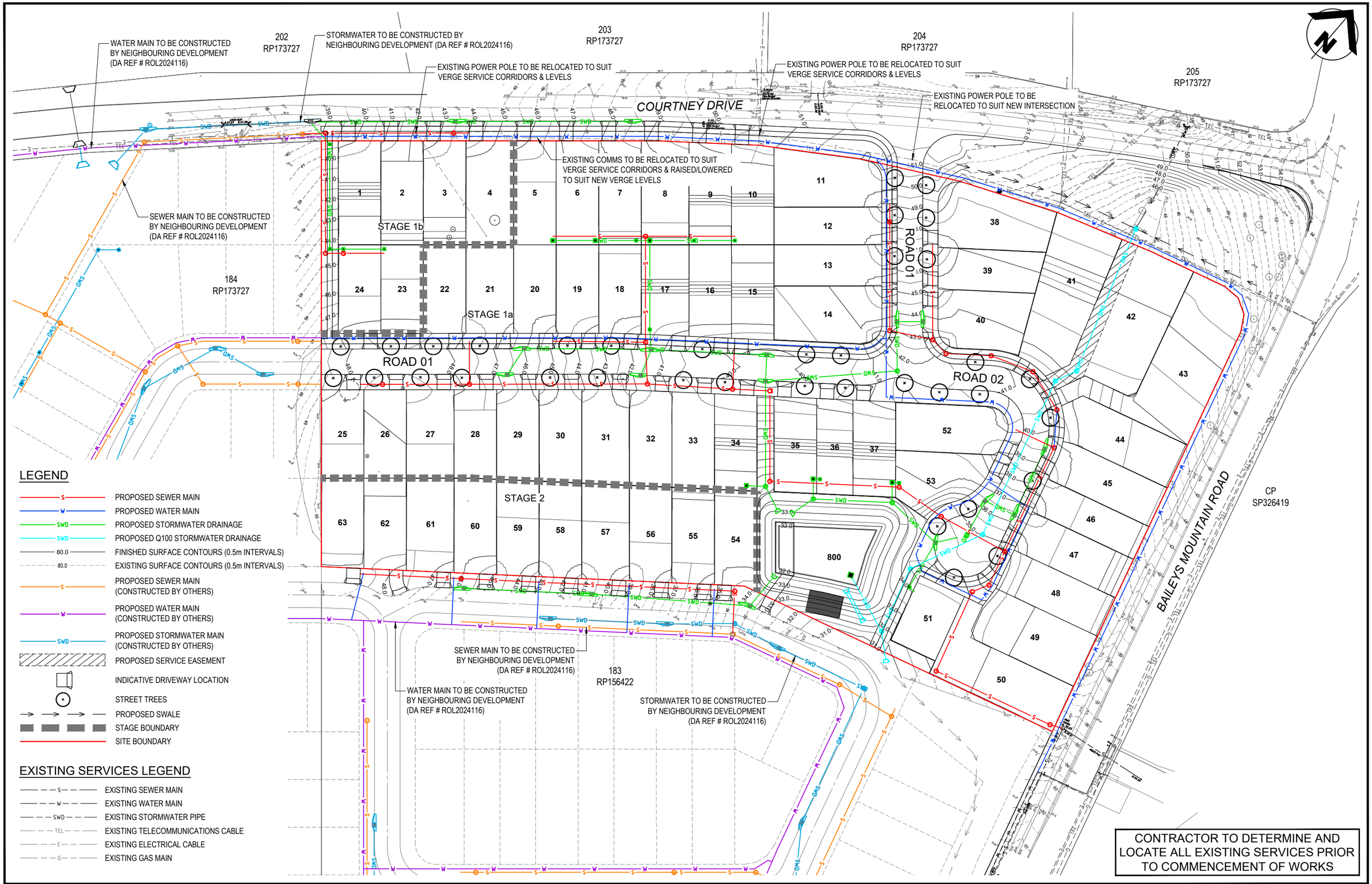
1

OSK7105-P025-R1-Plot-A1.dwg, A1 Plot, 1:1[0]

APPENDIX

E

OSKA Consulting Group; Preliminary Services Plan (Ref: OSK7105 – P030)



LEGEND

- PROPOSED SEWER MAIN
- PROPOSED WATER MAIN
- PROPOSED STORMWATER DRAINAGE
- PROPOSED Q100 STORMWATER DRAINAGE
- FINISHED SURFACE CONTOURS (0.5m INTERVALS)
- EXISTING SURFACE CONTOURS (0.5m INTERVALS)
- PROPOSED SEWER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED WATER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED STORMWATER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED SERVICE EASEMENT
- INDICATIVE DRIVEWAY LOCATION
- STREET TREES
- PROPOSED SWALE
- STAGE BOUNDARY
- SITE BOUNDARY

EXISTING SERVICES LEGEND

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORMWATER PIPE
- EXISTING TELECOMMUNICATIONS CABLE
- EXISTING ELECTRICAL CABLE
- EXISTING GAS MAIN

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	T.W.	27-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN D.R. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE
1:500 AT A1
1:1000 AT A3
0 10 20m

CLIENT
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

TITLE
PRELIMINARY SERVICES PLAN

STAGE / PHASE
FOR INFORMATION ONLY NOT FOR CONSTRUCTION

DRAWING NUMBER
OSK7105-P030

REVISION
2

APPENDIX

F

Before You Dig Australia Plans

Job ID 51818961
OSK7105

Review responses online



Received 5 of 5 responses
All responses received

17 Courtney Dr, Upper Coomera QLD 4209

Job dates
01/12/2025 → 31/01/2028

These plans expire on
26 Dec 2025

Lodged by
Aaron Pianta

Authority	Status	Page
BYDA Confirmation		2
APA Group Gas Networks (90073)	Received	4
City of Gold Coast	Received	57
Energex QLD	Received	60
NBN Co Qld	Received	101
Telstra QLD South East	Received	117

Job No 51818961

BEFORE YOU DIG byda.com.au — Look up and Live

Zero damage - Zero harm - Zero disruption

byda.com.au

Contact Details

Contact	Contact number	Company	Enquirer ID
Aaron Pianta	(07) 5580 9777	OSKA Consulting Group	3066674

Email
civil@oska.net.au

Address
Po Box 41
Varsity Lakes QLD 4227

Job Site and Enquiry Details

WARNING: The map below only displays the location of the proposed job site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

Enquiry date	Start date	End date	On behalf of	Job purpose	Locations	Onsite activities
28/11/2025	01/12/2025	31/01/2028	Private	Design	Both Road, Nature Strip, Footpath	Planning & Design



Check that the location of the job site is correct. If not, you must submit a new enquiry.

If the scope of works change or plan validity dates expire, you must submit a new enquiry.

Do NOT dig without plans. Safe excavation is your responsibility. If you don't understand the plans or how to proceed safely, please contact the relevant asset owners.

User Reference	Address	Notes/description
OSK7105	17 Courtney Dr Upper Coomera QLD 4209	-

Your Responsibility and Duty of Care

- **Lodging an enquiry does not authorise project commencement.** Before starting work, you must obtain all necessary information from all affected asset owners.
- If you don't receive plans within 2 business days, contact the asset owner & quote their sequence number.
- Always follow the 5Ps of Safe Excavation (page 2), and locate assets before commencing work.
- Ensure you comply with State legislative requirements for Duty of Care and safe digging.
- If you damage an underground asset, you MUST advise the asset owner immediately.
- By using the BYDA service, you agree to the Privacy Policy and Term of Use.
- For more information on safe digging practices, visit www.byda.com.au

Asset Owner Details

Below is a list of asset owners with underground infrastructure in and around your job site. It is your responsibility to identify the presence of these assets. Plans issued by Members are indicative only unless specified otherwise. Note: not all asset owners are registered with BYDA. You must contact asset owners not listed here directly.

Referral ID (Seq. no)	Authority Name	Phone	Status
264947980	APA Group Gas Networks (90073)	1800 085 628	NOTIFIED
264947978	City of Gold Coast	1300 465 326	NOTIFIED
264947979	Energex QLD	13 12 53	NOTIFIED
264947977	NBN Co Qld	1800 687 626	NOTIFIED
264947981	Telstra QLD South East	1800 653 935	NOTIFIED

END OF UTILITIES LIST

The 5Ps of Safe Excavation

Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

Prepare

Prepare by communicating with asset owners if you need assistance. Look for clues onsite. Engage a skilled Locator.

Pothole

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.

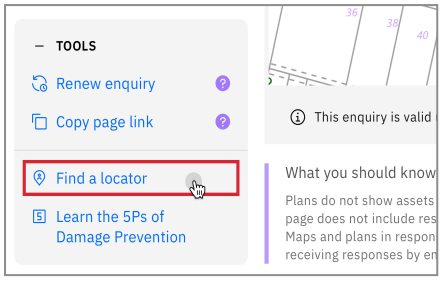
Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

Proceed

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.

Engage a skilled Locator



When you lodge an enquiry you will see skilled Locators to contact

Visit the Certified Locator website directly and search for a locator near you

certloc.com.au/locators

Get FREE Quotes for Contractors & Equipment Fast

Use iseekplant's FREE marketplace to get quotes for the equipment or services you need on your project. Compare quotes from trusted local contractors and get your project done on time and in budget.

1. Fill out your job details in our FREE quick quote form.
2. We send the request to trusted local contractors.
3. The local contractors will contact you directly with quotes

GET QUOTE

Use iseekplant to find trusted contractors near you today, visit:
blog.iseekplant.com.au/byda-isp-get-quotes

Book a FREE BYDA Session

BYDA offers free training sessions to suit you and your organisation's needs covering safe work practices when working near essential infrastructure assets. The free sessions are offered in two different formats - online and face-to-face.

To book a session, visit:
byda.com.au/contact/education-awareness-enquiry-form

BOOK NOW

Lodge your FREE enquiry online any time at byda.com.au

APA Group Gas Networks (90073)

Referral
264947980

Member Phone
1800 085 628

Responses from this member

Response received Fri 28 Nov 2025 1.27pm

File name	Page
Response Body	5
264947980.pdf	6
400-STD-AM-0001_2 Guidelines for Works Near Existing Gas Assets.pdf	16

PLEASE NOTE: This is an automated response. Please **DO NOT REPLY to this email**. If you require further information in relation to this Before You Dig response, please contact

BYDA_APA@apa.com.au

Enquiry Details:

Impact	affected
Sequence Number	264947980
Enquirer Id	3066674
Activity	Planning and Design
Job Number	51818961
User Reference	OSK7105
Message	

Site Details:

Address	17 Courtney Dr Upper Coomera QLD 4209

Enquirers Details:

Contact	Aaron Pianta
Company	OSKA Consulting Group
Email	civil@oska.net.au
Phone	+61755809777
Address	Po Box 41 Varsity Lakes QLD 4227

APA Group

APA
Australia's energy infrastructure partner

BEFORE YOU DIG
www.byda.com.au

Before You Dig Australia

Classification: Networks

Enquiry date	28/11/2025
Sequence number	264947980
Work site address	17 Courtney Dr Upper Coomera QLD 4209



APA Australia's energy infrastructure partner



For your immediate information

THERE IS A CRITICAL GAS PIPELINE OR GAS INFRASTRUCTURE ASSETS (GAS ASSETS)

located in close vicinity to your works.

Enquiry Date:	28/11/2025
Enquirer:	Aaron Pianta
Sequence Number:	264947980
Work Site Address:	17 Courtney Dr
	Upper Coomera
	QLD 4209

Thank you for your Before You Dig enquiry regarding the location of gas assets.

We confirm there is a CRITICAL gas pipeline or gas assets located in close vicinity to the above location.

Caution: Damage to gas pipelines and gas assets may result in explosion, fire and personal injury.

Any work activity in the vicinity of CRITICAL gas pipelines or gas assets operated by APA must undergo an assessment by APA and may require the presence of an APA Site Watch officer while work is in progress. It is essential that you read and comply with all relevant information provided in this response to your BYDA enquiry.

Next Steps:

1. Submit a Work in the Vicinity of Critical Gas Assets Request Form as soon as practicable by either:
   a. Scanning the QR code provided, or
   b. Visiting **worknearcriticalgas.com.au**
2. Do not commence any works until APA has provided formal authorisation to proceed.

For Enquiries:

Contact APA's Before You Dig Officer.
Refer to the contact details listed on the following pages.

Before You Dig Checklist



1. Plan

- Review maps provided with this BYDA response and confirm the location of your work site is correct.
- Complete the **Work in the Vicinity of Critical Gas Assets** request form and submit to APA.
- I have received contact from APA to confirm details of proposed work.
- I have reviewed the **APA Guidelines for Works Near Existing Gas Assets** and clearly understand requirements relating to my scope of work.
- I have received authority to proceed with work from APA.



2. Prepare

- Electronically locate gas assets and mark locations.
- Site Watch booking confirmed (if required by APA).
- Note: Look for visible evidence of gas assets at the worksite which may not be shown on plans.



3. Pothole

- Physically confirm (‘prove’) the location of gas assets by potholing by hand excavation or using non- destructive vacuum excavation methods in accordance with **APA Guidelines for Works Near Existing Gas Assets**.
- Road authorities, councils, utilities and their authorised contractors and agents are responsible to pothole or use other suitable methods to verify the location and depth of all gas assets, including gas (inlet) services, prior to commencing any works.



4. Protect

- Protect gas assets by maintaining clearances whilst excavating and following conditions provided by APA.
- Where required by APA, only conducting work in proximity to gas assets while Site Watch is on site.
- Where applicable, APA Authority To Work permit conditions are clearly understood and complied.
- Strap and support exposed mains and inlet services. Cover exposed mains to prevent damage until the excavation can be restored permanently.



5. Proceed

- Only proceed with your work once you have completed all the planning, preparation, potholing and protection requirements.
- APA BYDA response (including maps) are on site for reference at all times, and less than 30 days old.

Contacts

Contacts APA Group	
Enquiry	**Contact Numbers**
General enquiries or feedback regarding this information or gas assets.	APA – Before You Dig Officer Phone: 1800 085 628 Email: **BYDA_APA@apa.com.au**
Gas Emergencies	Phone: 1800 GAS LEAK (1800 427 532)

Site Watch

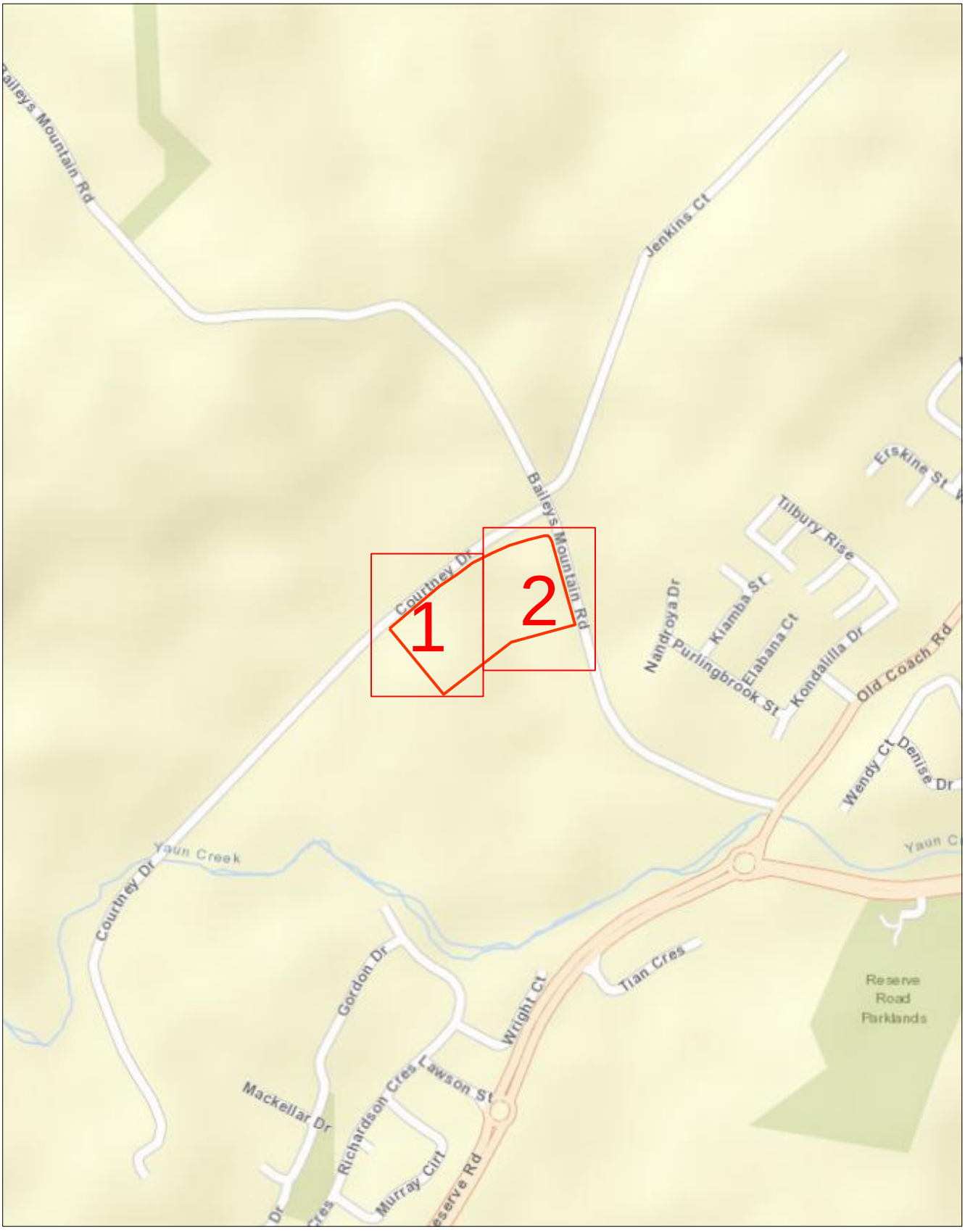
Site Watch is where an APA field officer attends your work site to monitor and ensure controls are in place to protect critical gas assets from damage during work.

The following rates apply for this service (1 hour minimum charge):

Item	Rate (excl. gst)
Site Watch – Business Hours	$143.42 per hour
Site Watch – After Hours	$175.06 per hour
Cancellation Fee *Fee applies where cancelations received after 12pm (midday), 1 business day prior to the booking.*	$286.84

Contact APA – Before You Dig officer for state specific hours of business.

Site Address:	17 Courtney Dr Upper Coomera QLD 4209	**Sequence Number:**	264947980



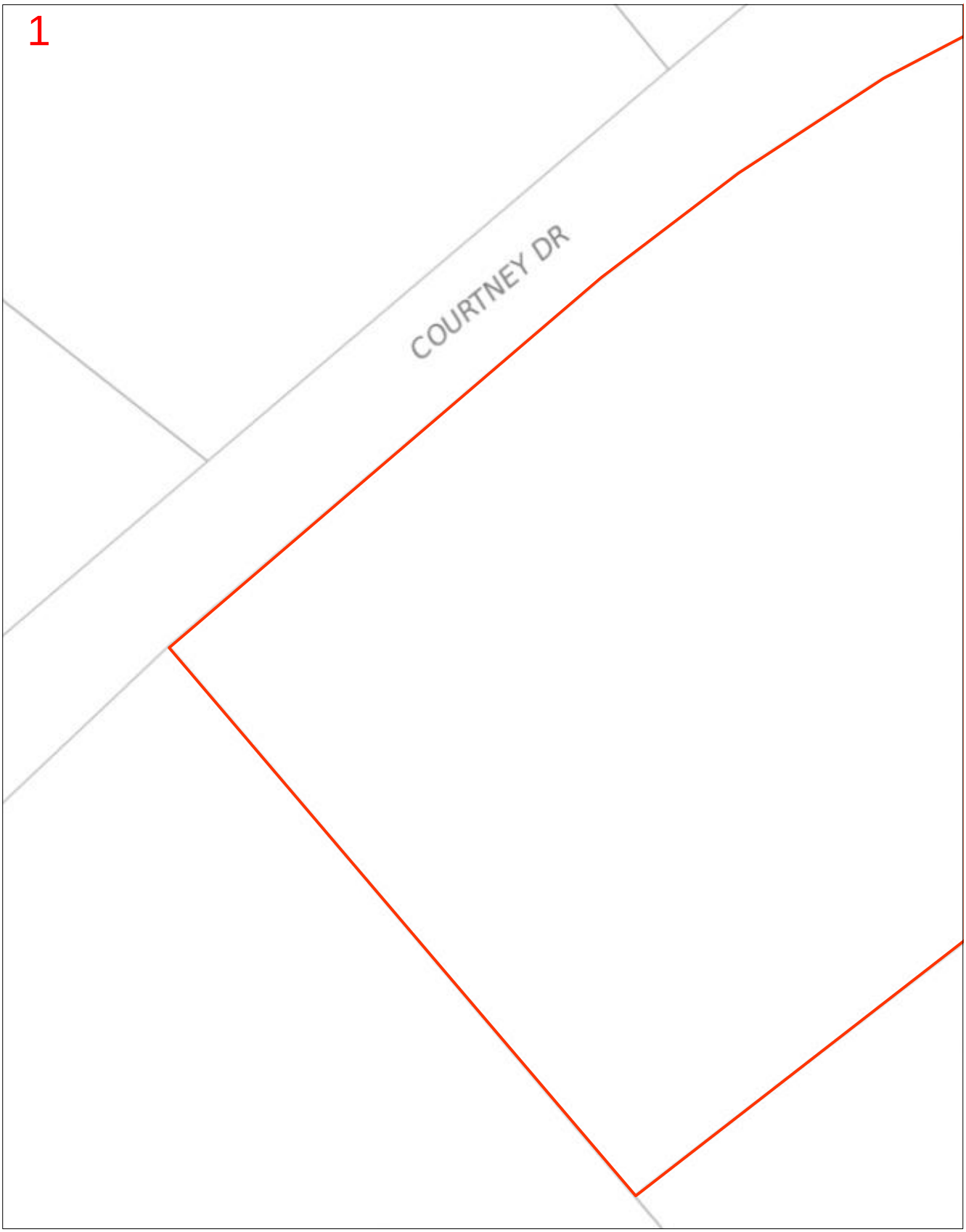
Scale 1: 6000

Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS,
© OpenStreetMap contributors, and the GIS User Community

Enquiry Area

Map Key Area

Site Address:	17 Courtney Dr Upper Coomera QLD 4209	**Sequence Number:**	264947980



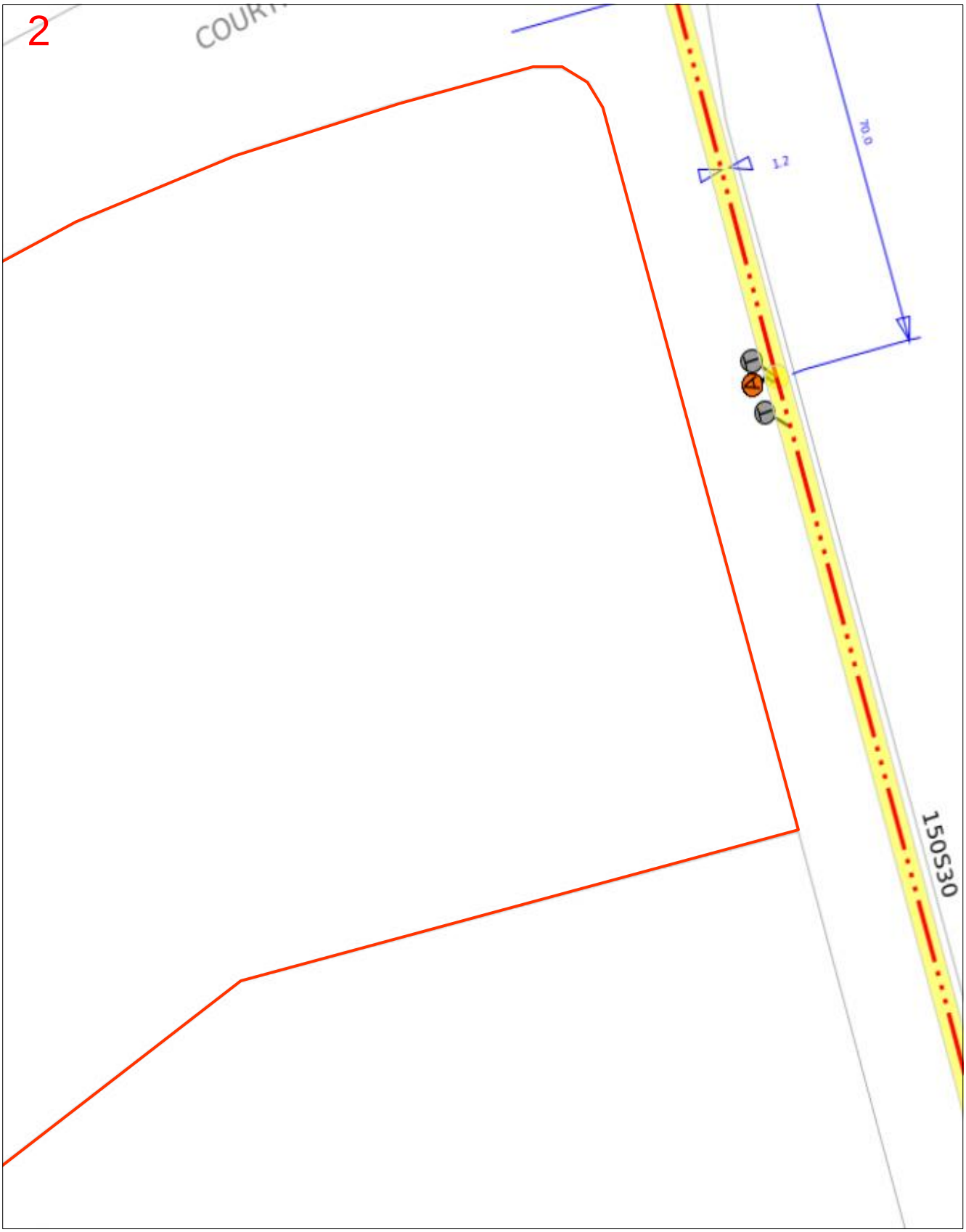
Scale 1: 700

Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Enquiry Area

Map Key Area

Site Address:	17 Courtney Dr Upper Coomera QLD 4209	**Sequence Number:**	264947980



Scale 1: 700

Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Enquiry Area

Map Key Area

Legend

Pipe

- Low pressure
- Medium pressure
- High pressure
- Transmission pressure
- Critical main (behind pipe)
- Proposed (pressure by colour)
- LPG (pressure by colour)
- Hydrogen blended (pressure by colour)
- Abandoned
- Idle/inactive
- Sleeve
- Casing (behind pipe)

Area

- BYDA area of interest

Pipe code and material

C* (for example, C2)	Cast iron
CU	Copper
N2	Nylon
P*	Polyethylene (PE)
P3	Polyvinyl chloride (PVC)
P6, P7, P9–P12	Medium density PE
P2, P4, P8	High density PE
S*	Steel
W2	Wrought galv iron
W3	PE coat wrought galv iron

Object

- Valve
- Buried valve
- Regulator
- Gas supplied = yes
- CP rectifier terminal
- CP test station
- CP anode
- CP bond wire
- Syphon
- Trace wire point

Abbreviation

BoK	Back of kerb	FoK	Front of kerb
C	Depth of cover	Galv	Galvanized
CP	Cathodic protection	NTI	Not tied in

Example

Pipe

40P6 in 80C2 — 40 mm high pressure medium density poly in an 80 mm cast iron casing

63S8 — 63 mm medium pressure steel

Pipe code

Pipe diameter in millimetres is shown before pipe code.
40P6 = 40 mm nominal diameter

This map was created in colour and should be printed in colour

Important information

- Refer to requirements relating to construction, excavation and other work activities in the **APA Guidelines for Works Near Existing Gas Assets** document with this BYDA response.
- BYDA enquiries are valid for 30 days. If your works commence after 30 days from the date of this response a new enquiry is required to validate location information.
- **For some BYDA enquiries, you may receive two (2) responses from APA. Please read both responses carefully as they relate to different assets.**
- Gas (inlet) services connecting Gas Assets in the street to the gas meter on the property are not marked on the map. South Australia Only – if a meter box is installed on the property, a sketch of the gas service location may be found inside the gas meter box. APA does not guarantee the accuracy or completeness of these sketches.

Free Gas Pipeline Awareness Training and Information

PROFESSIONALS

APA offers online and in-person toolbox forums to support safe work near underground gas assets. Topics include distribution and transmission pipelines, the permit process, and gas emergencies, with content suited for companies of all sizes. A Continuing Professional Development certificate is available upon completion.

Scan the QR code to register for an online toolbox, or email **damageprevention@apa.com.au** to request an in-person presentation.

HOMEOWNERS

If you're working near your home's gas pipes stay safe and view APA's video guide **'Working Safely Near Gas Lines: A DIY Homeowner's Guide'** which offers simple tips to avoid damaging gas pipes.

Scan the QR code to view the video, or for more information email **damageprevention@apa.com.au**

Disclaimer and legal details

- This information is valid for 30 days from the date of this response.
- This information has been generated by an automated system based on the area highlighted in your BYDA request and has not been independently verified.
- Map location information is provided as AS5488-2022 Quality Level D, as such supplied location information is indicative only.
- Whilst APA has taken reasonable steps to ensure that the information supplied is accurate, the information is provided strictly on the condition that no assurance, representation, warranty or guarantee (express or implied) is given by APA in relation to the information (including without limitation quality, accuracy, reliability, completeness, currency, sustainability, or suitability for any particular purpose) except that the information has been disclosed in good faith.
- Any party who undertakes activities in the vicinity of APA operated assets has a legal duty of care that must be observed. This legal obligation requires all parties to adhere to a standard of reasonable care while performing any acts that could foreseeably harm these assets.

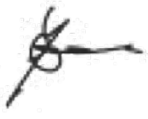


APA
Australia's energy infrastructure partner

Guidelines for Works Near Existing Gas Assets

400-STD-AM-0001

Revision 2

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APPROVAL DATE:	18/08/2023

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DOCUMENT CONTROL & APPROVAL INFORMATION

Summary of Changes

Below is a brief summary of the changes made to the document since the previous issued version.

Revision	Description	Date	Author
0.0	Issue for Use	29.06.2018	Matthew Read
1.0	Issued for Use – document periodic update / major overhaul	01.03.2022	Kahil Parsons
2.0	Removal of incorrect table 2 references to 1. proximity of HV cables 2. Updating separation distances to AS2885.3 BYDA reference update Table 4 Note	16.08.2023	Dale Russell

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Responsibility

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Control

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TERMS OF USE

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2. This Guidelines document is provided to You to assist in the development of design plans, construction and land use activities.
3. This Guidelines document does not override or supersede APA's Permit to Work (**PTW**) or Excavation policies and procedures.
4. Any proposed works in the vicinity of APA Networks operated assets may also require approval from other utility providers or government agencies. APA Networks has no responsibility for, and makes no representation in relation to, any requirements that may be necessary to obtain such approvals.
5. This document does not relieve any person from the requirement to make appropriate Before You Dig Australia (**BYDA**) enquiries, and otherwise discuss any proposed works with APA Networks, either for initial or subsequent works.
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The purpose of this document is to provide guidelines for third parties planning to install new infrastructure or conduct works near existing APA Networks (**APA**) operated assets.

It is intended that this document will be provided to third parties proposing works around existing gas assets for their use during the design and planning phase following initial planning BYDA enquiries. This document does not provide authorisation to undertake the works but provides APA requirements to ensure that any review and acceptance of proposed works is completed as quickly as possible.

1 INTRODUCTION

1.1 Scope of this Document

This document addresses APA's requirements for considering how a third party's proposed works and APA managed works may impact APA Networks operated assets under the following parts:

Part 1 – APA Notification and Authorisation Requirements

Part 2 – Design and Asset Protection Requirements

Part 3 – Construction and Land Use Requirements

Part 4 – Alteration of Existing Gas Assets

APA Networks acts as the asset operator on behalf of entities Australian Gas Networks (**AGN**), Allgas, APA, Origin and Queensland Nitrates (**QNP**) and operates in New South Wales, Northern Territory, Queensland, South Australia and Victoria. The criteria provided in this document only applies to the assets managed by APA Networks on behalf of these companies.

APA also owns and operates natural gas transmission infrastructure on all mainland states and territories of Australia. These assets are operated by a separate APA entity and are out of scope for this document.

A glossary of all terms and abbreviations used in this document is contained in **Section 7**.

A list of all relevant external standards and APA reference documents is contained in **Section 8**.

1.2 Asset Types

APA Networks' operated gas assets include buried pipe, above and below ground stations (e.g. pressure regulation, valves, meters), electrical cables, cathodic protection systems (e.g. test points, anode beds), pits and electrical cabinets. Depending on the gas type and the operating pressure, gas assets are classified as natural gas transmission, natural gas distribution and Liquefied Petroleum Gas (**LPG**) distribution as shown in **Figure 1**.

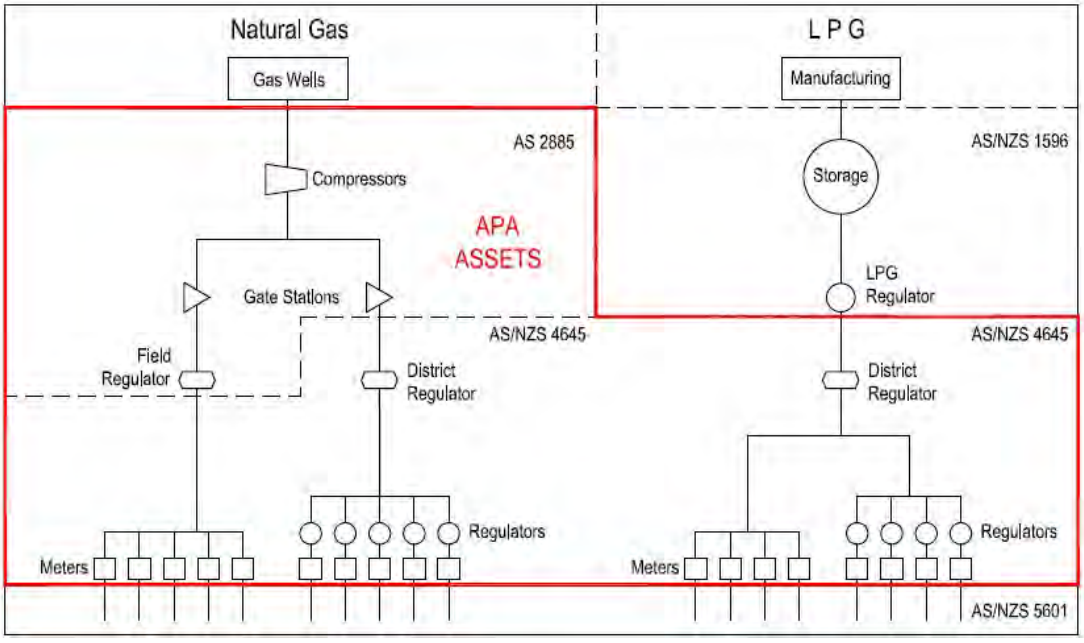


Figure 1 Asset Types and Standards Operated by APA Networks

1.2.1 Natural Gas Transmission

Natural gas transmission pressure assets operate at pressures above 1,050 kPag, and are generally used for transporting large quantities of gas across country. Design, construction and operation of these assets is governed by the AS 2885 suite of Australian Standards (**AS**).

Due to the higher pressure and energy density, there are severe safety, supply and environmental consequences which can result from third party interference. Hence, more stringent requirements and controls are applied to third party works in the vicinity of these assets.

Buried transmission pipelines are constructed from coated steel pipe where the appearance can vary depending on the year of construction, but will generally appear as yellow, black or grey when physically exposed.

1.2.2 Natural Gas Distribution

Natural gas distribution pressure assets operate at pressures below or equal to 1,050 kPag from offtakes of transmission pressure assets, and are generally used to supply consumers such as businesses and homes. Design, construction and operation of these assets is governed by the AS/NZS 4645 suite of Australian Standards.

Due to the lower energy density compared to transmission assets, less stringent requirements and controls are applied to distribution assets. Some distribution assets are deemed critical by APA Networks due to the safety and supply implications that may arise due to a third party strike. These critical distribution assets will be defined on BYDA responses, and some of the controls which are applied to transmission pressure assets (e.g. permit and site watch) will be required.

Buried distribution pressure pipes may be constructed from the following materials and physical appearances when exposed:

- Cast Iron (black);
- Polyethylene (**PE**) (yellow or black with yellow stripes);
- Steel coated or uncoated (generally yellow, black or grey); and
- Other plastic such as Polyvinyl Chloride (**PVC**) or nylon (yellow).

Some legacy materials such as cast iron and nylon may require additional protection during construction works due to the unpredictable nature of the materials.

1.2.3 LPG Distribution

LPG distribution pressure assets operate at pressures below 140 kPag from storage compounds and are generally used to supply consumers such as businesses and homes in parts of Queensland, South Australia and Northern Territory. Design, construction and operation of these assets is governed by the AS/NZS 4645 suite of Australian Standards.

Additional safety considerations are required in addition to the requirements for natural gas, as LPG is heavier than air and will pool at the leak point and can accumulate in a trench or excavation.

The same materials used for buried distribution pressure pipes (**Section 1.2.2**) may be used on LPG distribution networks.

1.3 Damage and Emergencies

If you smell gas or damage has occurred, or is suspected, on any gas asset call APA emergency number **1800 GAS LEAK (1800 427 532) or 1800 808 526 for LPG assets**.

Any unreported damage has the potential to escalate and endanger public safety.

Where damage has resulted in a release of gas, you are advised to take the following immediate action:

- Clear the area of all people. Do not under any circumstance re-enter the damage area;
- Where safe to do so, shut off or remove all ignition sources and devices in the area e.g. naked flames, vehicle engines, power tools, mobile phones;
- Do not attempt to stop the flow or repair the damage:
- Allow the gas to vent to air; and
- Once clear of the area, contact the emergency number **1800 427 532** or **1800 808 526 for LPG assets**.

The conditions in this document or as provided by APA Networks are intended to protect the gas assets as well as keep safe any construction crews or general public in the vicinity. Depending on the circumstances, some variation to the conditions in this document may be required or may be provided by an approved APA Networks site watch representative. It is legislated in all jurisdictions that the direction provided by APA is followed.

1.4 General Duty of Care and Responsibility to Obtain Information

Anybody working near a gas asset, or responsible for such work, has a duty of care to exercise caution, to maintain a safe working environment and to meet requirements of all relevant laws and Occupational Health and Safety legislation.

For general enquiries about results from BYDA please contact:

- DBYDNetworksAPA@apa.com.au for Northern Territory, South Australia, Southern New South Wales and Victoria, and;
- PermitsQLD@apa.com.au for Queensland and Northern NSW (incl. Tamworth).

The third party shall make contact with APA through the BYDA process if any clarification is required to determine the approval processes for any proposed land use changes (within the Measurement Length), design works and construction activities within 3 m of a gas asset or within a pipeline easement.

Any works proposed by the third party will only be authorised if APA is satisfied that the works will not affect the integrity of the APA Networks operated assets.

Any person undertaking work near an APA Networks operated asset, or responsible for such work, must ensure that they familiarise themselves with APA requirements.

Working around any gas asset, especially transmission pressure pipelines, without appropriate planning and controls as specified by APA Networks can be extremely dangerous. Damage to a gas asset could result in:

- Possible explosion and fire with the risk of loss of equipment, property, personal injury, and death;
- Loss of gas supply to thousands of customers;
- Substantial repair and gas restoration liability costs to the authority or principal responsible; and,
- Prosecution under the relevant laws governing pipeline and gas safety.

Prior to the commencement of any works within the Protected Zone of transmission pressure or critical gas assets, the Contractor performing the work must receive an Authority to Work Permit (ATWP).

Any works within the Protected Zone of critical assets must comply with any conditions attached to an ATWP and depending upon the nature of the asset and works supported by an approved construction methodology.

Written authorisation in the form of the ATWP must be kept on site at all times, and the holder of the authorisation must comply with all the conditions of the ATWP. The performance of any works near critical APA Networks operated assets without a valid ATWP and full compliance with its conditions will constitute a safety incident and may also result in an infringement notice and associated penalties issued by the regulator of the APA Networks asset.

1.4.1 Additional Transmission Pressure Pipeline Requirements

Where the works proposed by the third party may result in a change in land use within the Measurement Length for a transmission pressure pipeline (as defined in AS/NZS 2885.6 for Pipelines – Gas and Liquid Petroleum), such works may also be subject to formal approval requirements through APA Networks and applicable local and state government planning processes. This may also require a Safety Management Study (**SMS**) Report to be completed and approved by APA Networks. The SMS Report is generated from an SMS workshop involving an SMS facilitator, the third party and APA Networks. APA Networks is the owner of the SMS Report and any resulting recommendations/ actions must be implemented to the satisfaction of APA prior to the commencement of any physical works.

Certain categories of development/ land use change are not appropriate to be located within the Measurement Length of transmission pressure pipelines. In certain circumstances, the otherwise unacceptable risks associated with such developments may be alleviated with the aid of installing protective slabbing over the asset or undertaking other protection and mitigation measures.

2 PROTECTION PROCESS

APA is committed to working cooperatively with third parties to ensure that existing gas assets will be appropriately protected from any proposed works.

The process to be followed for any proposed works is outlined in **Table 1**. This table cross references the relevant section of this document which provides any specific requirements for each gas asset classification. The steps in this table are to be followed in conjunction with the process outlined by BYDA[1], a flow chart is also provided in **APPENDIX A**.

Table 1 Protection Process Summary

Section	Step	Purpose
3	**Notification and Authorisation**	**Identify and locate existing gas assets in the vicinity of any proposed works.** Submit BYDA requests to obtain indicative plans of gas assets. Notify APA Networks and obtain approval to verify the exact position by physically proving the position of gas assets at the cost of the third party.
4	**Design and Protection Requirements**	**Review APA Networks design and protection requirements for any proposed infrastructure near gas assets.** If acceptable clearance is available in accordance with this section review impact of construction methodology on existing gas assets. If acceptable clearance is not available in accordance with this section and the proposed infrastructure cannot be modified, alteration or protection of the existing gas assets will be required at the cost of the third party.
5	**Construction and Land Use Requirements**	**Review construction methodology for adverse impact to existing gas assets.** Some additional protection measures may be required depending on the existing gas assets, the construction methodology and whether land use changes are required. If works meet the requirements of this document, submit work package to APA Networks for review and approval. If approval is given, then undertake works in accordance with APA Networks conditions/ permits. If approval is not given modify work package accordingly. If works do not meet the requirements of this document or APA Networks approval cannot be reached, alteration or protection of the existing gas assets will be required.
6	**Alteration**	**Request alteration of existing gas infrastructure if there is insufficient clearance or construction methods will adversely impact existing gas assets.** Alteration of existing gas assets are fully recoverable and may result in delays if not identified early.

2.1 Assessment Information

Throughout the protection process, APA Networks assessment may be required to determine if the proposed works/ installation has sufficient separation or if work can be undertaken with a suitable construction methodology. If APA Networks assessment is required, the following information must be provided to enable an efficient and comprehensive review.

- Due dates or a work program;
- The location / address and extent of proposed works;

[1] BYDA process is available at https://www.1100.com.au/safety-information/digging-safely/

- Scope / description of the work impacting APA assets;
- A work package containing detailed design or construction issue drawings with the location of APA assets and the extent of works marked and / or georeferenced. Sufficient details must be provided on the plans to verify locations against APA information, which is typically measured from property boundaries. Plan and cross sectional drawings are typically required, including any proving locations;
- The proposed construction methodology (if available); and
- For critical assets only, a completed permit request form. This form is automatically provided in response to a BYDA enquiry when it is required, with direction for this form included in the BYDA response (refer to **Section 5.2**).

If the information provided is incomplete, or irrelevant information is provided, it may result in a delay of the assessment process and provision of a response. Due to the varying nature of potential works, it is not possible to develop a comprehensive listing of information that will be required for each work type, but the above is provided as a general guideline for what will normally be required.

3 PART 1 - APA NOTIFICATION AND AUTHORISATION REQUIREMENTS

3.1 BYDA Request

The fastest method for obtaining APA Network gas asset locations is to lodge a BYDA request. A response can be expected from APA within two business days, and may include one of three responses as outlined in **APPENDIX A**, depending on the location of the works in relation to existing APA operated gas assets in the vicinity.

For some BYDA requests, APA Networks may provide different responses to different assets affected by the proposed works. In all instances it is the responsibility of the third party to review and follow the direction of all BYDA responses.

The information provided by APA Networks in response to a BYDA request, along with any other plans or subsequent information provided by APA, show only the indicative location of the asset at the time and are a guide only. In most instances it will be necessary to prove the location of all buried assets within the proposed work area.

The following items must be considered when using asset information provided by APA Networks:

- Gas service lines from buried distribution pressure supply mains to consumers may not be shown on plans. Service lines are usually laid at right angles from main to a meter position, except where road conduits are provided; and
- Plans become rapidly outdated and so should be used within 30 days and then destroyed. It is the responsibility of the third party to contact APA Networks to seek the updated or renewal of any information after this time.

APA shall not be liable or responsible for the accuracy of any information supplied.

3.2 Provings and Site Identification

Electronic location (e.g. ground penetrating radar, pipe locators) of gas assets is required to verify the onsite locations and any plans that have been provided.

Physical proving of existing gas assets is required at key locations to verify that the separation and protection criteria provided in this document have been achieved. The location and quantity of provings will depend on the scope of proposed work, but provings will at least be required at infrastructure crossing points or where changes to surface level condition are planned.

Additional verifications are required for works parallel and in close vicinity to existing gas assets. Physical provings at maximum 10 m intervals along straight sections of pipe, along with all bends, branch lines and customer service offtakes to verify asset locations.

Note: Live service offtakes which no longer supply consumers may protrude from the gas asset and are not traceable or identifiable from records.

Note: The maximum physical proving intervals for straight sections of pipe may be adjusted based upon the discretion of APA personnel for extenuating circumstances.

The following items must be considered when proving the location of an existing gas asset:

- Provings must be conducted safely and in accordance with the requirements of **Section 5.5.2.** If damage to a gas asset does occur it should be reported immediately to APA as described in **Section 1.3**.
- Permit and site watch by an APA Networks representative may be required for some proving activities in accordance with **Section 5.2**.

3.3 APA Notification and Authorisation Process

Prior to the third party undertaking any works/ activities or as part of the planning and design phase, the third party shall ensure a BYDA request is submitted. The automated response received from the BYDA system will be tailored based on the criticality of the assets.

For assets operated at distribution pressures and not considered critical mains, a Duty of Care Notice is provided with the BYDA response for the third party to consider. Site watch may be necessary under a duty of care notice where additional protection or other integrity concerns require it.

In the event that works are conducted within the Protected Zone of a transmission pipeline and/ or critical distribution main, these works will require a review approval received from APA prior to commencement of works. Works subject to this requirement are deemed to include, but not limited to, the following activities that fall under **Table 3**;

- Non Destructive Digging (**NDD**);
- Mechanical excavation including trenchless excavation i.e. drilling (boring, horizontal direction drilling (**HDD**), pipeline bursting and tunnelling) for installing infrastructure such as the following; o Roadways, driveways, railways, pavements;
    - o Electrical equipment (cables, overhead transmission lines, telecommunication cable or power poles);
    - o Installation of culverts/ pipes (water, drainage, sewer or reticulation); o Landscaping.

APA will not approve certain activities and structures in the transmission pipeline easement (if applicable), including the following;

- Permanent storage;
- Installation of billboard structures;
- Use and storage for explosives, flammables or corrosives;
- Blasting;
- Structures forming part of any house, house extensions, carports or entertainment areas;
- Dams and other manmade water features. Locations of dams off the pipeline easement/ protected zone must not create run off or drainage towards the pipeline easement;
- Chemically treated effluent coming in contact with the pipeline easement/ protected zone;
- Garbage, sand fill, refuse disposal;
- Airstrips.

The Third Party must submit an enquiry to APA at the earliest possible stage to allow sufficient time for assessment. Submissions should include the following information;

- Land description and map identifying location of the proposed works;
- Types of works to be carried out;
- Intended future use of the land (where relating to change in land use)
- Type and weight of machinery that will be used;
- Any plans or diagrams of the works;
- Timeframe for the works.

The sequence of obtaining APA approval is as follows;

a) Submit enquiry for Initial Review – The Third Party submits the request prior to works commencing and APA Networks will complete an ‘Initial Review’. The third party must not progress any works on site until they receive a response from APA Networks. The two possible outcomes of this stage are a ‘No Impact’ response or;

b) Enquiry Escalated for Standard Assessment – The request will be forwarded to APA Networks Field or System Operations personnel for a more detailed appraisal, which may involve contacting the third party, site visits, locating of assets of site, and/or request for additional information. The third party must not progress any work on site until they receive a response from APA Networks. The two possible outcomes of this stage are a ‘No Objection under standard conditions’ response or;

c) Enquiry Escalated for Engineering Assessment – The request has been forwarded to the Integrity Third Party Engagement team for additional appraisal and determination of specific conditions. The third party must not progress any works on site until they receive a response from APA Networks. The two possible outcomes of this stage are a ‘No Objection under special conditions response’ or;

d) Enquiry Escalated for Alteration – The Integrity Third Party Engagement team triggers the alteration process for this enquiry. The third party will be contacted for additional information and must not progress any work on site until they receive a response from APA Networks.

e) No Impact – The third party receives a 'No Impact' response and can proceed with the works under appropriate APA Networks requirements e.g. Duty of Care, Authority to Work Permit and/or Site Watch.

f) No Objection Under Conditions – The third party will receive a No Objection under standard or special conditions response and can progress with the planning of the works under the conditions specified in the response and appropriate APA Networks requirements e.g. Duty of Care, Authority to Work Permit and/or Site Watch.

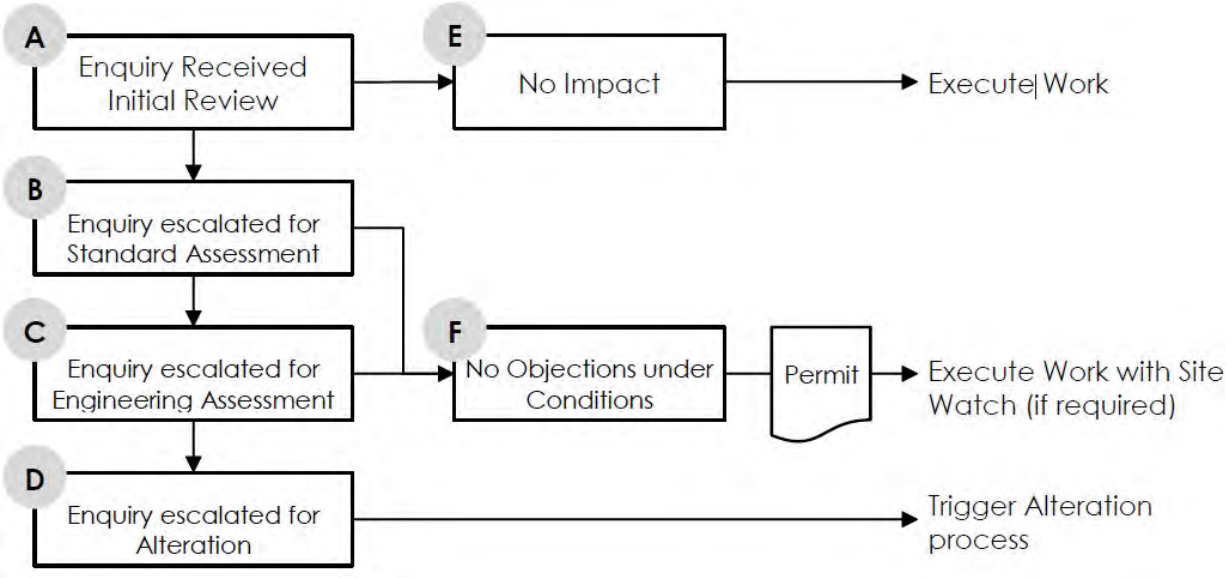


Figure 2 Stages for Third Party Works Authorisation Request

For works around APA Networks transmission pipelines or critical mains the documents take precedence in the following order;

- APA Authority to Work Permit (**ATWP**)
- APA accepted Third Party Construction Drawings
- APA accepted Third Party Construction Methodology
- APA Networks Guidelines for Works Near Existing Gas Assets (this document)
- APA accepted Third Party Safe Work Method Statement (**SWMS**) (if applicable)

3.4 Commercial Agreement and Service Delivery

APA will undertake a review of Third Party Works, as required. At APA's discretion cost recovery for these works may be required. Where APA Networks requires cost recovery a commercial service agreement in the form of a Works Agreement will be required.

Note: Any third party works requiring blasting, seismic and/or tunnelling work near APA Networks operated assets will not be considered "low risk" and cost recovery for detailed review maybe required.

3.5 Decommissioned Gas Assets

Decommissioned gas assets that remain in the ground are not always shown on BYDA plans.

Where unknown assets are identified or suspected on site but are not on APA plans, they must be treated as being live. In this instance, the third party must contact all utility owners and operators in the area of the BYDA and notify them of the findings.

Following review, if APA accepts that it is a decommissioned gas asset, the asset must be treated as per the requirements of this document. APA will take no further action where it is not considered to be a decommissioned gas asset.

In some cases, decommissioned gas assets are required for future use by APA (sometimes noted as “Idle” on APA plans). These assets must be treated as live using the same criteria outlined in this document, and must not be removed or altered without APA’s express written approval.

Where APA confirms there is no future use of a decommissioned gas asset (sometimes noted as “Abandoned” on APA plans), removal of the asset can be undertaken by the third party under the following conditions:

- For assets considered by APA to be decommissioned gas assets, APA must be engaged to verify that the asset is gas free;
- End caps must be permanently sealed, using an APA approved methodology, on any decommissioned sections that are to be left in place to prevent future water ingress into the remaining sections of the decommissioned gas asset;
- An as-built drawing must be submitted by the third party for any section(s) of a decommissioned gas asset removed by the third party or its sub-contractors to ensure BYDA can be updated accordingly; and
- Payment for costs associated with any verification or alteration activities must be provided prior to APA undertaking works.

4 PART 2 - DESIGN AND ASSET PROTECTION REQUIREMENTS

4.1 Standard Clearances

Minimum clearance dimensions outlined in this section must be met to allow for safe future maintainability and protection of existing gas assets. If separation clearances cannot be achieved, APA will review the proposed infrastructure on a case-by-case basis to determine whether a resolution can be achieved before alteration of any existing gas assets is considered. Authorisation of works by APA is still required, regardless of being able to achieve the required separation distances.

Clearances specified in **Table 2** are measured from the closest edges of the existing gas asset to the proposed infrastructure. Depending on the exact nature of proposed infrastructure, additional clearance may be required.

Note: Clearances specified herein are from gas assets, third party utilities may have their own standard separations that exceed APA's minimums specified in **Table 2.**

The future access zone required around a gas asset depends upon a number of factors such as size, operating pressure, depth and soil conditions, but typically this access zone is at least 1000 mm either side and 700 mm below the gas asset. As an aid for design and / or installation, the minimum clearances presented in **Table 2** are provided to allow for safe future access to gas assets. These minimum clearances assume that the asset have been proven and the location verified. There may be circumstances where additional clearances are required.

Table 2 Minimum Clearances

Clearance Type (Note 2, 9)	Minimum Transmission Pressure Asset Clearance	Minimum Distribution Pressure Asset Clearance
Any installation up to 0.6 metres wide which is crossing the gas asset	500 mm Vertical **(Note 2)**	300 mm Vertical **(Note 2)**
Any installation over 0.6 metres wide which is crossing the gas asset	500 mm Vertical	300 mm Vertical **(Note 2)**
Any installation laid by trenchless excavation e.g. HDD, boring, etc.	3000 mm Vertical	600 mm Vertical
	Refer to **Section 5.6** for minimum horizontal separation distances	
Any installation laid parallel to a steel gas asset	600 mm Horizontal **(Note 2, 3)**	
Any installation laid parallel to any gas asset other than steel	N/A	300 mm Horizontal **(Note 2, 3)**
Trenching separation from edge of gas asset to edge of trench **(Note 4)**	500 mm Horizontal	300 mm Horizontal
Underground electrical cables laid parallel to any gas asset other than steel	N/A	300 mm Horizontal
Electrical conduits and cables (<11 kV) laid parallel to a steel gas asset	Engineering assessment required **(Note 2, 3)**	
Electrical conduits and cables (≥ 11kV) laid parallel to a steel gas asset	**(Note 2, 3)** Engineering assessment required **(Note 7)**	

Electrical earthing systems near a steel gas asset	High Voltage: Engineering Assessment Required Low Voltage: 300 mm Horizontal **(Note 7)**	
Electrical earthing system near any gas asset other than steel	N/A	300 mm Horizontal
Clearance Type (Note 2, 9)	**Minimum Transmission Pressure Asset Clearance**	**Minimum Distribution Pressure Asset Clearance**
Undisturbed cover from the top of the gas asset to the underside of trenching or road pavement boxing	500 mm Vertical	300 mm Vertical **(Note 1)**
Distance from predominant building line	3000 mm Horizontal Where applicable outside pipeline easement	Refer to **Section 4.2**
Distance from Sensitive Use Locations (Refer **Section 7** for Glossary of Terms and Abbreviations)	APA Engineering Assessment Required **(Note 8)**	N/A
Canopies longer than 15 m parallel to the edge of the gas asset	3000 mm Horizontal **(Note 10)**	Refer to **Table 4** **(Note 10)**
Any installation that could add excessive loads to the gas asset or restrict access to the gas asset	3000 mm Horizontal **(Note 2)**	
Any installations that may need require underpinning were APA to expose the gas asset	3000 mm Horizontal	
Any temporary stake, e.g. star picket	300 mm Horizontal	
Electrical poles including street lighting and traffic signals	3000 mm Horizontal Where applicable outside pipeline easement	1000 mm **(Note 3, 5, 6, 7)**
Fence post, including road safety barriers	3000 mm Horizontal when installed per APA requirements	500 mm Horizontal when installed per APA requirements
Pile or pier	3000 mm Horizontal when installed per APA requirements	500 mm Horizontal when installed per APA requirements
Permanent Heavy Vehicle Loads (Greater than 4.5T)	Refer to **Section 4.7** Temporary and Permanent Vehicle Loads	
Tree Root Barrier	3000 mm Horizontal	1000 mm Horizontal Refer to **Section 4.3** Landscaping Plans
Separation distances for vegetation	Refer to **Section 4.3** Landscaping Plans	

CONCEPTUAL STORMWATER MANAGEMENT PLAN

Proposed Residential Subdivision

17 Courtney Drive, Upper Coomera

Lot 182 on RP156422

For Courtney Upper Coomera Developments Pty Ltd

26 March 2026

Document No: OSK7105-0002-C

DOCUMENT CONTROL SHEET

Title:	Conceptual Stormwater Management Plan
Document No:	OSK7105-0002
Original Date of Issue:	2 December 2025
Project Manager:	Thomas Watt
Author:	Ben Grant
Client:	Courtney Upper Coomera Developments Pty Ltd
Client Contact:	Brad Cook - Courtney Upper Coomera Developments Pty Ltd
Client Reference:	17 Courtney Drive, Upper Coomera
Synopsis:	This *Conceptual Stormwater Management Plan* describes the existing site characteristics, and corresponding stormwater quantity and quality management controls to be implemented during the construction and operational phase of the development.

Reviewed by RPEQ	Reg. No.	Signed	Date
Thomas Watt	16222		26 March 2026

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APPENDICES

Appendix A Saunders Havill, *Detail Plan* (Ref: 12753 S 01 DT A)
Appendix B Saunders Havill, Concept Plan (Ref: 13087 P 01)
Appendix C OSKA Consulting Group, Pre-Development Catchment Plan (Ref: OSK7105/P001/1)
Appendix D OSKA Consulting Group, Post-Development Catchment Plan (Ref: OSK7105/P002/2) & External Catchment Plan (Ref: OSK7105/P003/2)
Appendix E OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105/P004/2) & Conceptual Stormwater Management Details (Ref: OSK7105/P005/1)
Appendix F OSKA Consulting Group, Sediment and Erosion Control Plan (Ref: OSK7105/P006/2) & Sediment and Erosion Control Details (Ref: OSK7105/P007/1)
Appendix G OSKA Engineers, Response to Healthy Waters Code (Ref: OSK7105-0003)

1.0 INTRODUCTION

1.1 Background

OSKA Engineers has been commissioned by Courtney Upper Coomera Developments Pty Ltd to prepare a Conceptual Stormwater Management Plan (CSWMP) to support a Development Application for the proposed Residential Subdivision development situated at 17 Courtney Drive, Upper Coomera.

The subject site is described as Lot 182 on RP156422 and has a total site area of 3.340ha.

1.2 Scope

This CSWMP details the conceptual planning, layout and design of the stormwater management infrastructure for both the construction and operational phases of this development.

This CSWMP aims to:

- Establish the required performance criteria for the proposed stormwater quantity and quality improvement systems;
- Provide a conceptual design of stormwater infrastructure including stormwater quality improvement devices and stormwater quantity management controls;
- Demonstrate the modelled post-development stormwater quality discharging from the site does not adversely impact on the water quality and ecological values of downstream watercourses;
- Demonstrate stormwater runoff is conveyed through the site to a Lawful Point of Discharge (LPOD) in accordance with the Queensland Urban Drainage Manual (QUDM); and
- Provide reporting and monitoring mechanisms whereby the performance of this system can be measured enabling identification of corrective actions/alterations required to ensure the above mentioned objectives are maintained.

This CSWMP has been prepared in accordance with the IEAust Australian Runoff Quality: Guide to Water Sensitive Urban Design, Queensland State Planning Policy 2017, IPWEA Queensland Urban Drainage Manual (QUDM) Fourth Edition (2017), Water By Design MUSIC Modelling Guidelines V1 – 2010, and City of Gold Coast (CoGC), SC6.12 City Plan Policy – Land Development Guidelines.

2.0 SITE DESCRIPTION

2.1 Location

The subject site is located at 17 Courtney Drive, Upper Coomera. The site fronts Courtney Drive to the north, Baileys Mountain Road to the east and has existing residential properties to the south and west. The site covers a total combined area of 3.340ha, with details as summarised in *Table 1* and as located in *Figure 1.*

Table 1: Site Description

Client	Lot and Property Description	Street Address
Courtney Upper Coomera Developments Pty Ltd	*Lot 182 on RP156422*	*17 Courtney Drive, Upper Coomera*

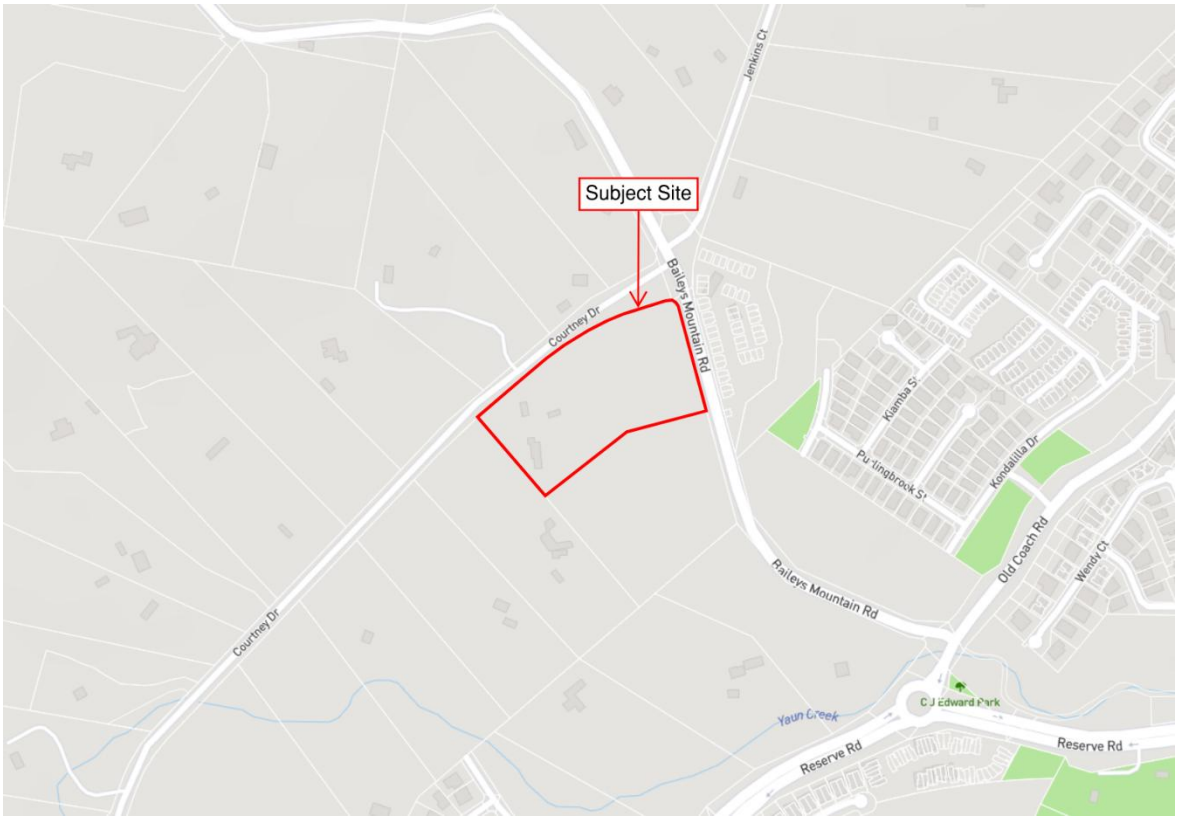


Figure 1: Locality Plan (Source: MetroMaps)

2.2 Site Topography

The majority of the site generally grades to south towards the existing dam on site with a small portion in the north-west of the site that grades towards Courtney Drive. The existing site is relatively steep with spot heights ranging from approximately RL 30.60m AHD to 51.20m AHD. Based on the provided survey and aerial information, any stormwater runoff from the site either drains to the existing dam within the site or to Courtney Drive.

For further information, the site survey has been provided by Saunders Havill, Detail Plan (Ref: 12753 S 01 DT A) included as Appendix A.

2.3 Vegetation and Land Use

The subject site currently consists of two residential dwellings with two detached sheds and a bitumen driveway that runs through to the south-west part of the site. The majority of the subject site is covered in grassed areas with multiple trees throughout the site and a dam in the south-eastern part of the site. Access to the site is gained via an existing bitumen driveway from Courtney Drive to the north.

An aerial photograph taken on the 14 June 2025 of the subject site is included in *Figure 2.*



Figure 2: Aerial Image of the Site (Source: MetroMaps – Image taken 14 June 2025)

2.4 Proposed Development

The proposed development for the site consists of a two stage 63 lot residential subdivision with lot areas ranging between 300-1,040m^2. Access to the proposed development will be gained via one of two new road connections from Courtney Drive and from the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) which will provide access to all lots.

Refer to Appendix B for further proposed layout details prepared by Saunders Havill, Concept Plan (Ref: 13087 P 01).

2.5 Proposed Conceptual Drainage

It is proposed that the majority of the site's captured stormwater be conveyed to a proposed dual-use bio-retention and detention basin. The Stormwater Quality Improvement Device (SQID) will treat the majority of the site's stormwater runoff with at minimum the Q3-month flow rate being treated by the device. The proposed basin will treat stormwater quality as well as mitigate the site's post-development flow rates to those evident in the pre-development scenario (quantity).

The captured flows from the basin are to discharge directly to a proposed swale to the south-east of the site that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) which will be a Lawful Point of Discharge (LPOD) for the subject site. The majority of flows from the north-western part of the site that are not conveyed to the proposed basin will be conveyed to the kerb and channel of Courtney Drive with a small portion of flows to the proposed road reserve which will connect into the future development at 31-53 Courtney Drive (Ref: ROL/2024/116).

2.6 Rainfall Data

Rainfall intensity data has been obtained from the Australian Bureau of Meteorology's 2016 Design IFD Rainfall System. The data has been extracted for the nearest grid cell at Latitude 27.8625 (S) and Longitude 153.2875 (E). The IFD data and average rainfall intensities used in this report are in accordance with the procedures outlined in Geosciences Australia, Australian Rainfall and Runoff 2019.

3.0 DATA

Data which has been sourced or provided, in order to prepare this report for the site, was gathered from the following sources:

- Detailed site survey provided by Saunders Havill, Detail Plan (Ref: 12753 S 01 DT A) included as Appendix A;
- Proposed site layout provided by Saunders Havill, Concept Plan (Ref: 13087 P 01) included as Appendix B;
- LIDAR data for the subject site sourced from Australian Government Elevation and Depth Foundation Spatial Data (ELVIS), Date Source: 2014, DEM Data;
- Rainfall and Meteorological 2016 IFD Data by the Australian Bureau of Meteorology;
- Information Extracted from CoGC City Plan Interactive Mapping – Version 12;
- Aerial Imagery by MetroMaps (Accessed on 24 November 2025); and
- MUSIC data sourced from Rainfall Station 40584, Hinze Dam.

4.0 SITE HYDROLOGY

4.1 Background

The following sections define the method and parameters utilised within the hydrologics of the site, in order to establish a simulation of the anticipated flow regime and peak discharge at the Lawful Point of Discharge (LPOD). A Rational Method calculation has been provided for comparison of the pre and post-development peak flow rates.

The Rational Method (Section 4.3 of the Queensland Urban Drainage Manual - QUDM 2017) is a suitable estimation technique, given its flexibility in its data requirements and is able to produce satisfactory estimates of peak site discharges based on the following data input:

Specific intensity frequency duration (IFD) data;

- length/type of flow path;
- contributing catchment areas; and
- coefficient of discharge.

4.2 Pre-Development

4.2.1 Catchment Definition and Lawful Point of Discharge

The pre-development site has been analysed as two internal catchments (A and B) with a total contributing area of 3.340ha with the parameters of each catchment summarised below;

Pre A

- Total Catchment Area 0.535ha
- 0.046ha of impervious surfaces (8.50%)
- Runoff is conveyed as sheet/overland flow towards Courtney Drive (LPOD A).

Pre B

- Total Catchment Area 2.805ha
- 0.094ha of impervious surface (3.35%)
- Runoff is conveyed as sheet/overland flow towards the existing dam on site before being conveyed across the southern site boundary to private property at 176 Baileys Mountain Road (Lot 183 on RP156422) (EPOD B).

The catchment area and LPOD for the subject site are shown on OSKA Consulting Group, Pre-Development Catchment Plan (Ref: OSK7105/P001/1) included as Appendix C.

4.2.2 Coefficient of Runoff

The pre-development coefficients of runoff (C year) were determined using the fraction impervious method as specified in QUDM and based on Table 4.5.4 in QUDM. Using a one hour, ten-year rainfall intensity ($^1I_{10}$) of 64.9 mm/hr and Table 4.5.4 in QUDM with good grass cover and medium permeability, the adopted C_{10} values for all the individual pre-development catchments have been shown in bold in Table 2.

The following pre-development coefficients of runoff (as shown in Table 2) have been adopted in accordance with QUDM Table 4.5.2, which apply the frequency factors for the standard Annual Exceedance Probability (AEP) design storms of 39%, 18%, 10%, 5%, 2% and 1% (corresponding to the 2, 5, 10, 20, 50 and 100-year ARI storms).

Table 2: Pre-Development Coefficient of Runoff

Catchment	C_2	C_5	C_{10}	C_{20}	C_{50}	C_{100}
Pre A	0.60	0.67	**0.70**	0.74	0.81	0.85
Pre B	0.60	0.67	**0.70**	0.74	0.81	0.85

4.2.3 Time of Concentration

The Time of Concentration (TOC) for the pre-development catchments have been calculated in accordance with QUDM Section 4.6.6 – Overland Flow and 4.6.11 - Time of concentration for rural and creek catchments. Friend's Equation ($t = (107*n*L^{0.333})/S^{0.2}$) has been used to calculate the initial travel time using sheet flow and Bransby-Williams' ($t = (58 * L)/(A^{0.1} * S_e^{0.2})$ equation has been used to calculate the travel time using channel flow.

Refer to *Table 3* for the calculated time of concentration for the pre-developed catchments.

Table 3: Pre-Development Time of Concentration

Catchment	Catchment Area (ha)	Time of Concentration		
		Overland flow Friend's Equation	Concentrated Overland Flow Bransby-Williams	Total t_c
Pre-Development Catchment A	0.535	Horton's (n) = 0.035 L = 50m Slope = 15.25% t = 7.99 mins	Length (km) = 0.018 Area (ha) = 0.535 Slope = 15.25% t = 0.64 mins	9 mins
Pre-Development Catchment B	2.805	Horton's (n) = 0.035 L = 50m Slope = 17.22% t = 7.80 mins	Length (km) = 0.077 Area (ha) = 2.805 Slope = 17.22% t = 2.28 mins	10 mins

4.2.4 Design Flow Rates

Pre-development peak flow rates have been estimated for the adopted storms using design rainfall intensities from the Bureau of Meteorology IFD Data. The Rational Method ($Q = 2.78 \times 10^{-3}$ CIA) has been used to estimate the subject site's design peak flow rates. The pre-development peak flows for the subject site are presented in *Tables 4 and 5.*

Table 4: Pre-Development A Peak Flow Estimation – Rational Method

PRE A							
Annual Exceedance Probability	**AEP**	39%	18%	10%	5%	2%	1%
Coefficient of Runoff	**C**	0.60	0.67	0.70	0.74	0.81	0.85
Area of Catchment (ha)	**A**	0.535	0.535	0.535	0.535	0.535	0.535
Average Rainfall Intensity (mm/h)	**I**	119	148	171	195	227	250
Peak Flow Rate (m^3/s)	**Q**	**0.106**	**0.148**	**0.179**	**0.215**	**0.273**	**0.315**

Table 5: Pre-Development B Peak Flow Estimation – Rational Method

PRE B							
Annual Exceedance Probability	**AEP**	39%	18%	10%	5%	2%	1%
Coefficient of Runoff	**C**	0.60	0.67	0.70	0.74	0.81	0.85
Area of Catchment (ha)	**A**	2.805	2.805	2.805	2.805	2.805	2.805
Average Rainfall Intensity (mm/h)	**I**	115	143	164	188	218	240
Peak Flow Rate (m^3/s)	**Q**	**0.536**	**0.745**	**0.899**	**1.082**	**1.374**	**1.581**

4.3 Post-Development

4.3.1 Catchment Definition and Lawful Point of Discharge

The post-development scenario has been analysed as three internal catchments (A, B and C) with a total contributing area of 3.340ha with the parameters of each catchment summarised below;

Post A

- Total Catchment Area 0.251ha
- 0.180ha of impervious surfaces (71.94%)
- Runoff is conveyed to the kerb and channel of Courtney Drive (LPOD A).

Post B

- Total Catchment Area 3.028ha
- 2.129ha of impervious surface (70.30%)
- Runoff is conveyed to a proposed swale to the south-east of the site that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) (LPOD B).

Post C

- Total Catchment Area 0.061ha
- 0.049ha of impervious surface (79.76%)
- Runoff is conveyed to the kerb and channel of the proposed road reserve which will connect into the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) (LPOD C).

It is to be noted that as Post C will discharge flows to the proposed road reserve which will connect into the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) and as such will not be compared to the pre-development and no flow rate assessment will be undertaken.

The post-development catchment area and LPOD's are detailed on OSKA Consulting Group, Post-Development Catchment Plan (Ref: OSK7105/P002/2) & External Catchment Plan (Ref: OSK7105/P003/2) included as Appendix D.

4.3.2 Coefficient of Runoff

The post-development coefficients of runoff (C year) were determined using the fraction impervious method as specified in QUDM. Based on the supplied layout plans, the post-development catchments have an approximate total of 2.358ha of impervious surfaces which equates to a fraction impervious (fi) of 0.71.

This report will adopt a fraction impervious value on 0.70 for all developable areas of the development which corresponds to the roof areas having a fraction impervious of 1.00, the ground areas (excluding basin areas/lots) having a fraction impervious of 0.30 and the road reserve areas having a fraction impervious of 0.75. This fraction impervious value has been adopted based on the recommended C_{10} value for areas zoned as Emerging Community in *Table 4.4: Runoff Coefficient vs development category* of the City of Gold Coast. The recommended C_{10} value of 0.80-0.85 correlates to a fraction impervious value of approximately 0.70 and as such will be adopted throughout this report for all developable areas.

Using a one-hour, ten-year rainfall intensity ($^1I_{10}$) of 64.9 mm/hr, the adopted C_{10} values for the individual post-development catchments have been shown in bold in Table 6.

The following post-development Coefficients of Runoff (as shown in *Table 6*) have been adopted in accordance with QUDM Table 4.5.2, which apply the frequency factors for the standard Annual Exceedance Probability (AEP) design storms of 39%, 18%, 10%, 5%, 2% and 1% (corresponding to the 2, 5, 10, 20, 50 and 100-year ARI storms).

Table 6: Post-Development Coefficient of Runoff

Catchment	C_2	C_5	C_{10}	C_{20}	C_{50}	C_{100}
Post A	0.71	0.79	0.83	0.87	0.95	1.00
Post B	0.70	0.78	0.83	0.87	0.95	0.99

4.3.3 Time of Concentration

The Time of Concentration for the post-developed catchments have been calculated in accordance with QUDM Table 4.6.3 – Recommended roof drainage system travel times and Figure 4.5 – Flow travel time in pipes and channels.
In accordance with Table 4.6.3 and Figure 4.5 of QUDM, the post-development time of concentration for each individual catchment has been shown in Table 7.

Table 7: Post-Development Time of Concentration

Catchment	Catchment Area (ha)	Time of Concentration		
		Roof to Downpipes (Table 4.6.3)	Pipe Flow (Figure 4.5)	Total t_c
Post-Development Catchment A	0.251	t = 5 mins	Length (m) = 40 Slope = 5% t = 1 mins	6 mins
Post-Development Catchment B	3.028	t = 5 mins	Length (m) = 140 Slope = 2% t = 2 mins	7 mins

4.3.4 Design Flow Rates

Post-development peak flow rates have been calculated for the adopted storms using design rainfall intensities from the Bureau of Meteorology 2016 IFD Data. The Rational Method ($Q = 2.78 \times 10^{-3}$ CIA) has been used to estimate the required design peak flow rates for the subject site. The post-development peak flows for the subject site are presented in *Tables 8 and 9.*

Table 8: Post-Development A Peak Flow Estimation – Rational Method

Post-Development A							
Annual Exceedance Probability	**AEP**	39%	18%	10%	5%	2%	1%
Coefficient of Runoff	**C**	0.71	0.79	0.83	0.87	0.95	1.00
Area of Catchment (ha)	**A**	0.251	0.251	0.251	0.251	0.251	0.251
Average Rainfall Intensity (mm/h)	**I**	134	168	194	223	261	291
Peak Flow Rate (m^3/s)	**Q**	**0.066**	**0.092**	**0.112**	**0.135**	**0.174**	**0.201**

Table 9: Post-Development B Peak Flow Estimation – Rational Method

Post-Development B							
Annual Exceedance Probability	**AEP**	39%	18%	10%	5%	2%	1%
Coefficient of Runoff	**C**	0.70	0.78	0.83	0.87	0.95	0.99
Area of Catchment (ha)	**A**	3.028	3.028	3.028	3.028	3.028	3.028
Average Rainfall Intensity (mm/h)	**I**	129	161	186	213	248	275
Peak Flow Rate (m^3/s)	**Q**	**0.762**	**1.062**	**1.291**	**1.553**	**1.985**	**2.296**

4.3.5 Change in Flow Rates

The difference in peak flow rates calculated from the pre and post-developed catchments as estimated via The Rational Method, is detailed in *Tables 10 and 11.*

Table 10: Change in Peak Flow Rates Estimation (Catchment A) – Rational Method

LPOD A							
Annual Exceedance Probability	**AEP**	39%	18%	10%	5%	2%	1%
Pre-Developed Peak Flow Rate (m^3/s)	**Q**	0.106	0.148	0.179	0.215	0.273	0.315
Post-Developed Peak Flow Rate (m^3/s)	**Q**	0.066	0.092	0.112	0.135	0.174	0.201
Change in Peak Flow Rate (m^3/s)	**Q**	**-0.040**	**-0.056**	**-0.067**	**-0.080**	**-0.099**	**-0.114**

The Rational Method assessment has demonstrated that there is a decrease in peak flow rates discharging to Courtney Drive (LPOD A). Therefore, on-site detention will not be required for Catchment A of the proposed development.

Table 11: Change in Peak Flow Rates Estimation (Catchment B) – Rational Method

LPOD B							
Annual Exceedance Probability	**AEP**	39%	18%	10%	5%	2%	1%
Pre-Developed Peak Flow Rate (m^3/s)	**Q**	0.536	0.745	0.899	1.082	1.374	1.581
Post-Developed Peak Flow Rate (m^3/s)	**Q**	0.762	1.062	1.291	1.553	1.985	2.296
Change in Peak Flow Rate (m^3/s)	**Q**	**+0.226**	**+0.317**	**+0.392**	**+0.471**	**+0.611**	**+0.715**

The Rational Method assessment has demonstrated that there is a potential increase in peak flow rates discharging to the proposed swale to the south-east of the site that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116). Therefore, on-site detention measures may be required to mitigate flows to pre-development conditions with a further hydraulic assessment undertaken using XP-SWMM in Section 5 to confirm the detention requirements.

4.4 External Catchments

The subject site and the surrounding area were examined to determine if any localised external catchments will contribute to the subject site. The site was deemed to contain an influencing external catchment to the north of the subject site. The development will propose to capture the flows up to the 1% AEP event from External Catchment A via an inlet pit and convey the flows through the development via a pipe network. All captured flows from the external catchment are to discharge to the proposed swale to the south-east of the site that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116).

Further information on the external catchment including area, flows and the proposed pipe network will be undertaken in the sections below.

4.4.1 Catchment Definition and Lawful Point of Discharge

The external catchment has a total contributing area of 1.386ha and a breakdown of the external catchment has been shown below:

Ext A

- Total Catchment Area 1.318ha
- 0.264ha of impervious surface (20.00%) – conservative estimate
- Runoff is conveyed as sheet/overland flow to the south-east towards the sag along Courtney Drive and then conveyed across the site's northern boundary.

The external catchments area and LPOD is detailed on OSKA Consulting Group, External Catchment Plan (Ref: OSK7105/P003/2) included as Appendix D.

4.4.2 Coefficient of Runoff

The coefficient of runoff (C year) was determined based on the fraction impervious (f_i) method as specified in QUDM and using the provided survey and latest aerial imagery of the site and surrounding area. Using a one-hour, ten-year rainfall intensity ($^1I_{10}$) of 64.9 mm/hr, the C_{10} value for external catchment is 0.71 and has been shown in bold in Table 12.

The following external catchments Coefficients of Runoff (as shown in *Table 12*) have been adopted in accordance with QUDM Table 4.5.2, which apply the frequency factors for the standard Annual Exceedance Probability (AEP) design storms of 39%, 10%, 5% and 1% (corresponding to the 2, 10, 20 and 100-year ARI storms).

Table 12: External Catchment Coefficient of Runoff

Catchment	C_2	C_{10}	C_{20}	C_{100}
EXT	0.60	**0.71**	0.75	0.85

4.4.3 Time of Concentration

The Time of Concentration for the external catchment has been calculated in accordance with QUDM Section 4.6.6 – Overland Flow and 4.6.11 - Time of concentration for rural and creek catchments. Friend's Equation ($t = (107*n*L^{0.333})/S^{0.2}$) has been used to calculate the initial travel time using sheet flow and Bransby-Williams' ($t = (58 * L)/(A^{0.1} * S_e^{0.2})$) equation has been used to calculate the travel time using channel flow.

Refer to *Table 13* for the calculated time of concentration for the external catchment.

Table 13: External Catchment Time of Concentration

Sub-Catchment	Catchment Area (ha)	Time of Concentration		
		Overland flow Friend's Equation	Concentrated Overland Flow Bransby-Williams	Total t_c
External Catchment	1.318	Horton's (n) = 0.040 L = 50m Slope = 15.00% t = 9.16 mins	Length (km) = 0.110 Area (ha) = 1.386 Slope = 15.00% t = 3.59 mins	13 mins

4.4.4 Design Flow Rates

Design storm flow rates have been calculated for standard storms for the external catchment using design rainfall intensities from the Bureau of Meteorology. The Rational Method (Q = 2.78 x 10^{-3} CIA) has been used to calculate the design flow rates. The peak flow rates for the external catchment are presented in Table 14.

Table 14: External Catchment Peak Flow Rates

External Catchment					
Annual Exceedance Probability	**AEP**	39%	10%	5%	1%
Coefficient of Runoff	**C**	0.60	0.71	0.75	0.85
Area of Catchment (ha)	**A**	1.318	1.318	1.318	1.318
Average Rainfall Intensity (mm/h)	**I**	104	148	169	215
Peak Flow Rate (m^3/s)	**Q**	**0.229**	**0.384**	**0.460**	**0.670**

4.4.5 External Catchment Conveyance

It is proposed to capture the external catchment flows (up to the 1% AEP event) via an inlet pit and convey the flows (up to the 1% AEP event) through the subject site via a pipe network. All captured flows from the external catchment are to discharge to the proposed swale to the south-east of the site that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116).

A Manning's equation calculation (9.1) ($Q = \frac{A}{n} \times R^{\frac{2}{3}} \times S^{\frac{1}{2}}$) from QUDM, was undertaken to demonstrate that the external catchment flows can be sufficiently conveyed within the proposed pipe network through the subject site. To convey the 1% AEP flow rate of 0.670m^3/s from the external catchment, a Ø600mm pipe at a minimum 1.15% grade resulting in a maximum capacity (based on a Manning's calculation) of 0.707m^3/s is required to ensure the external flows can be conveyed through the subject site (size to be confirmed in detailed design).

For further information on the external catchment stormwater network, refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105/P004/2) & Conceptual Stormwater Management Details (Ref: OSK7105/P005/1) in *Appendix E.*

5.0 STORMWATER QUANTITY ASSESSMENT

5.1 Background

The following sections define the method and parameters utilised within the hydrologic assessment of the site, to establish a simulation of the anticipated flow regime and peak discharge at the Lawful Point of Discharge (LPOD).

The analysis of hydrology across the subject site was performed using the non-linear runoff routing program XP-SWMM.

5.2 Objective

The following objective has been set for post-development stormwater discharge from the site:

- No net increase in peak flows from the subject site (up to the 1% AEP event), for all design storm events, during the post-developed scenario.

This objective shall be demonstrated via a suitable hydrologic and hydraulic modelling package, by detaining site runoff from the subject site within proposed detention basins.

5.3 XP-SWMM Model

To assess the pre and post-development hydrographs, the industry standard modelling software XP-SWMM has been selected for the analysis. Details of the model set-up and results are summarised in the following sections for the sites LPOD's.

5.3.1 Model Set Up

Rainfall data for the subject site has been obtained from the Australian Bureau of Meteorology's 2016 Design IFD Rainfall System. The data has been extracted for the nearest grid cell at Latitude 27.8625 (S) and Longitude 153.2875 (E). The IFD data and average rainfall intensities used in this report are in accordance with the procedures outlined in IEAust, Australian Rainfall and Runoff (AR&R) 2019. Storm suites for a range of durations from 10 minutes to 180 minutes were simulated in the XP-SWMM model analysis to determine design flow estimations for all events up to and including the 1% AEP.

Initial Loss (IL) and Continuing Losses (CL) were applied to the XP-SWMM model in accordance with Australian Rainfall and Runoff (AR&R) 2019. These values are also varied for the impervious and pervious portions of the catchment. The following loss rates were adopted:

Table 15: Initial Loss (IL) and Continuing Losses (CL)

Storm Losses (XP-SWMM)		
Sub catchment Type	**Initial Loss (mm/hr)**	**Continuing Loss (mm/hr)**
Impervious	0	0
Pervious	25	2.3

Note: The loss rates were maintained for all design storm events up to the 1% AEP event.

5.3.2 Hydrologic Roughness

Hydrologic roughness in the form of Manning's n values were applied to represent the undeveloped and developed portions of the catchment. The following values were adopted:

- Impervious Catchment n = 0.015; and
- Pervious Catchment n = 0.040.

5.3.3 Catchment Set Up and Parameters

The XP-SWMM model has been set up to match the proposed earthworks (lot and road grading) and stormwater drainage for the development and to also accounting for the bypass areas.

The majority of the flows up to the 1% AEP event from Catchment B will be conveyed to the proposed basin. The minor flows (up to 39% AEP) from Lots 54-63 fronting the proposed road reserve that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) will be conveyed to the basin with the major flows (above 39% AEP) bypassing the basin. All runoff from the ground areas of Lot 51 will bypass the basin with only the roof flows to be conveyed into the basin.

The adopted sub-catchment areas for the site, slopes and fraction imperviousness, for the pre and post-development scenarios have been tabulated in *Table 16*.

Table 16: Adopted Sub-catchment Parameters

Pre-Development Sub-Catchments			
XP-SWMM Sub-Catchment ID	**Total Area (ha)**	**Slope (%)**	**Fi (%)**
Pre B	**2.805**	**17.22%**	**3.35**
Post-Development Sub-Catchments			
XP-SWMM Sub-Catchment ID	**Total Area (ha)**	**Slope (%)**	**Fi (%)**
Post B	**3.028**	**15.00%**	**70.30**
Post Major to Basin	2.651	15.00%	69.43
Post Minor to Basin	0.354	15.00%	79.39
Post Bypass	0.023	15.00%	30.00

Note: Slopes have been adopted based on detailed survey and aerial imagery for the pre-developed scenario and detailed survey and proposed bulk earthworks levels for the post-development scenario.

5.3.4 Hydrologic Modelling Results

A comparison of the peak median discharges from the pre and post-developed catchment B are detailed in Table 17.

Table 17: Anticipated Peak Discharge Rate Catchment B – Extracted from XP-SWMM Model (m^3/s)

Scenario	39% AEP	18% AEP	10% AEP	5% AEP	2% AEP	1% AEP
Pre-Development B	0.390	0.582	0.748	0.889	1.119	1.294
Storm Event	1.5hr_7	30min_4	45min_6	20min_7	30min_7	25min_5
Post-Development B	0.843	1.060	1.204	1.401	1.651	1.847
Storm Event	10min_7	10min_7	15min_1	15min_2	15min_9	15min_4
Change in Peak Flow Rate (m^3/s)	**+0.453**	**+0.478**	**+0.456**	**+0.513**	**+0.532**	**+0.553**

The XP-SWMM analysis confirms the post-development flow rates discharging to the proposed swale to the south-east of the site that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) (LPOD B) are higher than the pre-development flow rates and therefore formal detention structures will be required for Catchment B of the development.

5.3.5 Detention Basin Parameters & Results

5.3.5.1 Detention Basin Sizing

It is proposed to construct a dual-use bio-retention/detention basin to mitigate the post-developed discharge and provide water quality treatment for Catchment B.

The following have been utilised in the design of the detention basin:

- Design of basin to be undertaken using hydrological assessment model (XP-SWMM);
- Provide stormwater attenuation to ensure all total peak flows from Catchment B are not increased by the development for any storm event up to and including the 1% AEP (Q100);
- Allowance for the 0.30m extended detention depth for the water quality component (refer Section 6 for further details);
- Allowance for minimum 0.30m freeboard; and
- The dual-use bio-retention and detention basin is proposed to be located in the south-eastern part of the site.

The following table shows a summary of the basin's characteristics with details of the basin's stage/area relationship for the detention component in Table 19.

Table 18: Catchment B Detention Basin Characteristics

Low Level Outlet	Ø375mm low flow pipe at 0.90% grade. Pipe invert level coincides with the invert level of the 1200mm x 1200mm field inlet within the basin. The top of the 1200mm x 1200mm field inlet coincides with the top of the extended detention zone (at 0.30m above basin floor).
Intermediate Outlet	2 x Ø375mm pipes at 1.50% grade at 0.35m above extended detention zone (at 0.65m above basin floor)
High Level Outlet	10m wide spillway weir at 0.77m above extended detention zone (1.07m above basin floor)
Dimensions	Base area (bottom of detention zone) = 472m^2 Base area (top of detention zone) = 959m^2 Basin Depth = 1.15m
Maximum Water Depth within Detention Zone of Basin (m)	39% AEP (Q2) = 0.342 18% AEP (Q5) = 0.518 10% AEP (Q10) = 0.611 5% AEP (Q20) = 0.694 2% AEP (Q50) = 0.802 1% AEP (Q100) = 0.836

Table 19: Catchment B Detention Basin – Stage/Area Relationship

Stage (m)*	Detention Area (m^2)	Detention Storage (m^3)
0	472	0.0
0.1	509	49.1
0.2	547	101.9
0.3	586	158.5
0.4	626	219.1
0.5	667	283.8
0.6	709	352.6
0.7	752	425.6
0.8	797	503.1
0.9	842	585.0
1	888	671.5
1.1	935	762.7
1.15	959	810.0

**Note: The stage is from the start of the detention zone and excludes the 0.3m extended detention depth of the water quality component of the basin.*

5.3.5.2 Mitigation Effect of Detention Basin

A comparison of the peak median discharges for the pre and mitigated post-developed cases for Catchment B is detailed in Table 20.

Table 20: Comparison of Mitigated Flows at Outlet (Catchment B)

Outlet	Storm	Pre-Developed (m^3/s)	Post-Developed Mitigated (m^3/s)	Difference (m^3/s)	Difference (%)
Proposed swale to the south-east of the site (LPOD B)	39%	0.390	0.383	-0.007	-1.95
	18%	0.582	0.535	-0.047	-8.07
	10%	0.748	0.725	-0.023	-3.08
	5%	0.889	0.887	-0.002	-0.14
	2%	1.119	1.045	-0.074	-6.60
	1%	1.294	1.272	-0.022	-1.68

The above table demonstrates the proposed detention basin will ensure the post-development flows discharging from the Catchment B are attenuated to equal or below the pre-development rates.

The hydrograph for the critical duration of the Mitigated 1% AEP storm event compared against the pre and post-development is shown in *Figure 3.*

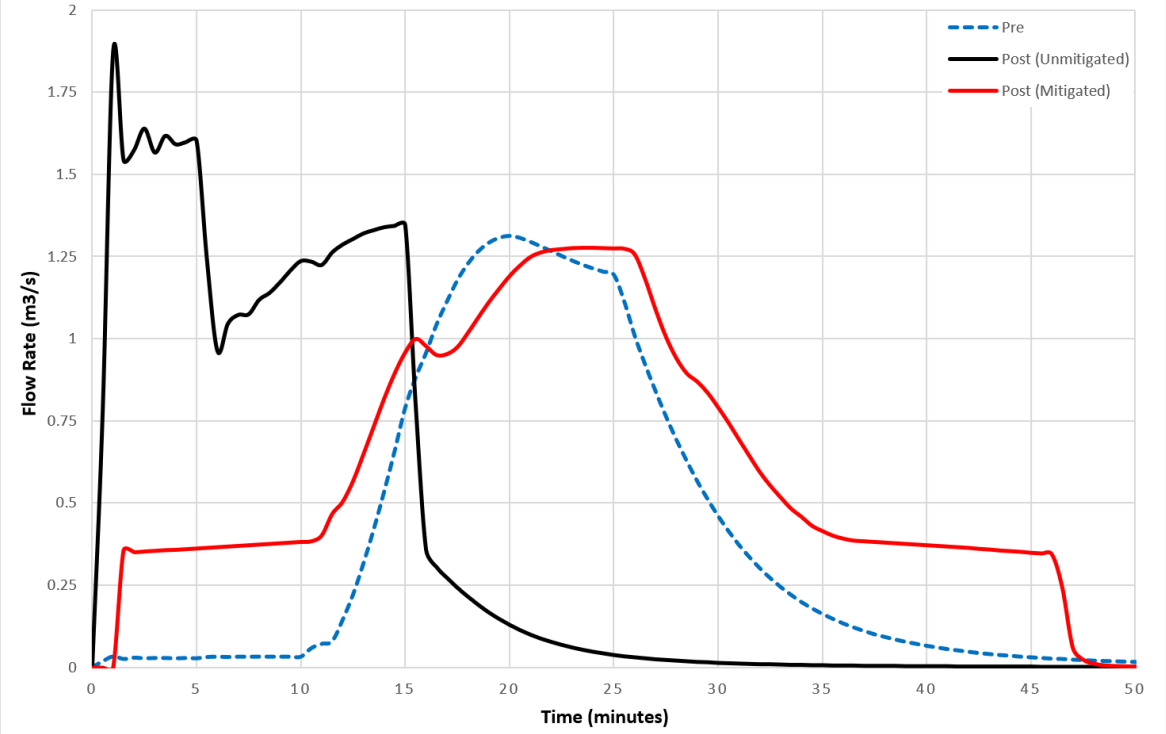


Figure 3: Pre, Post and Mitigated Flow Rates for the 1% AEP Design Storm Event (Catchment B)

The results in the tables and graph above confirm that the proposed detention basin effectively mitigates the runoff to equal or less than pre-developed flows for the full range of storms up to the 3hr event for Catchment B.

The hydraulic analysis using the XP-SWMM model has determined that a minimum detention basin volume of approximately 810m^3 is required to mitigate the increase in stormwater flow rates due to the development in Catchment B. The detention basin is to be fitted with an outlet configuration as detailed in Table 18 to satisfy the mitigation requirements. It is concluded that the proposed detention basin effectively mitigates the runoff to equal or less than pre-developed flows for all events up to the 1% AEP event for Catchment B.

Refer OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105/P004/2) & Conceptual Stormwater Management Details (Ref: OSK7105/P005/1) within Appendix E for further details.

6.0 STORMWATER QUALITY ASSESSMENT

6.1 Background

The development of the land has the potential to increase the pollutant loads within stormwater runoff and downstream watercourses. During the construction phase of the development, disturbances to the existing ground have the potential to significantly increase sediment loads entering downstream drainage systems and watercourses. The operational phase of the development will potentially increase the amount of sediments and nutrients washing from the site.

The following sections describe the construction and operational phase controls and water quality modelling of the proposed treatment train in compliance with Council guidelines.

6.2 Construction Phase

A high risk of stormwater pollution will occur from the site during the construction phase due to erosion and sediment transportation off-site to the receiving environment. The majority of this risk results from construction activities disturbing the site and exposing areas of soil to the direct erosive influence of the environment.

The following section outlines the procedures necessary to minimise erosion and control sediment during construction in accordance with the International Erosion Control Association (IECA) Best Practice ESC Document.

6.2.1 Key Pollutants

The key pollutants have been identified for the Construction Phase of this development.

Table 21: Key Pollutants, Construction Phase

Pollutant	Sources
Litter	Paper, construction packaging, food packaging, cement bags, material offcuts.
Sediment	Exposed soils and stockpiles during earthworks and building works.
Hydrocarbons	Fuel and oil spills, leaks from construction equipment and temporary car park areas.
Toxic Materials	Cement slurry, asphalt primer, solvents, cleaning agents, and wash waters (e.g., from tile works).
Acids or Alkaline substances	Acid sulphate soils, cement slurry and wash waters.

6.2.2 Sediment and Erosion Controls

Sediment and Erosion Control devices (S&EC) employed on the site shall be designed and constructed in accordance with the International Erosion Control Association (IECA) Best Practice ESC Document as shown on OSKA Consulting Group, Sediment and Erosion Control Plan (Ref: OSK7105/P006/2) & Sediment and Erosion Control Details (Ref: OSK7105/P007/1) included as Appendix F.

Pre-Construction

- Stabilised site access/exit onto Courtney Drive to the north;
- Sediment fences to be located around the perimeter of the site;
- Sediment trap to be installed if required;
- Dust fencing to be installed if required; and
- Educate site personnel to the requirements of Erosion and Sediment Control Plan.

Initial Construction

- Maintain construction access/exit, sediment fencing, dust fences and all other existing controls as required;
- Construct diversion drains to convey disturbed site run-off to the temporary sediment traps; and
- Confine construction activities to stages to minimise areas of disturbance at any given time.

Second Stage Construction

- Maintain construction access/exit, sediment fencing, dust fences, diversion drain and all other existing controls as required;
- Progressively revegetate finished areas where applicable;
- Divert runoff from undisturbed areas around disturbed areas; and
- Drainage structure protection around field inlets and gully pits.

During construction, all areas of exposed soils allowing dust generation are to be suitably treated. Treatments will include covering the soil and watering. Road accesses are to be regularly cleaned to prevent the transmission of soil on vehicle wheels and eliminate any build-up of typical road dirt and tyre dust from delivery vehicles.

Adequate waste disposal facilities are to be provided and maintained on the site to cater for all waste materials such as litter, hydrocarbons, toxic materials, acids or alkaline substances.

6.2.3 Water Quality Monitoring and Inspections

To ensure that the water quality objectives are being met during the construction phase of the development, water quality monitoring shall be conducted. Water quality monitoring shall use a calibrated probe or sampling and testing at a NATA registered laboratory.

Location: Monitoring Stations shown on OSKA Consulting Group, *Sediment and Erosion Control Plan* (Ref: OSK7105/P006/2).

Parameters: Site discharge criteria.

Frequency: Following at least 10 mm of rainfall in a 24-hour period.

The contractor shall be responsible for the inspection and maintenance of all sediment and erosion control devices. Additional controls and review of existing controls shall be undertaken in response to the results of the above-mentioned monitoring program.

6.2.4 Reporting

An inspection report shall be written by a suitably qualified and experienced scientist/engineer following each water quality monitoring episode. The report shall include at least the following information:

- Name, address and real property description for the development site;
- Council file reference number (if known);
- Monitoring locations;
- Performance criteria;
- Results for each monitoring location, identifying any breaches of performance criteria;
- Recommended corrective actions to be taken and additional sediment and erosion controls, if required; and
- Inspection reports shall be provided to the contractor for their action and compilation in an on-site register.

If the above-mentioned performance criteria are exceeded and results from the downstream monitoring stations show significant deterioration from upstream results (if applicable), the contractor shall implement all recommendation of the inspection report within one (1) working day of receipt of the report.

6.3 Operational Phase

The following sections provide details of the Stormwater Quality Improvement Devices (SQID's) proposed for the operational phase of the development. OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105/P004/2) & Conceptual Stormwater Management Details (Ref: OSK7105/P005/1) in Appendix E illustrates the size and location of the proposed SQID's.

6.3.1 Stormwater Quality Objectives

To protect the water quality of the downstream watercourses, the following Water Quality Objectives (WQO's) have been applied to stormwater runoff from the site in accordance with CoGC SC6.12.4.5.4.2 Stormwater quality objectives (operational phase) and the criteria of the CoGC Healthy Waters Code as addressed in OSKA Engineers, Response to Healthy Waters Code (Ref: OSK7105-0003) included as Appendix G.

Best Management Practices (BMP) are required to be demonstrated for all Development Applications within the City of Gold Coast and are recommended to be implemented by the developer. Where practicable, methods such as first flush devices, and discharging stormwater to landscaped/grassed areas prior to discharge to the LPOD, are to be incorporated into the site's stormwater strategy, where the opportunity is available.

The following load reduction targets must be achieved when assessing the post-development treatment train (comparison of unmitigated developed case versus developed mitigated case).

- 80% reduction in Total Suspended Sediment (TSS).
- 60% reduction in Total Phosphorus (TP).
- 45% reduction in Total Nitrogen (TN).
- 90% reduction in litter (sized 5 mm or greater).

6.3.2 Post-Development MUSIC Modelling

To assess the potential quantities of pollutants anticipated to be discharged from the site, the water quality modelling package 'Model for Urban Stormwater Improvement Conceptualisation' (MUSIC) V6.3 by eWATER has been applied. MUSIC Modelling Parameters and delineated data have been sourced from Water by Design, MUSIC Modelling Guidelines, and where possible, via online MUSIC Link data.

Rainfall data has been sourced from Rainfall Station 40584, (Hinze Dam) using a date range from 1974 to 2010 and a 6 Minute Time Step, in accordance with CoGC requirements.

6.3.3 Stormwater Quality Improvement Devices

A Water Sensitive Urban Design (WSUD) approach has been adopted for the site with the majority of the runoff from Catchment B being treated by a bio-retention basin. The bio-retention basin will treat runoff from Catchment B as it is deemed more suitable for the proposed site use. To minimise the bypass areas from the development, rear allotment drainage has been proposed for Lots 5-10, 34-37 and 53 to ensure all minor flows (at least Q3 month) are directed into the proposed basin with localised grading to occur directing all ground flows into the pits. There will be a small amount of bypass with the ground areas from Lot 51 to bypass the basin with only the flows from the roof area being conveyed to the basin.

It is proposed to provide no permanent water quality devices for Catchment A and C as these areas consist of a small number of lots with steep terrain where constructing any permanent stormwater quality devices would be difficult and not considered to be suitable. It is anticipated that it would not cause any adverse impacts to the receiving system or downstream properties by not providing any permanent stormwater quality devices for Catchments A and C. These catchments that consist of Lots 1-4 and 23-25 will be excluded from the MUSIC Modelling and discharge directly to the kerb and channel of either Courtney Drive (Catchment A) or the proposed road reserve which will connect into the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) (Catchment B).

The proposed SQID's have been provided for modelling purposes only and is subject to Council approval. Accordingly, similar alternative devices may be adopted with Council review and approval.

The adopted MUSIC catchment areas for the subject site are as follows:

Table 22: Adopted MUSIC Catchment Areas

Catchment	Area (m^2)	% Impervious
Roof (Residential)	14,000	100
Road (Residential)	5,340	75
Ground (Residential)	10,710	30
Ground Bypass (Residential)	231	30
TOTAL Site	**30,281**	

Note all lots that grade to the rear will have rear allotment drainage that is to capture and convey flows to the proposed basin.

An illustration of the MUSIC model of the adopted operational treatment train for the post-development site has been provided in *Figure 4.*

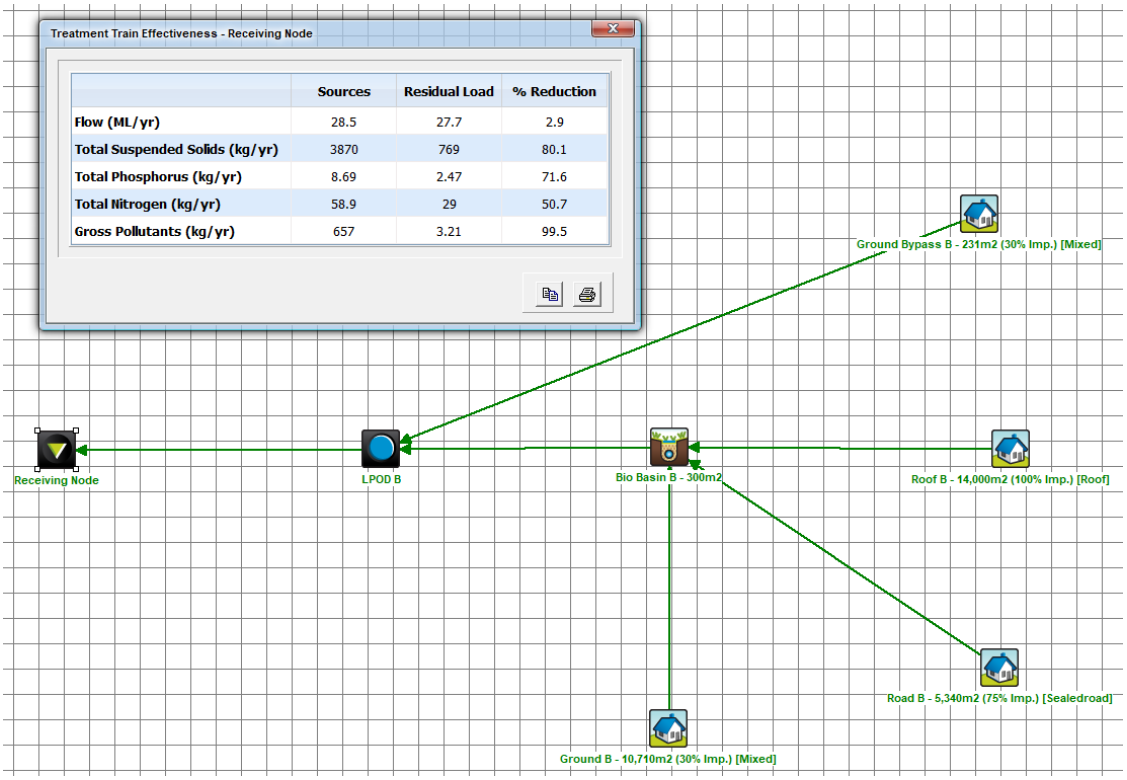


Figure 4: Operational Phase Treatment Train (Source: MUSIC Model)

6.3.4 Design Parameters of the Stormwater Quality Improvement System

Detailed design of the stormwater treatment train shall be in accordance with the Water Sensitive Urban Design (WSUD), Technical Design Guidelines for South East Queensland – Version 1 (June 2006).

Bio-Retention Basin

A bio-retention basin is designed to pond stormwater allowing it to percolate through a layer of filter media, typically sandy loam. Runoff passing through the filter media is collected with a perforated pipe discharging to the downstream drainage infrastructure. The bio-retention basin shall be located to treat all stormwater from the development area. A bund will be constructed to separate the bio-retention system and the open detention basin. This will ensure that the filter and surface area relationship detailed below is achieved.

The bio-retention basins have been modelled with the following properties:

- Filter media — Sandy Loam;
  5 – 10% Organic Content in accordance with AS1289.4.1.1;
  Average D_{50} 0.45 mm;
  K_{sat} 200 mm/hr;
  TN Content = 400 mg/kg
  Orthophosphate Content = 30 mg/kg
- Filter media depth — 0.70 m
- Drainage layer — 0.40m;
- Extended detention depth — 0.30 m;
- Seepage — 0 mm/hr;
- Filter Area — 300m^2;
- Surface Area — 330m^2.

6.3.5 Post-Development Modelling Results - Mitigated

The modelled Stormwater Quality Improvement Devices (SQID) have demonstrated a reduction in the amount of sediments and nutrients discharging from the proposed residential development. *Table 23* illustrates the effectiveness of the SQID's in the treatment train for the development.

Table 23: Treatment Train Effectiveness at Receiving Node

Parameter	Post	Post Mitigated	Reduction	Water Quality Objectives
Flow (ML/yr)	28.5	27.7	**2.9 %**	-
TSS (kg/yr)	3870	769	**80.1 %**	80 %
TP (kg/yr)	8.69	2.47	**71.6 %**	60 %
TN (kg/yr)	58.9	29	**50.7 %**	45 %
Gross Pollutants (kg/yr)	657	3.21	**99.5 %**	90 %

The results demonstrate that the proposed SQID's meet the intended Water Quality Objectives for Gross Pollutants, Suspended Solids, Phosphorous and Nitrogen levels, in accordance with the City of Gold Coast Requirements.

7.0 OPERATIONAL PHASE MAINTENANCE REQUIREMENTS

The proposed stormwater management devices will require maintenance and monitoring to ensure that they function as designed. The following section provides an outline of the necessary maintenance tasks for the proposed devices.

7.1 Bio-retention Basin Maintenance

The most intensive period of maintenance is during the plant establishment period (first two years) when weed removal and replanting may be required. It is also the time when large loads of sediments could impact on plant growth particularly in developing catchments with poor building controls.

Maintenance is primarily concerned with:

- Maintenance of flow to and through the bio-retention basin;
- Maintaining vegetation;
- Preventing undesired overgrowth vegetation from taking over the bio-retention basin;
- Removal of accumulated sediments; and
- Litter and debris removal.

Vegetation maintenance will include:

- Fertilising plants;
- Removal of noxious plants or weeds; and
- Re-establishment of plants that die.

Sediments accumulated at the inlets need to be monitored. Depending on the catchment activities the deposition of sediment can tend to smother plants and reduce the ponding volume available. Should excessive sediment build-up it will impact on the plant health and require removal before it reduces the infiltration rate of the filter media. The proposed SQID's will require regular maintenance and monitoring to ensure that it functions as designed.

Table 24: Bio-retention Basin Maintenance Schedule

Bio-retention Basin Maintenance Checklist			
Inspection Frequency: 3 Monthly	**Date of Visit:**		
Location:			
Description:			
Site Visibility:			
Inspection Items	**Yes**	**No**	**Action Required (Details)**
Sediment accumulation at inflow points?			
Litter basin?			
Erosion at inlet or other key structures (e.g. crossovers)?			
Traffic damage present?			
Evidence of dumping (Building waste, oils etc)?			
Vegetation condition satisfactory (density, weeds etc)?			
Replanting required?			
Mowing required?			
Clogging of drainage points (sediment or debris)?			
Evidence of ponding?			
Damage/vandalism to structures present?			
Surface clogging visible?			
Drainage system inspected?			
Resettling of system required?			
Comments:			

8.0 ASSET HANDOVER

The proposed stormwater quality devices shall be dedicated to Council following the time of practical completion for the proposed development. An Asset Handover Checklist is provided as *Table 25* as a guideline for the necessary steps to be taken prior to the end of the maintenance period.

Table 25: Asset Handover Checklist

Asset Location:		
Construction By:		
Maintenance Period:		
Treatment:	**Y**	**N**
Actual treatment performance equivalent to design:		
Maintenance:		
Maintenance Plans Provided:		
Inspection and maintenance undertaken as per maintenance plan:		
Inspection and maintenance forms provided:		
Asset inspected for defects:		
Asset Information:		
Design assessment checklist provided:		
As constructed plans provided:		
Copies of all permits provided:		
Digital files provided:		

9.0 CONCLUSIONS

OSKA Engineers has been commissioned by Courtney Upper Coomera Developments Pty Ltd to prepare a Conceptual Stormwater Management Plan (CSWMP) to support a Development Application (DA) to the City of Gold Coast (CoGC) for the proposed Residential Subdivision situated at 17 Courtney Drive, Upper Coomera. This CSWMP intends to provide an optimised stormwater management system that would be compatible and readily integrated into the proposed site use.

This CSWMP details the conceptual planning, layout and design of the stormwater management infrastructure for both the construction and operational phases of this development and satisfies the requirements of the City of Gold Coast's Land Development Guidelines.

A hydrological analysis demonstrated that the anticipated post-development peak flow rates discharging from Catchment A are lower the pre-development flow rates. Therefore, onsite stormwater detention will not be required for Catchment A.

A hydrological analysis demonstrated that the anticipated post-development peak flow rates discharging from Catchment B are higher than the pre-development flow rates. A hydraulic model was built using the XP-SWMM software program, to estimate the required detention volume and arrangement. This report and stormwater management plan defined the layout of the proposed detention arrangement, which is to be provided in the form of a combined bio-retention and detention basin with approximate detention volume of 810m^3 at a depth of 1.20m in conjunction with the water quality aspect of the basin. This strategy demonstrates no adverse or actionable nuisance associated with the increased runoff rate on surrounding properties and infrastructure.

OSKA Engineers has adopted a Water Sensitive Urban Design (WSUD) approach, in accordance with the State Planning Policy, to managing the stormwater runoff from the proposed development by treating stormwater runoff within a bio-retention basin with a filter area of 300m^2. The SQID's utilised within the MUSIC model have been adopted to demonstrate a potential treatment system, pending Council approval.

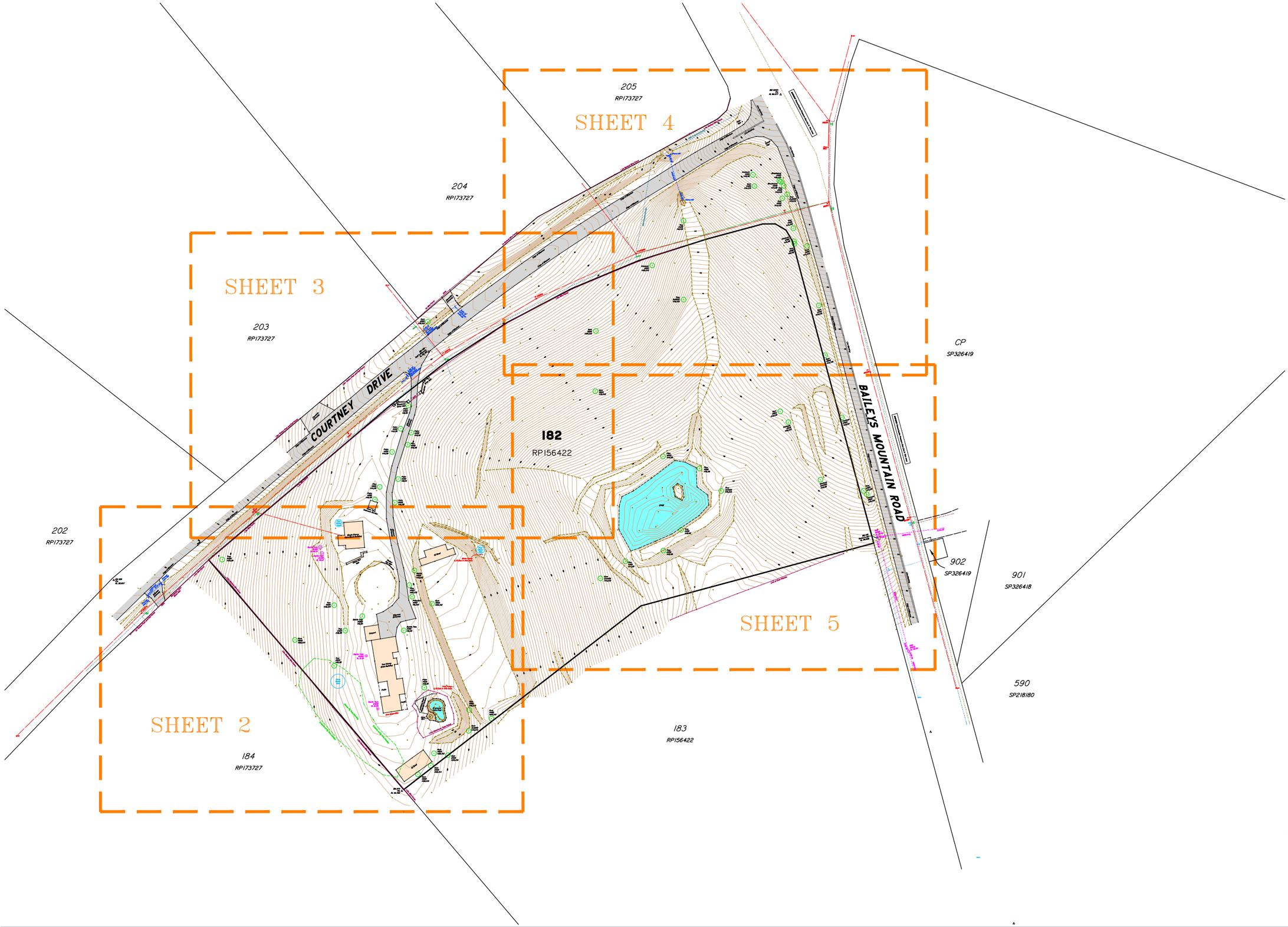
A monitoring and maintenance plan for the proposed infrastructure has been included. A concept sediment and erosion control plan is provided for the construction phase of the development and shall be implemented by the contractor and developer.

This stormwater quality strategy has defined the preliminary requirements and layout of the proposed development to demonstrate compliance with the State Planning Policy 2017 and the CoGC Planning Scheme Stormwater Quality Management requirements.

APPENDIX

A

Saunders Havill, Detail Plan (Ref: 12753 S 01 DT A)



LEGEND

Quality levels are shown on linetypes along with service type eg. E(A) — First Letter is the Service (Elec) and the second is Quality Level (A)

	by Survey	by Records
U/G ELECTRICITY	E(A) E(B)	E(C) E(D)
O/H ELECTRICITY	E E	E E
O/H TELECOMMUNICATIONS	T T	T T
U/G TELECOMMUNICATIONS	T(A) T(B)	T(C) T(D)
U/G DRAINAGE	D(A) D(B)	D(C) D(D)
SEWERAGE	S(A) S(B)	S(C) S(D)
WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	// //	

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
Electricity Manhole	EMH
Electricity Pit	EPit
Traffic Signal Pit	TrPit
Traffic Light	TL
Telecommunications Manhole	TMH
Telecommunications Pit	TPit
Tree / Shrub	

ABBREVIATIONS

MH	Manhole
SL	Surface Level
IL	Invert Level
BM	Bench Mark
Ø	Diameter
RCP	Reinforced Concrete Pipe
GI	Galvanised Iron
Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)

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Quality Level B - (significant risk reduction) Provides relative subsurface feature locations in three dimensions. The minimum requirement for QL-B is relative spatial position, this can be achieved via an electromagnetic frequency locating device. An electronic location provided by a DBYD Certified Locator to QL-B standard would have a maximum horizontal tolerance of plus or minus 300mm and a maximum vertical tolerance of plus or minus 500mm.

Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

PROJECT COORDINATE SYSTEM NOTES

Horizontal Meridian is MGA2020 (Zone 56) See IS339894
Project coordinates are based on plane or ground distances.
The coordinate origin is based on truncated values for C9301.

Base Point for MGA transformations: C9301
Project Coordinate: 28 005.934 E, 918 020.115 N
MGA2020 Coordinate: 528 005.934 E, 6 918 020.115 N
Rotation Project to MGA: none
Scale Factor: Project x 0.9995957 = MGA
Reverse Scale Factor: MGA x 1.0004045 = Project

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N

ISSUES

NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION
LOT 182 ON RP156422

LOCALITY:
UPPER COOMERA
LOCAL GOVERNMENT:
GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.
ORIGIN OF LEVELS: PM 27784
RL OF ORIGIN: 6.614
CONTOUR INTERVAL: 0.20m

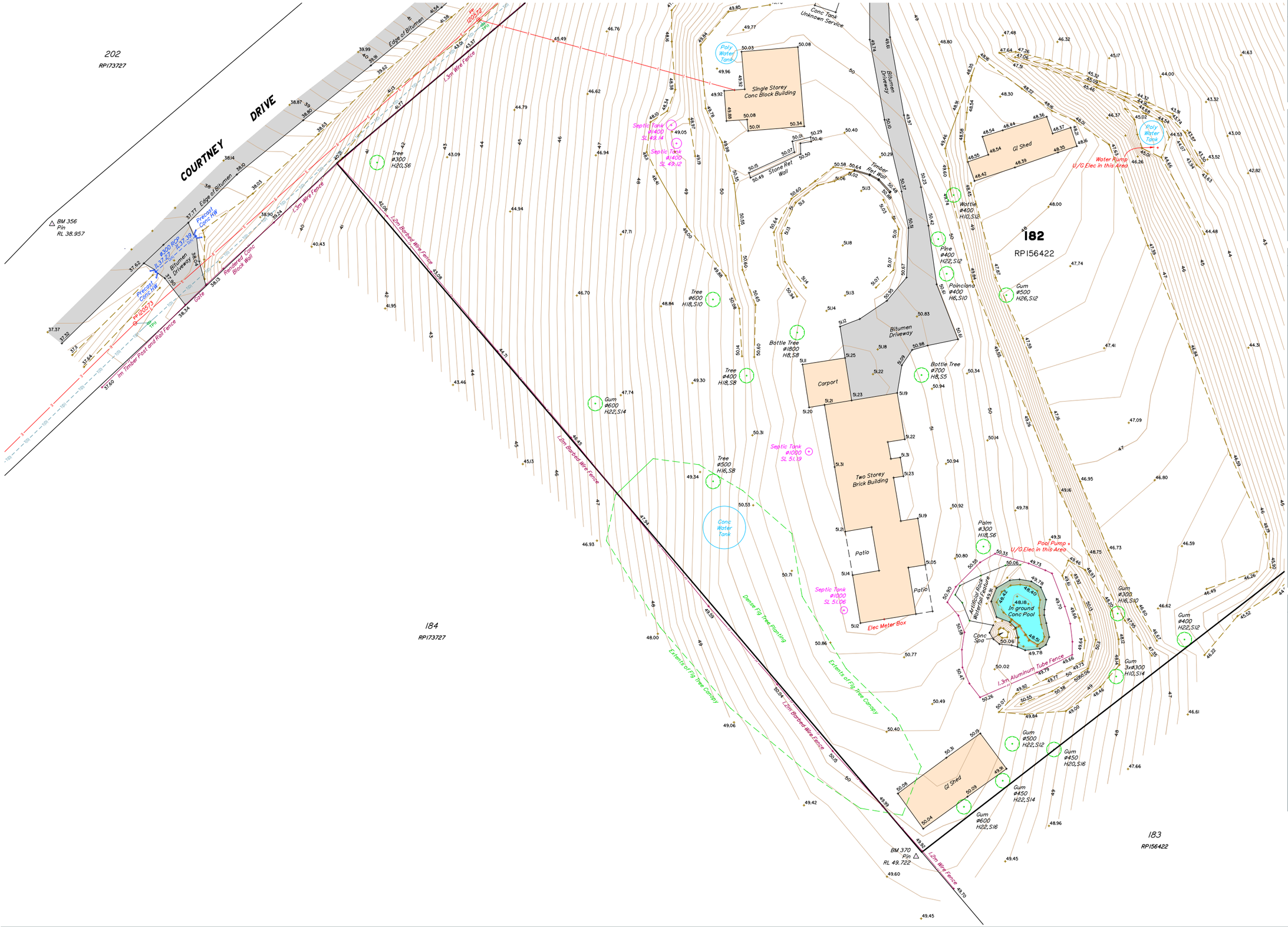
CLIENT
KASA GROUP HOLDINGS PTY LTD

SCALE
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1:1500@A3
0 5 10 30m

PROJECT
17 COURTNEY DRIVE, COOMERA

DRAWING TITLE
DETAIL PLAN
(SHEET 1 of 5)

DRAWING NO.
12753 S 01 DT A



LEGEND

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O/H ELECTRICITY	E E	E E
O/H TELECOMMUNICATIONS	T T	T T
U/G TELECOMMUNICATIONS	T(A) T(B)	T(C) T(D)
U/G DRAINAGE	D(A) D(B)	D(C) D(D)
SEWERAGE	S(A) S(B)	S(C) S(D)
WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	// //	

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
Electricity Manhole	EMH
Electricity Pit	EPit
Traffic Signal Pit	TrPit
Traffic Light	TL
Telecommunications Manhole	TMH
Telecommunications Pit	TPit
Tree / Shrub	

ABBREVIATIONS

MH	Manhole
SL	Surface Level
IL	Invert Level
BM	Bench Mark
Ø	Diameter
RCP	Reinforced Concrete Pipe
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Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

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ISSUES				
NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION: LOT 182 ON RP156422

LOCALITY: UPPER COOMERA

LOCAL GOVERNMENT: GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.

ORIGIN OF LEVELS: PM 27784

RL OF ORIGIN: 6.614

CONTOUR INTERVAL: 0.20m

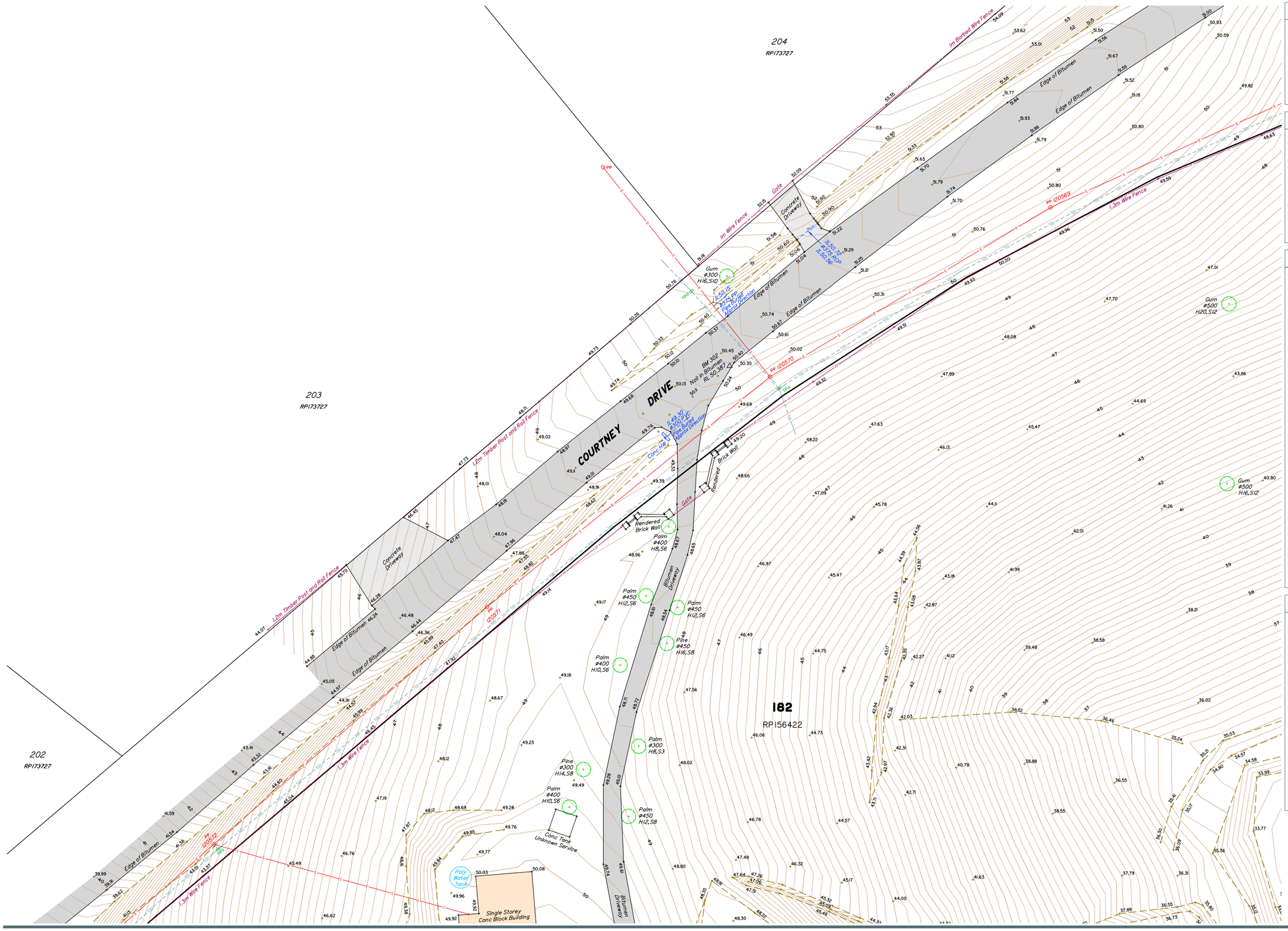
CLIENT: KASA GROUP HOLDINGS PTY LTD

SCALE: 1:250@A1 1:500@A3 (0 2.5 5 12.5m)

PROJECT: 17 COURTNEY DRIVE, COOMERA

DRAWING TITLE: DETAIL PLAN (SHEET 2 of 5)

DRAWING NO.: 12753 S 01 DT A



LEGEND

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O/H ELECTRICITY	E	E
O/H TELECOMMUNICATIONS	T	T
U/G TELECOMMUNICATIONS	T(A) T(B)	T(C) T(D)
U/G DRAINAGE	D(A) D(B)	D(C) D(D)
SEWERAGE	S(A) S(B)	S(C) S(D)
WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	//	//

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
Electricity Manhole	EMH
Electricity Pit	EPit
Traffic Signal Pit	TrPit
Traffic Light	TL
Telecommunications Manhole	TMH
Telecommunications Pit	TPit
Tree / Shrub	

ABBREVIATIONS

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LOT DESCRIPTION
LOT 182 ON RP156422

LOCALITY:
UPPER COOMERA

LOCAL GOVERNMENT:
GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.

ORIGIN OF LEVELS: PM 27784
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CONTOUR INTERVAL: 0.20m

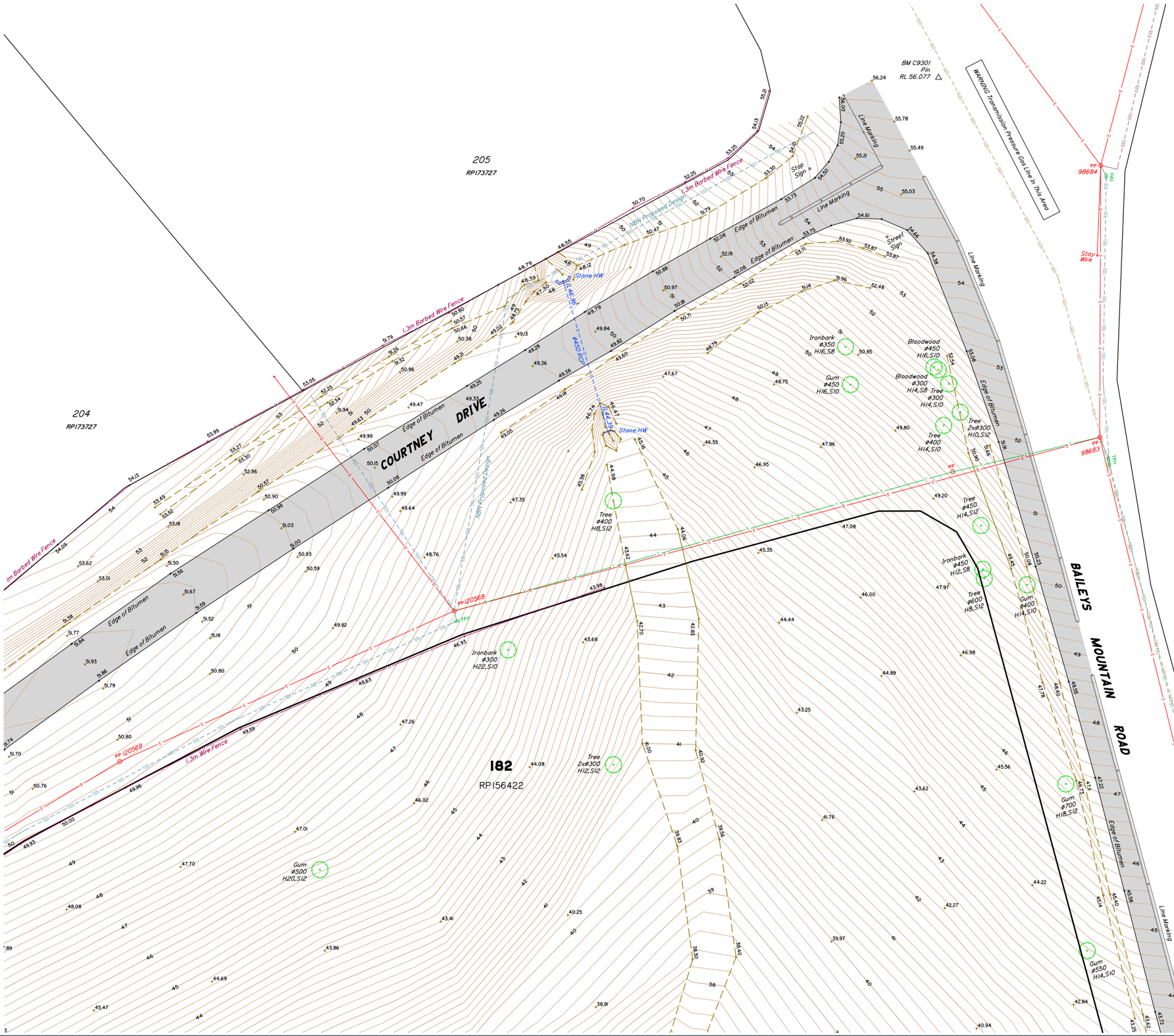
CLIENT
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SCALE
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PROJECT
17 COURTNEY DRIVE, COOMERA

DRAWING TITLE
DETAIL PLAN
(SHEET 3 of 5)

DRAWING NO.
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FENCE	// – //	

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LOT DESCRIPTION
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LOCALITY:
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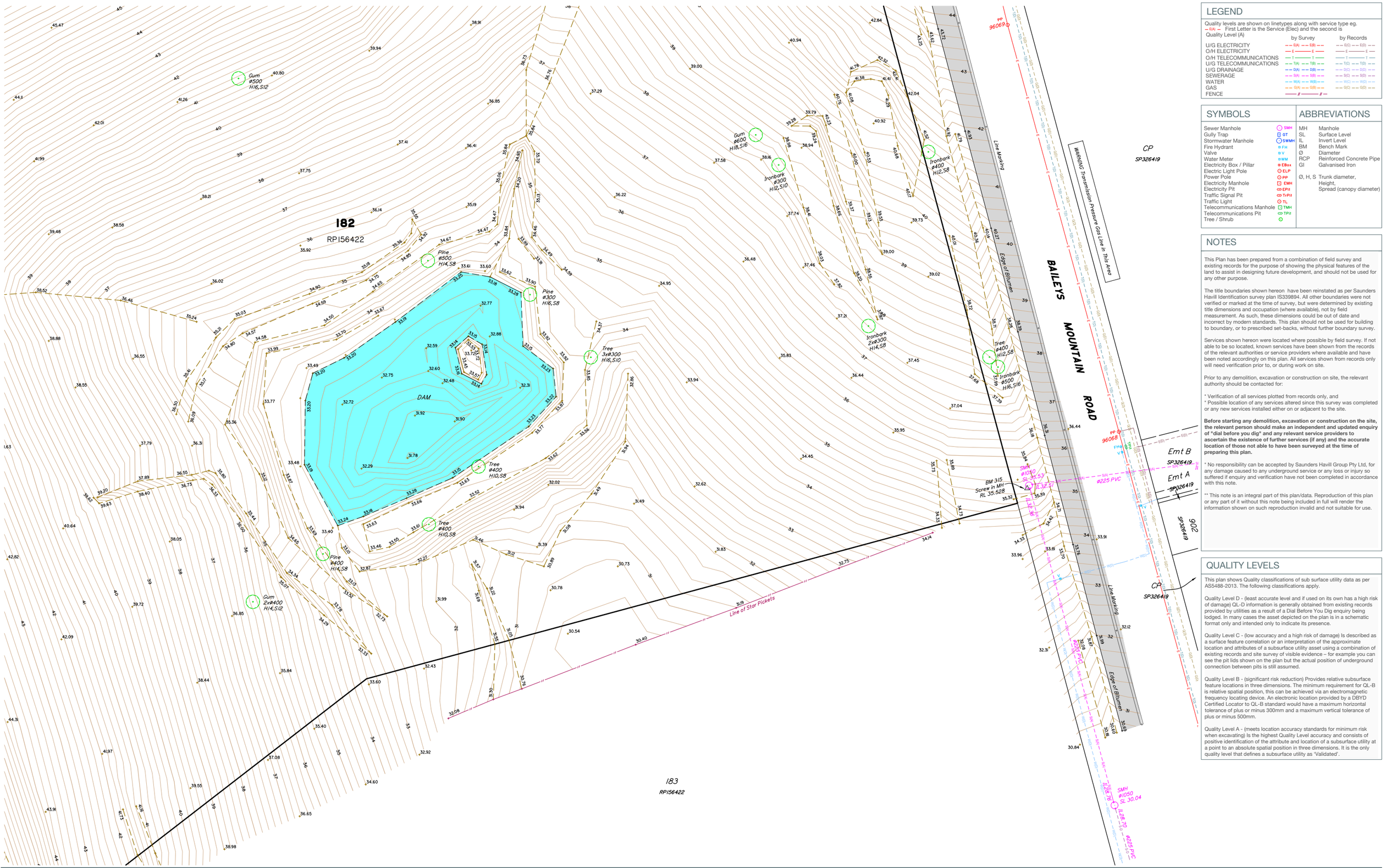
CLIENT
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SCALE
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0 2.5 5 12.5m

PROJECT
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DRAWING TITLE
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(SHEET 4 of 5)

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O/H ELECTRICITY	E E	E E
O/H TELECOMMUNICATIONS	T T	T T
U/G TELECOMMUNICATIONS	T(A) T(B)	T(C) T(D)
U/G DRAINAGE	D(A) D(B)	D(C) D(D)
SEWERAGE	S(A) S(B)	S(C) S(D)
WATER	W(A) W(B)	W(C) W(D)
GAS	G(A) G(B)	G(C) G(D)
FENCE	// //	

SYMBOLS

Sewer Manhole	SMH
Gully Trap	GT
Stormwater Manhole	SWMH
Fire Hydrant	FH
Valve	V
Water Meter	WM
Electricity Box / Pillar	EBox
Electric Light Pole	ELP
Power Pole	PP
Electricity Manhole	EMH
Electricity Pit	EPit
Traffic Signal Pit	TrPit
Traffic Light	TL
Telecommunications Manhole	TMH
Telecommunications Pit	TPit
Tree / Shrub	

ABBREVIATIONS

MH	Manhole
SL	Surface Level
IL	Invert Level
BM	Bench Mark
Ø	Diameter
RCP	Reinforced Concrete Pipe
GI	Galvanised Iron
Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)

NOTES

This Plan has been prepared from a combination of field survey and existing records for the purpose of showing the physical features of the land to assist in designing future development, and should not be used for any other purpose.

The title boundaries shown hereon have been reinstated as per Saunders Havill Identification survey plan IS339894. All other boundaries were not verified or marked at the time of survey, but were determined by existing title dimensions and occupation (where available), not by field measurement. As such, these dimensions could be out of date and incorrect by modern standards. This plan should not be used for building to boundary, or to prescribed set-backs, without further boundary survey.

Services shown hereon were located where possible by field survey. If not able to be so located, known services have been shown from the records of the relevant authorities or service providers where available and have been noted accordingly on this plan. All services shown from records only will need verification prior to, or during work on site.

Prior to any demolition, excavation or construction on site, the relevant authority should be contacted for:

* Verification of all services plotted from records only, and
* Possible location of any services altered since this survey was completed or any new services installed either on or adjacent to the site.

Before starting any demolition, excavation or construction on the site, the relevant person should make an independent and updated enquiry of "dial before you dig" and any relevant service providers to ascertain the existence of further services (if any) and the accurate location of those not able to have been surveyed at the time of preparing this plan.

* No responsibility can be accepted by Saunders Havill Group Pty Ltd, for any damage caused to any underground service or any loss or injury so suffered if enquiry and verification have not been completed in accordance with this note.

** This note is an integral part of this plan/data. Reproduction of this plan or any part of it without this note being included in full will render the information shown on such reproduction invalid and not suitable for use.

QUALITY LEVELS

This plan shows Quality classifications of sub surface utility data as per AS5488-2013. The following classifications apply.

Quality Level D - (least accurate level and if used on its own has a high risk of damage) QL-D information is generally obtained from existing records provided by utilities as a result of a Dial Before You Dig enquiry being lodged. In many cases the asset depicted on the plan is in a schematic format only and intended only to indicate its presence.

Quality Level C - (low accuracy and a high risk of damage) Is described as a surface feature correlation or an interpretation of the approximate location and attributes of a subsurface utility asset using a combination of existing records and site survey of visible evidence – for example you can see the pit lids shown on the plan but the actual position of underground connection between pits is still assumed.

Quality Level B - (significant risk reduction) Provides relative subsurface feature locations in three dimensions. The minimum requirement for QL-B is relative spatial position, this can be achieved via an electromagnetic frequency locating device. An electronic location provided by a DBYD Certified Locator to QL-B standard would have a maximum horizontal tolerance of plus or minus 300mm and a maximum vertical tolerance of plus or minus 500mm.

Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

Saunders Havill
BOWEN HILLS | SPRINGFIELD
1300 123 744 | mail@saundershavill.com

N

ISSUES

NO.	DRAWN	DATE	DESCRIPTION	CHECKED
A	MD	24/10/2025	ORIGINAL ISSUE	JL

LOT DESCRIPTION
LOT 182 ON RP156422

LOCALITY:
UPPER COOMERA
LOCAL GOVERNMENT:
GOLD COAST CITY

SURVEYED	DATE
BC	SEP / OCT 2025

LEVEL DATUM: AHD Der.
ORIGIN OF LEVELS: PM 27784
RL OF ORIGIN: 6.614
CONTOUR INTERVAL: 0.20m

CLIENT
KASA GROUP HOLDINGS PTY LTD

SCALE
1:250@A1
1:500@A3
0 2.5 5 12.5m

PROJECT
17 COURTNEY DRIVE, COOMERA

DRAWING TITLE
DETAIL PLAN
(SHEET 5 of 5)

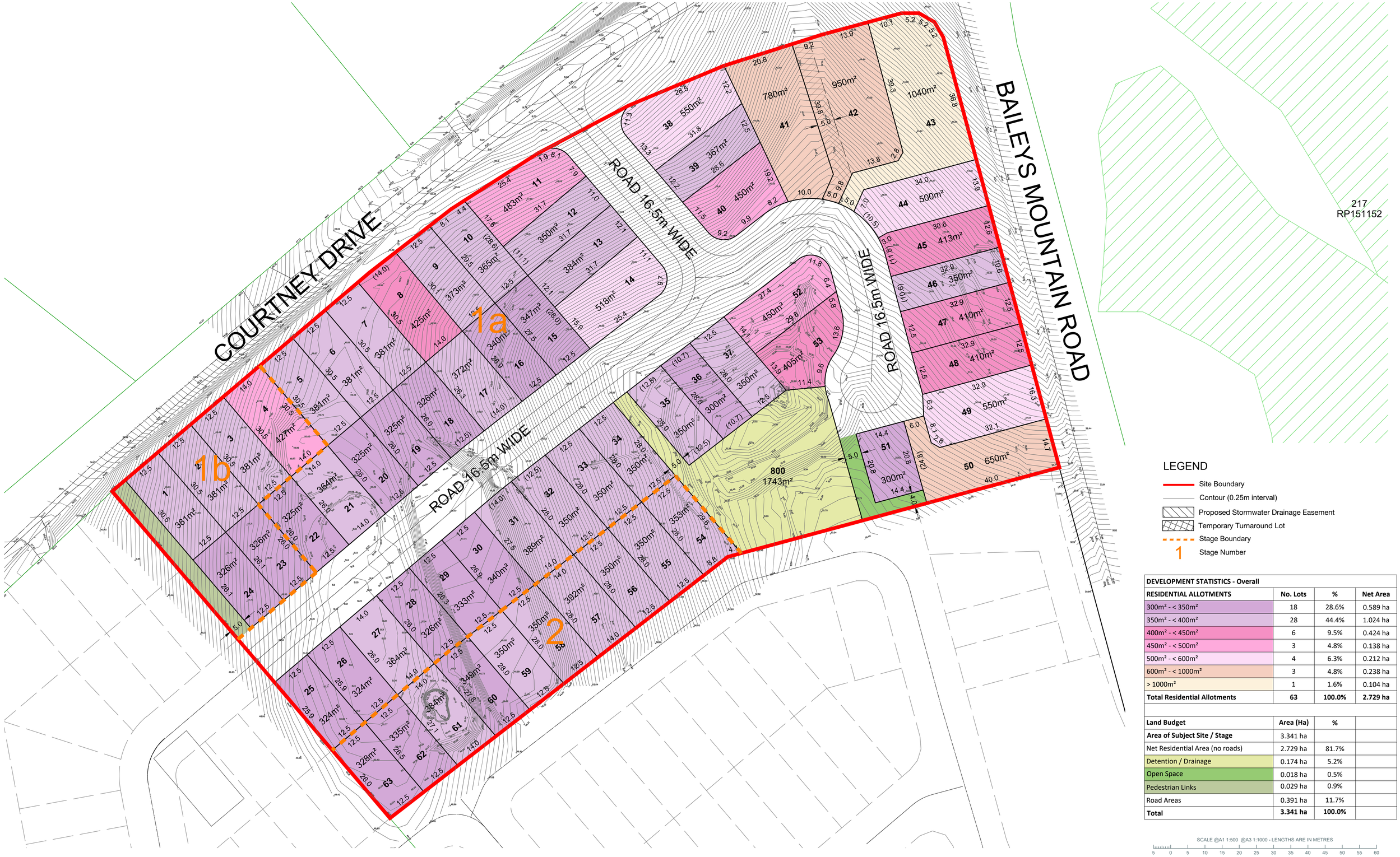
DRAWING NO.
12753 S 01 DT A

APPENDIX

B

Saunders Havill, Concept Plan (Ref: 13087 P 01)

PROPOSAL PLAN



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	18	28.6%	0.589 ha
350m² - < 400m²	28	44.4%	1.024 ha
400m² - < 450m²	6	9.5%	0.424 ha
450m² - < 500m²	3	4.8%	0.138 ha
500m² - < 600m²	4	6.3%	0.212 ha
600m² - < 1000m²	3	4.8%	0.238 ha
> 1000m²	1	1.6%	0.104 ha
Total Residential Allotments	**63**	**100.0%**	**2.729 ha**

Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	3.341 ha		
Net Residential Area (no roads)	2.729 ha	81.7%	
Detention / Drainage	0.174 ha	5.2%	
Open Space	0.018 ha	0.5%	
Pedestrian Links	0.029 ha	0.9%	
Road Areas	0.391 ha	11.7%	
Total	**3.341 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

5 0 5 10 15 20 25 30 35 40 45 50 55 60

Saunders Havill
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1300 123 744 | saundershavill.com

DISCLAIMER
THIS PLAN WAS PREPARED AS A CONCEPTUAL LAYOUT ONLY. IT IS NOT SUITABLE FOR ANY OTHER PURPOSE. PROPERTY DIMENSIONS, AREAS, LOT NUMBERS, AND OTHER FEATURES ARE BASED ON EXISTING INFORMATION AND MAY NOT HAVE BEEN VERIFIED BY SURVEY. THESE DETAILS MAY CHANGE SUBJECT TO DEVELOPMENT APPROVAL OR FURTHER DESIGN. PAVEMENT AND CENTRELINES SHOWN ARE INDICATIVE ONLY AND ARE SUBJECT TO ENGINEERING DESIGN. THE DESIGNS DOCUMENTED HEREIN REMAIN THE PROPERTY OF SAUNDERS HAVILL GROUP AND MUST NOT BE REPRODUCED OR USED IN WHOLE OR PART WITHOUT WRITTEN PERMISSION. SAUNDERS HAVILL GROUP ACCEPTS NO RESPONSIBILITY FOR ANY USE OR RELIANCE BY THIRD PARTIES. REPRODUCTION WITHOUT THIS NOTE IN FULL RENDERS THE INFORMATION INVALID.

SOURCE
PROJECTION: SURVEY COORDINATES AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025
CONTOURS: AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025

N

CLIENT
COURTNEY UPPER COOMER DEVELOPMENTS PTY LTD

SITE ADDRESS
17 COURTNEY DRIVE, UPPER COOMERA

RP DESCRIPTION
LOT 182 ON RP156422

DRAWN
AB

DATE
23/03/2026

DRAWING NO.
13087 P 01 Rev B - PRO 01

APPENDIX

C

OSKA Consulting Group, Pre-Development Catchment Plan (Ref: OSK7105/P001/1)

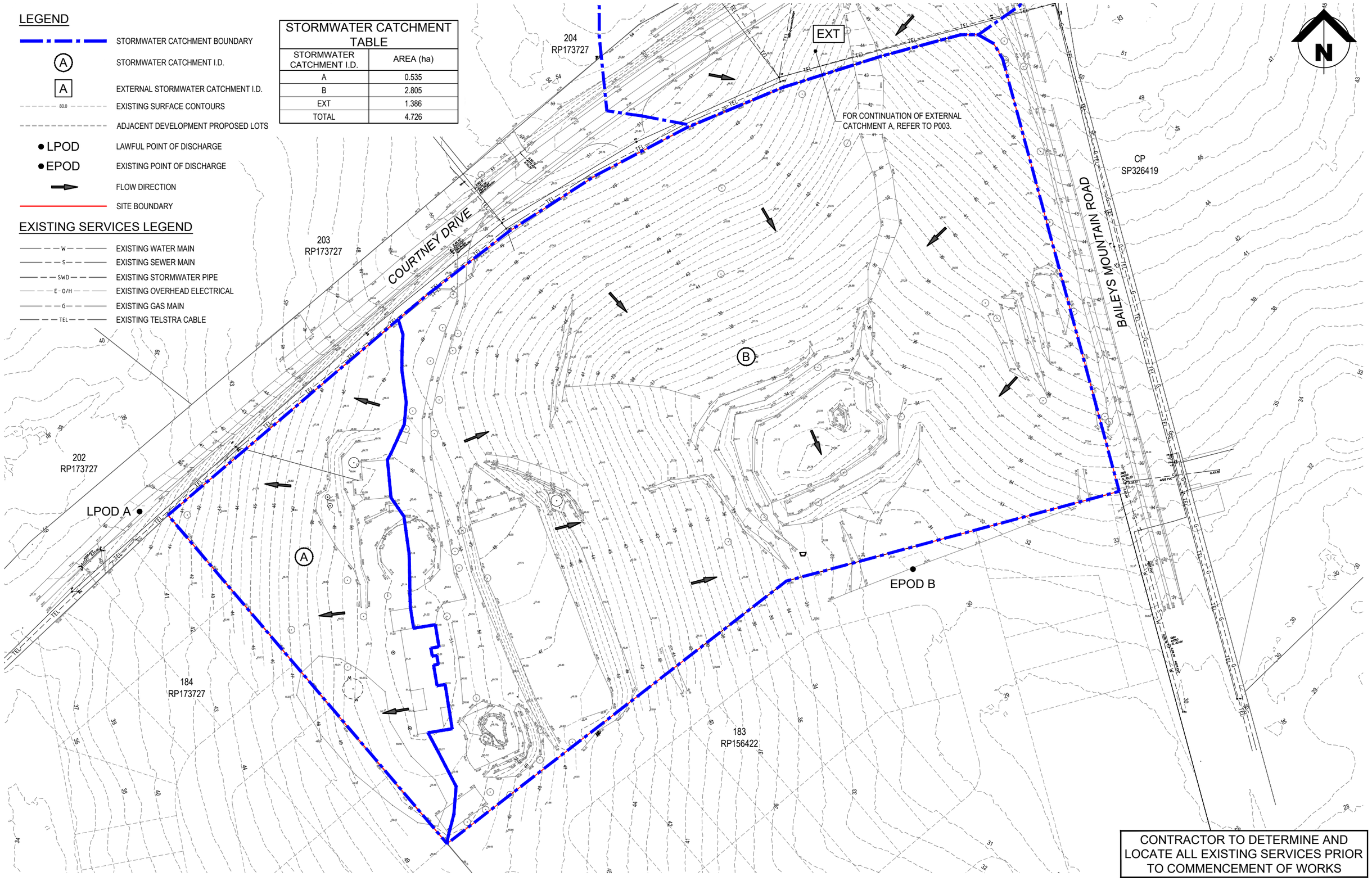
LEGEND

- STORMWATER CATCHMENT BOUNDARY
- (A) STORMWATER CATCHMENT I.D.
- [A] EXTERNAL STORMWATER CATCHMENT I.D.
- 80.0 EXISTING SURFACE CONTOURS
- ADJACENT DEVELOPMENT PROPOSED LOTS
- ● LPOD LAWFUL POINT OF DISCHARGE
- ● EPOD EXISTING POINT OF DISCHARGE
- FLOW DIRECTION
- SITE BOUNDARY

EXISTING SERVICES LEGEND

- W EXISTING WATER MAIN
- S EXISTING SEWER MAIN
- SWD EXISTING STORMWATER PIPE
- E-O/H EXISTING OVERHEAD ELECTRICAL
- G EXISTING GAS MAIN
- TEL EXISTING TELSTRA CABLE

STORMWATER CATCHMENT TABLE	
STORMWATER CATCHMENT I.D.	AREA (ha)
A	0.535
B	2.805
EXT	1.386
TOTAL	4.726



CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
1	ISSUED FOR INFORMATION	M.S.	27-03-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN B.G. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE

1:500 AT A1 | 1:1000 AT A3 — 0 10 20m

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT

PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE

FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE

PRE-DEVELOPMENT CATCHMENT PLAN

DRAWING NUMBER: OSK7105-P001

REVISION: 1

OSK105-7105-P001-Apr-26 Version Saved

APPENDIX

D

OSKA Consulting Group, Post-Development Catchment Plan (Ref: OSK7105/P002/2) & External Catchment Plan (Ref: OSK7105/P003/2)

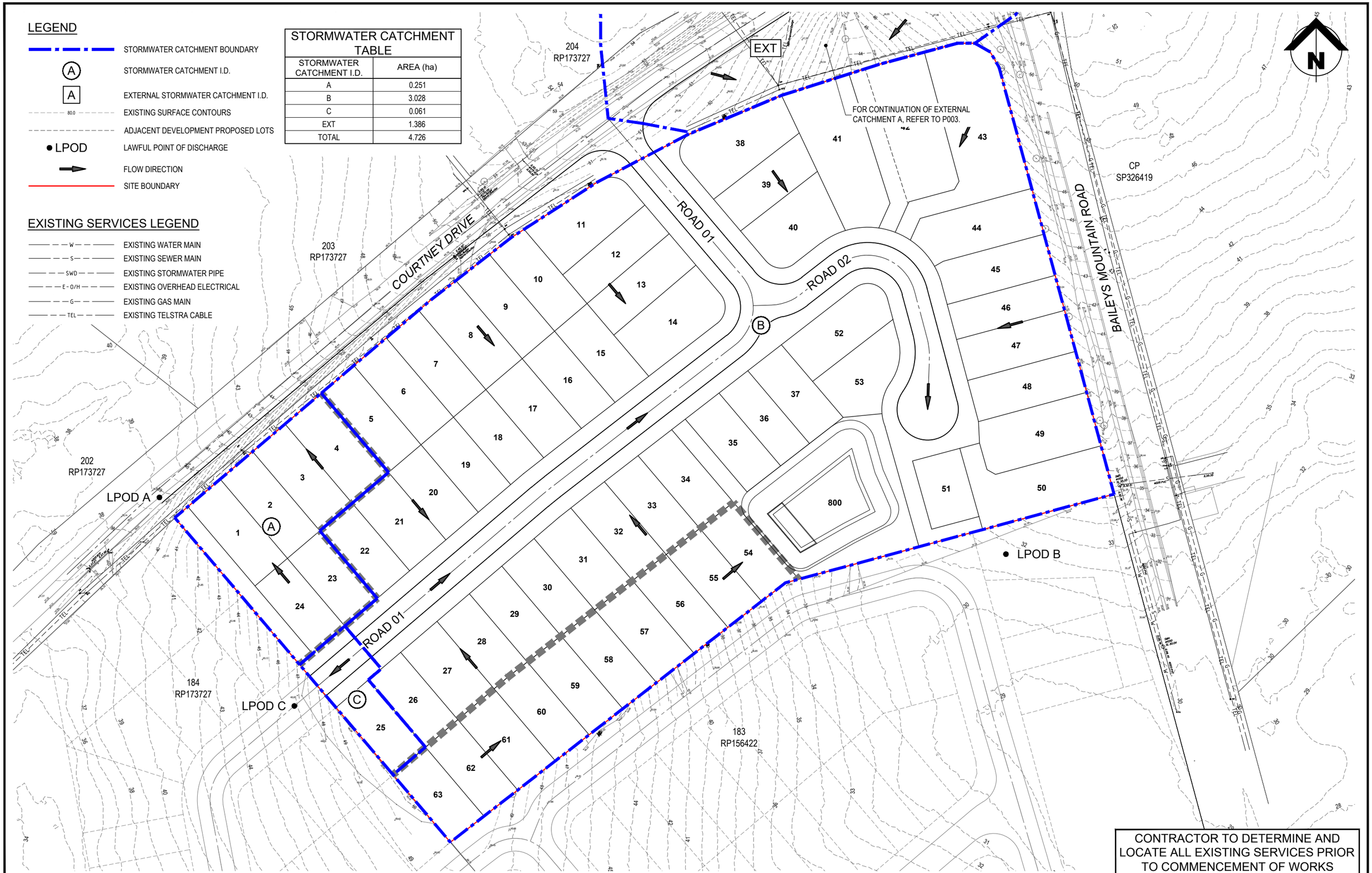
LEGEND

- STORMWATER CATCHMENT BOUNDARY
- (A) STORMWATER CATCHMENT I.D.
- [A] EXTERNAL STORMWATER CATCHMENT I.D.
- 80.0 EXISTING SURFACE CONTOURS
- ADJACENT DEVELOPMENT PROPOSED LOTS
- ● LPOD LAWFUL POINT OF DISCHARGE
- FLOW DIRECTION
- SITE BOUNDARY

EXISTING SERVICES LEGEND

- W EXISTING WATER MAIN
- S EXISTING SEWER MAIN
- SWD EXISTING STORMWATER PIPE
- E-O/H EXISTING OVERHEAD ELECTRICAL
- G EXISTING GAS MAIN
- TEL EXISTING TELSTRA CABLE

STORMWATER CATCHMENT TABLE	
STORMWATER CATCHMENT I.D.	AREA (ha)
A	0.251
B	3.028
C	0.061
EXT	1.386
TOTAL	4.726



CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN B.G. | APPROVED T.W.

SIGNED

DATE

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SCALE
1:500 AT A1 | 1:1000 AT A3 — 0 10 20m

CLIENT
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE
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TITLE
POST-DEVELOPMENT CATCHMENT PLAN

DRAWING NUMBER
OSK7105-P002

REVISION
2

Date/Time: Aug 11-Mar-26 Karara Sayri

LEGEND

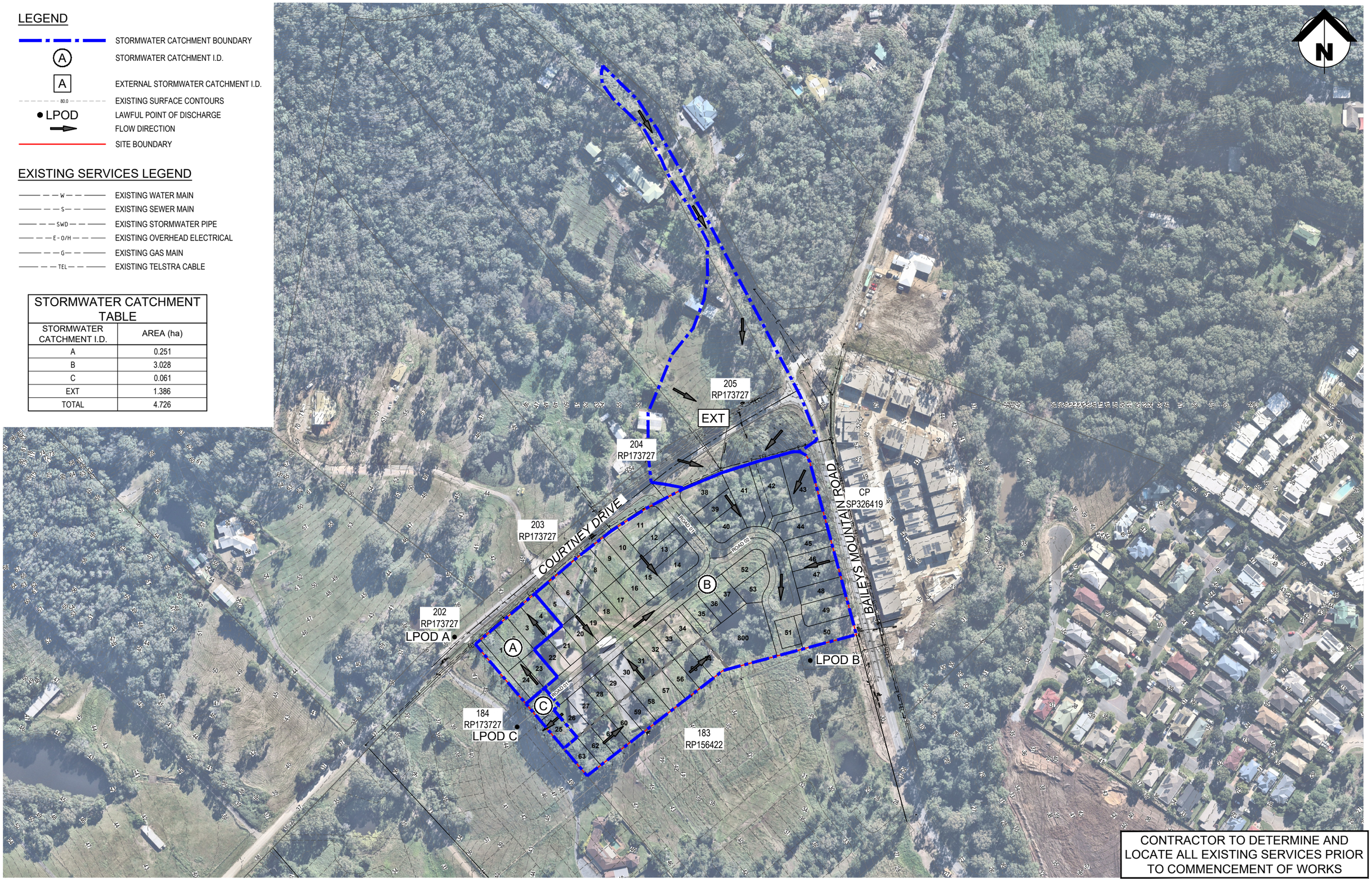
- STORMWATER CATCHMENT BOUNDARY
- (A) STORMWATER CATCHMENT I.D.
- [A] EXTERNAL STORMWATER CATCHMENT I.D.
- 80.0 EXISTING SURFACE CONTOURS
- ● LPOD LAWFUL POINT OF DISCHARGE
- FLOW DIRECTION
- SITE BOUNDARY

EXISTING SERVICES LEGEND

- W EXISTING WATER MAIN
- S EXISTING SEWER MAIN
- SWD EXISTING STORMWATER PIPE
- E-O/H EXISTING OVERHEAD ELECTRICAL
- G EXISTING GAS MAIN
- TEL EXISTING TELSTRA CABLE

STORMWATER CATCHMENT TABLE

STORMWATER CATCHMENT I.D.	AREA (ha)
A	0.251
B	3.028
C	0.061
EXT	1.386
TOTAL	4.726



CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN B.G. | APPROVED T.W.

SIGNED

DATE

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SCALE

1:1250 AT A1
1:2500 AT A3
0 25 50m

CLIENT

COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT

PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

TITLE

EXTERNAL CATCHMENT PLAN

STAGE / PHASE

FOR INFORMATION ONLY NOT FOR CONSTRUCTION

DRAWING NUMBER

OSK7105-P003

REVISION

2

Plotted: 27 Mar 26 - Nicola Lloyd

APPENDIX

E

OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105/P004/2) & Conceptual Stormwater Management Details (Ref: OSK7105/P005/1)

202
RP173727

203
RP173727

204
RP173727

205
RP173727

COURTNEY DRIVE

ROAD 01

ROAD 02

STAGE 1b

STAGE 1a

STAGE 2

184
RP173727

183
RP156422

CP
SP326419

BAILEYS MOUNTAIN ROAD

PROPOSED Ø600mm PIPE AT MINIMUM 1.15% GRADE TO CONVEY EXTERNAL CATCHMENT FLOWS UP TO 1% AEP (SIZE TO BE CONFIRMED IN DETAILED DESIGN)

PROPOSED INLET PIT/S TO CAPTURE EXTERNAL CATCHMENT FLOWS UP TO THE 1% AEP

PROPOSED SEDIMENT FOREBAY

10m WEIR AT 0.77m ABOVE DETENTION INVERT.
FINAL LOCATION AND DISCHARGE POINT TO BE CONFIRMED IN DETAILED DESIGN

2 x Ø375mm OUTLET PIPES AT 1.50% GRADE AT 0.35m ABOVE DETENTION INVERT

Ø375mm OUTLET PIPE AT 0.90% GRADE

BIO-RETENTION & DETENTION BASIN B:

FILTER AREA:	300m^2
SURFACE AREA:	330m^2
DETENTION BASE AREA:	472m^2
DETENTION TOP AREA:	959m^2
BASIN FLOOR IL:	26.1m AHD
TOP OF BASIN:	27.6m AHD

LEGEND

- STORMWATER CATCHMENT BOUNDARY
- EXISTING SURFACE CONTOURS
- LPOD — LAWFUL POINT OF DISCHARGE
- SWD — PROPOSED STORMWATER DRAINAGE
- SWD — PROPOSED STORMWATER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED SWALE
- FLOW DIRECTION
- SITE BOUNDARY
- PROPOSED BIO-RETENTION & DETENTION BASIN
- PROPOSED BIO-RETENTION BASIN FILTER AREA

EXISTING SERVICES LEGEND

- S — EXISTING SEWER MAIN
- W — EXISTING WATER MAIN
- SWD — EXISTING STORMWATER PIPE
- TEL — EXISTING TELECOMMUNICATIONS CABLE
- E — EXISTING ELECTRICAL CABLE
- G — EXISTING GAS MAIN

NOTE:

BASIN MAINTENANCE ACCESS IS TO BE CONSTRUCTED OUT OF CONCRETE AND DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CITY OF GOLD COAST STANDARDS AND REQUIREMENTS. SEDIMENT FOREBAY WILL BE DESIGNED AND INCORPORATED INTO BASIN (IF REQUIRED).

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN B.G. | APPROVED T.W.

SIGNED

DATE

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SCALE
1:500 AT A1 | 1:1000 AT A3 — 0 10 20m

CLIENT
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

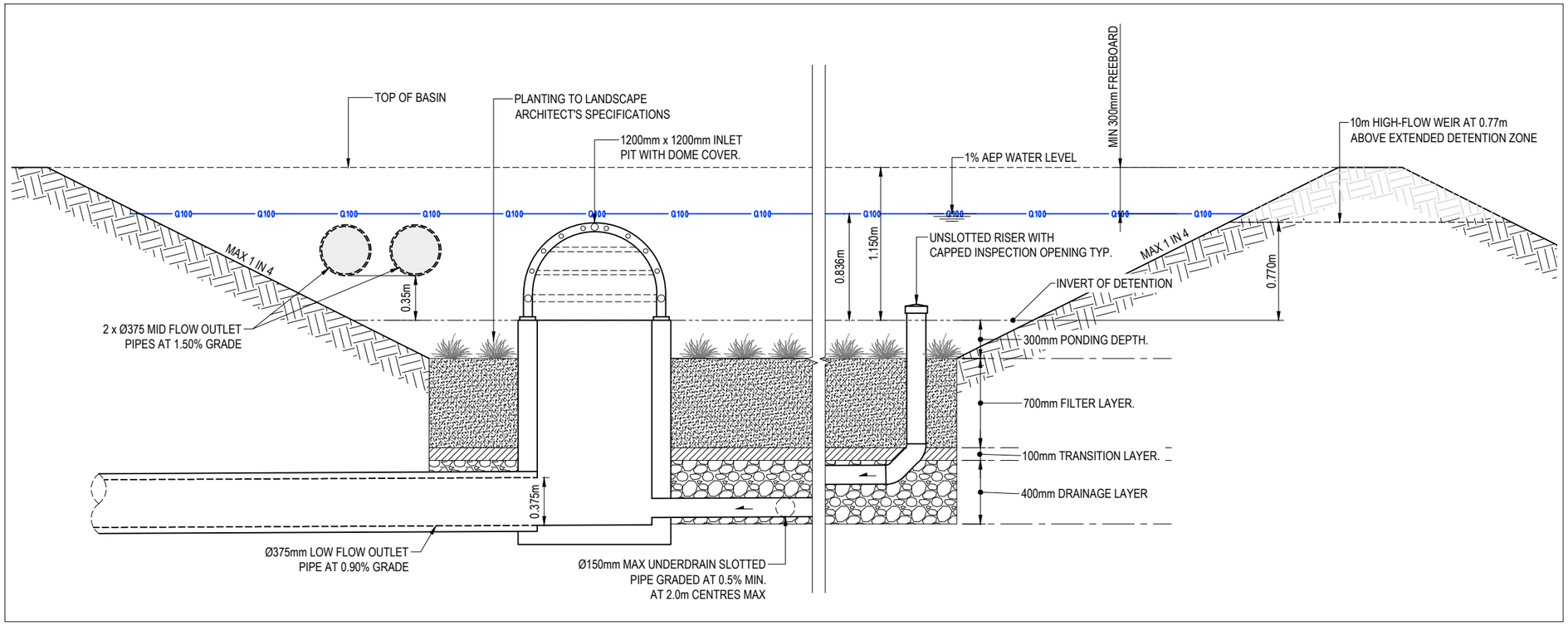
STAGE / PHASE
FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE
CONCEPTUAL STORMWATER MANAGEMENT PLAN

DRAWING NUMBER
OSK7105-P004

REVISION
2

Plotted: 27-Mar-26 by Nicola Sharp



BIO-RETENTION BASIN - TYPICAL SECTION

NTS

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
1	ISSUED FOR INFORMATION	M.S.	27-03-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN B.G. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE: NOT TO SCALE

CLIENT: COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE: FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE: CONCEPTUAL STORMWATER MANAGEMENT DETAILS

DRAWING NUMBER: OSK7105-P005

REVISION: 1

OSK7105-P005-R1.dwg 3/27/2026 1:54:47 PM by Tamara Stapf

APPENDIX

F

OSKA Consulting Group, Sediment and Erosion Control Plan (Ref: OSK7105/P006/2) & Sediment and Erosion Control Details (Ref: OSK7105/P007/1)

202
RP173727

203
RP173727

204
RP173727

205
RP173727

184
RP173727

183
RP156422

CP
SP326419

COURTNEY DRIVE

ROAD 01

ROAD 02

BAILEYS MOUNTAIN ROAD

STAGE 1b

STAGE 1a

STAGE 2

LPOD A

LPOD B

LPOD C

MS1

MS2

S.E.P.

DSP

SWD

SF

OMS

TEL

E

SEDIMENT & EROSION CONTROL LEGEND

- SEDIMENT FENCE
- PROPOSED SWALE
- TEMPORARY SEDIMENT PONDS WITHIN FUTURE BIO RETENTION BASINS
- LOCATION OF STABILISED ENTRY/EXIT POINT
- DRAINAGE STRUCTURE PROTECTION
- WATER QUALITY MONITORING STATION
- FLOW ARROW
- LPOD — LAWFUL POINT OF DISCHARGE
- 80.0 — FINISHED SURFACE CONTOURS
- 80.0 — EXISTING SURFACE CONTOURS
- SWD — PROPOSED STORMWATER PIPE
- SWD — PROPOSED STORMWATER MAIN (CONSTRUCTED BY OTHERS)
- STAGE BOUNDARY
- SITE BOUNDARY

CONCEPT ONLY

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ADEQUATE SEDIMENT & EROSION CONTROL DURING ALL PHASES OF CONSTRUCTION TO THE SATISFACTION OF BOTH THE SUPERINTENDENT AND COUNCIL.

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REV	DESCRIPTION	DRAWN	DATE
2	ISSUED FOR INFORMATION	M.S.	27-03-26
1	ISSUED FOR INFORMATION	R.B.	23-01-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN B.G. | APPROVED T.W.

SIGNED

DATE

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DRAWING IS NOT TO BE SCALED

SCALE
1:500 AT A1 | 1:1000 AT A3 — 0 10 20m

CLIENT
COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE
FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE
PRELIMINARY SEDIMENT & EROSION CONTROL PLAN

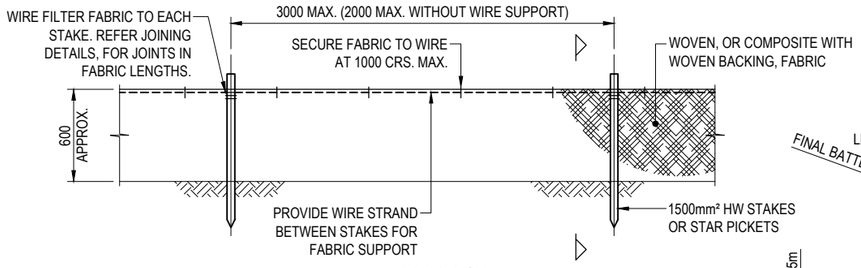
DRAWING NUMBER
OSK7105-P006

REVISION
2

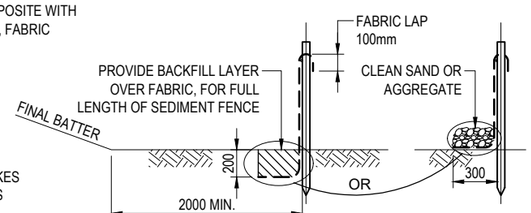
CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

CONCEPT ONLY

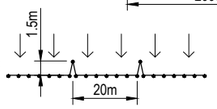
IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ADEQUATE SEDIMENT & EROSION CONTROL DURING ALL PHASES OF CONSTRUCTION TO THE SATISFACTION OF BOTH THE SUPERINTENDENT AND COUNCIL.



ELEVATION



SECTION

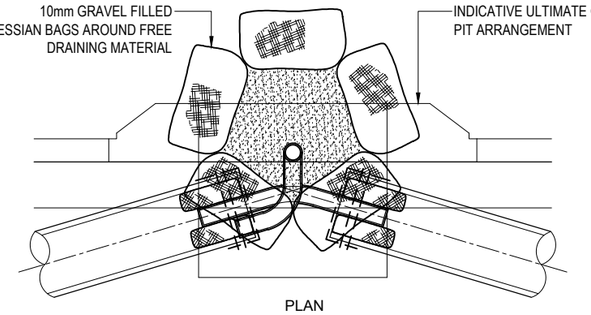


NOTE: INSTALL 1.5m (MIN.) DEEP 'RETURNS' AT 20m SPACING (MAX.) ON UPSLOPE SIDE OF FENCELINE (5-10m MAX SPACING IF FENCE ALIGNED AT ANGLE TO CONTOUR). EG:

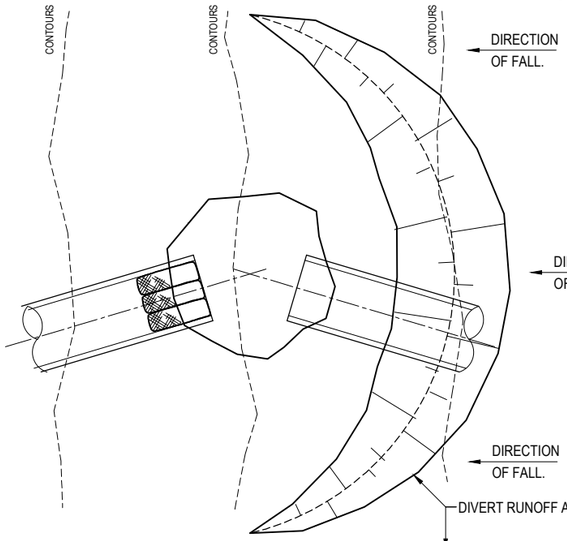
SEDIMENT FENCE DETAILS

N.T.S.

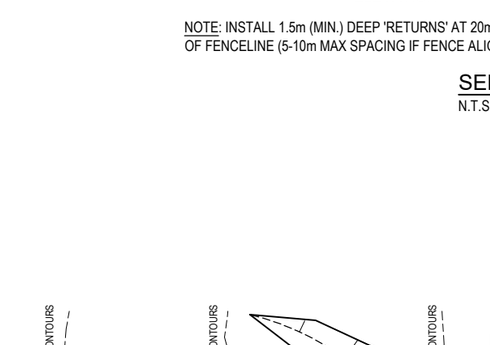
SF DENOTES SEDIMENT FENCE. REFER PLAN FOR LOCATION AND EXTENTS.



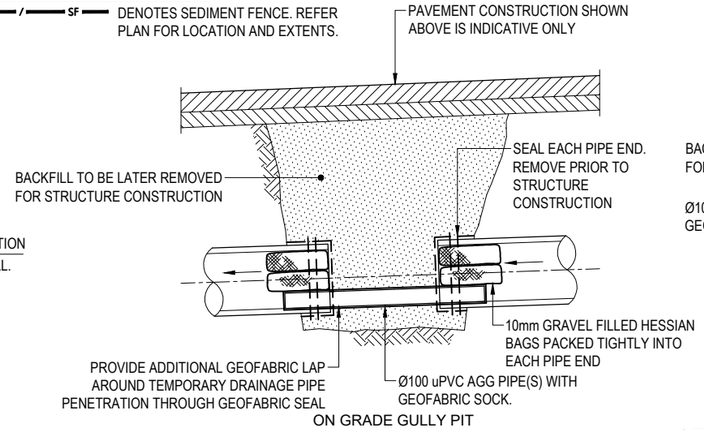
PLAN



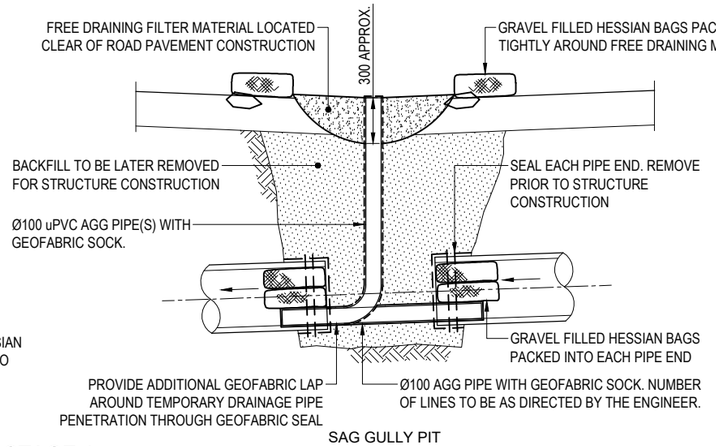
PLAN



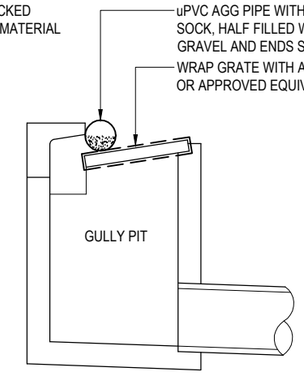
STAGE 1
EXCAVATION AND PIPE INSTALLATION



ON GRADE GULLY PIT



SAG GULLY PIT



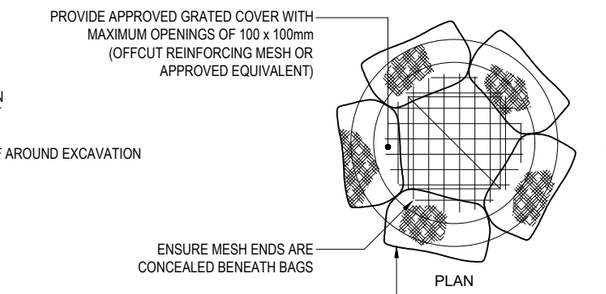
STAGE 2
STRUCTURE COMPLETE

STAGE 1
EXCAVATION, PIPE INSTALLATION AND INTERIM BACKFILLING

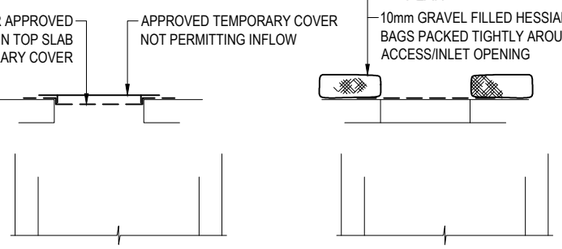
ROADWAY GULLY PIT

N.T.S.

DSP DENOTES DRAINAGE STRUCTURE PROTECTION. REFER PLAN FOR LOCATION & EXTENTS.



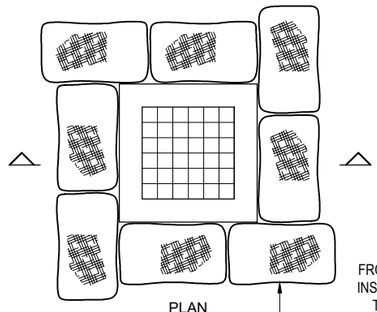
PLAN



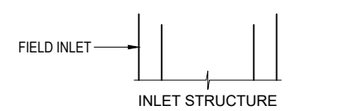
ACCESS CHAMBER

INLET STRUCTURE

STAGE 2

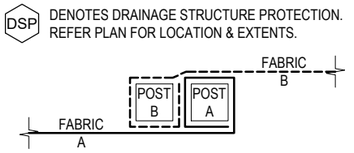


PLAN



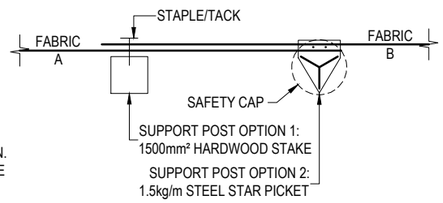
INLET STRUCTURE

STAGE 3



FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. STAKE B TO BE DRIVEN TIGHTLY AGAINST STAKE A. THE TOPS OF BOTH STAKES TO BE SECURED WITH WIRE.

METHOD 1

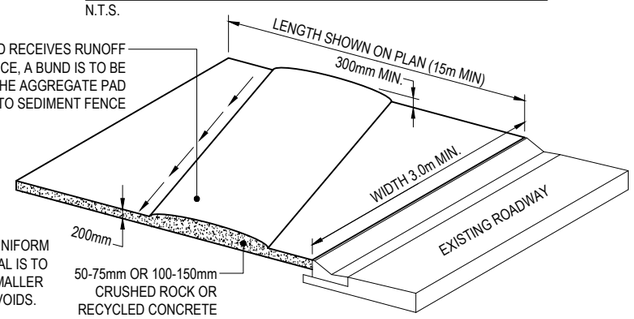


METHOD 2

SEDIMENT FENCE FABRIC JOINING DETAILS

N.T.S.

IF ENTRY/EXIT PAD RECEIVES RUNOFF FROM SOIL DISTURBANCE, A BUND IS TO BE INSTALLED ACCROSS THE AGGREGATE PAD TO DIRECT RUNOFF TO SEDIMENT FENCE



NOTE:
ROCK IS TO BE UNIFORM SIZE. IE. MATERIAL IS TO NOT CONTAIN SMALLER ROCKS FILLING VOIDS.

STABILISED ENTRY/EXIT POINT

N.T.S. OR APPROVED EQUIVALENT

SEP DENOTES STABILISED ENTRY/EXIT POINT, REFER PLAN FOR LOCATIONS.

REV	DESCRIPTION	DRAWN	DATE
1	ISSUED FOR INFORMATION	M.S.	27-03-26
0	ISSUED FOR INFORMATION	M.S.	02-12-25

DRAWN M.S. | DESIGN B.G. | APPROVED T.W.

SIGNED

DATE

OSKA CONSULTING GROUP

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DRAWING IS NOT TO BE SCALED

SCALE: NOT TO SCALE

CLIENT: COURTNEY UPPER COOMERA DEVELOPMENTS PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
17 COURTNEY DRIVE
UPPER COOMERA 4209 QLD

STAGE / PHASE: FOR INFORMATION ONLY NOT FOR CONSTRUCTION

TITLE: PRELIMINARY SEDIMENT & EROSION CONTROL DETAILS

DRAWING NUMBER: OSK7105-P007

REVISION: 1

OSK105-2017-Civil-Plot-24 Nov 25 10:07:01

APPENDIX

G

OSKA Engineers, Response to Healthy Waters Code (Ref: OSK7105-0003)

City Plan code template

This code template supports the preparation of a development application against either the acceptable outcome(s) or performance outcome(s) contained in the code. Development assessment rules are outlined in **Section 5.3.3** of the City Plan.

Please note:

Note: In accordance with Section 2.1 of City Plan, an assessment against State interest - Water quality (policies 4 and 5) of the State Planning Policy 2017 is required as the Healthy water development code does not fully integrate this State interest. A response table for policies 4 and 5 have been included below.

For assessment against the overall outcomes, refer to the appropriate code.

Note: The whole of the planning scheme is identified as the assessment benchmark for impact assessable development. This specifically includes assessment of impact assessable development against this strategic framework. The strategic framework may contain intentions and requirements that are additional to and not necessarily repeated in zone, overlay or other codes. In particular, the performance outcomes in zone codes address only a limited number of aspects, predominantly related to built form. Development that is impact assessable must also be assessed against the overall outcomes of the code as well as the strategic framework.

9.4.5 Healthy waters code

9.4.5.3 Specific benchmarks for assessment

PART B – ASSESSABLE DEVELOPMENT BENCHMARKS

Table 9.4.5-3: Healthy waters code – for assessable development

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
Erosion and sediment control			
PO1 Stormwater discharge from a development site achieves the construction phase water quality objectives of **SC6.12 City Plan policy – Land development guidelines**, **Section 4 – Stormwater drainage and water sensitive urban design standards**.	**AO1** No acceptable outcome provided.	**PO** The stormwater discharge from the development extent achieves the construction phase water quality objectives of SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards. Refer to OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further details on the proposed treatment system.	
PO2 Erosion, sediment and dust is appropriately managed during the construction phase.	**AO2** The level of risk for soil erosion and sediment pollution to the environment is determined by an erosion hazard assessment, completed by a suitably-qualified person in accordance with the criteria in **Table 9.4.5-4: Erosion hazard assessment**. Where the erosion hazard assessment has a risk score of: (a) less than or equal to 10: A deemed to comply report is prepared by a suitably qualified person for Council approval, including conceptual location and design drawings of each treatment measure in plan and section views, in	**AO** An erosion hazard assessment was completed for the development in accordance with Table 9.4.5-4 and the proposed development totalled a risk score of 16. A concept sediment and erosion control plan is included in OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera. A detailed sediment and erosion plan will be required as part of the detailed design phase to ensure the plan addresses devices and management measures to control erosion and sediment for the pre-construction, construction and post-construction phases of the development, in accordance with the Best Practice Erosion and Sediment Control: International Erosion Control Association, (IECA) 2008.	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
	accordance with the *Best Practice Erosion and Sediment Control: International Erosion Control Association, (IECA) 2008, Australasia Chapter 2008.* (b) greater than 10 or developments involving multiple stages of disturbance or more than 1.25 ha of land: (i) For material change of use or reconfiguring a lot, a conceptual erosion and sediment control plan (ESCP) is prepared by a suitably-qualified person for Council approval in accordance with **SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards**, and the *Best Practice Erosion and Sediment Control: International Erosion Control Association (IECA) 2008, Australasia Chapter 2008*. (ii) For operational work, a detailed ESCP is prepared by a suitably-qualified person in accordance with **SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards**, and *Best Practice Erosion and Sediment Control: International Erosion Control Association (IECA) 2008, Australasia Chapter 2008*. The ESCP is to detail appropriate		

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
	treatment measures for the construction phase of development, demonstrating how the minimum design objectives in **Table 9.4.5-5: Stormwater design objectives** are achieved, including: (a) measures to ensure the release of sediment-laden stormwater for the nominated design storm are minimised when the design storm is exceeded; (b) detailed design, installation, construction, monitoring and maintenance requirements of all approved proprietary products in accordance with local conditions and manufacturer's recommendations; and (c) details of how the ESCP aligns with the approved development staging plan.		
Stormwater quality			
PO3 Development appropriately manages stormwater quality to:	**AO3.1** For post developed sites, the following minimum pollutant reduction targets are achieved: (a) Gross pollutants (>5mm) – 90%; (b) Total Suspended Solids (TSS) – 80%, (c) Total Phosphorus (TP) – 60%; and (d) Total Nitrogen (TN) – 45%.	**AO** A Conceptual Stormwater Management Plan (CSWMP) has been prepared for the proposed Residential Subdivision situated at 17 Courtney Drive, Upper Coomera. The CSWMP details the proposed treatment measures to be implemented to ensure compliance with SC6.12 City Plan policy – Land development guidelines. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further information.	
	AO3.2	**N/A**	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
(a) protect natural ecosystems; (b) protect water quality; (c) reduce runoff and peak flows; and (d) meet the water quality objectives and environmental values for Queensland waters. **Note: Water quality objectives and environmental values for Queensland waters are contained within *Schedule 1* of the *Environmental Protection (Water) Policy 2009*. Water quality objectives are locally specific and vary between and within river catchments.** **Note: A stormwater quality management plan prepared by a suitably qualified person in accordance with SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards, is Council's preferred method for addressing this performance outcome.**	For development on land less than 1.25ha, a deemed to comply solution for stormwater quality is achieved in accordance with **Table 9.4.5-6: Stormwater quality deemed to comply solutions**.		
	AO3.3 For development on land greater than 1.25ha, a stormwater quality management plan is to be prepared by a suitably qualified person in accordance with **SC6.12 City Plan policy – Land development guidelines**, **Section 4 – Stormwater drainage and water sensitive urban design standards**, is required.	**AO** A Conceptual Stormwater Management Plan (CSWMP) has been prepared for the proposed Residential Subdivision situated at 17 Courtney Drive, Upper Coomera. The CSWMP details the proposed treatment measures to be implemented to ensure compliance with SC6.12 City Plan policy – Land development guidelines. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further information.	
Waterway stability			
PO4 In-stream erosion, downstream of urban development is prevented by controlling the rate (or magnitude) and duration of sediment transporting flows.	**AO4** Post-development peak 0.632 Annual Exceedance Probability (AEP) event discharge within receiving waterway is limited to pre-development peak 0.632 AEP event discharge and is in accordance with **SC6.12 City Plan policy – Land development guidelines**, **Section 4 – Stormwater drainage and water sensitive urban design standards.**	**N/A** The development does not propose to discharge directly to any waterways.	
Stormwater quantity control			
PO5	**AO5** The following is achieved external to the	**AO**	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
Stormwater quantity management outcomes demonstrate no adverse impact on stormwater flooding or the drainage of properties external to the subject site.	development site: (a) no increase in peak flood flow rate from the development site for all events up to and including the 1% AEP; (b) no increase in peak flood velocities from the development site for all events up to and including the 1% AEP; (c) no increase in peak flood level from the development site for all events up to and including the 1% AEP; and (d) stormwater outfalls or discharge is located to avoid conflict with existing usage of downstream land or impacts on existing watercourse or drainage.	The development proposes a detention basin to ensure post development flow rates are mitigated to pre-development rates and that there is no increased runoff on downstream properties in accordance with SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further details.	
Lawful point of discharge			
PO6 Development ensures the stormwater systems are designed to not cause actionable nuisance that would adversely affect adjoining (upstream or downstream) properties.	**AO6** A lawful point of discharge must be identified and demonstrated that all discharge point/s from the development are in accordance with **SC6.12 City Plan policy – Land development guidelines**, **Section 4 – Stormwater drainage and water sensitive urban design standards**.	**AO** The development proposed to discharge flows to the kerb and channel of Courtney Drive, the proposed swale to the south-east of the site that is to be built as part of the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) and the kerb and channel of the proposed road reserve which will connect into the future development at 31-53 Courtney Drive (Ref: ROL/2024/116) (LPOD C) which are a Lawful Points of Discharge in accordance with SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further details.	
Overland flow paths			

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO7 Development must not obstruct free open surface flow of stormwater through a site.	**AO7** Overland flowing stormwater is allowed free open surface flow between the street and any waterway at the rear or sides of a property, in accordance with the provisions of the *Building Code of Australia*.	**N/A**	
Whole of life costs			
PO8 Stormwater infrastructure is designed and constructed to: (a) remain fit for purpose for the life of the development and maintains full functionality in the design flood event; (b) be cost effective to maintain; and (c) ensure no structural damage to existing stormwater infrastructure.	**AO8** No acceptable outcome provided.	**PO** The proposed stormwater infrastructure for the development has been designed to be fit for purpose for the development and is a cost effective solution. A Maintenance Management Plan will be required during the detailed design phase to ensure sufficient maintenance of the treatment system throughout the life of the development. Any damages that occur to the existing Council infrastructure during construction will be rectified. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further details.	
Landscape integration			
PO9 Stormwater treatment devices and stormwater infrastructure are designed to:	**AO9.1** Where stormwater treatment devices and stormwater infrastructure are integrated into public open space, a Statement of Landscape Intent is to be prepared by a suitably qualified person, for approval by Council. The plan is to demonstrate that the operation of stormwater infrastructure does not compromise the function of any co-located uses and reflect the design principles within **SC6.12 City Plan policy –**	**PO** The proposed stormwater treatment devices and stormwater infrastructure have been designed to be incorporated within the landscape outcomes, enhance visual amenity and to protect the environment in accordance with SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards.	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
(a) integrate with the urban design and landscape outcomes of the development; (b) complement natural environments, wetlands and watercourses; (c) protect environmental values; (d) enhance visual amenity; and (e) incorporate CPTED principles in accordance with **SC6.12 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design standards**.	**Land development guidelines**, **Section 4 – Stormwater drainage and water sensitive urban design standards.** **Note: A Statement of landscape intent is to be prepared in accordance with SC6.13 City Plan policy – Landscape work.**	Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further details.	
	AO9.2 Stormwater treatment devices are located offline to any upstream catchment. **Note: This provision relates to the integration of stormwater treatment devices and stormwater infrastructure into the landscape. Development identified on the Environmental significance – wetlands and watercourse overlay map will still require assessment against the Environmental significance overlay code.**	**AO** The development has an external catchment that impacts the site which will be captured and conveyed through the site via a pit and pipe network to ensure it does not impact the development. The proposed treatment device will be located offline to the external catchment. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further details.	
	AO9.3 All stormwater outlets that are located adjacent to watercourses, creeks and drainage paths are aligned at a maximum of 45 degrees to the downstream direction of flow, and energy dissipation measures installed to minimise scour.	**AO** All stormwater outlets will be constructed to minimise scour on the receiving catchment. Further details will be provided at the detail design phase. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further information on the location of the stormwater outlets.	
Public safety			
PO10 Stormwater treatment devices and stormwater infrastructure minimise impacts on public health and safety.	**AO10** All stormwater quantity control measures are designed in accordance with **SC6.12 City Plan policy – Land development guidelines**, **Section 4 – Stormwater drainage and water sensitive urban**	**AO** The development proposes a detention basin to ensure post development flow rates are mitigated to pre-development rates and that there is no increased runoff on downstream properties in accordance with SC6.12 City Plan policy – Land development guidelines,	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
	design standards.	Section 4 – Stormwater drainage and water sensitive urban design standards. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further details.	
Maintenance access			
PO11 Maintenance access is provided for all stormwater management systems and considers: (a) the type of vehicle or machinery needed to service particular assets; and (b) the need to ensure a safe working environment for maintenance personnel and the public.	**AO11.1** All weather vehicle access is to be provided to inlet zones of the stormwater treatment systems in accordance with **Table 9.4.5-7: Maintenance access requirements (slope).**	**AO** A Conceptual Stormwater Management Plan (CSWMP) has been prepared for the proposed Residential Subdivision situated at 17 Courtney Drive, Upper Coomera. The CSWMP details the proposed treatment measures to be implemented to ensure compliance with SC6.12 City Plan policy – Land development guidelines. Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further information.	
	AO11.2 Maintenance access is to be provided around the perimeter of all stormwater treatment systems in accordance with **Table 9.4.5-8: Maintenance access requirements (size).**	**AO** Maintenance access has been provided around the perimeter of the proposed basin in accordance with Table 9.4.5-8: Maintenance access requirements (size). Refer to the OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera for further information.	
	AO11.3 A maintenance buffer is provided around the perimeter of all stormwater treatment devices and adjoining private property	**N/A**	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
	equal to: (a) 1m in width; or (b) the width of a perimeter maintenance access, as delivered in AO11.2, plus 0.5m. The maintenance buffer is measured from the adjacent allotment boundary to the top of batter around the treatment measure. The maximum slope on the maintenance buffer is 1 in 10.		
Fauna movement			
PO12 Stormwater conveyance structures and channels are designed to ensure the safe movement of native fauna and provide for terrestrial and aquatic passage.	**AO12.1** Stormwater drainage structures and channels minimise impacts on aquatic fauna and associated habitats and provide opportunities for beneficial habitat uses of structures in accordance with the *Department of Primary Industries and Fisheries – Fisheries guidelines for Fish-friendly structures (2006).*	**N/A**	
	AO12.2 Stormwater drainage structures allow for the safe movement of terrestrial fauna in accordance with: (a) the Queensland Government Fauna Sensitive Road Design Manual Volume 2: Preferred Practices; and (b) the Queensland Government Koala-Sensitive Design Guidelines.	**N/A**	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome	Internal use
Wastewater management			
PO13 Development does not discharge wastewater to receiving waters or areas external to the site unless demonstrated to be the best-practice environmental management for that site and takes into consideration: (a) the applicable water quality objectives for the receiving waters; and (b) the potential adverse impact on ecosystem health of receiving waters.	**AO13** Where the development involves the discharge of wastewater, a Wastewater Management Plan (WWMP) is prepared, demonstrating compliance with the performance outcome, by a suitably qualified person and submitted to the Council, detailing all of the following: (a) wastewater type; (b) climatic conditions; (c) water quality objectives; (d) best-practice environmental management; (e) waste management hierarchy; and (f) the WWMP provides for the management of wastewater in accordance with a wastewater management hierarchy that: (i) avoids wastewater discharge to watercourses; or (ii) if wastewater discharge to the environment cannot practicably be avoided wastewater discharge to watercourses is minimised through re-use, recycling, recovery and treatment for disposal to sewer, surface water and groundwater.	**N/A** The proposed development does not propose to discharge wastewater into receiving waters. All wastewater will be discharged appropriately into Council's sewerage network.	
Dewatering management			
PO14 Dewatering occurs in accordance with an	**AO14** No acceptable outcome provided.	**N/A**	

approved Dewatering management plan.			
Woongoolba flood mitigation catchment area			
PO15 In the Woongoolba flood mitigation catchment area, shown on the **Water catchments and dual supply system area overlay map**, peak outflow and its timing for Q2, Q5 and Q10 for rainfall events up to 72 hours does not change as a result of development.	**AO15** No acceptable outcome provided.	**N/A**	

State Planning Policy July 2017

Policies	Demonstrate how the proposal meets the policy?	Internal use
State interest – water quality		
ASSESSMENT BENCHMARK 4 (POLICY 4): At the construction phase, development achieves the applicable stormwater management design objectives in table A (appendix 2) of the State Planning Policy.	A sediment and erosion control plan is included in OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera. The plan addresses devices and management measures to control erosion and sediment for the pre-construction, construction and post-construction phases of the development, in accordance with the Best Practice Erosion and Sediment Control: International Erosion Control Association, (IECA) 2008 to ensure compliance with Assessment Benchmark 4 (Policy 4) of the State Planning Policy.	
ASSESSMENT BENCHMARK 5 (POLICY 5): (5) At the post-construction phase, development: a) achieves the applicable stormwater management design objectives on-site, as identified in table B (appendix 2) of the State Planning Policy; or b) achieves an alternative locally appropriate solution off-site that achieves an equivalent or improved water quality outcome to the relevant stormwater management design objectives in table B (appendix 2) of the State Planning Policy.	A Conceptual Stormwater Management Plan (CSWMP) has been prepared for the Proposed Residential Subdivision situated at 17 Courtney Drive, Upper Coomera. The CSWMP details the proposed treatment measures to be implemented to ensure compliance with Assessment Benchmark (Policy 5) of the State Planning Policy. Refer to OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK7105-0002) prepared for 17 Courtney Drive, Upper Coomera.	

Table 9.4.5-3: Erosion hazard assessment

Controlling factor	Points	Score
Average slope of the whole site prior to operational works		
Slope less than 2%	0	
More than or equal to 2% but less than 5%	1	
More than or equal to 5% but less than 10%	2	
More than or equal to 10% but less than 15%	4	
More than or equal to 15%	5	5
Soil type (to be disturbed)		
Gravels and sandy soils	1	
Sandy loam	2	2
Clays on flood plains	3	
Shallow soils on slopes	4	
Clays on slopes greater than 5%/imported fill or untested fill	5	
Anticipated duration of site disturbance		
Duration less than 2 weeks	0	
More than 2 weeks but less than 3 months	2	
More than 3 months but less than 6 months	4	
More than 6 months	5	5
Anticipated erosive rainfall risk during site disturbance		
Low (monthly average rainfall less than 45 mm)	0	
Moderate (monthly average rainfall 46 - 100 mm)	1	
High (monthly average rainfall 101 - 225 mm)	2	2
Very high (monthly average rainfall 226 - 1500 mm)	4	
Extreme (monthly average rainfall more than 1500 mm)	5	

Off-site sediment control (down-slope of the soil disturbance)		
Score 1 point if there is no purpose-built sediment trap (e.g. sediment basin, gross pollutant trap or purpose-built wetland).	1	0
Run-off entering the site		
Score 1 point if stormwater run-off is not diverted from entering the site or away from soil disturbance.	1	0
Extent of site disturbance		
Score 2 points if the building works requires reshaping of the ground surface.	2	2
Total Score **Note: High erosion risk - if score 11 or greater, or five for any factor.**		16

This Erosion Hazard Assessment form is adapted from the *Best Practice Erosion and Sediment Control, International Erosion Control Association (Australasia), IECA 2008 Appendix H - Building Sites, the Brisbane City Council Erosion Hazard Assessment Form* and *Attachment 2 to the QDC Draft Part 16 Erosion and Sediment Control*.

Qualtest Laboratory

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Courtney Upper Coomera Developments Pty Ltd

c/- CFMG Captial 138 Mary Steeet Brisane City, Qld 4000

Geotechnical Investigation
& Landslide Risk Assessment
Proposed Residential Development
17 Courtney Drive, Upper Coomera, QLD 4209

Interpretative Report

Report Ref. No: 9603D – 25-474

March 18, 2026

Qualtest Laboratory
Est. 1987

ATTENTION: MR HARRY WILSON

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Report Ref. No: 9603D– 25-474

Date: March 18, 2026

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1 INTRODUCTION

This report presents the findings of the geotechnical investigation undertaken at the site with street address #17 Courtney Drive, Upper Coomera, QLD. The Real Property Description is Lot 182 on RP156422. It is understood that a 3-stage residential subdivision is proposed for the site and that this geotechnical report will be relied upon to inform all phases of the engineering designs, incorporation into any civil construction tender documents and accompany development applications.

An additional scope was to complete a potential landslide risk assessment pre- and post-construction.

The work was commissioned by Mr Harry Wilson, representing CFMG Capital on behalve of Courtney Upper Coomeral Developments Pty Ltd (the Client). The work was undertaken in general accordance with out fee proposal QGQ25-3611-9607, dated October 24, 2025.

The fieldwork was undertaken on November 07, 2025. The approximate geographical location of the site is highlighted in red in *Figure 1.*



Figure 1: The Geographical Location of The Site Highlighted in Red

1.1 Proposed Development

It is understood that the proposed development area covers a land area of approximately 33,430m^2 consisting of a staged land subdivision project. Qualtest has not been privy to the engineering drawing. However, as is typical for such projects, the following structures/activities are expected to be included in the development:

- Bulk earthworks, including cut and fill activities to create residential allotments;
- Retaining structures;
- Road and drainage networks, including easement;
- Sewer and water reticulation works;
- Detention basin;
- Recreational parks, environmental & open space; and
- Soft and hard landscaping.

Figure 2 presents an excerpt of the concept plan showing a potential reconfiguration layout of the site.

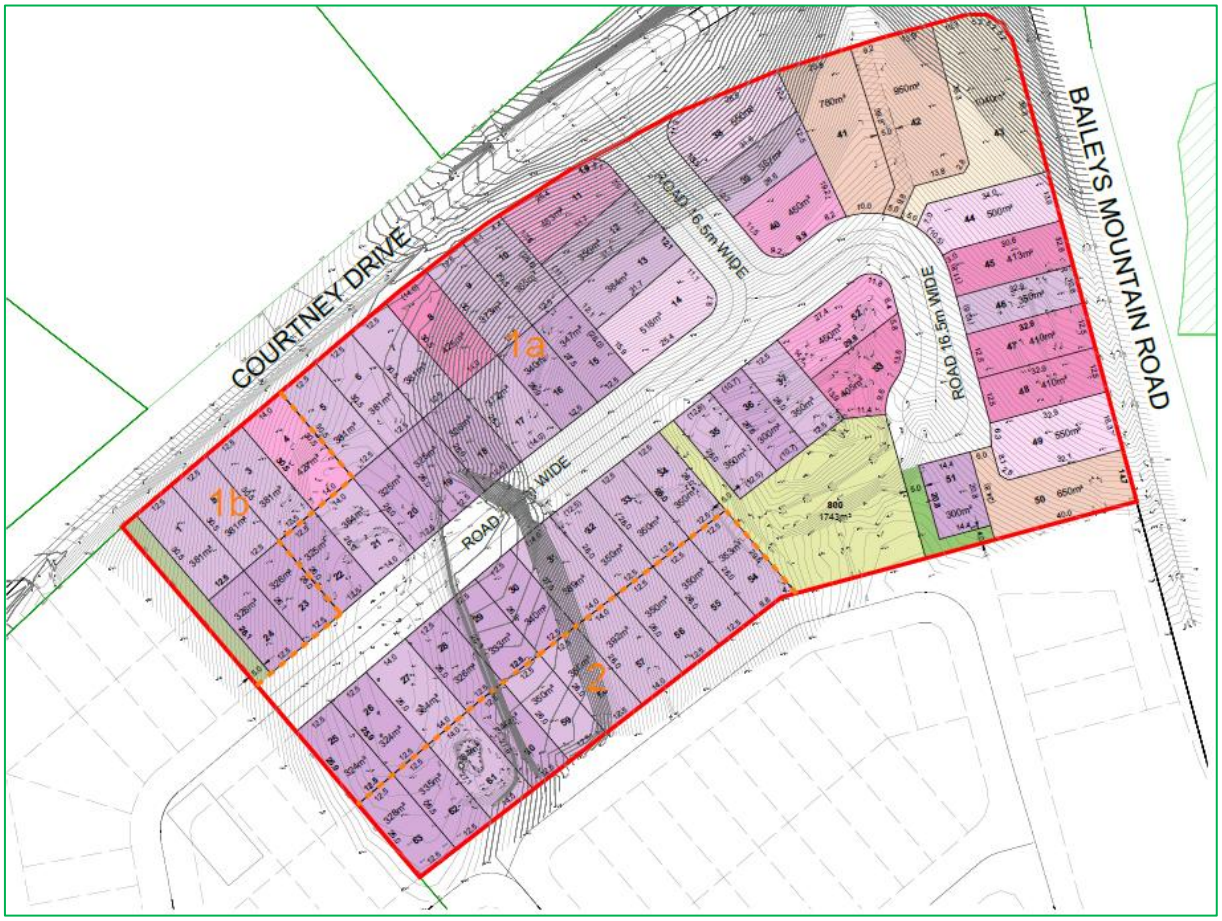


Figure 2: The Proposed Layout of the Development (Source: Saunders Havill Plan, Dated 13/03/2026)

1.2 Purpose

This interpretative report aims to present the client and its partners with a geotechnical report to be relied on for the following purposes:

- To inform all phases of design, including operational works and detailed design,
- For incorporation into any civil and construction tender documents, and
- To accompany development applications.

1.3 Scope of Work

The client provided the following scope of work:

Broadscale Geotechnical Investigation and Landslide Risk Assessment, including

- Subsurface conditions in accordance with AS 1726-2017.
- Landslide Risk Assessment, which assesses the suitability of the site for residential development. A Landslide Susceptibility Rating is assigned to each proposed new Lot, and recommendations on how to maintain or improve stability.
- Geotechnical issues or constraints for development.
- Drainage recommendations.

Broadscale earthworks recommendations, including:

- Suitability of cut for reuse as fill.
- Compaction standards.
- Stripping depths.
- Trafficability.

- Excavatability.
- Safe temporary batter slopes for cuts.
- Fill batter slopes.
- Broadscale site classification in accordance with AS.2870-2011, including predicted ground movement and site reactivity at selected borehole locations.
- Preliminary foundation recommendations.
- Preliminary retaining wall design parameters.
- Preliminary pavement design parameters, based on results of soaked CBR testing.
- General recommendations for residential development at the site.

For the landslide risk assessment, the following excerpt from the local council is applicable:

- The Landslide Hazard Overlay Map of the City Plan (V12) identifies areas of the site with "Moderate" Landslide Hazard. As such, the Landslide Overlay Code is applicable.
- In order to demonstrate compliance with the geotechnical outcomes of the Landslide Hazard overlay code, the applicant needs to submit a geotechnical report prepared and signed by an RPEQ specialising in geotechnical engineering and experienced in slope stability assessment, addressing the following issues in support of a future Development Application for the proposal.
    a. The report should provide site-specific landslide risk assessment for each proposed lot impacted by the landslide Hazard Overlay. The risk assessment should be based on surface and subsurface geotechnical information of the site/lot. The report should demonstrate that each lot achieves a landslide risk rating of 'Low' or better. The report should provide a summary table of the landslide risk assessment for the proposed lots. If the report determines any lot with a 'Moderate' or worse risk rating, it should recommend appropriate and adequate risk mitigation measures to reduce the risk rating to 'Low' or better.
    b. The report should include a certification from a Registered Professional Engineer of Queensland (RPEQ) specialising in geotechnical engineering confirming that each proposed lot achieves a landslide risk rating of 'Low' or better and each lot is suitable for its intended use, and
    c. The report should provide appropriate engineering recommendations for any earthworks in order to achieve and maintain a factor of safety of at least 1.5.

2 Structure of Report / Methodology

For clarity, this report has been prepared in two sections:

- Section A – Geotechnical Site Investigation Report; and
- Section B – Landslide Risk Assessment Report.

SECTION A – GEOTECHNICAL SITE INVESTIGATION

2.1 Standards

This investigation has predominantly been undertaken in line with the following Australian Standards (AS):

- AS 1289 – Methods of testing soils for engineering purposes;
- AS 1289.6.3.2-1997 – Soil strength and consolidation tests – Determination of the penetration resistance of a soil – 9 kg dynamic cone penetrometer;
- AS 3798 – Guidelines on earthworks for commercial and residential developments;
- AS 2870 – Residential slabs and footings; and
- AS 1726:2017 – Geotechnical site investigations.

2.2 Literature Review

An initial literature review was undertaken before conducting the site investigation, covering the site's geology and geomorphology, a review of documents provided by the client, and a search for any other information that was publicly available.

2.2.1 Information Provided

The Client provided the following information to assist in preparing this report:

- Email Request for proposal – Received from Mr Mark Bessell, representing Kasa Group, Dated October 23, 2025.
- Proposal Plan - Prepared by Saunders Havill, Drawing No: 13087 P01, Rev A – PRO 01, Dated 13/03/2026.
- Email Correspondence – Received from Mr Harry Wilson representing CFMG Capital, dated Mrch 10 2026, updating the client entity name.

2.2.2 Previous Reports

At the time of writing this report, Qualtest is unaware of any previous geotechnical report for the site or nearby sites.

2.2.3 Site Geology

The online *Queensland Globe* Detailed Surface Geology (1:100k) map shows the site is underlain by the following geological unit:

- Neranleigh-Fernvale beds (DCf) – Devonian to Carboniferous-aged Sedimentary rock unit with a lithological summary of mudstone, shale, arenite, chert, jasper, basic metavolcanics, pillow lava, conglomerate.

It is therefore the near-surface materials are residual in origin, weathered from the underlying parent bedrock.

An extract from the Detailed Surface Geology map showing the site is presented in *Figure 3.*



Figure 3: The Detailed Surface Geology Map, The Site Boundaries Highlighted in Red

2.2.4 Site Description

The site, 17 Courtney Drive, is located in the Gold Coast City suburb of Upper Coomera, QLD. The allotment, which has the real property description Lot 182 on RP156422, covers a gross land area of approximately 33,400m^2.

The site is bordered by Courtney Drive and Bailey's Mountain Road to the north and the east, respectively. On all other sides, the site is bordered by acreage properties.

At the time of this investigation, a number of existing structures were recorded at the western section of the site - these included single and double-storey buildings, an existing in-ground swimming pool, a bitumen driveway, sheds, an in-ground concrete septic tank, fence lines and carports. Other features recorded onsite included low height retaining structures, in-ground and above-ground tanks, landscaped gardens and a horse arena.

The central and eastern section of the site was generally vacant of structures; the exception being a dam in the middle of the block.

In general, vegetation recorded onsite comprised scattered mature trees with shrubs and long grass understorey.

Topographically, the site contains a ridge-and-valley landform. The high point, with a reduced level of RL51 AHD, is located at the top of the low-rise ridgeline at the western end of the site. From there, the ground slopes down generally in an easterly direction to a low point of RL31 with the existing dam.

In general, ground slopes of between 2 to 15 degrees were recorded falling in all directions towards the dam.

Photographs showing typical site conditions are presented in *Figures 4a, b, c, & d*.

a



b







Figure 4a, b, c & d: Selected Photographs of the Site

2.3 Site Investigation

2.3.1 Underground Services

An online inquiry was lodged on BYDA.com prior to the start of drilling activities. Based on the results of the BYDA inquiry, the boreholes were positioned to avoid any underground services at the site.

2.3.2 Geotechnical Investigation

The geotechnical investigation comprised a desktop study, fieldwork, and laboratory testing.

Qualtest, in collaboration with the client, nominated the location of the seven (7) boreholes to maximise geotechnical information gathering. The seven boreholes designated QT1 to QT7 were drilled across the site to a target depth of 3.0m or earlier refusal. The boreholes were drilled using a 4WD ute-mounted Jacro 200 drill rig fitted with a 100mm diameter solid auger and a Tungsten Carbide drill bit.

A 300mm diameter auger was used to recover bulk samples for CBR testing at selected borehole locations. The fieldwork was supervised by a Qualtest Geotechnical Engineer, who logged the boreholes per Australian Standard AS 1726-2017.

For subsequent laboratory testing, disturbed and undisturbed soil samples were collected at various depths in the boreholes. Select materials were tested to address the scope of work.

All boreholes were backfilled with spoil won from the drilling operations. The approximate location of the boreholes as drilled on the day of investigation is illustrated in *Figure 5*.

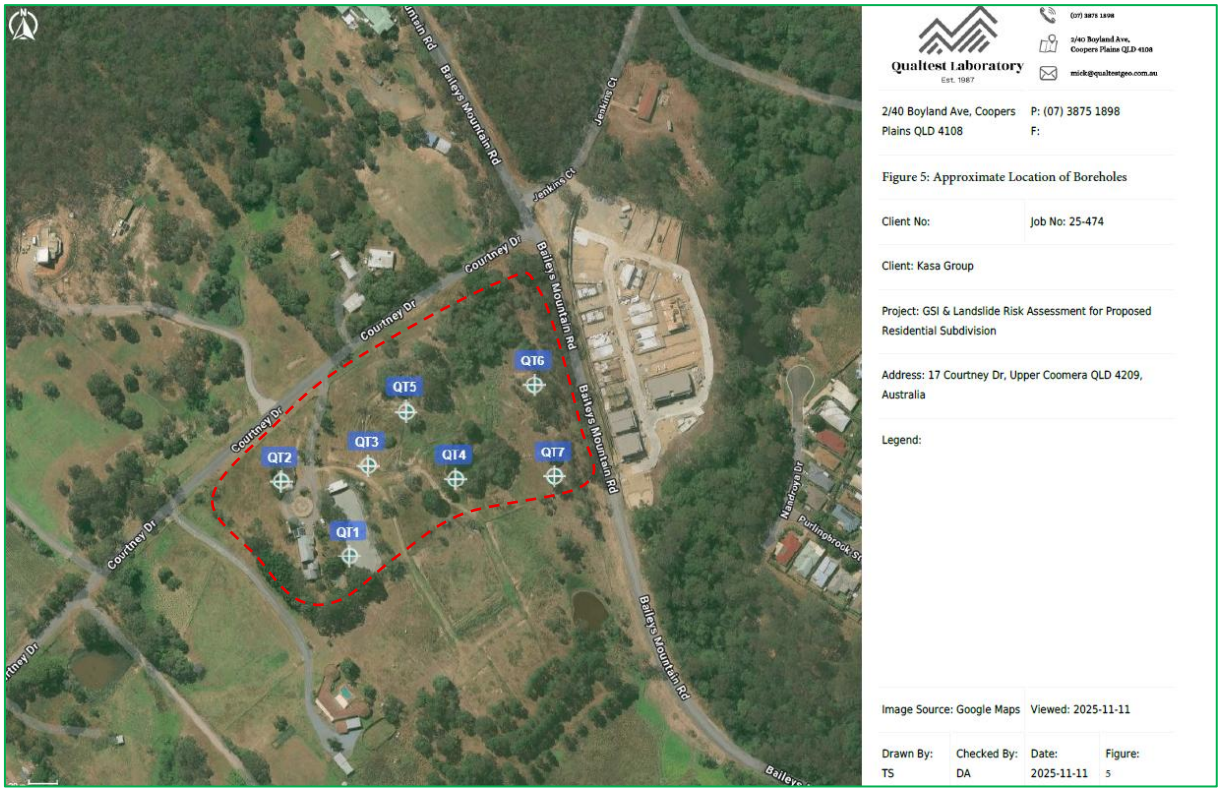


Figure 5: The Site Showing the Approximate Borehole Locations

2.3.2.1 DCP Testing

Dynamic cone penetrometer (DCP) testing was carried out at each borehole (QT1 to QT7) location prior to drilling. The DCP tests extended to refusal depths between 0.5 to 1.4m below ground level (bgl).

The results of the DCP tests are included in the borehole logs in *Appendix A*. In summary, DCP blow counts ranged from 2 blows per 100mm penetration to refusal (hammer bouncing). The low blow counts were generally recorded in the upper-level topsoil layer. With increasing depth, blow counts rapidly increased, indicative of the shallow depth to rock at the site.

2.3.2.2 Subsurface Conditions

The detailed subsurface conditions encountered at the borehole locations, together with the DCP test results, are presented in *Appendix A.*

In general, the boreholes (QT1 – QT7) encountered an upper silty sand topsoil overlying an intermediate residual soil layer, which rapidly grades into weathered sandstone bedrock.

The subsurface profile is further described as follows:

Topsoil	Observed at all borehole locations and was classified as loose to dense silty sand. The topsoil layer was noted to be relatively thin at most locations, ranging from 0.1 to 0.2m in thickness.
Slopewash	Observed underneath the topsoil at all boreholes except QT5. These materials extended to a maximum depth of 0.6m. The slopewash materials were predominantly described as loose to medium dense silty sand with a localised section of silty sandy gravel. Slopewash is material that has been transported by gravity/run off and deposited downslope.
Residual Soils	Observed in all boreholes except QT1, underneath the topsoil or slopewash. These materials were described as low to high plasticity sandy clay and clay of stiff to hard consistencies. The residual soils extended to depths ranging from 0.5 to 1.5m before grading into weathered rock.
Weathered Siltstone / Sandstone	Observed in all boreholes, these materials were identified as weathered sandstone rock recovered as dense to very dense clayey sand. These materials have been assessed to be extremely to highly weathered sandstone; however, at auger refusal depth, the materials are expected to be at least moderately weathered and of low to medium-strength rock.

2.3.2.3 Groundwater

Standing groundwater was not encountered in any of the boreholes. However, the typical encountered profile of upper slopewash materials over residual clay, is conducive for the development of perched water conditions at this interface following prolonged rainfall.

It should be noted that groundwater levels could be influenced by climatic conditions as well as the soil material properties, profile and may differ during the construction phase.

2.3.2.4 Geotechnical Model

A preliminary geotechnical model of the subsurface conditions encountered based on the boreholes is illustrated in *Table 1.*

Table 1: *The Preliminary Geotechnical Model Based on Borehole Profiles*

BH ID	Depth Range (m)				
	Topsoil	Slope-wash	Residual Soil	Weathered Rock	Termination Depth
QT1	0.0 – 0.1	0.1 – 0.3	NE	0.3 – 0.6	0.6$^{(R)}$
QT2	0.0 – 0.1	0.1 – 0.3	0.3 – 0.5	0.5 – 1.3	1.3$^{(R)}$
QT3	NE	0.0 – 0.1	0.1 – 0.5	0.5 – 0.6	0.6$^{(R)}$
QT4	0.0 – 0.1	0.1 – 0.6	0.6 – 1.5	1.5 – 2.7	2.7$^{(R)}$
QT5	0.0 – 0.1	NE	0.1 – 0.9	0.9 – 1.3	1.3$^{(R)}$
QT6	0.0 – 0.1	0.1 – 0.5	0.5 – 1.0	1.0 – 3.0	3.0$^{(TD)}$
QT7	0.0 – 0.1	0.1 – 0.5	0.5 – 0.8	0.8 – 3.0	3.0$^{(TD)}$
NE = not encountered, R = refusal, TD = target depth					

3 Laboratory Testing and Results

Selected soil samples were tested for geotechnical properties at Qualtest's NATA-accredited laboratory in Brisbane in accordance with relevant Australian Standards (AS). Tests outside the scope of Qualtest laboratory were outsourced.

The quantity and type of laboratory tests performed in this investigation are summarised in *Table 2.*

Table 2: *Laboratory Testing Program*

Laboratory Test	Quantity	Reference Standard
4-Day Soaked CBR	3	AS1289.6.1.1
Particle Size Distribution	3	AS1289.3.6.1
Atterberg Limits	3	AS1289.3.1.2, 3.2.1, 3.3.3, 3.4.1
Shrink-Swell	3	AS1289.7.1.1
Emerson Class Number	4	AS1289.3.8.1

The laboratory test certificates for the investigation are presented in *Appendix B*.

3.1 California Bearing Ratio (CBR)

Selected soil samples recovered from across the site were tested for 4-day soaked CBR using the test methods described in AS1289.6.1.1-2014. The samples were compacted using Standard compaction effort at optimum moisture content and soaked for four days under a 4.5kg surcharge. The tests were conducted at Qualtest's NATA-accredited laboratory in Brisbane.

Select soil samples collected from QT3, QT6 and QT7 at shallow depths were tested for 4-day soaked CBR. A summary of the laboratory CBR test results for the subgrade materials is presented in *Table 3,* and returned CBR values of about 7% for the three samples.

Table 3: Summary of Laboratory CBR Test Results

BH ID	Sample Depth, m	MDD (t/m3)	OMC (%)	Swell (%)	CBR (%)
QT3	0.3 – 0.6	1.72	18.0	1.5	7
QT7	0.2 – 0.8	1.77	15.0	2.0	7
QT7	0.3 – 0.8	1.79	14.0	1.5	8

3.2 Particle Size Distribution

The behaviour of coarse-grained soils (sands and gravels) can be predicted by classifying the soil in terms of its particle size distribution (PSD). AS 1726-2017 denotes soils with fine contents (≤75 µm) greater than or equal to 35% will behave geomechanically as fine-grained soil and, therefore, are to be described as cohesive soils.

Three (3) soil samples recovered from boreholes QT3, QT4 and QT5 were subjected to a particle size distribution test. The results of the particle size distribution tests conducted on the selected samples are presented in *Table 4*.

The results indicate the site soils are predominantly clay-based soils, which is in agreement with the materials observed during the fieldwork.

Table 4: Results of Particle Size Distribution Tests

BH ID	Sample Depth, m	Material Type	Grading		
			Gravel (%)	Sand (%)	Fines (%)
QT3	0.3 – 0.50	Sandy Clay	7	37	56
QT4	0.2 – 0.60	Sandy Clay	6	55	39
QT5	0.7 – 0.95	Sandy Clay	6	31	63

3.3 Atterberg Limits

The behaviour of fine-grained soils (silts and clays) can be predicted by classifying the soil in terms of its plasticity. Plasticity is broadly described as either “High”, “Medium”, or “Low”.

Soils behave very differently depending on their moisture content. It can exist as either a solid at very low moisture contents, a semi-solid, a plastic, or a liquid at ever-increasing moisture contents. To determine plasticity, the moisture content is determined to define the boundaries between semi-solid, plastic, and liquid. The minimum moisture content at which the soil becomes plastic is known as the “Plastic Limit”, and the minimum moisture content at which the soil behaves as a liquid is known as the “Liquid Limit”. These limits collectively are known as the Atterberg Limits.

Soils with liquid limits below 35% are described as Low plasticity, liquid limits between 35 and 50% are described as medium plasticity and liquid limits above 50% are described as High plasticity.

The ‘Plasticity Index’ of soil is the range of moisture contents where the soil exhibits plastic behaviour. This is calculated by subtracting the Plastic Limit from the Liquid Limit of the soil. Soils with a plasticity Index greater than 25% are often referred to as high plasticity.

The Atterberg limits of soil samples recovered from selected boreholes, QT3, QT4 and QT5, were tested, including linear shrinkage.

A summary of the test results is presented in *Table 5* and indicates the presence of low to medium-plasticity clays.

Table 5: Results of the Atterberg Limit Tests

BH ID	Sample Depth, m	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Weighted Plasticity Index (%)	Linear Shrinkage (%)
QT3	0.3 – 0.50	44	17	27	2171	12.5
QT4	0.2 – 0.60	17	14	3	235	1.5
QT5	0.7 – 0.95	53	15	38	3218	15.0

3.4 Shrink-Swell

The shrink-swell test is a simple test routinely employed in Australian geotechnical engineering practice to quantitatively assess the expansive potential of undisturbed or remoulded clay soils and to guide the design of footings on these soils.

A fundamental rationale for using the shrink-swell test is that it evaluates the soil over both wetting (swell) and drying (shrink) phases. Hence, the result is independent of the initial moisture state of the soil sample and defines a unique soil class related to the fundamental properties of the soil.

Three (3) undisturbed soil samples (U50) recovered from boreholes QT3, QT4 and QT6 were subjected to shrink-swell testing.

The test results are summarised in *Table 6*, with a maximum shrink-swell index (Iss) of 2.5%, indicative of the presence of moderately reactive clays.

Table 6: The Summary of the Shrink-Swell Test Results

BH ID	Sample Depth, m	Shrinkage (%)	Swell (%)	Shrink-Swell Index (I_{ss}), %
QT3	0.3 – 0.45	2.1	2.2	1.8
QT4	0.9 – 1.10	2.7	3.5	2.5
QT6	0.6 – 0.75	3.0	2.1	2.2

3.5 Emerson Class Number Test

When brought into contact with water, soil can release silt and clay particles into suspension and increase the turbidity of water. Turbid water in soils indicates susceptibility to erosion.

The Emerson Class Number can measure the potential of soil to release silt and clay particles into suspension. The values range from one (high potential) to eight (low potential). Classes 1 to 3 are considered dispersive, Class 4 indicates the presence of carbonate or gypsum and is slightly dispersive, Classes 5 and 6 are deemed non-dispersive, and Classes 7 and 8 are water-stable Soils (non-slaking), but if it swells (Class 7), it retains its original size and shape (Class 8).

Samples collected from across the site were subjected to Emerson Class tests. The dispersive potential of the soils, as assessed by the Emerson Class Number, is presented in *Table 7* and is indicative of dispersive and non-dispersive soil characteristics.

Table 7: *The Summary of Emerson Class Test Results*

BH ID	Sample Depth (m)	Material	Emerson Class Number	*Remarks*
QT1	0.10 – 0.3	Silty Sand	5	*Non-Dispersive*
QT2	0.30 – 0.5	Clay	3	*Dispersive*
QT5	0.10 – 0.3	Clayey Sand	3	*Dispersive*
QT7	0.45 – 0.7	Clay	3	*Dispersive*

4 Geotechnical Engineering Assessment

Based on our understanding of the proposed development, the following sections have been provided to assist with the geotechnical aspects of the design and construction phases. It is noted that the recommendations and comments given in this report are broadscale in nature.

4.1 Bearing Capacity of Soils

The bearing capacity of the subsurface profiles encountered onsite was determined using DCP test data acquired during the November 11, 2025, investigation, including laboratory test data, correlations, and visual-tactile observations onsite.

Campanella & Robertson (1983) developed a correlation between DCP blow counts and the bearing capacity of soils. This relation was adopted to derive the allowable bearing capacity of the subsurface profile with a safety factor of 4.0 for cohesive soils with a foundation factor Nc = 5

The allowable bearing capacity of the subsurface soils at the DCP test locations (QT1 to QT7) with depth is presented in *Figure 6.*

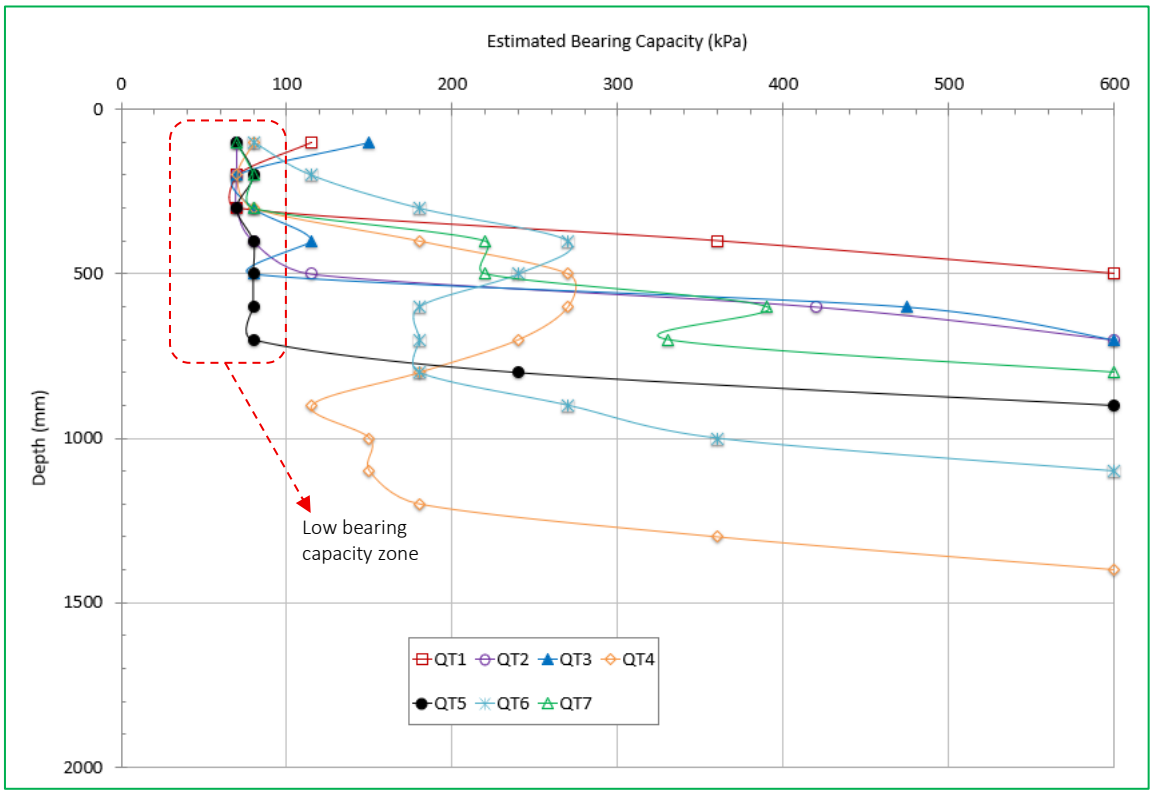


Figure 6: The Allowable Bearing Capacity of Soils with Depth; Derived from DCP Data

Based on the above, Qualtest recommends the following allowable bearing pressures:

- Topsoil/Slopewash = not recommended (remove)
- Clay-Based Residual Soils (stiff to very stiff) = 150kPa
- Extremely to Highly Weathered Sandstone = 250kPa
- Moderately Weathered Sandstone = 700kPa

Any engineered fill, placed in accordance with *Table 8 of AS3798*, is considered appropriate as a foundation material and can be assigned an allowable bearing pressure of 100kPa.

At locations where the bearing capacity is determined to be less than the recommended values, the area should be excavated to depths exposing competent ground and reassessed by a competent person prior to backfill and compaction activities.

The above recommended allowable bearing pressures should be confirmed by a competent person during construction.

4.2 Young's Modulus of Soils

Young's modulus is an elastic soil parameter and a measure of soil stiffness, and it is defined as the ratio of the stress along an axis over the strain along that axis in the range of elastic soil behaviour.

In this investigation, the soil Young's modulus (E), commonly referred to as soil elastic modulus, was calculated using correlation equations with DCP test data.

For the clay or sand-based upper low-strength soils, the known CBR values were used to calculate the elastic deformation modulus (E) using a correlation published by Powell et al. (1984), per Equation 1.

$$E(MPa) = 17.6 \times CBR^{0.64} \qquad \textit{Eqn. 1}$$

For the stiff to very stiff underlying alluvial soils, the correlation proposed by Jianzhou et al. (2022) was used to determine Young's modulus of the soil, per Equation 2.

$$E(MPa) = 338 \times PR^{-0.39} \qquad \textit{Eqn. 2}$$

Where

PR = the number of hammer blows required to produce 300mm of rod penetration.

From equations 1 and 2, Qualtest recommends the following conservative Young's modulus of the encountered materials:

- Slopewash = not recommended (remove)
- Clay-Based Residual Soils (stiff to very stiff) = 6MPa
- Extremely to Highly Weathered Sandstone = 15MPa
- Moderately Weathered Sandstone = 30MPa

For site won controlled fill, Qualtest recommends a Young's modulus of = 3.5MPa

4.3 Site Classification

To determine the broadscale soil classification, a number of site features are considered, including the subsurface profile, the surface topography, existing vegetation, and the proposed development. Given that the site contains steep ground slopes and earthworks developments are likely to create fill heights greater than 0.4m and planned removal of trees, the site is assigned ***Class P*** per AS2870-2011.

The site was also classified based on characteristic surface movement (y_s) estimated in accordance with Clause 2.3 and applying Table 2.3 of AS2870-2011. The I_{ss} (i.e., 2.5) obtained from laboratory testing was adopted to calculate y_s. The change in suction was estimated from published literature as 1.2pF, and the design soil suction change (H_s) depth of 1.7m was acquired from the literature and a cracked % Hs of 50%.

The depth to top of rock is relatively shallow but varies across the site. Adopting a range of clay depths of 0.5 to 1.5m, a potential ground surface movement of about 11mm to 28mm can be expected under normal moisture conditions. This is consistent with a site ***Class S to M***.

The potential ground surface movements are subject to change when:

- Cut-to-fill or imported earthworks operations are carried out;
- Abnormal site soil moisture conditions are allowed to develop; and
- Tree planting is carried out, or existing trees are removed, on or adjacent to the site.

4.4 Dispersive soils/Emerson Class

Four (4) samples subjected to Emerson Class Number tests returned as either 3 or 5. In general, the Emerson class of 5 was recorded for a topsoil sample, while the Emerson Class of 3 was recorded for residual clay samples. This is indicative of dispersive subsoils at the site.

Effective erosion and sedimentation control measures relevant to clearing and trenching operations should be installed and maintained for the duration of construction. The preparation of an erosion and sediment control plan is outside this commission; however, the following general principles should be incorporated into the design/construction phases:

- External Water flows should be diverted around or away from the site. Excavations/exposed soils and stockpiles should be stabilised/protected
- Sediment fences and other sediment trapping devices should be placed strategically at downslope boundaries and perimeters of stockpiles/work areas.

4.5 Embedment Recommendations for Sewer and Water

Trench foundations at this site are likely to include controlled fill, residual soils and weathered sandstone rock. The Emerson Class testing shows that the site contains materials with dispersive soil characteristics. The preliminary recommended trench embedment types have been selected to allow for the variability of materials onsite and are presented in *Table 8*. The actual trench foundation and embedment materials, as well as the presence of groundwater, should be verified at the time of construction.

Table 8: Recommended Trench Embedment Types

Material	Trench Embedment Type	Comments
Site Won - Controlled Fill	Type 4 – Sewer, Type D – Water	Trench Foundation > 50 kPa
Residual Soils	Type 4 – Sewer, Type D – Water	Trench Foundation > 50 kPa
Weathered Rock (XW Rock)	Type 4 – Sewer, Type D – Water	Trench Foundation > 50 kPa
Weathered Sandstone (MW Rock)	Type 3 – Sewer, Type C – Water	Trench Foundation > 50 kPa

4.6 Pavement Design

Three (3) near-surface sand-based soil samples were collected and subjected to a 4-day soaked CBR test to indicate the suitability of the existing near-surface soils as subgrade support. The 4-day soaked California Bearing Ratio (CBR) tests returned values of 7 and 8%.

Qualtest recommends a preliminary CBR design value of 3% for the clay-based soils to account for natural variations in the subsurface profiles. Where weathered rock (highly to moderately weathered sandstone) is exposed at the subgrade level, a preliminary CBR of 10% may be adopted for pavement design.

4.7 Shallow Footing Systems

Slab-on-ground, pad, and strip footings are considered appropriate for the site, provided the allowable bearing pressures presented in *Table 9* are adhered to. Based on ground conditions, all structures should be supported by select engineered fill and keyed into the existing slope face, where applicable.

Table 9: Preliminary Recommended Parameters for Foundation Design

Material		Allowable Bearing Pressure (kPa)	
		Slab on ground/Strip Footing	Pad Footings
Topsoil, Uncontrolled Fill, Slopewash	Soft or Loose	<100 (NR)	<100 (NR)
Controlled Fill	Stiff or better	100	100
Residual Soils	St to H or D to VD	150	150
XW to HW Sandstone	Hard or Very Dense	250	250
MW Sandstone	VLS to LS	700	700
Note: *NR = not recommended, VS = very soft, F = firm, St = stiff, H = hard, D = dense, VD = very dense* *XW = extremely weathered, HW = highly weathered, MW = moderately weathered, VLS = very low strength, LS = low strength* *All founding materials should be verified by a suitably qualified person during construction.*			

4.8 Potential Fill Settlement

Preliminary estimates of the total long-term settlements of controlled fill are summarised below.

Preliminary estimates could be in the order of up to 50mm for fill up to 5m thick and up to 100mm where fill is up to 10m thick. Differential settlements of 25mm to 75mm could occur where the thickness of fill varies over short distances.

It is recommended that the civil designer identify locations where fill thicknesses vary greater than 2.0m over a 10m linear distance. Fill variances over this distance can result in unfavourable site classifications and stresses on rigid underground services and pavements.

Where deep filling is to occur along roadways and where the thickness of fill is likely to vary over short distances, the following could be considered:

- Construct earthwork to the underside of underground services. This applies to the deepest of the underground services, and not every underground service. For example, sewer is likely to be the deepest of the underground services.
- Place a geotextile over the surface of the fill at the underside of the underground services, such as Bidim A44 or equivalent, for the full width of the road reserve.
- Continue to construct the fill to the final earthworks levels in accordance with Section 4.13.

The use of a geotextile at the underside of the underground services will not reduce or prevent long-term settlements. However, it will assist in reducing the stresses on rigid underground services and pavements and soften the effects.

At locations where deep fill and varying fill thickness occur over short distances on lots, unfavourable site classifications can be expected.

4.9 Thrust Block Design Parameters

Thrust blocks may be designed based on the allowable horizontal bearing capacities provided in *Table 10*.

Table 10: *Preliminary Parameters for Thrust Block Design*

Material		Allowable Horizontal Bearing Pressure (kPa)
Topsoil, Uncontrolled Fill, Slope-wash, Water-softened Upper layers	Soft or Loose	NR
Controlled Fill	Stiff or better	50
Residual Soil	Stiff or better	75
XW to HW Sandstone Rock	VSt to H or D to VD	125
≥MW Sandstone Rock	VLS to LS	350

NR = not recommended, VSt = very stiff, H = hard, D = dense, VD = very dense, XW = extremely weathered, HW = highly weathered, VLS = very low strength, LS = low strength

4.10 Bulking Factors

The bulking factor is the ratio or percentage of the volume change of excavated material to the volume of the original volume before excavation.

Bulking occurs when soil is excavated. One cubic metre of insitu material expands and does not always translate into one cubic metre of fill when placed and compacted on the site. Bulking can significantly affect the balance of cut and fill volumes and, hence, the cost of the earthworks.

Excavation increases the volume of material. It is, therefore, necessary to use a bulking factor to determine the volume of material that will be created by excavation. The bulking factor is defined as:

$$Bulking\ Factor = \frac{Volume\ after\ Excavation}{Volume\ before\ Excavation}$$

Based on experience, engineering judgement, laboratory demonstrations, and published typical values (Look, 2014), *Table 11* provides estimated bulking factors for the material types encountered on the site.

Table 11: Bulking Factors

Material	Bulking Factor for Transportation
Clay-Based Soil	1.25
Sand-Based Soil	1.01
Extremely to Highly Weathered Sandstone	1.35
Moderately Weathered or Better Sandstone	1.55

Typical wastage of approximately 5% by volume may be adopted.

4.11 Friction Angle and Cohesion

The internal friction angle of the stiff (or better) clay/sand-based soils was determined using graphical correlations proposed by Ladd et al. (1977) and Bjerrum and Simons (1960).

The following parameters are recommended for the encountered materials:

- Slopewash = not recommended (remove)
- Controlled Fill = 25°
- Clay-Based Residual Soils = 26°
- Extremely to Highly Weathered Sandstone = 29°
- Moderately Weathered (or better) Sandstone = 35°

For the cohesion parameter, the following should be adopted:

- Slopewash = not recommended (remove)
- Controlled Fill = 2kPa
- Clay-Based Soils = 5kPa
- Extremely to Highly Weathered Sandstone = 6kPa
- Moderately Weathered (or better) Sandstone = 15kPa

4.12 Retaining Wall Parameters

This section provides recommendations for free-headed and fixed-headed retaining walls that may be constructed as part of the proposed development.

Passive earth pressures for the site can be calculated by the Rankine (1857) method, which assumes no soil cohesion or wall soil friction. The design of fixed or free-headed permanent retaining wall systems supporting fill or natural clay soil can be based on the lateral earth pressure distribution given as:

$$p_a = {}^1/_2\, k_a \gamma H^2 - 2cH + 2c^2/\gamma$$

In the above equation, H(m) is the height of the wall, γ (kN/m^3) is the unit weight of the soil, k_a is the coefficient of active earth pressure, and c is soil cohesion.

Retaining walls are to be designed with respect to internal stability properties such as sliding, overturning, and bearing capacity failure. The retaining walls are also to be assessed and designed for global stability. Internal and global stability design should be carried out in accordance with AS4678:2002 (Earth-Retaining Structures). Preliminary design parameters for retaining walls onsite are shown in *Table 12*.

Table 12: Retaining Wall Design Parameters for Backfill Slope Angle

Origin	Description	Bulk density, ɣ (kN/m3)	Long-Term Friction Angle, (°)	K_o	K_a	K_p	Long-Term Cohesion, C' (kPa)
Controlled Fill	Stiff or better	18	25	0.58	0.41	2.46	2
Clay-Based Soils	Stiff or Better	18	26	0.56	0.39	2.56	4
XW to HW Rock	Hard or VD	20	29	0.52	0.35	2.88	6
MW Rock	Very Low to Low Strength	22	35	0.43	0.27	3.69	15

Drainage is perhaps one of the most important considerations in the design and construction of earth-retaining structures, and it is necessary to separate the surface drainage from the subsoil drainage system.

Surface water must be diverted away from the back of retaining walls to prevent ponding of surface water behind the top of the wall. This usually includes placing a 500mm to 800mm thick layer of compacted clay over the subsoil system to act as a seal.

Subsoil drainage comprising free-draining granular material connected to slotted PVC pipes must be placed behind the permanent retaining walls to prevent the buildup of groundwater pressures behind the walls, and this must be discharged to the point of legal discharge.

4.13 Earthworks Recommendations

All earthwork procedures should be carried out in a responsible manner in accordance with AS.3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments". The earthworks contractor should make themselves familiar with the site conditions.

Given the subsurface profile encountered on site and considering the proposed earthworks operations, it is recommended that all earthwork activities be supervised under Level 1 engineering supervision and an engineering certification provided by a registered professional engineer (RPEQ).

The earthwork recommendations are presented in the following subsections:

4.13.1 Existing Slopewash/Fill

The investigation has revealed slopewash/fill of varying quality and quantity across the site. The slopewash/fill is unsuitable to support structural load and should be removed and replaced in accordance with AS 3798 recommendations.

4.13.2 Stripping Depths

Topsoil was encountered at all drilled locations. Based on the observed subsurface profiles, the topsoil is expected to be relatively thin. The stripping depth for topsoil at the site is expected to be about 100 to 200mm. Following the removal of topsoil, the exposed surface should be proof-rolled prior to any fill placement.

In addition, the upper soils were identified as slopewash and are required to be stripped.

4.13.3 Depth to Rock

Weathered rock was encountered in all boreholes drilled at the site. Based on the borehole logs, the depth to top of rock across the site varied between 0.3 to 1.5m bgl.

4.13.4 Excavation Conditions

It is generally expected that the materials in which the drill rig met refused would be moderately to slightly weathered sandstone rock. The depth of these high-strength rock layer has been recorded to vary between 0.6 to >3m bgl.

Generally, it is expected that 8 to 14+ excavator fitted with general-purpose/toothed buckets will be required to excavate topsoil, slopewash, residual soils and extremely to highly weathered sandstone rock.

For moderately to slightly weathered sandstone, a 32t+ excavator fitted with a ripper or hydraulic hammer may be required to efficiently excavate the rock. Larger machinery may be required as the materials are expected to increase in strength with increasing depth.

4.13.5 Trafficability

At the time of the field investigation, trafficability within the proposed development area was generally considered to be good due to the dry conditions and existing vegetation cover.

Trafficability problems could arise for earthworks and construction machinery from:

- Softening of the upper-level soils during and after periods of rainfall. This may require the installation of seepage cut-off drains (northeastern portion) should construction commence during or following an extended period of wet weather; and
- Disturbance of the upper-level soil fabric with the removal of vegetation. Depressions could be formed, resulting in potential water traps, which could cause further softening of exposed soils.

To improve the site's trafficability, it is recommended that the exposed surface be inspected and assessed following stripping. Areas that demonstrate excessive movement and/or do not improve sufficiently under proof rolling should be removed and replaced as required.

Maintaining adequate drainage conditions is also essential at the northeastern fringe. It should be ensured that runoff is diverted away from the construction area to prevent the ponding of water.

Preferably, earthworks should be scheduled in dry weather following a period of not less than one week of little or no rainfall.

The contractors should fully inform themselves of the ground conditions onsite prior to the commencement of earthworks. This requirement should be explicit in any earthwork specifications or contract.

4.13.6 Subgrade Preparation and Compaction Standards

The following earthworks procedures are recommended:

- Clearing, grubbing, and stripping should be carried out across the site;
- The existing topsoil and any encountered soft/slopewash soils should be excavated from the development areas to expose competent (very stiff or dense) soils. All tree roots must be removed, the perimeter excavated to the maximum depth of tree roots, and replaced with compacted fill layers;
- Following stripping and removal of the topsoil and any upper slopewash soils, the competent exposed natural surface should be proof rolled under the supervision of a geotechnical engineer using a vehicle with a tare of at least 20 tonnes and then compacted to 98% at +2 or -2% OMC, Standard Maximum Dry Density (SMDD). Areas demonstrating excessive movement should be treated (dried and recompacted) or removed and replaced with compacted fill. Treatment should be to a standard sufficient so that the subgrade passes proof rolling and that compaction can be achieved in the first layer of fill;
- Temporary cut batters in existing residual materials should generally not exceed 27°, subject to inspection and approval by an experienced geotechnical engineer;
- Depressions formed by the removal of vegetation, underground elements and including the reclamation of the dam., should have all disturbed and weakened soils removed.
- If imported fill is required, it is recommended to be low reactivity and conform to the following imported fill specification:
    - Max Particle Size 150mm;
    - Minimum soaked CBR 8%; and
    - Shrink Swell Index 1.0% Max.

Testing of the placed and compacted fill should be carried out at frequencies defined in AS3798 *Table 8.1* for Type 1 Earthworks.

The subgrade shall be graded to drain effectively to subsoil drains and should be cleaned of any softened material prior to pouring of footings or placement of fill materials. Foundation gradients shall be verified by a competent person to avoid the formation of a potential slide plane.

4.13.7 Reuse of Excavated Material

All site-won materials (sand/clay-based, weathered rock) are suitable for reuse as structural fill onsite, provided the materials are moisture-conditioned and are free of organics, topsoil, soft soils, and deleterious materials.

All earthworks should be carried out by experienced contractors in general accordance with AS3798-2007 (Guidelines on Earthworks for Commercial and Residential Developments). Quality control of the earthworks should be carried out under Level One Inspection and Testing as defined in AS3798 – 2007.

4.13.8 Safe Batter Angles

Batters can be constructed to the following short and long-term gradients presented in *Table 13*. This is very significant as fill batters may be placed on sloping ground.

The short-term is deemed to be no longer than a 4-week period, and following wet weather (rainfall), the short-term batter slopes would need to be reassessed for stability.

Temporary and permanent batters exceeding 3.0m in height will require benching at 3.0m high vertical intervals. The benches should be at least 1.5m wide.

Batters should be covered by topsoil, mulched, and vegetated to prevent drying and cracking. Further assessment of the batter angles may be required once the exact geometry and materials have been finalised.

It is essential that permanent batter faces are suitably protected from erosion and scour by appropriate drainage.

Table 13: Recommendations for Cut and Fill Batters

Material	Short term	Long term
Controlled Fill	18° (1V:3H)	14° (1V:4H)
Residual Soils (stiff or Better)	27° (1V:2H)	14° (1V:4H)
Weathered Rock	45° (1V:1H)	27° (1V:2H)

4.14 Phreatic Surface

Groundwater and seepage were not encountered in any of the boreholes at the time of the investigation, with a maximum drilled depth of about 3.0m bgl. This implies that the depth of the regional groundwater table is greater than 3.0m bgl; however, the actual depth to the regional groundwater table is unknown at this stage.

There is the possibility of the development of perched water at the interface between the upper sand-based soils and the underlying indurated residual soils/rock surface.

4.15 Existing Dam Treatment

It is understood that the existing water dam will be reclaimed and will form part of the proposed subdivision. Borehole QT4 was drilled in the vicinity of the existing water, and the logs show the presence of rock at about 1.5m bgl. Because the ground surface slopes towards the dam, it is most likely that the depth to bedrock may be at about 2.0m within the dam's footprint.

For proper treatment of the dam area prior to fill placement, the following recommendations are provided:

- Dewatering of the dam into a temporary detention basin.
- All soft soils in and around the dam must be removed to expose a competent foundation.
- Proof roll the exposed foundation, and any identified locations of discernible movements should be excavated and replaced with select fill. A competent person should observe and approve all fill foundations.
- Place select fill under a Level 1 supervision and testing program to reclaim the dam.

SECTION B – LANDSLIDE HAZARD

5 LANDSLIDE RISK ASSESSMENT

This section of the report aims to establish the landslide risk of the existing slopes and post-construction conditions.

5.1 Scope of Work

The site has been identified as subject to unstable soils/landslip hazards and, as such, requires a slope stability report from an RPEQ geotechnical engineer.

This site-specific slope stability assessment report is prepared in accordance with the following:

a. The report should provide site-specific landslide risk assessment for each proposed lot impacted by the landslide Hazard Overlay. The risk assessment should be based on surface and subsurface geotechnical information of the site/lot. The report should demonstrate that each lot achieves a landslide risk rating of 'Low' or better. The report should provide a summary table of the landslide risk assessment for the proposed lots. If the report determines any lot with a 'Moderate' or worse risk rating, it should recommend appropriate and adequate risk mitigation measures to reduce the risk rating to 'Low' or better.

b. The report should include a certification from a Registered Professional Engineer of Queensland (RPEQ) specialising in geotechnical engineering, confirming that each proposed lot achieves a landslide risk rating of 'Low' or better and each lot is suitable for its intended use; and

c. The report should provide appropriate engineering recommendations for any earthworks in order to achieve and maintain a factor of safety of at least 1.5.

5.2 Site Slopes

The site contains ground slopes that typically vary from 5 to 15 degrees. In addition to the natural slopes, the site has previously undergone earthworks that have created a variety of landform features - these include cut and fill batters, low-height retaining walls, an inground swimming pool and a water dam.

5.3 Landslide Risk Assessment/Methodology

Based on the information provided by the Client, our methodology in addressing the landslide risk assessment included the following:

- A geotechnical site walkover for landslide risk assessment of the existing site slopes, fill conditions, and proposed earthworks;
- Review of the survey data for the site;
- Review of proposed development plans;
- Review of the engineering drawings; and
- Review of AS3798 – Guidelines on Earthworks for Commercial and Residential Developments.

A suitably qualified and experienced geotechnical engineer undertook the detailed site walkover on November 07, 2025.

5.3.1 Geotechnical Issues

Based on the site conditions, issues of geotechnical relevance are the following:

- The disturbance of a site with slopes of approximately 5 to 15° that can cause the current stable slopes to become unstable.
- The proposed fill placement on sloping ground.
- The existing site topography.
- The potential and consequences of failure of the proposed new structures onsite, including cut-to-fill batters, retaining structures and footing systems.

5.3.2 Landslide Assessment Criteria and Methodology

With a view to managing risks to life and property associated with natural disasters such as landslides, etc., that pose to occupants in a development, it is Council's requirement that the susceptibility of such developments to natural disasters should be addressed. The following criteria are considered as part of Council's Operational Work conditions for approving a Site:

- That the landslide risk susceptibility of a site should be deemed to be 'low' in accordance with 'Landslide Risk Management' Australian Geomechanics Journal Vol. 42, No. 1 March 2007.
- Part B of the Council's requirement indicates that where the average grade of a finished lot surface exceeds 15%, the site must be certified by a geotechnical professional as having a 'low risk' in relation to landslide.

The methodology adopted for the landslide risk assessment at this site was to the requirements of Australian Geomechanics (AGS) Landslide Risk Management guidelines as contained in the Australian Geomechanics Journal Vol. 42 No. 1, March 2007. Due to the broad scope of the AGS journal, it does not specifically cover small-scale developments. The work of Hargreaves and Kidd (2012), which is in line with AGS Vol. 42, No. 1 2007, has conceptualised landslide risk management in a way that is amenable to small-sized developments and has been adopted for this assessment.

This study by Hargreaves and Kidd (2012) provides an evaluation of the level of site hazards in relation to landsliding. The hazard rating is based on a five-level system and classified into Very Low, Low, Moderate, High, and Very High categories.

The implications of this hazard rating classification are indicated in *Table 14*.

Table 14: Implications of Hazard Classification

Hazard Rating	Description	Implications
Very Low (VL)	The event is conceivable but only under exceptional circumstances	Accepted. Managed by routine procedures
Low (L)	The event might occur under very adverse conditions	Can be accepted. Treatment to maintain or reduce risk level should be defined.
Moderate (M)	The event could occur under adverse conditions	May be acceptable provided treatment plan is implemented to maintain or reduce risk level.
High (H)	The event will probably occur under adverse conditions	Detailed investigation, planning and implementation of treatment options essential to reduce risk to acceptable levels.
Very High (VH)	The event is expected to occur	Extensive investigation, planning and implementation of treatment options essential to reduce risk to acceptable levels.

5.3.3 Assessment of Site Features and Relative Frequency Analysis

Gold Coast City Council's online Landslide Hazard Overlay Map has identified the site as having a landslide risk potential (Moderate).

An extract from the Landslide Overlay map of Gold Coast City Council showing the site is presented in *Figure 7*.

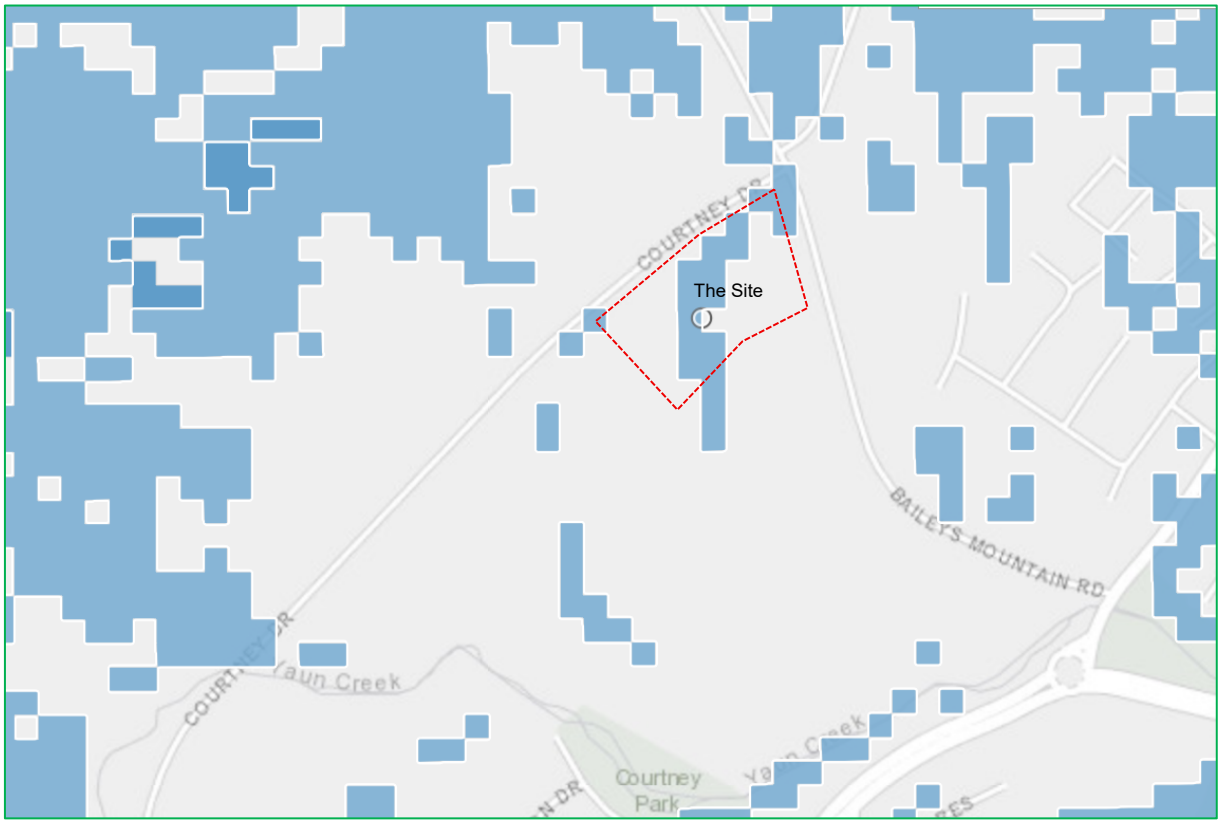


Figure 7: Excerpt from GCCC Landslide Hazard Map - Approx Location of Site Highlighted in Red.

5.3.4 Geotechnical Site Walkover

A site inspection was undertaken to confirm the geological, geomorphological, fill conditions and to assess the likely hazard rating based on site features that contribute to the initiation of a landslide.

The slope stability walkover assessment was undertaken on November 07, 2025.

A site report and frequency analysis were undertaken during the visit. The site report is a standard form that identifies the site features that contribute to the occurrence of a landslide.

The major site features relevant to this assessment for natural and man-made slopes are:

1. Slope Angle: In general, the steeper the average surface slope angle, the higher the risk of slope instability. Slope angles were directly measured onsite as well as calculated based on the detailed survey plan;
2. Slope Shape and Features: The shape of the slope provides an indication of the method of slope development and the materials below the surface. Concave shapes often indicate past movements;
3. Engineering Properties of Sub-surface Materials: The engineering properties of the materials forming the subsurface profile contribute to the risk of slope instability. Most slope failures occur in soil-strength material, and deeper soils increase the likelihood of slope failure. The available information indicates shallow soils overlying weathered rock. However, care should be taken where slope-wash, uncontrolled fill or colluvium soils occur as these materials have a higher potential to trigger instability;
4. The Concentration of Surface/Ground Water: Water is one of the most important factors in landslides' occurrence. The majority of slope failures occur during or following rainfall events when there is a combination of surface erosion and saturation of subsurface materials. The concentration of Groundwater: The presence of a high groundwater table can provide a similar long-term situation to a rainfall event and contribute to slope failure without a major rainfall event;
5. Evidence of Instability: In many cases, slope failures occur due to the reactivation of previous landslides. The presence of features that indicate past slope instability provides evidence that could initiate future slope movement;

6. Regional position on a hillside; and
7. Site geology
8. Cut depth;
9. Cut batter angle;
10. Cut batter support;
11. Fill depth;
12. Fill batter angle;
13. Fill Batter Support;
14. Type of fill;
15. Wastewater, sewerage, etc;
16. Stormwater disposal;
17. Expandable/mechanical stormwater and drainage pipe connectors;
18. Footing system;
19. The foundation strata;
20. In-ground tanks (any type); and
21. Landscaping.

Additional observations onsite include:

- No areas of major distress or slope instability were noted;
- No free groundwater or seepage was observed across the site;
- No tension cracks were observed within the site;
- No hummocky or bulging soils were identified on the site slopes;
- Depth to bedrock was shallow across the site; and
- Physical observations made on trees/fence posts indicate signs of soil creep.

5.3.5 *Landslide Risk Assessment*

Evaluation of these features in a Landslide Frequency Assessment Form (Appendix C) provided an indication of their relative importance to slope failure. The assessment of the features included the allocation of a weighted factor for each feature based on site observations, judgment, and experience. This allows a Relative Frequency to be calculated by multiplying the selected factors together for each of the above site conditions highlighted in blue and green.

From the assessment of results from their study (Hargreaves and Kidd 2012) and other studies in similar terrain, a correlation between Relative Frequency and Hazard Rating has been established, as shown in *Table 15*.

Table15: Correlation between Relative Frequency and Hazard Rating

Relative Frequency (Output)	Hazard Rating (Susceptibility)
< 0.2	Very Low (VL)
0.2 – 0.6	Low (L)
> 0.6 – 2.0	Moderate (M)
> 2.0 – 6.0	High (H)
> 6.0	Very High (VH)

The above major site features listed in Section 5.3.4 have been considered in determining a likelihood estimate of landslides in this property. The features relevant to this site under consideration, as recommended by Hargreaves and Kidd (2012), apply to **Case 1 (1 - 7)** and **Case 4 (1 – 22)**.

With knowledge of the proposed development (earthworks, retention systems, fill, etc.), the assessment has been carried out for the pre- and post-development stages.

For a typical Lot in the development, the assessment indicates that the relative frequency (Output) pre-development is ***0.52*** for Case 1 (items 1 to 7), which implies that the landslide risk on the development site is "**Low"** (Appendix C).

To ensure the potential landslide risk level remains "**Low**" or better post-development, the recommendations presented in Section 5.4 should be implemented during and after construction.

5.4 Landslide Risk Mitigation Strategy

The following recommendations are provided to maintain the “low” or better landslide risk level onsite during and post-earthworks.

5.4.1 Fill

The borehole logs disclosed no fill onsite. However, given the landform and the disturbed state, it is expected that localised areas of fill may be present across the site. We are not privy to the placement conditions of fill onsite, and therefore, all existing fill is deemed uncontrolled. Any material identified as fill is deemed unsuitable to support structural loads.

Material described as slopewash was recorded on the sloping ground and may present an increased landslide risk. These materials must be removed and replaced with fill that is engineered and certified. All fill must be such that it is keyed into the competent sloping surface.

5.4.2 Fill Placement

Site won, or imported fill must be placed in accordance with AS3798-2007. Imported select fill material should be a good quality select fill material with a soaked CBR of at least 10%, a maximum aggregate size of 50mm, and a maximum Shrink/Swell Index of 1.0%. Fill must be keyed into the existing slopes.

5.4.3 Cut and Fill Batter Support

Permanent cut/fill batters must be cut to a grade no greater than 14 degrees (1V:4H). Batters steeper than 14 degrees should be appropriately retained. A post and concrete sleeper wall is deemed appropriate for the subsurface conditions. However, if the bedrock is exposed at foundation level, boulder/sandstone block walls will also be suitable.

5.4.4 Stormwater Disposal

Stormwater collected within the site should be directed into designated drains and directed to Council's stormwater system. Disposal of stormwater on the surface is not permitted in the immediate vicinity of proposed building areas.

5.4.5 Site Drainage

Surface runoff should be diverted away from proposed retaining walls and dwellings to prevent scouring, riling, and erosion. The site drain shall be designed and inspected by a qualified person.

5.4.6 Footing System

All footings must be designed in accordance with AS2870-2011. It is expected that pier-supported slab-on-ground, pad and strip footing systems will be used onsite.

However, the following should be noted:

- Piers must be extended beyond any fill/slopewash and sufficiently socketed into at least very stiff or dense residual soils.
- The fill pad for a raft/slab footing must be constructed under a Level 1 inspection regime and certified as a controlled fill.
- The footings for the retaining wall must be well-socketed into the underlying rock.

5.4.7 Roof Water Control

Ensure house downspouts are not flowing onto any fill/slopes/retaining walls but are collected and channelled into storm water drains. Leaks along these lines should be avoided.

5.4.8 Erosion Control

Erosion protection of all exposed batters should be carried out at the site. All runoff at the site should be appropriately channelled to ensure that runoff does not cause severe erosion that may result in adverse ground profiles.

5.4.9 Retaining Walls

All proposed retaining structures should be designed by a qualified person and checked for global stability, sliding, and rotational failure.

*Following the implementation of the above recommendations, the site has been reassessed, based on Cases 1 – 22, and all the future lots can be shown to have a landslide risk rating of "**Low**".*

Table 16 presents a landslide risk matrix that includes all the proposed lots of the development. The Lot numbering system has been based on the supplied Saunders Havill Proposal Plan Rev L, dated 20/01/2026.

Table 16: Lot Rating

Lot	Landslide Risk Features	Initial Landslide Rating	Mitigating features	Residual Landslide Rating
1 - 3	• Slopes to Northwest at about 10 degrees	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
4 - 8	• Near top of Ridgeline with less steep slopes • Possible fill in sections due to previous earthworks	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
9 - 15	• Slopes to Southeast at about 15 degrees	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
16 - 18	• Slopes to Southeast at about 15 degrees • Uneven ground in sections due to previous development	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
19- 22	• Near top of Ridgeline with less steep slopes • Possible fill in sections due to previous earthworks	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
23 - 25	• Slopes to Northwest at about 10 degrees • Possible fill in sections due to previous earthworks	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
26 - 27	• Near top of Ridgeline with less steep slopes • Possible fill in sections due to previous earthworks	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
28 - 31	• Uneven Ground conditions due to previous earthworks • Possible fill in section • Steep batters	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
32 - 34	• Slopes to east at about 10 to 15 degrees • Uneven ground in sections - gully flow	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
35-37	• Uneven ground conditions • Possible water softened materials as part of the existing dam	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
38 - 41	• Slopes to Southeast at about 15 degrees	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low

42 - 43	• Slopes up to about 15 degrees into gully/drainage path	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
44 - 45	• Slopes to the south-west at about 10 - 15 degrees	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
46 - 49	• Slopes to west at about 10 degrees • Some uneven ground condition	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
50 - 51	• Slopes to west at about 10 - 15 degrees	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
52 - 53	• Slopes up to about 15 degrees into gully/drainage path • Uneven ground conditions • Possible water softened materials as part of the existing dam	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
54 - 57	• Slopes to east at about 10 to15 degrees	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
58 - 60	• Uneven Ground conditions due to previous earthworks • Possible fill in section • Fill batters	Low to Moderate	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
61	• Near top of Ridgeline • Inground pool to be reclaimed • Possible fill in section	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low
62 - 63	• Near top of Ridgeline with less steep slopes • Possible fill in sections due to previous earthworks	Low	Develop site appropriately, particularly adhering to recommendation given is section 5.4 of this report	Low

6 Conclusions

This geotechnical interpretative report is a product of a site investigation conducted for the site with street address #17 Courtney Drive, Upper Coomera. The site's Real Property Description is Lot 182 on RP156422. The property covers a gross land area of approximately 33,400m^2, and it is proposed for a subdivision to create some 63 lots.

The regional geological maps indicate that the site lies within the Neranleigh-Fernvale beds (DCf) geological unit. The boreholes drilled onsite encountered topsoil and slopewash overlying residual soils that grade into weathered sandstone rock at shallow depths. The depth to top of rock varied across the site, ranging from 0.3 to 1.5m bgl.

The site has been assigned a **Class P,** given the current slopes, the susceptibility to landslide events, proposed fill heights and the planned removal of trees.

The clays in the underlying soil profile were established to have a typical potential ground movement of between 10 to 30mm under normal moisture conditions, which corresponds to a ***Class S to M*** site in accordance with AS2870-2011.

The proposed development at the site is expected to include road and drainage infrastructure as well as cut-to-fill earthen pads supported by retaining structures. The report provides design and construction recommendations and advice to ensure that the development is appropriate for the site conditions.

The site has been identified as being within the map overlay for landslide hazards. As such, the Gold Coast City Council requested a site-specific report addressing the stability of the site slopes pre- and post-construction.

The slope stability (landslide) assessment has been conducted, and the site, in its current state, has been assigned a "Low to Moderate" landslide risk category. The site was also reassessed following the completion of the proposed earthworks. Provided the recommendations itemised in Section 5.4 are adhered to, the risk of landslide events remains "Low" for the site.

Based on the results of the geotechnical investigation, including the potential landslide risk assessment, Qualtest concludes that the site is suitable for the proposed development and it has a "Low" risk of slope instability, provided the recommendations outlined in this report are adhered to.

7 Disclaimer

This report has been prepared on behalf of and for the exclusive use of CFMG Capital and its partners in accordance with the scope of work outlined in Proposal *QGQ25–361–9448Rev A*, dated October 24, 2025. This report is not intended for and should not be relied upon by any third party. In preparing this report, Qualtest relied upon information provided by CFMG CApital. This report must be read in conjunction with the attached appendices and kept in its entirety without separating individual pages or sections. This report, or sections from this report, should not be used as part of a specification for a project without review and agreement by Qualtest.

Interpretations and recommendations provided in the report are based on the ground conditions at the site, only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. This is because ground conditions are subject to change from place to place and with time due to geological processes and/or because of human influences.

The advice provided by Qualtest is based on the conditions encountered onsite at the time of the investigation. If different ground conditions are encountered following the issuance of this report, Qualtest should be notified so that further advice can be provided.

Should you require further information regarding the above, please do not hesitate to contact this office.

Yours faithfully,

MICHAEL MORRISON **DENNIS ALAZIGHA,** *RPEQ 22169*

For and on behalf of
QUALTEST LABORATORY PTY LTD

Appendix A: Engineering Logs
Appendix B: Laboratory Test Certificates
Appendix C: The Landslide Frequency Assessment Form

MODUS
Transport & Traffic Engineering

Traffic Impact Assessment

17 Courtney Drive, Upper Coomera
Proposed Subdivision Development



Document Information

Prepared for Courtney Upper Coomera Developments Pty Ltd	**Job Reference** MOD25094QLD
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Whether your project is a small residential development, mixed use development, a large commercial precinct or anything in between, our experienced traffic engineers will apply sound and practical traffic engineering principles to achieve an outstanding outcome for your project.

For more information about our company and the services we provide, please visit www.modusengineering.com.au

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Modus Transport and Traffic Engineering

1 Introduction

1.1 Overview

Modus has been commissioned by Courtney Upper Coomera Developments Pty Ltd to provide traffic and transport advice in relation to the proposed development located at 17 Courtney Drive, Upper Coomera.

This Traffic Impact Assessment (TIA) has been produced by Modus to assess the traffic and transport engineering components in support of the proposed development.

1.2 References

The following resources were referred to in the preparation of the report:

- Proposed development plans prepared by Saunders Havill
- City of Gold Coast (CGC) City Plan, 2025
- AS2890.1 Australian Standards Parking Facilities Part 1: Off-Street Car Parking
- AS2890.2 Australian Standards Parking Facilities Part 2: Off Street Commercial Vehicle Facilities
- TfNSW Guide to Traffic Impact Assessment (GTIA), 2024

1.3 Limitations

Modus has completed this traffic report in accordance with the usual care and thoroughness of the consulting profession. The assessment is based on accepted traffic engineering practices and standards applicable at the time of undertaking the assessment. Modus disclaims responsibility for any changes to project planning or road conditions that may occur after completion of the assessment.

2 Existing Conditions

2.1 Site Location

The proposed development site is located at 17 Courtney Drive, Upper Coomera and is bounded by Courtney Drive to the north, Baileys Mountain Road to the east and vacant land to the west and south. It is noted that the vacant land to the west and south has been prepared as a conceptual development.

The development site is identified within the Council planning scheme as an Emerging Community, Upper Coomera Precinct zone and has similar zones to the north, south and west. A Medium Density Residential zone is identified to the east.

The development site and surroundings are shown on Figure 2-1.

Figure 2-1 Site Location



Source: Nearmap

2.2 Existing Site Use

The lot is currently a single dwelling house with existing access onto Courtney Drive.

2.3 Existing Road Network

Table 2-1 outlines characteristics of the existing road network in the immediate proximity of the proposed development site.

Table 2-1 Key Road Characteristics

Road	Hierarchy	Speed Limit	Typical Form
Courtney Drive	Local road	50 km/h*	Two lanes, undivided
Baileys Mountain Road	Distributor road	60 km/h	Two lanes, undivided

*Default Speed Limit for Unsigned Road

2.4 Public Transport and Active Facilities

There are no public transport facilities within a 400m walkable catchment. Additionally, there are no dedicated pedestrian pathways or cycling facilities currently provided along Courtney Drive. This is due to the nature of the land surrounding the site being primarily undeveloped. It is anticipated that pathways may be implemented in the future once the surrounding areas are developed.

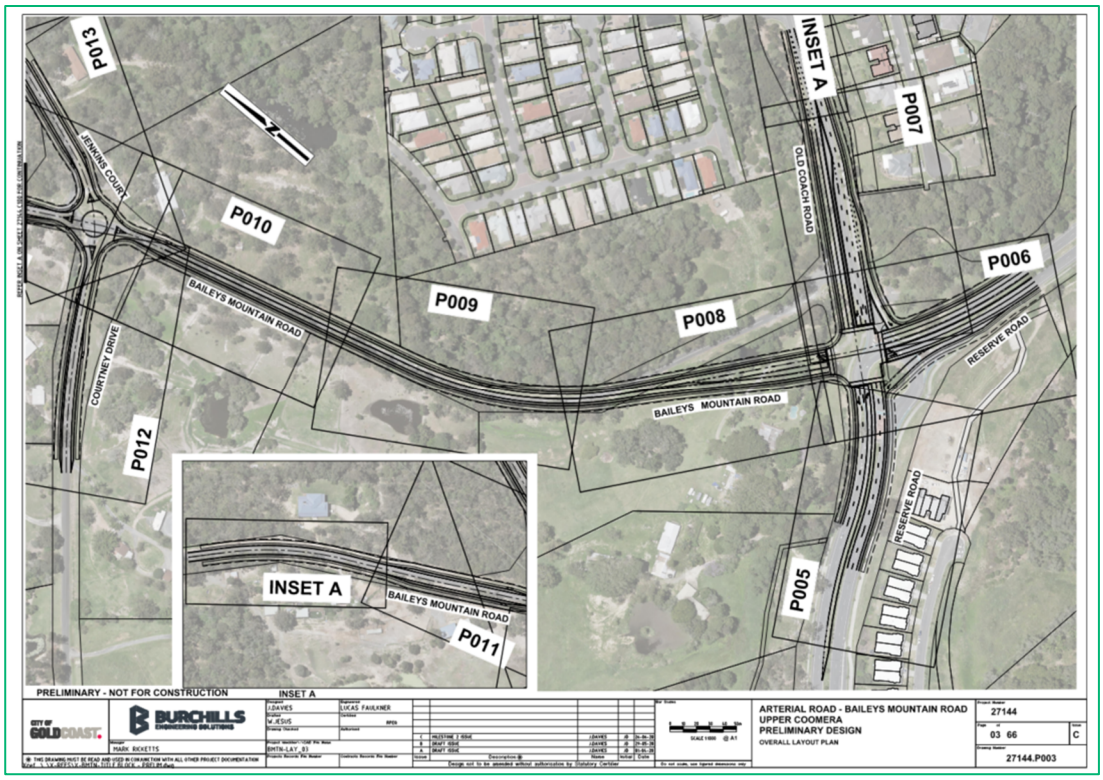
2.5 Planned Upgrades

Modus has reviewed the local government infrastructure plan (LGIP) mapping in the vicinity of the proposed site. The mapping identifies upcoming road widening works. As part of the transport network schedule of works, an intersection upgrade to a roundabout is proposed at the Courtney Drive / Baileys Mountain Road intersection, and a new signalised intersection is planned at the Old Coach Road / Reserve Road intersection.

The upgrade of the Baileys Mountain Road and Reserve Road intersection identified in the LGIP (TRN_INT_0030) is scheduled for the works in 2036, to be delivered by Council. This upgrade includes the Baileys Mountain Road re-alignment and the Courtney Drive / Baileys Mountain Road / Jenkins Court intersection upgrade.

A preliminary design drawing (27144.P003) of the intersection has been shown on Figure 2-2.

Figure 2-2 Road Upgrade Concept Plan



2.6 Crash History

Crash data for the road network surrounding the development has been obtained from the *TMR Open Data Portal* for the most recent 5 years (2018-2023). The data has been assessed from 100m of the site access and indicates that no crashes occurred during this period within close proximity to the proposed site.

Overall, none of the crashes recorded are consistent with typical urban traffic patterns and do not raise any immediate road safety concerns for the surrounding network.

3 Proposed Development

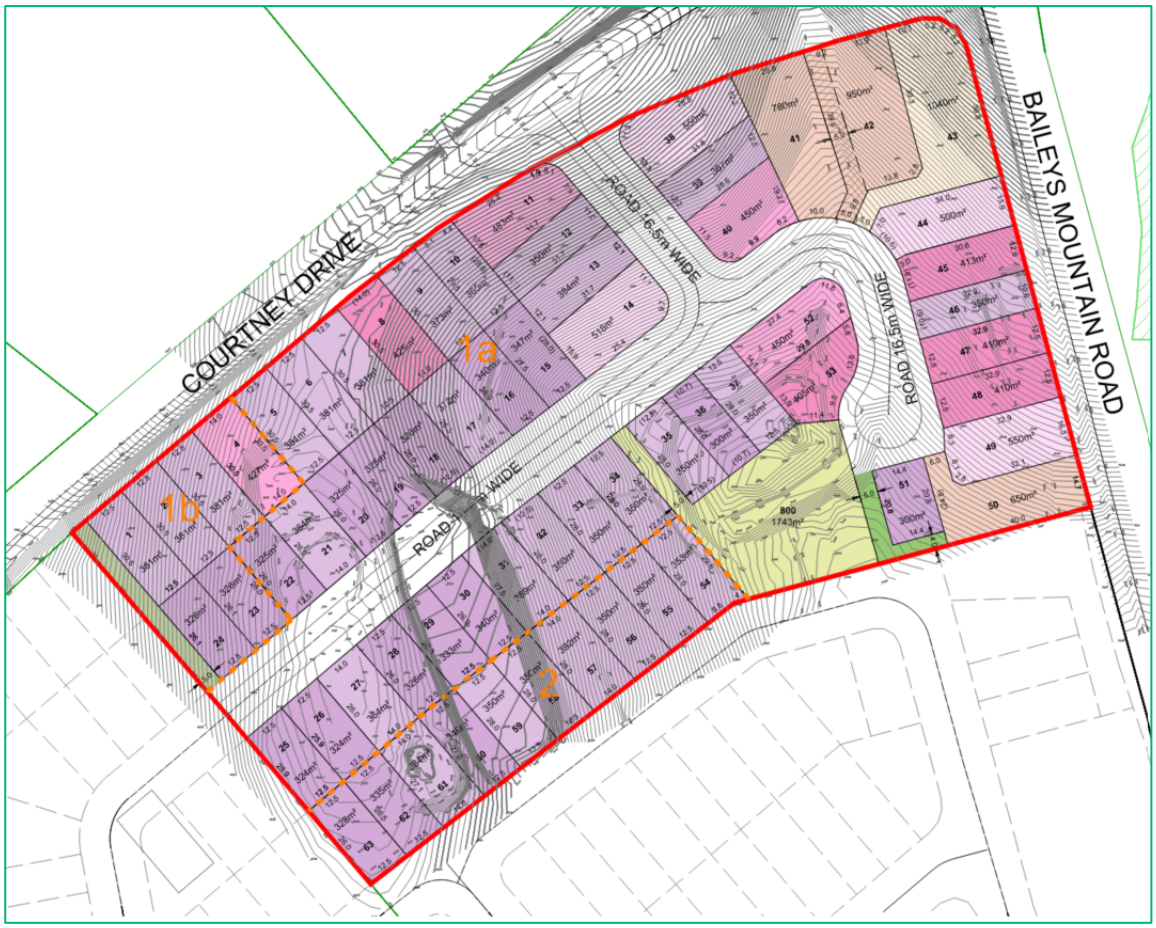
3.1 Overview

The proposed development comprises a residential subdivision, consisting of a one-in-63 lot subdivision to be delivered across three (3) stages: Stage 1a, Stage 1b and Stage 2. Vehicular access will be provided via one (1) new connection to Courtney Drive via the external road network.

It is noted that this development application (DA) incorporates the adjacent Lots 183 and 184 as part of the overall development, as required by Council to facilitate road access, particularly for service vehicles.

The proposed site plan is illustrated on Figure 3-1. A copy of the proposed development plans, including the adjacent lots can be found in **Appendix A**.

Figure 3-1 Proposed Development Layout



Source: Saunders Havill, 13087 P 01 Rev A - PRO 01, dated 13/03/2026

4 Traffic and Transport Advice

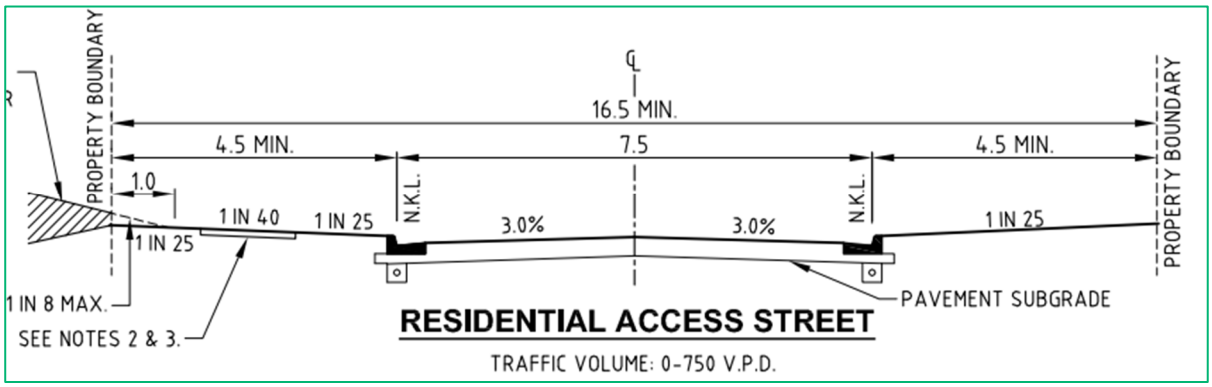
4.1 Development Access

Vehicular access for the proposed subdivision is achieved via the one proposed road as part of the development. Unnamed at this stage, this internal road connects to Courtney Drive via a priority-controlled arrangement. The intersection allows vehicle movements in all directions.

4.1.1 Internal Road Layout

The development proposes to extend the new road, which is classified as Residential Access Streets, as outlined in Council's 'Typical Road Cross section- Residential Streets' Standard Drawing (SD 05-02-001). The cross-section of the proposed internal roads is shown in Figure 4-1.

Figure 4-1 Residential Access Street - Standard Drawing



Source: GoGC - Typical Road Cross-section- Residential Streets - Standard Drawing

The cross-section detailed in Figure 4-1 will be maintained for the entirety of the development.

The road design standard for the 16.5m wide access street layout for the development is to be constructed in accordance with the above Standard Drawing for Residential Streets, providing a carriageway of 7.5m and minimum 4.5m wide verges. Additionally, footpaths will be provided on one (1) side of the street. Further detail on the footpaths is shown on the services layout provided in the civil engineering drawings.

At the end of the internal road adjacent to Lot 51, a cul-de-sac is proposed, incorporating a turning head with a minimum diameter of 18m, plus 4.5m verge around the full perimeter.

Additionally, the road and footpath have been designed to be consistent with and align to the layout of the adjacent lots located southwest of the development site.

4.1.2 Sight Distance

The Safe Intersection Sight Distance (SISD) for the proposed access has been reviewed in accordance with Austroads requirements, via a desktop assessment. For a 60 km/hr design speed and a reaction time of 2.0 seconds, a minimum SISD of 123m is required. This requirement is achieved in the east direction, where the available sight distance meets the minimum standard.

In the west direction, the available sight distance is reduced to approximately 100m due to the existing steep grades and crest. While this satisfies the SISD requirement for a 50 km/h design speed environment, it is recommended that appropriate advisory signage, such as a 'crest' or

warning advisory sign to reduce speeds approaching the crest of 40km/hr be installed to encourage reduced approach speeds and enhance safety at the access point.

4.1.3 External Environment

Modus has conducted a daily traffic volume assessment for the proposed development capacity. Based on the expected development traffic, the site is anticipated to generate 475vpd (refer to Section 6), which will be distributed to the existing road network via Courtney Drive and further distributed to the external road network.

In accordance with the CGC, the internal road within the development is classified as a Residential Access Street, which typically accommodates a maximum daily traffic volume of 0–750 vpd. Based on the proposed development yield, the internal road is expected to generate 475 vpd. An additional 211 vpd has been assumed from Stage 5 of the adjacent development (41-53 Courtney Drive, Upper Coomera). The combined traffic generation is not expected to exceed the threshold that would trigger a higher road classification for the internal road network.

As part of the proposed development, Courtney Drive is to be upgraded as 'Residential Collector Street' for the full length of the site frontage. As such, the typical daily traffic volume of the road network can accommodate a capacity between 751 – 3,000 vpd. Therefore, the proposed development is not expected to trigger the threshold for further road upgrades.

4.1.4 Vehicle Route

The site is situated to the southwest of the local business area. All retail facilities and the Pacific Motorway off-ramps are located to the north and east of the site, while the area to the south comprises only residential catchments relative to the proposed development site.

The development traffic is not expected to utilise Rangeview Road (Calli Drive) and Reserve Road intersection. Based on the local road network and typical driver behaviour, vehicles will instead adopt the most direct and efficient route of travel via Baileys Mountain Road. This route provides the shortest connection between the site and the surrounding arterial network and is therefore anticipated to accommodate the majority of site-generated vehicle movements.

4.1.5 Driveway Locations

There are no driveway locations shown on the concept plan in Appendix A. It is recommended the proposed driveways achieve the following separation:

- 1m from adjacent driveways
- 1m from the side property boundary
- 6m from the tangent point of an intersecting road

The proposed driveways are to achieve the above requirements, with further detail on the indicative driveway arrangements including location and width are demonstrated in the civil engineering drawings.

Additionally, in accordance with the pre-lodgement minutes, the driveway locations to be considered to avoid loss of on-street parking. As such, a 7m separation will be provided between

two driveways (at the kerb line) to accommodate one (1) on street parking space adjacent to the dwellings with a 12.5m frontage.

4.2 Servicing Arrangements

4.2.1 Design Vehicle Requirement

As the proposed development is a residential use, the minimum design vehicle required within the CoGC for refuse servicing is a Side Loader Refuse Collection Vehicle (RCV).

4.2.2 Swept Path Assessment

A swept path assessment has been undertaken for the largest design vehicle anticipated on site (RCV). The swept paths indicate that the RCV can enter and exit the proposed development safely and efficiently. The RCV swept paths can be found in **Appendix B.**

It is noted that the RCV is able to turn around within the proposed cul-de-sac using a three-point turn.

5 External Traffic Assumptions

5.1 Study Intersections

Figure 5-1 illustrates the intersection to be investigated; further detail is provided in Table 5-1.

Figure 5-1 Study Intersections



Table 5-1 Study Intersections

Intersection ID	Intersection	Control
1	Courtney Drive / Baileys Mountain Road	Priority Control Intersection

5.2 Background Traffic Volumes

To understand the existing traffic conditions, Modus has referred to the traffic count data from the TIA report of adjacent development 41-53 Courtney Drive, Upper Coomera (application number: ROL/2024/116). The survey data from TIA report is attached in **Appendix C**.

5.3 Traffic Growth

To gain an understanding of traffic growth within the broader transport network in close proximity to the development site, City of Gold Coast source was used, which details the Compound Annual Growth Rate (CAGR) applied on Baileys Mountain Road.

The compound annual growth rate for the calculation is shown in Figure 5-2.

Figure 5-2 City of Gold Coast source – Compound Annual Growth Rate

Background traffic growth – Baileys Mountain Road (source: City of Gold Coast)

2-way flow	2021	2026	2031	2036	2041
Baily Mountain Road	3991	6209	6297	8904	8905
Absolute Growth (from 2021)	2021	2026	2031	2036	2041
Baily Mountain Road		56%	58%	123%	123%
CAGR (from 2021)	2021	2026	2031	2036	2041
Baily Mountain Road		**9.2%**	**4.7%**	**5.5%**	**4.1%**

6 Traffic Generation

6.1 Adopted Traffic Generation Rates

In order to determine the traffic demand of the development, reference has been made to the TfNSW GTIA for Low Density Residential Dwellings.

Table 6-1 summarises the adopted trip generation rates for the land uses.

Table 6-1 Adopted Generation Rates

Land Use	Yield	Trip Generation Rates			Traffic Generation (trips)		
		AM	PM	Daily	AM	PM	Daily
Low Density Residential Dwellings	63 Lots	0.83 trips/dwelling	0.83 trips/dwelling	7.53 trips/dwelling	51	52	475

The proposed development is anticipated to generate up to 52 vehicles per hour (vph) during the peak hour periods and 475 vehicles per day (vpd), which is inclusive of both inbound and outbound vehicle movements.

6.2 Trip Distribution

Table 6-2 and Table 6-3 shows the peak hour traffic directional distribution and the resulting directional trips for the proposed development.

Table 6-2 Directional Distribution

Land Use	AM Peak IN	AM Peak OUT	PM Peak IN	PM Peak OUT
Low Density Residential Dwellings	80%	20%	70%	30%

Table 6-3 Directional Trips

Land Use	AM Peak IN	AM Peak OUT	PM Peak IN	PM Peak OUT
Low Density Residential Dwellings	10	41	36	16
PROPOSED TOTAL	51		52	

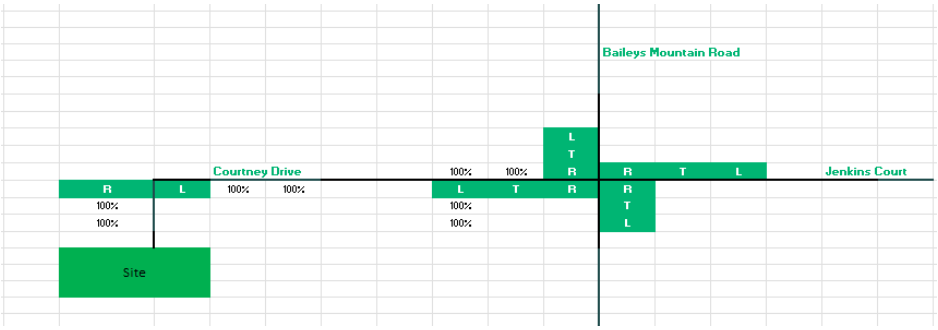
As indicated in Table 6-3, the proposed development is anticipated to generate up to 52vph in both AM and PM peaks. This quantum of traffic equates to one (1) vehicle entering or exiting the site approximately every 1 minute and will be further distributed into the local road network via Courtney Drive and Baileys Mountain Road from the proposed development.

This is considered to be a low traffic generation that is not anticipated to compromise the safety or efficiency of the external road network.

6.3 External Directional Trip Distribution

The external directional trip distribution has been based on the existing patterns observed in recent traffic survey counts. This is illustrated in Figure 6-1.

Figure 6-1 External Directional Trip Distribution

Intersection	Directional Distribution
Courtney Drive / Baileys Mountain Road	

The distribution of vehicles exiting the proposed development has also been based on the entry distributions detailed above and the surrounding trip attractors. The overall trip distribution has been illustrated in Appendix D.

7 Traffic Assessment Criteria

7.1 Assessment Scenarios

To determine the impact of the proposed development on the existing road network, the assessment adopts a consistent approach with adjacent developments. Specifically, the intersection of Courtney Drive and Baileys Mountain Road, which has been analysed for the AM and PM peak periods, assessing the proposed yields detailed in Table 7-1.

Full SIDRA Results and layouts are provided in **Appendix E.**

Modus have undertaken a conservative approach in assessing the impact of the study intersections. In accordance with the TMR Guide to Traffic Impact Assessments (GTIA), the impact assessment year for the site access should be the year of opening and 10 years after the year of opening. All other intersections are only to consider the year of opening impact assessment year. The adopted year of opening is 2028. Table 7-1 summarises the impact assessment scenarios.

Table 7-1 Assessment Scenarios

Impact Assessment Scenario	Study Intersections
2025 Survey	1
2028 BG	1
2028 BG + Dev (Year of opening)	1

Note: BG = Background, Dev = Development Traffic

7.2 Assessment Criteria

7.2.1 Intersection Degree of Saturation

The performance of each study intersection has been analysed using SIDRA Intersection 10 (SIDRA). SIDRA is the primary industry modelling software that estimates the capacity and performance of intersections SIDRA analyses an intersection's Degree of Saturation (DOS), queues and delays. DOS is a measure of the proportion of traffic entering an intersection relative to the intersection's capacity. Table 7-2 provides the DOS thresholds used in this study.

Table 7-2 Adopted Intersection Performance Threshold – Degree of Saturation

Intersection Treatment	DOS Threshold
Signalised-controlled Intersections	Less than 0.9
Priority-controlled Intersections	Less than or equal to 0.80

Source: TMR Guidelines for Assessment of Road Impacts Development

If DOS exceeds the values in Table 7-2 it indicates the intersection is nearing its practical capacity and upgrade works may be required. Above these threshold values, users of the intersection are likely to experience increasing delays and queueing.

7.2.2 Intersection Delay

The TMR *Guide to Traffic Impact Assessments* (GTIA) recognises the intersection delay as a greater indicator of intersection performance in comparison to the previous TMR *Guidelines for Assessment of Road Impacts of Development* (GARID) significance on the degree of saturation (DOS).

For priority-controlled intersections and roundabouts, where the average peak hour delays for any movement exceed 42 seconds, as outlined in the GTIA, the intersection should be upgraded for safety reasons. For signalised intersections, given that the delay is dependent on the cycle length and phasing arrangement, the DOS is still considered.

7.2.3 Intersection Queue Lengths

The 95th percentile queue relates to the queue length which 95% of all observed queue lengths during the assessment hour fall under, or in other terms, the length which 5% of all observed queues exceed. This provides an indication of the maximum queue length which should be designed for such that upstream lanes are not adversely impacted.

7.2.4 Modelling Parameters

A summary of the SIDRA parameters adopted for the study intersection is summarised below:

- Peak Flow Factor – 0.95 (30min/60min)
- Basic Saturation Flow – 1,950tcu/hr

7.3 Intersection 1: Courtney Drive / Baileys Mountain Road

The existing intersection of Courtney Drive / Baileys Mountain Road is a four-leg priority-controlled intersection. Figure 7-1 illustrates the existing intersection formation and SIDRA layout for this study intersection.

Figure 7-1 Courtney Drive / Baileys Mountain Road Intersection - SIDRA Layout

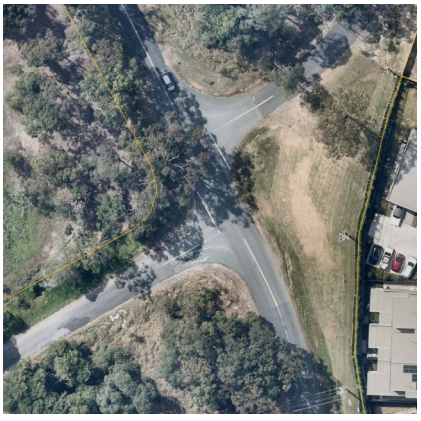
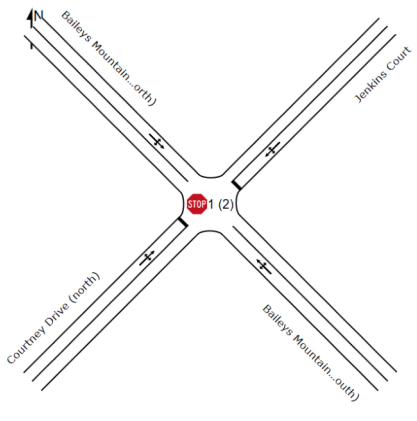
Existing form	SIDRA Layout
	

Table 7-3 outlines the SIDRA assessment results for the Courtney Drive / Baileys Mountain Road intersection for each of the assessed scenarios. The SIDRA results and layouts are provided in **Appendix E.**

Table 7-3 Courtney Drive / Baileys Mountain Road Intersection - SIDRA Analysis Summary

Scenario	DOS (%)	Average Delay (sec)	95th %ile Queue (m)	Critical Movement
AM				
2025 Survey	0.045	1.3	0.2	Western Though
2028 BG	0.053	1.2	0.3	Western Though
2028 BG + DEV	0.065	2.9	1.6	Western Though
PM				
2025 Survey	0.032	1.6	0.2	Western Though
2028 BG	0.039	1.6	0.3	Western Though
2028 BG + DEV	0.053	2.9	0.8	Western Though

The SIDRA results presented in Table 7-3 for the AM and PM peak periods illustrate the performance of the Courtney Drive / Baileys Mountain Road intersection, which operates under priority control. In the AM peak, the intersection is expected to continue operating satisfactorily until the development opening year in 2028 for both AM and PM, with a DOS of 0.053 and 0.039.

Traffic Engineering / Modus Transport and

7.4 Turn Warrant Assessment

Modus has conducted a turn warrant assessment to confirm the required turn treatments at the intersection of Courtney Drive / Site Access. The turn warrant assessment has been conducted in accordance with Austroads 'Guide to Road Design' Part 4A for the 2028 opening year scenarios based on the posted speed limit of 50km/hr.

Therefore, the turn warrant assessment for the Courtney Drive / Site Access intersection is outlined on Figure 7-2 and Figure 7-3 below.

Figure 7-2 Courtney Drive / Site Access intersection – 2028 Opening Year AM Turn Warrant Assessment

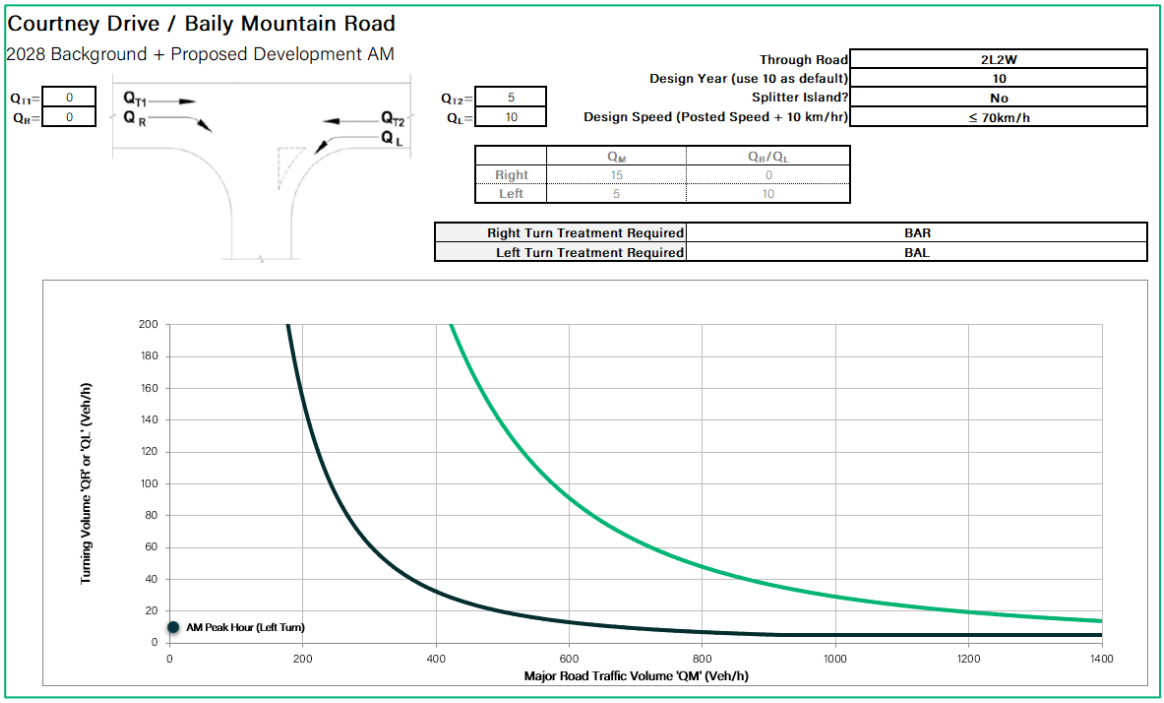
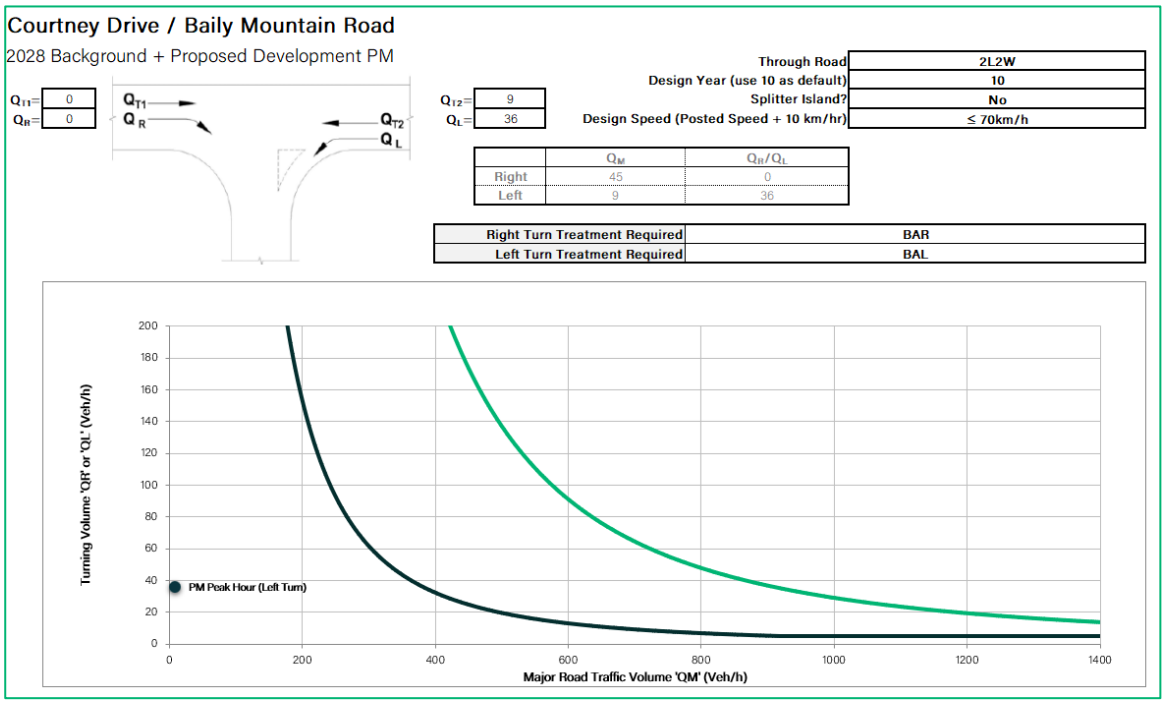


Figure 7-3 Courtney Drive / Site Access intersection – 2028 Opening Year PM Turn Warrant Assessment



Based on the above assessment, the turn warrant assessment confirms that the development requires a Basic Right (BAR) and Basic Left (BAL) turn treatment.

A review of Nearmap indicates that the existing road reserve width is sufficient to accommodate the required treatments. Once the road is upgraded to a residential collector street, the turn treatments will be accommodated within the carriageway width.

8 Summary

Modus has been commissioned by Courtney Upper Coomera Developments Pty Ltd to provide traffic and transport advice in relation to the proposed development located at 17 Courtney Drive, Upper Coomera. Based on our review, Modus has the following key findings:

Existing Conditions

- The site is bounded by Courtney Drive to the north and Baileys Mountain Road to the east and vacant land to the west and south.
- The site is identified as an Emerging Community, Upper Coomera Precinct zone and has the same uses to the north, south and west.
- The crash data has been assessed from 100m of the site access and indicates no crashes occurred during this period within close proximity to the proposed site.

Proposed Development

- The proposed development comprises a residential subdivision. The development proposes a one lot into 63 lots.
- Vehicle access will be via a new connection to Courtney Drive and the external road network.
- It is noted that this development application (DA) incorporates the adjacent Lots 183 and 184 as part of the overall development.

Traffic and Transport Advice

- The proposed road design for the 16.5m wide access street, carriageway of 7.5m and minimum 4.5m wide verges for the development, is to be constructed in accordance with Council requirements.
- The proposed development will be split in two (2) stages. In Stage one (1), Lot 26 is proposed to be an interim T-head turnaround bay with an easement provided to enable access to rear Lots 54–63. In Stage two (2), Lot 26 will be converted back to a residential lot once the internal road is extended to provide access to the adjoining site.
- The proposed sight distance provision complies with the minimum requirements outlined in Austroads.
- The proposed development is not expected to trigger the threshold for further road upgrades.
- The development traffic is expected to utilise the most direct and efficient route of travel via Baileys Mountain Road.
- It is recommended that the proposed driveways be achieved in the detailed design phase.

Servicing

- The design vehicle required within the CoGC for refuse servicing is a Side Loader Refuse Collection Vehicle (RCV). A swept path assessment confirms a 9.83m RCV design vehicle is able to safely ingress and egress the site in a forward gear.

- A swept path assessment determined that RCV is able to safely manoeuvre in, turnaround and exit from the site.

Traffic Generation

- The proposed development is anticipated to generate 52 vehicles per hour during the peak hour periods and 475 vehicles per day, which is inclusive of both inbound and outbound vehicle movements.
- This level of traffic generation is not expected to have a substantial impact on the operations of the proposed intersection and existing external road network.

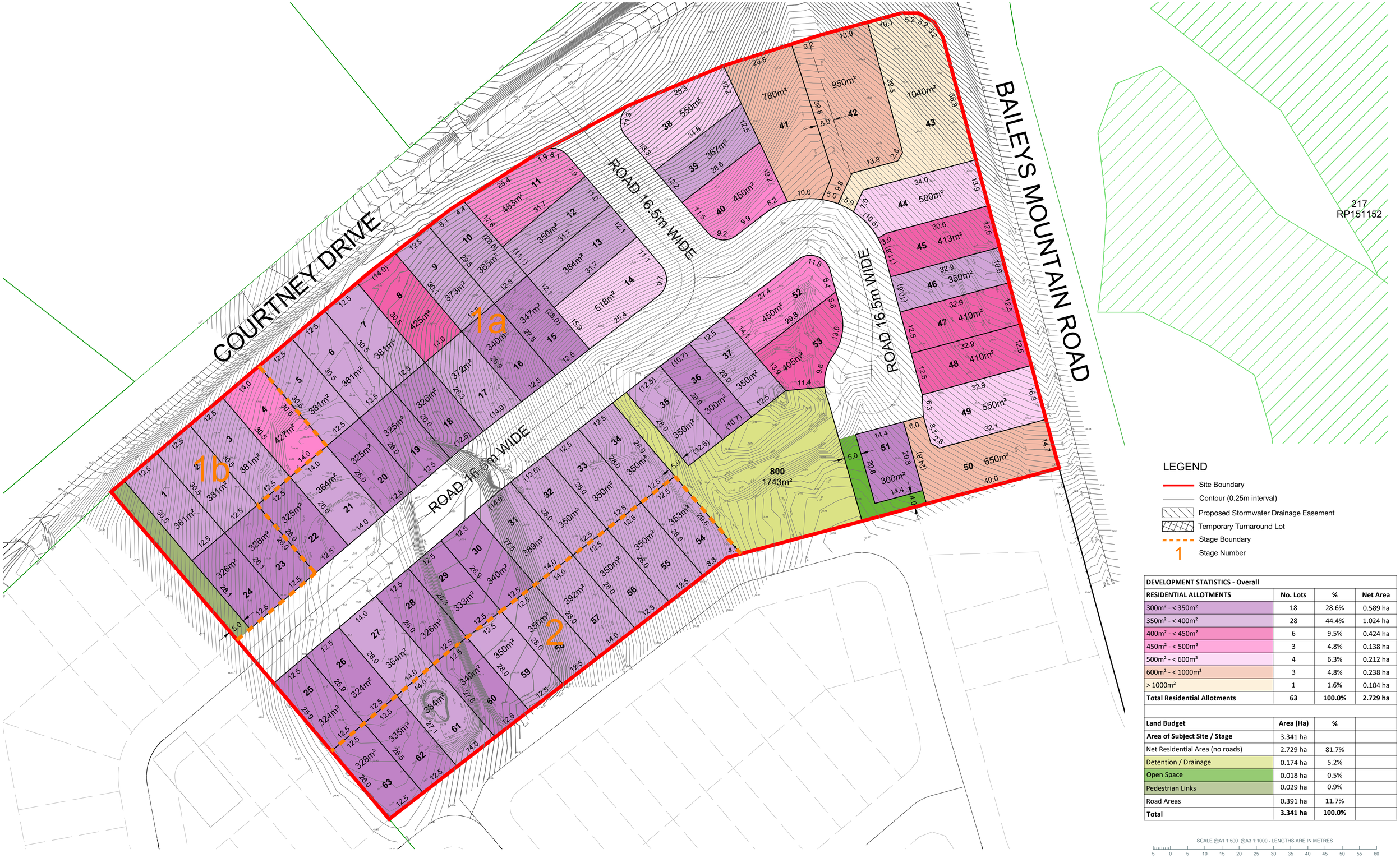
Traffic Assessment Criteria

- A SIDRA Intersection analysis has been undertaken for the intersections (Courtney Drive / Baileys Mountain Road) to assess the potential impact of the proposed development on the surrounding road network.
- The key intersection assessed is anticipated to continue operating satisfactorily under the 2028 development opening year.
- The turn warrant assessment confirms that the development requires a Basic Right (BAR) and Basic Left (BAL) turn treatment, and the existing road width can accommodate the required treatments. Final design of the treatments is to be undertaken at the detailed design stage.

APPENDIX A

Development Plans

PROPOSAL PLAN



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	18	28.6%	0.589 ha
350m² - < 400m²	28	44.4%	1.024 ha
400m² - < 450m²	6	9.5%	0.424 ha
450m² - < 500m²	3	4.8%	0.138 ha
500m² - < 600m²	4	6.3%	0.212 ha
600m² - < 1000m²	3	4.8%	0.238 ha
> 1000m²	1	1.6%	0.104 ha
Total Residential Allotments	**63**	**100.0%**	**2.729 ha**

Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	3.341 ha		
Net Residential Area (no roads)	2.729 ha	81.7%	
Detention / Drainage	0.174 ha	5.2%	
Open Space	0.018 ha	0.5%	
Pedestrian Links	0.029 ha	0.9%	
Road Areas	0.391 ha	11.7%	
Total	**3.341 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

5 0 5 10 15 20 25 30 35 40 45 50 55 60

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SOURCE
PROJECTION: SURVEY COORDINATES AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025
CONTOURS: AS PER SAUNDERS HAVILL DWG No. S01 DT A DATED 24/10/2025

N

CLIENT
CFMG CAPITAL LIMITED

SITE ADDRESS
17 COURTNEY DRIVE, UPPER COOMERA

RP DESCRIPTION
LOT 182 ON RP156422

DRAWN
AB

DATE
13/03/2026

DRAWING NO.
13087 P 01 Rev A - PRO 01

PROPOSAL PLAN



LEGEND

- Site Boundary
- Major Contour (1.0m interval)
- Vegetation Management
- Traffic Calming & Landscape Treatment
- Proposed Temporary Turnaround Easement
- Indicative Binpad Location
- Stage Boundary
- 1 Stage No.

DEVELOPMENT STATISTICS			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
10.5m - 12.49m Frontage	64	34.2%	2.152 ha
12.5m - 13.99m Frontage	69	36.9%	2.773 ha
14m - 14.99m Frontage	29	15.5%	1.219 ha
> 15m Frontage	18	9.6%	0.917 ha
Irregular Frontage	7	3.7%	0.439 ha
Total Residential Allotments	**187**	**100.0%**	**7.500 ha**
Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	18.266 ha		
Net Residential Area (no roads)	7.500 ha	41.1%	
Detention / Drainage	0.881 ha	4.8%	
Local Park	1.103 ha	6.0%	
Environmental Open Space	5.385 ha	29.5%	
Road Widening	0.027 ha	0.1%	
Road Areas	3.370 ha	18.4%	
Total	**18.266 ha**	**100.0%**	

SCALE @A1 1:1250 @A3 1:2500 - LENGTHS ARE IN METRES

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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SOURCE
PROJECTION: GDA2020 MGA56
SUBJECT BOUNDARIES: LOT CALCULATIONS BY LANDPARTNERS DATED 29/10/2025

N

CLIENT
NORFOLK ESTATES PTY LTD
ATF SOLANDER INVESTMENT UNIT TRUST

SITE ADDRESS
41 - 53 COURTNEY DRIVE , UPPER COOMERA

RP DESCRIPTION
Lot 183 RP156422, Lot 184 RP173727, Lot 185 on RP173727, Lot 186 on RP173728, Lot 57 on SP214370 & Lot 56 on RP162858, Lot 58 on SP191940

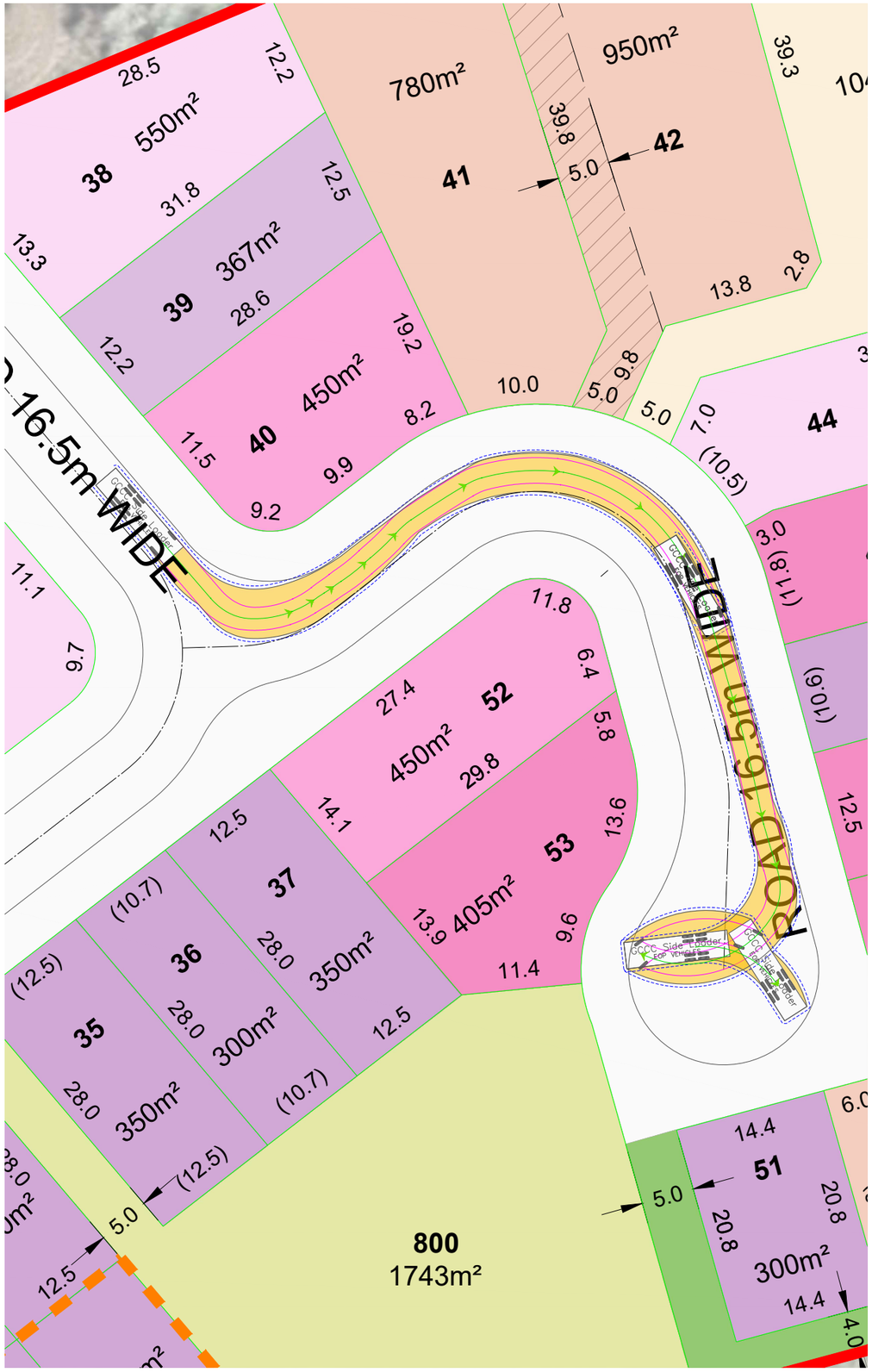
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DATE
04/02/2026

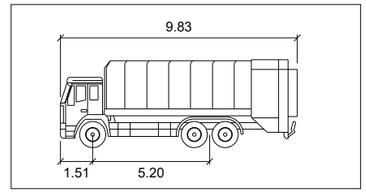
DRAWING NO.
11694 P 11 Rev T - PRO 01

APPENDIX B

Swept Path Assessment



VEHICLE USED IN SIMULATION



SWEPT PATH LEGEND

- VEHICLE BODY
- FRONT TIRES
- VEHICLE PATH
- VEHICLE CLEARANCE (300mm)
- VEHICLE
- 5KM/H DESIGN SPEED

N

0 10 20 30 40 50m

10 8 6 4 2

SCALE 1:1000

PROJECT

17 COURTNEY DRIVE, UPPER COOMERA

CLIENT

KASA GROUP HOLDINGS PTY LTD

DRAWING TITLE

RCV SWEPT PATH ASSESSMENT

DRAWING NUMBER

MOD25094QLD - SK01

DATE	REVISION
27 NOV 2025	A

REV	DRAWN BY	APPROVED	DATE	AMENDMENT DETAILS

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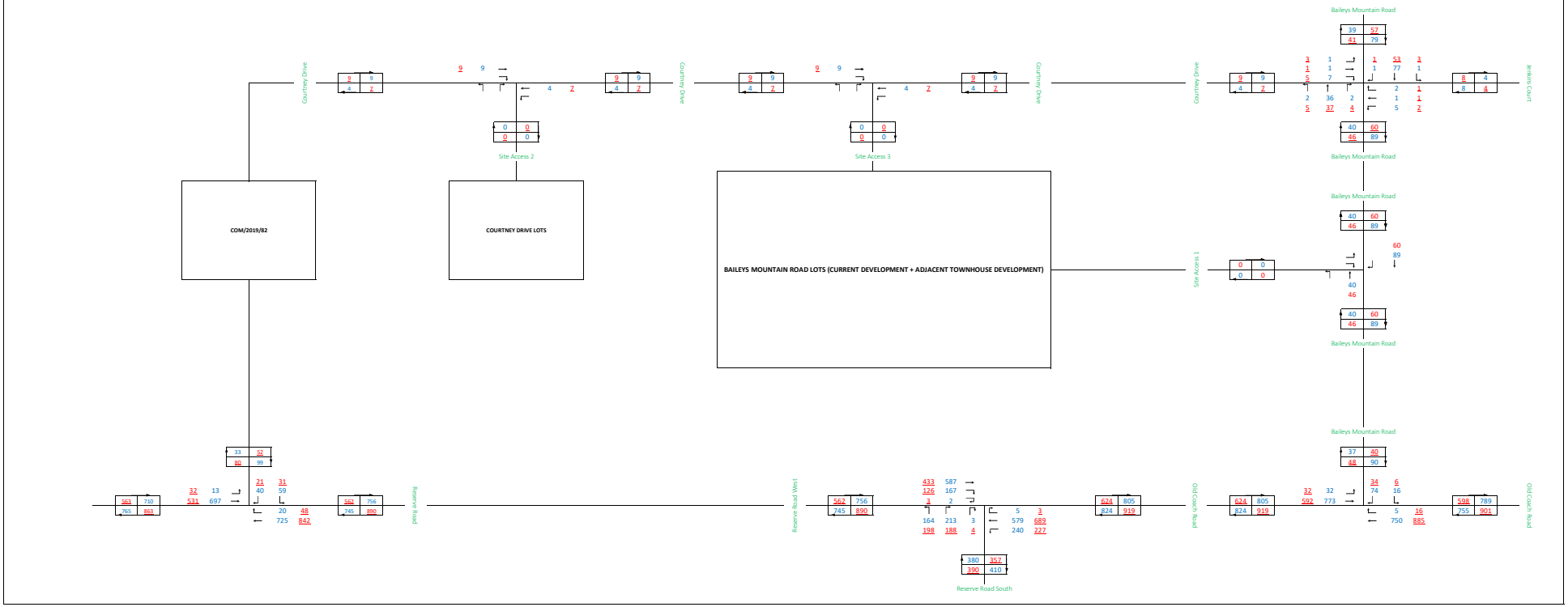
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310 Edward Street, BRISBANE CITY QLD 4000

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W: www.modusengineering.com.au

APPENDIX C

Colliers Traffic Survey Counts

2025 SURVEYED VOLUMES



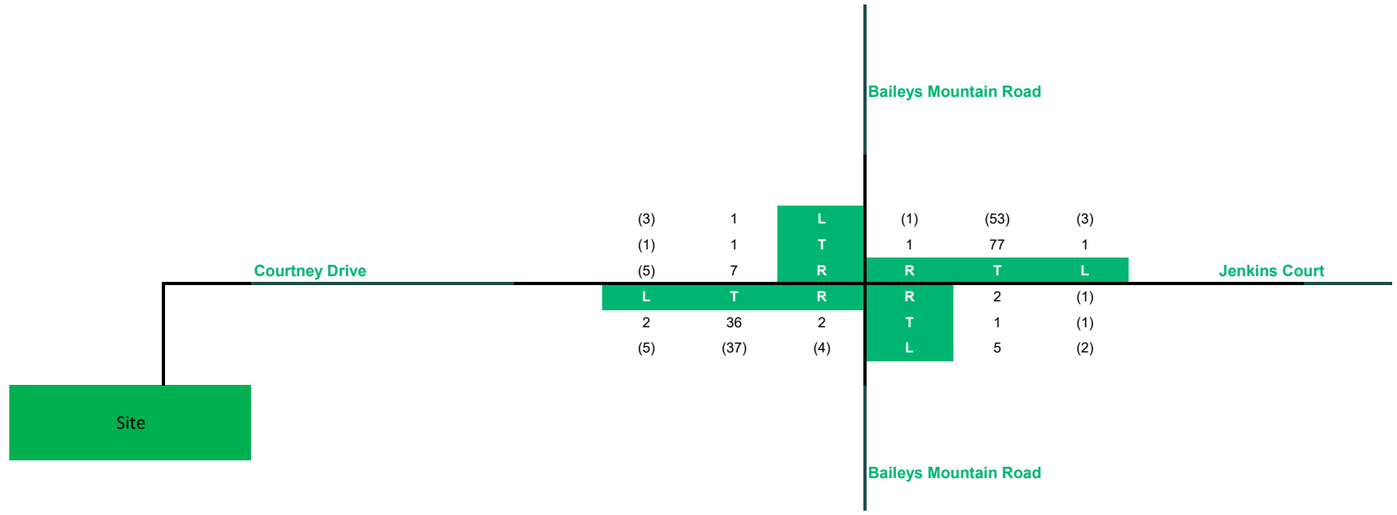
APPENDIX D

Network Flow Diagrams

Legend

L	Left turn
T	Through
R	Right turn
U	U-turn
00	AM Peak Hour Volumes
(00)	PM Peak Hour Volumes
	Development Area

Base year	2025
Assessment year	2028
Linear Growth Rate	
AM Peak Hour End	
PM Peak Hour End	



MODUS
Transport and Traffic Engineering

Project: 17 Courtney Drive, Upper Coomera

Client: Kasa Group Holdings Pty Ltd

Date: 28/11/2025

2025 Traffic Survey

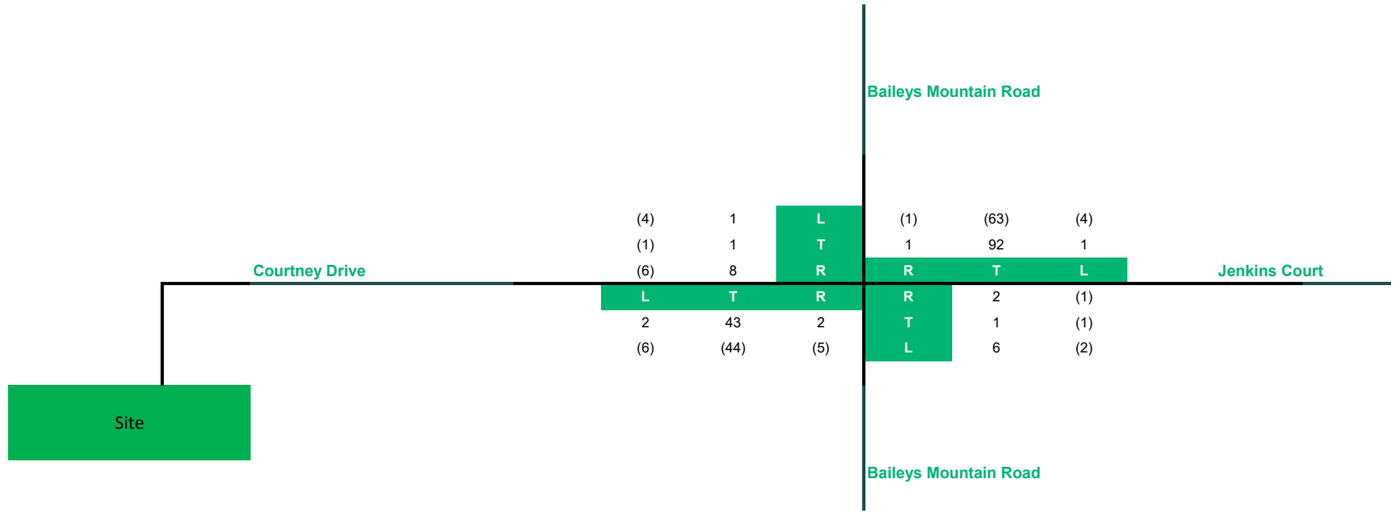
Prepared by: Kevin Liu

Reviewed by: Harj Singh

Legend

L	Left turn
T	Through
R	Right turn
U	U-turn
00	AM Peak Hour Volumes
(00)	PM Peak Hour Volumes
	Development Area

Base year	2026
Assessment year	2028
Compound Growth Rate	4.7%
AM Peak Hour End	
PM Peak Hour End	



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Transport and Traffic Engineering

Project:	17 Courtney Drive, Upper Coomera
Client:	Kasa Group Holdings Pty Ltd
Date:	28/11/2025

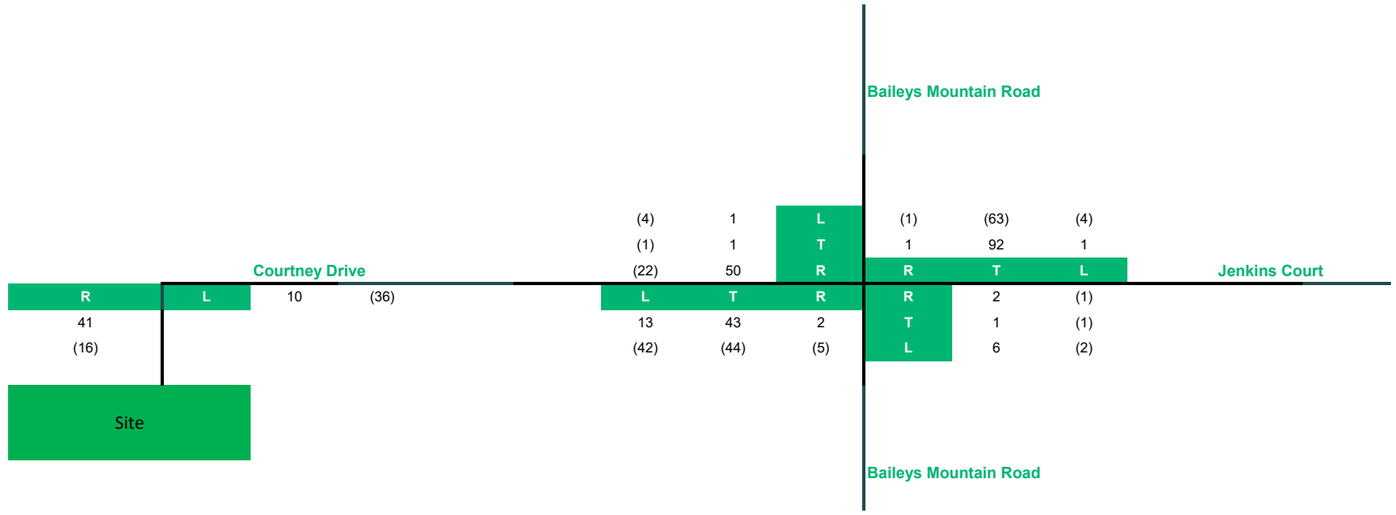
2028 Background Traffic

Prepared by:	Kevin Liu
Reviewed by:	Harj Singh

Legend

L	Left turn
T	Through
R	Right turn
U	U-turn
00	AM Peak Hour Volumes
(00)	PM Peak Hour Volumes
	Development Area

Base year	2025
Assessment year	2028
Linear Growth Rate	
AM Peak Hour End	
PM Peak Hour End	



MODUS
Transport and Traffic Engineering

Project:	17 Courtney Drive, Upper Coomera
Client:	Kasa Group Holdings Pty Ltd
Date:	28/11/2025

2028 Background Traffic + Development

Prepared by:	Kevin Liu
Reviewed by:	Harj Singh

APPENDIX E

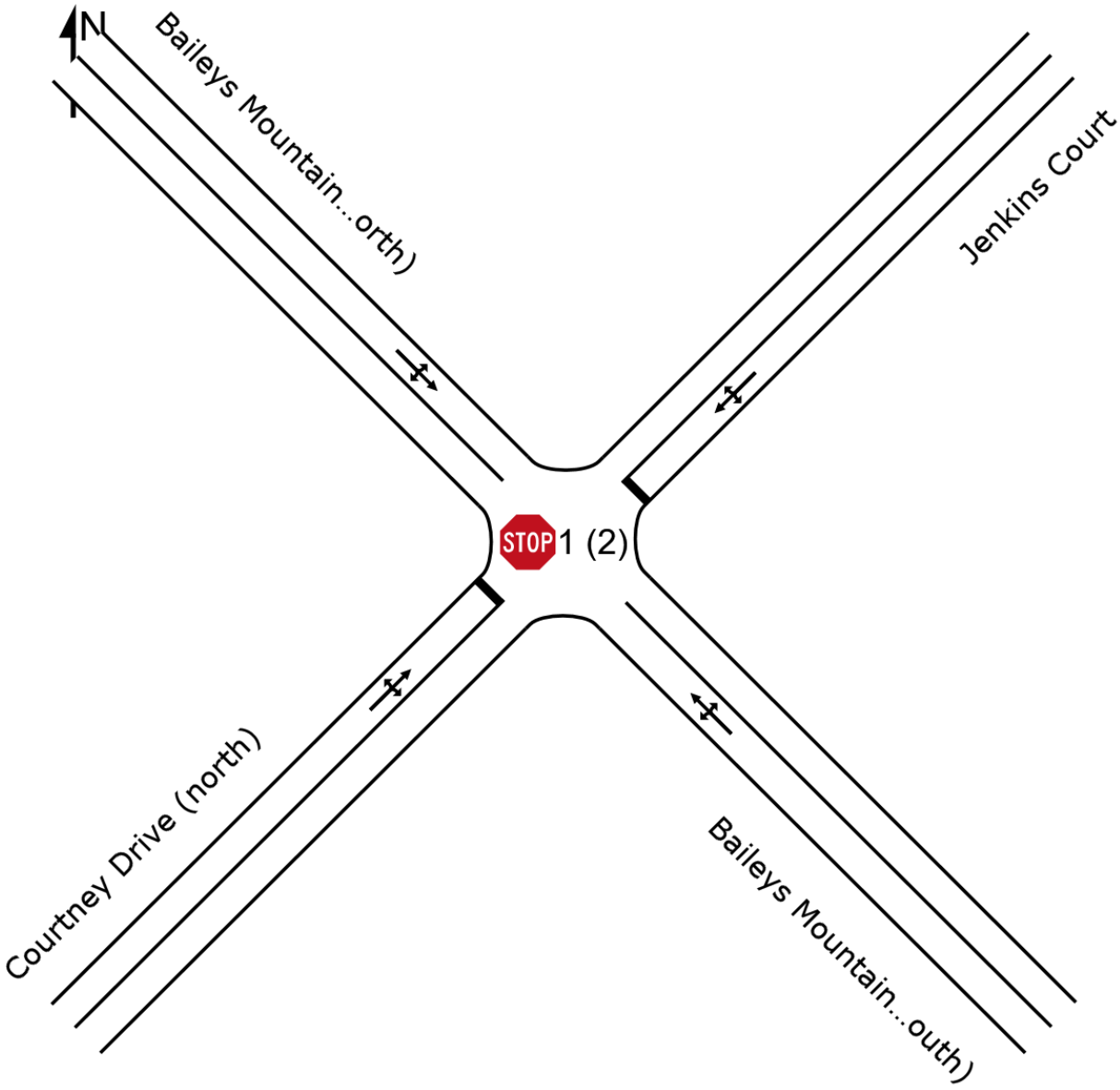
SIDRA Results

SITE LAYOUT

Site: [1 (2)] 2025 SURVEY AM (Network)

New Site
Site Category: Existing Design
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Organisation: MODUS TRAFFIC ENGINEERING PTY LTD | Licence: NETWORK / 1PC | Created: Wednesday, 19 November 2025 11:30:41 AM
Project: C:\Users\KevinLiu\Modus Engineering\Projects 2025 - 2026 - Documents\Projects 2025 - 2026\TA\QLD\MOD25094QLD - 17 Courtney Drive, Upper Coomera\3 ANALYSIS\SIDRA\MOD25094QLD - SIDRA - Priority Control - Network - Compound.sipx

MOVEMENT SUMMARY

Site: [1 (2)] 2025 SURVEY AM (Network)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

New Site
Site Category: Existing Design
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Baileys Mountain Road (south)															
21	L2	All MCs	2	5.0	2	5.0	0.023	5.7	LOS A	0.0	0.1	0.03	0.06	0.03	54.8
22	T1	All MCs	38	5.0	38	5.0	0.023	0.0	LOS A	0.0	0.1	0.03	0.06	0.03	59.3
23	R2	All MCs	2	5.0	2	5.0	0.023	5.7	LOS A	0.0	0.1	0.03	0.06	0.03	56.2
Approach			42	5.0	42	5.0	0.023	0.6	NA	0.0	0.1	0.03	0.06	0.03	59.0
NorthEast: Jenkins Court															
24	L2	All MCs	5	5.0	5	5.0	0.008	8.5	LOS A	0.0	0.2	0.20	0.89	0.20	51.0
25	T1	All MCs	1	5.0	1	5.0	0.008	8.5	LOS A	0.0	0.2	0.20	0.89	0.20	46.7
26	R2	All MCs	2	5.0	2	5.0	0.008	8.3	LOS A	0.0	0.2	0.20	0.89	0.20	50.6
Approach			8	5.0	8	5.0	0.008	8.5	LOS A	0.0	0.2	0.20	0.89	0.20	50.5
NorthWest: Baileys Mountain Road (north)															
27	L2	All MCs	1	5.0	1	5.0	0.045	5.6	LOS A	0.0	0.1	0.00	0.02	0.00	57.1
28	T1	All MCs	81	5.0	81	5.0	0.045	0.0	LOS A	0.0	0.1	0.00	0.02	0.00	59.8
29	R2	All MCs	1	5.0	1	5.0	0.045	5.6	LOS A	0.0	0.1	0.00	0.02	0.00	54.8
Approach			83	5.0	83	5.0	0.045	0.1	NA	0.0	0.1	0.00	0.02	0.00	59.8
SouthWest: Courtney Drive (north)															
30	L2	All MCs	1	5.0	1	5.0	0.010	8.4	LOS A	0.0	0.2	0.21	0.89	0.21	46.8
31	T1	All MCs	1	5.0	1	5.0	0.010	8.5	LOS A	0.0	0.2	0.21	0.89	0.21	46.8
32	R2	All MCs	7	5.0	7	5.0	0.010	8.3	LOS A	0.0	0.2	0.21	0.89	0.21	46.4
Approach			9	5.0	9	5.0	0.010	8.4	LOS A	0.0	0.2	0.21	0.89	0.21	46.5
All Vehicles			143	5.0	143	5.0	0.045	1.3	NA	0.0	0.2	0.04	0.14	0.04	58.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: [1 (3)] 2028 BG AM (Network)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

New Site
Site Category: Existing Design
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Baileys Mountain Road (south)															
21	L2	All MCs	2	5.0	2	5.0	0.027	5.7	LOS A	0.0	0.1	0.03	0.06	0.03	54.9
22	T1	All MCs	45	5.0	45	5.0	0.027	0.0	LOS A	0.0	0.1	0.03	0.06	0.03	59.4
23	R2	All MCs	2	5.0	2	5.0	0.027	5.8	LOS A	0.0	0.1	0.03	0.06	0.03	56.3
Approach			49	5.0	49	5.0	0.027	0.5	NA	0.0	0.1	0.03	0.06	0.03	59.2
NorthEast: Jenkins Court															
24	L2	All MCs	6	5.0	6	5.0	0.008	8.6	LOS A	0.0	0.2	0.21	0.88	0.21	50.9
25	T1	All MCs	1	5.0	1	5.0	0.008	8.6	LOS A	0.0	0.2	0.21	0.88	0.21	46.7
26	R2	All MCs	2	5.0	2	5.0	0.008	8.5	LOS A	0.0	0.2	0.21	0.88	0.21	50.6
Approach			9	5.0	9	5.0	0.008	8.6	LOS A	0.0	0.2	0.21	0.88	0.21	50.5
NorthWest: Baileys Mountain Road (north)															
27	L2	All MCs	1	5.0	1	5.0	0.053	5.6	LOS A	0.0	0.1	0.00	0.01	0.00	57.1
28	T1	All MCs	97	5.0	97	5.0	0.053	0.0	LOS A	0.0	0.1	0.00	0.01	0.00	59.9
29	R2	All MCs	1	5.0	1	5.0	0.053	5.6	LOS A	0.0	0.1	0.00	0.01	0.00	54.9
Approach			99	5.0	99	5.0	0.053	0.1	NA	0.0	0.1	0.00	0.01	0.00	59.8
SouthWest: Courtney Drive (north)															
30	L2	All MCs	1	5.0	1	5.0	0.012	8.4	LOS A	0.0	0.3	0.24	0.89	0.24	46.7
31	T1	All MCs	1	5.0	1	5.0	0.012	8.6	LOS A	0.0	0.3	0.24	0.89	0.24	46.7
32	R2	All MCs	8	5.0	8	5.0	0.012	8.5	LOS A	0.0	0.3	0.24	0.89	0.24	46.3
Approach			11	5.0	11	5.0	0.012	8.5	LOS A	0.0	0.3	0.24	0.89	0.24	46.4
All Vehicles			168	5.0	168	5.0	0.053	1.2	NA	0.0	0.3	0.04	0.13	0.04	58.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: [1 (5)] 2028 BG + DEV AM (Network)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

New Site
Site Category: Existing Design
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Baileys Mountain Road (south)															
21	L2	All MCs	14	5.0	14	5.0	0.033	5.6	LOS A	0.0	0.1	0.02	0.16	0.02	53.7
22	T1	All MCs	45	5.0	45	5.0	0.033	0.0	LOS A	0.0	0.1	0.02	0.16	0.02	58.5
23	R2	All MCs	2	5.0	2	5.0	0.033	5.8	LOS A	0.0	0.1	0.02	0.16	0.02	55.5
Approach			61	5.0	61	5.0	0.033	1.5	NA	0.0	0.1	0.02	0.16	0.02	57.6
NorthEast: Jenkins Court															
24	L2	All MCs	6	5.0	6	5.0	0.009	8.6	LOS A	0.0	0.2	0.22	0.88	0.22	50.9
25	T1	All MCs	1	5.0	1	5.0	0.009	8.7	LOS A	0.0	0.2	0.22	0.88	0.22	46.7
26	R2	All MCs	2	5.0	2	5.0	0.009	8.5	LOS A	0.0	0.2	0.22	0.88	0.22	50.6
Approach			9	5.0	9	5.0	0.009	8.6	LOS A	0.0	0.2	0.22	0.88	0.22	50.5
NorthWest: Baileys Mountain Road (north)															
27	L2	All MCs	1	5.0	1	5.0	0.053	5.6	LOS A	0.0	0.1	0.00	0.01	0.00	57.1
28	T1	All MCs	97	5.0	97	5.0	0.053	0.0	LOS A	0.0	0.1	0.00	0.01	0.00	59.9
29	R2	All MCs	1	5.0	1	5.0	0.053	5.6	LOS A	0.0	0.1	0.00	0.01	0.00	54.9
Approach			99	5.0	99	5.0	0.053	0.1	NA	0.0	0.1	0.00	0.01	0.00	59.8
SouthWest: Courtney Drive (north)															
30	L2	All MCs	1	5.0	1	5.0	0.065	8.4	LOS A	0.2	1.6	0.27	0.90	0.27	46.6
31	T1	All MCs	1	5.0	1	5.0	0.065	8.7	LOS A	0.2	1.6	0.27	0.90	0.27	46.6
32	R2	All MCs	53	5.0	53	5.0	0.065	8.6	LOS A	0.2	1.6	0.27	0.90	0.27	46.2
Approach			55	5.0	55	5.0	0.065	8.6	LOS A	0.2	1.6	0.27	0.90	0.27	46.2
All Vehicles			224	5.0	224	5.0	0.065	2.9	NA	0.2	1.6	0.08	0.30	0.08	55.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: [1 (7)] 2025 SURVEY PM (Network)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

New Site
Site Category: Existing Design
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Baileys Mountain Road (south)															
21	L2	All MCs	5	5.0	5	5.0	0.026	5.7	LOS A	0.0	0.2	0.04	0.12	0.04	54.0
22	T1	All MCs	39	5.0	39	5.0	0.026	0.0	LOS A	0.0	0.2	0.04	0.12	0.04	58.8
23	R2	All MCs	4	5.0	4	5.0	0.026	5.7	LOS A	0.0	0.2	0.04	0.12	0.04	55.7
Approach			48	5.0	48	5.0	0.026	1.1	NA	0.0	0.2	0.04	0.12	0.04	58.1
NorthEast: Jenkins Court															
24	L2	All MCs	2	5.0	2	5.0	0.004	8.4	LOS A	0.0	0.1	0.17	0.91	0.17	51.0
25	T1	All MCs	1	5.0	1	5.0	0.004	8.4	LOS A	0.0	0.1	0.17	0.91	0.17	46.8
26	R2	All MCs	1	5.0	1	5.0	0.004	8.2	LOS A	0.0	0.1	0.17	0.91	0.17	50.7
Approach			4	5.0	4	5.0	0.004	8.4	LOS A	0.0	0.1	0.17	0.91	0.17	50.1
NorthWest: Baileys Mountain Road (north)															
27	L2	All MCs	3	5.0	3	5.0	0.032	5.6	LOS A	0.0	0.1	0.01	0.04	0.01	56.9
28	T1	All MCs	56	5.0	56	5.0	0.032	0.0	LOS A	0.0	0.1	0.01	0.04	0.01	59.6
29	R2	All MCs	1	5.0	1	5.0	0.032	5.6	LOS A	0.0	0.1	0.01	0.04	0.01	54.5
Approach			60	5.0	60	5.0	0.032	0.4	NA	0.0	0.1	0.01	0.04	0.01	59.4
SouthWest: Courtney Drive (north)															
30	L2	All MCs	3	5.0	3	5.0	0.009	8.4	LOS A	0.0	0.2	0.16	0.91	0.16	46.8
31	T1	All MCs	1	5.0	1	5.0	0.009	8.4	LOS A	0.0	0.2	0.16	0.91	0.16	46.8
32	R2	All MCs	5	5.0	5	5.0	0.009	8.2	LOS A	0.0	0.2	0.16	0.91	0.16	46.4
Approach			9	5.0	9	5.0	0.009	8.3	LOS A	0.0	0.2	0.16	0.91	0.16	46.6
All Vehicles			122	5.0	122	5.0	0.032	1.6	NA	0.0	0.2	0.04	0.17	0.04	57.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: [1 (8)] 2028 BG PM (Network)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

New Site
Site Category: Existing Design
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Baileys Mountain Road (south)															
21	L2	All MCs	6	5.0	6	5.0	0.032	5.7	LOS A	0.0	0.3	0.04	0.13	0.04	54.0
22	T1	All MCs	46	5.0	46	5.0	0.032	0.0	LOS A	0.0	0.3	0.04	0.13	0.04	58.7
23	R2	All MCs	5	5.0	5	5.0	0.032	5.8	LOS A	0.0	0.3	0.04	0.13	0.04	55.7
Approach			58	5.0	58	5.0	0.032	1.2	NA	0.0	0.3	0.04	0.13	0.04	58.1
NorthEast: Jenkins Court															
24	L2	All MCs	2	5.0	2	5.0	0.004	8.5	LOS A	0.0	0.1	0.19	0.90	0.19	51.0
25	T1	All MCs	1	5.0	1	5.0	0.004	8.5	LOS A	0.0	0.1	0.19	0.90	0.19	46.7
26	R2	All MCs	1	5.0	1	5.0	0.004	8.3	LOS A	0.0	0.1	0.19	0.90	0.19	50.6
Approach			4	5.0	4	5.0	0.004	8.4	LOS A	0.0	0.1	0.19	0.90	0.19	50.1
NorthWest: Baileys Mountain Road (north)															
27	L2	All MCs	4	5.0	4	5.0	0.039	5.6	LOS A	0.0	0.1	0.01	0.04	0.01	56.9
28	T1	All MCs	66	5.0	66	5.0	0.039	0.0	LOS A	0.0	0.1	0.01	0.04	0.01	59.6
29	R2	All MCs	1	5.0	1	5.0	0.039	5.6	LOS A	0.0	0.1	0.01	0.04	0.01	54.5
Approach			72	5.0	72	5.0	0.039	0.4	NA	0.0	0.1	0.01	0.04	0.01	59.4
SouthWest: Courtney Drive (north)															
30	L2	All MCs	4	5.0	4	5.0	0.011	8.4	LOS A	0.0	0.3	0.18	0.90	0.18	46.8
31	T1	All MCs	1	5.0	1	5.0	0.011	8.5	LOS A	0.0	0.3	0.18	0.90	0.18	46.8
32	R2	All MCs	6	5.0	6	5.0	0.011	8.3	LOS A	0.0	0.3	0.18	0.90	0.18	46.4
Approach			12	5.0	12	5.0	0.011	8.4	LOS A	0.0	0.3	0.18	0.90	0.18	46.5
All Vehicles			145	5.0	145	5.0	0.039	1.6	NA	0.0	0.3	0.04	0.17	0.04	57.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: [1 (10)] 2028 BG + DEV PM (Network)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

New Site
Site Category: Existing Design
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Baileys Mountain Road (south)															
21	L2	All MCs	44	5.0	44	5.0	0.053	5.6	LOS A	0.0	0.3	0.03	0.30	0.03	51.9
22	T1	All MCs	46	5.0	46	5.0	0.053	0.0	LOS A	0.0	0.3	0.03	0.30	0.03	57.2
23	R2	All MCs	5	5.0	5	5.0	0.053	5.7	LOS A	0.0	0.3	0.03	0.30	0.03	54.3
Approach			96	5.0	96	5.0	0.053	2.9	NA	0.0	0.3	0.03	0.30	0.03	55.0
NorthEast: Jenkins Court															
24	L2	All MCs	2	5.0	2	5.0	0.004	8.5	LOS A	0.0	0.1	0.19	0.90	0.19	51.0
25	T1	All MCs	1	5.0	1	5.0	0.004	8.7	LOS A	0.0	0.1	0.19	0.90	0.19	46.7
26	R2	All MCs	1	5.0	1	5.0	0.004	8.3	LOS A	0.0	0.1	0.19	0.90	0.19	50.6
Approach			4	5.0	4	5.0	0.004	8.5	LOS A	0.0	0.1	0.19	0.90	0.19	50.1
NorthWest: Baileys Mountain Road (north)															
27	L2	All MCs	4	5.0	4	5.0	0.039	5.6	LOS A	0.0	0.1	0.01	0.04	0.01	56.8
28	T1	All MCs	66	5.0	66	5.0	0.039	0.0	LOS A	0.0	0.1	0.01	0.04	0.01	59.6
29	R2	All MCs	1	5.0	1	5.0	0.039	5.6	LOS A	0.0	0.1	0.01	0.04	0.01	54.5
Approach			72	5.0	72	5.0	0.039	0.4	NA	0.0	0.1	0.01	0.04	0.01	59.3
SouthWest: Courtney Drive (north)															
30	L2	All MCs	4	5.0	4	5.0	0.031	8.4	LOS A	0.1	0.8	0.22	0.89	0.22	46.7
31	T1	All MCs	1	5.0	1	5.0	0.031	8.6	LOS A	0.1	0.8	0.22	0.89	0.22	46.7
32	R2	All MCs	23	5.0	23	5.0	0.031	8.5	LOS A	0.1	0.8	0.22	0.89	0.22	46.3
Approach			28	5.0	28	5.0	0.031	8.5	LOS A	0.1	0.8	0.22	0.89	0.22	46.4
All Vehicles			200	5.0	200	5.0	0.053	2.9	NA	0.1	0.8	0.05	0.31	0.05	55.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Noise Impact Assessment

Residential Subdivision

17 Courtney Drive, Upper Coomera

Courtney Upper Coomera Developments Pty Ltd

Project No.: ATP250746

Project Name: 17 Courtney Drive

Document No.: ATP250746-R-NIA-01C

March 2026

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Signed:	
Date:	18 March 2026

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Position:	Manager - Acoustics
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Date:	18 March 2026

REVISION STATUS

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1	C	18 March 2026	S. Temelkoski

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Executive Summary

ATP Consulting Engineers (ATP) was engaged to prepare a road traffic noise assessment for the proposed residential development at 17 Courtney Drive in Upper Coomera.

This report is prepared in support of a Reconfiguring a Lot (ROL) application for Stage 1 of the proposed development. Stage 1 of the development seeks to reconfigure the land described as Lot 182 on RP156422 into 52 residential lots.

This report addresses the potential noise impacts on the proposed residential development from Baileys Mountain Road which is a Council-controlled sub-arterial road.

Conclusions and Recommendations

Based on the results of the traffic noise impact assessment for the proposed residential development over Lot 182 on RP156422, at 17 Courtney Drive in Upper Coomera, the following is concluded:

- The results of the noise propagation modelling indicate that without noise mitigation measures only the façades and private open spaces of the future dwellings on the proposed Lots 43 to 50 will be impacted by traffic noise, as per the traffic flows predicted within a 10-year planning horizon to Year 2038.
- A 1.8m high noise barrier fence (acoustic fence) along the eastern boundaries of the future Lots 43 to 50 with a 5m return along the southern boundary Lot 50.
- The noise barrier must be constructed so that the RL at the top of the noise barrier is 1.8m high relative to the finished surface levels of the pads of the future dwellings, hence on top of the retaining wall.
- The acoustic barrier must be constructed of a material with minimum surface density of 12.5kg/m^2, such as concrete blockwork, brick, timber, autoclaved aerated concrete or minimum 9mm thick compressed fibre cement sheeting. There shall be no gaps on the surface and at the base of the acoustic barriers.
- Typical construction of a timber acoustic barrier (noise barrier fence) is illustrated in Figure 4.1 of this report. Detail views showing the alignment of the noise barrier is presented in Figure 4.2.
- The results of the noise propagation modelling, presented in Table 3.6 of this report, indicate that the upper floor levels of Lots 43 to 50 are impacted by traffic noise that corresponds with Noise Category 1 of QDCMP4.4, therefore architectural treatment is required to the building façades.
- There are two options available for architectural treatment to the building façades, as follows:
    - **Option 1:** Implementation of the 'acceptable forms of construction' specified in Queensland Development Code (QDC) Mandatory Part 4.4 (Buildings in a Transport Noise Corridor) as per the noise categories presented in Table 3.6 of this report.

- **Option 2:** Floor plan specific acoustic design, in accordance with AS3671-1989, to ensure compliance with the internal noise criteria.

Provided the recommended planning and design traffic noise control measures are implemented in the construction of the residential development at 17 Courtney Drive in Upper Coomera, the road traffic noise from Baileys Mountain Road, will not impose any further constraints on the establishment of the proposed development.

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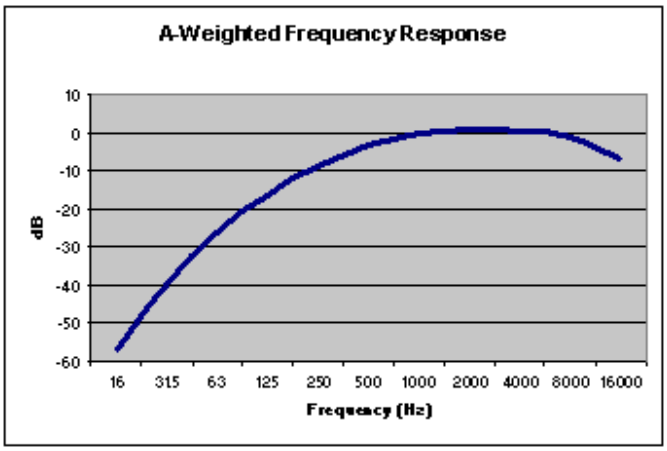
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Acoustics Glossary

A-weighting

The A-weighting filter suppresses low frequency sounds and some of the higher frequency sounds to which the human ear is less sensitive. It is a correction to sound pressure levels to mimic the response of the human ear at low sound pressure levels. The A-weighted sound pressure level correlates well with the perceived loudness at low sound levels. The A-weighted sound pressure level is used extensively for general purpose noise measurements.



AADT

Annual average daily traffic. The total traffic flow over a 24-hour period along a specific segment of road.

Broadband sound

Sound distributed across the whole audible frequency range.

dB(A)

The A-weighted sound pressure level.

Façade adjusted

The noise level at 1m from a building façade is calculated by adding 2.5dB to the free-field noise level to account for sound reflected from the building façade. The external noise levels at the building's façades are "façade-adjusted".

Fast time-weighting

The Fast ("F") time-weighting is defined in AS 1259.1-1990. Instruments with F time weighting use a time constant of 125 milliseconds in their exponential averaging circuit.

Free-field

Noise level without any reflected sound from buildings or other hard, reflective surfaces (except for the ground plane).

Hz (Hertz)

Hertz is the standard measure of the frequency of oscillations in a wave motion. The frequency is most often measured in cycles per second (cps) or Hertz (Hz). Frequency of 1 Hz is one cycle per second.

Impulsive noise and impulsiveness adjustment

Noise having a high peak of short duration or a sequence of such peaks. Impulsive noise is present if the difference in A-weighted maximum noise levels between fast response and impulse response is greater than 2dB. Impulsiveness adjustment (penalty) of up to 5dB should be applied to the component noise level.

$L_{Aeq,T}$

"Average-energy" sound level used in situations where sound varies over time. $L_{Aeq,T}$ is the A-weighted sound pressure level that has the same energy as the fluctuating sound over the time period T sec.

$L_{A01,T}$	Measure of the maximum sound level. $L_{A01,T}$ is a statistical parameter that is the A-weighted sound pressure level that is exceeded for 1% of the measurement time T.
$L_{A10,T}$	$L_{A10,T}$ is a statistical parameter that is the A-weighted sound pressure level that is exceeded for 10% of the measurement time T. Used as a traffic noise descriptor in Queensland.
$L_{A10,18hr}$	The arithmetic average of the 18 individual $L_{A10,1hr}$ values between 6:00am and 12:00am (midnight). It is a derived descriptor which is used as a main traffic noise descriptor in the Calculation of Road Traffic Noise (CoRTN) procedure developed by the UK Department of Environment, Welsh Office, HMSO, 1988.
$L_{A90,T}$	Background sound level. $L_{A90,T}$ is a statistical parameter that is the A-weighted sound pressure level that is exceeded for 90% of the measurement time T.
Noise	Unwanted sound.
Octave bands and 1/3 octave bands	A range of frequencies whose upper frequency limit is twice that of its lower frequency limit. In acoustics, the audible spectrum (20Hz to 20kHz) is divided into 10 parts (octaves) with centre frequencies of 31.5Hz, 63Hz, 125Hz, 250Hz, 500Hz, 1kHz, 2kHz, 4kHz, 8kHz and 16kHz. For more detailed frequency analysis, octave bands are further divided into more discrete bands. For examples, 1/3 octaves bands are where each octave band is divided into three parts. IEC 61260:1995, *Electroacoustics — Octave-band and fractional-octave band filters*
Rating background level (RBL)	The overall single-figure background level representing each assessment period (e.g. standard hours, non-standard hours). The RBL is the background noise level for each work period using the tenth percentile method of measured $L_{A90,15\text{-minute}}$.
Sound power	The sound energy radiated per unit time by a sound source in all directions, measured in Watts (W).
Sound Power Level, L_w (SWL)	The sound power level in decibels (dB) is 10 times the base 10 logarithm of the ratio of the sound power in W to the reference sound power of 1×10^{-12} W (hearing threshold).
Sound pressure	The difference between the pressure caused by a sound wave and the ambient pressure of the medium the sound wave is passing through. Measured in Pascals (Pa).
Sound Pressure Level, L_p (SPL)	The sound power level in decibels (dB) is 20 times the base 10 logarithm of the ratio of the sound pressure in Pa to the reference sound pressure of 2×10^{-5} Pa (hearing threshold).
Tonal noise, tonality and tonality adjustment	Tonal noise is characterised by one or more distinct frequency components (“tones”) that emerge audibly from the total sound. In accordance with the *NSW EPA Noise Policy For Industry* (2017), tonal noise is assessed with one-third octave band analysis using the “objective method for assessing the audibility of tones in noise – simplified method” (ISO 1996.2:2007 – Annex D). Tonal noise is penalised by the addition of up to 5dB to the component noise level.
Weighted Sound Reduction Index (R_w)	A single-number quantity which characterises the airborne sound insulation of a material or building element over a range of frequencies.

1. Introduction

1.1 Project Background

ATP Consulting Engineers (ATP) was engaged to prepare a road traffic noise assessment for the proposed residential development at 17 Courtney Drive in Upper Coomera.

This report is prepared in support of a Reconfiguring a Lot (ROL) application for Stage 1 of the proposed development. Stage 1 of the development seeks to reconfigure the land described as Lot 182 on RP156422 into 52 residential lots.

This report addresses the potential noise impacts on the proposed residential development from Baileys Mountain Road which is a Council-controlled sub-arterial road.

1.2 Study Objectives

Study objectives are as follows:

- Site visit and deployment of an automated noise logger at the subject site to determine existing road traffic noise levels for verification of the SoundPLAN traffic noise propagation model.
- Development of a three-dimensional traffic noise propagation model using SoundPLAN software with consideration of the proposed development layout, current and future (10-year planning horizon to 2038) traffic flows along Baileys Mountain Road.
- Calculation of the traffic noise levels ($L_{10,18hr}$) at the façades and private open spaces of the proposed residential development within a 10-year planning horizon and recommendations for traffic noise control measures.
- Provision of a detailed acoustic report in a format required by City of Gold Coast (CoGC) containing information on the methodology used, tabulated measured and calculated noise results (including graphical output of the traffic noise propagation modelling results) and recommendations for traffic noise mitigation measures, where required.

1.3 Site Description

The proposed development is located at Lot 182 on RP156422, 17 Courtney Drive in Upper Coomera. The land, with a total area of 33,410 m^2, is zoned as *Rural Residential* by the CoGC Planning Scheme.

The location of the subject site is presented in Figure 1.1.



Figure 1.1 Site location

The proposed development site is to be subdivided into 52 residential allotments as per the proposed development plans presented in Appendix A.

2. Existing Noise Amenity

2.1 Site-specific Noise Measurements

Noise monitoring was conducted at the eastern boundary of the proposed development site at 17 Courtney Drive in Upper Coomera to obtain information about the existing road traffic and background noise levels.

The noise measurement methodology is summarised in Table 2.1.

Table 2.1 Noise measurements

Relevant legislation, standards and guidelines	The noise measurements were conducted in accordance with: • Australian Standard AS 1055-2018 (*Acoustics – Description and measurement of environmental noise*); • Australian Standard AS 2702-1984 (*Acoustics – Methods for measurement of road traffic noise*).
Measurement location	The noise monitoring was carried out using a noise logger at a representative location along the eastern property boundary of Lot 182 on RP156422 at a distance of approximately 10m from the edge of the carriageway of Baileys Mountain Road, as presented in Figure 2.1. The exact location of the noise loggers is described as: • Latitude: 27° 51' 46.2"S; • Longitude: 153° 17' 4.4"E. Photos showing the noise measurement location are presented in Figure 2.1 and Appendix B.
Measurement period	Continuous noise monitoring was carried out 24 hours a day from 8 to 15 August 2025
Measurement equipment	The following noise measurement equipment was used: • Environmental noise logger – ARL Ngara (serial no.8780D4); and • Calibration – RION NC-74 Sound Level Calibrator (serial no. 34615224). The noise measurement instruments conform to Australian Standard AS/NZS IEC61672.1-2019. Calibration was performed during set up and download of the data from the noise logger. The calibration drift was <0.1 dB(A).
Meteorological conditions	The weather conditions during the monitoring period from 8 to 15 August 2025 were mostly fine. However, significant rainfall was recorded on 9, 10 and 13 August 2025. Noise data from these days were excluded from the assessment. Full meteorological data[1] over the noise measurement period is presented in Appendix C.
Analysis of data	The noise measurement data was analysed to determine the following noise descriptors: **Road Traffic Noise Assessment:** • **$L_{10,18hr}$:** L_{10} is the level of noise exceeded for 10% of any time period; $L_{10,18hr}$ is the typical traffic noise descriptor, and is the arithmetic average of 18 hourly $L_{10,1hr}$ levels over consecutive hours between 6am and 12am.

[1] Observation from Bureau of Meteorology Gold Coast Seaway (Station ID #040764).



Figure 2.1 Noise measurement location

2.2 Noise Measurement Results

2.2.1 Road Traffic Noise

The results of the unattended noise measurements relevant for the road traffic noise, carried out at the subject site from 8 to 15 August 2025 are presented in Table 2.2.

Table 2.2 Noise measurement results

Date	Traffic noise levels		Background noise levels	
	$L_{10,18hr}$ (6am-12am)	$L_{10,1hr\ max}$ (6am-12am)	$L_{90,18hr}$ (6am-12am)	$L_{90,8hr}$ (10pm-6am)
08 Aug 2025 (Fri)	—	—	—	37.5
09 Aug 2025 (Sat)	54.6	61.4	43.9	36.3
10 Aug 2025 (Sun)	51.7	59.9	41.0	34.2
11 Aug 2025 (Mon)	54.7	64.4	42.0	35.7
12 Aug 2025 (Tue)	53.7	64.5	40.9	33.2
13 Aug 2025 (Wed)	56.8	69.8	40.1	33.9
14 Aug 2025 (Thu)	55.4	66.3	41.8	40.2
Average (weekdays only)	**54.6**	**65.0**	**41.6**	**36.7**

**Rainfall recorded on this day. Data measured during periods of inclement weather was disregarded in the determination of background noise levels.*

Full summary of the noise measurement data is presented in Appendix D.

3. Road Traffic Noise Assessment

3.1 Gold Coast City Plan Version 12

This report addresses the potential traffic noise impacts from Baileys Mountain Road on the proposed development at 17 Courtney Drive in accordance with the performance outcomes (PO) and acceptable outcomes (AO) of the Gold Coast City Plan (Version 12). The requirements are summarised in Table 3.1.

Table 3.1 Gold Coast City Plan – Development code outcomes

Performance outcomes	Acceptable outcomes
General development provisions code (9.4.4) Part B Table 9.4.4-2 – Amenity protection	
PO2 The proposed development prevents loss of amenity and threats to health and safety, having regard to: (a) noise; (b) hours of operation; (c) traffic; (d) signage; (e) visual amenity; (f) wind effects; (g) privacy; (h) vibration; (i) contaminating substances; (j) hazardous chemicals; (k) odour and emissions; and (l) safety.	**AO2** No acceptable outcome provided.

In the absence of a specific traffic noise criteria for CoGC controlled roads, the performance and acceptable outcomes of the *Regional infrastructure overlay code (8.2.14)* of the City Plan (Version 12) will be applied, as summarised in Table 3.2. The purpose of this code is to ensure that the sensitive land uses located adjacent to state-controlled[2] roads are appropriately protected from traffic noise.

Table 3.2 Gold Coast City Plan – Overlay code outcomes

Performance outcomes	Acceptable outcomes
Regional infrastructure overlay code (8.2.14) Part B Table 8.2.14-2 – Protection from road traffic and rail noise	
PO7 Development mitigates noise intrusion to provide acceptable levels of amenity for occupants of the development.	**AO7** All sensitive land uses (excluding Office, Relocatable home park, Short-term accommodation and Tourist park) comply with the Design level – road and rail noise criteria identified in **Table 8.2.14-3: Design level – road and rail noise criteria** through the implementation of 1 or more of the following noise attenuation measures: (a) the use of earth mounds and noise barrier fences, between the noise source and the sensitive land use; and/or (b) the use of appropriate buffer distances between the noise source and the sensitive land use.

[2] Baileys Mountain Road is a City of Gold Coast (CoGC) Council controlled road. Whilst protection from traffic noise emissions from State-controlled roads is the priority under the Regional infrastructure overlay code, major roads under administration by CoGC with a potential to impact on the noise amenity of sensitive land uses, are also subject to assessment under this code.

The relevant road traffic noise criteria from Table 8.2.14-3: *Design level road noise criteria* are summarised in Table 3.3.

Table 3.3 Road traffic noise criteria

Measurement location	Design level road noise criteria
1m in front of the most exposed part of a proposed sensitive land use[3]	For road noise: (a) 60dB(A) $L_{10(18\ hour)}$ (free-field) or less, where existing levels measured at the setback for the zone are greater than 40dB(A) $L_{90(8\ hour)}$ between 10pm and 6am. (b) 57dB(A) $L_{10(18\ hour)}$ (free-field) or less, where existing levels measured at the setback for the zone are less than or equal to 40dB(A) $L_{90(8\ hour)}$ between 10pm and 6am. (c) Where the above criteria cannot be met, internal maximum design criterion levels specified in *Table 1 AS/NZS 2107:2016 Acoustics-Recommended design sound levels and reverberation times for building interiors* apply, particularly for buildings greater than 1 storey high
Balconies and formal external open spaces	For road noise: (a) 60dB(A) $L_{10(18\ hour)}$ (free-field) or less, where existing levels measured at the setback for the zone are greater than 45dB(A) $L_{90(18\ hour)}$ between 6am and 12am; or (b) 57dB(A) $L_{10(18\ hour)}$ (free-field) or less, where existing levels measured at the setback for the zone are less than or equal to 45dB(A) $L_{90(18\ hour)}$ between 6am and 12am.

All external levels stated above are free field and an additional 2.5dB(A) increase is applied for the façade correction.

The existing background noise levels at the subject site are less than 40dB(A) $L_{90,8hr}$ between 10pm and 6am, and less than 45dB(A) $L_{90,18hr}$ between 6am and 12am.

Therefore, the applicable traffic noise criteria are:

- Building façades (façade adjusted): ≤60dB(A) $L_{10,18hr}$; and
- Private open spaces (free-field): ≤57dB(A) $L_{10,18hr}$.

3.2 Traffic Noise Calculation Methodology

Traffic noise levels at the proposed development, within a 10-year planning horizon (Year 2038), were calculated using SoundPLAN noise propagation modelling software.

SoundPLAN calculates traffic noise as per the procedure specified in the UK Department of Transport Welsh Office *Method of Calculation of Road Traffic Noise* (CoRTN). This traffic noise calculation procedure is widely adopted in Australia.

3.2.1 Modelling Assumptions (Road Traffic)

The assumptions and data used in development of the traffic noise propagation model are presented in Table 3.4.

[3] Sensitive land use means a use that is a: child care centre, community care centre, community residence, dual occupancy, dwelling house, educational establishment, health care services, hospital, hostel, multiple dwelling, relocatable home park, residential care facility, resort complex, retirement facility, rooming accommodation, short-term accommodation, tourist park.

Table 3.4 Data and assumptions – Traffic noise model

Terrain	• The model uses the finished surface levels (earthworks model) of the proposed development and the development layout prepared by Saunders Havill (file name: 12753 P 04 Rev J, dated 24 November 2025). • Department of Natural Resources and Mines Airborne Laser Scanning (LiDAR) 1 metre data was used to determine the existing ground surface levels outside the boundaries of the proposed development. • Ground surface absorption factor of 0 was applied to all paved surfaces and 1 for all grassed areas.
Development layout	• The model uses the lot boundaries presented in the master plan of the proposed development prepared by Saunders Havill, dated 13 November 2025.
Buildings	• Physical buildings at the proposed development are not included in the model as the application seeks approval for reconfiguration of Lot only and no approval of building footprints are proposed. • Existing buildings near the proposed development were included in the model.
Road traffic	• Baileys Mountain Road was included in the modelling, with alignment determined based on aerial imagery. The length of the road considered in the traffic noise modelling spans approximately 300m either side of the proposed development site. • Traffic volumes for Baileys Mountain Road were sourced from traffic surveys by City of Gold Coast, sourced from the CoGC Open Data Portal. The traffic count for Baileys Mountain Road is as follows: o 2021 AADT of 1,223 vehicles per day; o 5% heavy vehicles; and o 10-year annual growth rate of 2% per annum. • Future traffic volumes were calculated based on conservative 2% growth per annum. • Baileys Mountain Road has one unmarked lane in either direction as it passes the development site. • Speed limit on Baileys Mountain Road is 60km/h while it passes the development. • Pavement surface type is dense graded asphalt, which is acoustically neutral (neither increases nor reduces the noise emissions). • The CoRTN procedure requires traffic volume data input for 18 hours. Traffic volume for 18-hour period (6:00am to midnight) was considered as 94% of the 24-hour AADT, as per the procedure of the TMR CoP Vol. 1.
Calculation receivers	• 2m grid spacing was used for calculation of noise contour maps. • Free-field and facade-adjusted noise contour maps were generated: o Free-field: No adjustment for facade reflection. Represents the traffic noise levels that are applicable to private open spaces o Facade-adjusted: +2.5dB(A) facade adjustment was applied to the calculated noise levels to account for noise reflection from building façades. Represents the traffic noise levels that are applicable to building façades. • Traffic noise levels were calculated at three different heights: o 1.5m above ground level (Ground floor private open spaces) o 1.8m above ground level (Ground floor building façades) o 4.6m above ground level (First floor building façades)

	• CoRTN Calibration Factors for Queensland Conditions was considered in this assessment, as per the procedure from the TMR CoP Vol. 1[4]: o Adjustment of -1.7 dB was applied to the calculated facade traffic noise levels; and o Adjustment of -0.7 dB was applied to the calculated free-field traffic noise levels.
Calculation procedure	• CoRTN '88.
Noise mitigation measures	• A noise barrier fence was modelled along the eastern boundaries of the allotments adjacent to Baileys Mountain Road (Lots 43 to 50). • The location, alignment, height and construction requirements of the noise barrier fence are discussed in Section 4.1.1 of this report.

3.2.2 Model Verification (Year 2025)

The noise data collected during the monitoring period (as presented in Table 2.2) was used to validate the accuracy of the SoundPLAN model prior to undertaking calculations of the future road traffic noise levels within a 10-year planning horizon, after the development is fully established.

The traffic flow data considered in the SoundPLAN verification model is presented in Table 3.5.

Table 3.5 Traffic flow data

Road	Traffic volumes			Heavy vehicles (%)
	2021 AADT	2025 AADT	2038 AADT (10-year planning horizon)	
Baileys Mountain Road	1,223	1,328	1,750	5%

Notes:

1. *AADT – Average Annual Daily Traffic.*
2. *Traffic data for Baileys Mountain Road was obtained from CoGC Open Data Portal – Traffic Survey for 2021. 2025 and 2038 traffic flow for Baileys Mountain Road is calculated based on 2% annual traffic growth.*

The results of the SoundPLAN model verification are presented in Table 3.6 and in Appendix E.

Table 3.6 SoundPLAN verification results

Receiver	Traffic noise level $L_{10(18\text{-hour})}$ dB(A), free-field		Difference dB(A)
	Measured	Calculated	
Eastern boundary of Lot 182 on RP156422 (approx. 10m from Baileys Mountain Road)	54.6	56.1	+1.5

The free-field calculated traffic noise level is within the acceptable tolerance of ±2.0dB(A) specified under the TMR CoP Vol. 1. The SoundPLAN model, validated as per the results presented in Table 3.6 was used to calculate the road traffic noise levels within the 10-year planning horizon (Year 2038).

[4] Source: Australian Road Research Board, 1982, *An Evaluation of the UK DoE Traffic Noise Prediction* (Report No. 122, ARRB – NAASRA Planning Group). Referenced in the TMR CoP Vol. 1.

An excerpt from the 3D SoundPLAN traffic noise verification model (year 2025) showing the full alignment of Baileys Mountain Road is presented in Figure 3.1.

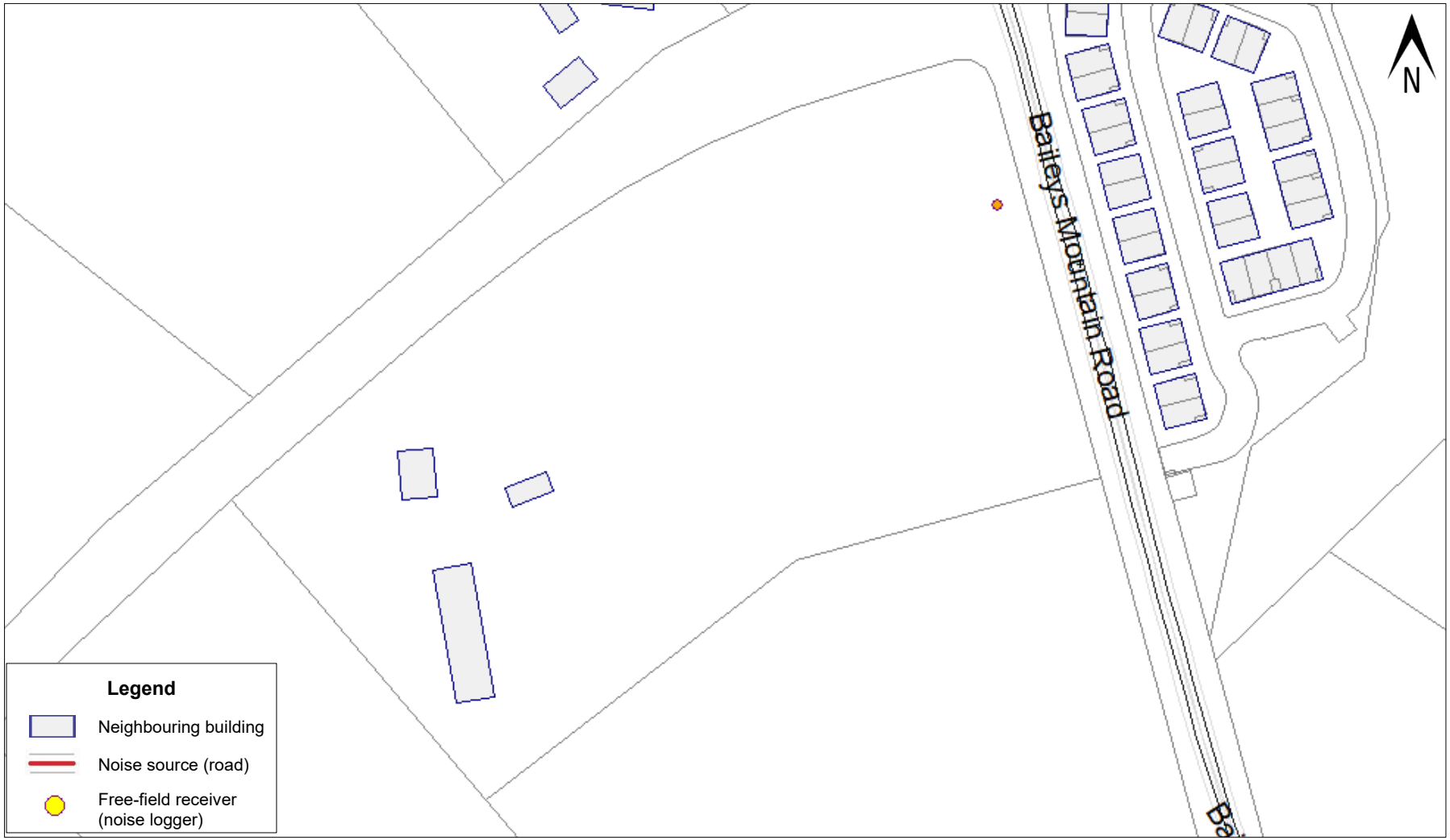


Figure 3.1 Excerpt from 3D SoundPLAN traffic noise verification model (year 2025)

An excerpt from the 3D SoundPLAN traffic noise model for the 10-year planning horizon (Year 2038) showing the full extent of Baileys Mountain Road is presented in Figure 3.2.

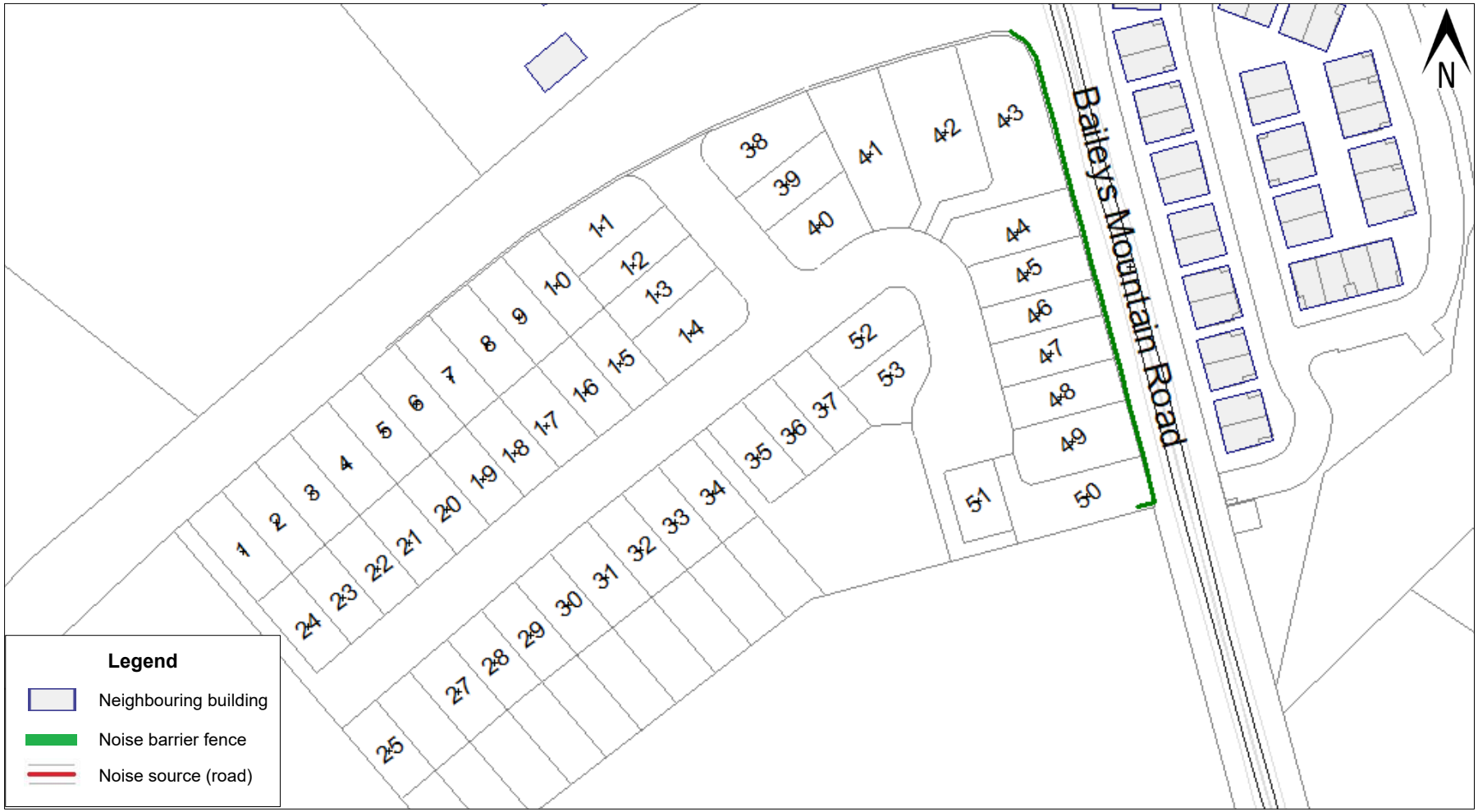


Figure 3.2 Excerpt from 3D SoundPLAN traffic noise model (Year 2038)

3.3 Calculated Traffic Noise Levels

The road traffic noise levels were calculated at heights representative of the ground and upper floors of future dwellings and representative of the private open spaces (courtyards and balconies) on the ground floors of future dwellings.

The calculated noise levels were then assessed against the traffic noise criterion of ≤60dB(A) $L_{10,18hr}$ facade adjusted for building façades; and traffic noise criterion of ≤57dB(A) $L_{10,18hr}$ free-field for private open spaces.

Summary of the results are presented in Table 3.7.

Table 3.7 Traffic noise calculation results (Year 2038)

Lot No.	Building façades (facade-adjusted)				Private open spaces (free-field) (1.5m AGL)
	Ground floor (1.8m AGL)		Upper floor (4.6m AGL)		
	Compliance with ≤60dB(A) criterion	Noise Category QDC MP4.4	Compliance with ≤60dB(A) criterion	Noise Category QDC MP4.4	Compliance with ≤57dB(A) criterion
1	Yes	Category 0	Yes	Category 0	Yes
2	Yes	Category 0	Yes	Category 0	Yes
3	Yes	Category 0	Yes	Category 0	Yes
4	Yes	Category 0	Yes	Category 0	Yes
5	Yes	Category 0	Yes	Category 0	Yes
6	Yes	Category 0	Yes	Category 0	Yes
7	Yes	Category 0	Yes	Category 0	Yes
8	Yes	Category 0	Yes	Category 0	Yes
9	Yes	Category 0	Yes	Category 0	Yes
10	Yes	Category 0	Yes	Category 0	Yes
11	Yes	Category 0	Yes	Category 0	Yes
12	Yes	Category 0	Yes	Category 0	Yes
13	Yes	Category 0	Yes	Category 0	Yes
14	Yes	Category 0	Yes	Category 0	Yes
15	Yes	Category 0	Yes	Category 0	Yes
16	Yes	Category 0	Yes	Category 0	Yes
17	Yes	Category 0	Yes	Category 0	Yes
18	Yes	Category 0	Yes	Category 0	Yes
19	Yes	Category 0	Yes	Category 0	Yes
20	Yes	Category 0	Yes	Category 0	Yes
21	Yes	Category 0	Yes	Category 0	Yes
22	Yes	Category 0	Yes	Category 0	Yes
23	Yes	Category 0	Yes	Category 0	Yes
24	Yes	Category 0	Yes	Category 0	Yes

Lot No.	Building façades (facade-adjusted)				Private open spaces (free-field) (1.5m AGL)
	Ground floor (1.8m AGL)		Upper floor (4.6m AGL)		
	Compliance with ≤60dB(A) criterion	Noise Category QDC MP4.4	Compliance with ≤60dB(A) criterion	Noise Category QDC MP4.4	Compliance with ≤57dB(A) criterion
25	Yes	Category 0	Yes	Category 0	Yes
27	Yes	Category 0	Yes	Category 0	Yes
28	Yes	Category 0	Yes	Category 0	Yes
29	Yes	Category 0	Yes	Category 0	Yes
30	Yes	Category 0	Yes	Category 0	Yes
31	Yes	Category 0	Yes	Category 0	Yes
32	Yes	Category 0	Yes	Category 0	Yes
33	Yes	Category 0	Yes	Category 0	Yes
34	Yes	Category 0	Yes	Category 0	Yes
35	Yes	Category 0	Yes	Category 0	Yes
36	Yes	Category 0	Yes	Category 0	Yes
37	Yes	Category 0	Yes	Category 0	Yes
38	Yes	Category 0	Yes	Category 0	Yes
39	Yes	Category 0	Yes	Category 0	Yes
40	Yes	Category 0	Yes	Category 0	Yes
41	Yes	Category 0	Yes	Category 0	Yes
42	Yes	Category 0	Yes	Category 0	Yes
43	Yes	Category 0	No	Category 1	Yes
44	Yes	Category 0	No	Category 1	Yes
45	Yes	Category 0	No	Category 1	Yes
46	Yes	Category 0	No	Category 1	Yes
47	Yes	Category 0	No	Category 1	Yes
48	Yes	Category 0	No	Category 1	Yes
49	Yes	Category 0	No	Category 1	Yes
50	Yes	Category 0	No	Category 1	Yes
51	Yes	Category 0	Yes	Category 0	Yes
52	Yes	Category 0	Yes	Category 0	Yes
53	Yes	Category 0	Yes	Category 0	Yes

Noise contours showing the propagation of traffic noise across the development site are presented in Appendix F.

4. Discussions and Recommendations

The traffic noise criteria applicable to the proposed development is sourced from the Regional Infrastructure Overlay Code (8.2.14) of the Gold Coast City Plan. The external noise criteria are:

- Building façades (façade adjusted): ≤60dB(A) $L_{10,18hr}$; and
- Private open spaces (free-field): ≤57dB(A) $L_{10,18hr}$.

The results of the traffic noise propagation modelling show that only Lots 43 to 50 which are nearest to Baileys Mountain Road are exposed to road traffic noise. Within a 10-year planning horizon (Year 2038), the road traffic noise criteria is exceeded at the eastern façade of the upper floors of the affected lots.

The road traffic noise propagation modelling results indicate that each unit has a private outdoor open space that is sufficiently protected from traffic noise ingress.

Floor plan specific acoustic design as per the requirements of AS3671-1989 for the upper floor of future dwellings at Lots 43 to 50 is required to ensure compliance with the internal noise criteria.

4.1 Noise Mitigation Measures

4.1.1 Noise Barrier Fence

ATP recommends construction of a 1.8m high noise barrier fence (acoustic fence) along the eastern boundaries of the future Lots 43 to 50 with a 5m return along the southern boundary Lot 50.

The noise barrier must be constructed so that the RL at the top of the noise barrier is 1.8m high relative to the finished surface levels of the pads of the future dwellings.

The acoustic barrier must be constructed of a material with minimum surface density of 12.5kg/m^2, such as concrete blockwork, brick, timber, autoclaved aerated concrete or minimum 9mm thick compressed fibre cement sheeting. There shall be no gaps on the surface and at the base of the acoustic barriers. Typical construction of a timber acoustic barrier (noise barrier fence) is illustrated in Figure 4.1.

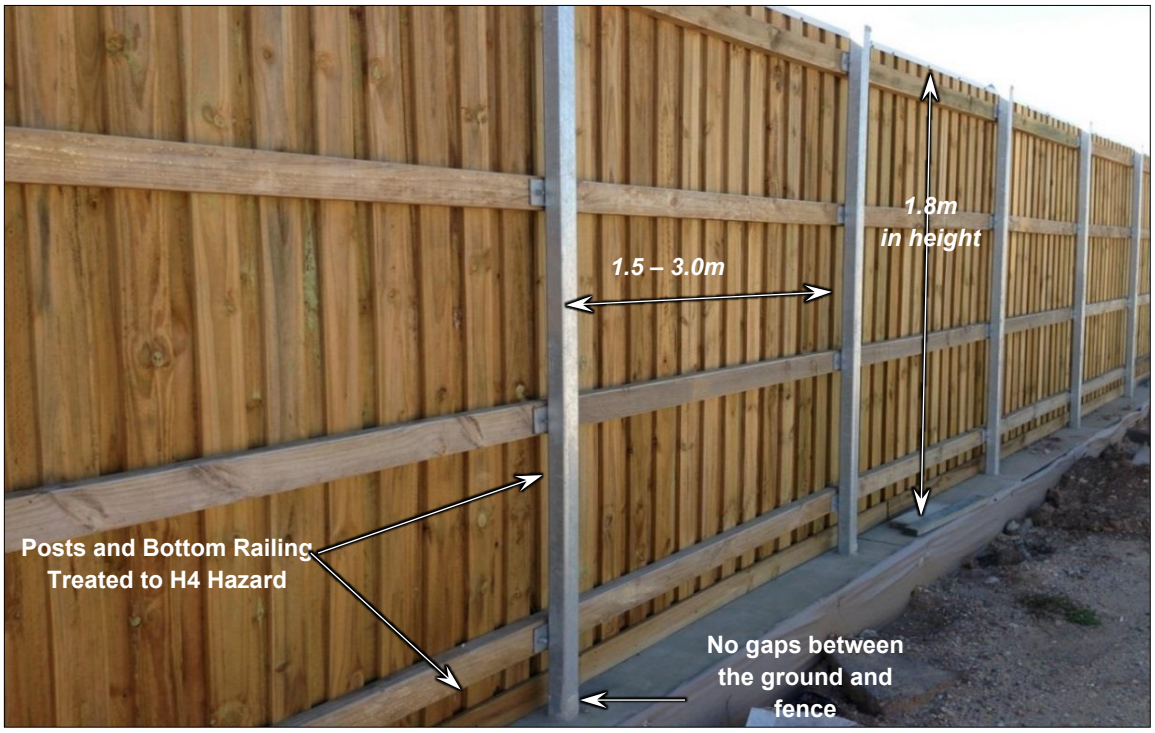


Figure 4.1 Typical timber acoustic barrier (noise barrier fence)

Detailed view showing the alignment of the noise barrier is presented in Figure 4.2.

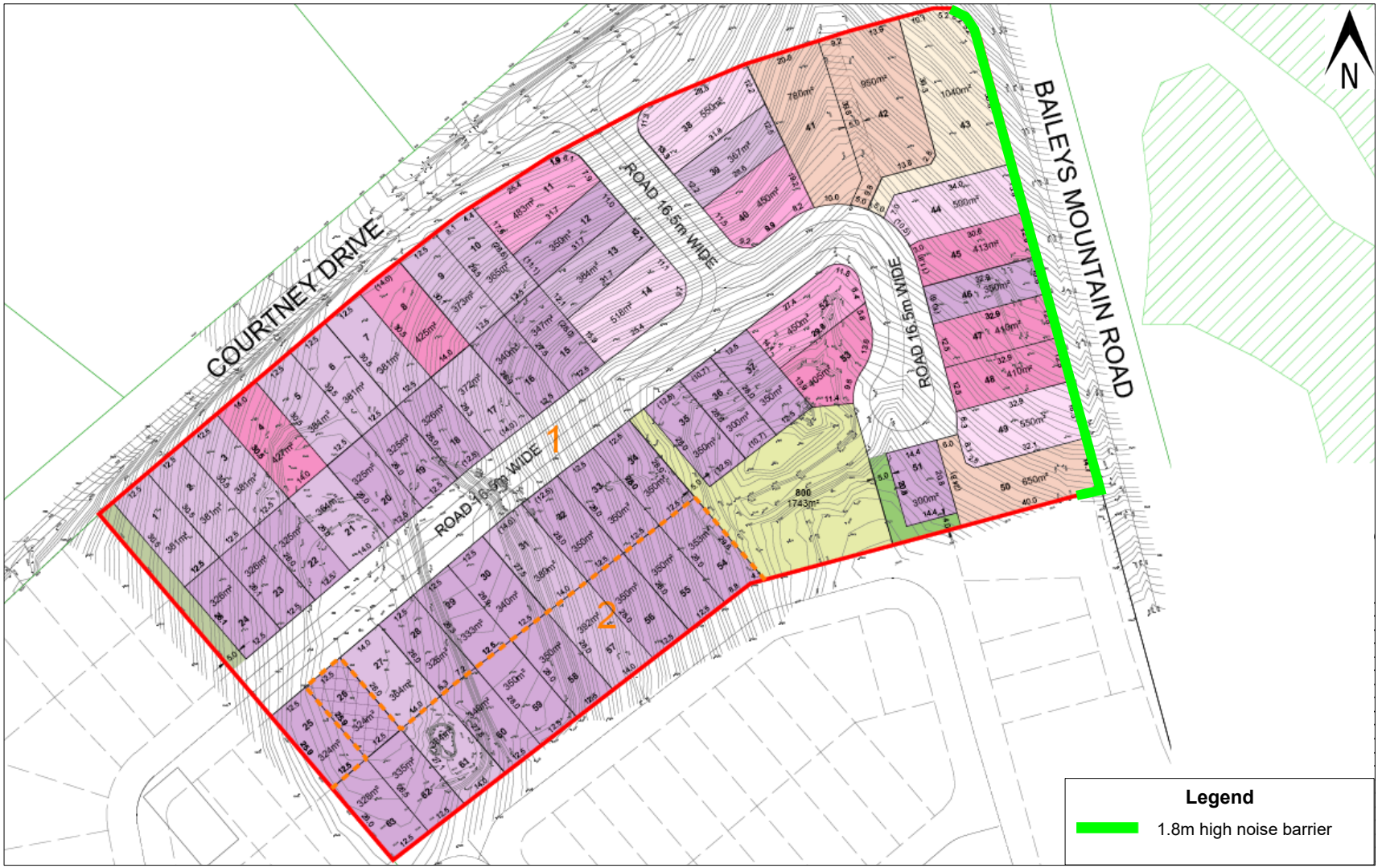


Figure 4.2 Noise barrier alignment

4.1.2 Architectural Treatment of Building Envelope

The results of the noise propagation modelling, presented in Table 3.6 of this report, indicate that even with the recommended noise barrier in place, the upper floor levels at Lots 43 to 50 are still traffic noise affected and will require compliance with QDC MP4.4. The upper floor levels of these lots, which are affected by traffic noise of ≥58dB(A) $L_{10,18hr}$ (facade adjusted), must be constructed as per acceptable forms of construction specified in Schedule 2 of QDC MP4.4.

The allotments subject of QDC MP4.4 noise categories are summarised in Table 3.6 of this report. It should be noted that there are no acoustic design requirements for Noise Category 0.

There are two options available for architectural treatment to the building façades, as follows:

- **Option 1:** Implementation of the 'acceptable forms of construction' specified in Queensland Development Code (QDC) Mandatory Part 4.4 (*Buildings in a Transport Noise Corridor*) as per the noise categories presented in Table 3.6 of this report.
- **Option 2:** Floor plan specific acoustic design, in accordance with AS3671-1989, to ensure compliance with the internal noise criteria.

Provided the recommended planning and design traffic noise control measures are implemented in the construction of the residential development at 17 Courtney Drive in Upper Coomera, the road traffic noise from Baileys Mountain Road, will not impose any further constraints on the establishment of the proposed development.

5. Conclusions

Based on the results of the traffic noise impact assessment for the proposed residential development over Lot 182 on RP156422, at 17 Courtney Drive in Upper Coomera, the following is concluded:

- The results of the noise propagation modelling indicate that without noise mitigation measures only the façades and private open spaces of the future dwellings on the proposed Lots 43 to 50 will be impacted by traffic noise, as per the traffic flows predicted within a 10-year planning horizon to Year 2038.
- A 1.8m high noise barrier fence (acoustic fence) along the eastern boundaries of the future Lots 43 to 50 with a 5m return along the southern boundary Lot 50.
- The noise barrier must be constructed so that the RL at the top of the noise barrier is 1.8m high relative to the finished surface levels of the pads of the future dwellings, hence on top of the retaining wall.
- The acoustic barrier must be constructed of a material with minimum surface density of 12.5kg/m^2, such as concrete blockwork, brick, timber, autoclaved aerated concrete or minimum 9mm thick compressed fibre cement sheeting. There shall be no gaps on the surface and at the base of the acoustic barriers.
- Typical construction of a timber acoustic barrier (noise barrier fence) is illustrated in Figure 4.1 of this report. Detail views showing the alignment of the noise barrier is presented in Figure 4.2.
- The results of the noise propagation modelling, presented in Table 3.6 of this report, indicate that the upper floor levels of Lots 43 to 50 are impacted by traffic noise that corresponds with Noise Category 1 of QDCMP4.4, therefore architectural treatment is required to the building façades.
- There are two options available for architectural treatment to the building façades, as follows:
    - **Option 1:** Implementation of the 'acceptable forms of construction' specified in Queensland Development Code (QDC) Mandatory Part 4.4 (Buildings in a Transport Noise Corridor) as per the noise categories presented in Table 3.6 of this report.
    - **Option 2:** Floor plan specific acoustic design, in accordance with AS3671-1989, to ensure compliance with the internal noise criteria.

Provided the recommended planning and design traffic noise control measures are implemented in the construction of the residential development at 17 Courtney Drive in Upper Coomera, the road traffic noise from Baileys Mountain Road, will not impose any further constraints on the establishment of the proposed development.

6. References

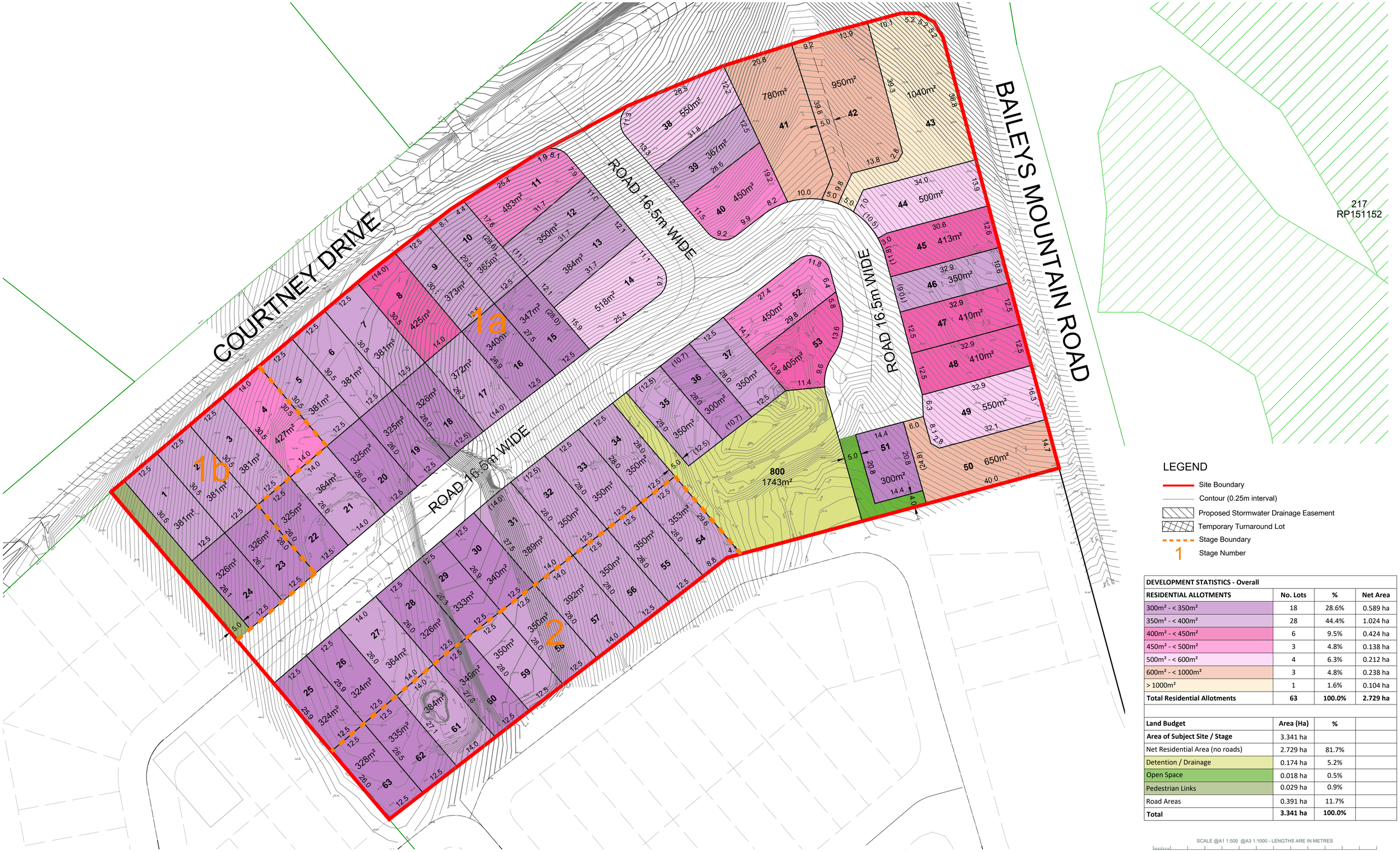
- Australian Standard AS/NZS ISO 717.1:2004 (*Acoustics – Rating of sound insulation in buildings and of building elements Airborne Sound insulation)*
- Australian Standard ASIEC61672.1-2004 (*Electroacoustics – Sound level meters – Specifications)*
- Australian Standard AS1055:2018 (*Acoustics – Description and Measurement of Environmental Noise)*
- Australian Standard AS2702-1984 (*Acoustics – Methods for the measurement of road traffic noise*)
- Australian Standard AS3671-1989 (*Acoustics – Road traffic noise intrusion – Building siting and construction)*
- Australian/New Zealand Standard AS/NZS2107:2016 (*Acoustics – Recommended design sound levels and reverberation times for building interiors)*
- Austroads Ltd, 2013, *Guide to Traffic Management Part 3: Traffic Studies and Analysis*
- City of Gold Coast, 2025, *Gold Coast City Plan Version 13*

7. Appendices

Appendix A – Development Layout
Appendix B – Site Photos
Appendix C – Meteorological Data
Appendix D – Noise Measurement Results
Appendix E – RTNA Verification (Year 2025)
Appendix F – RTNA Noise Contours (Year 2038)

Appendix A – Development Layout

PROPOSAL PLAN



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	18	28.6%	0.589 ha
350m² - < 400m²	28	44.4%	1.024 ha
400m² - < 450m²	6	9.5%	0.424 ha
450m² - < 500m²	3	4.8%	0.138 ha
500m² - < 600m²	4	6.3%	0.212 ha
600m² - < 1000m²	3	4.8%	0.238 ha
> 1000m²	1	1.6%	0.104 ha
Total Residential Allotments	**63**	**100.0%**	**2.729 ha**

Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	3.341 ha		
Net Residential Area (no roads)	2.729 ha	81.7%	
Detention / Drainage	0.174 ha	5.2%	
Open Space	0.018 ha	0.5%	
Pedestrian Links	0.029 ha	0.9%	
Road Areas	0.391 ha	11.7%	
Total	**3.341 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

5 0 5 10 15 20 25 30 35 40 45 50 55 60

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SITE ADDRESS
17 COURTNEY DRIVE, UPPER COOMERA

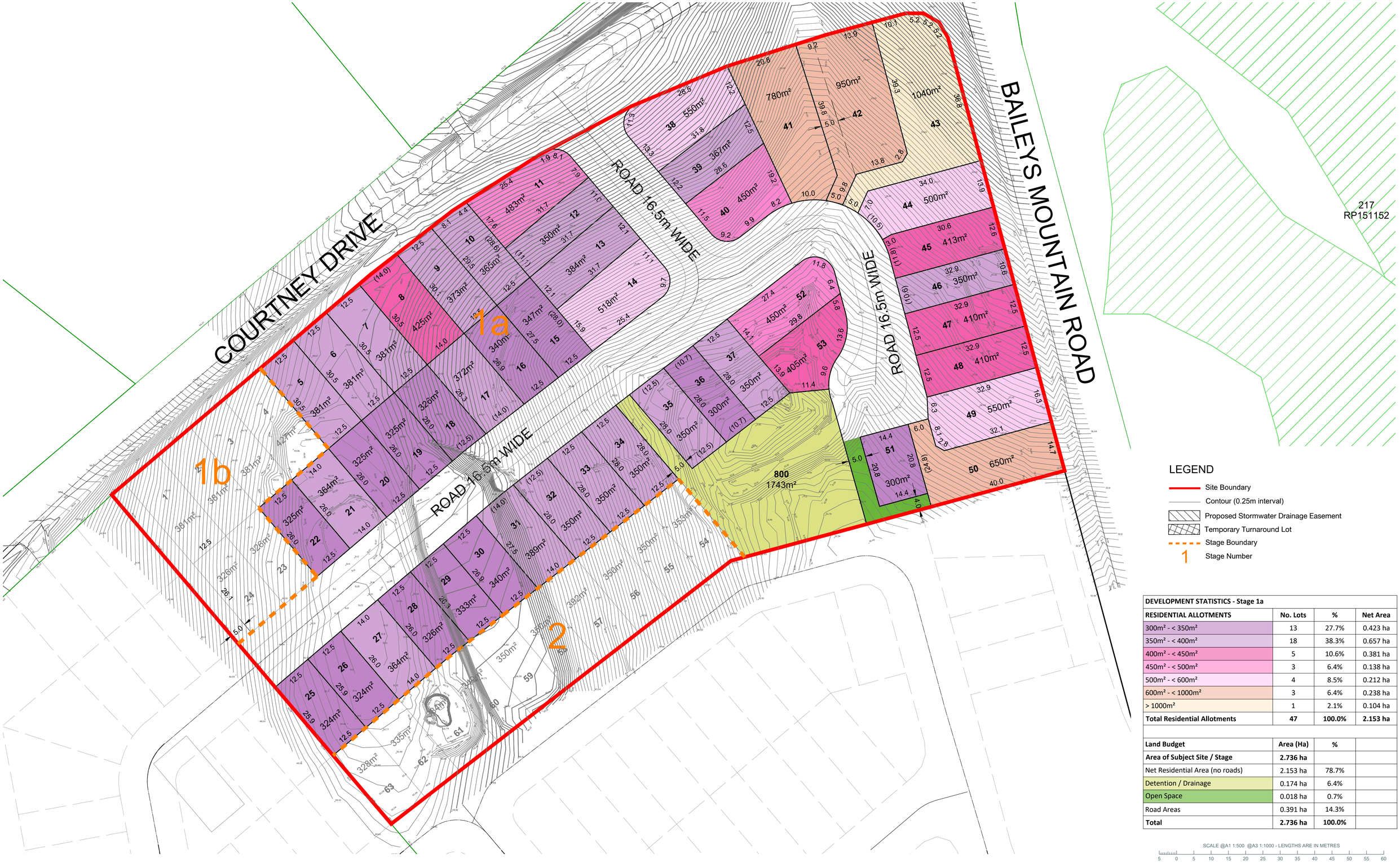
RP DESCRIPTION
LOT 182 ON RP156422

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AB

DATE
13/03/2026

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13087 P 01 Rev A - PRO 01

STAGING PLAN - STAGE 1a



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Stage 1a			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	13	27.7%	0.423 ha
350m² - < 400m²	18	38.3%	0.657 ha
400m² - < 450m²	5	10.6%	0.381 ha
450m² - < 500m²	3	6.4%	0.138 ha
500m² - < 600m²	4	8.5%	0.212 ha
600m² - < 1000m²	3	6.4%	0.238 ha
> 1000m²	1	2.1%	0.104 ha
Total Residential Allotments	**47**	**100.0%**	**2.153 ha**
Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	**2.736 ha**		
Net Residential Area (no roads)	2.153 ha	78.7%	
Detention / Drainage	0.174 ha	6.4%	
Open Space	0.018 ha	0.7%	
Road Areas	0.391 ha	14.3%	
Total	**2.736 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

5 0 5 10 15 20 25 30 35 40 45 50 55 60

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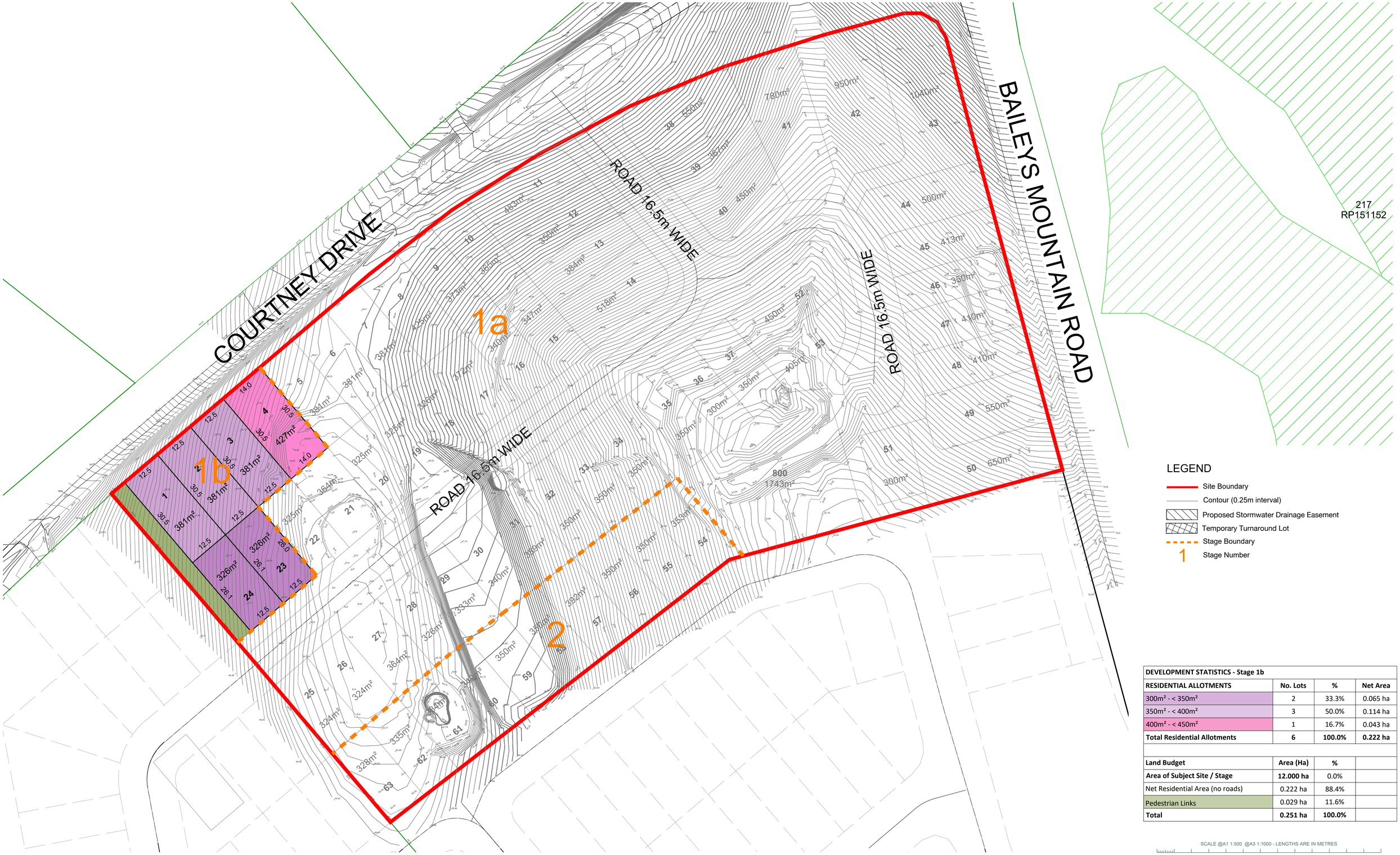
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STAGING PLAN - STAGE 1b



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Stage 1b			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	2	33.3%	0.065 ha
350m² - < 400m²	3	50.0%	0.114 ha
400m² - < 450m²	1	16.7%	0.043 ha
Total Residential Allotments	**6**	**100.0%**	**0.222 ha**
Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	**12.000 ha**	0.0%	
Net Residential Area (no roads)	0.222 ha	88.4%	
Pedestrian Links	0.029 ha	11.6%	
Total	**0.251 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

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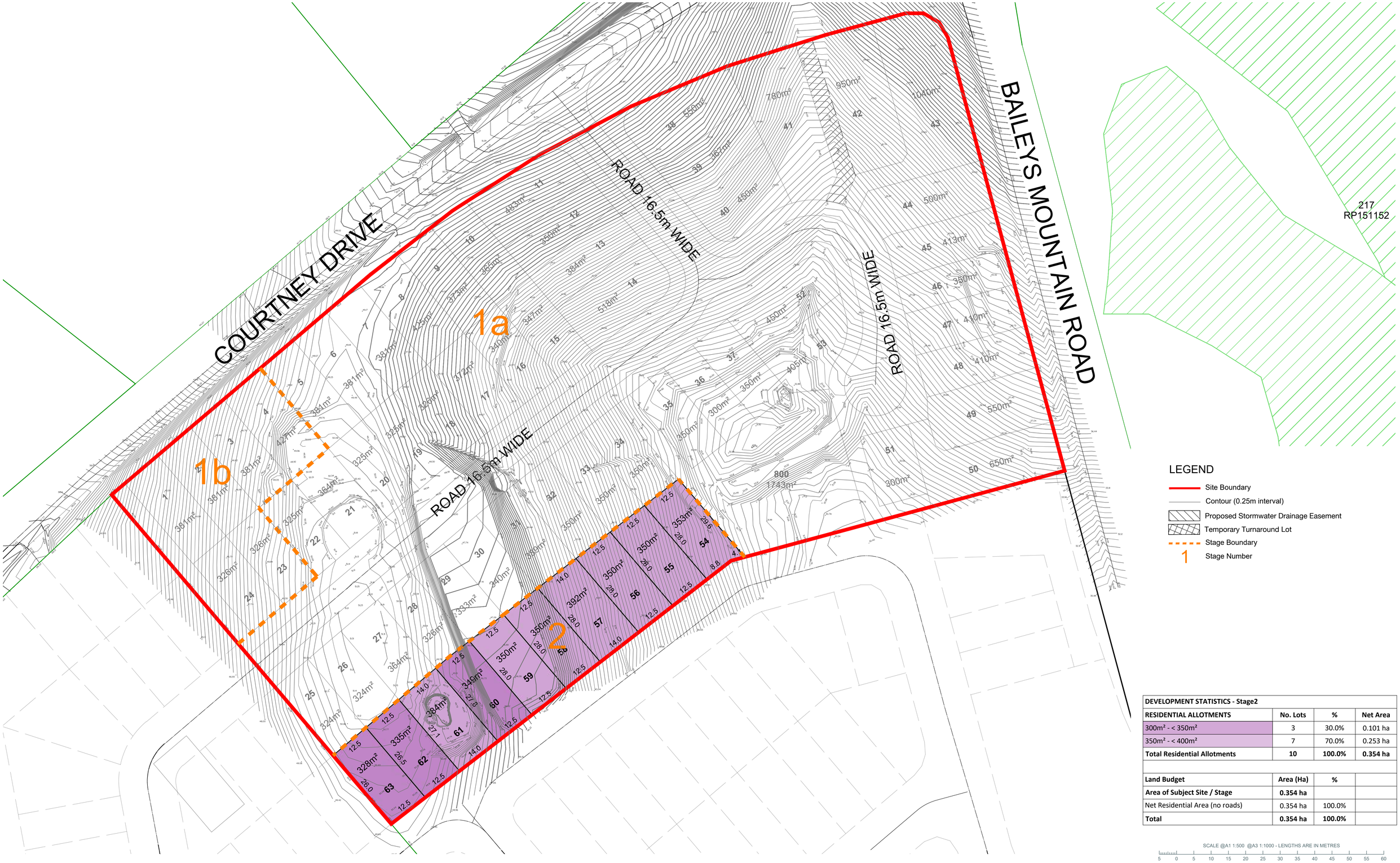
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DATE
13/03/2026

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STAGING PLAN - STAGE 2



LEGEND

- Site Boundary
- Contour (0.25m interval)
- Proposed Stormwater Drainage Easement
- Temporary Turnaround Lot
- Stage Boundary
- 1 Stage Number

DEVELOPMENT STATISTICS - Stage2			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
300m² - < 350m²	3	30.0%	0.101 ha
350m² - < 400m²	7	70.0%	0.253 ha
Total Residential Allotments	**10**	**100.0%**	**0.354 ha**
Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	**0.354 ha**		
Net Residential Area (no roads)	0.354 ha	100.0%	
Total	**0.354 ha**	**100.0%**	

SCALE @A1 1:500 @A3 1:1000 - LENGTHS ARE IN METRES

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DATE
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Appendix B – Site Photos



Photo 1: Noise Measurement Location (View towards Baileys Mountain Road)



Photo 2: Noise Measurement Location (View 17 Courtney Drive)

Appendix C – Meteorological Data

Gold Coast, Queensland
August 2025 Daily Weather Observations

Observations from the Gold Coast Seaway, at the northern end of Southport Spit.

Australian Government
Bureau of Meteorology

Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C	mm	mm	hours		km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Fr	14.2	20.6	0			SE	44	16:25	16.2	68		SSW	15	1019.1	19.9	63		SSE	24	1015.1
2	Sa	12.9	18.9	3.0			WNW	54	17:11	15.7	66		NW	15	1013.2	17.3	38		WNW	26	1009.2
3	Su	9.0	21.4	0			SW	52	15:13	13.1	63		W	13	1009.2	20.9	57		SW	26	1007.4
4	Mo	13.1	23.1	0			S	41	12:33	20.4	66		S	13	1017.3	21.4	59		S	15	1015.7
5	Tu	10.8	22.1	0			E	24	15:13	18.5	70		W	4	1018.5	21.1	67		E	19	1015.4
6	We	13.3	22.7	0			SE	33	16:30	19.1	64		SW	7	1019.8	21.5	53		SE	20	1017.2
7	Th	14.3	21.8	0			SE	44	11:57	19.8	62		S	20	1023.1	19.8	60		SE	31	1022.2
8	Fr	16.8	20.1	0			SE	57	10:35	19.2	68		SE	39	1026.8	18.9	60		SE	39	1024.5
9	Sa	14.9	20.2	3.2			SE	63	14:58	16.9	82		SSE	26	1025.2	18.2	73		SE	48	1021.7
10	Su	13.8	20.6	6.0			SE	48	14:10	17.0	78		S	17	1022.8	17.6	82		SSE	30	1020.8
11	Mo	13.1	21.1	7.0			SSE	41	14:48	17.9	65		S	17	1023.9	19.3	60		SSE	26	1021.7
12	Tu	11.9	21.1	0			SE	35	14:48	18.0	65		S	11	1024.8	19.1	67		SE	30	1022.0
13	We	12.3	21.0	0			W	48	19:41	18.6	74		SSE	15	1025.1	18.2	72		E	20	1021.9
14	Th	11.4	20.1	6.4			SE	39	12:24	16.9	63		SSW	11	1022.3	18.3	56		S	19	1019.4
15	Fr	11.8	21.8	0			SE	39	14:52	17.8	62		SSW	17	1019.6	18.9	68		SE	31	1016.2
16	Sa	11.1	23.5	0			W	30	11:01	17.6	70		NW	17	1016.9	23.1	37		WNW	17	1012.6
17	Su	8.8	20.9	0			ESE	30	17:37	18.5	47		SSW	11	1017.7	19.9	55		ENE	15	1015.2
18	Mo	11.4	20.7	0			SE	43	19:23	17.5	56		S	20	1022.1	18.6	59		SE	30	1021.4
19	Tu	13.2	17.0	0			SE	48	19:15	15.4	65		S	17	1027.4	16.6	67		SSE	20	1025.3
20	We	13.4	19.5	11.4			NE	39	00:00	14.6	91		WNW	6	1027.0	16.5	89		S	11	1023.3
21	Th	14.6	19.1	28.0			ENE	48	00:22	16.1	94		WSW	2	1025.2	17.7	90		W	2	1021.6
22	Fr	13.4	21.1	41.2			ENE	20	13:55	17.4	89		WSW	4	1022.1	20.5	81		ENE	13	1017.6
23	Sa	11.5	21.9	0.2			SSE	35	17:43	18.1	67		SE	7	1018.6	20.7	60		SE	20	1015.2
24	Su	15.1	23.0	0.2			SE	41	13:57	20.5	60		S	15	1019.5	20.4	71		SE	33	1015.9
25	Mo	11.3	23.9	0			S	41	16:05	19.4	51		SW	11	1016.9	23.0	48		SSE	20	1013.9
26	Tu	16.5		0						21.1	70		SSE	13	1018.6	21.6	59		ESE	17	1015.1
Statistics for the first 26 days of August 2025																					
Mean		12.8	21.1							17.7	68			13	1020.9	19.6	63			23	1018.0
Lowest		8.8	17.0							13.1	47		WSW	2	1009.2	16.5	37		W	2	1007.4
Highest		16.8	23.9	41.2			SE	63		21.1	94		SE	39	1027.4	23.1	90		SE	48	1025.3
Total				106.6																	

Observations were drawn from Gold Coast Seaway {station 040764}

The Gold Coast Seaway site is an Automatic Weather Station (AWS) at the northern end of Southport Spit. If you are interested in the southern end of the Gold Coast, see the observations from Coolangatta.

IDCJDW4050.202508 Prepared at 06:26 UTC on 26 Aug 2025
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Appendix D – Noise Measurement Results

Unattended Noise Measurements
17 Courney Drive, Upper Coomera

Noise Levels - 18hr Day (Traffic Noise)

Logger Location - Eastern Boundary of Lot

ARL Environmental Noise Logger	
Logger Serial Number	8780D4
Measurement Title	20250808_102511
Measurement started at	8/08/2025 10:25
Measurement stopped at	15/08/2025 5:01
Frequency Weighting	A
Time Averaging	Fast
Statistical Interval	15 min
Pre-measurement Ref.	94.0
Post-measurement Ref.	94.0
Engineering Units	dB SPL

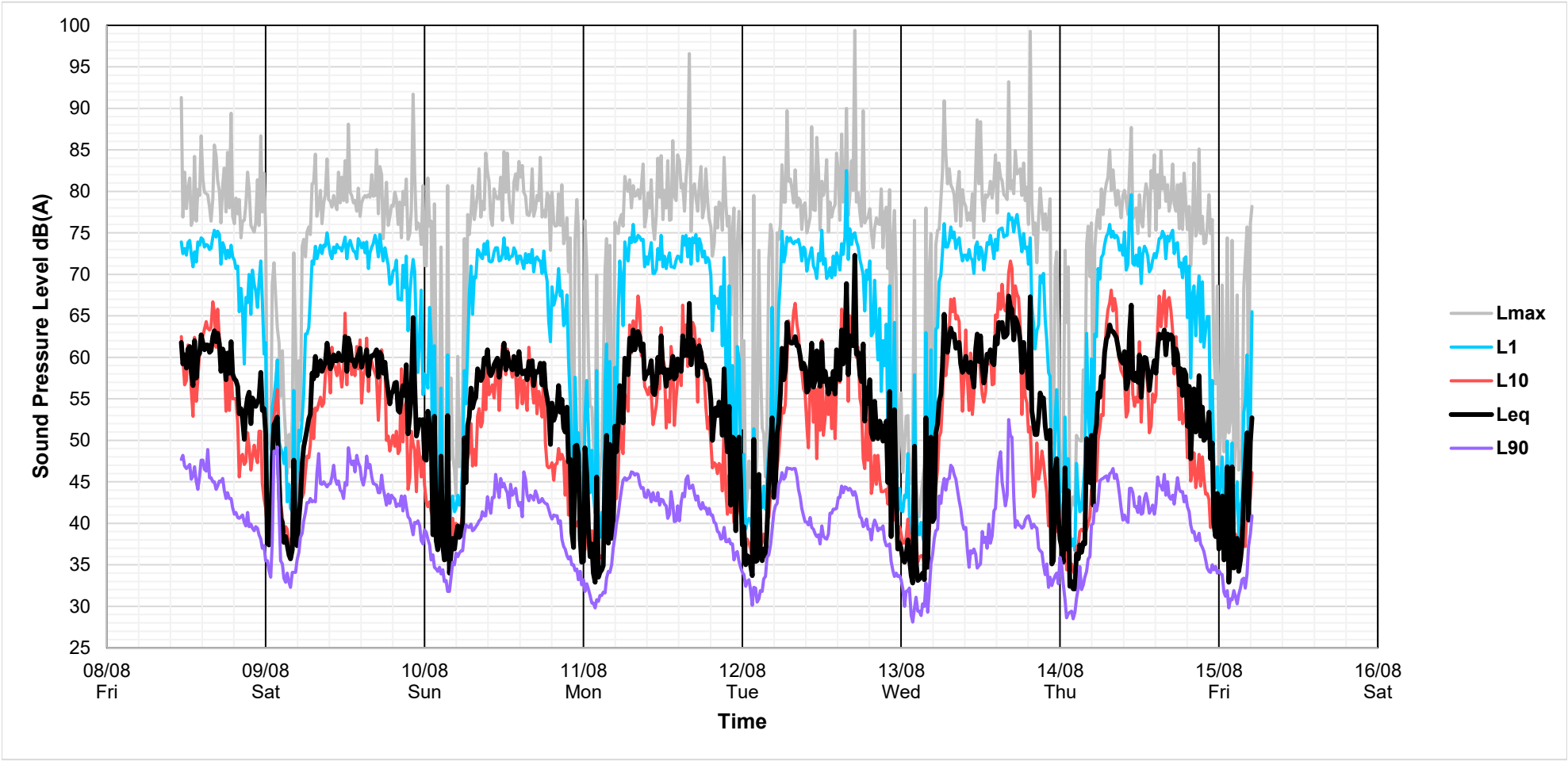
		$L_{A10,T}$			$L_{Aeq,T}$		$L_{A90,T}$	
Date	**Day**	**18hr day 6am-12am**	**1hr max 6am-12am**	**Time for 1hr max**	**18hr day 6am-12am**	**8hr night 10pm-6am**	**18hr day 6am-12am**	**8hr night 10pm-6am**
8/08/2025	Friday	—	—	—	—	45.6	—	37.5
9/08/2025	Saturday	54.6	61.4	12:00	57.8	45.1	43.9	36.3
10/08/2025	Sunday	51.7	59.9	12:00	55.2	42.6	41.0	34.2
11/08/2025	Monday	54.7	64.4	08:00	57.2	43.0	42.0	35.7
12/08/2025	Tuesday	53.7	64.5	15:00	56.8	41.1	40.9	33.2
13/08/2025	Wednesday	56.8	69.8	16:00	58.3	41.9	40.1	33.9
14/08/2025	Thursday	55.4	66.3	15:00	57.4	53.7	41.8	40.2
Average		**54.6**	**65.0**		**57.1**	**45.9**	**41.6**	**36.7**
Average (weekdays only)		**54.6**	**65.0**		**57.1**	**45.9**	**41.6**	**36.7**

Note

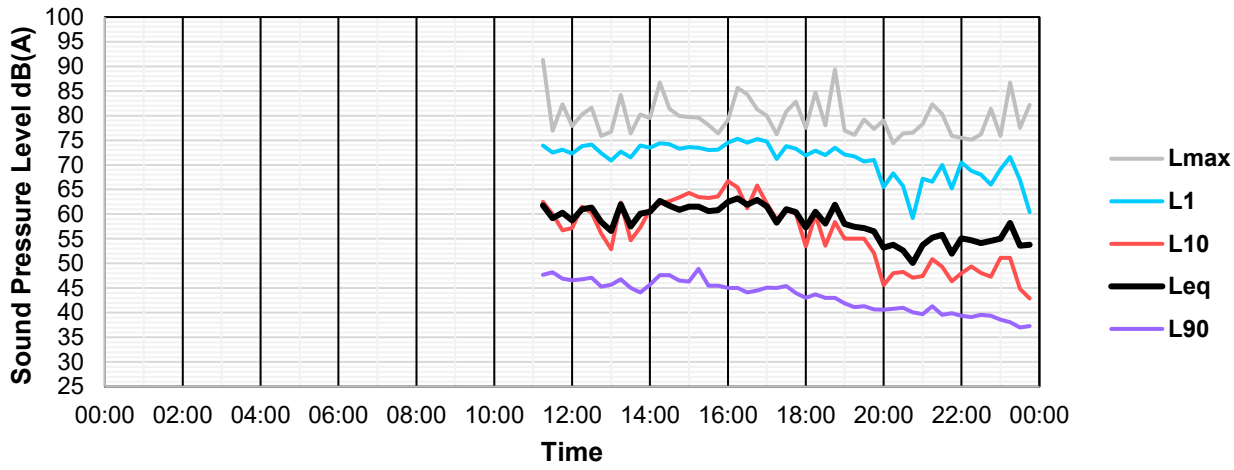
— No noise data available

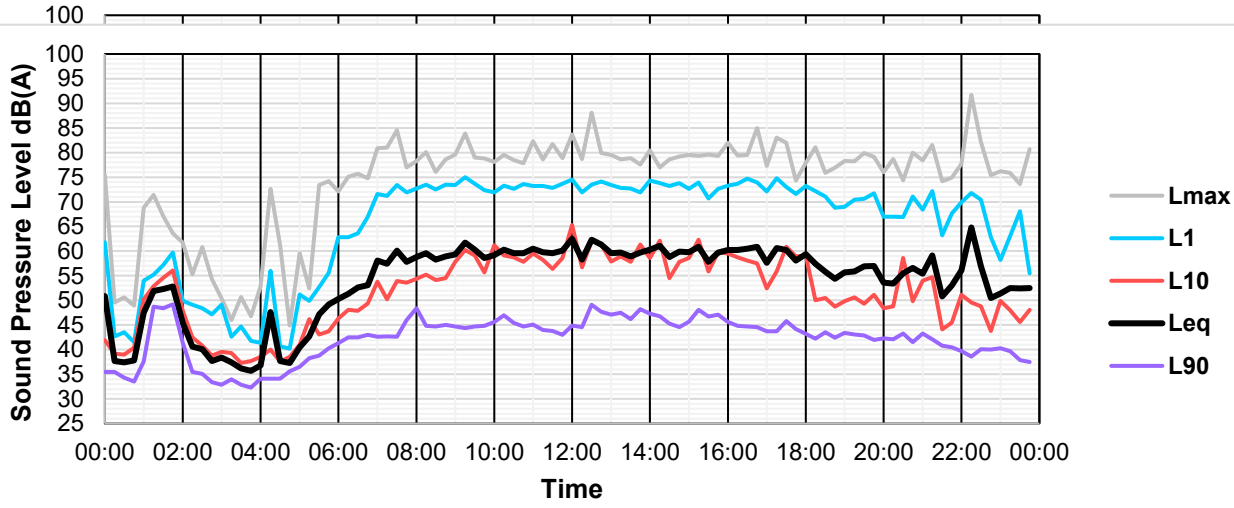
Rainfall recorded on this day

Unattended Noise Measurements
8 to 15 August 2025



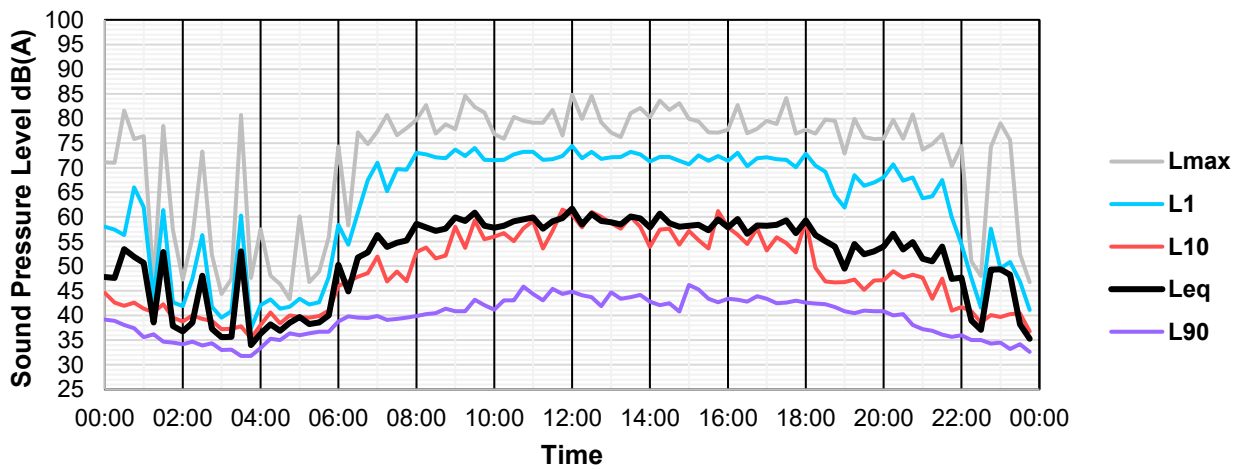
Unattended Noise Measurements
Friday 8 August 2025



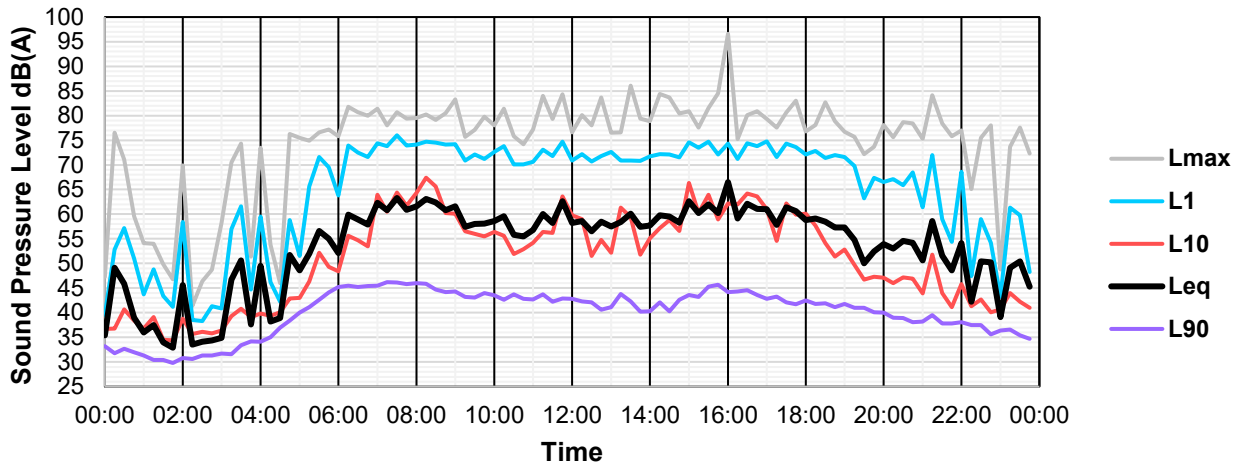


Time

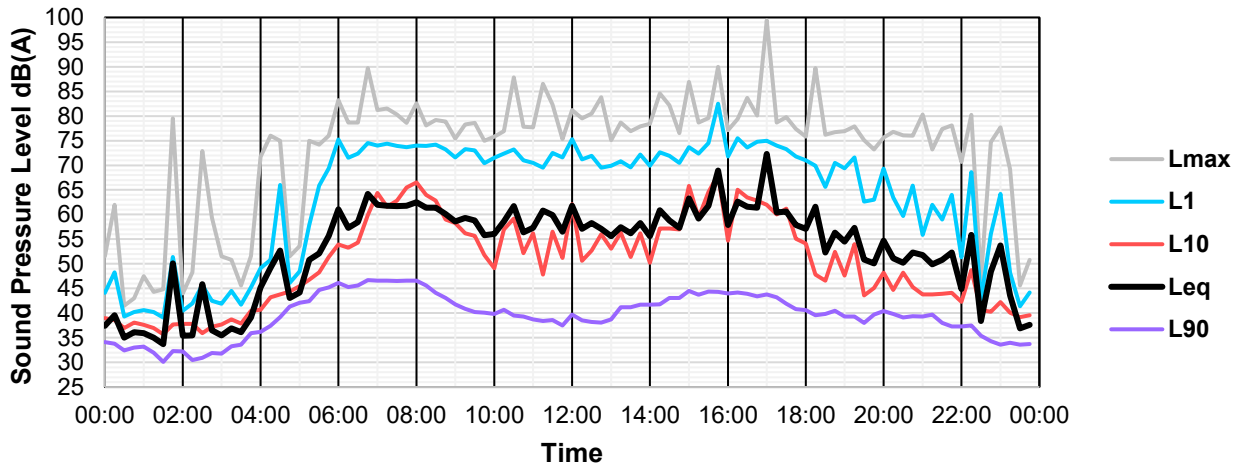
Unattended Noise Measurements
Sunday 10 August 2025



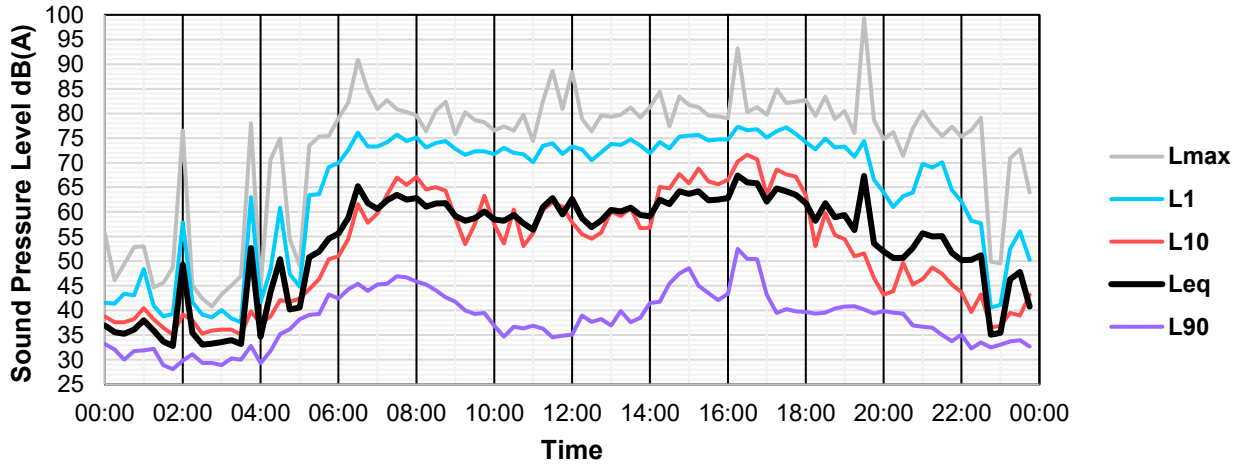
Unattended Noise Measurements
Monday 11 August 2025



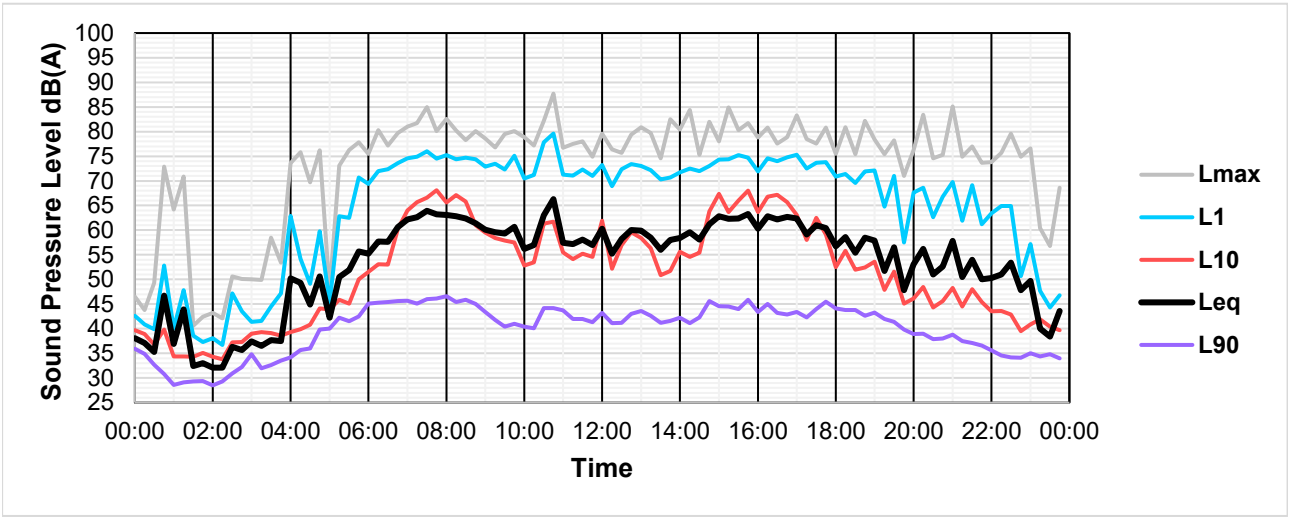
Unattended Noise Measurements
Tuesday 12 August 2025



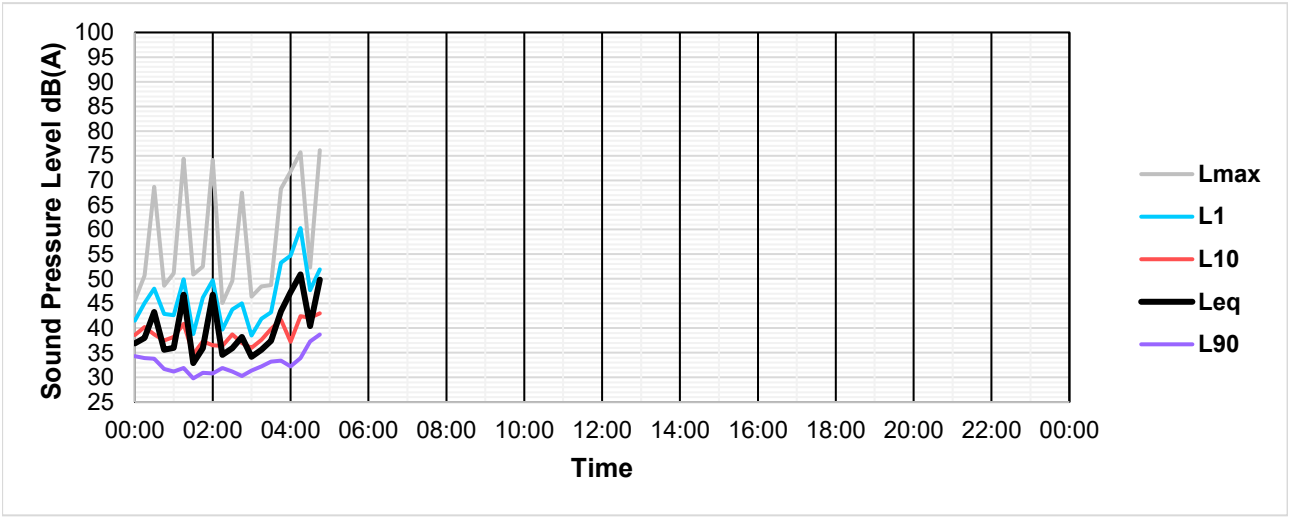
Unattended Noise Measurements
Wednesday 13 August 2025



Unattended Noise Measurements
Thursday 14 August 2025



Unattended Noise Measurements
Friday 15 August 2025



Appendix E – RTNA Verification (Year 2025)

Proposed Subdivision
17 Courtney Drive
Calculated Traffic Noise Levels
RTNA Validation

Receiver Name	L10(18h) dB(A)
Noise Logger	56.1

Appendix F – RTNA Noise Contours (Year 2038)



ATP250746

Proposed Development
17 Courtney Drive

Traffic Noise Modelling
Year 2038

Private Open Spaces
Ground Floor
(1.5m AGL)

Traffic noise level
Free-field
Adjusted for Queensland Conditions[1]
$L_{10(18hr)}$ dB(A)

	<= 51
51 <	<= 54
54 <	<= 57
57 <	<= 60
60 <	<= 63
63 <	<= 66
66 <	<= 69
69 <	<= 72
72 <	<= 75
75 <	<= 78
78 <	<= 81
81 <	<= 84
84 <	

Legend

- Road
- Noise barrier fence
- Line
- Surrounding buildings
- Emission line

SCALE @ A4 1:2000

0 5 10 20 30 40 50 60 m

Grid Spacing: 2m
Project Engineer: Aldrich Ang
Created: 16/03/2026
Processed with SoundPLAN 9.1

[1] As per procedure of TMR Code of Practice Volume 1



ATP250746

Proposed Development
17 Courtney Drive

Traffic Noise Modelling
Year 2038

External Facades
Ground Floor
(1.8m AGL)

Traffic noise level
Facade-adjusted
Adjusted for Queensland Conditions[1]
$L_{10(18hr)}$ dB(A)

	<= 51
51 <	<= 54
54 <	<= 57
57 <	<= 60
60 <	<= 63
63 <	<= 66
66 <	<= 69
69 <	<= 72
72 <	<= 75
75 <	<= 78
78 <	<= 81
81 <	<= 84
84 <	

Legend

- Road
- Noise barrier fence
- Line
- Surrounding buildings
- Emission line

SCALE @ A4 1:2000

0 5 10 20 30 40 50 60 m

Grid Spacing: 2m
Project Engineer: Aldrich Ang
Created: 16/03/2026
Processed with SoundPLAN 9.1

[1] As per procedure of TMR Code of Practice Volume 1



ATP250746

Proposed Development
17 Courtney Drive

Traffic Noise Modelling
Year 2038

External Facades
First Floor
(4.6m AGL)

Traffic noise level
Facade-adjusted
Adjusted for Queensland Conditions[1]
$L_{10(18hr)}$ dB(A)

	<= 51
51 <	<= 54
54 <	<= 57
57 <	<= 60
60 <	<= 63
63 <	<= 66
66 <	<= 69
69 <	<= 72
72 <	<= 75
75 <	<= 78
78 <	<= 81
81 <	<= 84
84 <	

Legend

- Road
- Noise barrier fence
- Line
- Surrounding buildings
- Emission line

SCALE @ A4 1:2000

0 5 10 20 30 40 50 60 m

Grid Spacing: 2m
Project Engineer: Aldrich Ang
Created: 16/03/2026
Processed with SoundPLAN 9.1

[1] As per procedure of TMR Code of Practice Volume 1



ATP250746

Proposed Development
17 Courtney Drive

Traffic Noise Modelling
Year 2038

External Facades
Ground Floor
(1.8m AGL)

QDC MP4.4 Noise Category
Facade adjusted
Adjusted for Queensland Conditions[1]

- Category 0
- Category 1
- Category 2
- Category 3
- Category 4

Legend

- Road
- Noise barrier fence
- Line
- Surrounding buildings
- Emission line

SCALE @ A4 1:2000

0 5 10 20 30 40 50 60 m

N

Grid Spacing: 2m
Project Engineer: Aldrich Ang
Created: 16/03/2026
Processed with SoundPLAN 9.1

[1] As per procedure of TMR Code of Practice Volume 1



ATP250746

Proposed Development
17 Courtney Drive

Traffic Noise Modelling
Year 2038

External Facades
First Floor
(4.6m AGL)

QDC MP4.4 Noise Category
Facade adjusted
Adjusted for Queensland Conditions[1]

- Category 0
- Category 1
- Category 2
- Category 3
- Category 4

Legend

- Road
- Noise barrier fence
- Line
- Surrounding buildings
- Emission line

SCALE @ A4 1:2000

0 5 10 20 30 40 50 60 m

Grid Spacing: 2m
Project Engineer: Aldrich Ang
Created: 16/03/2026
Processed with SoundPLAN 9.1

[1] As per procedure of TMR Code of Practice Volume 1