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DEVELOPMENT APPROVAL



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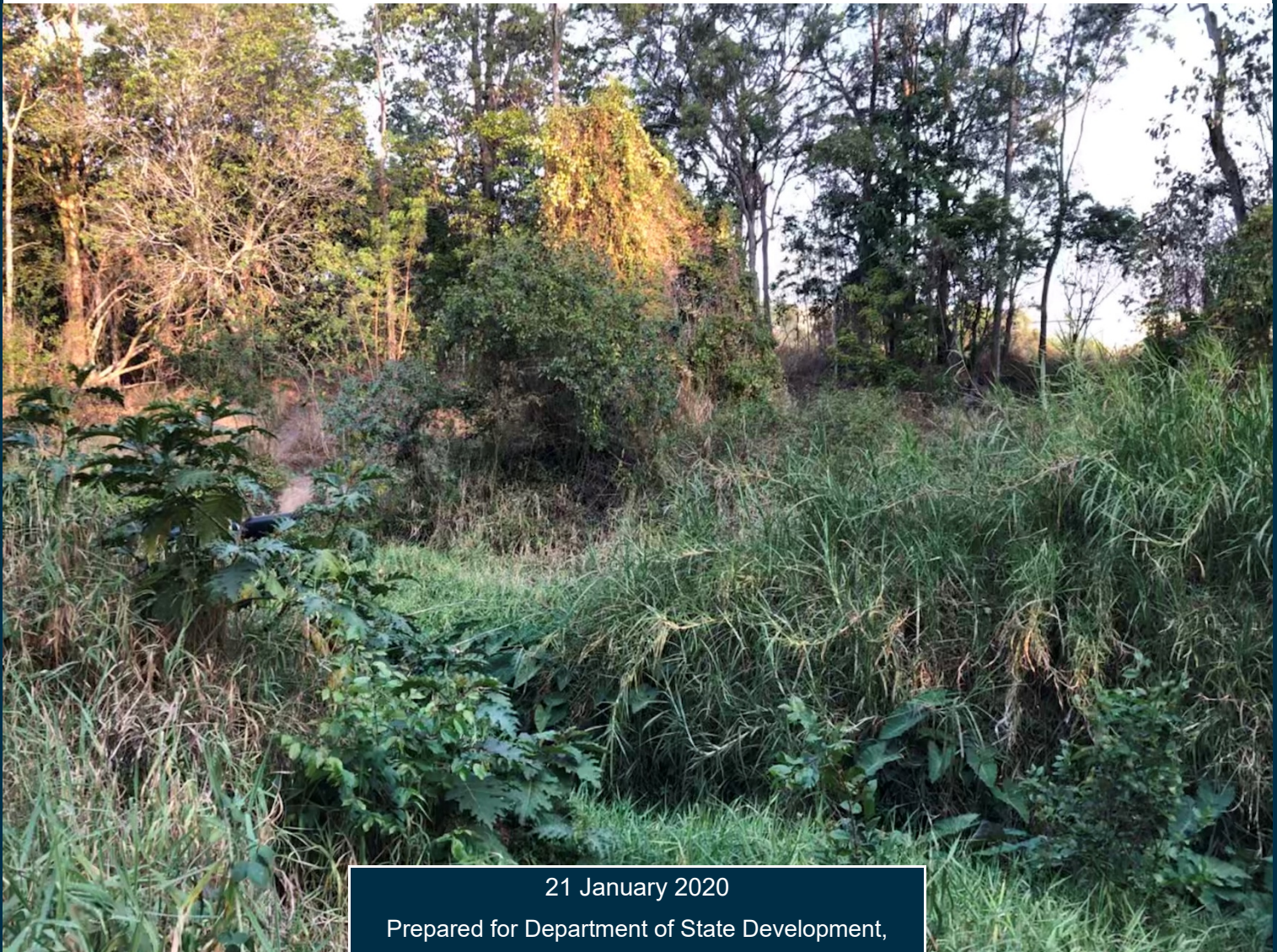
ENVIRONMENTAL

Approved document, except
where a provision is varied by a
condition of the development
approval. Vegetation offset
calculations to be updated as per
condition 18.

CARSELDINE URBAN VILLAGE – 532 BEAMS ROAD,

CARSELDINE

Ecological Assessment - Carseldine Urban Village Proposed Pedestrian
Bridge



21 January 2020

Prepared for Department of State Development,
Manufacturing, Infrastructure and Planning –
Economic Development Queensland

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1.0 Introduction

Economic Development Queensland (**EDQ**) is a specialist land use planning and property development unit within the Department of State Development, Manufacturing, Infrastructure and Planning (**DSDMIP**) and is currently engaged in the staged development and renewal of the Carseldine Urban Village (**CUV**). The CUV is situated within the property described as 532 Beams Road, Carseldine (Lot 322 on SP172124) and is within the southern extent of the Fitzgibbon Priority Development Area (**PDA**), in the north of the Brisbane City Council (**BCC**) Local Government Area (**LGA**).

The original Ecological Assessment Report (**EAR**) (dated 8 October 2019) prepared for the broader CUV Masterplan outlines the relationship between the Fitzgibbon Priority Development Area (**FPDA**), the Fitzgibbon Development Scheme (**FDS**), Fitzgibbon Bushland Management Plan (**FBMP**) and the CUV development project. Further, the original EAR reviews, collates and utilises the findings of the Biodiversity Assessment and Management (**BAAM**) reports and other ecological studies undertaken within the CUV and FPDA over numerous years. These original assessments form the basis of this report. More detailed technical aspects of these assessments can be found on the EDQ website, this EAR references these technical findings and compliance assessments, while providing specific assessment for this proposal.

1.1 Carseldine Urban Village Development Project

The purpose of the renewal of the CUV is to promote the development of future transport orientated development in proximity to the Carseldine Train Station and potential future busways; while also stimulating economic growth through commercial, retail, special purpose learning and research areas, enhanced employment opportunities and outdoor recreation and open space. As part of the CUV, large components of key bushland areas will be retained and enhanced through the delivery of the FBMP.

Specifically, EDQ have proposed a development application (**DA**) for a Material Change of Use (**MCU**), Reconfiguration of a Lot (**RoL**) and Preliminary Approval for the staged development of the CUV. The Approved Overall Masterplan is illustrated in **Attachment 1**. The MCU & RoL Application for Stage S of the Overall Masterplan has also recently been

approved and is currently under construction. Stage S is intended to establish new Civic and Open Space facilities and stormwater management measures prior to the other uses being established. Further, it is understood that the Stage 1 Application has recently been submitted and is undergoing assessment. 28 South Environmental (**28 South**) were engaged to prepare the ecological assessment reporting and relevant advice associated with the Overall Masterplan and the individual stages which has already considered the areas subject to this EAR.

1.2 Scope and Purpose of this Report

As part of the ultimate delivery of the Overall Masterplan for CUV, EDQ are proposing the formalisation of existing walking trails through Bushland and Open Space areas, including connections to public land south of Cabbage Tree Creek. To do so, EDQ require the construction of a shared pedestrian pathway and footbridge over Cabbage Tree Creek. Despite not being assigned to a stage of the Overall Masterplan, the works have been contemplated through the overall delivery of the Masterplan. The Application will be for an Operational Works Development Permit for Filling and Excavation and Vegetation Clearing under the FDS. The establishment of the pedestrian bridge and pathways will form a key off-road pedestrian and cycle connection to other activity nodes, public lands and the Aspley State High School to the south of CUV, as envisioned by the FDS's Precinct 1 Pedestrian and Cycle Links Plan.

The purpose of this EAR is to provide detailed analysis and assessment of the proposed development application for the pedestrian bridge and trail upgrades. The pedestrian bridge occurs on the land described as 532 Beams Road, Carseldine (Lot 322 on SP172124) and 651 Zillmere Road, Aspley (Lot 400 on SP211295). The proposed development extent and layout is illustrated in **Attachment 2** and is herein referred to as the 'Site'. The broader locality of the CUV development project and the immediate Site context is illustrated in **Attachments 3 and 4**. The design and extent of the proposal has been informed by an ongoing iterative design process and coordination between project consultants, particularly collaboration between 28 South, the project arborist and engineers.

2 Statutory Matters for Consideration

Ecological values and ecologically important areas for the proposed development have been defined with reference to State and Local environmental legislation. A summary of relevant statutory considerations is provided below.

2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**) provided the legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. These are defined under the EPBC Act as 'Matters of National Environmental Significance' (**MNES**). Under the EPBC Act, a referral to the Department of Environment and Energy (**DoEE**) is required if the proposed development gives rise or may give rise to a Significant Impact on any MNES. The determination of whether a Significant Impact will arise is made with reference to the Matters of National Environmental Significance Significant Impact Guidelines 1.1 (DoE 2013)¹ and other EPBC Act policy statements.

A search² of the Protected Matters Search Tool (**PMST**) indicates the likely or potential occurrence of MNES in the locality (**Attachment 5**). A summary of the MNES species and ecological communities considered known to, likely to, or potential occurring within the CUV as identified in original BAAM assessments is provided in **Sections 5 & 6**. This report focusses on identifying the presence of threatened ecological communities, and the presence of habitat for threatened and migratory species that may be impacted specifically by the proposed pedestrian bridge and shared pathways. Detailed assessments previously undertaken for the Overall Masterplan for the CUV have been relied upon for this assessment coupled in specific project based surveys.

A search of the Department of Environment and Science (**DES**) Wildlife Online database provides confirmed records of MNES within the same search radius (**Attachment 6**).

¹ Including significant impact guidelines for individual threatened species, groups of species and threatened ecological communities (refer <http://www.environment.gov.au/epbc/publications/guidelines/html>)

² A 5km buffer based on central coordinates of -27.35383, 153.02626 was specified on the 17/09/2019.

2.2 Matters of State Interest

2.2.1 Nature Conservation Act 1992

The *Nature Conservation Act 1992 (NC Act)*, through the *Nature Conservation (Wildlife) Regulation 2006 (NC Reg)*, identifies flora and fauna species that are Endangered, Vulnerable or Near Threatened (**EVNT**) within Queensland and are subject to a higher level of protection than those considered to be Least Concern. The NC Act remains applicable to all applications under the *Economic Development Regulation 2013 (ED Reg)*.

The NC Act establishes approval triggers and an assessment process for clearing protected plants. The Site is located within a mapped “High Risk Trigger Area”, meaning that EVNT plants protected under the NC Act are known and may persist within the locality (**Attachment 7**).

Potential impacts to fauna species listed under the NC Reg will require assessment for any residual impacts created through development.

2.2.2 Vegetation Management Act 1999

The *Vegetation Management Act 1999* and the *Planning Act 2016*, through the *Planning Regulation 2017* regulates the clearing of native vegetation identified as Regulated Vegetation. The Site is mapped to contain Category B Regulated Vegetation as illustrated in **Attachment 7**.

The clearing of Regulated Vegetation associated with this application is for a PDA-related activity and as such, does not trigger assessment or referral as outlined in Schedule 21, Part 2 (2) (e) of the *Planning Regulation 2017*. To take consideration of this Matter of State Environmental Significance (**MSES**), the Fitzgibbon Development Scheme has identified certain remnant vegetation communities as ‘Significance Vegetation’ and has outlined specific criteria for the protection and compensation of this vegetation.

2.3 Fitzgibbon Development Scheme and Assessment Requirements

The proposed development for the pedestrian bridge and pathways aligns with the Overall vision of the FDS (Section 2.2) and is in accord with the PDA Land Use Criteria (Section 3, Part 3) which, in turn was considered by the CUV Masterplan. The original Ecological

Assessment report for the Overall Masterplan (dated 8 October 2019), responds to environmental matters and relevant PDA Guidelines, of which this proposed development is consistent³.

Where the proposed pedestrian bridge crosses over the PDA boundary, it transitions into State-owned land (Aspley State High School). As such, this portion of the proposed development is considered '*Works outside of a PDA*' yet is still related to a PDA activity. Planning advice indicates that the proposed development constitutes the definition of a 'road' under the *Transport Infrastructure Act 1994* and is exempt works under the *Planning Regulation 2017* (Schedule 6, Part 5, Section 26). As a result of this exemption, it is understood that the proposal is not required to consider the Brisbane City Council (**BCC**) Planning Scheme.

³ Refer to the Ecological Assessment Report for the proposed Carseldine Urban Village (dated 8 October 2019), which can be found on the CUV website: (<https://haveyoursay.dsdmip.qld.gov.au/carseldine>) .

3 Ecological Survey Methodologies

28 South reviewed and ground-truthed the historical in-field ecological assessments undertaken by BAAM over the CUV. The methodologies, survey limitations and findings of both the historical BAAM in-field assessments and 28 South's further in-field assessments associated with the broader CUV development project are detailed within the original Ecological Assessment Report (dated 8 October 2019). The findings of these historical reports, including the spatial mapping of vegetation communities have been built upon by 28 South as part of the previous ecological assessments for the Overall Masterplan and will be relied upon for the purposes of this report for consistency.

More recently, 28 South undertook additional in-field ecological assessment on the 6 of September and the 9 of October 2019, specifically relating to the proposed development footprint of the pedestrian bridge and the existing trails to be formalised. This was undertaken in conjunction with the Project Arborist and entailed the following:

1. Review of a number of alignment options for the proposed works and infrastructure in relation to ecological features. This was undertaken specifically to avoid and minimise potential impact to ecological values, whilst also considering the constructability of the infrastructure (e.g. bringing in 10-15m precast cement sections during construction);
2. Confirmation of the extent of Significant Vegetation immediately adjoining the proposed works, specifically any habitat trees and vegetation within the beds and banks of Cabbage Tree Creek; and
3. Identify habitat types and in-situ fauna habitat quality, with consideration to any fauna species of conservation significance known or likely to occur within the locality.

The following sections outline the detailed methodologies undertaken during ecological assessments.

3.1 Desktop Assessments

The proposed development is situated within an area that historically supported native instream vegetation communities including RE 12.3.11 in the west of the CUV and RE12.3.7 in the east as well as alluvial terraces adjoining Cabbage Tree Creek mapped as supporting RE12.3.11. The Version 11 RE mapping (**Attachment 7**) continues to support this Regional Ecosystems within the development footprint area.

3.2 Significant Flora & Fauna Species

Database searches of the Wildlife Online (5km search radius) and PMST (5km search radius) returned the following species as either being historically recorded (since 1980) or having potential to occur within the search area:

- 4 Threatened Ecological Communities;
- 15 Threatened Flora Species (EPBC & NC Act);
- 30 EPBC Listed Fauna Species (including 19 migratory species); and
- 10 EVNT Fauna Species (NC Act)

The PMST and Wildlife Online search results are provided as **Attachment 5** and **Attachment 6** respectively. Historical ecological assessment within the Site focused their targeted surveys on suitable habitat for each species, while habitat association for threatened fauna was undertaken with particular focus on those species with known records in the locality.

4 Flora Assessment

4.1 Survey Findings

Historical surveys undertaken by BAAM confirmed the presence of regulated vegetation across components of the CUV. Botanical detail of the BAAM ground-truthed vegetation community mapping across CUV is found in **Attachment 9**. Contemporary surveys have confirmed that the extent and description of these communities remain consistent with this mapping, with minor discrepancies where areas of development have impacted vegetation.

Surveys in the immediate vicinity of the proposed pedestrian bridge location and shared pathways found that vegetation generally reflects the broader community description (**Attachment 9**); however, has experienced significant disturbance and degradation. This is due to the historical establishment of stormwater pipe within the immediate vicinity of the proposed bridge as well as on-going, regular inappropriate pedestrian access (e.g. daily student traverse). There was also evidence of hard rubbish occurring within the waterway channel and banks.

The immediate channel and bank of Cabbage Tree Creek supports significant infestations of pest plants, namely *Panicum maximum var. trichoglume* (green panic), *Sphagneticola trilobata* (Singapore daisy) and *Pennisetum purpureum* (elephant grass), while numerous sprawling/climbing exotic vines had engulfed smaller dead trees. Where existing pedestrian crossings had been established, areas of bare soil and erosion was evident. Adjoining the proposed impact area remnant riparian species such as *Waterhousea floribunda* (weeping lily pilly), *Ficus coronata* (creek sandpaper fig) and *Jagera pseudorhus* (foam bark) dominated the canopy and shrub layers of the lower banks.

The upper southern bank and higher terrace supported a native open forest community with emergent *Eucalyptus propinqua* (grey gum), *Eucalyptus tereticornis* (Queensland blue gum) and *Corymbia intermedia* (pink bloodwood). The sub-canopy contained mature *Lophostemon confertus* (brush box) and *Jagera pseudorhus* (foambark). While these areas supported more intact native canopy and shrub layers, the ground layers were similarly dominated by dense tall exotic grasses. The existing condition of the Site is illustrated in **Photo Plates 1 – 8**.

4.1.1 Conservation Significant Plant Communities and Flora

Of the 15 significant flora species identified as potentially occurring in the broader CUV, a single species was historically identified during BAAM survey efforts. The most recent BAAM survey was unable to relocate the specimen of macadamia nut (*Macadamia integrifolia*) listed as Vulnerable under the NC Reg. This individual was recorded as an isolated shrub in the extreme south-east of the CUV within the Cabbage Tree Creek riparian corridor.

No conservation significant flora species were detected within or adjacent to the proposed pedestrian footbridge or shared pathways. It is considered unlikely that any of the conservation-significant flora species would occur at the proposed development footprint due to historical modification and disturbance for the stormwater infrastructure and given the significant infestations of pest plant species currently dominating.

5 Fauna Habitat Assessment

5.1 Fauna Habitat Assessment

Desktop information derived from the EPBC PMST (**Attachment 5**) and Wildlife Online (**Attachment 6**) formed the basis of further in-field assessment, with habitat present at the Site assessed for its suitability for locally known conservation significant fauna.

The proposed pedestrian bridge location has experienced historical modification and ongoing degradation and supports significant infestations of pest plant species, though regrowth vegetation supported on the southern upper terrace is generally well-structured. Remnant vegetation supported along the existing trails can be described as relict vegetation communities with well-structured native canopy, shrub and understorey layers. The larger relict and old regrowth trees were observed to support a wide variety and abundance of hollow bearing features. Hollows are an important resource for many native fauna species for denning and breeding purposes. The floristic arrangements of this remnant community as well as those within the broader CUV provide a range of seasonally important foraging resources including foliage and flowering resources. Of particular note, there is an abundance of winter flowering species (e.g. Queensland blue gum) which provide foraging resources during the winter and spring bottlenecking periods.

Based on the Overall Masterplan EAR, the following species were identified to be likely or known to exist within the CUV:

- *Phascolarctos cinereus* (koala – Vulnerable under the EPBC Act and the NC Act);
- *Pteropus poliocephalus* (grey-headed flying-fox – Vulnerable under the EPBC Act, but Least Concern under the NC Act)
- *Adelotus brevis* (tusked frog – Vulnerable under the NC Act, Least Concern under the NC Act);
- *Ninox strenua* (powerful owl – Vulnerable under the NC Act, Least Concern under the NC Act); and

- *Petaurus norfolkensis* (squirrel glider – Least Concern under the NC Act, but identified as a significant species under the FDS)

The original EAR and more contemporary surveys determined that:

- Due to a lack of evidence, significant ecological impediments and limited habitat availability apart from vegetated riparian corridors, Koala would not likely be present within the broader CUV Site;
- Recent historical surveys failed to detect the presence of any flying-fox camps. It is considered likely that the grey-headed flying-fox may forage throughout the broader bushland areas of CUV, however the Overall Masterplan is not considered to pose any significant residual impact to the species. Further, it is considered that pedestrian activity is already frequent and regular and the proposed development is not likely to result in a significant impact to grey-headed flying-fox;
- Given the highly urbanised nature of the locality, the thin nature of Cabbage Tree Creek Corridor; and the size of a powerful owl home range (400-4000ha), it is considered that the bushland areas of CUV would only form a small component of powerful owl foraging resources. However, the proposed development will not result in the removal of any potential suitable roosting habitat for the species.

Therefore, only the tusked frog and the squirrel glider are determined to require further consideration and assessment in light of the proposed development.

5.1.1 Tusked Frog (*Adelotus brevis*)

Spatial records on scientific database searches⁴ and knowledge of the tusked frog's habitat and resource requirements demonstrates that the tusked frog could persist within the riparian habitats supported by the broader CUV and the immediate vicinity of the proposed development. Further, the species is known to persist in highly degraded waterways within urban situations such as dams, gardens and ponds. As such, it is considered that this species is likely to be present both upstream and downstream on at least a sporadic basis.

⁴ Wildlife Online and the Atlas of Living Australia databases (as of 17 September 2019).

5.1.2 Squirrel Glider

The historic BAAM and 28 South surveys detected squirrel gliders within and adjoining the broader CUV. The majority of the sightings were restricted to the vegetated areas on the higher alluvial terrace of Cabbage Tree Creek and remnants surrounding the existing Government Facilities in the central north-west of the CUV. Research into squirrel glider ecology indicated that this species prefers habitats aligned with drier eucalypt forests and woodland types with one or more species of iron-bark eucalypt (BAAM 2017, Menkhorst *et al.* 1988 and Rowston 1998). Lower mesic habitats are not considered to be preferred habitat for squirrel glider; however, would rather only be utilised by those individuals moving throughout the locality. Further, both hollow bearing trees and winter flowering resources are important elements to sustaining squirrel glider populations and are abundant surrounding the proposed development footprint and the broader CUV. It is considered unlikely that the habitats within the areas proposed for disturbance would be of significance to squirrel glider, particularly given the limited impact to native vegetation.

6 Impacts, Mitigation and Management Strategies

6.1 Proposed Development Design Considerations

The proposed development has considered the ecological considerations relevant to the broader CUV and Site. The proposed pedestrian bridge has been situated within an area that has been subject to significant historical modification and ongoing deleterious disturbances.

The proposed pedestrian bridge will require earthworks to establish the necessary gradient for the access ramps and bridge spans as well as construction and machinery access. The disturbance footprint within the PDA boundary is approximately 428 m² (**Attachment 10**)⁵. Further, the formalisation of the existing trails will largely require boxing of the pathway to a width of 3 m. The proposed concrete pathway has been collocated over the existing crushed gravel path. Alternative construction methodologies and pathway materials are proposed where adjoining significant habitat trees to avoid and minimise the projects' overall impact and to maximise vegetation retention. Services for the lighting of the pathway and bridge will be co-located within shared pathway footprint.

As such, it is considered that the proposed shared pathways will have no impact to Significant Vegetation, and impacts will be limited to the areas immediately surrounding the pedestrian bridge and its batters as illustrated in **Attachment 10**. Construction will be supervised by a project Arborist who will identify if any significant vegetation (including habitat trees) are required for removal as part of the pathway formalisation. Should any habitat trees be identified for removal by the project Arborist, the FFMP prepared for the pedestrian bridge and pathways will be revised to include the impact and nominate the appropriate area of rehabilitation in accordance with FBMP.

It is noted that this impact to Significant Vegetation for the pedestrian bridge and pathway brings the total impact for the CUV Masterplan to 1.73 hectares and 55 habitat trees. This constitutes an impact to 6.67% of the Significant Vegetation within the CUV boundary.

⁵ The works to the south of the PDA boundary comprises of 491 m². The entire disturbance footprint for the proposed works within and to the south of the PDA boundary totals 919 m².

6.2 Conservation Significant Species

6.2.1 Conservation Significant Flora

In-field surveys for the pedestrian bridge and the existing trails failed to locate any threatened flora species within the proposed disturbance area. Based on the disturbed nature and modified nature of the proposed development footprint, it is unlikely that any species identified through desktop survey would occur within the development area. Therefore, the proposed development is not expected to impact any conservation-significant flora.

6.2.2 Conservation Significant Fauna

6.2.2.1 Tusked Frog (NC Act)

The dense infestations of pest species on the creek banks within the immediate development footprint limits the available habitat for the tusked frog, however, the tusked frog is likely to persist upstream and downstream of the proposed pedestrian bridge over Cabbage Tree Creek. As such, the proposed development should adopt a precautionary approach with regard to this species. It is relevant to consider that the proposed construction footprint, particularly for the bridge which is occurring in the immediate vicinity of the Cabbage Tree Creek, is minor and construction methods can be managed to minimise the disturbance period. As such, impacts will be minor, short term and recoverable through ecological restoration works, particularly considering the existing levels of disturbance in the immediate vicinity of the proposed pedestrian bridge.

The design of the proposed pedestrian bridge (**Attachment 2**) is substantially elevated over the waterway passage of Cabbage Tree Creek and will not impede water flows. Civil works associated with the establishment of piers and earthworks batters will also avoid adverse implication for water flows and will create opportunities for restoration activities. The proposed development will lead to the removal of significant pest plant infestations, particularly Singapore daisy, in the immediate vicinity of the pedestrian bridge which currently restricts the ability of the species to move freely along the waterway and its immediate terrestrial habitats. During construction, best practice stormwater management and erosion and sediment controls will be established. This will include the preparation and implementation of a FFMP which will govern and provide fauna management protocols including the involvement of an

experienced fauna spotter catcher to undertake dip netting and translocate any amphibian individuals downstream of the development footprint prior to earthworks commencing. Secondary impacts such as light spillage which may result in disturbance should also be avoided and is discussed further in **Section 7**.

Overall, the proposed development is unlikely to result in significant impacts to the tusked frog and will lead to a significant improvement in the provision of habitat and habitat amenity for the tusked frog.

6.2.2.2 Squirrel Glider (FDS)

Squirrel glider are known to occur in the CUV and the broader locality. The proposed development will result in a disturbance footprint of approximately 428 m² within the PDA (**Attachment 10**); however, it is considered that this component of bushland habitat has been subject to historical disturbance and is lacking suitable denning and key foraging habitat resources. No habitat trees were identified within or adjoining the immediate footprint of the pedestrian bridge. However, a number of habitat trees identified to support suitable denning resources occur immediately beside the existing trails. Through the incorporation of sensitive design and construction techniques as well as arborist assessment, none of these habitat trees are proposed for removal. As such, the proposed development will have no direct impact on the squirrel glider.

Secondary impacts such as light spillage and encroachment which may result in reduction in movement and dispersal opportunities should also be avoided. The establishment of fauna furniture within the surroundings of the pedestrian bridge where limited existing mature trees with interlocking canopy exist will aid and improve the connectivity value of the corridor, specifically for squirrel gliders.

6.3 Impacts on Significant Vegetation and Ecological Restoration Strategies

Table 1 of the FBMP identified the ratios required for rehabilitation with regard to 'significant vegetation' and notes that '*within Precinct 1 a minimum of 50 percent of the offset area is to include revegetation and rehabilitation of non-remnant vegetation*'. A detailed FFMP will be prepared specifically to address the level of ecological impact and the corresponding level of restoration required in accordance with Table 1 of the FBMP. The FFMP will also detail the

extent of the ecological restoration works as well as fauna management practices to be implemented. The continuation of movement opportunities along Cabbage Tree Creek will also be a focus of the FFMP and will detail any necessary fauna movement structures to be implemented.

Compliance with the FDS requires the rehabilitation of land within the Bushland and Open Space Zone where significant vegetation is cleared. Therefore, the proposed development will result in 428 m² disturbance footprint of which is situated in an area determined to be significant vegetation within the PDA boundary. As such, the proposed development will require ecological restoration of 856 m², 50% of which will be required to be undertaken in non-remnant vegetation. **Attachment 11** identifies opportunities for such ecological restoration works to take place in conjunction with that being undertaken as part of a number of stages for the Overall Masterplan.

The proposed development has avoided all impacts to identified habitat trees. However, should tree identified for removal be found to contain a hollow, a minimum of one (1) nest box per hollow will be required to be established.

7 Statutory Compliance

7.1 Commonwealth Matters (MNES)

An assessment of the likelihood for TECs, flora and fauna species identified by the desktop assessment was undertaken to establish MNES that may occur within the vicinity of the proposed development and the broader CUV. It has been determined that a proposed development (pedestrian bridge and formalisation of existing trails) is unlikely to give rise to a significant impact on MNES. Particular consideration has been given to koala and grey-headed flying-fox.

7.2 State Environmental Matters (MSES)

7.2.1 Nature Conservation Act 1992

In-field surveys for the pedestrian bridge and the existing trails failed to locate any threatened flora species within the proposed disturbance area. Based on the disturbed nature and modified nature of the proposed development footprint, it is unlikely that any species identified through desktop survey would occur within the development area. Therefore, the proposed development is not expected to impact any conservation-significant flora.

As discussed in **Section 6.3**, a number of fauna species listed under the NC Act have been identified to potential occur within the vicinity of the proposed development. However, it has been determined that the proposed development is unlikely to have a significant residual impact on koala, grey-headed flying-fox, tusked frog and powerful owl. Further, proposed ecological restoration works and fauna movement strategies will ultimately improve habitat amenity for these species, with a particular emphasis on tusked frog which is identified to be likely to utilise instream habitats either side of the proposed pedestrian bridge.

7.2.2 Fitzgibbon Development Scheme

7.2.2.1 Environmental Values and Sustainable Resource Use

The proposed development has considered the environmental values and strategies outlined within the PDA Guideline No. 14 *Environmental Values and Sustainable Resource Use*. Refer to **Table 2** below.

Values	Strategies
<i>Ecological processes and natural systems</i>	
<p>1. Significant terrestrial biodiversity values.</p>	<p>Considerable in-field surveys and desktop investigations at all relevant federal, state and local levels have been undertaken.</p> <p>In-field assessments have appropriately ground-truthed and confirmed the various ecological and biodiversity values within the development footprint and the broader CUV. This knowledge has informed the location and design of the proposed infrastructure and construction methodologies for the proposed pedestrian bridge and formalisation of the existing trails.</p> <p><u>Minimising Impacts</u></p> <p>The proposed development will result in approximately 428 m² of impact to significant vegetation identified as Least Concern RE 12.3.7. Despite a large extent of the development footprint being subject to historical disturbance, ecological restoration works will be undertaken to adequately compensate for this impact. Ecological restoration will be undertaken at a ratio of 2:1 and will directly compensate for the loss of ecological values and will also provide a net-ecological benefit by improving and consolidating the Cabbage Tree Creek corridor and the broader bushland areas.</p> <p>No endangered regional ecosystems will be directly or indirectly impacted by this proposed development.</p> <p>A specific FFMP will be prepared as part of the proposed development to reduce and control the development impacts as well as enforce strategies to manage impacts and rehabilitation works.</p>
<p>2. Ecological Connectivity</p>	<p>The proposed development is situated within the Bushland and Open Space Zone and occurring across the Cabbage Tree Creek ecological corridor.</p> <p>It has been determined that the proposed development will not significantly impede fauna movement through the identified ecological corridor. Further works will be undertaken to enhance and improve fauna movement occurring</p>

	through the corridor. Specific strategies for fauna movement measures in relation to the infrastructure crossing Cabbage Tree Creek have been provided and discussed below.
Wetlands and Waterways	
3. Waterways	<p>The proposed development occurs within the immediate vicinity and traverses Cabbage Tree Creek. This waterway is identified as a Stream Order 3 by the Department of Natural Resources, Mines and Energy (DNRME).</p> <p>As discussed below, a number of specific strategies will be implemented as part of the development to avoid, minimise and mitigate impacts to Cabbage Tree Creek and further enhance the significant ecological feature.</p>

7.2.2.2 Development Interfaces

The proposed development is in accordance with the PDA wide criteria for the Bushland and Open Space areas as well as the Land Use strategies for Precinct 1 within the FDS. The proposed development allows for the envisaged key off road pedestrian and cycle connection to the south. Given the location of the pedestrian bridge within the immediate vicinity of the stormwater infrastructure and the existing trails, development interfaces will remain generally consistent with what is currently existing. Ecological restoration will specifically consider the inclusion of squirrel glider resources and fauna movement treatments in the disturbance areas surrounding the proposed infrastructure once it is established.

In summary, the proposed development is consistent with the PDA wide criteria which prescribes Bushland and Open Space areas to fulfil a multi-functional role including the retention of significant environmental values, community recreation and stormwater management.

The proposed development is considered to be permissible assessable development under the Levels of Assessment for Precinct 1. The proposed development will include the preparation of a FFMP that will outline the potential impacts and necessary mitigation measures required to comply with the FBMP. The proposed development will result in approximately 428 m² of significant vegetation impacted, however avoids any impact to habitat

trees. To comply with the FBMP, a FFMP will be prepared and will outline how ecological restoration works will aid in the re-establishment or enhancement of approximately 856 m² of remnant and non-remnant bushland areas.

All clearing work will be completed under strict supervision and guidance of a suitably qualified and licenced fauna spotter catcher. It is recommended a fauna pre-clearance survey be undertaken and a specific fauna management plan be prepared for the proposed works. This management plan will outline: habitats being impacted; the means in which clearing works will be managed; species likely to be encountered; fauna recovery methods; clearing directions and relocation methods and locations. Clearing works are to be supervised by the project arborist and where possible, hollow bearing limbs are to be removed by climbing arborist and relocated as hollow logs in bushland areas.

8 Conclusion and Recommendations

This EAR has assessed the relevant ecological and environmental planning matters applicable to the proposed development through statutory planning considerations and an ecological assessment of the proposed development within the context of the CUV, locality and FDS. This ecological assessment has identified the ecological values supported within the immediate development footprint and those associated with the broader CUV, as well as identified the impacts likely to occur should the proposed development be approved in its current layout.

It has been determined that the proposed development is unlikely to have any impact on any matters of MNES. At a State level, the proposed development has been considered in light of the FDS and specifically achieves the vision and intent of the Land Use Plan for Precinct 1. The pedestrian and cycle connection facilitate outdoor recreation opportunities and provides key off-road connection to activity nodes to the south of CUV.

Through an iterative design process, the proposed development has appropriately avoided areas of higher ecological values, minimises the impact to areas of degraded ecological and provides mitigation measures that ultimately provide a net-ecological benefit. The proposed development will result in approximately 428 m² disturbance footprint of which is situated in an area identified to support significant vegetation under the FDS. Ecological restoration will

be undertaken as part of the proposed development to compensate for this impact. A detailed FFMP will be prepared specifically to address the level of ecological impact and the corresponding level of restoration required. Under the guidance of a Level 5 Arborist, the proposed development has avoided all impacts to identified habitat trees.

Further, specific construction methods and mitigation measures have been recommended including:

- Preparation of a specific FFMP for the pedestrian bridge and trails to be upgraded. This will include specifications regarding involvement of a suitably experienced fauna spotter catcher to oversee construction works and appropriately manage any fauna interactions;
- nest boxes throughout vegetated areas and parklands (minimum of 1 nest box per hollow removed);
- fauna furniture within corridors where limited existing mature trees with interlocking canopy occurs (assisting scansorial/arboreal faun, specifically squirrel glider a to move between trees without the requirement to come to ground);
- best practice stormwater management and erosion and sediment controls to be installed and regularly monitored during construction activities;
- incorporation of sensitive lighting solutions to reduce light spillage into bushland areas surrounding the pedestrian bridge, whilst ensuring adequate CPTED design. This should include low emission and filtered LED lighting with directional shields as well as strategic establishment of native landscaping for light screening amenity; and
- any services (e.g. electricity) will be collocated with the existing pathway footprints or share tunnel bore cavities with the sewer. Where services follow existing alignments, construction methodologies are to be guided by the Project Arborist.

Photo Plates



Photo Plate 1 – View south along the existing gravel trail towards the proposed pedestrian bridge location and Cabbage Tree Creek.



Photo Plate 2 – View south within the proposed pedestrian bridge footprint on the upper terrace of Cabbage Tree Creek.



Photo Plate 3 – View of Cabbage Tree Creek waterway and significant infestations of pest plants present.



Photo Plate 4 – View south within the proposed pedestrian bridge footprint towards the south bank and significant pest plant infestations



Photo Plate 5 – View south indicating the vegetation supported on the south upper terrace of Cabbage Tree Creek (state-owned land)

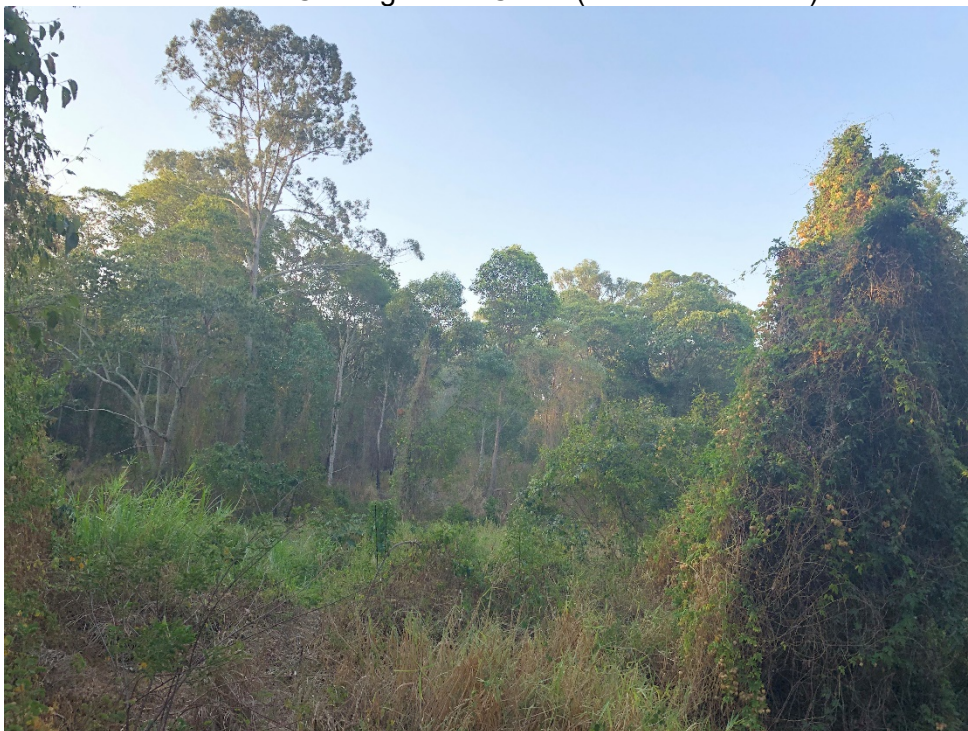


Photo Plate 6 – View north indicating the vegetation supported on the northern upper terrace of Cabbage Tree Creek (Vegetation Community 8).



Photo Plate 7 – View north along the existing gravel trail that is to be formalised.



Photo Plate 8 – View south indicating the vegetation supported on the south upper terrace of Cabbage Tree Creek (state-owned land)

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Attachment 1

CARSELDINE URBAN VILLAGE OVERALL MASTERPLAN

PLAN REF: 128180 - 370
 DATE: 03 October 2019
 CLIENT: EDG
 DRAWN BY: MD
 CHECKED BY: MD/DG

Note:
 All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.
 Dimensions have been rounded to the nearest 0.1 metres.
 Areas have been rounded down to the nearest 5m².
 The boundaries shown on this plan should not be used for final detailed engineers design.

Source Information:
 Site boundaries: Registered Survey Plans.
 Adjoining information: DCDB.
 Contours: QUT.

Development Yield (Maximum Density)	
Residential Dwellings	606 dwellings
Commercial (sq.m)	15,050 sq.m GFA ^
Retail (sq.m)	4,000 sq.m GFA
Childcare	100 children

^ Includes existing commercial and community uses.

Legend

- Site Boundary
- - - Proposed Stage Boundary
- Mixed Use - Village Heart
- Mixed Use
- (3) Height Limit (Storeys)
- ⊛ Indicative Civic Plaza and Pocket Park
- Special Purpose
- Civic and Open Space
- Bushland and Open Space
- Vegetation Within Road Reserve
- ▨ Future Busway Corridor
- ▨ Existing Driveway and Carpark (Retention)
- ▨ Existing Lease Boundary
- ▨ Temporary Turnaround Easement
- ▨ Investigation Area (Beams Road Railway Overpass)
- ▨ Investigation Area (Potential Road Layout Subject to Future Applications)



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 W rpsgroup.com



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Attachment 2



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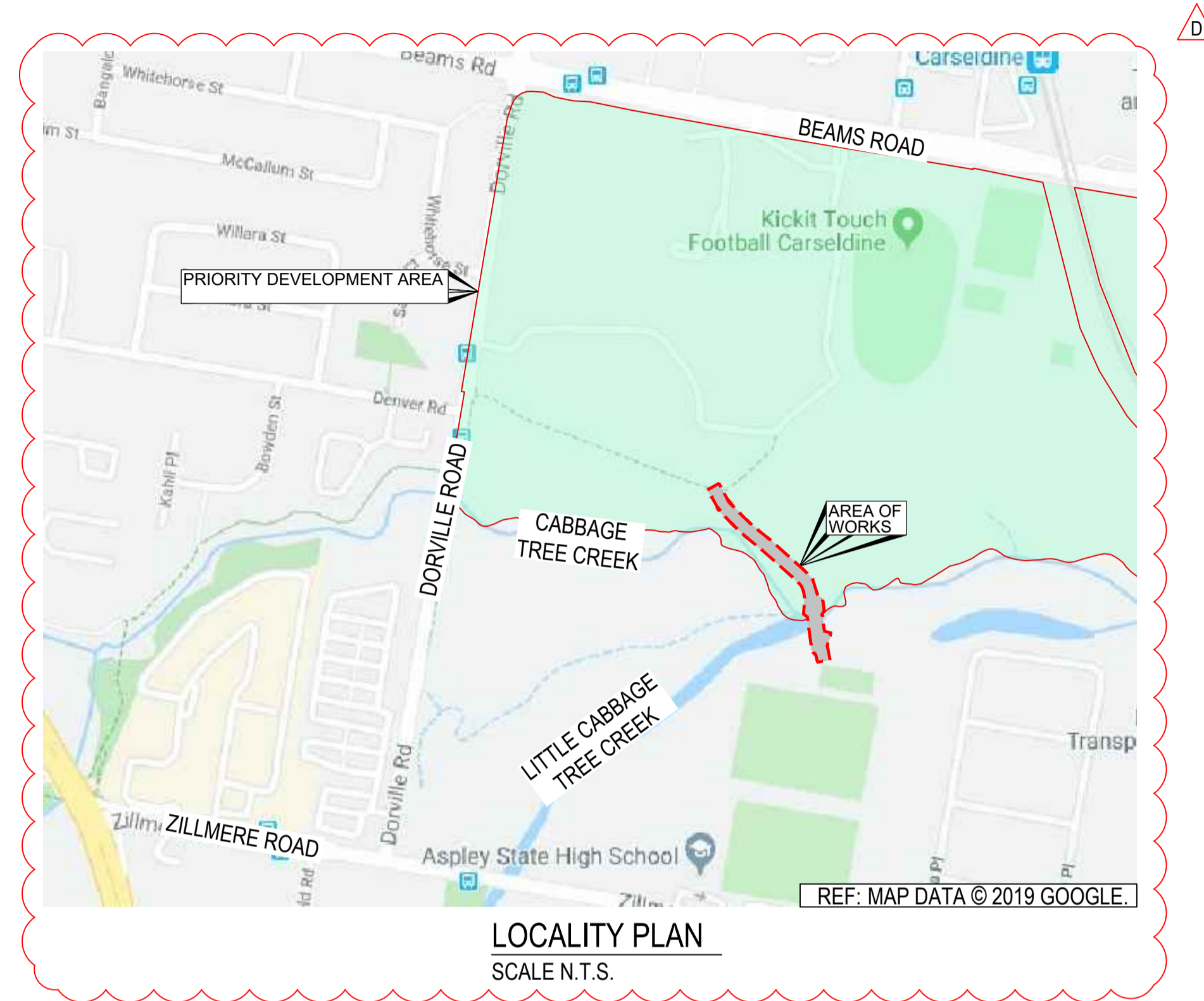
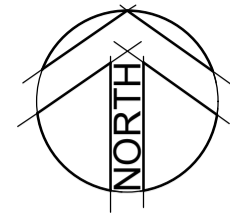
ECONOMIC DEVELOPMENT QUEENSLAND

CARSELDINE URBAN VILLAGE PEDESTRIAN BRIDGE DETAIL DESIGN



Queensland Government

**Economic
Development
Queensland**



LOCALITY PLAN
SCALE N.T.S.

SCHEDULE OF DRAWINGS	
DRAWING No.	DESCRIPTION
GENERAL	
QTMP1903-CI-1000	COVER PAGE
QTMP1903-CI-1001	LOCALITY, GENERAL NOTES AND DRAWING SCHEDULE
QTMP1903-CI-1004	EXISTING FEATURES AND DEMOLITION PLAN - SHEET 1
QTMP1903-CI-1005	EXISTING FEATURES AND DEMOLITION PLAN - SHEET 2
EARTHWORKS	
QTMP1903-CI-1020	EROSION AND SEDIMENT CONTROL PLAN AND TYPICAL DETAILS - SHEET 1
QTMP1903-CI-1021	EROSION AND SEDIMENT CONTROL PLAN AND TYPICAL DETAILS - SHEET 2
QTMP1903-CI-1050	CUT FILL PLAN - SHEET 1
QTMP1903-CI-1051	CUT FILL PLAN - SHEET 2
ROADWORKS	
QTMP1903-CI-1110	GENERAL ARRANGEMENT AND SETOUT PLAN - SHEET 1
QTMP1903-CI-1111	GENERAL ARRANGEMENT AND SETOUT PLAN - SHEET 2
QTMP1903-CI-1120	LONGITUDINAL AND CROSS SECTIONS PLAN - SHEET 1
QTMP1903-CI-1122	CROSS SECTIONS PLAN - SHEET 2
STRUCTURAL	
QTMP1903-CI-1701	GENERAL ARRANGEMENT AND ELEVATION PLAN

CIVIL GENERAL NOTES

1. GENERAL

- 1.1 HARD COPY DRAWINGS SHALL FORM THE BASIS OF THE CONTRACT. ANY DIGITAL INFORMATION INCLUDING DRAWINGS, SURVEY AND DESIGN DIGITAL TERRAIN MODELS, ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE, AND ARE FOR INFORMATION ONLY, IF THERE ARE ANY DISCREPANCIES BETWEEN THE HARD COPY AND THE ELECTRONIC DATA, THE ORIGINAL, SIGNED, HARDCOPY DRAWINGS WILL TAKE PRECEDENCE.
- 1.2 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER 'CONSULTANTS' DRAWINGS (IF APPLICABLE) AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 1.3 CONSTRUCTION FROM THESE DRAWINGS AND ASSOCIATED 'CONSULTANTS' DRAWINGS SHALL NOT COMMENCE UNTIL APPROVED BY LOCAL AUTHORITIES AND BY THE ENGINEER.
- 1.4 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT NZ & AUSTRALIAN STANDARDS AND WITH THE BY LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- 1.5 THE CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE PERMISSION OF THE OWNER AND SUPERINTENDENT.
- 1.6 THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES AND DEBRIS, ETC TO THE EXTENT SPECIFIED BY THE DRAWING OR OTHERWISE DIRECTED BY SUPERINTENDENT.
- 1.7 ALL SITE REGRADING AREAS SHALL BE FINALLY GRADED TO THE SATISFACTION OF THE SUPERINTENDENT.
- 1.8 SURPLUS MATERIAL SHALL BE PLACED WHERE DIRECTED OR REMOVED FROM SITE.
- 1.9 ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING SURFACES.
- 1.10 ALL AFFECTED EXISTING SURFACE FEATURES TO BE REINSTATED POST CONSTRUCTION.
- 1.11 ANY QUANTITIES GIVEN ARE FOR GUIDANCE ONLY.
- 1.12 NOTES ON SPECIFIC DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE OVER GENERAL NOTES.
- 1.13 PROTECTIVE TREATMENT PRODUCTS AND SYSTEMS SHALL ALSO FULLY COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATIONS.

2. SCOPE OF WORKS

- 2.1 THE SCOPE OF WORK IS AS INDICATED ON THE DRAWINGS AND DESCRIBED IN THE CONTRACT DOCUMENTS.
3. SURVEY AND SET-OUT
 - 3.1 THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES BETWEEN LEVELS AND TERRAIN FEATURES AT THE TIME OF CONSTRUCTION AND THOSE SHOWN ON THE DRAWINGS OR ANY SURVEY INFORMATION PROVIDED.
 - 3.2 SETOUT DATA FOR THE SURVEY STATIONS ARE PROVIDED ON THE DRAWINGS.
 - 3.3 CONTROL LINE SETOUT DATA ARE PROVIDED ON THE DRAWINGS.
 - 3.4 ANNOTATED CROSS SECTIONS ARE PROVIDED.
 - 3.5 SURVEY BASE IS COMPRISED OF DETAIL SURVEY BY LANDPARTNERS AND SOURCED LIDAR DATA.

4. UTILITY SERVICES

- 4.1 THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND PROTECT AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE AND/OR ADJUST IF NECESSARY. INFORMATION GIVEN TO THE DRAWINGS IN RESPECT TO SERVICES IS FOR GUIDANCE ONLY. IT IS NOT GUARANTEED COMPLETE NOR CORRECT.

5. EARTHWORKS

- 5.1 THE INTERFACE BETWEEN EXISTING SURFACES AND DESIGN SURFACES AS SHOWN ON THE DRAWINGS AND THE ANNOTATED CROSS SECTIONS ARE INDICATIVE ONLY. THE CONTRACTOR SHALL UNDERTAKE LOCALISED FILLING AND EXCAVATION WORKS AS REQUIRED TO PREVENT PONDING, CONCENTRATION OR CHANNELING OF STORMWATER RUNOFF AT, OR ALONG, THE INTERFACE BETWEEN THE AS CONSTRUCTED NEW SURFACE AND THE EXISTING SURFACES.
- 5.2 APPROVAL OF EMPLOYER AND LOCAL AUTHORITY MUST BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING OF VEGETATION CLEARING, REMOVAL OF RUBBISH AND DISCARDED EQUIPMENT.
- 5.3 EXCAVATE EXPOSED SOFT ALLUVIAL AND ORGANIC SOILS AND STRIP ORGANIC MATERIAL.
- 5.4 SOFT SPOTS ENCOUNTERED DURING PROOF FILLING SHALL BE REPLACED BY APPROVED COMPACTED FILL AS PER THE PROJECT SPECIFICATIONS. THE EXTENT OF THE AREA TO BE REPLACED NEEDS TO BE AGREED BY BOTH THE CONTRACTOR AND THE ENGINEER PRIOR TO COMMENCEMENT.
- 5.5 WHERE HARD ROCK IS EXPOSED IN THE EXCAVATED SUB-GRADE, THIS WILL BE INSPECTED AND A DECISION MADE ON THE LEVEL TO WHICH EXCAVATION IS TAKEN.
- 5.6 ALL FILL SHALL BE PLACED AND COMPACTED AS PER THE PROJECT SPECIFICATIONS OR AS OTHERWISE DIRECTED BY THE ENGINEER.
- 5.7 BATTERS TO BE AS SHOWN, ALL FILL BATTERS TO BE GRASSED UNLESS NOTED OTHERWISE.

Rev.	Date	Description	Des.	Verif.	Appd.
D	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
C	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
B	21/10/2019	ISSUE FOR APPROVAL	JM	LM	LM
A	17/10/2019	ISSUE FOR APPROVAL	JM	LM	LM

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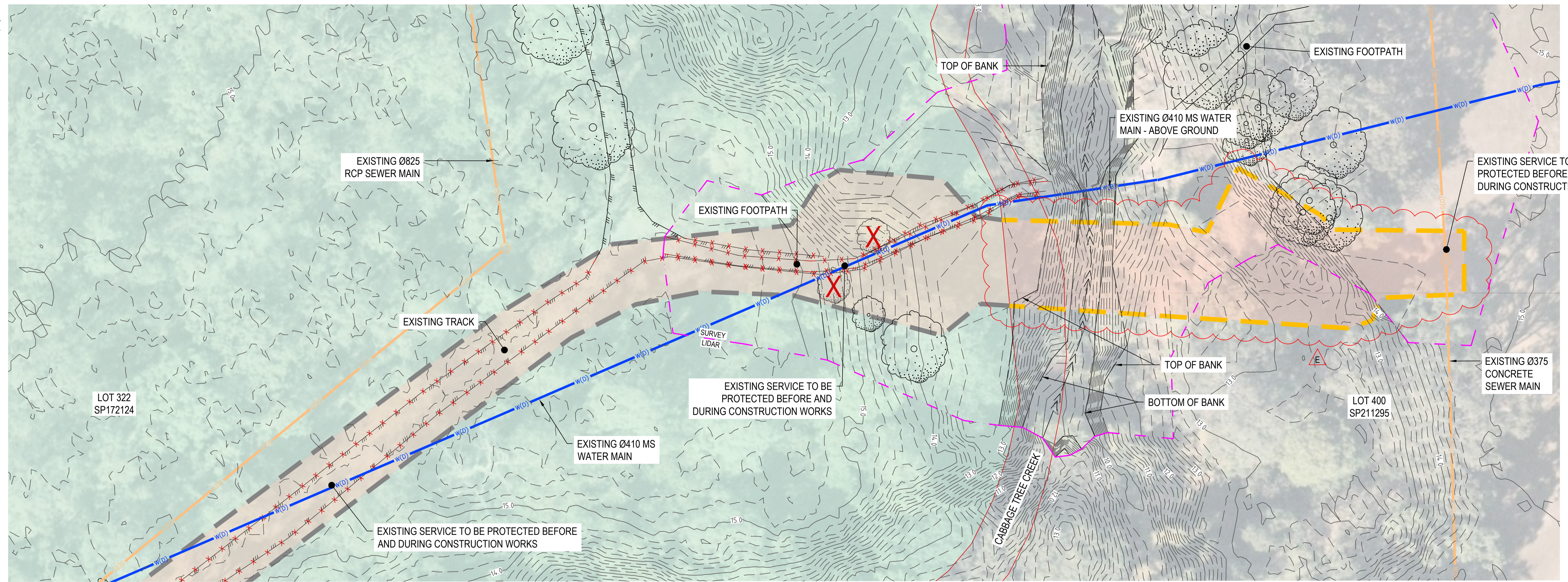
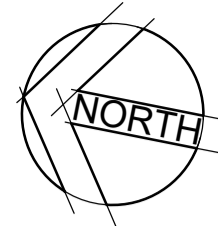


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Drawn	KA	Date	15/10/2019
Checked	DM / RS	Date	16/10/2019
Designed	JM	Date	15/10/2019
Verified	LM	Date	15/10/2019
Approved	RPEQ.	Date	17/10/2019

Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARSELDINE URBAN VILLAGE
Title	PEDESTRIAN BRIDGE DETAIL DESIGN
Drawing Number	QTMP1903-CI-1001

Status	FOR TENDER ONLY NOT TO BE USED FOR CONSTRUCTION PURPOSES				
Datum	AHD	GRID	MGA-56	Scale	N.T.S.
Size	A1		Revision	D	



JOINS DWG QTMP1903-CI-1005

EXISTING FEATURES AND DEMOLITION PLAN
SCALE 1:250

LEGEND:

- STATE PLANNING PRIORITY DEVELOPMENT AREA
- EXISTING CONTOUR - MAJOR (1.0m INTERVAL)
- EXISTING CONTOUR - MINOR (0.2m INTERVAL)
- PDA AREA BOUNDARY
- PROJECT AREA BOUNDARY - OUTSIDE OF PDA
- EXISTING TREE TO BE RETAINED
- EXISTING EDGE OF ROAD
- EXISTING CREEK CENTERLINE
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- PROPERTY BOUNDARY
- EXISTING SEWER MANHOLE
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- DEMOLITION / REMOVED
- SURVEY BORDER



NOTE:
THE SERVICES INFORMATION SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN DERIVED FROM THE FOLLOWING SOURCES:

- SURFACE LOCATIONS OF SERVICES LOCATED BY THE SURVEYOR
- PLAN DATA PROVIDED BY SERVICE AUTHORITIES

THE CONTRACTOR OR CONSTRUCTION AUTHORITY IS TO CONFIRM THE ACTUAL LOCATIONS OF ALL EXISTING UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS. THE CONTRACTOR IS TO MAKE THEM SELF AWARE OF ALL SERVICES. ANY DAMAGES WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.

SERVICE LOCATIONS
It is the responsibility of the Foreman to contact the relevant service authorities to ascertain the exact location of services prior to construction.



XREFS: XR-EXIST-SERVICES: XR-AERIAL: XR-DCDB: XR-EXIST: XR-EXIST-COAT CAD File: Y:\1903\QTMP1903 - Carlseldine Village Ped Bridge\03_CAD\01_QV\QTMP1903-CI-1004-1005.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
E	16/12/2019	CLIENT UPDATES - ISSUE FOR TENDER	JM	LM	LM
D	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
C	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
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A	17/10/2019	ISSUE FOR APPROVAL	JM	LM	LM

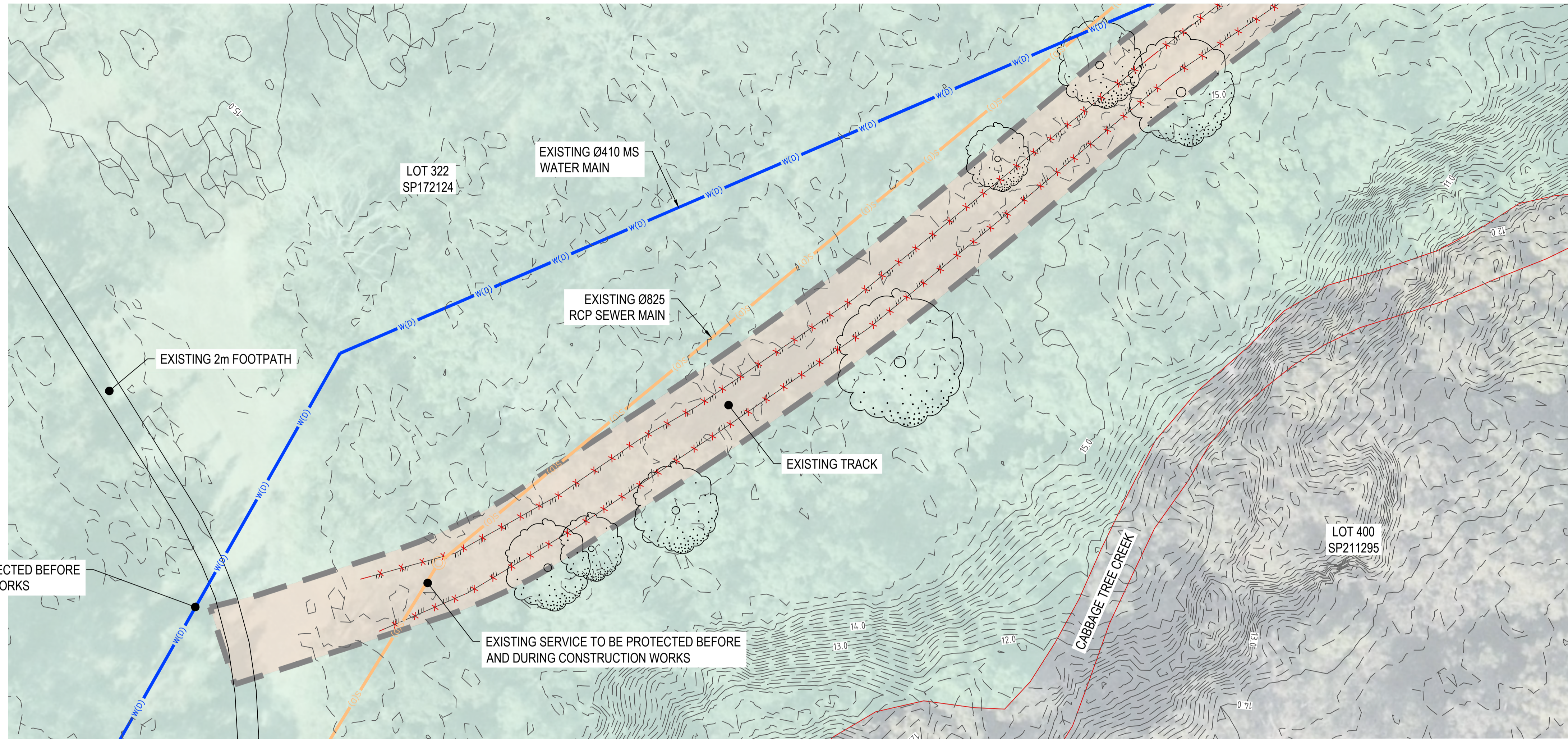
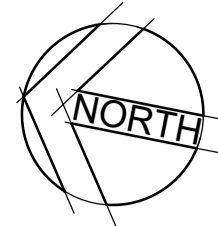
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Checked	DM / RS	Date	16/10/2019
Designed	JM	Date	15/10/2019
Verified	LM	Date	15/10/2019
Approved	RPEQ.	Date	17/10/2019

Client **ECONOMIC DEVELOPMENT QUEENSLAND**
Project **CARSELDINE URBAN VILLAGE**
Title **GENERAL EXISTING FEATURES AND DEMOLITION PLAN SHEET 1**

Status	FOR TENDER ONLY		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Datum	AHD	Scale	1:250m
Grid	MGA-56	Size	A1
Drawing Number	QTMP1903-CI-1004		
Revision	E		



EXISTING FEATURES AND DEMOLITION PLAN
SCALE 1:250

LEGEND:

- STATE PLANNING PRIORITY DEVELOPMENT AREA
- EXISTING CONTOUR - MAJOR (1.0m INTERVAL)
- EXISTING CONTOUR - MINOR (0.2m INTERVAL)
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- PROJECT AREA BOUNDARY - OUTSIDE OF PDA
- EXISTING TREE TO BE RETAINED
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Rev.	Date	Description	Des.	Verif.	Appd.
D	16/12/2019	CLIENT UPDATES - ISSUE FOR TENDER	JM	LM	LM
C	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
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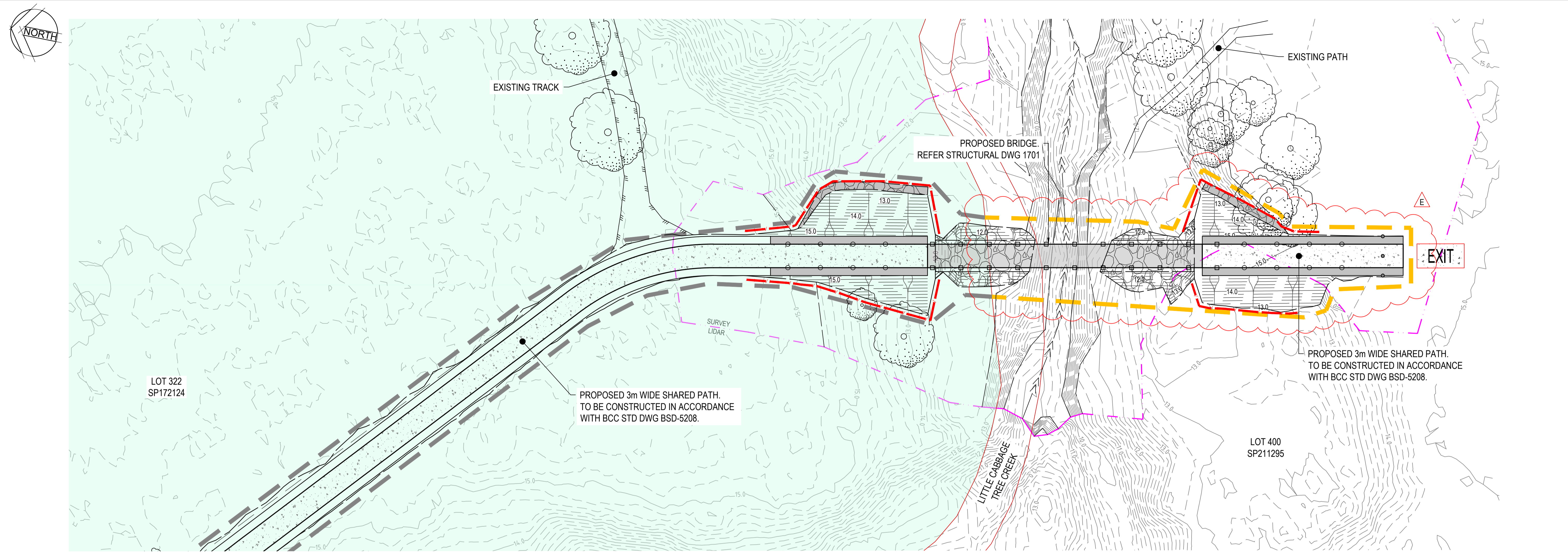
Cardno (Qld) Pty Ltd | ABN 57 051 074 992
Level 11, 515 St Paul's Terrace
Fortitude Valley, QLD 4006
Tel: 07 3369 9822 Fax: 07 3369 9722
Web: www.cardno.com.au

Drawn	KA	Date	21/10/2019
Checked	DM / RS	Date	21/10/2019
Designed	JM	Date	18/10/2019
Verified	LM	Date	21/10/2019
Approved	RPEQ.	Date	
	LM	Date	21/10/2019

Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARLSBAD URBAN VILLAGE
	PEDESTRIAN BRIDGE
	DETAIL DESIGN
Title	GENERAL
	EXISTING FEATURES AND DEMOLITION PLAN
	SHEET 2

Status	FOR TENDER ONLY		
	NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Datum	AHD	Scale	1:250m
Grid	MGA-56	Size	A1
Drawing Number	QTMP1903-CI-1005	Revision	D

DATE PLOTTED: 16 December 2019 4:50 PM BY: DAVID MCKENZIE

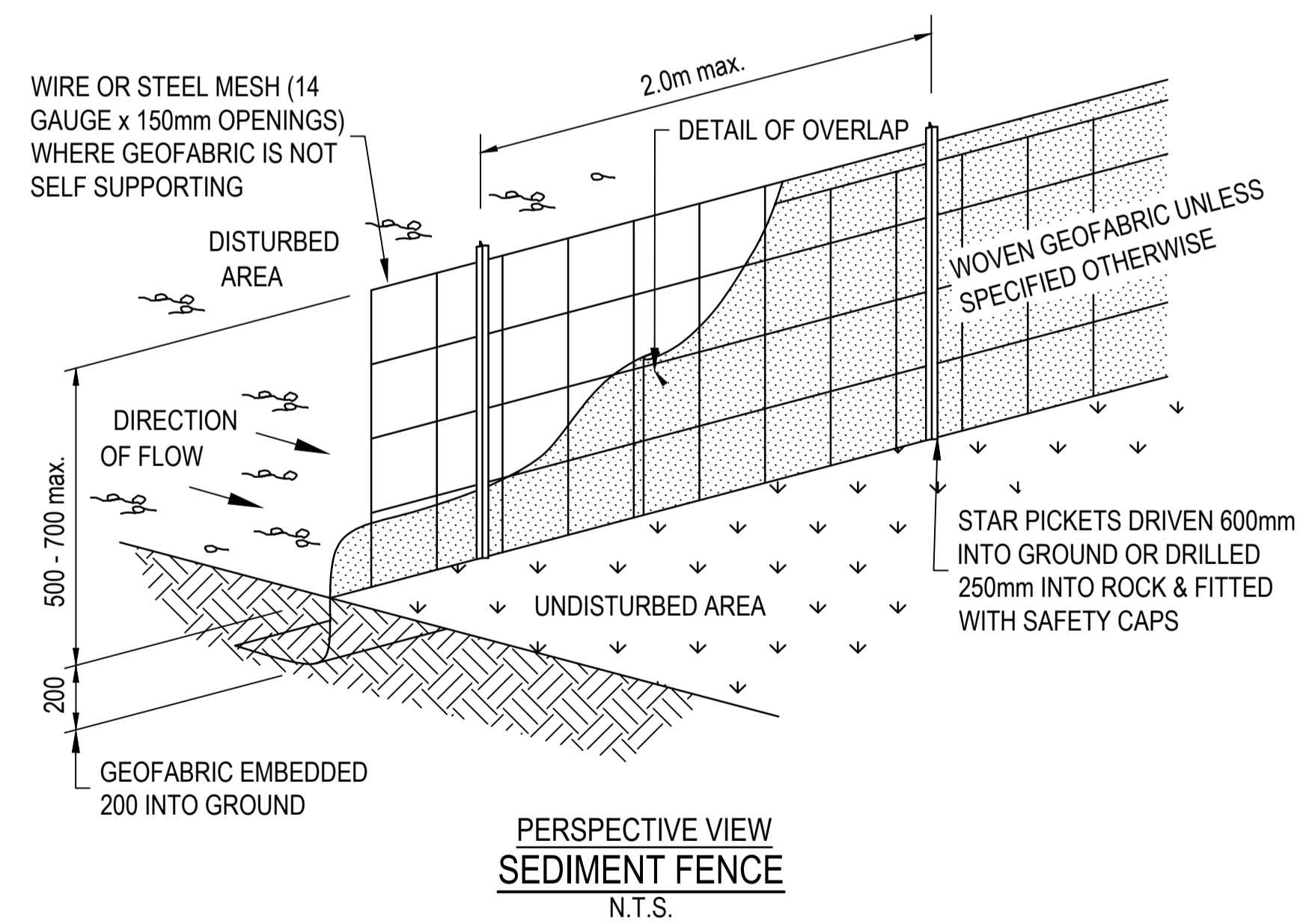


JOINS DWG QTMP1903-CI-1021

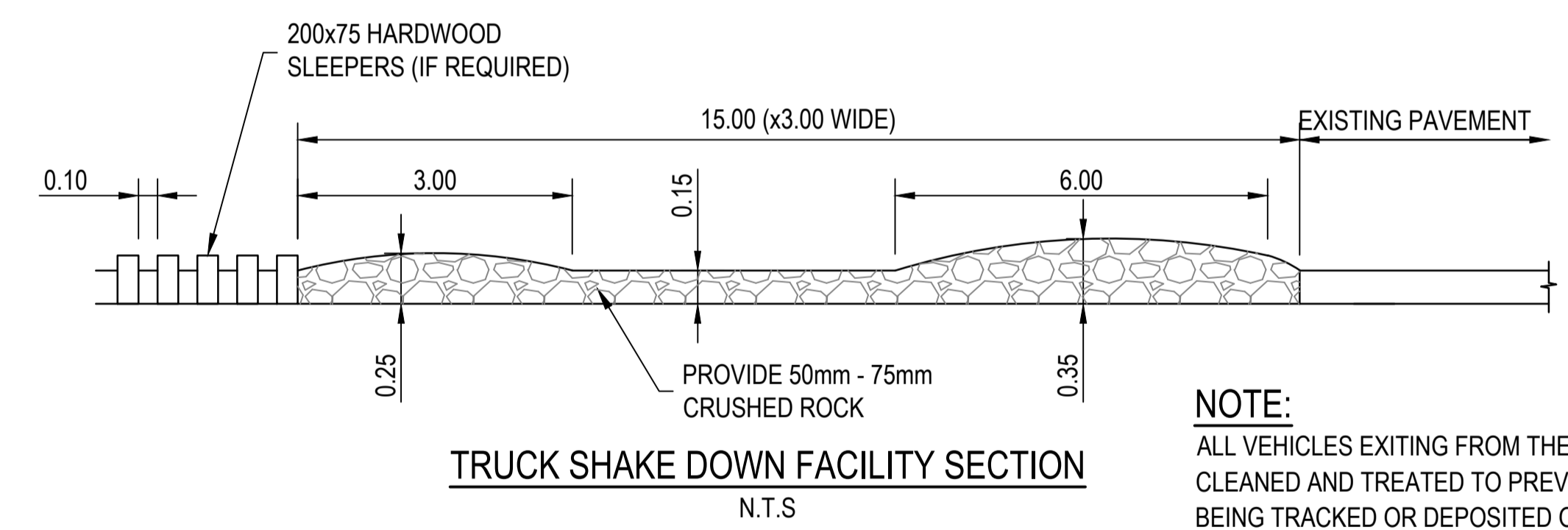
EROSION AND SEDIMENT CONTROL PLAN
SCALE 1:250

LEGEND:

- STATE PLANNING PRIORITY DEVELOPMENT AREA
- DESIGN CONTOUR - MAJOR (1.0m INTERVAL)
- DESIGN CONTOUR - MINOR (0.2m INTERVAL)
- EXISTING CONTOUR - MAJOR (1.0m INTERVAL)
- EXISTING CONTOUR - MINOR (0.2m INTERVAL)
- PDA AREA BOUNDARY
- PROJECT AREA BOUNDARY - OUTSIDE OF PDA
- SEDIMENT FENCE (REFER TO IECA DWG SF-01)
- SHAKE DOWN DEVICE (REFER TO IECA DWG EXIT-01)
- CONCRETE APPROACH SHOULDER
- ROCK DUMP FOR EROSION CONTROL
- ROCK FLUME CUTOFF TRENCH REFER DETAIL ON DWG 1121
- PROPOSED EDGE OF SHOULDER
- PROPOSED BATTER INTERFACE
- PROPOSED BATTER Ticks
- PROPOSED BRIDGE BALUSTRADE
- PROPOSED SAFETY FENCE
- EXISTING TREE TO BE RETAINED
- EXISTING CREEK CENTERLINE
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- PROPERTY BOUNDARY
- SURVEY BORDER



*SEDIMENT FENCE 'RETURNS' PROVIDED AT:
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- MAX. 5.0m TO 10.0m SPACING FOR FENCING INSTALLED DOWN THE SLOPE (DEPENDENT ON SLOPE).



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Rev.	Date	Description	Des.	Verif.	Appd.
E	16/12/2019	CLIENT UPDATES - ISSUE FOR TENDER	JM	LM	LM
D	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
C	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
B	21/10/2019	ISSUE FOR APPROVAL	JM	LM	LM
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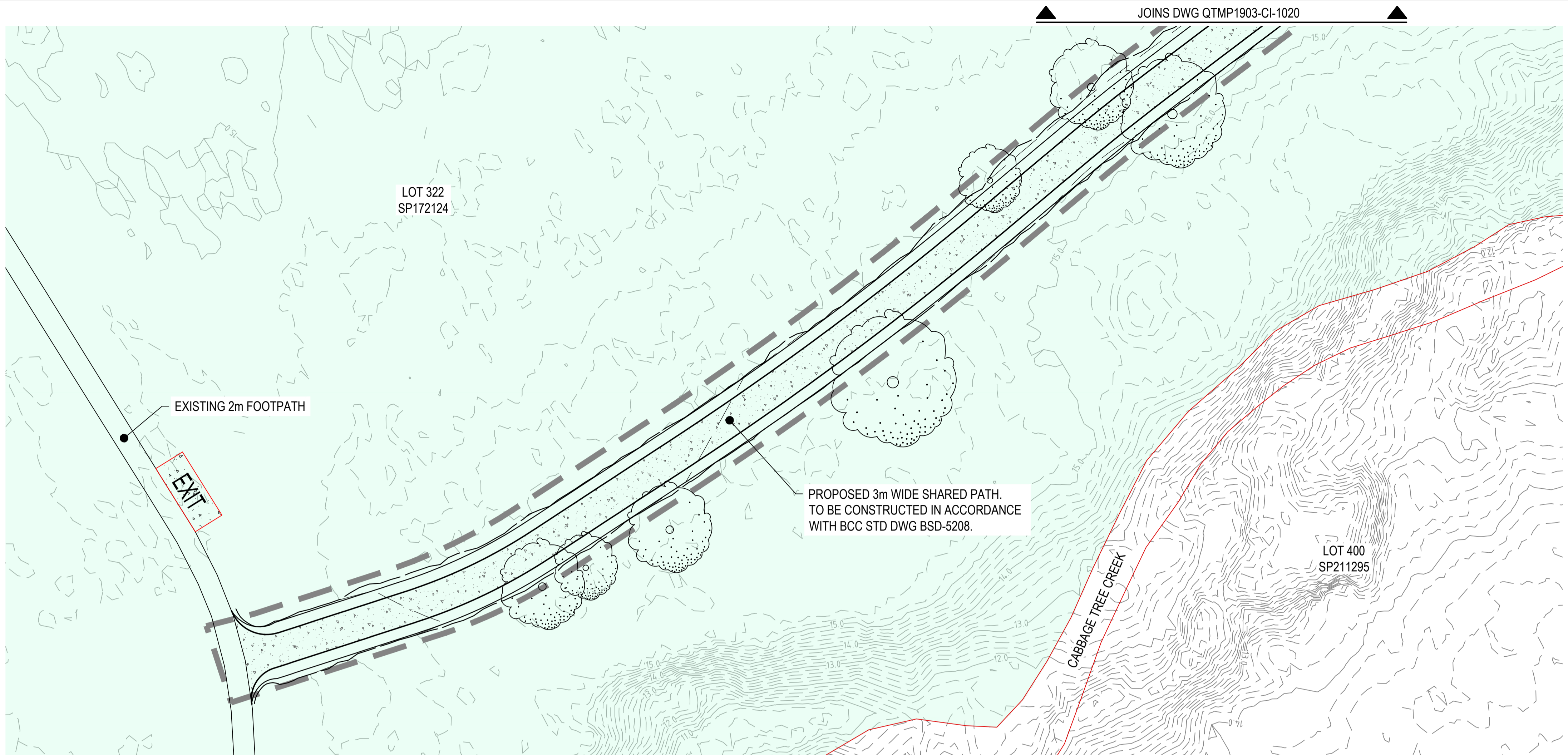
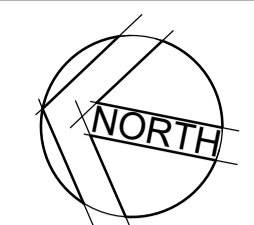
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Designed	JM	Date	15/10/2019
Verified	LM	Date	15/10/2019
Approved	RPEQ.	Date	17/10/2019

Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARSELDINE URBAN VILLAGE
	PEDESTRIAN BRIDGE
	DETAIL DESIGN
Title	EARTHWORKS
	EROSION AND SEDIMENT CONTROL PLAN
	AND TYPICAL DETAILS - SHEET 1

Status	FOR TENDER ONLY				
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Datum	AHD	GRID	MGA-56	Scale	AS SHOWN
Size				A1	
Drawing Number	QTMP1903-CI-1020			Revision	E

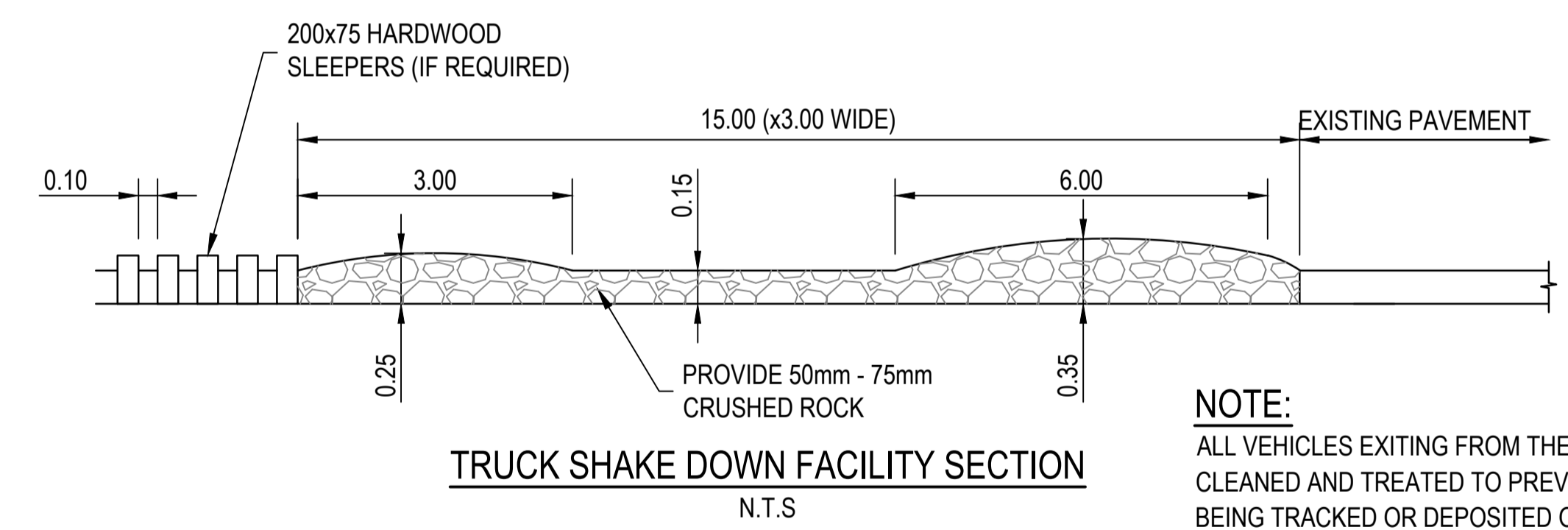
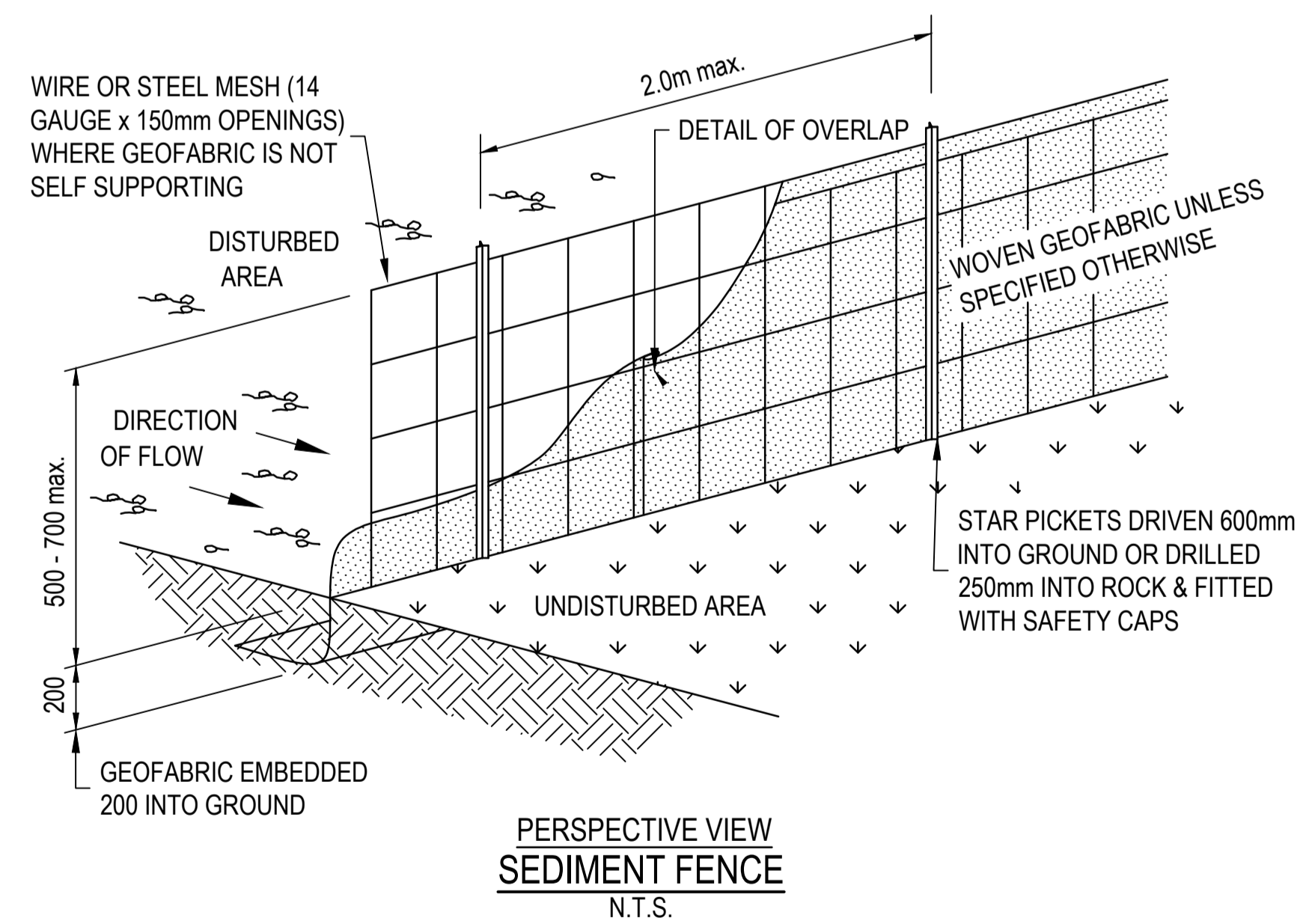
DATE PLOTTED: 16 December 2019 4:50 PM BY: DAVID MCKENZIE



EROSION AND SEDIMENT CONTROL PLAN
SCALE 1:250

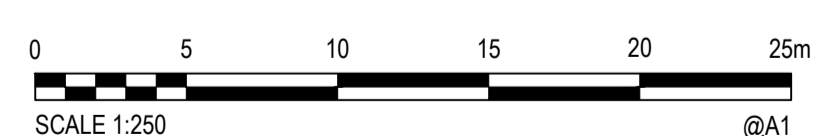
LEGEND:

- STATE PLANNING PRIORITY DEVELOPMENT AREA
- DESIGN CONTOUR - MAJOR (1.0m INTERVAL)
- DESIGN CONTOUR - MINOR (0.2m INTERVAL)
- EXISTING CONTOUR - MAJOR (1.0m INTERVAL)
- EXISTING CONTOUR - MINOR (0.2m INTERVAL)
- PDA AREA BOUNDARY
- PROJECT AREA BOUNDARY - OUTSIDE OF PDA
- SEDIMENT FENCE (REFER TO IECA DWG SF-01)
- SHAKE DOWN DEVICE (REFER TO IECA DWG EXIT-01)
- CONCRETE APPROACH SHOULDER
- ROCK DUMP FOR EROSION CONTROL
- ROCK FLUME CUTOFF TRENCH REFER DETAIL ON DWG 1121
- PROPOSED EDGE OF SHOULDER
- PROPOSED BATTER INTERFACE
- PROPOSED BATTER TICKS
- PROPOSED BRIDGE BALUSTRADE
- PROPOSED SAFETY FENCE
- EXISTING TREE TO BE RETAINED
- EXISTING CREEK CENTERLINE
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- PROPERTY BOUNDARY
- SURVEY BORDER



NOTE:
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D	16/12/2019	CLIENT UPDATES - ISSUE FOR TENDER	JM	LM	LM
C	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
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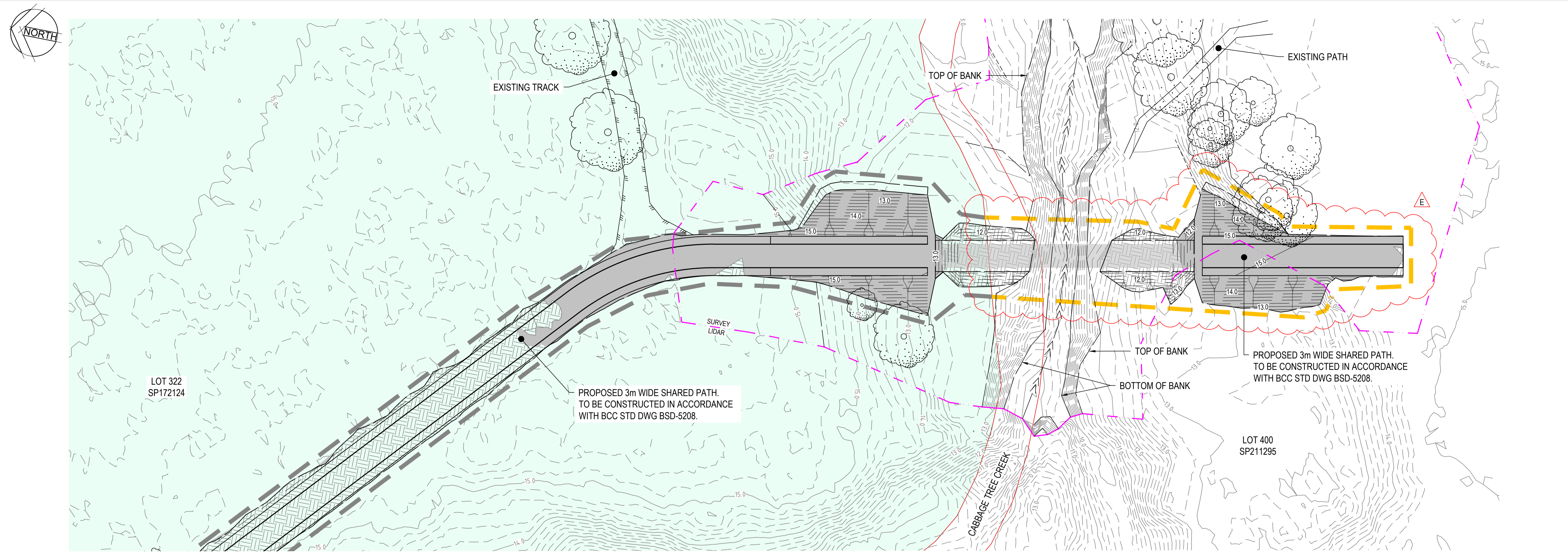
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Verified	LM	Date	21/10/2019
Approved	RPEQ.	Date	21/10/2019

Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARSLDINE URBAN VILLAGE
	PEDESTRIAN BRIDGE
	DETAIL DESIGN
Title	EARTHWORKS
	EROSION AND SEDIMENT CONTROL PLAN
	AND TYPICAL DETAILS - SHEET 2

Status	FOR TENDER ONLY			
	NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Datum	AHD	GRID	MGA-56	Scale
			AS SHOWN	Size
Drawing Number	QTMP1903-CI-1021			Revision
				D

DATE PLOTTED: 16 December 2019 4:30 PM BY: DAVID MCKENZIE



JOINS DWG QTMP1903-CI-1051

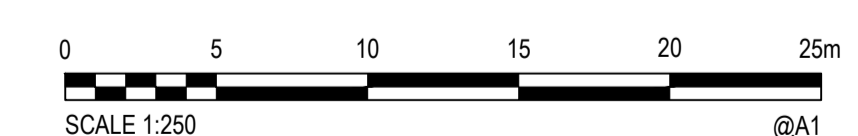
CUT FILL PLAN
SCALE 1:250

LEGEND:

- STATE PLANNING PRIORITY DEVELOPMENT AREA
- 15.0 DESIGN CONTOUR - MAJOR (1.0m INTERVAL)
- DESIGN CONTOUR - MINOR (0.2m INTERVAL)
- 12.0 EXISTING CONTOUR - MAJOR (1.0m INTERVAL)
- EXISTING CONTOUR - MINOR (0.2m INTERVAL)
- PDA AREA BOUNDARY
- PROJECT AREA BOUNDARY - OUTSIDE OF PDA
- EARTHWORKS - CUT
- EARTHWORKS - FILL
- EXISTING TREE TO BE RETAINED
- EXISTING CREEK CENTERLINE
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- PROPERTY BOUNDARY

BULK EARTHWORKS VOLUMES- TOTAL	
DATE: 16th OCTOBER 2019	
CUT VOLUMES ARE NEGATIVE FILL VOLUMES ARE POSITIVE	
TOTAL CUT	-149.2m ³
TOTAL FILL	566.8m ³
TOTAL BALANCE	-417.6m ³
IE EXCESS OF CUT OVER FILL	417.6m ³

NOTE:
 1. NO ALLOWANCES HAVE BEEN MADE FOR STRIPPING OR RE-SPREAD OF TOPSOIL.
 2. INDICATED EARTHWORKS VOLUMES ARE NETT AND EXCLUDE BULKING / COMPACTION FACTORS.
 3. EXCESS CUT MATERIAL TO BE REMOVED FROM SITE EXCLUDING AN ALLOWANCE FOR TOPSOIL.



XREFS: XR-DSGN: XR-CUT FILL: XR-DCDB: XR-DSGN-COMT: XR-EXIST-COMT-TRIM: XR-EXIST-CAD: File: Y:\1190\QTMP1903 - Carlseldine Village Ped Bridge\03_CAD\01_CIV\QTMP1903-CI-1050-1051.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
E	16/12/2019	CLIENT UPDATES - ISSUE FOR TENDER	JM	LM	LM
D	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
C	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
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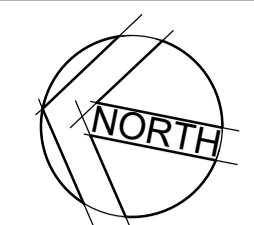
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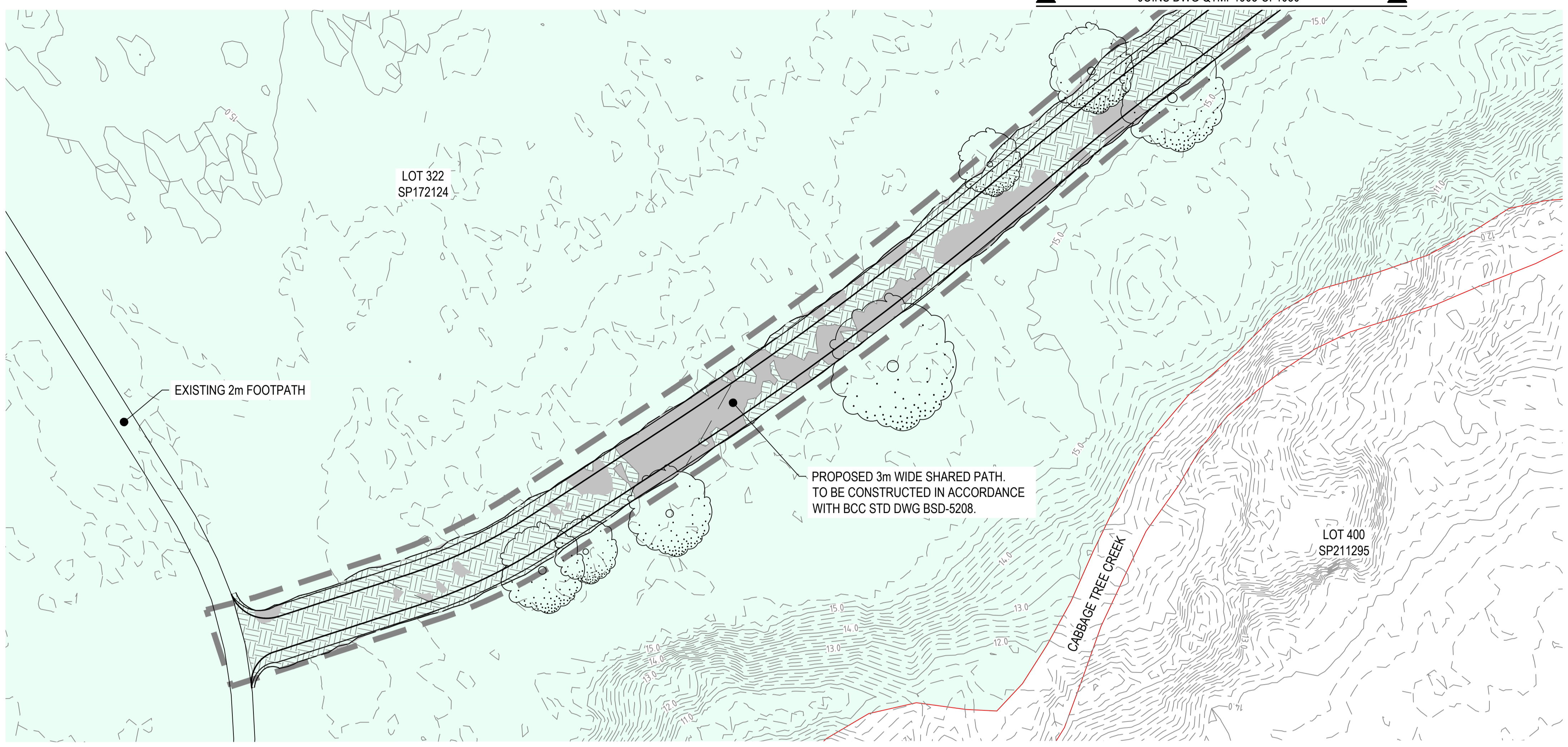
Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARLSELDINE URBAN VILLAGE
	PEDESTRIAN BRIDGE
	DETAIL DESIGN
Title	EARTHWORKS
	CUT FILL PLAN
	SHEET 1

Status	FOR TENDER ONLY		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Datum	AHD	Scale	1:250m
Grid	MGA-56	Size	A1
Drawing Number	QTMP1903-CI-1050		
Revision	E		

DATE PLOTTED: 16 December 2019 4:30 PM BY: DAVID MCKENZIE



JOINS DWG QTMP1903-CI-1050



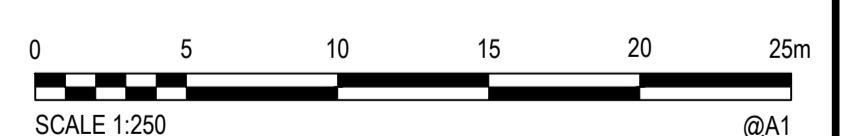
CUT FILL PLAN
SCALE 1:250

LEGEND:

- STATE PLANNING PRIORITY DEVELOPMENT AREA
- 15.0 DESIGN CONTOUR - MAJOR (1.0m INTERVAL)
- DESIGN CONTOUR - MINOR (0.2m INTERVAL)
- 12.0 EXISTING CONTOUR - MAJOR (1.0m INTERVAL)
- EXISTING CONTOUR - MINOR (0.2m INTERVAL)
- PDA AREA BOUNDARY
- PROJECT AREA BOUNDARY - OUTSIDE OF PDA
- EARTHWORKS - CUT
- EARTHWORKS - FILL
- EXISTING TREE TO BE RETAINED
- EXISTING CREEK CENTERLINE
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- PROPERTY BOUNDARY

BULK EARTHWORKS VOLUMES- TOTAL	
DATE: 16th OCTOBER 2019	
CUT VOLUMES ARE NEGATIVE FILL VOLUMES ARE POSITIVE	
TOTAL CUT	-149.2m ³
TOTAL FILL	566.8m ³
TOTAL BALANCE	-417.6m ³
IE EXCESS OF CUT OVER FILL	417.6m ³

NOTE:
 1. NO ALLOWANCES HAVE BEEN MADE FOR STRIPPING OR RE-SPREAD OF TOPSOIL.
 2. INDICATED EARTHWORKS VOLUMES ARE NETT AND EXCLUDE BULKING / COMPACTION FACTORS.
 3. EXCESS CUT MATERIAL TO BE REMOVED FROM SITE EXCLUDING AN ALLOWANCE FOR TOPSOIL.



XREFS: XR-DSGN: XR-CUT FILL: XR-DCDB: XR-DSGN-COMT: XR-EXIST-COMT-TRIM: XR-EXIST-CAD: File: Y:\4190\QTMP1903 - Carlseldine Village Ped Bridge\03_CAD\01_CIV\QTMP1903-CI-1050-1051.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
D	16/12/2019	CLIENT UPDATES - ISSUE FOR TENDER	JM	LM	LM
C	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
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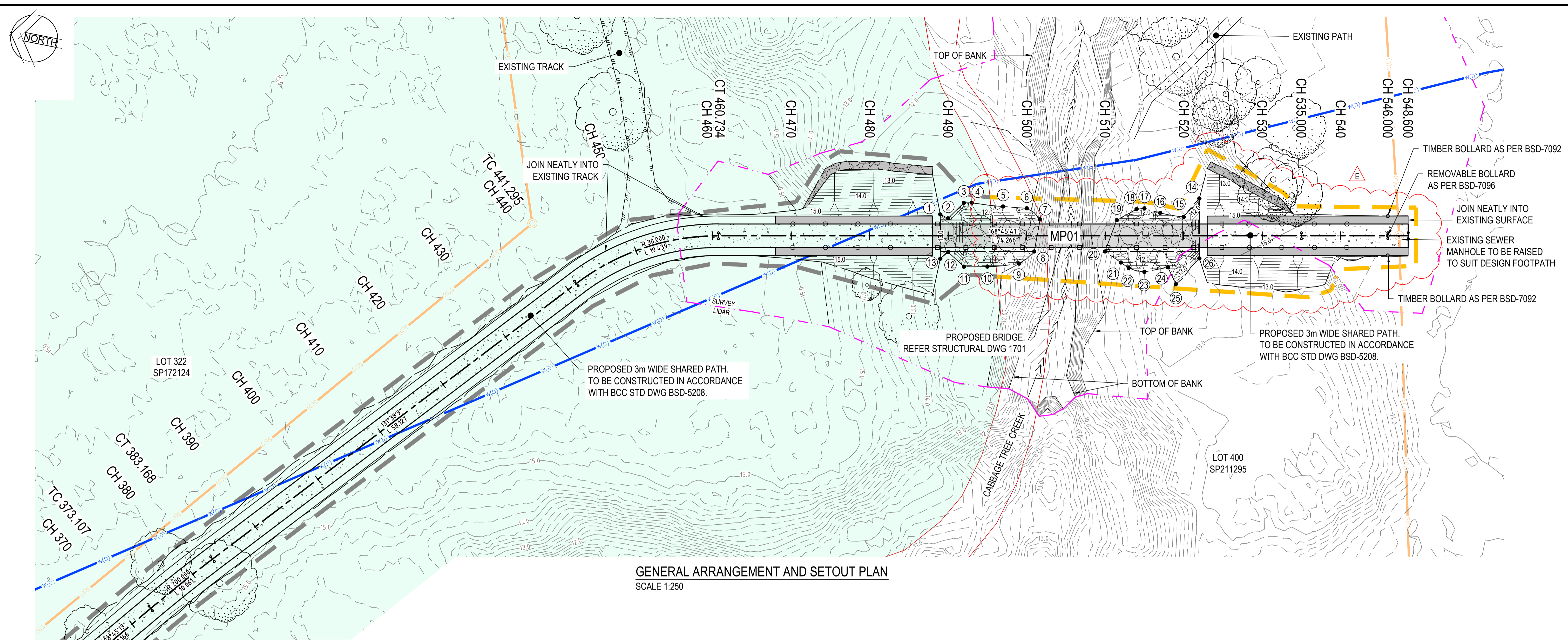
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Approved	RPEQ.	Date	21/10/2019

Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARSELDINE URBAN VILLAGE
PEDESTRIAN BRIDGE DETAIL DESIGN	
Title	EARTHWORKS CUT FILL PLAN SHEET 2

Status	FOR TENDER ONLY				
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Datum	AHD	GRID	MGA-56	Scale	1:250m
Drawing Number	QTMP1903-CI-1051			Size	A1
Revision	D				

DATE PLOTTED: 16 December 2019 4:29 PM BY: DAVID MCKENZIE



GENERAL ARRANGEMENT AND SETOUT PLAN
SCALE 1:250

JOINS DWG QTMP1903-CI-1111

LEGEND:

	STATE PLANNING PRIORITY DEVELOPMENT AREA		PROPOSED SAFETY FENCE
	DESIGN CONTOUR - MAJOR (1.0m INTERVAL)		ROCK DUMP FOR EROSION CONTROL
	DESIGN CONTOUR - MINOR (0.2m INTERVAL)		ROCK FLUME CUTOFF TRENCH REFER DETAIL ON DWG 1121
	EXISTING CONTOUR - MAJOR (1.0m INTERVAL)		SETOUT POINT
	EXISTING CONTOUR - MINOR (0.2m INTERVAL)		EXISTING TREE TO BE RETAINED
	PDA AREA BOUNDARY		EXISTING CREEK CENTERLINE
	PROJECT AREA BOUNDARY - OUTSIDE OF PDA		EXISTING TOP OF BANK
	PROPOSED ALIGNMENT		EXISTING BOTTOM OF BANK
	PROPOSED CONCRETE PAVEMENT		PROPERTY BOUNDARY
	CONCRETE APPROACH SHOULDER		EXISTING SEWER MANHOLE
	PROPOSED EDGE OF SHOULDER		EXISTING SEWER LINE
	PROPOSED BATTER INTERFACE		EXISTING WATER LINE
	PROPOSED BATTER TADPOLES		SURVEY BORDER
	PROPOSED BRIDGE BALLUSTRADE		

MP01 HORIZONTAL SETOUT							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	281.902	502457.407	6974534.824	150°48'05.87"			
TC	298.014	502465.266	6974520.759	150°48'05.87"			
IP 2	304.661	502468.528	6974514.922		R = -50.000	13.294	15°14'02.88"
CT	311.308	502473.209	6974510.148	135°34'02.99"			
TC	326.264	502483.679	6974499.468	135°34'02.99"			
IP 3	344.103	502496.182	6974486.715		R = -300.000	35.678	6°48'50.11"
CT	361.941	502510.110	6974475.535	128°45'12.88"			
TC	373.107	502518.818	6974468.546	128°45'12.88"			
IP 4	378.138	502522.742	6974465.396		R = 200.000	10.061	2°52'56.23"
CT	383.168	502526.502	6974462.053	131°38'09.11"			
IP 5	441.295	502569.946	6974423.434		R = 30.000	19.439	37°07'32.31"
IP 6	451.015	502577.475	6974416.740				
IP 7	460.734	502579.438	6974406.859				
IP 8	548.600	502596.563	6974320.678	168°45'41.42"			

SETOUT POINTS				
PT No.	EASTING	NORTHING	RL.	DESCRIPTION
1	502587.615	6974379.666	12.661	ROCK DUMP
2	502587.321	6974378.588	12.632	ROCK DUMP
3	502589.652	6974377.012	12.621	ROCK DUMP
4	502589.846	6974376.031	12.600	ROCK DUMP
5	502590.159	6974372.015	12.362	ROCK DUMP
6	502590.522	6974369.028	12.249	ROCK DUMP
7	502589.482	6974367.087	11.450	ROCK DUMP
8	502585.315	6974367.006	11.502	ROCK DUMP
9	502583.419	6974368.636	12.273	ROCK DUMP
10	502582.271	6974372.487	12.460	ROCK DUMP
11	502581.672	6974375.426	12.489	ROCK DUMP
12	502583.111	6974377.751	12.556	ROCK DUMP
13	502582.086	6974378.567	12.563	ROCK DUMP

SETOUT POINTS				
PT No.	EASTING	NORTHING	RL.	DESCRIPTION
14	502596.033	6974347.693	11.478	ROCK DUMP
15	502593.344	6974349.198	11.650	ROCK DUMP
16	502593.257	6974352.239	11.954	ROCK DUMP
17	502593.434	6974354.314	12.243	ROCK DUMP
18	502593.138	6974355.274	12.192	ROCK DUMP
19	502591.290	6974357.477	11.500	ROCK DUMP
20	502587.073	6974358.176	11.500	ROCK DUMP
21	502586.086	6974355.912	12.204	ROCK DUMP
22	502585.600	6974354.796	12.552	ROCK DUMP
23	502585.506	6974352.738	12.798	ROCK DUMP
24	502586.659	6974349.909	12.509	ROCK DUMP
25	502584.741	6974348.508	13.586	ROCK DUMP
26	502588.554	6974346.207	13.291	ROCK DUMP



XREFS: XR-DSGN: XR-DSGN-CONT: XR-EXIST: XR-EXIST-CONT: TRIM: XR-DSGN-CL: XR-EXIST-SERVICES
CAD File: Y:\4190\QTMP1903 - Carlseldine Village Ped Bridge\03_CAD\01_CIV\QTMP1903-CI-110-1111.dwg

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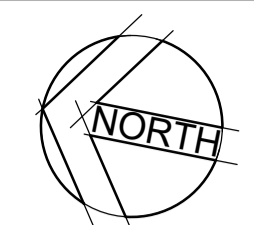
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Level 11, 515 St Paul's Terrace
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Drawn	KA	Date	15/10/2019
Checked	DM / RS	Date	16/10/2019
Designed	JM	Date	15/10/2019
Verified	LM	Date	15/10/2019
Approved	RPEQ.	Date	17/10/2019

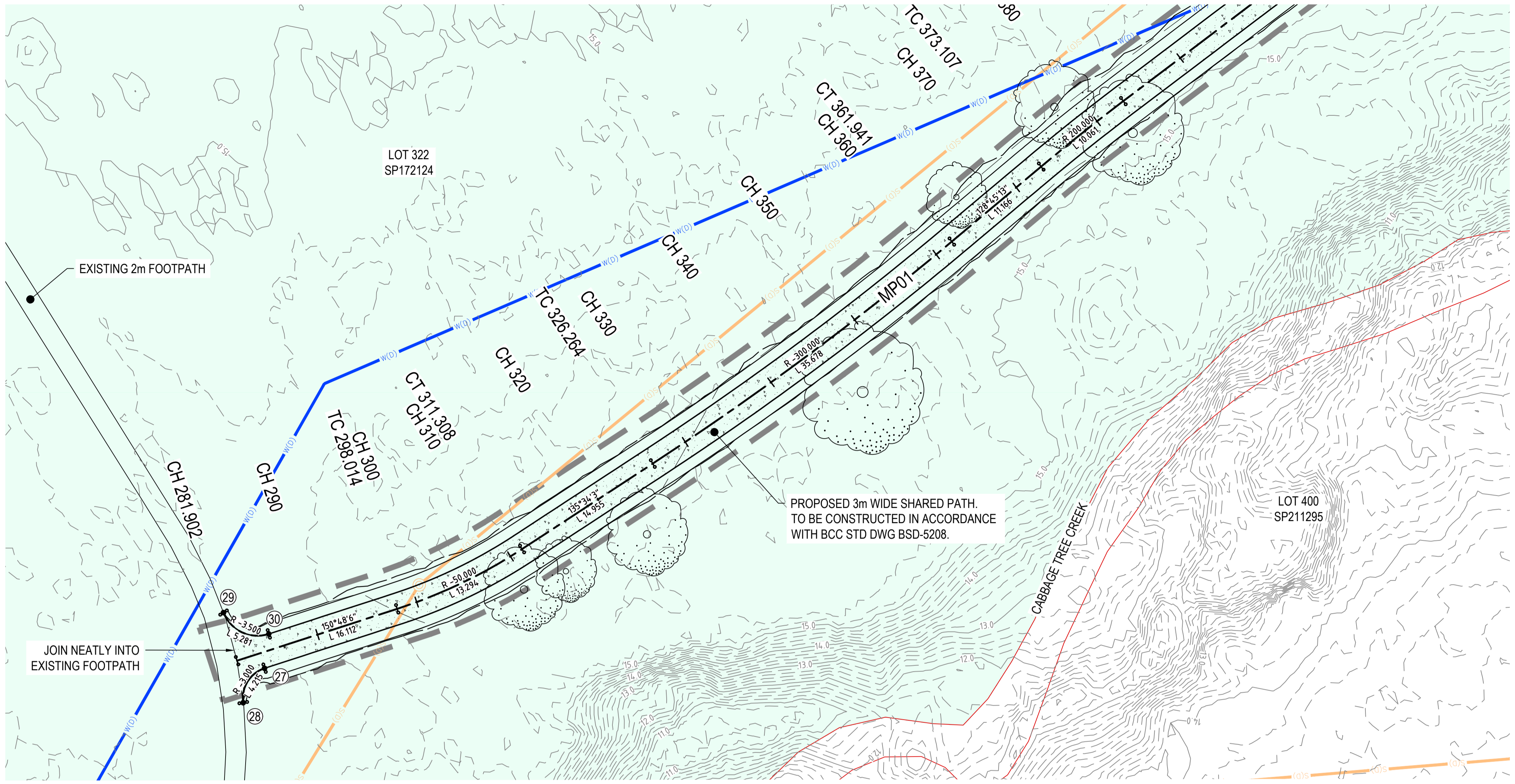
Client **ECONOMIC DEVELOPMENT QUEENSLAND**
Project **CARLSELDINE URBAN VILLAGE**
PEDESTRIAN BRIDGE
DETAIL DESIGN
Title **ROADWORKS**
GENERAL ARRANGEMENT AND SETOUT PLAN
SHEET 1

Status	FOR TENDER ONLY				
Datum	AHD	GRID	MGA-56	Scale	1:250m
Size				A1	
Drawing Number	QTMP1903-CI-1110			Revision	E

DATE PLOTTED: 16 December 2019 4:29 PM BY: DAVID MCKENZIE



JOINS DWG QTMP1903-CI-1110



GENERAL ARRANGEMENT AND SETOUT PLAN
SCALE 1:250

LEGEND:

- | | |
|--|---|
| STATE PLANNING PRIORITY DEVELOPMENT AREA | PROPOSED SAFETY FENCE |
| DESIGN CONTOUR - MAJOR (1.0m INTERVAL) | ROCK DUMP FOR EROSION CONTROL |
| DESIGN CONTOUR - MINOR (0.2m INTERVAL) | ROCK FLUME CUTOFF TRENCH REFER DETAIL ON DWG 1121 |
| EXISTING CONTOUR - MAJOR (1.0m INTERVAL) | SETOUT POINT |
| EXISTING CONTOUR - MINOR (0.2m INTERVAL) | EXISTING TREE TO BE RETAINED |
| EXISTING CONTOUR - MINOR (0.2m INTERVAL) | EXISTING CREEK CENTERLINE |
| PDA AREA BOUNDARY | EXISTING TOP OF BANK |
| PROJECT AREA BOUNDARY - OUTSIDE OF PDA | EXISTING BOTTOM OF BANK |
| PROPOSED ALIGNMENT | PROPERTY BOUNDARY |
| PROPOSED CONCRETE PAVEMENT | EXISTING SEWER MANHOLE |
| CONCRETE APPROACH SHOULDER | EXISTING SEWER LINE |
| PROPOSED EDGE OF SHOULDER | EXISTING WATER LINE |
| PROPOSED BATTER INTERFACE | SURVEY BORDER |
| PROPOSED BATTER TADPOLES | |
| PROPOSED BRIDGE BALUSTRADE | |

MP01 HORIZONTAL SETOUT

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	281.902	502457.407	6974534.824	150°48'05.87"			
TC	298.014	502465.266	6974520.759	150°48'05.87"			
IP 2	304.661	502468.528	6974514.922		R = -50.000	13.294	15°14'02.88"
CT	311.308	502473.209	6974510.148	135°34'02.99"			
TC	326.264	502483.679	6974499.468	135°34'02.99"			
IP 3	344.103	502496.182	6974486.715		R = -300.000	35.678	6°48'50.11"
CT	361.941	502510.110	6974475.535	128°45'12.88"			
TC	373.107	502518.818	6974468.546	128°45'12.88"			
IP 4	378.138	502522.742	6974465.396		R = 200.000	10.061	2°52'56.23"
CT	383.168	502526.502	6974462.053	131°38'09.11"			
IP 5	441.295	502569.946	6974423.434		R = 30.000	19.439	37°07'32.31"
IP 6	451.015	502577.475	6974416.740				
IP 7	460.734	502579.438	6974406.859				
IP 8	548.600	502596.563	6974320.678	168°45'41.42"			

SETOUT POINTS

PT No.	EASTING	NORTHING	RL	DESCRIPTION
27	502457.209	6974532.102	15.230	PATH SPLAY
28	502453.580	6974533.463	15.240	PATH SPLAY
29	502461.674	6974536.993	15.119	PATH SPLAY
30	502460.512	6974532.342	15.276	PATH SPLAY



XREFS: XR-DSGN: XR-DSGN-CONT: XR-EXIST: XR-EXIST-CONT: TRM: XR-DSGN-CL: XR-EXIST-SERVICES
CAD File: Y:\4190\QTMP1903 - Carlseldine Village Ped Bridge\03_CAD\01_CIV\QTMP1903-CI-1110-1111.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
D	16/12/2019	CLIENT UPDATES - ISSUE FOR TENDER	JM	LM	LM
C	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
B	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
A	21/10/2019	ISSUE FOR APPROVAL	JM	LM	LM

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Designed	JM	Date	18/10/2019
Verified	LM	Date	21/10/2019
Approved	RPEQ.	Date	21/10/2019
LM		Date	21/10/2019

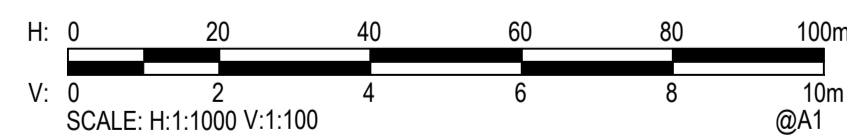
Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARSELDINE URBAN VILLAGE
	PEDESTRIAN BRIDGE
	DETAIL DESIGN
Title	ROADWORKS
	GENERAL ARRANGEMENT AND SETOUT PLAN
	SHEET 2

Status	FOR TENDER ONLY		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Datum	AHD	Scale	1:250m
Grid	MGA-56	Size	A1
Drawing Number	QTMP1903-CI-1111	Revision	D

VERT. CURVE LENGTH (m)
VERT. CURVE RADIUS (m)
VERT. GEOMETRY GRADE (%)
VERT. GEOMETRY LENGTH(m)
HORZ. CURVE LENGTH (m)
HORZ. CURVE RADIUS (m)
DATUM RL 0.000

LHS DESIGN LEVELS EDGE OF FOOTPATH	RHS DESIGN LEVELS EDGE OF FOOTPATH	EXISTING SURFACE LEVELS ROAD CENTRELINE	CUT / FILL DEPTH TO EXISTING SURFACE	DESIGN LEVELS ROAD CENTRELINE	CONTROL LINE CHAINAGE FOOTPATH CENTRELINE
15.217	15.217	15.268	-0.051	15.217	281.902
15.403	15.388	15.424	-0.020	15.403	298.014
15.421	15.406	15.445	-0.023	15.421	300.000
15.462	15.437	15.503	-0.021	15.462	311.308
15.454	15.439	15.459	-0.005	15.454	320.000
15.422	15.407	15.359	0.064	15.422	326.284
15.353	15.338	15.364	-0.012	15.353	340.000
15.251	15.236	15.250	0.001	15.251	360.000
15.243	15.228	15.240	0.003	15.243	361.941
15.221	15.206	15.315	-0.085	15.221	373.107
15.221	15.206	15.312	-0.092	15.221	373.536
15.228	15.213	15.336	-0.108	15.228	380.000
15.235	15.220	15.309	-0.075	15.235	383.168
15.271	15.256	15.346	-0.075	15.271	400.000
15.314	15.299	15.419	-0.105	15.314	420.000
15.357	15.342	15.326	0.031	15.357	440.000
15.360	15.345	15.252	0.108	15.360	441.295
15.357	15.342	15.297	0.060	15.357	460.000
15.355	15.340	15.303	0.052	15.355	460.734
15.261	15.246	13.762	1.499	15.261	480.000
15.161	12.232	12.232	2.929	15.161	500.000
15.061	11.970	11.970	3.091	15.061	520.000
14.986	14.374	14.374	0.612	14.986	535.000
14.961	14.796	14.796	0.165	14.961	540.000
14.918	14.918	14.918	0.000	14.918	548.600

MP01 LONGITUDINAL SECTION
SCALE: HORIZONTAL - 1:1000
VERTICAL - 1:100

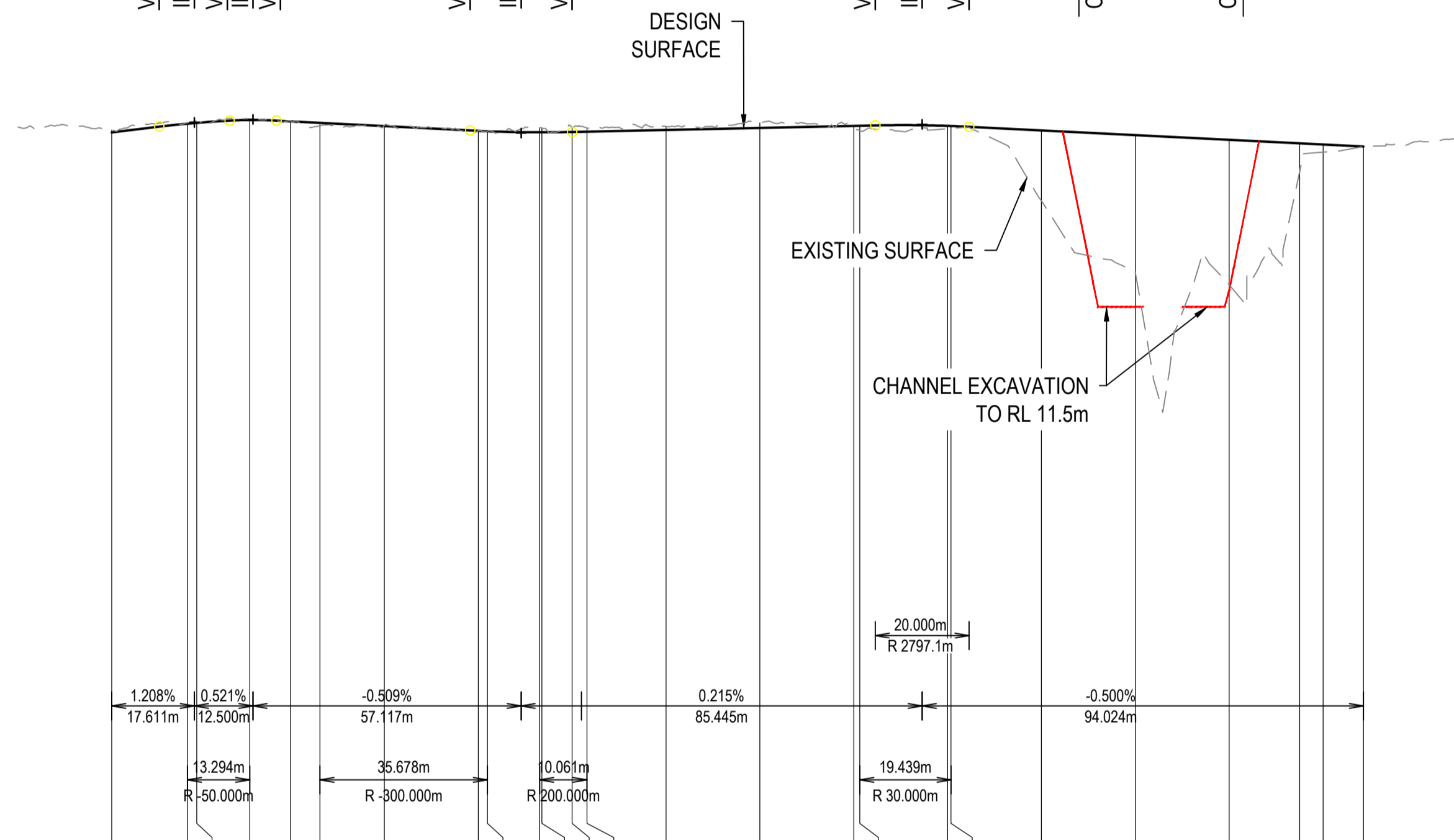


VTP CH 292.014 RL 15.339
IP CH 299.514 RL 15.430
VTP CH 307.014 RL 15.469
HIGH POINT
IP CH 312.014 RL 15.495
CH 312.075 RL 15.482
VTP CH 317.014 RL 15.470

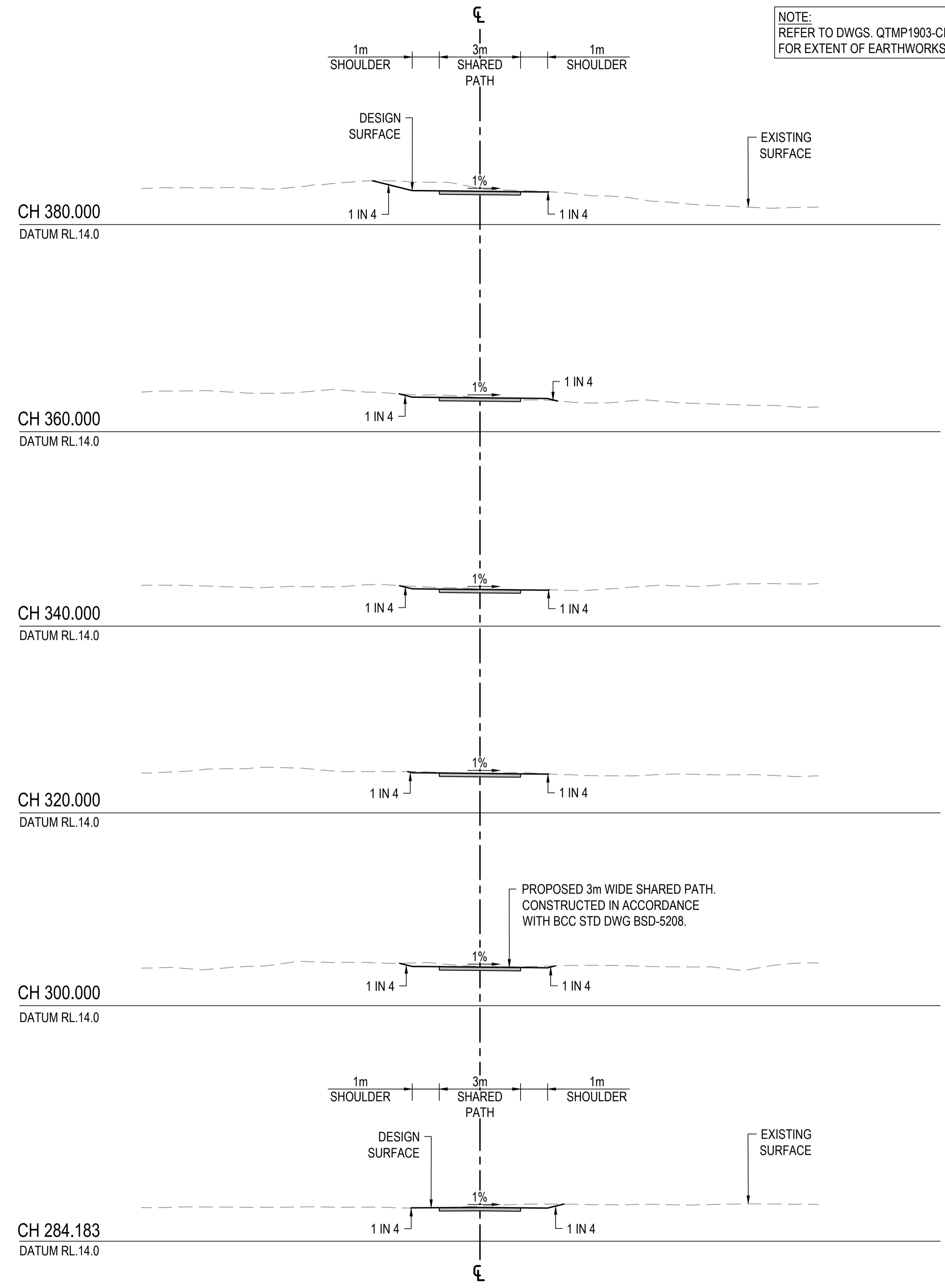
VTP CH 358.275 RL 15.260
IP CH 369.131 RL 15.204
VTP CH 379.987 RL 15.228
LOW POINT
CH 373.536 RL 15.221

VTP CH 444.576 RL 15.367
IP CH 454.576 RL 15.388
VTP CH 464.576 RL 15.338
HIGH POINT
CH 450.591 RL 15.373

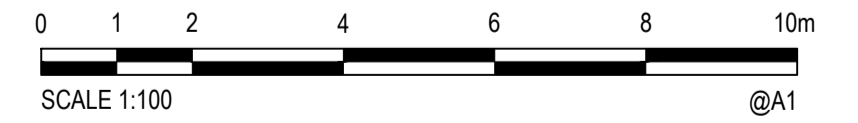
35m BRIDGE
CH 488.0
CH 623.0



NOTE:
REFER TO DWGS. QTMP1903-CI-1050-1051
FOR EXTENT OF EARTHWORKS.



MP01 CROSS SECTIONS
SCALE: 1:100



Rev.	Date	Description	Des.	Verif.	Appd.
C	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
B	21/10/2019	ISSUE FOR APPROVAL	JM	LM	LM
A	17/10/2019	ISSUE FOR APPROVAL	JM	LM	LM

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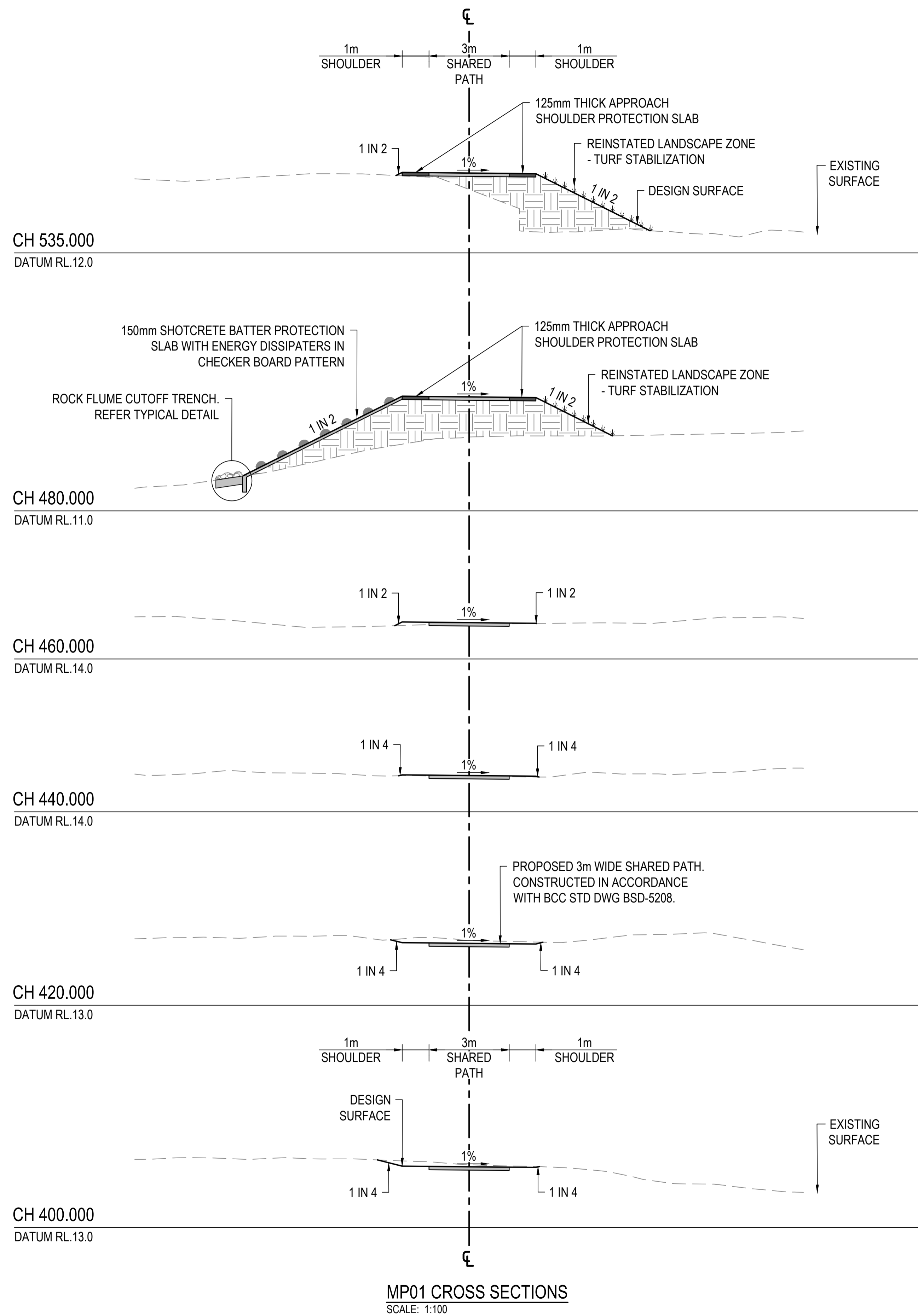
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Checked	DM / RS	Date	16/10/2019
Designed	JM	Date	15/10/2019
Verified	LM	Date	15/10/2019
Approved	RPEQ.	Date	17/10/2019

Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARSELDINE URBAN VILLAGE
Title	ROADWORKS LONGITUDINAL AND CROSS SECTIONS PLAN SHEET 1

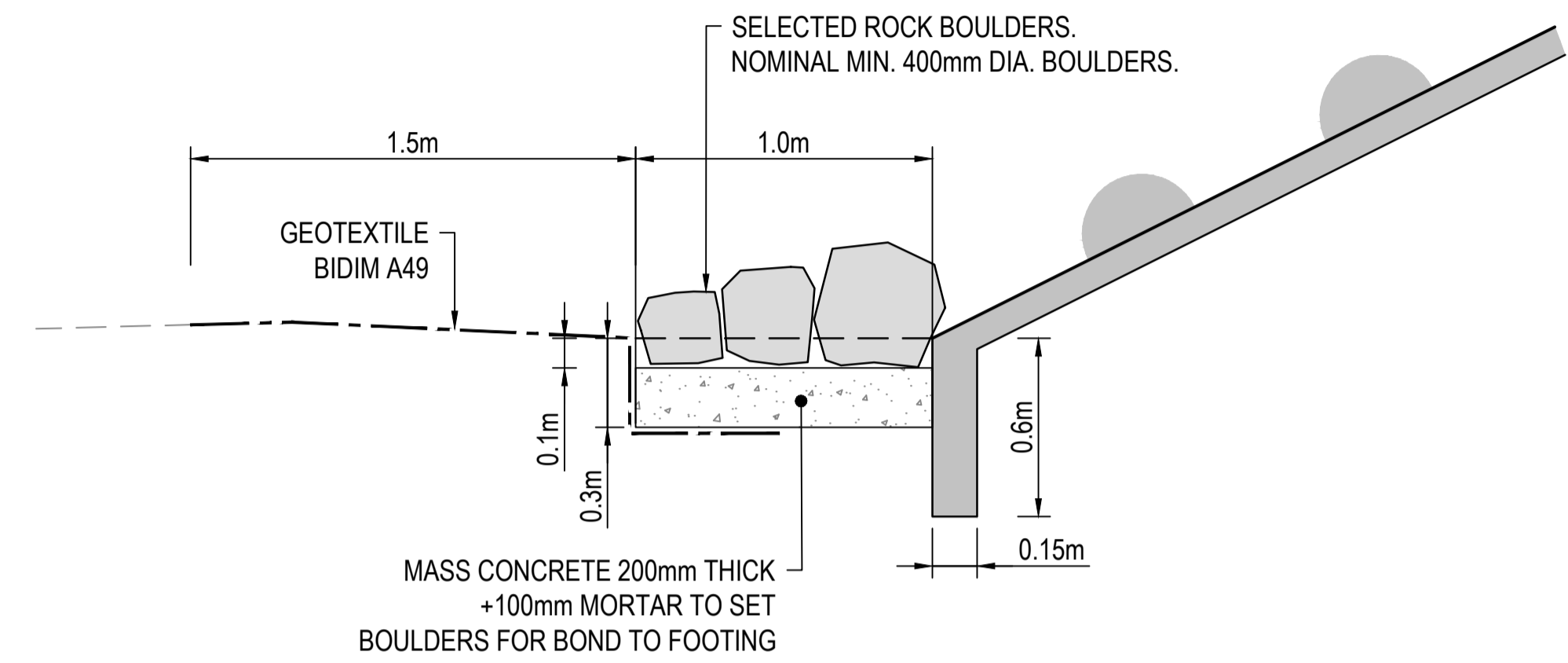
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Datum	AHD
GRID	MGA-56
Scale	AS SHOWN
Size	A1
Drawing Number	QTMP1903-CI-1120
Revision	C

DATE PLOTTED: 11 November 2019 2:41 PM BY: DAVID MCKENZIE

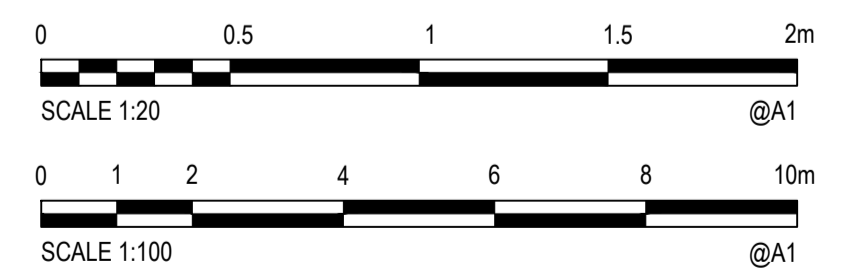
NOTE:
REFER TO DWGS. QTMP1903-CI-1050-1051
FOR EXTENT OF EARTHWORKS.



MP01 CROSS SECTIONS
SCALE: 1:100



ROCK FLUME CUTOFF TRENCH TYPICAL DETAIL
SCALE 1:20



XREFs: XR-DSGN-RDLS_XS
CAD File: Y:\119\QTMP1903 - Careldine Village Ped Bridge\03_CAD\01_CIV\QTMP1903-CI-120-1121.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
B	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
A	21/10/2019	ISSUE FOR APPROVAL	JM	LM	LM

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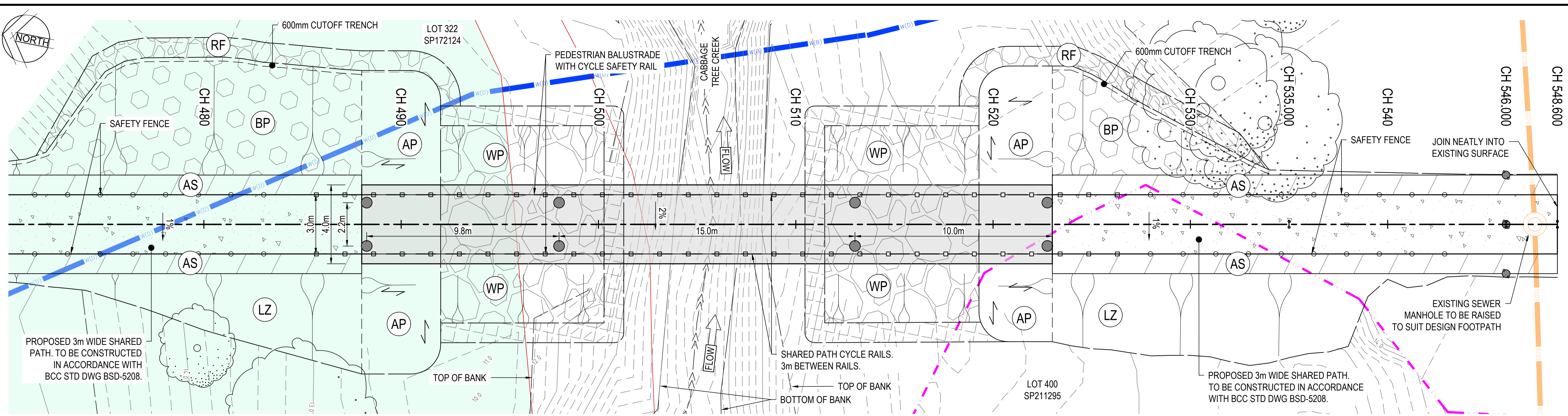
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Drawn	KA	Date	21/10/2019
Checked	DM / RS	Date	21/10/2019
Designed	JM	Date	18/10/2019
Verified	LM	Date	21/10/2019
Approved	RPEQ.	Date	
	LM	Date	21/10/2019

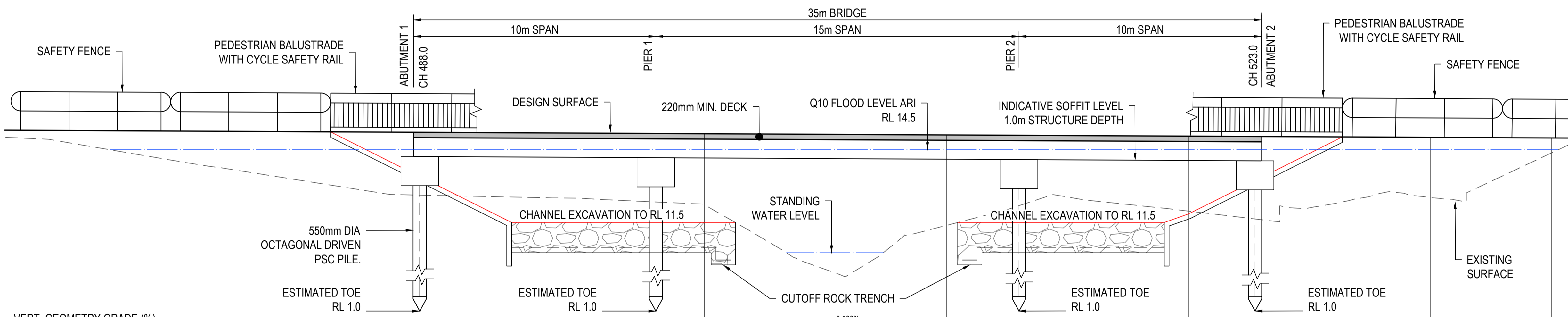
Client	ECONOMIC DEVELOPMENT QUEENSLAND
Project	CARSELDINE URBAN VILLAGE
Title	ROADWORKS CROSS SECTIONS PLAN SHEET 2

Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES				
Datum	AHD	GRID	MGA-56	Scale	AS SHOWN
Size				A1	
Drawing Number	QTMP1903-CI-1121			Revision	B

DATE PLOTTED: 6 December 2019 3:24 PM BY: DAVID MCKENZIE



BRIDGE GENERAL ARRANGEMENT PLAN
SCALE 1:100



VERT. GEOMETRY GRADE (%)
VERT. GEOMETRY LENGTH(m)
DATUM RL 6.000

	480.000	490.000	500.000	510.000	520.000	530.000	535.000	540.000	548.600
LHS DESIGN LEVELS EDGE OF FOOTPATH	15.276								15.001
RHS DESIGN LEVELS EDGE OF FOOTPATH	15.246								14.971
EXISTING SURFACE LEVELS ROAD CENTRELINE	13.762	12.593	12.232	11.379	11.970	12.523	14.374	14.374	15.001
CUT / FILL DEPTH TO EXISTING SURFACE	1.499	2.618	2.929	3.732	3.091	2.488	0.612		
DESIGN LEVELS ROAD CENTRELINE	15.261	15.211	15.161	15.111	15.061	15.011	14.986		
CONTROL LINE CHAINAGE FOOTPATH CENTRELINE	480.000	490.000	500.000	510.000	520.000	530.000	535.000	540.000	548.600

MP01 LONGITUDINAL SECTION
SCALE: HORIZONTAL - 1:100
VERTICAL - 1:100

BRIDGE ELEVATION SECTION
SCALE 1:100

LEGEND:

- STATE PLANNING PRIORITY DEVELOPMENT AREA
- EXISTING CONTOUR (0.2m INTERVAL)
- PROPOSED ALIGNMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BRIDGE
- PROPOSED BATTER INTERFACE
- PROPOSED BATTER TADPOLES
- ROCK DUMP FOR EROSION CONTROL
- 550mm DIA OCTAGONAL DRIVEN PSC PILE
- PROPOSED BRIDGE BALUSTRADE
- PROPOSED SAFETY FENCE
- EXISTING CREEK CENTERLINE
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- FLOW DIRECTION
- EXISTING SEWER MANHOLE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- PROPERTY BOUNDARY
- 200mm SHOTCRETE SPILL THROUGH ABUTMENT PROTECTION AND ABUTMENT INSPECTION ACCESS SLAB
- 125mm THICK APPROACH SHOULDER PROTECTION SLAB
- REINSTATED LANDSCAPE ZONE - TURF STABILIZATION
- 150mm THICK SHOTCRETE BATTER PROTECTION SLAB WITH ENERGY DISSIPATORS IN CHECKERBOARD PATTERN
- WATERWAY ROCK PROTECTION LAYER MINIMUM 1.25m DENSELY PLACED 1/2 TONNE ROCK
- ROCK FLUME NOMINAL 0750 MINIMUM ROCK



XREFS: X:\SEC-FL_MP0101\STRUCT_XR-EXIST-SERVICES_XR-DCDB_XR-DSGN-CONT-TRIM_XR-EXIST-XR-DSGN-CL_XR-DSGN-BRDGLS_XR-DSGN-02
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Rev.	Date	Description	Des.	Verif.	Appd.
D	6/11/2019	ISSUE FOR TENDER AMENDMENTS	JM	LM	LM
C	11/11/2019	ISSUE FOR TENDER	JM	LM	LM
B	21/10/2019	ISSUE FOR APPROVAL	JM	LM	LM
A	17/10/2019	ISSUE FOR APPROVAL	JM	LM	LM

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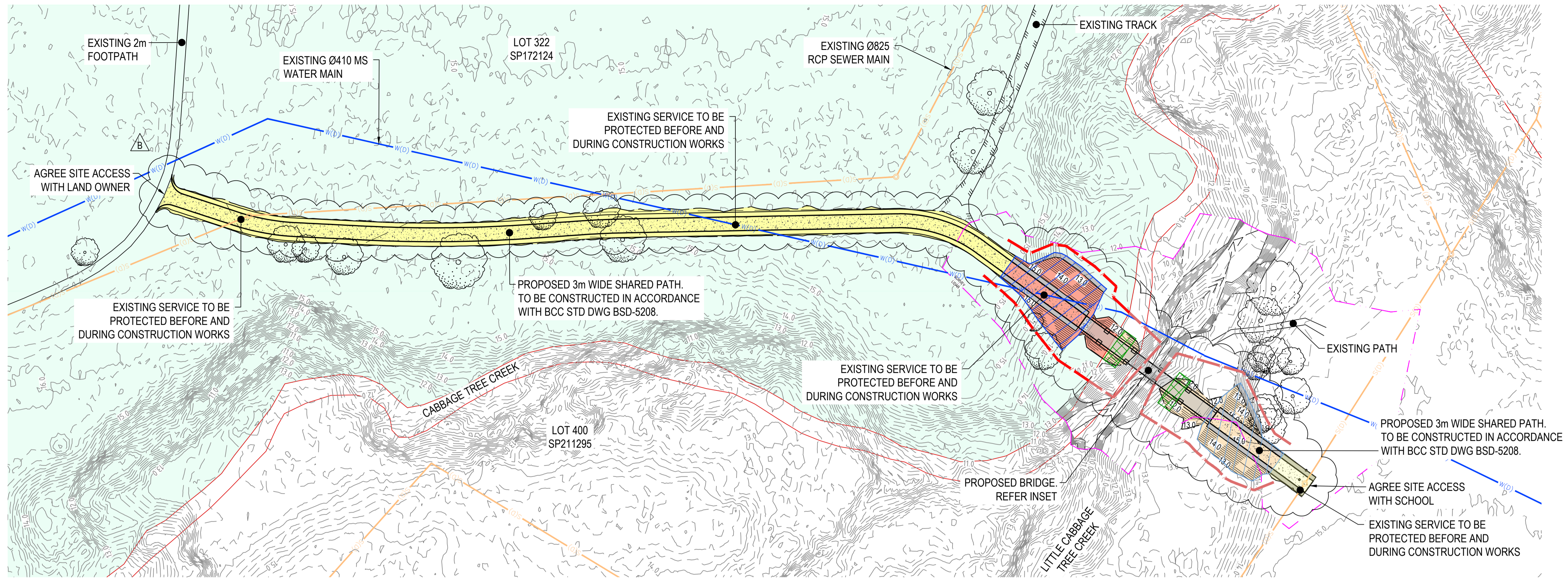
Cardno (Qld) Pty Ltd | ABN 57 051 074 992
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Web: www.cardno.com.au

Drawn DM	Date 15/10/2019
Checked LM	Date 16/10/2019
Designed JM	Date 15/10/2019
Verified LM	Date 15/10/2019
Approved RPEQ.	Date 17/10/2019

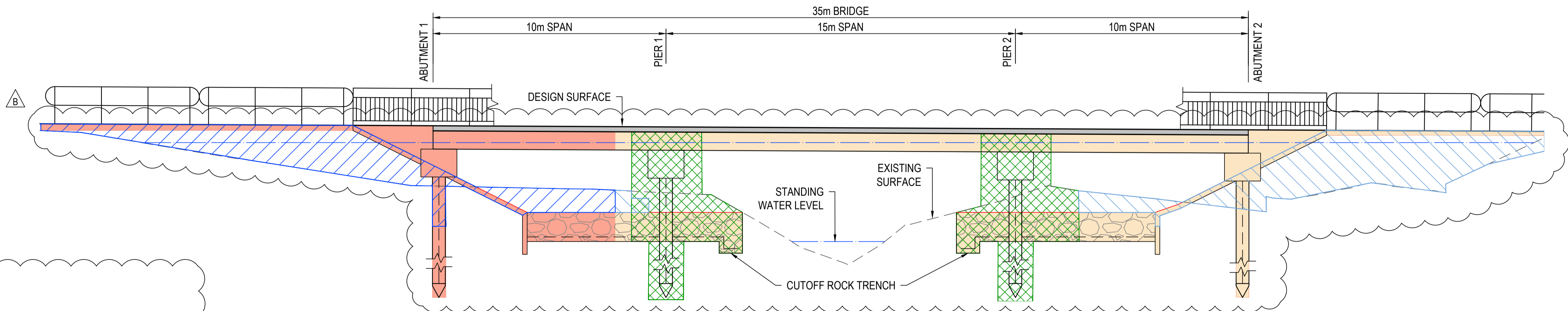
Client **ECONOMIC DEVELOPMENT QUEENSLAND**
Project **CARSELDINE URBAN VILLAGE**
Title **STRUCTURAL BRIDGE GENERAL ARRANGEMENT AND ELEVATION**

Status FOR TENDER ONLY			
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Datum AHD	GRID MGA-56	Scale 1:100m	Size A1
Drawing Number QTMP1903-CI-1701			Revision D

DATE PLOTTED: 16 December 2019 3:57 PM BY: DAVID MCKENZIE



CONSTRUCTION STAGING PLAN
SCALE 1:500



INSET - BRIDGE SECTION
SCALE 1:100

LEGEND:

	STATE PLANNING PRIORITY DEVELOPMENT AREA (PDA)
	EXISTING WATER MAIN
	EXISTING SEWER MAIN
	INSIDE PDA
	OUTSIDE PDA
	STAGE 1 - CLEAR & GRUB, CREATE ACCESS TRACKS BOTH SIDES
	STAGE 1 - INSTALL ENVIRONMENTAL CONTROLS
	STAGE 2 - CONSTRUCT PIERS
	STAGE 3 - BULK FILL EMBANKMENT
	STAGE 4 - ABUTMENTS, ROCK PROTECTION & APRONS, LAND DECK UNITS AND DECK WEARING SURFACE
	STAGE 5 - CONCRETE SHARED USER PATH & REMEDIATE ANY DISTURBED AREAS

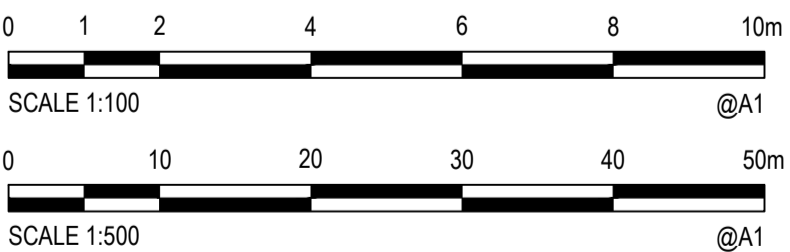
NOTE:
THE SERVICES INFORMATION SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN DERIVED FROM THE FOLLOWING SOURCES:

- SURFACE LOCATIONS OF SERVICES LOCATED BY THE SURVEYOR
- PLAN DATA PROVIDED BY SERVICE AUTHORITIES

THE CONTRACTOR OR CONSTRUCTION AUTHORITY IS TO CONFIRM THE ACTUAL LOCATIONS OF ALL EXISTING UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS. THE CONTRACTOR IS TO MAKE THEM SELF AWARE OF ALL SERVICES. ANY DAMAGES WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.

SERVICE LOCATIONS

It is the responsibility of the Foreman to contact the relevant service authorities to ascertain the exact location of services prior to construction.



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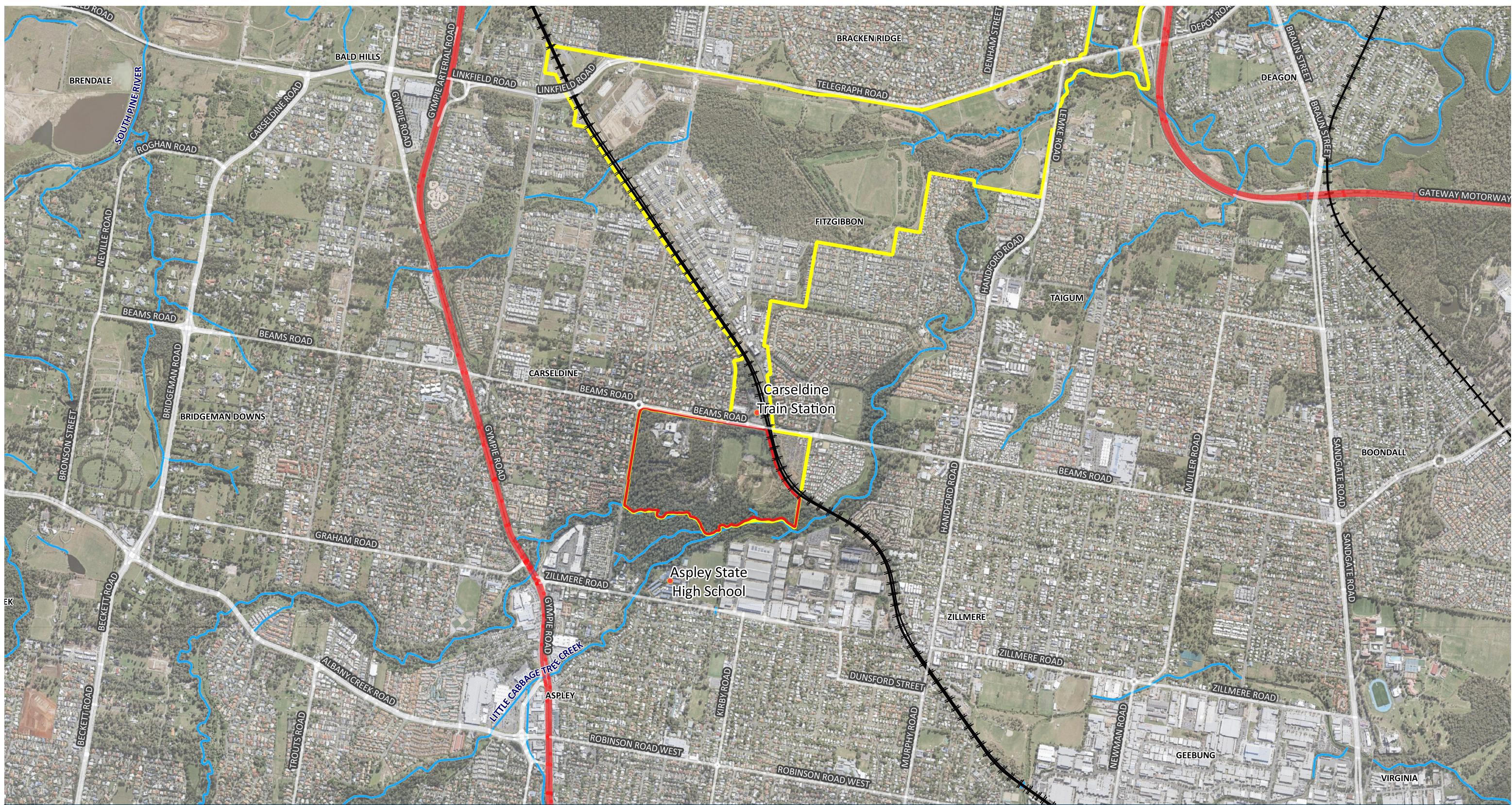
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ECONOMIC DEVELOPMENT QUEENSLAND			
CARSELDINE URBAN VILLAGE			
PEDESTRIAN BRIDGE			
CONSTRUCTION STAGING PLAN - SHEET 1			
Datum	Date	Scale	Size
AHD	16/12/2019	AS SHOWN	A1
Drawing Number	Revision		
QTMP1903-SK-0001	B		

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Attachment 3



Carseldine Urban Village - Pedestrian Bridge Legend

Attachment 3 - Locality

28 South Project Ref: 2019-057

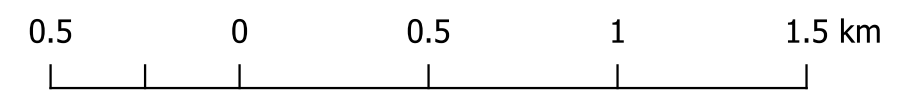
Data Sources: Nearmap Aerial Imagery (Nearmap May 2019); Digital Cadastre Database (Dept. Natural Resources and Mines, 2019); Roads (DNRME, 2018).

- Carseldine Urban Village Boundary
- Fitzgibbon Priority Development Area (PDA)
- Highway
- Road
- Rail Network
- Waterways (DNMRE)

Issue Date	Dwg No.	Author
27 September 2019	2019-057-001	RF
Approved		Revision Note
MT		

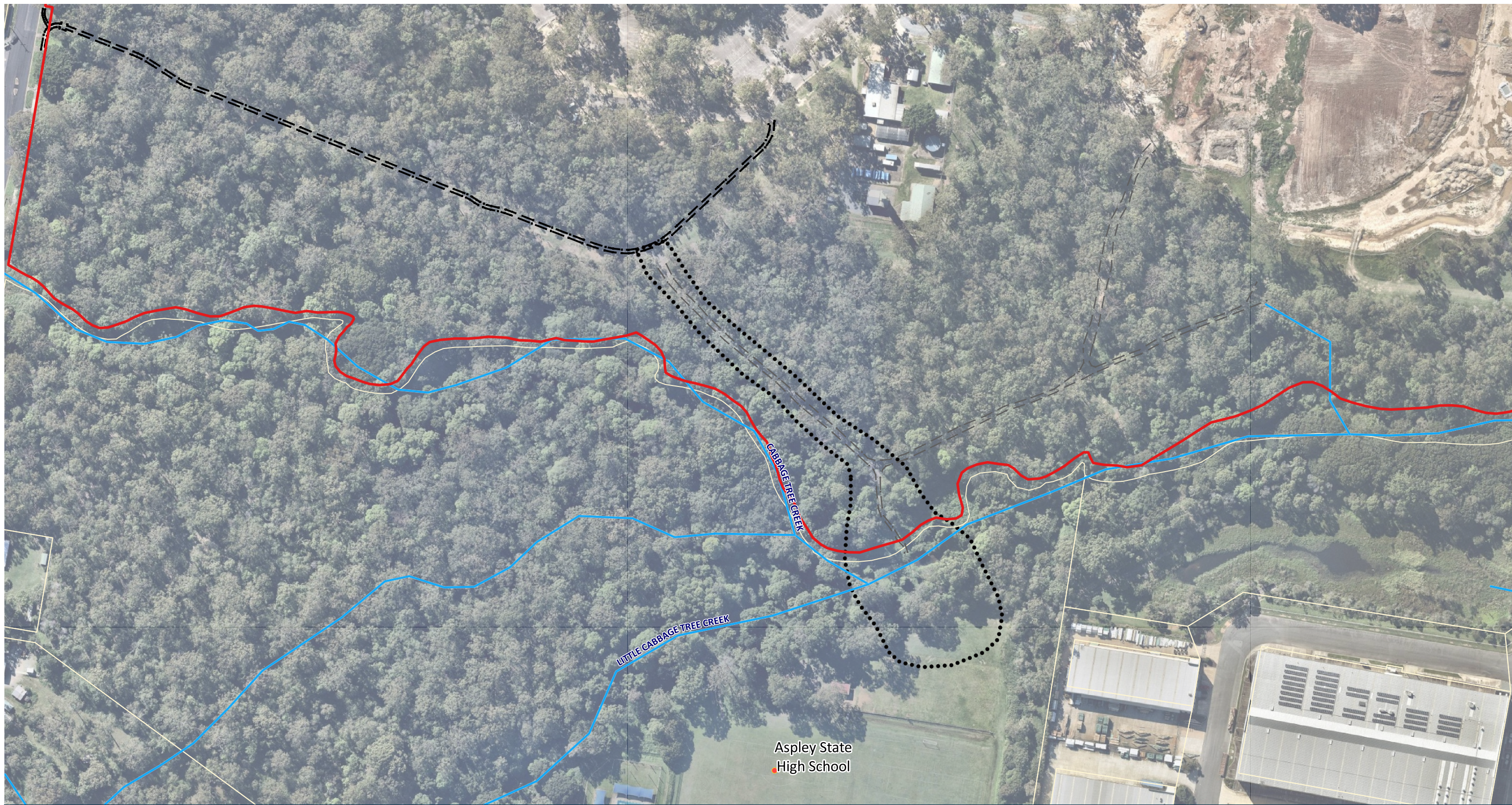
(A3) GDA 94 MGA 56

1:20000





Attachment 4



Carseldine Urban Village - Pedestrian Bridge Legend

Attachment 4 - Site Context

28 South Project Ref: 2019-057

Data Sources: Nearmap Aerial Imagery (Nearmap May 2019); Digital Cadastre Database (Dept. Natural Resources and Mines, 2019); Roads (DNRME, 2018).

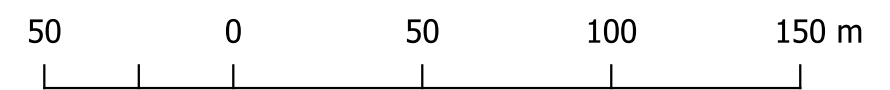


-  Survey Area
-  Existing Cement Footpath
-  Existing Gravel Trail
-  Carseldine Urban Village Boundary
-  Waterway (DNRME)
-  Property Boundaries

Issue Date	Dwg No.	Author
27 September 2019	2019-057-004	RF
Approved		Revision Note
MT		

(A3) GDA 94 MGA 56

1:2000





Attachment 5



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.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 17/09/19 14:12:54

[Summary](#)

[Details](#)

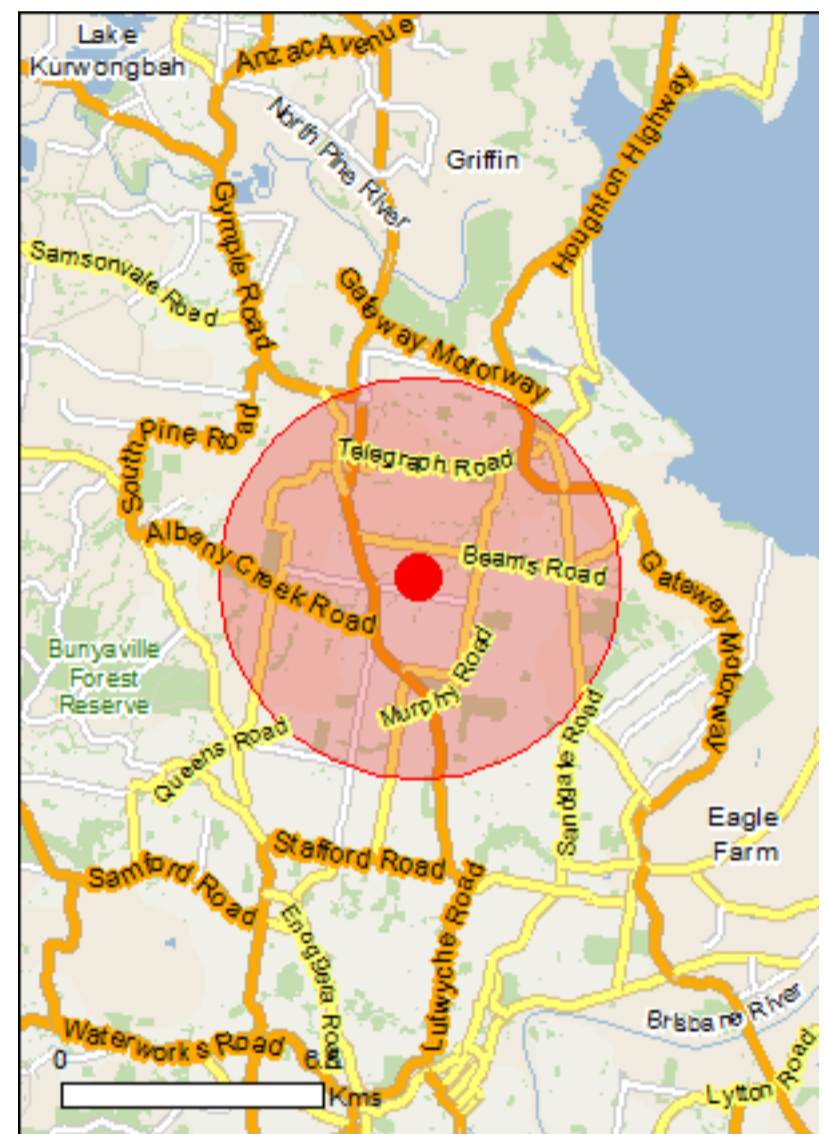
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

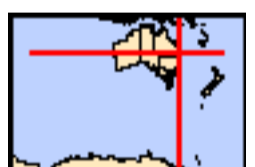
[Acknowledgements](#)



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

[Coordinates](#)

Buffer: 5.0Km



Summary

Matters of National Environmental 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:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	43
Listed Migratory Species:	19

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 <http://www.environment.gov.au/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 Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	28
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	46
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Moreton bay	Within 10km of Ramsar

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.

Name	Status	Type of Presence
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community may occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area

Listed Threatened Species

[Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat likely to occur within area
Erythrorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species

Name	Status	Type of Presence
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	habitat likely to occur within area Species or species habitat known to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
Rostratula australis Australian Painted-snipe, Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat may occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
Frogs		
Mixophyes fleayi Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area
Insects		
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat likely to occur within area
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
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat may occur within 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]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus tridactylus Long-nosed Potoroo (SE Mainland) [66645]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Name	Status	Type of Presence
Xeromys myoides Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat likely to occur within area
Plants		
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area
Corchorus cunninghamii Native Jute [14659]	Endangered	Species or species habitat likely to occur within area
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat may occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area
Cupaniopsis shirleyana Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat may occur within area
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area
Macadamia ternifolia Small-fruited Queensland Nut, Gympie Nut [7214]	Vulnerable	Species or species habitat likely to occur within area
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat may occur within area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
Samadera bidwillii Quassia [29708]	Vulnerable	Species or species habitat likely to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Saiphos reticulatus Three-toed Snake-tooth Skink [88328]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species

[\[Resource Information \]](#)

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur

Name	Threatened	Type of Presence within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [\[Resource Information \]](#)

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.

Name
Defence - FITZGIBBON TRAINING AREA

Listed Marine Species [\[Resource Information \]](#)

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Breeding known to occur within area
Ardea ibis Cattle Egret [59542]		Breeding likely to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Species or species habitat likely to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat known to occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat may occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species

Name	Threatened	Type of Presence
		habitat likely to occur within area

Extra Information

Invasive Species [\[Resource Information \]](#)

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat known to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur

Name	Status	Type of Presence
Canis lupus familiaris Domestic Dog [82654]		within area Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Annona glabra Pond Apple, Pond-apple Tree, Alligator Apple, Bullock's Heart, Cherimoya, Monkey Apple, Bobwood, Corkwood [6311]		Species or species habitat may occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina		Species or species habitat likely to occur

Name	Status	Type of Presence
Fanwort, Common Cabomba [5171] <i>Chrysanthemoides monilifera</i>		within area
Bitou Bush, Boneseed [18983] <i>Chrysanthemoides monilifera</i> subsp. <i>rotundata</i>		Species or species habitat may occur within area
Bitou Bush [16332]		Species or species habitat likely to occur within area
<i>Cryptostegia grandiflora</i> Rubber Vine, Rubbervine, India Rubber Vine, India Rubbervine, Palay Rubbervine, Purple Allamanda [18913]		Species or species habitat likely to occur within area
<i>Dolichandra unguis-cati</i> Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
<i>Eichhornia crassipes</i> Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
<i>Hymenachne amplexicaulis</i> Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]		Species or species habitat likely to occur within area
<i>Lantana camara</i> Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
<i>Opuntia</i> spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
<i>Parkinsonia aculeata</i> Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		Species or species habitat likely to occur within area
<i>Parthenium hysterophorus</i> Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
<i>Prosopis</i> spp. Mesquite, Algaroba [68407]		Species or species habitat likely to occur within area
<i>Rubus fruticosus</i> aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
<i>Sagittaria platyphylla</i> Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
<i>Salix</i> spp. except <i>S.babylonica</i> , <i>S.x calodendron</i> & <i>S.x reichardtii</i> Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
<i>Salvinia molesta</i> Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
<i>Senecio madagascariensis</i> Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Reptiles		
<i>Hemidactylus frenatus</i> Asian House Gecko [1708]		Species or species habitat likely to occur within area
<i>Ramphotyphlops braminus</i> Flowerpot Blind Snake, Brahminy Blind Snake,		Species or species

Name	Status	Type of Presence
Cacing Besi [1258]		habitat likely to occur within area

Nationally Important Wetlands [\[Resource Information \]](#)

Name	State
Pine River and Hayes Inlet	QLD

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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.

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

Where very little information is available for 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 reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-27.35383 153.02626

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.



Attachment 6



Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point

Species: All

Type: All

Status: All

Records: All

Date: Since 1980

Latitude: -27.3538

Longitude: 153.0262

Distance: 5

Email: rebecca@28south.com.au

Date submitted: Tuesday 17 Sep 2019 14:12:48

Date extracted: Tuesday 17 Sep 2019 14:20:01

The number of records retrieved = 732

Disclaimer

As the DSITIA is still in a process of collating and vetting data, it is possible the information given is not complete. The information provided should only be used for the project for which it was requested and it should be appropriately acknowledged as being derived from Wildlife Online when it is used.

The State of Queensland does not invite reliance upon, nor accept responsibility for this information. Persons should satisfy themselves through independent means as to the accuracy and completeness of this information.

No statements, representations or warranties are made about the accuracy or completeness of this information. The State of Queensland disclaims all responsibility for this information and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	<i>Rhinella marina</i>	cane toad	Y			43
animals	amphibians	Hylidae	<i>Litoria nasuta</i>	striped rocketfrog		C		10
animals	amphibians	Hylidae	<i>Litoria dentata</i>	bleating treefrog		C		1
animals	amphibians	Hylidae	<i>Litoria peronii</i>	emerald spotted treefrog		C		1
animals	amphibians	Hylidae	<i>Litoria caerulea</i>	common green treefrog		C		28
animals	amphibians	Hylidae	<i>Litoria gracilentia</i>	graceful treefrog		C		20
animals	amphibians	Hylidae	<i>Litoria brevipalmata</i>	green thighed frog		C		1
animals	amphibians	Hylidae	<i>Litoria fallax</i>	eastern sedgefrog		C		32
animals	amphibians	Hylidae	<i>Litoria rubella</i>	ruddy treefrog		C		18
animals	amphibians	Limnodynastidae	<i>Platyplectrum ornatum</i>	ornate burrowing frog		C		12
animals	amphibians	Limnodynastidae	<i>Limnodynastes tasmaniensis</i>	spotted grassfrog		C		14
animals	amphibians	Limnodynastidae	<i>Limnodynastes peronii</i>	striped marshfrog		C		37
animals	amphibians	Limnodynastidae	<i>Adelotus brevis</i>	tusked frog		V		4
animals	amphibians	Myobatrachidae	<i>Pseudophryne raveni</i>	copper backed broodfrog		C		1
animals	amphibians	Myobatrachidae	<i>Crinia parinsignifera</i>	beeping froglet		C		22
animals	amphibians	Myobatrachidae	<i>Mixophyes fasciolatus</i>	great barred frog		C		2
animals	amphibians	Myobatrachidae	<i>Pseudophryne coriacea</i>	red backed broodfrog		C		2
animals	amphibians	Myobatrachidae	<i>Pseudophryne major</i>	great brown broodfrog		C		3
animals	amphibians	Myobatrachidae	<i>Uperoleia rugosa</i>	chubby gungan		C		1
animals	amphibians	Myobatrachidae	<i>Crinia signifera</i>	clicking froglet		C		2
animals	amphibians	Myobatrachidae	<i>Uperoleia fusca</i>	dusky gungan		C		2
animals	birds	Acanthizidae	<i>Acanthiza chrysorrhoa</i>	yellow-rumped thornbill		C		10
animals	birds	Acanthizidae	<i>Sericornis frontalis</i>	white-browed scrubwren		C		27
animals	birds	Acanthizidae	<i>Gerygone levigaster</i>	mangrove gerygone		C		13
animals	birds	Acanthizidae	<i>Gerygone olivacea</i>	white-throated gerygone		C		38
animals	birds	Acanthizidae	<i>Pyrrholaemus sagittatus</i>	speckled warbler		C		3
animals	birds	Acanthizidae	<i>Acanthiza lineata</i>	striated thornbill		C		2
animals	birds	Acanthizidae	<i>Gerygone mouki</i>	brown gerygone		C		1
animals	birds	Acanthizidae	<i>Acanthiza nana</i>	yellow thornbill		C		2
animals	birds	Acanthizidae	<i>Acanthiza pusilla</i>	brown thornbill		C		8
animals	birds	Accipitridae	<i>Haliastur indus</i>	brahminy kite		C		27
animals	birds	Accipitridae	<i>Accipiter novaehollandiae</i>	grey goshawk		C		8
animals	birds	Accipitridae	<i>Accipiter cirrocephalus</i>	collared sparrowhawk		C		12
animals	birds	Accipitridae	<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle		C		7
animals	birds	Accipitridae	<i>Haliastur sphenurus</i>	whistling kite		C		38
animals	birds	Accipitridae	<i>Aviceda subcristata</i>	Pacific baza		C		35
animals	birds	Accipitridae	<i>Accipiter fasciatus</i>	brown goshawk		C		28
animals	birds	Accipitridae	<i>Lophoictinia isura</i>	square-tailed kite		C		2
animals	birds	Accipitridae	<i>Circus approximans</i>	swamp harrier		C		3
animals	birds	Accipitridae	<i>Pandion cristatus</i>	eastern osprey		SL		9
animals	birds	Accipitridae	<i>Elanus axillaris</i>	black-shouldered kite		C		13
animals	birds	Accipitridae	<i>Milvus migrans</i>	black kite		C		3
animals	birds	Accipitridae	<i>Aquila audax</i>	wedge-tailed eagle		C		2
animals	birds	Acrocephalidae	<i>Acrocephalus australis</i>	Australian reed-warbler		C		24
animals	birds	Aegothelidae	<i>Aegotheles cristatus</i>	Australian owlet-nightjar		C		1
animals	birds	Alcedinidae	<i>Ceyx azureus</i>	azure kingfisher		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Anatidae	<i>Chenonetta jubata</i>	Australian wood duck		C		71
animals	birds	Anatidae	<i>Anas platyrhynchos</i>	northern mallard	Y			7
animals	birds	Anatidae	<i>Dendrocygna eytoni</i>	plumed whistling-duck		C		1
animals	birds	Anatidae	<i>Anas superciliosa</i>	Pacific black duck		C		115
animals	birds	Anatidae	<i>Aythya australis</i>	hardhead		C		25
animals	birds	Anatidae	<i>Cygnus atratus</i>	black swan		C		17
animals	birds	Anatidae	<i>Dendrocygna sp.</i>					1
animals	birds	Anatidae	<i>Anas sp.</i>					1
animals	birds	Anatidae	<i>Anas castanea</i>	chestnut teal		C		31
animals	birds	Anatidae	<i>Anas gracilis</i>	grey teal		C		17
animals	birds	Anatidae	<i>Dendrocygna arcuata</i>	wandering whistling-duck		C		24
animals	birds	Anatidae	<i>Tadorna tadornoides</i>	Australian shelduck		C		1
animals	birds	Anatidae	<i>Nettapus coromandelianus</i>	cotton pygmy-goose		C		4
animals	birds	Anatidae	<i>Malacorhynchus membranaceus</i>	pink-eared duck		C		2
animals	birds	Anhingidae	<i>Anhinga novaehollandiae</i>	Australasian darter		C		39
animals	birds	Anseranatidae	<i>Anseranas semipalmata</i>	magpie goose		C		36
animals	birds	Apodidae	<i>Apus pacificus</i>	fork-tailed swift		SL		3
animals	birds	Apodidae	<i>Hirundapus caudacutus</i>	white-throated needletail		SL	V	19
animals	birds	Ardeidae	<i>Egretta sacra</i>	eastern reef egret		C		1
animals	birds	Ardeidae	<i>Ardea alba modesta</i>	eastern great egret		C		55
animals	birds	Ardeidae	<i>Ixobrychus dubius</i>	Australian little bittern		C		2
animals	birds	Ardeidae	<i>Bubulcus ibis</i>	cattle egret		C		223
animals	birds	Ardeidae	<i>Nycticorax caledonicus</i>	nankeen night-heron		C		14
animals	birds	Ardeidae	<i>Botaurus poiciloptilus</i>	Australasian bittern		C	E	1
animals	birds	Ardeidae	<i>Egretta novaehollandiae</i>	white-faced heron		C		74
animals	birds	Ardeidae	<i>Ardea pacifica</i>	white-necked heron		C		7
animals	birds	Ardeidae	<i>Ardea intermedia</i>	intermediate egret		C		40
animals	birds	Ardeidae	<i>Egretta garzetta</i>	little egret		C		21
animals	birds	Ardeidae	<i>Butorides striata</i>	striated heron		C		9
animals	birds	Artamidae	<i>Artamus personatus</i>	masked woodswallow		C		2
animals	birds	Artamidae	<i>Cracticus nigrogularis</i>	piebald butcherbird		C		121
animals	birds	Artamidae	<i>Artamus superciliosus</i>	white-browed woodswallow		C		1
animals	birds	Artamidae	<i>Cracticus sp.</i>					1
animals	birds	Artamidae	<i>Gymnorhina tibicen</i>	Australian magpie		C		170
animals	birds	Artamidae	<i>Cracticus torquatus</i>	grey butcherbird		C		86
animals	birds	Artamidae	<i>Artamus cyanopterus</i>	dusky woodswallow		C		2
animals	birds	Artamidae	<i>Strepera graculina</i>	piebald currawong		C		36
animals	birds	Artamidae	<i>Artamus leucorhynchus</i>	white-breasted woodswallow		C		17
animals	birds	Burhinidae	<i>Burhinus grallarius</i>	bush stone-curlew		C		37
animals	birds	Cacatuidae	<i>Cacatua tenuirostris</i>	long-billed corella	Y	C		10
animals	birds	Cacatuidae	<i>Eolophus roseicapilla</i>	galah		C		114
animals	birds	Cacatuidae	<i>Nymphicus hollandicus</i>	cockatiel		C		2
animals	birds	Cacatuidae	<i>Calyptorhynchus banksii</i>	red-tailed black-cockatoo		C		1
animals	birds	Cacatuidae	<i>Cacatua galerita</i>	sulphur-crested cockatoo		C		62
animals	birds	Cacatuidae	<i>Cacatua sanguinea</i>	little corella		C		54
animals	birds	Cacatuidae	<i>Calyptorhynchus funereus</i>	yellow-tailed black-cockatoo		C		5

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animals	birds	Campephagidae	<i>Lalage tricolor</i>	white-winged triller		C		4
animals	birds	Campephagidae	<i>Lalage leucomela</i>	varied triller		C		4
animals	birds	Campephagidae	<i>Coracina papuensis</i>	white-bellied cuckoo-shrike		C		1
animals	birds	Campephagidae	<i>Coracina novaehollandiae</i>	black-faced cuckoo-shrike		C		137
animals	birds	Campephagidae	<i>Coracina tenuirostris</i>	cidadabird		C		7
animals	birds	Charadriidae	<i>Erythronyx cinctus</i>	red-kneed dotterel		C		1
animals	birds	Charadriidae	<i>Pluvialis squatarola</i>	grey plover		SL		1
animals	birds	Charadriidae	<i>Elseyornis melanops</i>	black-fronted dotterel		C		5
animals	birds	Charadriidae	<i>Vanellus miles novaehollandiae</i>	masked lapwing (southern subspecies)		C		93
animals	birds	Charadriidae	<i>Charadrius ruficapillus</i>	red-capped plover		C		1
animals	birds	Charadriidae	<i>Vanellus miles</i>	masked lapwing		C		41
animals	birds	Charadriidae	<i>Pluvialis fulva</i>	Pacific golden plover		SL		3
animals	birds	Charadriidae	<i>Charadrius mongolus</i>	lesser sand plover		E	E	1
animals	birds	Ciconiidae	<i>Ephippiorhynchus asiaticus</i>	black-necked stork		C		14
animals	birds	Cisticolidae	<i>Cisticola exilis</i>	golden-headed cisticola		C		84
animals	birds	Climacteridae	<i>Cormobates leucophaea</i>	white-throated treecreeper		C		3
animals	birds	Climacteridae	<i>Cormobates leucophaea metastasis</i>	white-throated treecreeper (southern)		C		18
animals	birds	Columbidae	<i>Lopholaimus antarcticus</i>	topknot pigeon		C		2
animals	birds	Columbidae	<i>Phaps chalcoptera</i>	common bronzewing		C		1
animals	birds	Columbidae	<i>Ocyphaps lophotes</i>	crested pigeon		C		128
animals	birds	Columbidae	<i>Ptilinopus superbus</i>	superb fruit-dove		C		3
animals	birds	Columbidae	<i>Macropygia amboinensis</i>	brown cuckoo-dove		C		11
animals	birds	Columbidae	<i>Streptopelia chinensis</i>	spotted dove	Y			140
animals	birds	Columbidae	<i>Geopelia humeralis</i>	bar-shouldered dove		C		20
animals	birds	Columbidae	<i>Chalcophaps indica</i>	emerald dove		C		4
animals	birds	Columbidae	<i>Ptilinopus regina</i>	rose-crowned fruit-dove		C		2
animals	birds	Columbidae	<i>Leucosarcia melanoleuca</i>	wonga pigeon		C		6
animals	birds	Columbidae	<i>Columba livia</i>	rock dove	Y			50
animals	birds	Columbidae	<i>Geopelia cuneata</i>	diamond dove		C		1
animals	birds	Columbidae	<i>Geopelia striata</i>	peaceful dove		C		16
animals	birds	Columbidae	<i>Columba leucomela</i>	white-headed pigeon		C		1
animals	birds	Coraciidae	<i>Eurystomus orientalis</i>	dollarbird		C		54
animals	birds	Corvidae	<i>Corvus coronoides</i>	Australian raven		C		1
animals	birds	Corvidae	<i>Corvus orru</i>	Torresian crow		C		206
animals	birds	Cuculidae	<i>Cacomantis flabelliformis</i>	fan-tailed cuckoo		C		18
animals	birds	Cuculidae	<i>Cuculus optatus</i>	oriental cuckoo		SL		3
animals	birds	Cuculidae	<i>Chalcites basalus</i>	Horsfield's bronze-cuckoo		C		7
animals	birds	Cuculidae	<i>Chalcites lucidus</i>	shining bronze-cuckoo		C		7
animals	birds	Cuculidae	<i>Cacomantis pallidus</i>	pallid cuckoo		C		2
animals	birds	Cuculidae	<i>Eudynamys orientalis</i>	eastern koel		C		33
animals	birds	Cuculidae	<i>Scythrops novaehollandiae</i>	channel-billed cuckoo		C		11
animals	birds	Cuculidae	<i>Centropus phasianinus</i>	pheasant coucal		C		43
animals	birds	Cuculidae	<i>Cacomantis variolosus</i>	brush cuckoo		C		8
animals	birds	Dicruridae	<i>Dicrurus bracteatus</i>	spangled drongo		C		85
animals	birds	Estrildidae	<i>Lonchura punctulata</i>	nutmeg mannikin	Y			21
animals	birds	Estrildidae	<i>Neochmia temporalis</i>	red-browed finch		C		20

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animals	birds	Estrildidae	<i>Taeniopygia bichenovii</i>	double-barred finch		C		17
animals	birds	Estrildidae	<i>Lonchura castaneothorax</i>	chestnut-breasted mannikin		C		37
animals	birds	Eurostopodidae	<i>Eurostopodus mystacalis</i>	white-throated nightjar		C		1
animals	birds	Falconidae	<i>Falco berigora</i>	brown falcon		C		4
animals	birds	Falconidae	<i>Falco longipennis</i>	Australian hobby		C		9
animals	birds	Falconidae	<i>Falco cenchroides</i>	nankeen kestrel		C		6
animals	birds	Falconidae	<i>Falco peregrinus</i>	peregrine falcon		C		9
animals	birds	Gruidae	<i>Antigone rubicunda</i>	broilga		C		6
animals	birds	Haematopodidae	<i>Haematopus longirostris</i>	Australian pied oystercatcher		C		5
animals	birds	Halcyonidae	<i>Todiramphus sanctus</i>	sacred kingfisher		C		60
animals	birds	Halcyonidae	<i>Todiramphus sordidus</i>	Torresian kingfisher		C		9
animals	birds	Halcyonidae	<i>Dacelo novaeguineae</i>	laughing kookaburra		C		130
animals	birds	Halcyonidae	<i>Todiramphus macleayii</i>	forest kingfisher		C		39
animals	birds	Hirundinidae	<i>Petrochelidon ariel</i>	fairy martin		C		8
animals	birds	Hirundinidae	<i>Petrochelidon nigricans</i>	tree martin		C		16
animals	birds	Hirundinidae	<i>Hirundo neoxena</i>	welcome swallow		C		132
animals	birds	Jacanidae	<i>Irediparra gallinacea</i>	comb-crested jacana		C		11
animals	birds	Laridae	<i>Sterna hirundo</i>	common tern		SL		1
animals	birds	Laridae	<i>Thalasseus bergii</i>	crested tern		SL		12
animals	birds	Laridae	<i>Hydroprogne caspia</i>	Caspian tern		SL		4
animals	birds	Laridae	<i>Chroicocephalus novaehollandiae</i>	silver gull		C		36/1
animals	birds	Laridae	<i>Gelochelidon nilotica</i>	gull-billed tern		SL		5
animals	birds	Laridae	<i>Chlidonias leucopterus</i>	white-winged black tern		SL		5
animals	birds	Laridae	<i>Sternula albifrons</i>	little tern		SL		2
animals	birds	Maluridae	<i>Malurus lamberti</i>	variegated fairy-wren		C		60
animals	birds	Maluridae	<i>Malurus cyaneus</i>	superb fairy-wren		C		18
animals	birds	Maluridae	<i>Malurus melanocephalus</i>	red-backed fairy-wren		C		102
animals	birds	Megaluridae	<i>Cincloramphus mathewsi</i>	rufous songlark		C		1
animals	birds	Megaluridae	<i>Megalurus timoriensis</i>	tawny grassbird		C		38
animals	birds	Megaluridae	<i>Megalurus gramineus</i>	little grassbird		C		5
animals	birds	Megapodiidae	<i>Alectura lathamii</i>	Australian brush-turkey		C		19
animals	birds	Meliphagidae	<i>Manorina melanophrys</i>	bell miner		C		7
animals	birds	Meliphagidae	<i>Melithreptus gularis</i>	black-chinned honeyeater		C		2
animals	birds	Meliphagidae	<i>Melithreptus lunatus</i>	white-naped honeyeater		C		6
animals	birds	Meliphagidae	<i>Philemon corniculatus</i>	noisy friarbird		C		69
animals	birds	Meliphagidae	<i>Lichenostomus melanopus</i>	yellow-tufted honeyeater		C		1
animals	birds	Meliphagidae	<i>Manorina melanocephala</i>	noisy miner		C		192
animals	birds	Meliphagidae	<i>Myzomela sanguinolenta</i>	scarlet honeyeater		C		67
animals	birds	Meliphagidae	<i>Philemon citreogularis</i>	little friarbird		C		21
animals	birds	Meliphagidae	<i>Gavicalis fasciogularis</i>	mangrove honeyeater		C		4
animals	birds	Meliphagidae	<i>Melithreptus albogularis</i>	white-throated honeyeater		C		58
animals	birds	Meliphagidae	<i>Plectorhyncha lanceolata</i>	striped honeyeater		C		23
animals	birds	Meliphagidae	<i>Acanthorhynchus tenuirostris</i>	eastern spinebill		C		5
animals	birds	Meliphagidae	<i>Phylidonyris novaehollandiae</i>	New Holland honeyeater		C		1
animals	birds	Meliphagidae	<i>Phylidonyris niger</i>	white-cheeked honeyeater		C		3
animals	birds	Meliphagidae	<i>Entomyzon cyanotis</i>	blue-faced honeyeater		C		63

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animals	birds	Meliphagidae	<i>Caligavis chrysops</i>	yellow-faced honeyeater		C		52
animals	birds	Meliphagidae	<i>Meliphaga lewinii</i>	Lewin's honeyeater		C		58
animals	birds	Meliphagidae	<i>Myzomela obscura</i>	dusky honeyeater		C		1
animals	birds	Meliphagidae	<i>Ptilotula fusca</i>	fuscous honeyeater		C		2
animals	birds	Meliphagidae	<i>Lichmera indistincta</i>	brown honeyeater		C		96
animals	birds	Meropidae	<i>Merops ornatus</i>	rainbow bee-eater		C		69
animals	birds	Monarchidae	<i>Myiagra inquieta</i>	restless flycatcher		C		1
animals	birds	Monarchidae	<i>Carterornis leucotis</i>	white-eared monarch		C		4
animals	birds	Monarchidae	<i>Monarcha melanopsis</i>	black-faced monarch		SL		12
animals	birds	Monarchidae	<i>Grallina cyanoleuca</i>	magpie-lark		C		166
animals	birds	Monarchidae	<i>Myiagra rubecula</i>	leaden flycatcher		C		33
animals	birds	Monarchidae	<i>Symposiachrus trivirgatus</i>	spectacled monarch		SL		7
animals	birds	Motacillidae	<i>Anthus novaeseelandiae</i>	Australasian pipit		C		11
animals	birds	Nectariniidae	<i>Dicaeum hirundinaceum</i>	mistletoebird		C		40
animals	birds	Neosittidae	<i>Daphoenositta chrysoptera</i>	varied sittella		C		7
animals	birds	Oriolidae	<i>Sphecotheres vieillotii</i>	Australasian figbird		C		80
animals	birds	Oriolidae	<i>Oriolus sagittatus</i>	olive-backed oriole		C		66
animals	birds	Pachycephalidae	<i>Pachycephala rufiventris</i>	rufous whistler		C		86
animals	birds	Pachycephalidae	<i>Colluricincla megarhyncha</i>	little shrike-thrush		C		2
animals	birds	Pachycephalidae	<i>Pachycephala pectoralis</i>	golden whistler		C		42
animals	birds	Pachycephalidae	<i>Colluricincla harmonica</i>	grey shrike-thrush		C		81
animals	birds	Pardalotidae	<i>Pardalotus punctatus</i>	spotted pardalote		C		18
animals	birds	Pardalotidae	<i>Pardalotus striatus</i>	striated pardalote		C		123
animals	birds	Passeridae	<i>Passer domesticus</i>	house sparrow	Y			41
animals	birds	Pelecanidae	<i>Pelecanus conspicillatus</i>	Australian pelican		C		42
animals	birds	Petroicidae	<i>Microeca fascinans</i>	jacky winter		C		5
animals	birds	Petroicidae	<i>Eopsaltria australis</i>	eastern yellow robin		C		48
animals	birds	Petroicidae	<i>Petroica goodenovii</i>	red-capped robin		C		2
animals	birds	Petroicidae	<i>Petroica rosea</i>	rose robin		C		3
animals	birds	Phalacrocoracidae	<i>Phalacrocorax sulcirostris</i>	little black cormorant		C		56
animals	birds	Phalacrocoracidae	<i>Microcarbo melanoleucos</i>	little pied cormorant		C		42
animals	birds	Phalacrocoracidae	<i>Phalacrocorax varius</i>	pied cormorant		C		27
animals	birds	Phalacrocoracidae	<i>Phalacrocorax carbo</i>	great cormorant		C		4
animals	birds	Phasianidae	<i>Coturnix ypsilophora</i>	brown quail		C		15
animals	birds	Phasianidae	<i>Excalfactoria chinensis</i>	king quail		C		1
animals	birds	Pittidae	<i>Pitta versicolor</i>	noisy pitta		C		2
animals	birds	Podargidae	<i>Podargus strigoides</i>	tawny frogmouth		C		42
animals	birds	Podicipedidae	<i>Tachybaptus novaehollandiae</i>	Australasian grebe		C		40
animals	birds	Podicipedidae	<i>Poliocephalus poliocephalus</i>	hoary-headed grebe		C		3
animals	birds	Pomatostomidae	<i>Pomatostomus temporalis</i>	grey-crowned babbler		C		6
animals	birds	Procellariidae	<i>Ardenna tenuirostris</i>	short-tailed shearwater		SL		1
animals	birds	Psittacidae	<i>Barnardius zonarius</i>	Australian ringneck		C		1
animals	birds	Psittacidae	<i>Parvipsitta pusilla</i>	little lorikeet		C		5
animals	birds	Psittacidae	<i>Platycercus elegans</i>	crimson rosella		C		5
animals	birds	Psittacidae	<i>Platycercus eximius</i>	eastern rosella		C		1
animals	birds	Psittacidae	<i>Alisterus scapularis</i>	Australian king-parrot		C		8

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animals	birds	Psittacidae	<i>Trichoglossus haematodus moluccanus</i>	rainbow lorikeet		C		186
animals	birds	Psittacidae	<i>Psephotus haematonotus</i>	red-rumped parrot		C		3
animals	birds	Psittacidae	<i>Aprosmictus erythropterus</i>	red-winged parrot		C		1
animals	birds	Psittacidae	<i>Platycercus adscitus palliceps</i>	pale-headed rosella (southern form)		C		3
animals	birds	Psittacidae	<i>Trichoglossus chlorolepidotus</i>	scaly-breasted lorikeet		C		110
animals	birds	Psittacidae	<i>Platycercus adscitus</i>	pale-headed rosella		C		106
animals	birds	Psophodidae	<i>Psophodes olivaceus</i>	eastern whipbird		C		22
animals	birds	Rallidae	<i>Porphyrio melanotus</i>	purple swamphen		C		71
animals	birds	Rallidae	<i>Amaurornis moluccana</i>	pale-vented bush-hen		C		1
animals	birds	Rallidae	<i>Gallirallus philippensis</i>	buff-banded rail		C		17
animals	birds	Rallidae	<i>Fulica atra</i>	Eurasian coot		C		25
animals	birds	Rallidae	<i>Porzana tabuensis</i>	spotless crane		C		2
animals	birds	Rallidae	<i>Lewinia pectoralis</i>	Lewin's rail		C		2
animals	birds	Rallidae	<i>Gallinula tenebrosa</i>	dusky moorhen		C		74
animals	birds	Recurvirostridae	<i>Himantopus himantopus</i>	black-winged stilt		C		31
animals	birds	Recurvirostridae	<i>Recurvirostra novaehollandiae</i>	red-necked avocet		C		2
animals	birds	Rhipiduridae	<i>Rhipidura leucophrys</i>	willie wagtail		C		128
animals	birds	Rhipiduridae	<i>Rhipidura rufifrons</i>	rufous fantail		SL		16
animals	birds	Rhipiduridae	<i>Rhipidura albiscapa</i>	grey fantail		C		95
animals	birds	Scolopacidae	<i>Actitis hypoleucos</i>	common sandpiper		SL		1
animals	birds	Scolopacidae	<i>Arenaria interpres</i>	ruddy turnstone		SL		1
animals	birds	Scolopacidae	<i>Calidris ferruginea</i>	curlew sandpiper		E	CE	2
animals	birds	Scolopacidae	<i>Calidris ruficollis</i>	red-necked stint		SL		1
animals	birds	Scolopacidae	<i>Gallinago hardwickii</i>	Latham's snipe		SL		8
animals	birds	Scolopacidae	<i>Calidris tenuirostris</i>	great knot		E	CE	2
animals	birds	Scolopacidae	<i>Numenius madagascariensis</i>	eastern curlew		E	CE	7
animals	birds	Scolopacidae	<i>Numenius phaeopus</i>	whimbrel		SL		9
animals	birds	Scolopacidae	<i>Tringa nebularia</i>	common greenshank		SL		2
animals	birds	Scolopacidae	<i>Calidris canutus</i>	red knot		E	E	1
animals	birds	Scolopacidae	<i>Tringa brevipes</i>	grey-tailed tattler		SL		4
animals	birds	Scolopacidae	<i>Limosa limosa</i>	black-tailed godwit		SL		1
animals	birds	Scolopacidae	<i>Limosa lapponica baueri</i>	Western Alaskan bar-tailed godwit		V	V	4
animals	birds	Strigidae	<i>Ninox strenua</i>	powerful owl		V		1
animals	birds	Strigidae	<i>Ninox boobook</i>	southern boobook		C		15
animals	birds	Sturnidae	<i>Acridotheres tristis</i>	common myna	Y			39
animals	birds	Sturnidae	<i>Sturnus vulgaris</i>	common starling	Y			49
animals	birds	Threskiornithidae	<i>Threskiornis molucca</i>	Australian white ibis		C		133
animals	birds	Threskiornithidae	<i>Plegadis falcinellus</i>	glossy ibis		SL		8
animals	birds	Threskiornithidae	<i>Platalea flavipes</i>	yellow-billed spoonbill		C		1
animals	birds	Threskiornithidae	<i>Platalea regia</i>	royal spoonbill		C		35
animals	birds	Threskiornithidae	<i>Threskiornis spinicollis</i>	straw-necked ibis		C		81
animals	birds	Timaliidae	<i>Zosterops lateralis</i>	silveryeye		C		117
animals	birds	Tytonidae	<i>Tyto delicatula</i>	eastern barn owl		C		4
animals	insects	Aeshnidae	<i>Anax papuensis</i>	Australian Emperor				1
animals	insects	Hesperiidae	<i>Suniana sunias</i>					1
animals	insects	Libellulidae	<i>Rhyothemis graphiptera</i>	graphic flutterer				1

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animals	insects	Libellulidae	<i>Tramea loewii</i>	common glider				1
animals	insects	Nymphalidae	<i>Euploea corinna</i>	common crow				7
animals	insects	Nymphalidae	<i>Danaus plexippus</i>	monarch	Y			7
animals	insects	Nymphalidae	<i>Charaxes sempronius sempronius</i>	tailed emperor				1
animals	insects	Nymphalidae	<i>Melanitis leda bankia</i>	evening brown				7
animals	insects	Nymphalidae	<i>Tirumala hamata hamata</i>	blue tiger				1
animals	insects	Nymphalidae	<i>Junonia villida villida</i>	meadow argus				1
animals	insects	Nymphalidae	<i>Hypolimnas bolina nerina</i>	varied eggfly				2
animals	insects	Papilionidae	<i>Papilio aegaeus aegaeus</i>	orchard swallowtail (Australian subspecies)				2
animals	insects	Papilionidae	<i>Graphium choredon</i>	blue triangle				4
animals	insects	Pieridae	<i>Eurema hecabe</i>	large grass-yellow				3
animals	insects	Pieridae	<i>Pieris rapae</i>	cabbage white	Y			3
animals	insects	Pieridae	<i>Delias sp.</i>					1
animals	insects	Pieridae	<i>Delias argenthona argenthona</i>	scarlet jezebel				2
animals	insects	Pieridae	<i>Eurema smilax</i>	small grass-yellow				1
animals	insects	Pieridae	<i>Delias nigrina</i>	black jezebel				1
animals	insects	Pieridae	<i>Catopsilia pomona</i>	lemon migrant				1
animals	mammals	Canidae	<i>Vulpes vulpes</i>	red fox	Y			8
animals	mammals	Canidae	<i>Canis lupus familiaris</i>	dog	Y			1
animals	mammals	Dasyuridae	<i>Antechinus flavipes flavipes</i>	yellow-footed antechinus (south-east Queensland)			C	1
animals	mammals	Felidae	<i>Felis catus</i>	cat	Y			3
animals	mammals	Leporidae	<i>Lepus europaeus</i>	European brown hare	Y			4
animals	mammals	Macropodidae	<i>Macropus sp.</i>					1
animals	mammals	Macropodidae	<i>Macropus rufogriseus</i>	red-necked wallaby			C	1
animals	mammals	Macropodidae	<i>Wallabia bicolor</i>	swamp wallaby			C	1
animals	mammals	Miniopteridae	<i>Miniopterus schreibersii oceanensis</i>	eastern bent-wing bat			C	2
animals	mammals	Miniopteridae	<i>Miniopterus australis</i>	little bent-wing bat			C	3
animals	mammals	Molossidae	<i>Mormopterus ridei</i>	eastern free-tailed bat			C	2
animals	mammals	Molossidae	<i>Tadarida australis</i>	white-striped freetail bat			C	11
animals	mammals	Molossidae	<i>Mormopterus lumsdenae</i>	northern free-tailed bat			C	2
animals	mammals	Muridae	<i>Rattus fuscipes</i>	bush rat			C	3
animals	mammals	Muridae	<i>Rattus rattus</i>	black rat	Y			9
animals	mammals	Muridae	<i>Mus musculus</i>	house mouse	Y			11
animals	mammals	Ornithorhynchidae	<i>Ornithorhynchus anatinus</i>	platypus			SL	4
animals	mammals	Peramelidae	<i>Isoodon sp.</i>					3
animals	mammals	Peramelidae	<i>Isoodon macrourus</i>	northern brown bandicoot			C	4
animals	mammals	Petauridae	<i>Petaurus norfolcensis</i>	squirrel glider			C	10
animals	mammals	Petauridae	<i>Petaurus breviceps</i>	sugar glider			C	2
animals	mammals	Phalangeridae	<i>Trichosurus vulpecula</i>	common brushtail possum			C	39
animals	mammals	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala			V V	293
animals	mammals	Pseudocheiridae	<i>Pseudocheirus peregrinus</i>	common ringtail possum			C	52
animals	mammals	Pteropodidae	<i>Pteropus poliocephalus</i>	grey-headed flying-fox			C V	58
animals	mammals	Pteropodidae	<i>Pteropus alecto</i>	black flying-fox			C	62
animals	mammals	Pteropodidae	<i>Pteropus sp.</i>					7

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animals	mammals	Pteropodidae	<i>Pteropus scapulatus</i>	little red flying-fox		C		8
animals	mammals	Suidae	<i>Sus scrofa</i>	pig	Y			1
animals	mammals	Tachyglossidae	<i>Tachyglossus aculeatus</i>	short-beaked echidna		SL		1
animals	mammals	Vespertilionidae	<i>Myotis macropus</i>	large-footed myotis		C		1
animals	mammals	Vespertilionidae	<i>Chalinolobus morio</i>	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	<i>Nyctophilus geoffroyi</i>	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	<i>Chalinolobus gouldii</i>	Gould's wattled bat		C		2
animals	ray-finned fishes	Anguillidae	<i>Anguilla australis</i>	southern shortfin eel				17
animals	ray-finned fishes	Anguillidae	<i>Anguilla reinhardtii</i>	longfin eel				24
animals	ray-finned fishes	Cichlidae	<i>Oreochromis mossambica</i>	Mozambique mouthbrooder	Y			1
animals	ray-finned fishes	Eleotridae	<i>Hypseleotris galii</i>	firetail gudgeon				3
animals	ray-finned fishes	Eleotridae	<i>Mogurnda adspersa</i>	southern purplespotted gudgeon				15
animals	ray-finned fishes	Eleotridae	<i>Gobiomorphus australis</i>	striped gudgeon				10
animals	ray-finned fishes	Eleotridae	<i>Hypseleotris compressa</i>	empire gudgeon				19
animals	ray-finned fishes	Melanotaeniidae	<i>Melanotaenia duboulayi</i>	crimsonspotted rainbowfish				20
animals	ray-finned fishes	Mugilidae	<i>Mugil cephalus</i>	sea mullet				1
animals	ray-finned fishes	Plotosidae	<i>Tandanus tandanus</i>	freshwater catfish				11
animals	ray-finned fishes	Plotosidae	<i>Porochilus rendahli</i>	Rendahli's catfish				2
animals	ray-finned fishes	Poeciliidae	<i>Xiphophorus maculatus</i>	platy	Y			18
animals	ray-finned fishes	Poeciliidae	<i>Gambusia holbrooki</i>	mosquitofish	Y			24
animals	ray-finned fishes	Poeciliidae	<i>Xiphophorus hellerii</i>	swordtail	Y			24
animals	reptiles	Agamidae	<i>Chlamydosaurus kingii</i>	frilled lizard		C		1
animals	reptiles	Agamidae	<i>Intellagama lesueurii</i>	eastern water dragon		C		11
animals	reptiles	Agamidae	<i>Pogona barbata</i>	bearded dragon		C		18
animals	reptiles	Boidae	<i>Morelia spilota</i>	carpet python		C		31
animals	reptiles	Chelidae	<i>Emydura sp.</i>					1
animals	reptiles	Chelidae	<i>Wollumbinia latisternum</i>	saw-shelled turtle		C		2
animals	reptiles	Chelidae	<i>Emydura macquarii macquarii</i>	Murray turtle		C		4
animals	reptiles	Chelidae	<i>Chelodina longicollis</i>	eastern snake-necked turtle		C		1
animals	reptiles	Chelidae	<i>Chelodina expansa</i>	broad-shelled river turtle		C		1
animals	reptiles	Colubridae	<i>Dendrelaphis punctulatus</i>	green tree snake		C		19
animals	reptiles	Colubridae	<i>Tropidonophis mairii</i>	freshwater snake		C		17
animals	reptiles	Colubridae	<i>Boiga irregularis</i>	brown tree snake		C		3
animals	reptiles	Diplodactylidae	<i>Diplodactylus vittatus</i>	wood gecko		C		1
animals	reptiles	Elapidae	<i>Pseudechis porphyriacus</i>	red-bellied black snake		C		1
animals	reptiles	Elapidae	<i>Cryptophis nigrescens</i>	eastern small-eyed snake		C		4
animals	reptiles	Elapidae	<i>Tropidechis carinatus</i>	rough-scaled snake		C		2
animals	reptiles	Elapidae	<i>Acanthophis antarcticus</i>	common death adder		V		1
animals	reptiles	Elapidae	<i>Demansia psammophis</i>	yellow-faced whipsnake		C		11
animals	reptiles	Elapidae	<i>Cacophis harriettae</i>	white-crowned snake		C		6
animals	reptiles	Elapidae	<i>Hemiaspis signata</i>	black-bellied swamp snake		C		3
animals	reptiles	Elapidae	<i>Furina diadema</i>	red-naped snake		C		2
animals	reptiles	Gekkonidae	<i>Hemidactylus frenatus</i>	house gecko	Y			6
animals	reptiles	Pygopodidae	<i>Delma plebeia</i>	common delma		C		6
animals	reptiles	Pygopodidae	<i>Lialis burtonis</i>	Burton's legless lizard		C		2
animals	reptiles	Scincidae	<i>Lampropholis delicata</i>	dark-flecked garden sunskink		C		35

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animals	reptiles	Scincidae	<i>Anomalopus verreauxii</i>	three-clawed worm-skink		C		4
animals	reptiles	Scincidae	<i>Lampropholis amicula</i>	friendly sunskink		C		1
animals	reptiles	Scincidae	<i>Lygisaurus foliorum</i>	tree-base litter-skink		C		1
animals	reptiles	Scincidae	<i>Tiliqua scincoides</i>	eastern blue-tongued lizard		C		21
animals	reptiles	Scincidae	<i>Ctenotus spaldingi</i>	straight-browed ctenotus		C		3
animals	reptiles	Scincidae	<i>Egernia striolata</i>	tree skink		C		3
animals	reptiles	Scincidae	<i>Eulamprus quoyii</i>	eastern water skink		C		6
animals	reptiles	Scincidae	<i>Ctenotus arcanus</i>	arcane ctenotus		C		1
animals	reptiles	Scincidae	<i>Eulamprus sp.</i>					4
animals	reptiles	Scincidae	<i>Carlia sp.</i>					1
animals	reptiles	Scincidae	<i>Morethia taeniopleura</i>	fire-tailed skink		C		2
animals	reptiles	Scincidae	<i>Calyptotis scutirostrum</i>	scute-snouted calyptotis		C		6
animals	reptiles	Scincidae	<i>Eroticoscincus graciloides</i>	elf skink		C		1
animals	reptiles	Scincidae	<i>Cryptoblepharus pulcher pulcher</i>	elegant snake-eyed skink		C		22
animals	reptiles	Typhlopidae	<i>Anilius sp.</i>					1
animals	reptiles	Typhlopidae	<i>Anilius wiedii</i>	brown-snouted blind snake		C		2
animals	reptiles	Varanidae	<i>Varanus varius</i>	lace monitor		C		1
animals	uncertain	Indeterminate	<i>Indeterminate</i>	Unknown or Code Pending		C		1
fungi	Agaricomycetes	Agaricaceae	<i>Chlorophyllum</i>			C		2/2
fungi	Agaricomycetes	Agaricaceae	<i>Cyathus striatus</i>			C		1/1
fungi	Agaricomycetes	Agaricaceae	<i>Lepiota fuliginosa</i>			C		1/1
fungi	Agaricomycetes	Amanitaceae	<i>Amanita punctata</i>			C		1/1
fungi	Agaricomycetes	Bolbitiaceae	<i>Conocybe</i>			C		1/1
fungi	Agaricomycetes	Boletaceae	<i>Phylloporus sulcatus</i>			C		1/1
fungi	Agaricomycetes	Boletaceae	<i>Boletus</i>			C		1/1
fungi	Agaricomycetes	Boletinellaceae	<i>Phlebopus marginatus</i>			C		1/1
fungi	Agaricomycetes	Cantharellaceae	<i>Cantharellus ochraceoravus</i>			C		1/1
fungi	Agaricomycetes	Cortinariaceae	<i>Gymnopilus junonius</i>			C		2/2
fungi	Agaricomycetes	Geastraceae	<i>Geastrum floriforme</i>			C		2/2
fungi	Agaricomycetes	Gloeophyllaceae	<i>Veluticeps</i>			C		1/1
fungi	Agaricomycetes	Gomphaceae	<i>Ramaria</i>			C		1/1
fungi	Agaricomycetes	Hymenochaetaceae	<i>Inonotus albertinii</i>			C		1/1
fungi	Agaricomycetes	Inocybaceae	<i>Inocybe austrobrilliosa</i>			C		1/1
fungi	Agaricomycetes	Marasmiaceae	<i>Armillaria</i>			C		1/1
fungi	Agaricomycetes	Phallaceae	<i>Lysurus mokusin</i>			C		1/1
fungi	Agaricomycetes	Pleurotaceae	<i>Pleurotus</i>			C		1/1
fungi	Agaricomycetes	Polyporaceae	<i>Hexagonia</i>			C		1/1
fungi	Agaricomycetes	Russulaceae	<i>Russula</i>			C		1/1
fungi	Agaricomycetes	Russulaceae	<i>Russula kalimna</i>			C		1/1
fungi	Agaricomycetes	Tricholomataceae	<i>Lepista endota</i>			C		1/1
fungi	Agaricomycetes	Tricholomataceae	<i>Collybia endota</i>			C		1/1
fungi	lecanoromycetes	Caliciaceae	<i>Dirinaria confluens</i>			C		1/1
plants	land plants	Acanthaceae	<i>Pseuderanthemum variabile</i>	pastel flower		C		1
plants	land plants	Acanthaceae	<i>Hygrophila angustifolia</i>			C		1/1
plants	land plants	Acanthaceae	<i>Dyschoriste depressa</i>		Y			3/3
plants	land plants	Acanthaceae	<i>Dicliptera chinensis</i>	Chinese foldwing	Y			2/2

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plants	land plants	Acanthaceae	<i>Thunbergia fragrans</i>		Y			1/1
plants	land plants	Acanthaceae	<i>Thunbergia alata</i>	black-eyed Susan	Y			1/1
plants	land plants	Acanthaceae	<i>Justicia betonica</i>		Y			1/1
plants	land plants	Acanthaceae	<i>Hygrophila costata</i>		Y			1/1
plants	land plants	Adoxaceae	<i>Sambucus nigra</i>		Y			1/1
plants	land plants	Agavaceae	<i>Agave americana</i>		Y			1
plants	land plants	Aizoaceae	<i>Sesuvium portulacastrum</i>	sea purslane		C		1/1
plants	land plants	Alismataceae	<i>Sagittaria platyphylla</i>	sagittaria	Y			2/2
plants	land plants	Amaranthaceae	<i>Amaranthus spinosus</i>	needle burr	Y			1/1
plants	land plants	Amaranthaceae	<i>Alternanthera philoxeroides</i>	alligator weed	Y			3/3
plants	land plants	Amaranthaceae	<i>Alternanthera denticulata</i>	lesser joyweed		C		3/2
plants	land plants	Amaranthaceae	<i>Gomphrena celosioides</i>	gomphrena weed	Y			2
plants	land plants	Anacardiaceae	<i>Schinus terebinthifolius</i>		Y			3/2
plants	land plants	Anacardiaceae	<i>Mangifera indica</i>	mango	Y			1
plants	land plants	Apiaceae	<i>Centella asiatica</i>			C		2/1
plants	land plants	Apocynaceae	<i>Parsonsia brisbanensis</i>	broad-leaved monkey vine		C		2/1
plants	land plants	Apocynaceae	<i>Parsonsia straminea</i>	monkey rope		C		3/1
plants	land plants	Araliaceae	<i>Schefflera actinophylla</i>	umbrella tree		C		2
plants	land plants	Asparagaceae	<i>Asparagus aethiopicus</i>	ground asparagus	Y			1
plants	land plants	Asparagaceae	<i>Asparagus aethiopicus 'Sprengeri'</i>	basket asparagus fern	Y			1
plants	land plants	Aspleniaceae	<i>Asplenium australasicum</i>			C		1
plants	land plants	Asteraceae	<i>Bidens pilosa</i>		Y			2
plants	land plants	Asteraceae	<i>Gazania rigens</i>		Y			1
plants	land plants	Asteraceae	<i>Soliva sessilis</i>		Y			1/1
plants	land plants	Asteraceae	<i>Eclipta prostrata</i>	white eclipta	Y			4/2
plants	land plants	Asteraceae	<i>Sonchus oleraceus</i>	common sowthistle	Y			2/1
plants	land plants	Asteraceae	<i>Tridax procumbens</i>	tridax daisy	Y			1
plants	land plants	Asteraceae	<i>Emilia sonchifolia</i>		Y			1
plants	land plants	Asteraceae	<i>Eclipta platyglossa</i>			C		2/1
plants	land plants	Asteraceae	<i>Glossocardia bidens</i>	native cobbler's pegs		C		1
plants	land plants	Asteraceae	<i>Erigeron bonariensis</i>		Y			1/1
plants	land plants	Asteraceae	<i>Erigeron sumatrensis</i>		Y			1/1
plants	land plants	Asteraceae	<i>Hypochaeris radicata</i>	catsear	Y			3/1
plants	land plants	Asteraceae	<i>Ageratum houstonianum</i>	blue billygoat weed	Y			2
plants	land plants	Asteraceae	<i>Baccharis halimifolia</i>	groundsel bush	Y			2
plants	land plants	Asteraceae	<i>Cyanthillium cinereum</i>			C		1/1
plants	land plants	Asteraceae	<i>Ozothamnus diosmifolius</i>	white dogwood		C		1
plants	land plants	Asteraceae	<i>Sphagneticola trilobata</i>		Y			3/2
plants	land plants	Asteraceae	<i>Symphotrichum subulatum</i>		Y			1
plants	land plants	Asteraceae	<i>Eleutheranthera ruderalis</i>		Y			1/1
plants	land plants	Asteraceae	<i>Sphaeromorphaea australis</i>			C		1
plants	land plants	Asteraceae	<i>Crassocephalum crepidioides</i>	thickhead	Y			1
plants	land plants	Asteraceae	<i>Thymophylla tenuiloba var. tenuiloba</i>		Y			1/1
plants	land plants	Asteraceae	<i>Acmella grandiflora var. brachyglossa</i>			C		1/1
plants	land plants	Asteraceae	<i>Ageratum conyzoides subsp. conyzoides</i>		Y			1/1
plants	land plants	Asteraceae	<i>Erechtites valerianifolius forma valerianifolius</i>		Y			1/1

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plants	land plants	Bignoniaceae	<i>Pandorea pandorana</i>	wonga vine		C		1
plants	land plants	Bignoniaceae	<i>Jacaranda mimosifolia</i>	jacaranda	Y			1
plants	land plants	Bignoniaceae	<i>Spathodea campanulata</i>	West African tulip tree	Y			1
plants	land plants	Bignoniaceae	<i>Dolichandra unguis-cati</i>	cat's claw creeper	Y			1
plants	land plants	Boraginaceae	<i>Heliotropium amplexicaule</i>	blue heliotrope	Y			1/1
plants	land plants	Byttneriaceae	<i>Seringia denticulata</i>				C	4/4
plants	land plants	Caesalpiniaceae	<i>Delonix regia</i>	poinciana	Y			1
plants	land plants	Caesalpiniaceae	<i>Senna pendula</i>		Y			1
plants	land plants	Caesalpiniaceae	<i>Bauhinia galpinii</i>		Y			1
plants	land plants	Campanulaceae	<i>Lobelia stenophylla</i>				C	2/2
plants	land plants	Campanulaceae	<i>Lobelia purpurascens</i>	white root			C	1
plants	land plants	Caricaceae	<i>Carica papaya</i>	pawpaw	Y			1
plants	land plants	Caryophyllaceae	<i>Spergularia marina</i>				C	1/1
plants	land plants	Caryophyllaceae	<i>Drymaria cordata</i>		Y			1
plants	land plants	Casuarinaceae	<i>Casuarina glauca</i>	swamp she-oak			C	1/1
plants	land plants	Casuarinaceae	<i>Allocasuarina littoralis</i>				C	2/1
plants	land plants	Ceratophyllaceae	<i>Ceratophyllum demersum</i>	hornwort			C	1/1
plants	land plants	Chenopodiaceae	<i>Einadia hastata</i>				C	1/1
plants	land plants	Clusiaceae	<i>Hypericum gramineum</i>				C	1
plants	land plants	Commelinaceae	<i>Callisia fragrans</i>		Y			1
plants	land plants	Commelinaceae	<i>Commelina diffusa</i>	wandering jew			C	3/1
plants	land plants	Commelinaceae	<i>Murdannia graminea</i>	murdannia			C	2/1
plants	land plants	Commelinaceae	<i>Commelina benghalensis</i>		Y			1/1
plants	land plants	Convolvulaceae	<i>Polymeria calycina</i>	pink bindweed			C	1
plants	land plants	Convolvulaceae	<i>Dichondra repens</i>	kidney weed			C	1
plants	land plants	Convolvulaceae	<i>Ipomoea plebeia</i>	bellvine			C	1/1
plants	land plants	Convolvulaceae	<i>Ipomoea alba</i>	moon flower	Y			1/1
plants	land plants	Crassulaceae	<i>Bryophyllum delagoense</i>		Y			1
plants	land plants	Crassulaceae	<i>Bryophyllum x houghtonii</i>		Y			1
plants	land plants	Cucurbitaceae	<i>Cucurbita maxima</i>	pumpkin	Y			1
plants	land plants	Cucurbitaceae	<i>Momordica charantia</i>	balsam pear	Y			1/1
plants	land plants	Cyperaceae	<i>Cyperus pilosus</i>				C	1/1
plants	land plants	Cyperaceae	<i>Cyperus gracilis</i>				C	1/1
plants	land plants	Cyperaceae	<i>Cyperus prolifer</i>	dwarf papyrus	Y			1/1
plants	land plants	Cyperaceae	<i>Cyperus rotundus</i>	nutgrass	Y			1/1
plants	land plants	Cyperaceae	<i>Fuirena ciliaris</i>				C	1/1
plants	land plants	Cyperaceae	<i>Cyperus exaltatus</i>	tall flatsedge			C	1
plants	land plants	Cyperaceae	<i>Cyperus trinervis</i>				C	1/1
plants	land plants	Cyperaceae	<i>Cyperus aggregatus</i>		Y			1/1
plants	land plants	Cyperaceae	<i>Cyperus eragrostis</i>		Y			1/1
plants	land plants	Cyperaceae	<i>Cyperus x turbatus</i>		Y			1/1
plants	land plants	Cyperaceae	<i>Fimbristylis nutans</i>				C	1/1
plants	land plants	Cyperaceae	<i>Eleocharis equisetina</i>				C	1/1
plants	land plants	Cyperaceae	<i>Fimbristylis dichotoma</i>	common fringe-rush			C	2/2
plants	land plants	Cyperaceae	<i>Rhynchospora heterochaeta</i>				C	1/1
plants	land plants	Cyperaceae	<i>Fimbristylis depauperata</i>				C	1

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plants	land plants	Cyperaceae	<i>Cyperus distans</i>			C		1/1
plants	land plants	Cyperaceae	<i>Carex appressa</i>			C		1/1
plants	land plants	Cyperaceae	<i>Cyperus iria</i>			C		1/1
plants	land plants	Cyperaceae	<i>Cyperus haspan subsp. haspan</i>			C		1/1
plants	land plants	Cyperaceae	<i>Scleria sp. (Maggieville R.C.Carolin 8758)</i>			C		1
plants	land plants	Dilleniaceae	<i>Hibbertia stricta</i>			C		1/1
plants	land plants	Dracaenaceae	<i>Sansevieria trifasciata</i>	mother-in-law's tongue	Y			1
plants	land plants	Ericaceae	<i>Leucopogon juniperinus</i>	prickly heath		C		1/1
plants	land plants	Ericaceae	<i>Leucopogon sp. (Coolmunda D.Halford Q1635)</i>			E	E	1
plants	land plants	Euphorbiaceae	<i>Ricinus communis</i>	castor oil bush	Y			1
plants	land plants	Euphorbiaceae	<i>Euphorbia hirta</i>		Y			1/1
plants	land plants	Euphorbiaceae	<i>Triadica sebifera</i>		Y			2/2
plants	land plants	Fabaceae	<i>Erythrina x sykesii</i>		Y			1/1
plants	land plants	Fabaceae	<i>Desmodium uncinatum</i>		Y			1
plants	land plants	Fabaceae	<i>Daviesia umbellulata</i>				C	1/1
plants	land plants	Fabaceae	<i>Dillwynia phyllicoides</i>				C	1/1
plants	land plants	Fabaceae	<i>Hardenbergia violacea</i>				C	1
plants	land plants	Fabaceae	<i>Tephrosia grandiflora</i>		Y			1/1
plants	land plants	Fabaceae	<i>Erythrina crista-galli</i>		Y			1/1
plants	land plants	Fabaceae	<i>Macroptilium atropurpureum</i>	siratro	Y			2
plants	land plants	Fabaceae	<i>Crotalaria pallida var. obovata</i>		Y			2/2
plants	land plants	Fabaceae	<i>Neonotonia wightii var. wightii</i>		Y			1/1
plants	land plants	Fabaceae	<i>Macrotyloma uniflorum var. stenocarpum</i>		Y			1/1
plants	land plants	Fabaceae	<i>Sesbania</i>				C	1/1
plants	land plants	Fabaceae	<i>Tipuana tipu</i>	tipuana	Y			1
plants	land plants	Fabaceae	<i>Glycine tabacina</i>	glycine pea			C	2/1
plants	land plants	Fabaceae	<i>Hovea acutifolia</i>				C	1/1
plants	land plants	Fabaceae	<i>Pultenaea spinosa</i>				C	1/1
plants	land plants	Fabaceae	<i>Pultenaea villosa</i>	hairy bush pea			C	1/1
plants	land plants	Fabaceae	<i>Crotalaria montana</i>				C	1/1
plants	land plants	Fabaceae	<i>Daviesia villifera</i>	prickly daviesia			C	1/1
plants	land plants	Fabaceae	<i>Trifolium pratense</i>		Y			1/1
plants	land plants	Fabaceae	<i>Aeschynomene indica</i>	budda pea			C	1/1
plants	land plants	Fabaceae	<i>Glycine clandestina</i>				C	1
plants	land plants	Goodeniaceae	<i>Velleia spathulata</i>	wild pansies			C	1
plants	land plants	Goodeniaceae	<i>Goodenia rotundifolia</i>				C	3/2
plants	land plants	Goodeniaceae	<i>Goodenia paniculata</i>				C	2/2
plants	land plants	Haloragaceae	<i>Myriophyllum aquaticum</i>	Brazilian water milfoil	Y			1/1
plants	land plants	Hemerocallidaceae	<i>Dianella rara</i>				C	1
plants	land plants	Hemerocallidaceae	<i>Dianella brevipedunculata</i>				C	1
plants	land plants	Hemerocallidaceae	<i>Dianella longifolia var. stenophylla</i>				C	1/1
plants	land plants	Hemerocallidaceae	<i>Dianella longifolia</i>				C	1
plants	land plants	Hemerocallidaceae	<i>Geitonoplesium cymosum</i>	scrambling lily			C	1
plants	land plants	Hydrocharitaceae	<i>Ottelia ovalifolia subsp. ovalifolia</i>				C	2/2
plants	land plants	Hydrocharitaceae	<i>Hydrilla verticillata</i>	hydrilla			C	2/2
plants	land plants	Juncaceae	<i>Juncus cognatus</i>		Y			1/1

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plants	land plants	Juncaceae	<i>Juncus articulatus</i>	jointed rush	Y			1/1
plants	land plants	Juncaceae	<i>Juncus continuus</i>			C		1/1
plants	land plants	Juncaginaceae	<i>Cycnogeton multifructus</i>			C		1/1
plants	land plants	Lamiaceae	<i>Stachys arvensis</i>	stagger weed	Y			1/1
plants	land plants	Lauraceae	<i>Cinnamomum camphora</i>	camphor laurel	Y			2/1
plants	land plants	Lauraceae	<i>Cassytha filiformis</i>	dodder laurel		C		2/1
plants	land plants	Lauraceae	<i>Cryptocarya microneura</i>	murrogon		C		1/1
plants	land plants	Laxmanniaceae	<i>Lomandra multiflora</i>			C		1
plants	land plants	Laxmanniaceae	<i>Lomandra longifolia</i>			C		1
plants	land plants	Laxmanniaceae	<i>Lomandra obliqua</i>			C		1/1
plants	land plants	Laxmanniaceae	<i>Cordyline rubra</i>	red-fruited palm lily		C		1
plants	land plants	Laxmanniaceae	<i>Eustrephus latifolius</i>	wombat berry		C		2/1
plants	land plants	Malvaceae	<i>Malvastrum coromandelianum subsp. coromandelianum</i>		Y			1/1
plants	land plants	Malvaceae	<i>Modiola caroliniana</i>	red-flowered mallow	Y			1/1
plants	land plants	Malvaceae	<i>Sida rhombifolia</i>		Y			1
plants	land plants	Melastomataceae	<i>Melastoma malabathricum subsp. malabathricum</i>			C		1
plants	land plants	Menispermaceae	<i>Stephania japonica</i>			C		1
plants	land plants	Menyanthaceae	<i>Nymphoides geminata</i>			C		1/1
plants	land plants	Mimosaceae	<i>Acacia cincinnata</i>			C		1/1
plants	land plants	Mimosaceae	<i>Acacia leiocalyx</i>			C		2
plants	land plants	Mimosaceae	<i>Acacia penninervis</i>			C		1
plants	land plants	Mimosaceae	<i>Acacia podalyriifolia</i>	Queensland silver wattle		C		1
plants	land plants	Mimosaceae	<i>Leucaena leucocephala</i>		Y			1
plants	land plants	Mimosaceae	<i>Acacia disparrima subsp. disparrima</i>			C		3/1
plants	land plants	Mimosaceae	<i>Acacia penninervis var. longiracemosa</i>			C		1/1
plants	land plants	Mimosaceae	<i>Acacia concurrens</i>			C		1/1
plants	land plants	Mimosaceae	<i>Mimosa pudica</i>		Y			1/1
plants	land plants	Mimosaceae	<i>Acacia fimbriata</i>	Brisbane golden wattle		C		2/1
plants	land plants	Moraceae	<i>Fatoua villosa</i>		Y			1/1
plants	land plants	Moraceae	<i>Ficus opposita</i>			C		1/1
plants	land plants	Moraceae	<i>Ficus benghalensis</i>	banyan	Y			1/1
plants	land plants	Moraceae	<i>Ficus obliqua</i>			C		1
plants	land plants	Myrsinaceae	<i>Aegiceras corniculatum</i>	river mangrove		C		1/1
plants	land plants	Myrsinaceae	<i>Ardisia crenata</i>		Y			1
plants	land plants	Myrtaceae	<i>Corymbia citriodora subsp. variegata</i>			C		1
plants	land plants	Myrtaceae	<i>Acmena smithii</i>	lillypilly satinash		C		1
plants	land plants	Myrtaceae	<i>Corymbia henryi</i>	large-leaved spotted gum		C		1
plants	land plants	Myrtaceae	<i>Eugenia uniflora</i>	Brazilian cherry tree	Y			1
plants	land plants	Myrtaceae	<i>Sannantha collina</i>			C		1/1
plants	land plants	Myrtaceae	<i>Corymbia gummiifera</i>	red bloodwood		C		1/1
plants	land plants	Myrtaceae	<i>Eucalyptus grandis</i>	flooded gum		C		1
plants	land plants	Myrtaceae	<i>Angophora leiocarpa</i>	rusty gum		C		1
plants	land plants	Myrtaceae	<i>Angophora woodsiana</i>	smudgee		C		1/1
plants	land plants	Myrtaceae	<i>Corymbia intermedia</i>	pink bloodwood		C		1
plants	land plants	Myrtaceae	<i>Corymbia torelliana</i>	cadaghi		C		1
plants	land plants	Myrtaceae	<i>Eucalyptus curtisii</i>	Plunkett mallee		NT		1

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plants	land plants	Myrtaceae	<i>Melaleuca bracteata</i>			C		1
plants	land plants	Myrtaceae	<i>Melaleuca viminalis</i>			C		1
plants	land plants	Myrtaceae	<i>Eucalyptus propinqua</i>	small-fruited grey gum		C		2
plants	land plants	Myrtaceae	<i>Eucalyptus tindaliae</i>	Queensland white stringybark		C		1/1
plants	land plants	Myrtaceae	<i>Backhousia myrtifolia</i>	carrol		C		1
plants	land plants	Myrtaceae	<i>Corymbia trachyphloia</i>			C		1
plants	land plants	Myrtaceae	<i>Eucalyptus acmenoides</i>			C		1
plants	land plants	Myrtaceae	<i>Eucalyptus helidonica</i>			C		1/1
plants	land plants	Myrtaceae	<i>Eucalyptus microcorys</i>			C		2
plants	land plants	Myrtaceae	<i>Lophostemon confertus</i>	brush box		C		1
plants	land plants	Myrtaceae	<i>Tristaniopsis laurina</i>			C		1
plants	land plants	Myrtaceae	<i>Lophostemon suaveolens</i>	swamp box		C		3
plants	land plants	Myrtaceae	<i>Melaleuca linariifolia</i>	snow-in summer		C		1
plants	land plants	Myrtaceae	<i>Eucalyptus siderophloia</i>			C		2
plants	land plants	Myrtaceae	<i>Eucalyptus tereticornis</i>			C		1
plants	land plants	Myrtaceae	<i>Leptospermum petersonii</i>			C		1
plants	land plants	Myrtaceae	<i>Melaleuca quinquenervia</i>	swamp paperbark		C		2
plants	land plants	Myrtaceae	<i>Xanthostemon chrysanthus</i>	black penda		C		1
plants	land plants	Ochnaceae	<i>Ochna serrulata</i>	ochna	Y			1
plants	land plants	Onagraceae	<i>Ludwigia octovalvis</i>	willow primrose		C		1
plants	land plants	Onagraceae	<i>Ludwigia peploides subsp. montevidensis</i>			C		1
plants	land plants	Orchidaceae	<i>Epidendrum x obrienianum</i>		Y			1
plants	land plants	Orchidaceae	<i>Cheirostylis notialis</i>			C		1/1
plants	land plants	Orchidaceae	<i>Thelymitra malvina</i>			C		1/1
plants	land plants	Oxalidaceae	<i>Oxalis</i>			C		1/1
plants	land plants	Oxalidaceae	<i>Oxalis corniculata</i>		Y			1
plants	land plants	Passifloraceae	<i>Passiflora suberosa subsp. litoralis</i>		Y			1/1
plants	land plants	Passifloraceae	<i>Passiflora edulis</i>		Y			1
plants	land plants	Passifloraceae	<i>Passiflora suberosa</i>	corky passion flower	Y			1
plants	land plants	Passifloraceae	<i>Passiflora subpeltata</i>	white passion flower	Y			1
plants	land plants	Phyllanthaceae	<i>Breynia oblongifolia</i>			C		1
plants	land plants	Phyllanthaceae	<i>Phyllanthus tenellus</i>		Y			1
plants	land plants	Phyllanthaceae	<i>Glochidion ferdinandi var. ferdinandi</i>			C		1/1
plants	land plants	Phyllanthaceae	<i>Glochidion ferdinandi</i>			C		1
plants	land plants	Phyllanthaceae	<i>Phyllanthus virgatus</i>			C		2/2
plants	land plants	Pittosporaceae	<i>Hymenosporum flavum</i>	native frangipani		C		1
plants	land plants	Pittosporaceae	<i>Aurantiarpa rhombifolia</i>			C		1/1
plants	land plants	Pittosporaceae	<i>Pittosporum revolutum</i>	yellow pittosporum		C		1
plants	land plants	Plantaginaceae	<i>Plantago myosuuros subsp. myosuuros</i>		Y			1/1
plants	land plants	Plantaginaceae	<i>Plantago debilis</i>	shade plantain		C		1/1
plants	land plants	Poaceae	<i>Aristida</i>			C		1
plants	land plants	Poaceae	<i>Aristida queenslandica var. queenslandica</i>			C		1
plants	land plants	Poaceae	<i>Hemarthria uncinata var. uncinata</i>			C		1/1
plants	land plants	Poaceae	<i>Megathyrsus maximus var. maximus</i>		Y			1/1
plants	land plants	Poaceae	<i>Ischaemum australe var. australe</i>			C		1/1
plants	land plants	Poaceae	<i>Sporobolus coromandelianus</i>		Y			1/1

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plants	land plants	Poaceae	<i>Echinochloa telmatophila</i>	swamp barnyard grass		C		1/1
plants	land plants	Poaceae	<i>Sporobolus</i>			C		5
plants	land plants	Poaceae	<i>Holcus lanatus</i>	yorkshire fog	Y			1
plants	land plants	Poaceae	<i>Setaria pumila</i>		Y			1
plants	land plants	Poaceae	<i>Panicum effusum</i>				C	1
plants	land plants	Poaceae	<i>Urochloa mutica</i>		Y			1
plants	land plants	Poaceae	<i>Cynodon dactylon</i>		Y			1
plants	land plants	Poaceae	<i>Leersia hexandra</i>	swamp rice grass			C	2/2
plants	land plants	Poaceae	<i>Themeda triandra</i>	kangaroo grass			C	1
plants	land plants	Poaceae	<i>Panicum paludosum</i>	swamp panic			C	1/1
plants	land plants	Poaceae	<i>Paspalum urvillei</i>	vasey grass	Y			2/1
plants	land plants	Poaceae	<i>Sorghum halepense</i>	Johnson grass	Y			1
plants	land plants	Poaceae	<i>Chloris ventricosa</i>	tall chloris			C	1
plants	land plants	Poaceae	<i>Digitaria bicornis</i>				C	1/1
plants	land plants	Poaceae	<i>Echinochloa colona</i>	awnless barnyard grass	Y			2
plants	land plants	Poaceae	<i>Entolasia whiteana</i>				C	2/2
plants	land plants	Poaceae	<i>Eragrostis brownii</i>	Brown's lovegrass			C	2/1
plants	land plants	Poaceae	<i>Oplismenus aemulus</i>	creeping shade grass			C	1
plants	land plants	Poaceae	<i>Paspalum dilatatum</i>	paspalum	Y			2/1
plants	land plants	Poaceae	<i>Setaria sphacelata</i>		Y			2/1
plants	land plants	Poaceae	<i>Eragrostis mexicana</i>	Mexican lovegrass	Y			1/1
plants	land plants	Poaceae	<i>Eriochloa meyeriana</i>		Y			1/1
plants	land plants	Poaceae	<i>Imperata cylindrica</i>	blady grass			C	1
plants	land plants	Poaceae	<i>Megathyrsus maximus</i>		Y			1
plants	land plants	Poaceae	<i>Panicum larcomianum</i>				C	1
plants	land plants	Poaceae	<i>Paspalidium distans</i>	shotgrass			C	1
plants	land plants	Poaceae	<i>Paspalum conjugatum</i>	sourgrass	Y			1
plants	land plants	Poaceae	<i>Bothriochloa pertusa</i>		Y			1/1
plants	land plants	Poaceae	<i>Cymbopogon refractus</i>	barbed-wire grass			C	1
plants	land plants	Poaceae	<i>Microlaena stipoides</i>				C	1
plants	land plants	Poaceae	<i>Ottochloa gracillima</i>	pademelon grass			C	1
plants	land plants	Poaceae	<i>Phalaris canariensis</i>	canary grass	Y			1/1
plants	land plants	Poaceae	<i>Andropogon virginicus</i>	whiskey grass	Y			2/2
plants	land plants	Poaceae	<i>Sporobolus virginicus</i>	sand couch			C	1/1
plants	land plants	Poaceae	<i>Alloteropsis semialata</i>	cockatoo grass			C	1
plants	land plants	Poaceae	<i>Arundinella nepalensis</i>	reedgrass			C	1
plants	land plants	Poaceae	<i>Bothriochloa decipiens</i>				C	2
plants	land plants	Poaceae	<i>Capillipedium spicigerum</i>	spicytop			C	1
plants	land plants	Polygalaceae	<i>Polygala paniculata</i>		Y			1/1
plants	land plants	Polygonaceae	<i>Rumex brownii</i>	swamp dock			C	1
plants	land plants	Polygonaceae	<i>Persicaria decipiens</i>	slender knotweed			C	1/1
plants	land plants	Polypodiaceae	<i>Platycterium superbum</i>	staghorn fern			C	1
plants	land plants	Portulacaceae	<i>Portulaca pilosa</i>		Y			1
plants	land plants	Portulacaceae	<i>Portulaca oleracea</i>	pigweed	Y			1
plants	land plants	Potamogetonaceae	<i>Potamogeton octandrus</i>				C	4/4
plants	land plants	Proteaceae	<i>Hakea florulenta</i>	three-nerved willow hakea			C	1/1

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plants	land plants	Proteaceae	<i>Grevillea banksii</i>			C		1/1
plants	land plants	Proteaceae	<i>Grevillea robusta</i>			C		1
plants	land plants	Proteaceae	<i>Grevillea baileyana</i>			C		1
plants	land plants	Proteaceae	<i>Persoonia sericea x Persoonia tenuifolia</i>			C		1/1
plants	land plants	Proteaceae	<i>Stenocarpus sinuatus</i>	wheel of fire		C		1
plants	land plants	Proteaceae	<i>Macadamia tetraphylla</i>			V	V	1
plants	land plants	Proteaceae	<i>Macadamia integrifolia</i>	macadamia nut		V	V	1
plants	land plants	Proteaceae	<i>Banksia spinulosa var. collina</i>			C		1/1
plants	land plants	Proteaceae	<i>Banksia oblongifolia</i>	dwarf banksia		C		2/2
plants	land plants	Pteridaceae	<i>Cheilanthes sieberi subsp. sieberi</i>			C		1/1
plants	land plants	Pteridaceae	<i>Cheilanthes sieberi</i>			C		1
plants	land plants	Rhamnaceae	<i>Alphitonia excelsa</i>	soap tree		C		3
plants	land plants	Rosaceae	<i>Rhaphiolepis indica</i>	Indian hawthorn	Y			1
plants	land plants	Rubiaceae	<i>Richardia brasiliensis</i>	white eye	Y			1
plants	land plants	Rubiaceae	<i>Pomax umbellata</i>			C		1/1
plants	land plants	Rubiaceae	<i>Coffea arabica</i>	Arabian coffee	Y			1
plants	land plants	Rubiaceae	<i>Oldenlandia subulata</i>			C		2/2
plants	land plants	Rutaceae	<i>Berberis koenigii</i>		Y			1/1
plants	land plants	Rutaceae	<i>Murraya paniculata 'Exotica'</i>		Y			1
plants	land plants	Rutaceae	<i>Melicope rubra</i>			C		1/1
plants	land plants	Salicaceae	<i>Dovyalis caffra</i>	kei apple	Y			1/1
plants	land plants	Santalaceae	<i>Exocarpos cupressiformis</i>	native cherry		C		1
plants	land plants	Sapindaceae	<i>Harpullia pendula</i>			C		2
plants	land plants	Sapindaceae	<i>Jagera pseudorhus</i>			C		1
plants	land plants	Scrophulariaceae	<i>Eremophila debilis</i>	winter apple		C		1
plants	land plants	Solanaceae	<i>Duboisia myoporoides</i>			C		1/1
plants	land plants	Solanaceae	<i>Cestrum parqui</i>	green cestrum	Y			1
plants	land plants	Solanaceae	<i>Solanum seaforthianum</i>	Brazilian nightshade	Y			2
plants	land plants	Solanaceae	<i>Solanum americanum</i>			C		1
plants	land plants	Solanaceae	<i>Physalis angulata</i>		Y			1/1
plants	land plants	Solanaceae	<i>Solanum nigrum</i>		Y			1
plants	land plants	Sparrmanniaceae	<i>Triumfetta rhomboidea</i>	chinese burr	Y			1/1
plants	land plants	Thymelaeaceae	<i>Wikstroemia indica</i>	tie bush		C		1
plants	land plants	Typhaceae	<i>Typha orientalis</i>	broad-leaved cumbungi		C		1
plants	land plants	Ulmaceae	<i>Celtis sinensis</i>	Chinese elm	Y			1
plants	land plants	Ulmaceae	<i>Trema tomentosa</i>			C		1
plants	land plants	Verbenaceae	<i>Verbena bonariensis</i>	purpletop	Y			1
plants	land plants	Verbenaceae	<i>Verbena incompta</i>		Y			2/2
plants	land plants	Verbenaceae	<i>Lantana camara</i>	lantana	Y			1
plants	land plants	Verbenaceae	<i>Stachytarpheta jamaicensis</i>	Jamaica snakeweed	Y			1
plants	land plants	Vitaceae	<i>Clematicissus opaca</i>			C		1/1
plants	land plants	Vitaceae	<i>Cissus hypoglauca</i>			C		1
plants	uncertain	Indet.	<i>Indet.</i>			C		3
protozoans	slime molds	Physaraceae	<i>Fuligo septica</i>			C		1/1

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992*. The codes are Extinct in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ().

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).

This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.

This number is output as 999 if it equals or exceeds this value.



Attachment 7



Vegetation management report

For Lot: 322 Plan: SP172124

Current as at 17/09/2019

This publication has been compiled by Operations Support, Department of Natural Resources, Mines and Energy.

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Recent changes

Updated mapping

The Regulated Vegetation Management Map and Supporting Map was updated in June 2019 to reflect the most up to date information available in relation to regional ecosystems, essential habitat and wetland mapping (Version 11).

Overview

Based on the lot on plan details you have supplied, this report provides the following detailed information:

- *Vegetation management framework* - an explanation of the application of the framework.
- *Property details* - information about the specified Lot on Plan, lot size, local government area, bioregion(s), subregion(s), catchment(s), coastal or non coastal status, and any applicable area management plans associated with your property.
- *Vegetation management details for the specified Lot on Plan* - specific information about your property including vegetation categories, regional ecosystems, watercourses, wetlands, essential habitat, and protected plants.
- *Contact information*.
- *Maps* - a series of colour maps to assist in identifying regulated vegetation on your property.
- *Other legislation contact information*.

This information will assist you to determine your options for managing vegetation under the vegetation management framework, which may include:

- exempt clearing work
- accepted development vegetation clearing code
- an area management plan
- a development approval.

Other laws

The clearing of native vegetation is regulated by both Queensland and Australian legislation, and some local governments also regulate native vegetation clearing. You may need to obtain an approval or permit under another Act, such as Queensland's Protected Plants framework or the Commonwealth Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Section 6 of this guide provides contact details of other agencies you should confirm requirements with, before commencing vegetation clearing.

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1. Vegetation management framework

The *Vegetation Management Act 1999* (VMA), the Vegetation Management Regulation 2012, the *Planning Act 2016* and the Planning Regulation 2017, in conjunction with associated policies and codes, form the Vegetation Management Framework.

The VMA does not apply to all land tenures or vegetation types. State forests, national parks, forest reserves and some tenures under the *Forestry Act 1959* and *Nature Conservation Act 1992* are not regulated by the VMA. Managing or clearing vegetation on these tenures may require approvals under these laws.

The following native vegetation is not regulated under the VMA but may require permit(s) under other laws:

- grass or non-woody herbage;
- a plant within a grassland regional ecosystem prescribed under Schedule 5 of the Vegetation Management Regulation 2012; and
- a mangrove.

1.1 Exempt clearing work

Exempt clearing work is an activity for which you do not need to notify DNRME or obtain an approval approval under the vegetation management framework. Exempt clearing work was previously known as exemptions.

In areas that are mapped as Category X (white in colour) on the regulated vegetation management map (see section 5.1), and where the land tenure is freehold, indigenous land and leasehold land for agriculture and grazing purposes, the clearing of vegetation is considered exempt clearing work and does not require notification or development approval approval under the vegetation management framework. For all other land tenures, contact DNRME before commencing clearing to ensure that the proposed activity is exempt clearing work.

A range of routine property management activities are considered exempt clearing work. A list of exempt clearing work is available at

<https://www.qld.gov.au/environment/land/vegetation/exemptions/>.

Exempt clearing work may be affected if the proposed clearing area is subject to development approval conditions, a covenant, an environmental offset, an exchange area, a restoration notice, or an area mapped as Category A. Exempt clearing work may require approval under other Commonwealth, State or Local Government laws, or local government planning schemes. Contact DNRME prior to clearing in any of these areas.

1.2 Accepted development vegetation clearing codes

Some clearing activities can be undertaken under an accepted development vegetation clearing code. The codes can be downloaded at

<https://www.qld.gov.au/environment/land/vegetation/codes/>

If you intend to clear vegetation under an accepted development vegetation clearing code, you must notify DNRME before commencing. The information in this report will assist you to complete the online notification form.

You can complete the online form at

<https://apps.dnrm.qld.gov.au/vegetation/>

1.3 Area management plans

Area Management Plans (AMP) provide an alternative approval system for vegetation clearing under the vegetation management framework. They list the purposes and clearing conditions that have been approved for the areas covered by the plan. It is not necessary to use an AMP, even when an AMP applies to your property.

AMPs for fodder harvesting, managing thickened vegetation and managing encroachment will continue until March 2020. New notifications cannot be made for these AMPs.

New notifications can be made for all other AMPs. These will continue to apply until their nominated end date.

If an area management plan applies to your property for which you can make a new notification, it will be listed in Section 2.2 of this report. Before clearing under one of these AMPs, you must first notify the DNRME and then follow the conditions and requirements listed in the AMP.

<https://www.qld.gov.au/environment/land/vegetation/area-plans/>

1.4 Development approvals

If under the vegetation management framework your proposed clearing is not exempt clearing work, or is not permitted under an accepted development vegetation clearing code, or an AMP, you may be able to apply for a development approval. Information on how to apply for a development approval is available at

<https://www.qld.gov.au/environment/land/management/vegetation/development>

2. Property details

2.1 Tenure

All of the lot, plan and tenure information associated with property Lot: 322 Plan: SP172124, including links to relevant Smart Maps, are listed in Table 1. The tenure of the property (whether it is freehold, leasehold, or other) may be viewed by clicking on the Smart Map link(s) provided.

Table 1: Lot, plan and tenure information for the property

Lot	Plan	Tenure	Link to property on SmartMap
322	SP172124	Freehold	https://apps.information.qld.gov.au/data/cadastre/GenerateSmartMap?q=322\SP172124

The tenure of the land may affect whether clearing is considered exempt clearing work or may be carried out under an accepted development vegetation clearing code.

2.2 Property location

Table 2 provides a summary of the locations for property Lot: 322 Plan: SP172124, in relation to natural and administrative boundaries.

Table 2: Property location details

Local Government(s)
Brisbane City

Bioregion(s)	Subregion(s)
Southeast Queensland	Sunshine Coast - Gold Coast Lowlands

Catchment(s)
Pine

Area Management Plan(s)

Nil

For the purposes of the accepted development vegetation clearing codes and the State Development Assessment Provisions (SDAP), this property is regarded as*

Coastal

*See also Map 5.4

The following can be used to identify Agricultural Land Class A or B areas under the "Managing regulated regrowth vegetation" accepted development vegetation clearing code:

Does this lot contain land that is mapped as Agricultural Land Class A or B in the State Planning Interactive Mapping System?

No Class A

No Class B

Note - This confirms Agricultural Land Classes as per the State Planning Interactive Mapping System only. This response does not include Agricultural Land Classes identified under local government planning schemes. For further information, check the Planning Scheme for your local government area.

See section 5 to identify the location and extent of Class A and/or Class B Agricultural land on Lot: 322 Plan: SP172124.

3. Vegetation management details for Lot: 322 Plan: SP172124

3.1 Vegetation categories

Vegetation categories are shown on the regulated vegetation management map in section 5.1 of this report. A summary of vegetation categories on the subject lot are listed in Table 3. Descriptions for these categories are shown in Table 4.

Table 3: Vegetation categories for subject property. Total area: 44.73ha

Vegetation category	Area (ha)
Category B	20.7
Category X	24.1

Table 4

Category	Colour on Map	Description	Requirements / options under the vegetation management framework
A	red	Compliance areas, environmental offset areas and voluntary declaration areas	Special conditions apply to Category A areas. Before clearing, contact DNRME to confirm any requirements in a Category A area.
B	dark blue	Remnant vegetation areas	Exempt clearing work, or notification and compliance with accepted development vegetation clearing codes, area management plans or development approval.
C	light blue	High-value regrowth areas	Exempt clearing work, or notification and compliance with managing Category C regrowth vegetation accepted development vegetation clearing code.
R	yellow	Regrowth within 50m of a watercourse or drainage feature in the Great Barrier Reef catchment areas	Exempt clearing work, or notification and compliance with managing Category R regrowth accepted development vegetation clearing code or area management plans.
X	white	Clearing on freehold land, indigenous land and leasehold land for agriculture and grazing purposes is considered exempt clearing work under the vegetation management framework. Contact DNRME to clarify whether a development approval is required for other State land tenures.	No permit or notification required on freehold land, indigenous land and leasehold land for agriculture and grazing. A development approval may be required for some State land tenures.

Property Map of Assessable Vegetation (PMAV)

This report does not confirm if a Property Map of Assessable Vegetation (PMAV) exists on a lot. To confirm whether or not a PMAV exists on a lot, please check the PMAV layer on the Queensland Globe², or contact DNRME on 135VEG (135 834).

3.2 Regional ecosystems

The endangered, of concern and least concern regional ecosystems on your property are shown on the vegetation management supporting map in section 5.2 and are listed in Table 5.

A description of regional ecosystems can be accessed online at

<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/descriptions/>

Table 5: Regional ecosystems present on subject property

Regional Ecosystem	VMA Status	Category	Area (Ha)	Short Description	Structure Category
12.3.11	Of concern	B	11.11	Eucalyptus tereticornis +/- Eucalyptus siderophloia, Corymbia intermedia open forest on alluvial plains usually near coast	Mid-dense
12.3.7	Least concern	B	2.40	Eucalyptus tereticornis, Casuarina cunninghamiana subsp. cunninghamiana +/- Melaleuca spp. fringing woodland	Sparse
12.5.3	Endangered	B	4.58	Eucalyptus racemosa subsp. racemosa woodland on remnant Tertiary surfaces	Sparse
12.5.4	Least concern	B	0.92	Eucalyptus latisinensis +/- Corymbia intermedia, C. trachyphloia subsp. trachyphloia, Angophora leiocarpa, Eucalyptus exserta woodland on complex of remnant Tertiary surfaces and Cainozoic and Mesozoic sediments	Sparse
12.5.7	Least concern	B	1.65	Corymbia citriodora subsp. variegata +/- Eucalyptus portuensis or E. acmenoides, E. fibrosa subsp. fibrosa open forest on remnant Tertiary surfaces. Usually deep red soils	Mid-dense
non-rem	None	X	24.07	None	None

Please note:

1. All area and area derived figures included in this table have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.
2. If Table 5 contains a Category 'plant', please be aware that this refers to 'plantations' such as forestry, and these areas are considered non-remnant under the VMA.

The VMA status of the regional ecosystem (whether it is endangered, of concern or least concern) also determines if any of the following are applicable:

- exempt clearing work
- accepted development vegetation clearing codes
- performance outcomes in State Development Assessment Provisions (SDAP).

3.3 Watercourses

Vegetation management watercourses and drainage features for this property are shown on the vegetation management supporting map in section 5.2.

3.4 Wetlands

There are no vegetation management wetlands present on this property.

3.5 Essential habitat

Protected wildlife is native wildlife prescribed under the *Nature Conservation Act 1992* (NCA), and includes endangered, vulnerable or near-threatened wildlife.

Essential habitat for protected wildlife includes suitable habitat on the lot, or where a species has been known to occur up to 1.1 kilometres from a lot on which there is assessable vegetation. These important habitat areas are protected under the VMA.

Any essential habitat on this property will be shown as blue hatching on the vegetation supporting map in section 5.2.

If essential habitat is identified on the lot, information about the protected wildlife species is provided in Table 6 below. The numeric labels on the vegetation management supporting map can be cross referenced with Table 6 to outline the essential habitat factors for that particular species. There may be essential habitat for more than one species on each lot, and areas of Category A, Category B and Category C can be mapped as Essential Habitat.

Essential habitat is compiled from a combination of species habitat models and buffered species records. Regional ecosystem is a mandatory essential habitat factor, unless otherwise stated. Essential habitat, for protected wildlife, means an area of vegetation shown on the Regulated Vegetation Management Map as assessable vegetation -

- 1) that has at least 3 essential habitat factors for the protected wildlife that must include any essential habitat factors that are stated as mandatory for the protected wildlife in the essential habitat database. Essential habitat factors are comprised of - regional ecosystem (mandatory for most species), vegetation community, altitude, soils, position in landscape; or
- 2) in which the protected wildlife, at any stage of its life cycle, is located.

If there is no essential habitat mapping shown on the vegetation management supporting map for this lot, and there is no table in the sections below, it confirms that there is no essential habitat on the lot.

Category A and/or Category B and/or Category C

Table 6: Essential habitat in Category A and/or Category B and/or Category C

Label	Scientific Name	Common Name	NCA Status	Vegetation Community	Altitude	Soils	Position in Landscape
860	<i>Phascolarctos cinereus</i>	koala	V	SEQ: Open eucalypt forest and woodland that has: a) multiple strata layers containing <i>Eucalyptus</i> , <i>Corymbia</i> , <i>Angophora</i> , <i>Lophostemon</i> or <i>Melaleuca</i> trees that-at 1.3 metres above the ground-have a diameter both greater and less than 30 centimetres; and b) at least 1 of the following species: <i>Eucalyptus tereticornis</i> , <i>E. fibrosa</i> , <i>E. propinqua</i> ; <i>E. umbra</i> , <i>E. grandis</i> , <i>E. microcorys</i> , <i>E. tindaliae</i> , <i>E. resinifera</i> , <i>E. populnea</i> , <i>E. robusta</i> , <i>E. nigra</i> , <i>E. racemosa</i> , <i>E. crebra</i> , <i>E. exserta</i> , <i>E. seeana</i> , <i>Lophostemon confertus</i> , <i>L. suaveolens</i> , <i>Melaleuca quinquenervia</i> . Outside SEQ: Open eucalypt forest and woodland that contains <i>Eucalyptus</i> &/or <i>Corymbia</i> spp. Tree species used for food varies across State and can include <i>Eucalyptus tereticornis</i> , <i>E. camaldulensis</i> , <i>E. coolabah</i> ; <i>E. drepanophylla</i> , <i>E. platyphylla</i> , <i>E. orgadophylla</i> , <i>E. thozetiana</i> , <i>E. melanophloia</i> , <i>E. populnea</i> , <i>E. melliodora</i> , <i>E. dealbata</i> , <i>E. microtheca</i> , <i>E. crebra</i> , <i>E. exserta</i> , <i>E. blakelyi</i> , <i>E. papuana</i> , <i>Corymbia tessellaris</i> , <i>C. citriodora</i> , <i>Melaleuca quinquenervia</i> , <i>M. leucadendra</i> .	Sea level to 1000m.	None	Riparian areas, plains and hill/escarpment slopes.

Label	Regional Ecosystem (mandatory unless otherwise specified)
860	SEQ: 11.3.2, 11.3.4, 11.3.25, 11.3.26, 11.8.2, 11.8.4, 11.8.5, 11.8.8, 11.9.9, 12.2.5, 12.2.6, 12.2.7, 12.2.8, 12.2.10, 12.3.2, 12.3.3, 12.3.4, 12.3.5, 12.3.6, 12.3.7, 12.3.9, 12.3.10, 12.3.11, 12.3.14, 12.3.18, 12.3.19, 12.3.20, 12.5.1, 12.5.2, 12.5.3, 12.5.4, 12.5.6, 12.5.7, 12.5.10, 12.5.12, 12.8.1, 12.8.8, 12.8.9, 12.8.11, 12.8.12, 12.8.14, 12.8.16, 12.8.17, 12.8.20, 12.8.24, 12.8.25, 12.9-10.1, 12.9-10.2, 12.9-10.3, 12.9-10.4, 12.9-10.5, 12.9-10.7, 12.9-10.8, 12.9-10.11, 12.9-10.12, 12.9-10.14, 12.9-10.17, 12.9-10.18, 12.9-10.19, 12.9-10.21, 12.9-10.25, 12.9-10.26, 12.9-10.27, 12.9-10.28, 12.9-10.29, 12.11.2, 12.11.3, 12.11.5, 12.11.6, 12.11.7, 12.11.8, 12.11.9, 12.11.14, 12.11.15, 12.11.16, 12.11.17, 12.11.18, 12.11.22, 12.11.23, 12.11.24, 12.11.25, 12.11.26, 12.11.27, 12.11.28, 12.12.2, 12.12.3, 12.12.5, 12.12.6, 12.12.7, 12.12.8, 12.12.9, 12.12.11, 12.12.12, 12.12.14, 12.12.15, 12.12.23, 12.12.24, 12.12.25, 12.12.28. Outside SEQ: 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.8, 4.3.10, 4.3.11, 4.4.1, 4.5.3, 4.5.5, 4.5.6, 4.5.8, 4.5.9, 4.7.1, 4.7.7, 4.7.8, 4.9.6, 4.9.10, 4.9.12, 4.9.17, 6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.8, 6.3.9, 6.3.11, 6.3.12, 6.3.17, 6.3.18, 6.3.22, 6.3.24, 6.3.25, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.5.1, 6.5.2, 6.5.3, 6.5.5, 6.5.6, 6.5.7, 6.5.8, 6.5.9, 6.5.10, 6.5.11, 6.5.13, 6.5.14, 6.5.15, 6.5.16, 6.5.17, 6.5.18, 6.5.19, 6.6.2, 6.7.1, 6.7.2, 6.7.5, 6.7.6, 6.7.7, 6.7.9, 6.7.11, 6.7.12, 6.7.13, 6.7.14, 6.7.17, 6.9.3, 7.2.3, 7.2.4, 7.2.7, 7.2.11, 7.3.7, 7.3.8, 7.3.9, 7.3.12, 7.3.13, 7.3.14, 7.3.16, 7.3.19, 7.3.20, 7.3.21, 7.3.25, 7.3.26, 7.3.39, 7.3.40, 7.3.42, 7.3.43, 7.3.44, 7.3.45, 7.3.47, 7.3.48, 7.3.50, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.8.7, 7.8.8, 7.8.10, 7.8.15, 7.8.16, 7.8.17, 7.8.18, 7.8.19, 7.11.5, 7.11.6, 7.11.13, 7.11.14, 7.11.16, 7.11.18, 7.11.19, 7.11.20, 7.11.21, 7.11.31, 7.11.32, 7.11.33, 7.11.34, 7.11.35, 7.11.37, 7.11.41, 7.11.42, 7.11.43, 7.11.44, 7.11.45, 7.11.46, 7.11.47, 7.11.48, 7.11.49, 7.11.50, 7.11.51, 7.12.4, 7.12.5, 7.12.17, 7.12.21, 7.12.22, 7.12.23, 7.12.24, 7.12.25, 7.12.26, 7.12.27, 7.12.28, 7.12.29, 7.12.30, 7.12.33, 7.12.34, 7.12.35, 7.12.51, 7.12.52, 7.12.53, 7.12.54, 7.12.55, 7.12.56, 7.12.57, 7.12.58, 7.12.59, 7.12.60, 7.12.61, 7.12.62, 7.12.63, 7.12.65, 7.12.66, 7.12.69, 8.1.5, 8.2.3, 8.2.6, 8.2.7, 8.2.8, 8.2.11, 8.2.12, 8.2.13, 8.2.14, 8.3.1, 8.3.2, 8.3.3, 8.3.5, 8.3.6, 8.3.8, 8.3.10, 8.3.11, 8.3.13, 8.5.1, 8.5.2, 8.5.3, 8.5.5, 8.5.6, 8.5.7, 8.9.1, 8.10.1, 8.11.1, 8.11.3, 8.11.4, 8.11.5, 8.11.6, 8.11.8, 8.11.10, 8.11.12, 8.12.4, 8.12.5, 8.12.6, 8.12.7, 8.12.8, 8.12.9, 8.12.12, 8.12.14, 8.12.20, 8.12.22, 8.12.23, 8.12.25, 8.12.26, 8.12.27, 8.12.29, 8.12.31, 8.12.32, 9.3.1, 9.3.2, 9.3.3, 9.3.4, 9.3.5, 9.3.6, 9.3.7, 9.3.8, 9.3.10, 9.3.11, 9.3.13, 9.3.14, 9.3.15, 9.3.16, 9.3.17, 9.3.19, 9.3.20, 9.3.21, 9.3.22, 9.3.27, 9.4.1, 9.4.2, 9.4.3, 9.5.1, 9.5.3, 9.5.4, 9.5.5, 9.5.6, 9.5.7, 9.5.8, 9.5.9, 9.5.10, 9.5.11, 9.5.12, 9.5.15, 9.5.16, 9.5.17, 9.7.1, 9.7.2, 9.7.3, 9.7.4, 9.7.5, 9.7.6, 9.8.1, 9.8.2, 9.8.3, 9.8.4, 9.8.5, 9.8.9, 9.8.10, 9.8.11, 9.8.13, 9.10.1, 9.10.3, 9.10.4, 9.10.5, 9.10.7, 9.10.8, 9.11.1, 9.11.2, 9.11.3, 9.11.4, 9.11.5, 9.11.7, 9.11.10, 9.11.12, 9.11.13, 9.11.14, 9.11.15, 9.11.16, 9.11.17, 9.11.18, 9.11.19, 9.11.21, 9.11.22, 9.11.23, 9.11.24, 9.11.25, 9.11.26, 9.11.28, 9.11.29, 9.11.30, 9.11.31, 9.11.32, 9.12.1, 9.12.2, 9.12.3, 9.12.4, 9.12.5, 9.12.6, 9.12.7, 9.12.10, 9.12.11, 9.12.12, 9.12.13, 9.12.14, 9.12.15, 9.12.16, 9.12.17, 9.12.18, 9.12.19, 9.12.20, 9.12.21, 9.12.22, 9.12.23, 9.12.24, 9.12.25, 9.12.26, 9.12.27, 9.12.28, 9.12.29, 9.12.30, 9.12.31, 9.12.32, 9.12.33, 9.12.35, 9.12.36, 9.12.37, 9.12.38, 9.12.39, 9.12.44, 10.3.2, 10.3.3, 10.3.5, 10.3.6, 10.3.9, 10.3.10, 10.3.11, 10.3.12, 10.3.13, 10.3.14, 10.3.15, 10.3.17, 10.3.20, 10.3.27, 10.3.28, 10.4.3, 10.4.9, 10.5.1, 10.5.2, 10.5.4, 10.5.5, 10.5.7, 10.5.8, 10.5.9, 10.5.10, 10.5.11, 10.5.12, 10.7.1, 10.7.2, 10.7.3, 10.7.4, 10.7.5, 10.7.9, 10.7.10, 10.7.11, 10.7.12, 10.9.2, 10.9.3, 10.9.5, 10.10.1, 10.10.3, 10.10.4, 10.10.5, 10.10.7, 11.2.1, 11.2.5, 11.3.1, 11.3.2, 11.3.3, 11.3.4, 11.3.5, 11.3.6, 11.3.7, 11.3.9, 11.3.10, 11.3.12, 11.3.13, 11.3.14, 11.3.15, 11.3.16, 11.3.17, 11.3.18, 11.3.19, 11.3.21, 11.3.23, 11.3.25, 11.3.26, 11.3.27, 11.3.28, 11.3.29, 11.3.30, 11.3.32, 11.3.33, 11.3.35, 11.3.36, 11.3.37, 11.3.38, 11.3.39, 11.4.2, 11.4.3, 11.4.7, 11.4.8, 11.4.9, 11.4.10, 11.4.12, 11.4.13, 11.5.1, 11.5.2, 11.5.3, 11.5.4, 11.5.5, 11.5.7, 11.5.8, 11.5.9, 11.5.12, 11.5.13, 11.5.14, 11.5.17, 11.5.18, 11.5.20, 11.5.21, 11.7.1, 11.7.2, 11.7.3, 11.7.4, 11.7.6, 11.7.7, 11.8.1, 11.8.2, 11.8.4, 11.8.5, 11.8.8, 11.8.11, 11.8.12, 11.8.14, 11.8.15, 11.9.1, 11.9.2, 11.9.3, 11.9.5, 11.9.6, 11.9.7, 11.9.9, 11.9.10, 11.9.11, 11.9.13, 11.9.14, 11.10.1, 11.10.2, 11.10.3, 11.10.4, 11.10.5, 11.10.6, 11.10.7, 11.10.9, 11.10.11, 11.10.12, 11.10.13, 11.11.1, 11.11.2, 11.11.3, 11.11.4, 11.11.6, 11.11.7, 11.11.8, 11.11.9, 11.11.10, 11.11.11, 11.11.12, 11.11.13, 11.11.14, 11.11.15, 11.11.16, 11.11.17, 11.11.19, 11.11.20, 11.12.1, 11.12.2, 11.12.3, 11.12.5, 11.12.6, 11.12.7, 11.12.8, 11.12.9, 11.12.10, 11.12.13, 11.12.14, 11.12.15, 11.12.16, 11.12.17, 11.12.19, 11.12.20, 13.3.1, 13.3.2, 13.3.3, 13.3.4, 13.3.5, 13.3.7, 13.9.2, 13.11.1, 13.11.2, 13.11.3, 13.11.4, 13.11.5, 13.11.6, 13.11.8, 13.11.9, 13.12.1, 13.12.2, 13.12.3, 13.12.4, 13.12.5, 13.12.6, 13.12.8, 13.12.9, 13.12.10.

3.6 Protected plants (administered by the Department of Environment and Science (DES))

In Queensland, all plants that are native to Australia are protected plants under the *Nature Conservation Act 1992* (NCA), with clearing of protected plants in the wild regulated by the [Nature Conservation \(Wildlife Management\) Regulation 2006](#). These requirements apply irrespective of the classification of the vegetation under the *Vegetation Management Act 1999*.

Prior to clearing, if the plants proposed to be cleared are in the wild (see [Operational policy: When a protected plant in Queensland is considered to be 'in the wild'](#)) and the exemptions under the [Nature Conservation \(Wildlife Management\) Regulation 2006](#) are not applicable to the proposed clearing, you must check the flora survey trigger map to determine if any part of the area to be cleared is within a high risk area. The trigger map for this property is provided in section 5.6. The exemptions relate to:

- imminent risk of death or serious injury (refer s261A)
- imminent risk of serious damage to a building or other structure on land, or to personal property (refer s261B)
- *Fire and Emergency Service Act 1990* (refer 261C)
- previously cleared areas (refer s261ZB)
- maintenance activities (refer s261ZC)
- firebreak or fire management line (refer s261ZD)
- accepted development vegetation clearing code (refer s261ZE)
- conservation purposes (refer s261ZG)
- authorised in particular circumstances (refer s385).

Some exemptions under the NCA are the same as exempt clearing work (formerly known as exemptions) from the *Vegetation Management Act 1999* (i.e. listed in the Planning Regulations 2017) while some are different.

If the proposed area to be cleared is shown as high risk on the flora survey trigger map, a flora survey of the clearing impact area must be undertaken in accordance with the flora survey guidelines. The main objective of a flora survey is to locate any endangered, vulnerable or near threatened plants (EVNT plants) that may be present in the clearing impact area.

If a flora survey identifies that EVNT plants are not present within the clearing impact area or clearing within 100m of EVNT plants can be avoided, the clearing activity is exempt from a permit. An [exempt clearing notification form](#) must be submitted to the Department of Environment and Science, with a copy of the flora survey report, at least one week prior to clearing. The clearing must be conducted within two years after the flora survey report was submitted.

If a flora survey identifies that EVNT plants are present in, or within 100m of, the area to be cleared, a clearing permit is required before any clearing is undertaken. The flora survey report, as well as an impact management report, must be

submitted with the [application form clearing permit](#).

In an area other than a high risk area, a clearing permit is only required where a person is, or becomes aware that EVNT plants are present in, or within 100m of, the area to be cleared. You must keep a copy of the flora survey trigger map for the area subject to clearing for five years from the day the clearing starts. If you do not clear within the 12 month period that the flora survey trigger map was printed, you need to print and check a new flora survey trigger map.

Further information on protected plants is available at

<http://www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/>

For assistance on the protected plants flora survey trigger map for this property, please contact the Department of Environment and Science at palm@des.qld.gov.au.

3.7 Emissions Reduction Fund (ERF)

The ERF is an Australian Government scheme which offers incentives for businesses and communities across the economy to reduce emissions.

Under the ERF, landholders can earn money from activities such as planting (and keeping) trees, managing regrowth vegetation and adopting more sustainable agricultural practices.

The purpose of a project is to remove greenhouse gases from the atmosphere. Each project will provide new economic opportunities for farmers, forest growers and land managers.

Further information on ERF is available at <https://www.qld.gov.au/environment/land/state/use/carbon-rights/>.

4. Contact information for DNRME

For further information on vegetation management:

Phone 135VEG (135 834)

Email vegetation@dnrme.qld.gov.au

Visit <https://www.dnrme.qld.gov.au/?contact=vegetation> to submit an online enquiry.

For contact details for other State and Commonwealth agencies, please see Section 6.

5. Maps

Maps included in this report may also be requested individually at:

<https://www.dnrme.qld.gov.au/qld/environment/land/vegetation/vegetation-map-request-form>

and

<http://www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/map-request.php>

Regulated vegetation management map

The regulated vegetation management map shows vegetation categories needed to determine clearing requirements. These maps are updated monthly to show new [property maps of assessable vegetation \(PMAV\)](#).

Vegetation management supporting map

The vegetation management supporting map provides information on regional ecosystems, wetlands, watercourses and essential habitat.

Pre-clear map

The vegetation management pre-clear regional ecosystem mapping shows the regional ecosystem, location and extent which is likely to have occurred at that location prior to clearing. This map can be used for identifying exchange areas under the "Managing regulated regrowth vegetation" accepted development vegetation clearing code. It may also be used for identifying offsets under the vegetation management framework.

Coastal/non coastal map

The coastal/non-coastal map confirms whether the lot, or which parts of the lot, are considered coastal or non-coastal for the purposes of the accepted development vegetation clearing codes and the State Development Assessment Provisions (SDAP).

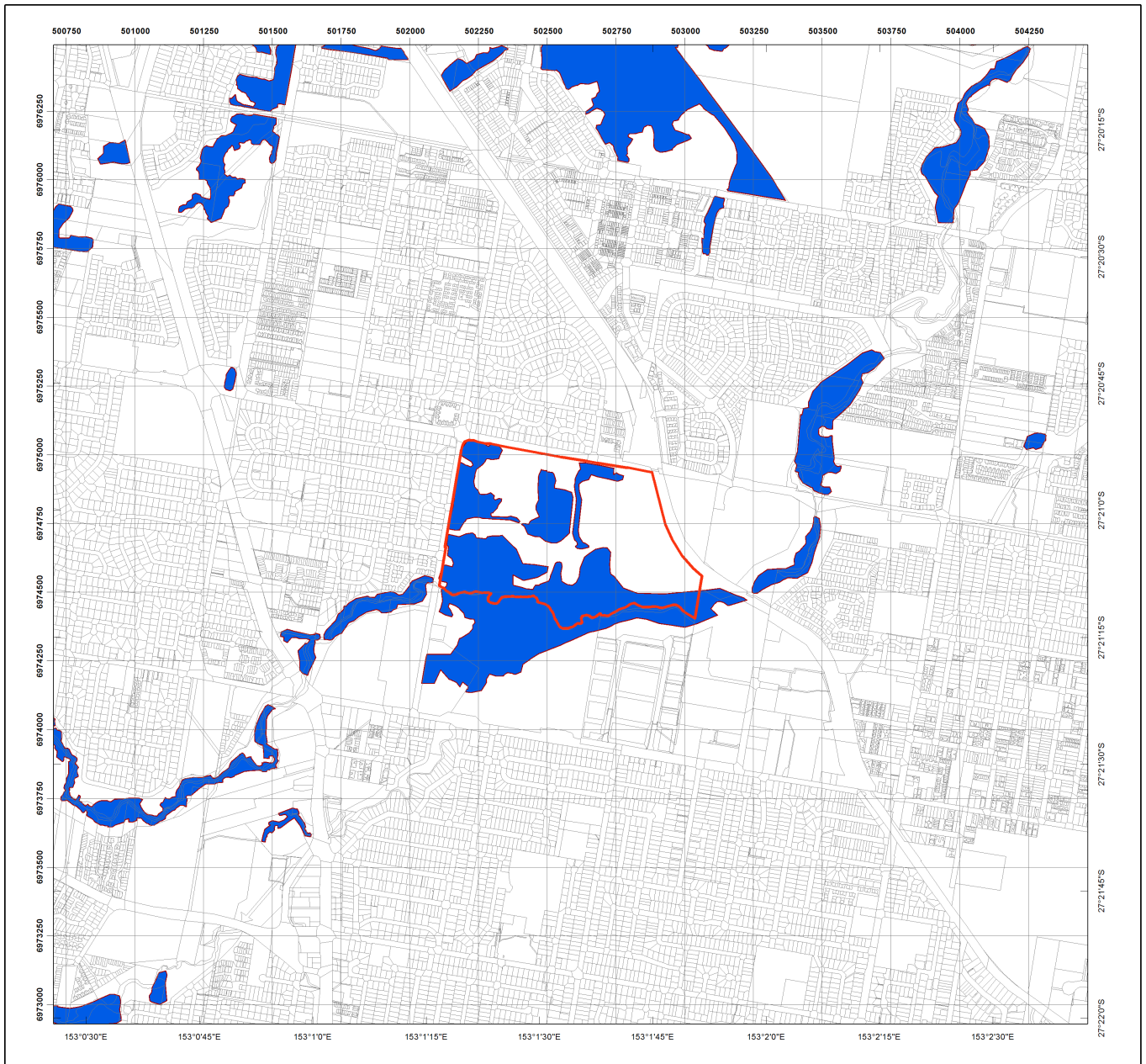
Agricultural Land Class A or B

The Agricultural Land Class map confirms the location and extent of land mapped as Agricultural Land Classes A or B as identified on the State Planning Interactive Mapping System. Please note that this map does not include areas identified as Agricultural Land Class A or B in local government planning schemes. This map can be used to identify Agricultural Land Class A or B areas under the "Managing regulated regrowth vegetation" accepted development vegetation clearing code.

Protected plants map

The protected plants map shows areas where particular provisions of the *Nature Conservation Act 1992* apply to the clearing of protected plants.

5.1 Regulated vegetation management map



Regulated Vegetation Management Map

Legend

- Lot and Plan
- Category A area (Vegetation offsets/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 (Exempt clearing work on Freehold, Indigenous and Leasehold land)
- Water
- Area not categorised
- Cadastral line
- Property boundaries shown are provided as a locational aid only



Disclaimer:

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Additional information required for the assessment of vegetation values is provided in the accompanying "Vegetation Management Supporting map". For further information go to the web site: www.dnrme.qld.gov.au or contact the Department of Natural Resources, Mines and Energy.

Digital data for the regulated vegetation management map is available from the Queensland Spatial Portal at <http://www.information.qld.gov.au/>

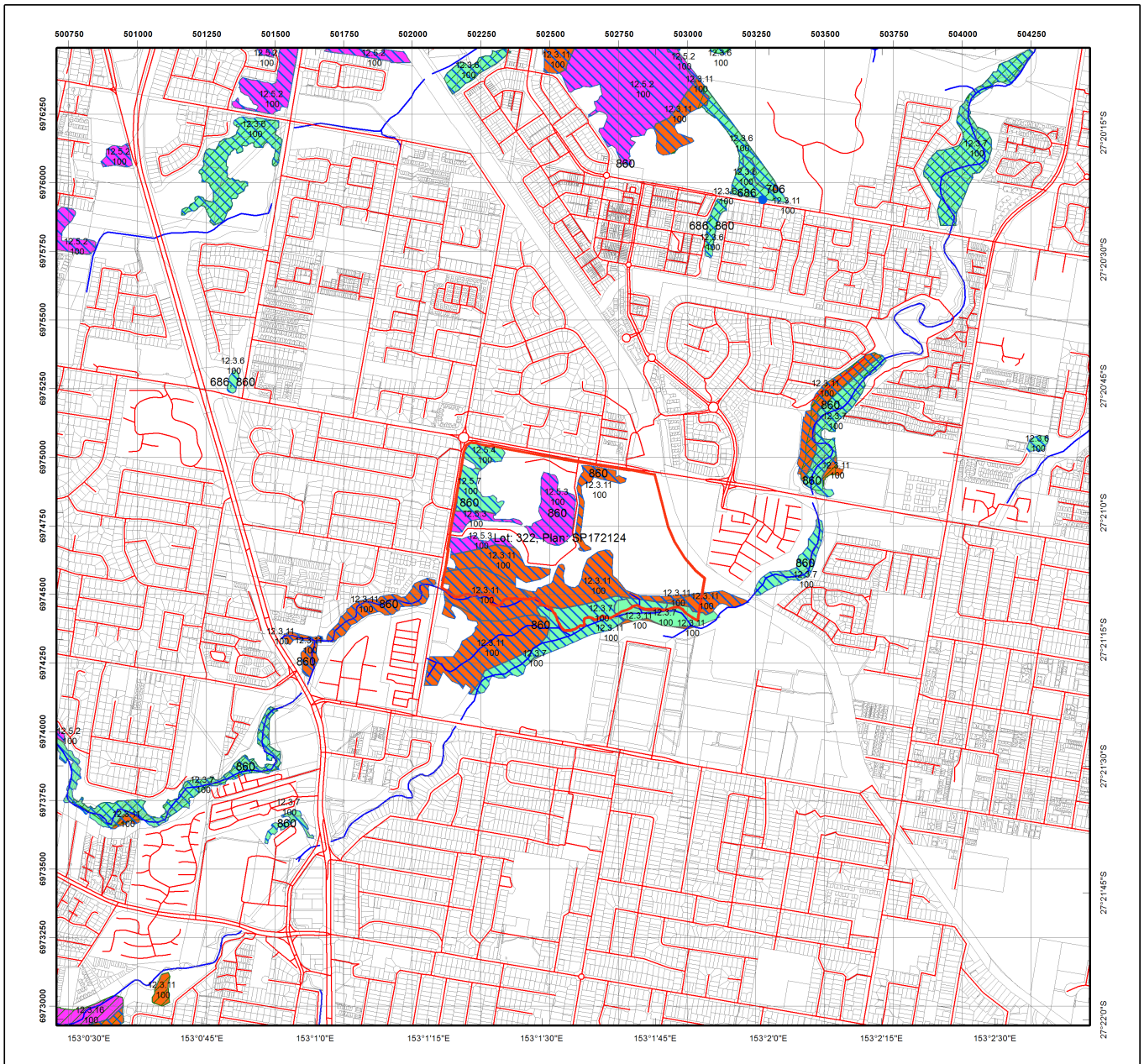
This map is updated on a monthly basis to ensure new PMAVs are included as they are approved.



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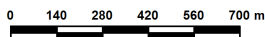
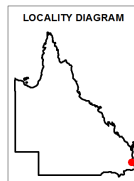
5.2 Vegetation management supporting map



Vegetation Management Supporting Map

Legend

- Lot and Plan
- 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 A or B area under Section 20AH
These areas are edged in yellow and filled with the remnant RE Status
- Category C or R area containing endangered regional ecosystems
- Category C or R area containing of concern regional ecosystems
- Category C or R area that is a least concern regional ecosystem
- Category C area under Section 20AI
These areas are edged in purple and filled with the remnant RE Status
- Category X area
- Water
- Wetland on the vegetation management wetlands map
- Essential habitat on the essential habitat map
- Essential habitat species record
- Watercourses and drainage features on the vegetation management watercourse and drainage features map
(Stream order shown as black number against stream where available)
- Roads
- National Parks, State Forest and other reserves
- Cadastral line
- Property boundaries shown are provided as a locational aid only



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Labels for Essential Habitat are centred on the area of enquiry.

Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/- 100 metres.

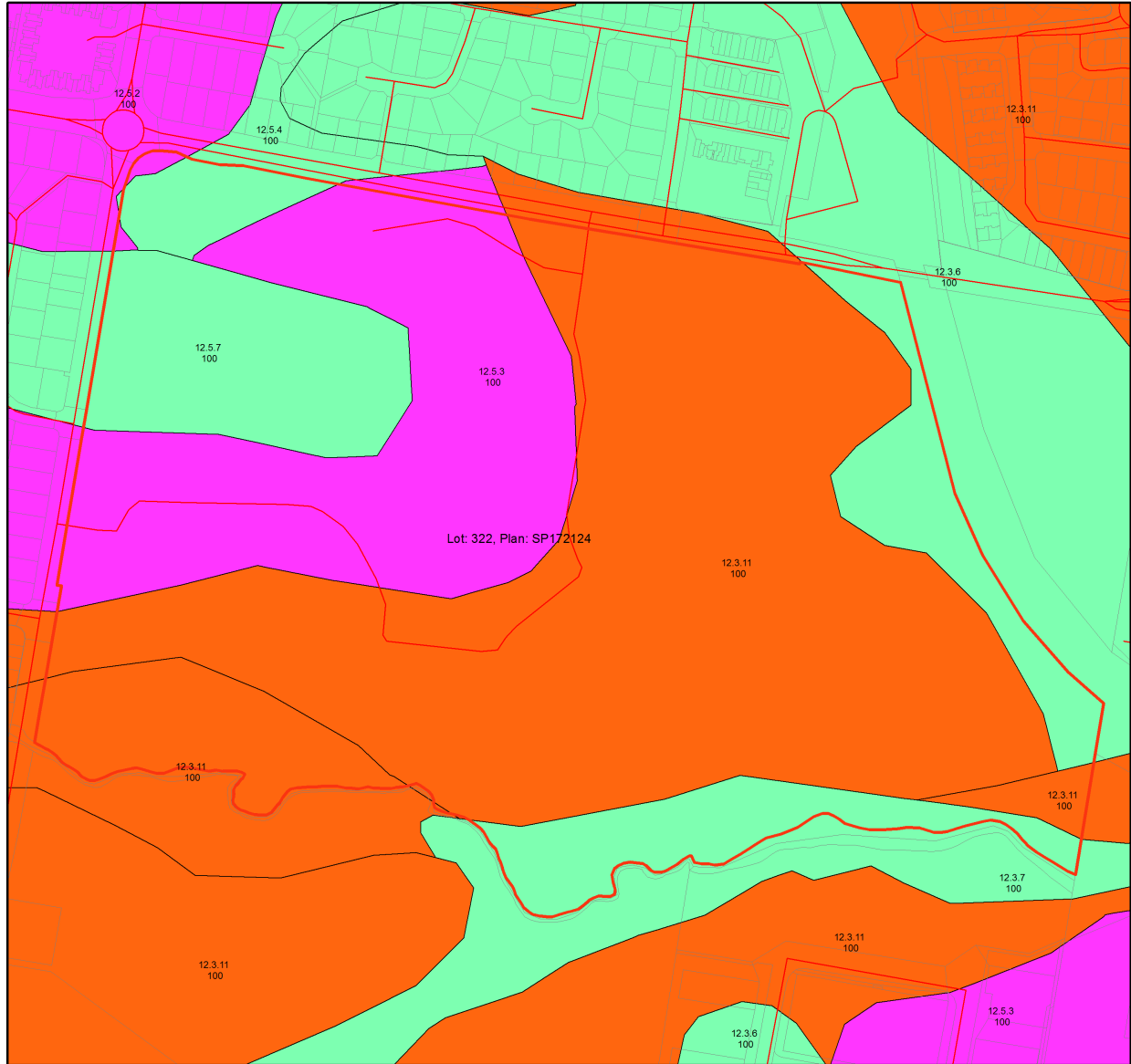
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Additional information may be required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: www.dnrme.qld.gov.au or contact the Department of Natural Resources, Mines and Energy.

Digital data for the vegetation management watercourse and drainage feature map, vegetation management wetlands map, essential habitat map and the vegetation management remnant and regional ecosystem map are available from the Queensland Spatial Portal at <http://www.information.qld.gov.au/>











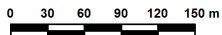
5.3 Pre-clear map



Vegetation Management Pre-clear Regional Ecosystem Map

Legend

-  Lot and Plan
-  Pre-clearing area containing Endangered RE
-  Pre-clearing area containing Of Concern RE
-  Pre-clearing area that is a Least Concern RE
-  Water
-  Roads
-  Cadastral line
-  Property boundaries shown are provided as a locational aid only



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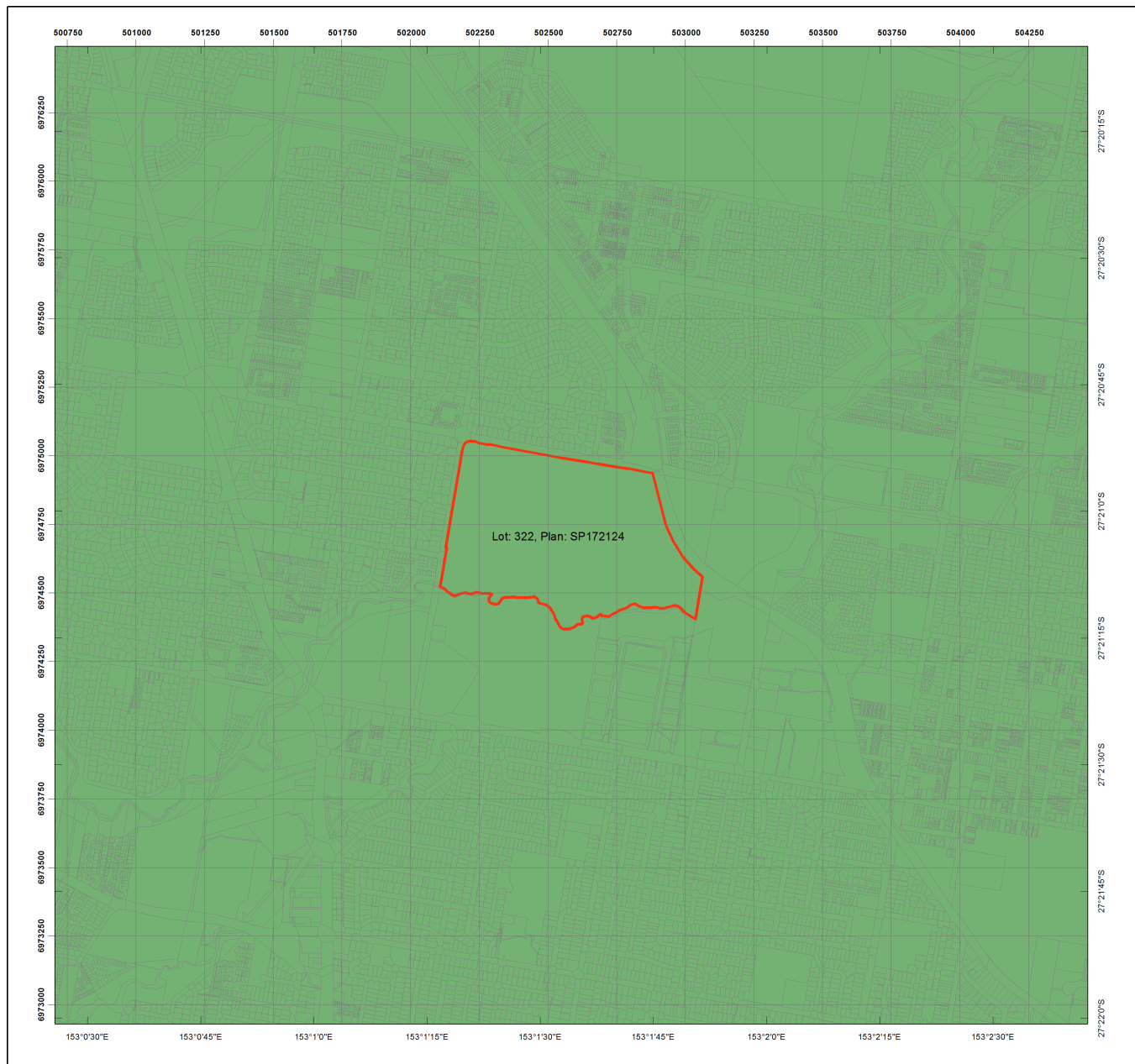
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Pre-clearing regional ecosystem line-work reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only.

Digital data for the Pre-clearing regional ecosystem map is available from the Queensland Spatial Portal at <http://www.information.qld.gov.au/>








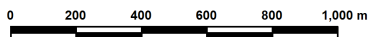
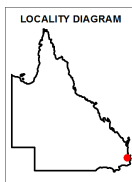
5.4 Coastal/non coastal map



Coastal/Non Coastal Map

Legend

-  Lot and Plan
-  Coastal
-  Non Coastal
-  Cadastral line
-  Property boundaries shown are provided as a locational aid only



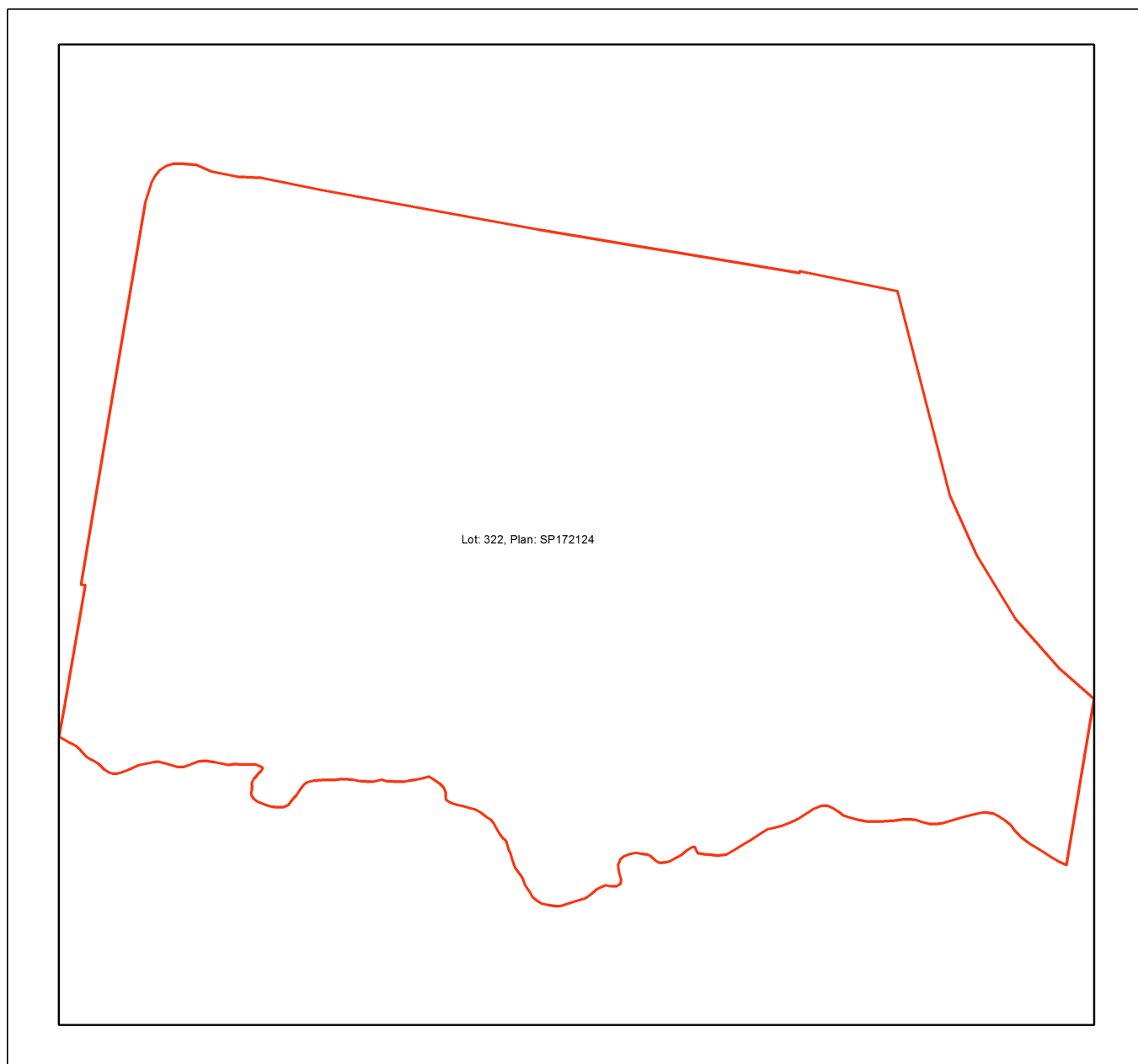
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



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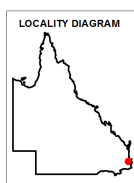
5.5 Agricultural Land Class A or B map



Agricultural Land Class A or B

Legend

-  Lot and Plan
-  Towns
-  Arterial roads
-  Rivers and creeks
- Agricultural land class A or B
 -  A
 -  B
 -  Not class A or B

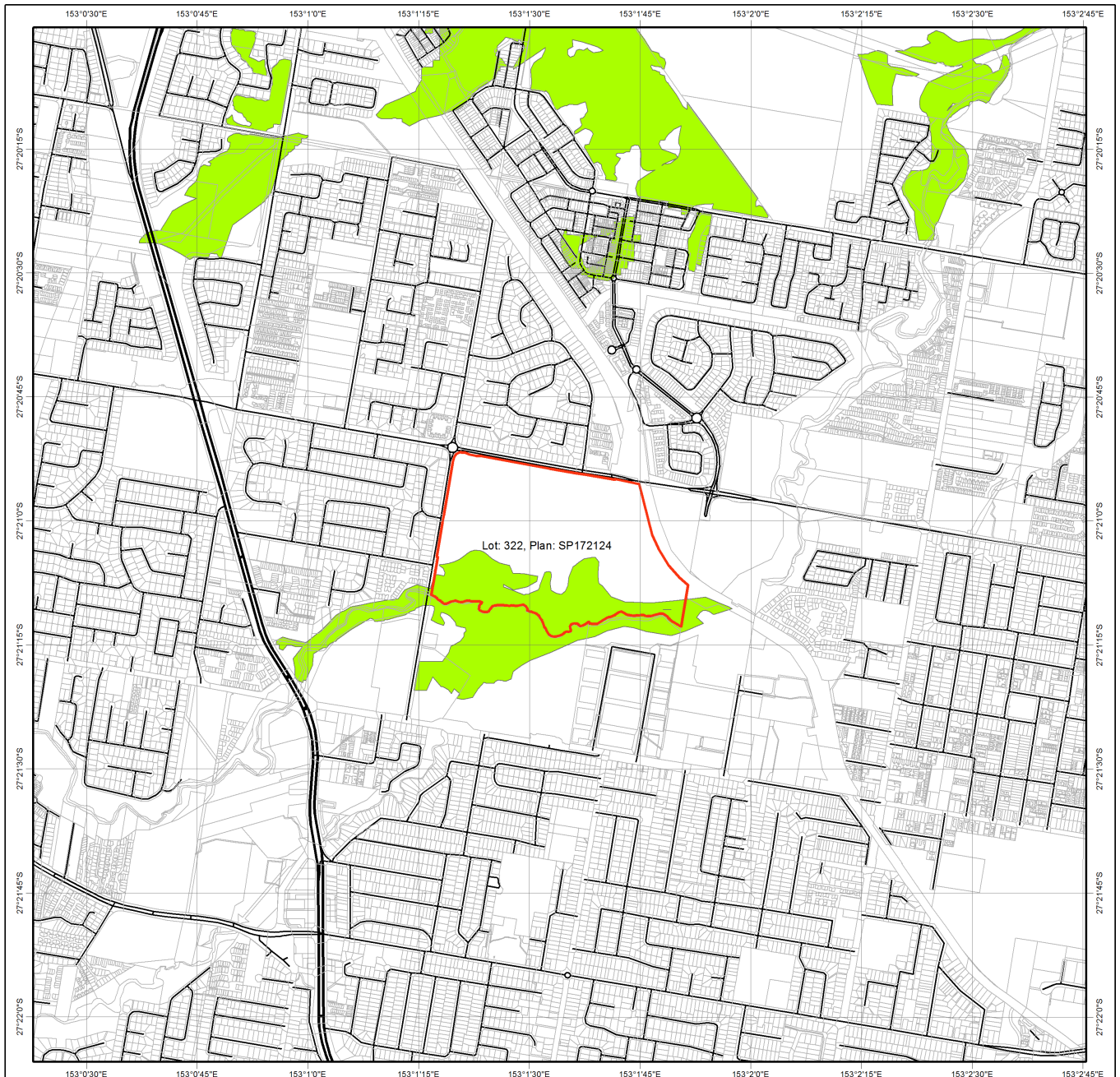


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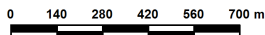
5.6 Protected plants map administered by DES



Protected Plants Flora Survey Trigger Map

Legend

- Lot and Plan
- High risk area
- Cadastral line
Property boundaries shown are provided as a locational aid only
- Freeways / motorways / highways
- Secondary roads / streets



This product is projected into:
GDA 1994 MGA Zone 56

This map shows areas where particular provisions of the Nature Conservation Act 1992 apply to the clearing of protected plants.

This map is produced at a scale relevant to the size of the area selected and should be printed as A4 size in portrait orientation.

For further information or assistance with interpretation of this product, please contact the Department of Environment and Science at palm@ehp.qld.gov.au

Disclaimer:
While every care is taken to ensure the accuracy of the data used to generate this product, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damages) and costs which might be incurred as a consequence of reliance on the data, or as a result of the data being inaccurate or incomplete in any way and for any reason.

Protected plants flora survey trigger map

The protected plants flora survey trigger map identifies 'high risk areas' where endangered, vulnerable or near threatened plants are known to exist or are likely to exist. Under the *Nature Conservation Act 1992* (the Act) it is an offence to clear protected plants that are 'in the wild' unless you are authorised or the clearing is exempt, for more information see [section 89](#) of the Act.

Please see the Department of Environment and Science webpage on the [clearing of protected plants](#) for information on what exemptions may apply in your circumstances, whether you may need to undertake a flora survey, and whether you may need a protected plants clearing permit.

Updates to the data informing the flora survey trigger map

The flora survey trigger map will be reviewed, and updated if necessary, at least every 12 months to ensure the map reflects the most up-to-date and accurate data available.

Species information

Please note that flora survey trigger maps do not identify species associated with 'high risk areas'. While some species information may be publicly available, for example via the [Queensland Spatial Catalogue](#), the Department of Environment and Science does not provide species information on request. Regardless of whether species information is available for a particular high risk area, clearing plants in a high risk area may require a flora survey and/or clearing permit. Please see the Department of Environment and Science webpage on the [clearing of protected plants](#) for more information.

6. Other relevant legislation contacts list

Activity	Legislation	Agency	Contact details
<ul style="list-style-type: none"> • Interference with overland flow • Earthworks, significant disturbance 	<i>Water Act 2000</i> <i>Soil Conservation Act 1986</i>	Department of Natural Resources, Mines and Energy (Queensland Government)	Ph: 13 QGOV (13 74 68) www.dnrme.qld.gov.au
<ul style="list-style-type: none"> • Indigenous Cultural Heritage 	<i>Aboriginal Cultural Heritage Act 2003</i> <i>Torres Strait Islander Cultural Heritage Act 2003</i>	Department of Aboriginal and Torres Strait Islander Partnerships (Queensland Government)	Ph: 13 QGOV (13 74 68) www.datsip.qld.gov.au
<ul style="list-style-type: none"> • Mining and environmentally relevant activities • Infrastructure development (coastal) • Heritage issues • Protected plants and protected areas¹ 	<i>Environmental Protection Act 1994</i> <i>Coastal Protection and Management Act 1995</i> <i>Queensland Heritage Act 1992</i> <i>Nature Conservation Act 1992</i>	Department of Environment and Science (Queensland Government)	Ph: 13 QGOV (13 74 68) www.des.qld.gov.au
<ul style="list-style-type: none"> • Interference with fish passage in a watercourse, mangroves • Forestry activities² 	<i>Fisheries Act 1994</i> <i>Forestry Act 1959</i>	Department of Agriculture and Fisheries (Queensland Government)	Ph: 13 QGOV (13 74 68) www.daf.qld.gov.au
<ul style="list-style-type: none"> • Matters of National Environmental Significance including listed threatened species and ecological communities 	<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Department of the Environment (Australian Government)	Ph: 1800 803 772 www.environment.gov.au
<ul style="list-style-type: none"> • Development and planning processes 	<i>Planning Act 2016</i> <i>State Development and Public Works Organisation Act 1971</i>	Department of State Development, Manufacturing, Infrastructure and Planning (Queensland Government)	Ph: 13 QGOV (13 74 68) www.dsdmip.qld.gov.au
<ul style="list-style-type: none"> • Local government requirements 	<i>Local Government Act 2009</i> <i>Planning Act 2016</i>	Department of Local Government, Racing and Multicultural Affairs (Queensland Government)	Ph: 13 QGOV (13 74 68) Your relevant local government office

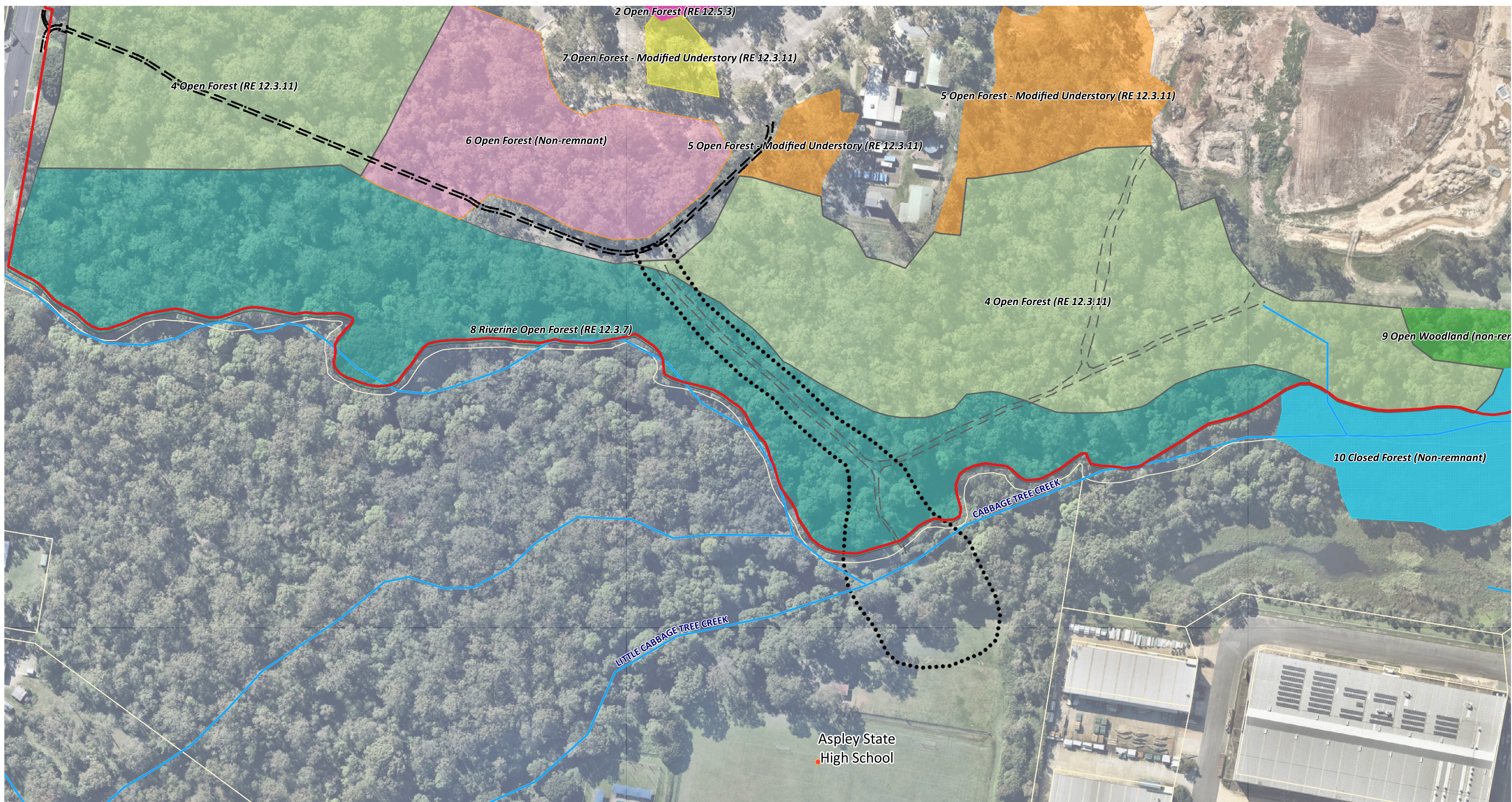
1. In Queensland, all plants that are native to Australia are protected plants under the [Nature Conservation Act 1992](#), which endeavours to ensure that protected plants (whether whole plants or protected plants parts) are not illegally removed from the wild, or illegally traded. Prior to clearing, you should check the flora survey trigger map to determine if the clearing is within a high-risk area by visiting www.des.qld.gov.au. For further information or assistance on the protected plants flora survey trigger map for your property, please contact the Department of Environment and Science on 13QGOV (13 74 68) or email palm@des.qld.gov.au.

2. Contact the Department of Agriculture and Fisheries before clearing:

- Any sandalwood on state-owned land (including leasehold land)
- On freehold land in a 'forest consent area' or a 'forest entitlement area'
- More than five hectares on state-owned land (including leasehold land) containing commercial timber species listed in parts 2 or 3 of Schedule 6 of the Vegetation Management Regulation 2012 and located within any of the following local government management areas-Banana, Bundaberg Regional, Fraser Coast Regional, Gladstone Regional, Isaac Regional, North Burnett Regional, Somerset Regional, South Burnett Regional, Southern Downs Regional, Tablelands Regional, Toowoomba Regional, Western Downs Regional.



Attachment 8



Carseldine Urban Village - Pedestrian Bridge Legend

Attachment 12 - BAAM Vegetation Communities

28 South Project Ref: 2019-057

Data Sources: Nearmap Aerial Imagery (Nearmap May 2019); Digital Cadastre Database (Dept. Natural Resources and Mines, 2019); Roads (DNRME, 2018).



Vegetation Communities (BAAM)		Other Features	
	2 Open Forest (RE 12.5.3)		Existing Gravel Trail
	3 Open Forest - Modified Understory (RE 12.5.3)		Existing Cement Footpath
	4 Open Forest (RE 12.3.11)		Survey Area
	5 Open Forest - Modified Understory (RE 12.3.11)		Carseldine Urban Village Boundary
	6 Open Forest (Non-remnant)		Waterways (DNRME)
	7 Open Forest - Modified Understory (RE 12.3.11)		Property Boundaries
	8 Riverine Open Forest (RE 12.3.7)		

Issue Date	Dwg No.	Author
27 September 2019	2019-057-012	RF
Approved		Revision Note
MT		

(A3) GDA 94 MGA 56
1:2000



Attachment 9

5.1.3 Vegetation Communities

Table 5.1 provides descriptions of the vegetation communities that characterise the site, as recorded at representative locations shown in **Figure 5.1**.

Ground-truthed RE mapping for the subject site is also provided in **Figure 5.1**. Minor inconsistencies between regulated vegetation mapping for the site (**Appendix 2**) and that produced as a result of ground-truthing were evident. These inconsistencies include:



- One small area currently mapped as non-remnant (community 7) is considered to support the structural and floristic components that would make it analogous



to remnant RE12.3.11, as confirmed by the Herbarium pre-clear mapping for the site.



- The eastern portion of the Cabbage Tree Creek riparian zone, which is dominated by Camphor Laurel and Chinese Elm, is not considered to support remnant vegetation.
- Other inconsistencies relate mainly to the boundaries of the State mapped polygons, which in some areas include cleared land.




No vegetation communities with species indicative of EPBC-listed TECs are identified on State vegetation mapping, and the field survey confirmed no TECs occur within the subject site.

Table 5.1 Description of vegetation communities recorded on site

Site	Habitat description	Representative photo
Q1	<p>Remnant vegetation: mapped as RE12.3.7 (ground-truthed as correct).</p> <p>Brief description: Riverine open forest.</p> <p>Canopy (T1): Mid-dense /Dense. Height range 20-27m; median height 25m.</p> <p>Dominant species: <i>Corymbia intermedia</i>, <i>Lophostemon confertus</i>, <i>Eucalyptus microcorys</i>, <i>Jagera pseudorhus</i> var. <i>pseudorhus</i>, <i>Cinnamomum camphora</i>*.</p> <p>Associated species: <i>Eucalyptus propinqua</i>.</p> <p>Sub-canopy (T2): Sparse. Height range 7-10m; median height 8m.</p> <p>Dominant species: <i>Alphitonia excelsa</i>, <i>Melaleuca quinquenervia</i>, <i>Parsonia straminea</i>, <i>Glochidion sumatranum</i>, <i>Celtis sinensis</i>*, <i>Backhousia myrtifolia</i>, <i>Cryptocarya obovata</i>.</p> <p>Shrub (S1): Sparse. Height range 1-2m; median height 2m.</p> <p>Dominant species: <i>Ochna serrulata</i>*, <i>Lantana camara</i>*</p> <p>Groundcover: Dense. Height range 0.1-1m; median height 1m.</p> <p>Dominant species: <i>Megathyrsus maximus</i> var. <i>maximus</i>*, <i>Sphagneticola trilobata</i>*, <i>Ottlochloa gracillima</i>, <i>Gahnia sieberiana</i>, <i>Lomandra longifolia</i>.</p> <p>Additional weeds (understorey) include: <i>Nephrolepis cordifolia</i>*, <i>Syagrus romanzoffiana</i>*, <i>Senna pendula</i>, <i>Passiflora</i> spp.*.</p>	
Q2	<p>Remnant vegetation: mapped as RE12.3.7 (ground-truthed as non-remnant).</p> <p>Brief description: Riverine closed forest dominated by <i>Cinnamomum camphora</i>*.</p> <p>Canopy (T1): Dense. Height range 16-22m; median height 20m.</p> <p>Dominant species: <i>Cinnamomum camphora</i>*.</p> <p>Associated species: <i>Eucalyptus tereticornis</i>.</p> <p>Sub-canopy (T2): Very sparse. Height range 9-12m; median height 10m.</p> <p>Dominant species: <i>Melaleuca quinquenervia</i>, <i>Syzygium</i> spp. .</p> <p>Shrub (S1): Very sparse. Height range 1-2m; median height 1m.</p> <p>Dominant species: <i>Ochna serrulata</i>*, <i>Lantana camara</i>*, <i>Murraya paniculata</i>*.</p>	

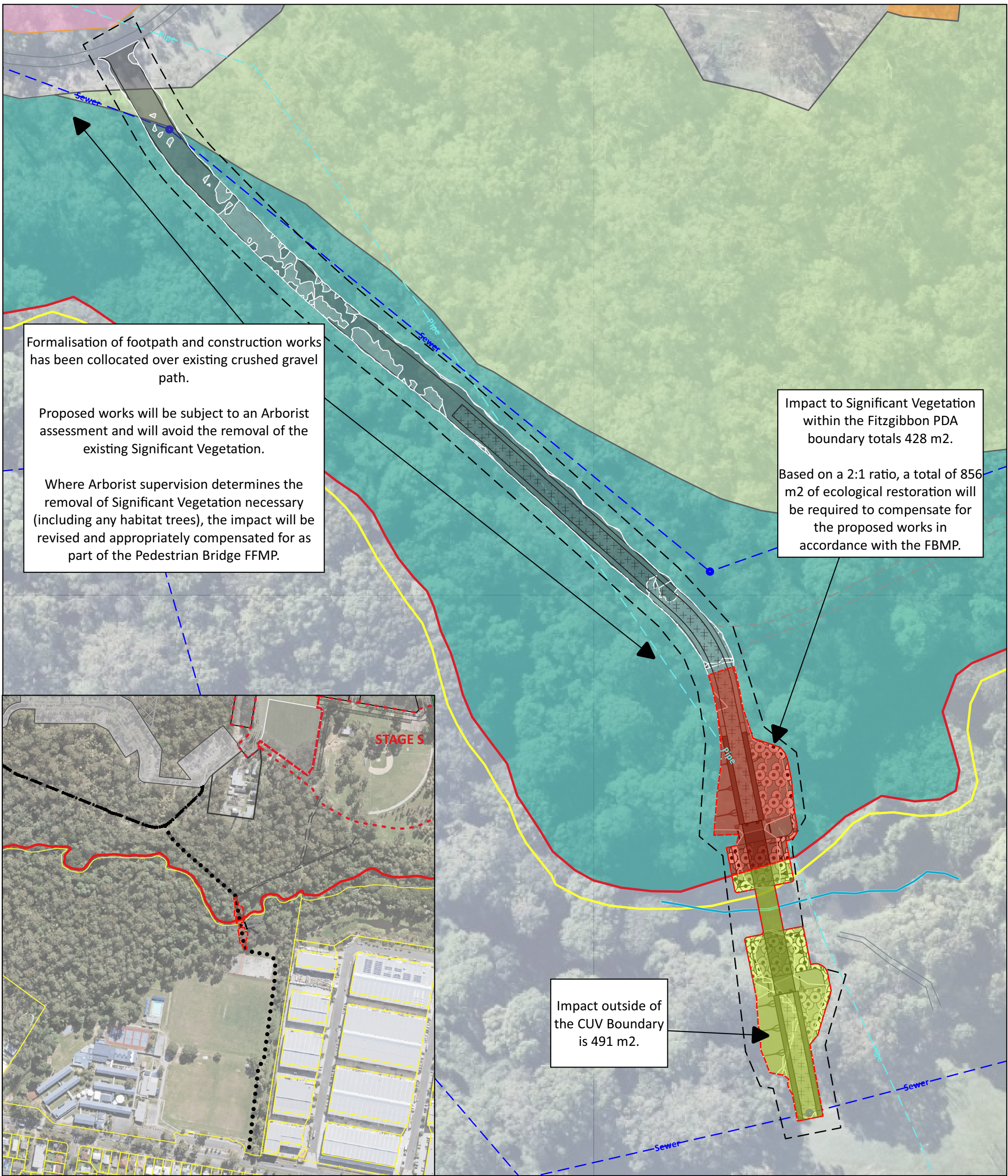
Site	Habitat description	Representative photo
	<p>Groundcover: Dense. Height range 0.1-0.3m; median height 0.2m.</p> <p>Dominant species: <i>Megathyrsus maximus</i> var. <i>maximus</i>*, <i>Sphagneticola trilobata</i>*, <i>Ottlochloa gracillima</i>, <i>Asparagus africanus</i>.*</p> <p>Additional weeds (understorey) include: <i>Nephrolepis cordifolia</i>*, <i>Syagrus romanzoffiana</i>*, <i>Senna pendula</i>, <i>Passiflora</i> spp.*.</p>	
Q3	<p>Remnant vegetation: mapped as RE12.3.11 (ground-truthed as correct).</p> <p>Brief description: Open Forest with a moderately dense shrub layer and grassy ground layer.</p> <p>Canopy (T1): Mid-dense. Height range 20-27m; median height 25m.</p> <p>Dominant species: <i>Eucalyptus tereticornis</i>, <i>Corymbia intermedia</i>, <i>Eucalyptus siderophloia</i>.</p> <p>Associated species: <i>Eucalyptus racemosa</i>.</p> <p>Sub-canopy (T2): Mid-dense. Height range 6-10m; median height 7m.</p> <p>Dominant species: <i>Allocasuarina littoralis</i>, <i>Eucalyptus siderophloia</i>, <i>Alphitonia excelsa</i>, <i>Acacia disparrima</i>, <i>Acacia fimbriata</i>, <i>Acacia concurrens</i>, <i>Leptospermum polygalifolium</i>, <i>Parsonsia straminea</i>.</p> <p>Shrub (S1): Mid-dense. Height range 1-2m; median height 2m.</p> <p>Dominant species: <i>Lantana camara</i>*, <i>Senna pendula</i>*, <i>Ochna serrulata</i>*, <i>Acacia disparrima</i>.</p> <p>Groundcover: Mid-dense. Height range 0.1-0.5m; median height 0.5m.</p> <p>Dominant species: <i>Megathyrsus maximus</i> var. <i>maximus</i>*, <i>Asparagus aethiopicus</i>*, <i>Imperata cylindrica</i>, <i>Lomandra longifolia</i>, <i>Parsonsia straminea</i>.</p> <p>Additional weeds (understorey) include: <i>Corymbia torelliana</i>*, <i>Celtis sinensis</i>, <i>Cinnamomum camphora</i>*, <i>Passiflora edulis</i>*, <i>Bidens pilosa</i>*, *<i>Asparagus africanus</i>, <i>Melinis repens</i>*.</p>	
Q4	<p>Remnant vegetation: mapped and ground-truthed as non-remnant.</p> <p>Brief description: Open forest with scattered canopy trees, acacia understory and grassy ground layer.</p> <p>Canopy (T1): Very sparse. Height range 12-16m; median height 16m.</p> <p>Dominant species: <i>Corymbia intermedia</i>.</p> <p>Associated species: <i>Eucalyptus racemosa</i>.</p> <p>Sub-canopy (T2): Dense. Height range 9-12m; median height 11m.</p> <p>Dominant species: <i>Alphitonia excelsa</i>, <i>Acacia disparrima</i>.</p> <p>Associated species: <i>Corymbia intermedia</i>, <i>Lophostemon suaveolens</i>.</p> <p>Shrub (S1): Very sparse. Height range 1-2m; median height 2m.</p> <p>Dominant species: <i>Lantana camara</i>*, <i>Senna pendula</i>*, <i>Ochna serrulata</i>*, <i>Acacia disparrima</i>.</p> <p>Groundcover: Mid-dense. Height range 0.1-0.4m; median height 0.2m.</p> <p>Dominant species: <i>Urochloa decumbens</i>*</p> <p>Note: 12.3.11 with suitable rehabilitation – potential offset site for loss of mapped 12.3.11 areas.</p>	

Site	Habitat description	Representative photo
Q5	<p>Remnant vegetation: mapped as RE12.3.7 (ground-truthed as correct).</p> <p>Brief description: Riverine open forest.</p> <p>Canopy (T1): Mid-dense /Dense. Height range 20-27m; median height 25m.</p> <p>Dominant species: <i>Eucalyptus microcorys</i>, <i>Eucalyptus racemosa</i>, <i>Eucalyptus propinqua</i>, <i>Lophostemon confertus</i>, <i>Eucalyptus siderophloia</i>.</p> <p>Sub-canopy (T2): Sparse. Height range 7-10m; median height 8m.</p> <p>Dominant species: <i>Alphitonia excelsa</i>, <i>Melaleuca quinquenervia</i>, <i>Parsonsia straminea</i>, <i>Glochidion sumatranum</i>, <i>Celtis sinensis</i>*, <i>Backhousia myrtifolia</i>, <i>Cryptocarya obovata</i>.</p> <p>Shrub (S1): Sparse. Height range 1-2m; median height 2m.</p> <p>Dominant species: <i>Ochna serrulata</i>*, <i>Lantana camara</i>*</p> <p>Groundcover: Dense. Height range 0.1-1m; median height 1m.</p> <p>Dominant species: <i>Megathyrsus maximus</i> var. <i>maximus</i>*, <i>Sphagneticola trilobata</i>*, <i>Ottochloa gracillima</i>, <i>Gahnia sieberiana</i>, <i>Lomandra longifolia</i>.</p> <p>Additional weeds (understorey) include: <i>Nephrolepis cordifolia</i>*, <i>Syagrus romanzoffiana</i>*, <i>Senna pendula</i>, <i>Passiflora</i> spp.*.</p>	
Q6	<p>Remnant vegetation: mapped as RE12.3.11 (ground-truthed as correct).</p> <p>Brief description: Open Forest with a moderately dense shrub layer and grassy ground layer.</p> <p>Canopy (T1): Mid-dense. Height range 20-30m; median height 25m.</p> <p>Dominant species: <i>Eucalyptus tereticornis</i>, <i>Eucalyptus racemosa</i>.</p> <p>Sub-canopy (T2): Mid-dense. Height range 9-11m; median height 10m.</p> <p>Dominant species: <i>Alphitonia excelsa</i>, <i>Acacia disparrima</i>, <i>Melaleuca salicina</i>, <i>Parsonsia straminea</i>.</p> <p>Shrub (S1): Very sparse. Height range 1-2m; median height 1m.</p> <p>Dominant species: <i>Acacia fimbriata</i>, <i>Trema tomentosa</i>.</p> <p>Groundcover: Mid-dense. Height range 0.1-0.5m; median height 0.5m.</p> <p>Dominant species: <i>Megathyrsus maximus</i> var. <i>maximus</i>*.</p> <p>Additional weeds (understorey) include: <i>Passiflora edulis</i>*, <i>Bidens pilosa</i>*, *<i>Asparagus africanus</i>, <i>Melinis repens</i>*.</p>	
Q7	<p>Remnant vegetation: RE12.5.3 (ground-truthed as correct).</p> <p>Brief description: Open forest with a highly modified grassy understorey (shrub layer absent),</p> <p>Canopy (T1): Mid-dense. Height range 16-25m; median height 22m.</p> <p>Dominant species: <i>Corymbia intermedia</i>.</p> <p>Associated species: <i>Eucalyptus carnea</i>, <i>Eucalyptus tindaliae</i>, <i>Eucalyptus tereticornis</i>, <i>Eucalyptus racemosa</i>, <i>Corymbia citriodora</i> subsp. <i>Variegata</i>, <i>Eucalyptus microcorys</i>, <i>Eucalyptus siderophloia</i>, <i>Eucalyptus propinqua</i>.</p> <p>Groundcover: (highly modified): <i>Axonopus compressus</i>* (mown exotic grass)</p> <p>Weeds: woody and tall herbaceous weeds generally absent as a result of mowing.</p>	

Site	Habitat description	Representative photo
Q8	<p>Remnant vegetation: RE12.5.3 (ground-truthed as correct). Brief description: Open forest with grassy understory and moderately dense shrub layer. Canopy (T1): Mid-dense. Height range 24-30m; median height 27m. Dominant species: <i>Eucalyptus racemosa</i>. Associated species: <i>Corymbia intermedia</i>, <i>Eucalyptus siderophloia</i>. Sub-canopy (T2): Mid-dense. Height range 8-11m; median height 8m. Dominant species: <i>Alphitonia excelsa</i>, <i>Acacia disparrima</i> subsp. <i>disparrima</i>, Associated species: <i>Corymbia intermedia</i>, <i>Lophostemon confertus</i>. Shrub (S1): Sparse. Height range 1-2m; median height 1m. Dominant species: <i>Acacia disparrima</i>. Associated species: <i>Celtis sinensis</i>*, <i>Ochna serrulata</i>*, <i>Stephania japonica</i>, <i>Parsonsia straminea</i>. Groundcover: Mid-dense. Height range 0.1-0.5m; median height 0.3m. Dominant species: <i>Entolasia stricta</i>, <i>Imperata cylindrica</i>. Associated species: <i>Asparagus aethiopicus</i>*, <i>Stephania japonica</i>, <i>Lomandra multiflora</i>. Additional weeds (understorey): <i>Cinnamomum camphora</i>*, <i>Lantana montevidensis</i>*, <i>Passiflora suberosa</i>*, <i>Syagrus romanzoffiana</i>*, <i>Schefflera actinophylla</i>*, <i>Corymbia torelliana</i>*, <i>Neonotonia wightii</i>*</p>	
Q9	<p>Remnant vegetation: RE12.5.2 (ground-truthed as correct). Brief description: Open forest with highly modified grassy understory (shrub layer absent). Canopy (T1): Mid-dense. Height range 19-25m; median height 22m. Dominant species: <i>Eucalyptus microcorys</i>, <i>Corymbia intermedia</i>, <i>Eucalyptus propinqua</i>, <i>Eucalyptus tereticornis</i>. <i>Melaleuca quinquenervia</i> in swale. Groundcover: mown Dominant species: <i>Axonopus compressus</i> (exotic grass) Weeds: woody and tall herbaceous weeds generally absent as a result of mowing.</p>	
Q10	<p>Remnant vegetation: mapped and ground-truthed as non-remnant Brief description: Open forest with highly modified grassy understory (shrub layer absent). Canopy (T1): Mid-dense. Height range 19-25m; median height 23m. Dominant species: <i>Corymbia intermedia</i>, <i>Eucalyptus tereticornis</i>, <i>Eucalyptus siderophloia</i>, <i>Corymbia citriodora</i>, <i>Eucalyptus racemosa</i>. Groundcover: mown Weeds: woody and tall herbaceous weeds generally absent as a result of mowing.</p>	



Attachment 10



Formalisation of footpath and construction works has been collocated over existing crushed gravel path.

Proposed works will be subject to an Arborist assessment and will avoid the removal of the existing Significant Vegetation.

Where Arborist supervision determines the removal of Significant Vegetation necessary (including any habitat trees), the impact will be revised and appropriately compensated for as part of the Pedestrian Bridge FFMP.

Impact to Significant Vegetation within the Fitzgibbon PDA boundary totals 428 m².

Based on a 2:1 ratio, a total of 856 m² of ecological restoration will be required to compensate for the proposed works in accordance with the FBMP.

Impact outside of the CUV Boundary is 491 m².

Carseldine Urban Village - Pedestrian Bridge Legend

Attachment 10 - Impact Plan

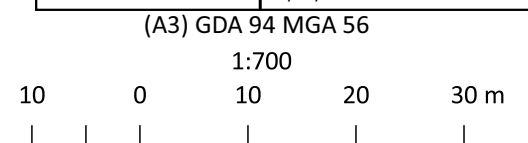
- Disturbance within PDA (428 m²)
- Disturbance outside of PDA (491 m²)
- Significant Vegetation (VC8 - 12.3.7)
- Significant Vegetation (VC4 - 12.3.11)
- Proposed concrete path
- Rock Armouring
- Earthworks Cut
- Earthworks Fill
- Carseldine Urban Village Site Boundary
- Property Boundaries (Cadastral)
- Indicative connection
- Waterway Centreline
- Existing Pipe
- Existing Gravel Pathway



Issue Date	Dwg No.	Author
21 January 2020	2019-057-PB010_Rev D	RF
Approved		Revision Note
MT		Revised to include Cardno Dwg. QTMP1903-CI-1000 (dated 16/12/2019)

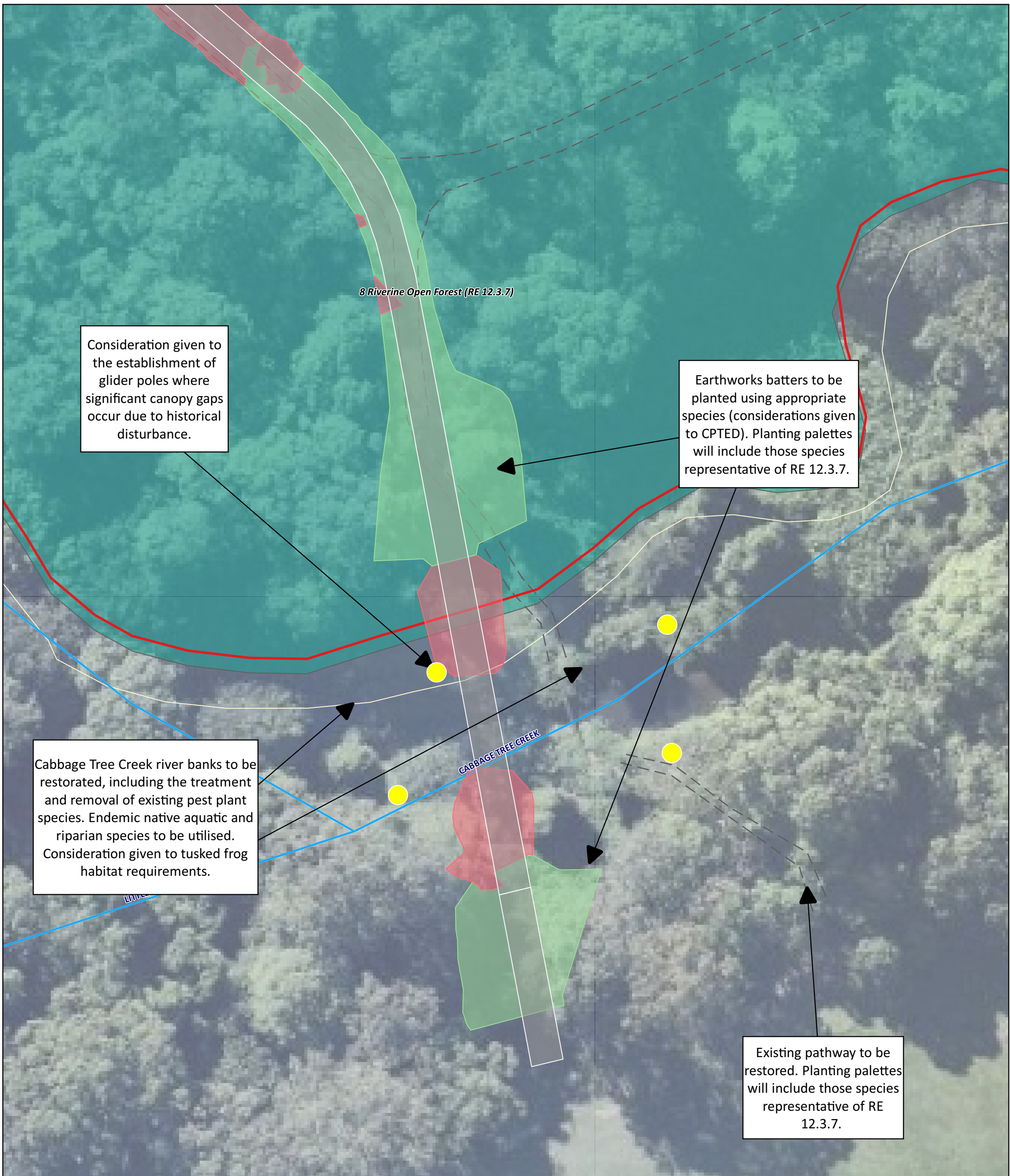
28 South Project Ref: 2017-057

Data Sources: Nearmap Aerial Imagery (Nearmap May 2019); Digital Cadastre Database (Dept. Natural Resources and Mines, 2019); Baseline Roads (DNRME 2017); Waterways (DNRME 2018).





Attachment 11



Carseldine Urban Village - Pedestrian Bridge Legend

Attachment 11 - Opportunities for Ecological Restoration

- CUV Boundary
- Shared Path
- Earthworks**
- Cut
- Fill
- Waterway Centreline (Cabbage Tree Creek)
- Existing Pipe
- Existing Gravel Trail
- Property Boundaries
- Vegetation Community 8 - Riverine Open Forest (RE 12.3.7)

Issue Date	Dwg No.	Author
17 Oct 2019	2019-057-PB010	RF
Approved		Revision Note
MT		

28 South Project Ref: 2017-057

Data Sources: Nearmap Aerial Imagery (Nearmap May 2019); Digital Cadastre Database (Dept. Natural Resources and Mines, 2019); Baseline Roads (DNRME 2017); Waterways (DNRME 2018).

