Arboricultural Impact Assessment

New High School for Schofields and Tallawong

Prepared by Alex Austin

For

The Department of Education

January 2025

Final V4

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1 Summary

This Arboricultural Impact Assessment (AIA) has been prepared to accompany a Review of Environmental Factors (REF) for the Department of Education (DoE) for the construction and operation of a New High School for Schofields and Tallawong (the activity) under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (SEPP TI).

This document has been prepared in accordance with EP&A Regulations 2021 section 170 and 171 as well as the *Guidelines for Division 5.1 assessments* (the Guidelines) by the Department of Planning, Housing and Infrastructure.

The site visit and data collection were completed on the 2nd October 2024. 299 trees (Including groups) within the proposed activity area were inspected in across 248 tag numbers and are now subject to this report. This data has been collected in accordance with Australian Standard 4970: 2009 *Protection of trees on development sites.* The complete data table is listed in the appendix

The tree assessment revealed;

- 34 High (A) Retention Value trees
- 120 Medium (B) Retention Value trees
- 96 Low (C) Retention Value trees
- 49 (R) Remove Trees in very poor or dead condition.

16 Trees had habitat features observed including stick nests, cracks, and hollows observed during the assessment.

The 299 trees included in this report have the following ownership;

- 285 trees are located within the site boundary.
- 13 Trees are located outside the site boundary on the Guntawong Road verge.
- One (1) Tree numbered 353 is located on Neighbouring Residential land (194 Guntawong Road)

The proposed activity is for the construction and operation of a new high school known as Schofields - Tallawong High School. The new high school will accommodate up to 1,000 students. The school will provide 49 permanent teaching spaces (PTS), and 3 support teaching spaces (STS) across three buildings. The original Concept resulted in close to 100% tree removal. Following the tree assessment, the tree detail was placed on survey and the Civil, Architectural and Landscape teams adjusted the layout. As a result of the tree detail being included in design, the retention of trees in the final design was able to be prioritised. The design teams were able to accommodate 32 mature trees in the design.

If the current proposed construction layout is to proceed, then 267 trees are proposed for removal in order to facilitate the layout. Trees for removal include; 254 trees within the site boundary, and 13 trees on the Guntawong Road verge.

32 trees within the site are to be retained and protected from the activity. To ensure the 32 trees nominated for retention remain viable during and post construction, mitigation measures including the engagement of a project arborist, tree protection fencing, tree protection signage, trunk protection, sensitive construction techniques, arborist supervision of works in the Tree Protection Zones (TPZ's), a restriction of activities within Tree Protection Zones (TPZ's) and compliance reporting must be incorporated into the project.

A Tree Retention Plan is located in the Appendix.

159 new trees are proposed to be planted within the project as per the landscape plan. The proposed tree plantings provide species that are from the Cumberland Plain Woodland species assemblage located on the site.

This document must be used in its entirety and further questions are to be directed to:

Alex Austin

AQF Level 8 Arborist

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3 Document Details

Version Number	Date	Description
001	17/01/2025	Draft 01
002	21/01/2025	Draft 02 following SI & Urbis comments + the release of final Architectural and Landscape Plans.
003	22/01/2025	Final – typos and plan revisions updated.
004	28/01/2025	Final – Mitigation Measure revisions

4 Background

Arboricultural Impact Assessment (AIA) has been prepared to accompany a Review of Environmental Factors (REF) for the Department of Education (DoE) for the construction and operation of a New High School for Schofields and Tallawong (the activity) under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (SEPP TI)..

The site visits and data collection were originally completed between the 10th and 21st of February 2022 where an assessment of the whole site was completed for the previous site owner. The data set and tag numbers from this original assessment have been applied to this assessment.

A re assessment and data update of the trees within this project area was completed on the 2nd of October 2024 by Alex Austin. Considerable data change was observed, with environmental conditions being significantly more favourable then during the prolonged drought conditions experienced in February 2024. Typical positive changes included diameter increases and health improvements and typical negative data change included increased dead trees, structural issues from storms and disease as well as damage from neighbouring developments. Three (3) trees numbered 114, 181 & 326 had fallen since Feb 2022.

299 trees (Including groups) within the proposed activity area were inspected in across 248 tag numbers and are now subject to this report. This data has been collected in accordance with Australian Standard 4970: 2009 *Protection of trees on development sites.* The majority of the trees have been tagged and all trees are plotted on the site survey. The complete updated data table is listed in the appendix.

Tree assessment and mitigation measures in this report are based on the condition of the trees at the time of inspection. As the trees continue to age and decline, further assessment, particularly from a hazard management perspective may be necessary. Site conditions and weather events may also change the condition of the trees from the time of inspection.

4.1 Legislative Context

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments (the Guidelines) by the Department of Planning, Housing and Infrastructure.

This report examines and takes into account the relevant environmental factors in the Guidelines and Environmental Planning and Assessment Regulations 2021 under Section 170, Section 171 and Section 171A of the EP&A Regulation as outlined in Table 1.

Table 1

Regulation / Guideline Section	Requirement	Response	Report Section
Clause 171(2) of the EP&A Regulation 2021	(c)Any environmental impact on the ecosystems of the locality? (d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality. e) Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations h) long-term effects on the environment, i) degradation of the quality of the environment,	The proposed 267 Tree Removals will reduce canopy cover and aesthetic appeal of the local area. The tree removals are necessary to enable the proposed activity. The replacement tree plantings will reduce the loss of canopy cover, aesthetic appeal and environmental quality of the site/locality for the long term. Increased levels of planting are not possible due to the 15% canopy cover restriction for the management of the Bushfire Asset Protection Zone.	Section 9 & 10

4.2 Reviewed Documents

The following plans/ reports identified in Table 2 have been reviewed to inform the assessment contained within this report:

Table 2

Discipline	Document name	Revision	date
Surveyor	Site Survey by SDG	Issue F	15/01/2025
Architect	Architectural Plan Set by Djrd Architects	Issue 9	20/01/2025
Architect	Architectural and Landscape Design Report by DJRD	Version 4	22/01/2025
Civil	Complete Plan Set, by TTW	Rev 4	22/01/2025
Neighbouring Development	Road and Drainage Design, by Barker, Stewart Ryan, for the Bathla Group	Rev 1	05/4/2024
Landscape Architect	Landscape Plans by Site Image	Issue 3	20/01/205
Ecologist	Flora and Fauna Assessment by water Technology	Version 3	13/01/2025

5 Methodology

5.1 Aims and Objectives

- Determine the Retention Value and required area for each tree to be protected and remain viable during and post construction.
- Identify and reduce potential conflicts between subject trees and site activity by providing accurate information on the area required for tree retention and methods/techniques suitable for tree protection during construction.
- Encroachments to the TPZs are to be minimized prior to construction.
- Works within the defined Tree Protection Zone shall utilize special measures to avoid or minimize adverse impacts on trees.
- Provide information on restricted activities within the area nominated for tree protection, as well as suitable construction methods to be adopted during construction.
- The trees to be retained must be protected from all other demolition, excavation, and construction activities.

5.2 Tree Health and Condition

The inspection of the trees was made from the ground and involved inspection of the external features only. No invasive, diagnostic or laboratory testing was carried out.

Tree height and canopy spread were estimated and trunk diameter (DBH) and Diameter at Root Crown (DRC), have been measured with a diameter tape where applicable.

Data including species, age class, health, structure, landscape significance, defect and life expectancy were recorded. Tree species were identified using available seed and fruit during the site inspection.

All photographs were taken at the time of the site inspection by the inspecting arborist. Photographs have been altered for brightness and/or cropped only.

5.3 Tree Protection Zone and Structural Root Zone

The Tree Protection Zone method has been derived from the Australian Standard 4970–2009: *Protection of trees on development sites*.

The Tree Protection Zone (TPZ) is defined as a specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree's roots and crown. It is the area required to provide for the viability of a tree to be retained where it is potentially subject to damage by development.

The radius of the TPZ is calculated for each tree by multiplying its Diameter at Breast Height (DBH) by 12.

$$TPZ\ radius = DBH \times 12$$

The trunk diameter method has been used in this report to determine the TPZ. This area provides a general guide where the roots are likely to be located.

The Structural Root Zone (SRZ) is the area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres.

$$SRZ\ radius = (Drc \times 50)^{0.42} \times 0.64$$

5.4 Root Loss

In line with section 3.3.2 of AS 4970:2009, a 10% incursion to a TPZ is considered a minor encroachment. Any more than 10% is considered a major incursion and special measures should be taken to minimise impact on the retained trees and the Arborist must demonstrate that the tree will remain viable post construction.

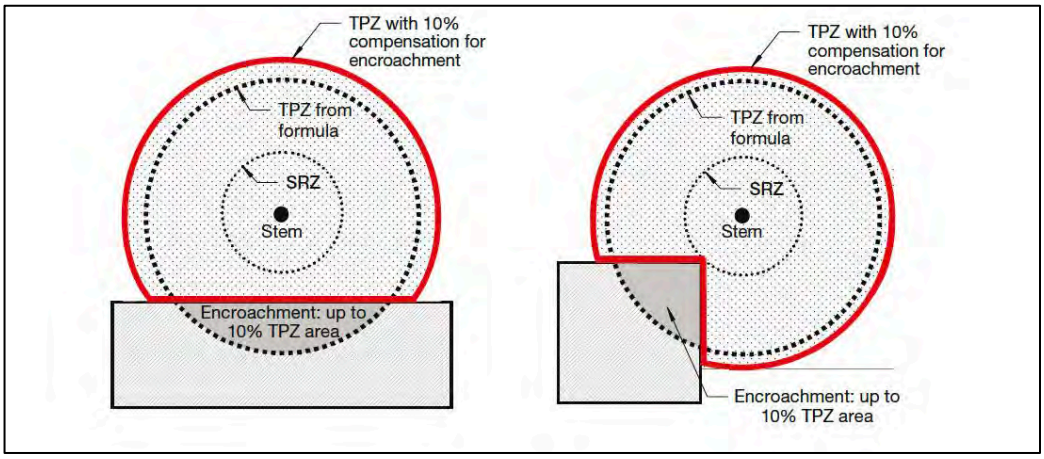


Figure 1: Example acceptable 10% minor encroachments. (Source: AS 4970:2009)

5.5 Retention Value

The retention value method used is IACA Significance of a Tree, Assessment Rating System (STARS) (IACA 2010)©. See appendix for detailed description of the method. The Stars retention value method used is a simplified rating system consisting of 4 categories as a summary of the survey's cascading process. The retention value considers the trees health and structure, age class, defects, life expectancy and significance in the landscape.

- Priority for Retention (High - A - Green) -These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 Protection of trees on development sites. Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone. Considerable efforts should be made to retain these trees.
- Consider for Retention (Medium – B (Blue)These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted. Reasonable efforts should be made to retain these trees.
- Consider for Removal (Low- C –Grey) These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention. These trees may also be easily replaceable due to their small size.
- Priority for Removal (Remove – R- Red). -These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.

6 Site Details

6.1 Legislation

6.1.1 Blacktown LGA

The site is located in the Blacktown Local Government Area.

6.2 Site Location

6.2.1 Suburb Map

The subject site is identified as Lot 1 in Deposited Plan (DP) 1283186 but more commonly known as 201 Guntawong Road, Riverstone.

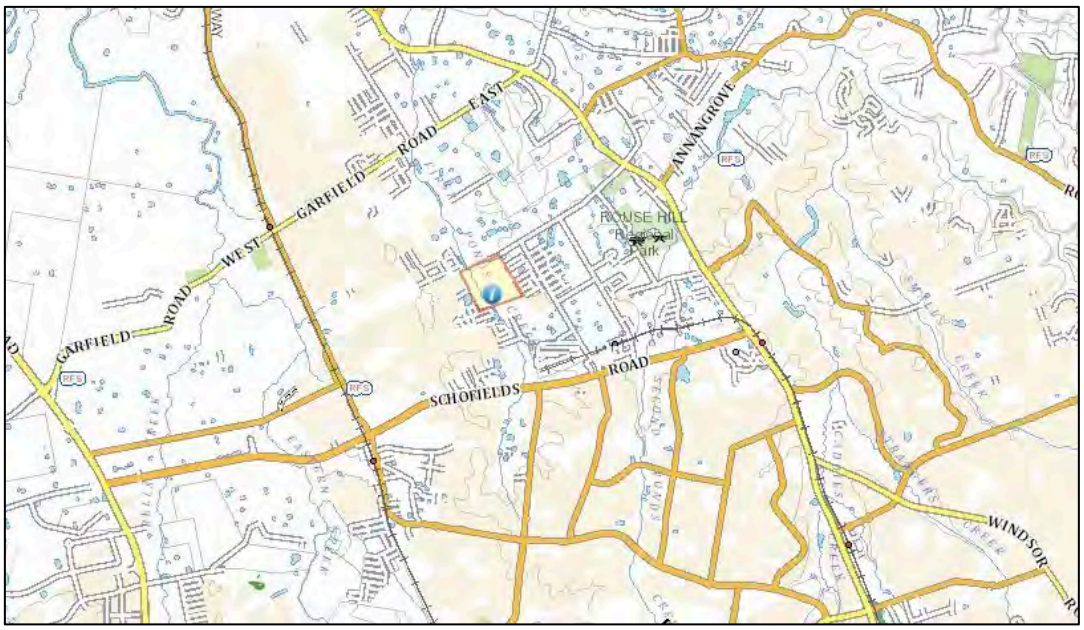


Figure 2: The suburb map of the wider area depicting the site location. (Source: Sixmaps 2024).

6.2.2 Aerial Image

The project site is located within the suburb of Tallawong.

Figure 3: The aerial image of the whole wider site with the rough activity area identified by the red polygon.(Source: Urbis Preamble 2024).

6.2.3 Biodiversity and Conservation SEPP

The subject trees are protected by the State Environmental Planning Policy (Biodiversity and Conservation SEPP) 2021. Trees proposed for removal or pruning, are covered by the SEPP unless they are considered an imminent danger to life and property (By a AQF Level 5 or above Arborist) and require a permit to be issued by Council.

6.2.4 Cumberland Plain Woodland

The majority of trees in this report form part of Cumberland Plain Woodland(CPW). CPW is listed an Critically Endangered Ecological Community (CEEC) under both the state, *Biodiversity Conservation Act 2016* (BC Act) and the commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) legislation.

Figure 4: The mapped Cumberland Plain Woodland in the activity area is highlighted by the shading in the image. (Source: SEED 2022)

6.2.5 Bio Certified Land

The land is Bio Certified. Under the *Biodiversity Conservation Act 2016,* the effect of biodiversity certification is that activity carried out under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on certified land is exempt from requiring an impact assessment on biodiversity. Section 8.4 of the *Biodiversity Conservation Act 2016* states:

> *(4) Activities under Part 5 of the Planning Act: An activity to which Part 5 of the Environmental Planning and Assessment Act 1979 applies that is carried out or proposed to be carried out on biodiversity-certified land is taken, for the purposes of Part 5 of that Act, to be an activity that is not likely to significantly affect any threatened species or ecological community under this Act, or its habitat, in relation to that land."*

This provision means that if an activity falls under Part 5 of the EP&A Act and occurs on biodiversity-certified land, it is deemed, for the purposes of Part 5, not to have a significant impact on any threatened species, ecological communities, or their habitats on that land. Accordingly, no further assessments regarding biodiversity impacts are required as the certification process has already addressed these impacts.

Further, under Section 7.8 of the *Biodiversity Conservation Act 2016*, the following is outlined:

7.8 Biodiversity assessment for Part 5 activity

(1) This section applies to environmental assessment under Part 5 of the Environmental Planning and Assessment Act 1979.

(2) For the purposes of Part 5 of the Environmental Planning and Assessment Act 1979, an activity is to be regarded as an activity likely to significantly affect the environment if it is likely to significantly affect threatened species.

(3) In that case, the environmental impact statement under Part 5 of the Environmental Planning and Assessment Act 1979 is to include or be accompanied by—

(a) a species impact statement, or

(b) if the proponent so elects—a biodiversity development assessment report.

It notes that a SIS or BDAR is only required for Part 5 projects where an activity is likely to significantly affect the environment if it is likely to significantly affect threatened species. Given that Section 8.4(4) of the *Biodiversity Conservation Act 2016* outlines that an activity on biodiversity certified land is 'an activity that is not likely to significantly affect any threatened species', neither a SIS nor a BDAR is required.

6.2.6 Zoning

The site is zoned both R2 Medium density Residential & R3: Low Density Residential under State Environmental Planning Policy (Precincts—Central River City) 2021.

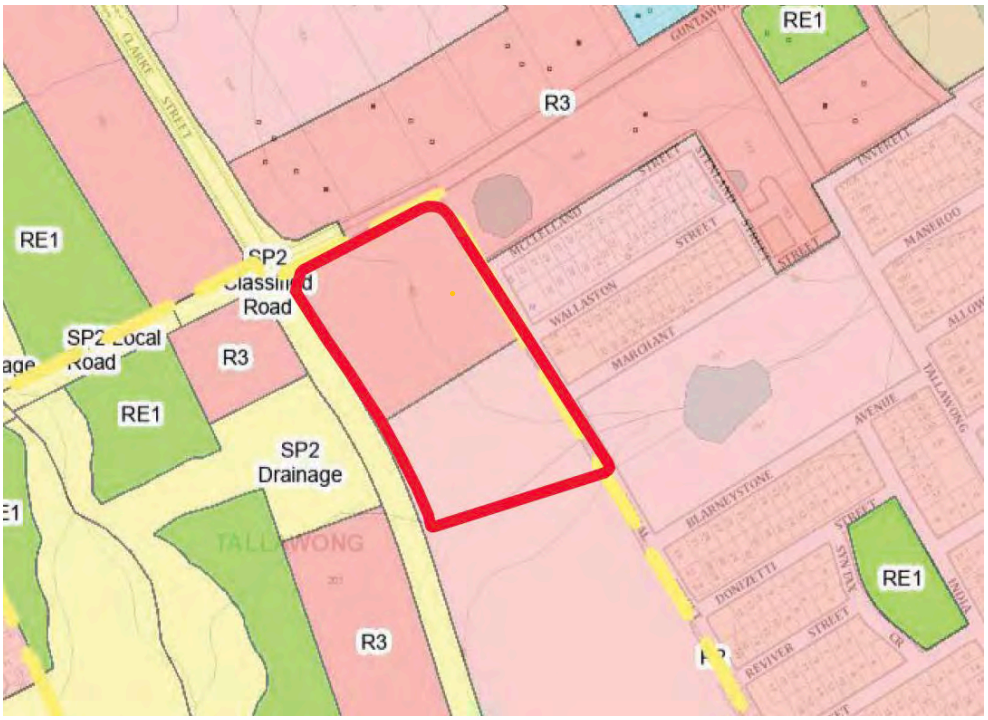


Figure 5: The multiple land zones within the site and wider area can be observed. (Source: E Planning Viewer 2024).

6.3 Existing Layout

The project site is a green field site that contains a large paddock, a creek line, forested areas, open paddock areas, a swampy area and old farm infrastructure. Neighbouring suburb developments are to the east of the site on the Nirmal St frontage. The Guntawong Road frontage has a forested appears with the majority of the trees within this report located within 100m of Guntawong Road. High voltage powerlines are located above the council verge on Guntawong Road.

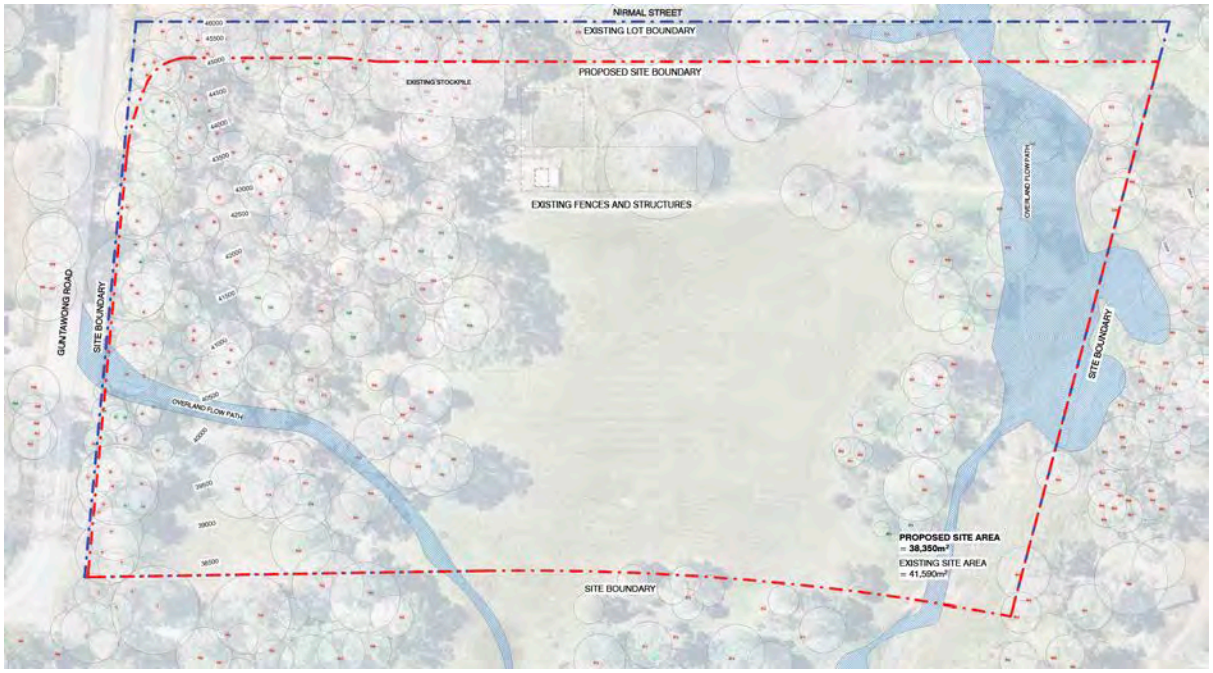


Figure 6: The existing layout.(Source: Architectural Plan Set by Djrd Architects Issue 6 dated 20/01/2025).

6.4 Existing site Conditions

Figures: 7 & 8: The appearance of the forested area on the Guntawong Road frontage (Left) and the forested area boundary with the Nirmal St development can be observed (Right). (Source: Austin 2/10/2024).


Figures: 9 & 10: The large paddock area viewed from the middle of the site (Left) and Tree 108 in the old cattle yards can be observed (Right). (Source: Austin 2/10/2024).


Figures: 11 & 12: Scattered trees in the middle of the site (Left) and the creek line with scattered trees at the south eastern corner of the site can be observed (Right). (Source: Austin 2/10/2024).


Figures: 13 & 14: The Guntawong Road frontage (Left) and proposed Bus Stop area on the Guntawong Road verge opposite the site can be observed (Right). (Source: Austin 16/12/2024).

7 Tree Details

The site visit and data collection were completed on the 2nd October 2024. 299 trees (Including groups) within the proposed activity area were inspected in across 248 tag numbers and are now subject to this report. This data has been collected in accordance with Australian Standard 4970: 2009 *Protection of trees on development sites.* The complete data table is listed in appendix 15.2.

The tree assessment revealed;

- 34 High (A) Retention Value trees
- 120 Medium (B) Retention Value trees
- 196 Low (C) Retention Value trees
- 49 (R) Remove Trees in very poor or dead condition.

7.1.1 Tree Location Map

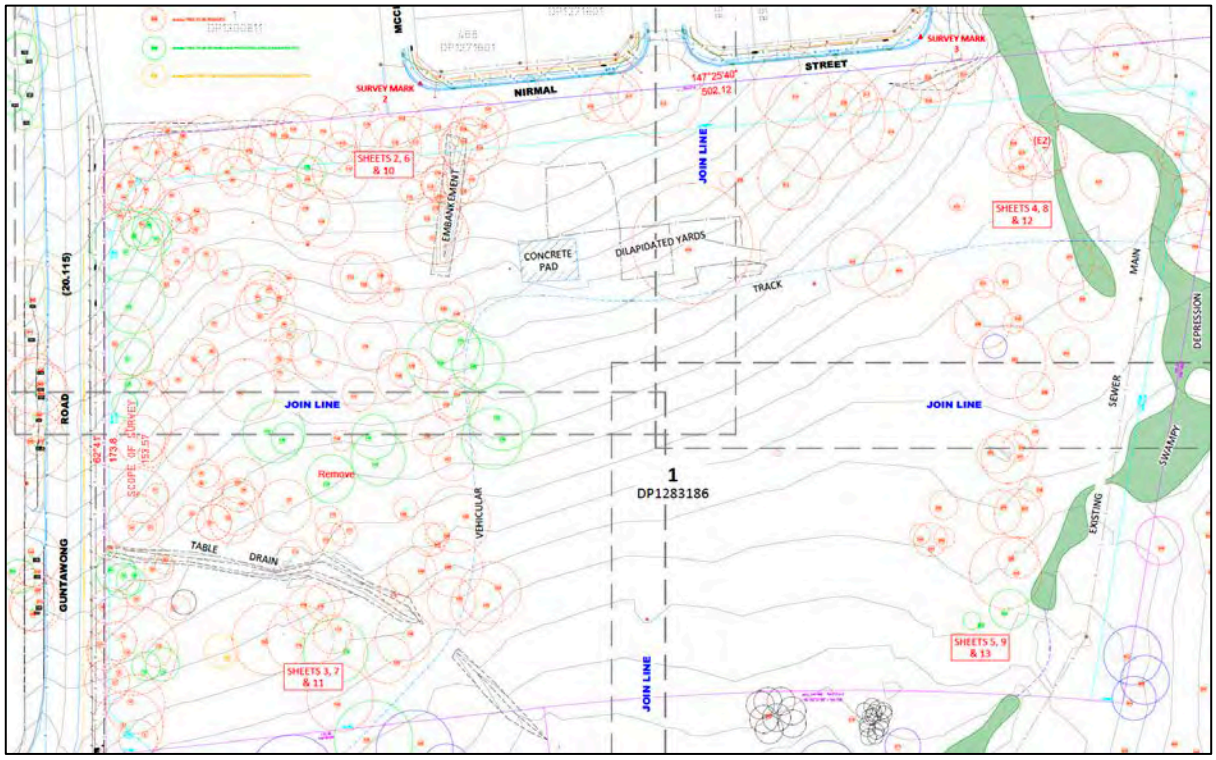


Figure 15: The site survey with tree details can be observed. See appendix for the larger plan. (Source: Site Survey, Issue F by SDG dated 15/01/2025).

7.1.2 Tree Ownership

The 299 trees included in this report have the following ownership;

- 285 trees are located within the site boundary.
- 13 Trees are located outside the site boundary on the Guntawong Road verge.
- One (1) Tree numbered 353 is located on Neighbouring Residential land (194 Guntawong Road)

7.2 39 High (A) High Retention Value trees

Trees in this category are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 *Protection of trees on development sites*. Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone. Considerable efforts should be made to retain these trees. Key Examples include;

Figures: 16 & 17: Tree 97 *Eucalyptus tereticornis* (Forest Red Gum) is located on the Nirmal St Frontage (Left) and Trees 335 & 335 *Eucalyptus tereticornis (*Forest Red Gums) can be observed at the south eastern corner of the site. (Right). (Source: Austin 2/10/2024).

Figures: 18 & 19: Trees 142 & 143 *Eucalyptus tereticornis* (Forest Red Gums) (Left) and Trees 162 & 163 *Eucalyptus tereticornis (*Forest Red Gums) can be observed within the edge of the forested area at the Guntawonmg Road end of the site. (Right). (Source: Austin 2/10/2024).

7.3 120 Medium (B) Retention Value trees

These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered. Reasonable efforts should be made to retain these trees. Examples include;

Figure 20: Trees 305 and 306 *Eucalyptus crebra* (Narrow Leaf Iron Barks) that have dieback and thinning canopies from soil compaction that result in medium life expectancies (Right). (Source: Austin 2/10/2024).

Figures 21 & 22: Tree 73 *Eucalyptus tereticornis* (Forest Red Gum) on the Guntawong Road frontage is a tree of medium landscape significance with minor deadwood (Left) and Tree 53 *Eucalyptus moluccana* (Grey Box) has a significant trunk wound (Right) (Source: Austin 2/10/2024).

7.4 196 Low (C) Retention Value trees

These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention. These trees may also be easily replaceable due to their small size. Key Examples include;

Figures 23 & 24: Tree 151 *Eucalyptus tereticornis* (Forest Red Gum) has poor condition from observations including; Larger stem removed, remaining stem leans over track, wound that result in a C retention Value (Left) & Tree 29, a semi mature *Angophora floribunda* (Rough barked Apple) that has a supressed form as it has been trimmed for powerlines resulting in poor structure and a short life expectancy. (Right) (Source: Austin 2/10/2024).

Figures 25 & 26: Tree 109 *Eucalyptus tereticornis* (Forest Red Gum) has poor condition from observations including; Minor Stem wounds, wire at base, dieback, canopy thinning that result in a C retention Value (Left) & Tree 14, a semi mature *Cupressus sp* (Cypress Pine) with low landscape significance. (Right) (Source: Austin 2/10/2024).

7.5 49 (R) Remove Trees

These trees are considered hazardous or are in irreversible decline and should be removed irrespective of activity.

Key Examples include;


Figures 27 & 28: Tree 9 *Eucalyptus moluccana* (Grey Box) is dead and requires removal (Left) Tree 55 *Eucalyptus tereticornis* (Forest Red Gum) has poor condition from observations including; Minor basal cavity, trunk wounds, decay, fungal fruiting bodies, compromised major union at 12m that result in a R retention Value. (Right) (Source: Austin 2/10/2024).


Figures 29 & 30: Tree 35 *Eucalyptus tereticornis* (Forest Red Gum) has poor condition from observations including; Major deadwood, fungal fruiting bodies, dead stems, major union split, decay that result in a R retention Value. (Source: Austin 2/10/2024).

Figures 31 & 32: Tree 172 *Eucalyptus moluccana* (Grey Box) has poor condition from observations including; Severe basal wound, mechanical damage that result in a R retention Value. (Source: Austin 2/10/2024).

Figures 33 & 34: Tree 329 *Eucalyptus tereticornis* (Forest Red Gum) has poor condition from observations including; Tree in severe decline (Left) & Tree 39, a semi mature *Eucalyptus tereticornis* (Forest Red Gum) has poor condition from observations including; Major stem has died, borers that results in a R retention Value. (Right) (Source: Austin 2/10/2024).

7.6 Neighbouring Development Damage

Trees numbered 310 – 312 were located in fenced area within road adjacent construction. Damage to roots within SRZ and excavation in SRZ was observed.

Figures 35 & 36: Trees numbered 310 – 312 were located in fenced area within adjacent construction (Left). Damage to roots within SRZ and excavation in SRZ was observed (Right). (Source: Austin February 2022)

Figures 37 & 38: Numerous trees have had their TPZ's damages though the dumping of waste and compaction from machinery on the Nirmal St boundary (Left) & and sediment fencing has collapsed into the TPZ's of numerous trees along the eastern boundary. (Right) (Source: Austin 2/10/2024).

7.7 Group assessments

Group assessments are used for group for trees in one clustered location that all have similar attributers.

Tag number 278 and Tag number 327 are both group assessments of =15 x *Eucalyptus crebra* (Narrow Leaf Iron Bark) of a juvenile/semi mature size of <10m height.

Figures 39 & 40: The trees within group assessment tag number 278 (Left) & and group assessment tag number 327 (Right) (Source: Austin 2/10/2024).

7.8 Habitat Features

16 Trees numbered 34, 35, 37, 38, 55, 81, 93, 103 (Group of 2), 118, 123, 138, 159, 161, 287 & 320 had habitat features observed including stick nests, cracks, and hollows observed during the assessment.

An ecologist must inspect these trees and supervise any removal works if these trees are nominated for removal.

8 Proposed Activity

The proposed activity is for the construction and operation of a new high school known as Schofields - Tallawong High School. The new high school will accommodate up to 1,000 students. The school will provide 49 permanent teaching spaces (PTS), and 3 support teaching spaces (STS) across three buildings.

The buildings will be three-storey in height and will include teaching spaces, specialist learning hubs, a library, administrative areas and a staff hub. Additional core facilities are also proposed including a standalone school hall, a carpark, a pick up and drop off zone along Nirmal Street, two sports courts and a sports field.

Specifically, the activity involves the following:

- Three learning hubs (three-storeys in height) accommodating 49 general teaching spaces and 3 support learning units (SLUs).
- Other core facilities including amenities, library, staff hub and administrative areas.
- Standalone school hall.
- Separate carpark with 72 spaces.
- Kiss and drop zone along Nirmal Street.
- Open play space including sports courts and sports field.
- Public domain works.

The proposed site access arrangements are as follows:

- Main pedestrian entrance to be located off Nirmal Street.
- Kiss and drop zone proposed along Nirmal Street.
- Onsite parking access via Nirmal Street.

8.1.1 Final Design

The final Concept design option greatly improved the overall retention of trees and extent of earthworks. The slight amendments to Buildings A, B and D, location and orientation also assisted in managing the level transitions from the street/ boundary to the building bench levels. The improvements made to this layout in Schematic design were large informed by the SDRP review and include;

- Courts/field layout and orientations
- Carparking layout
- Stormwater overland flow and OSD Response

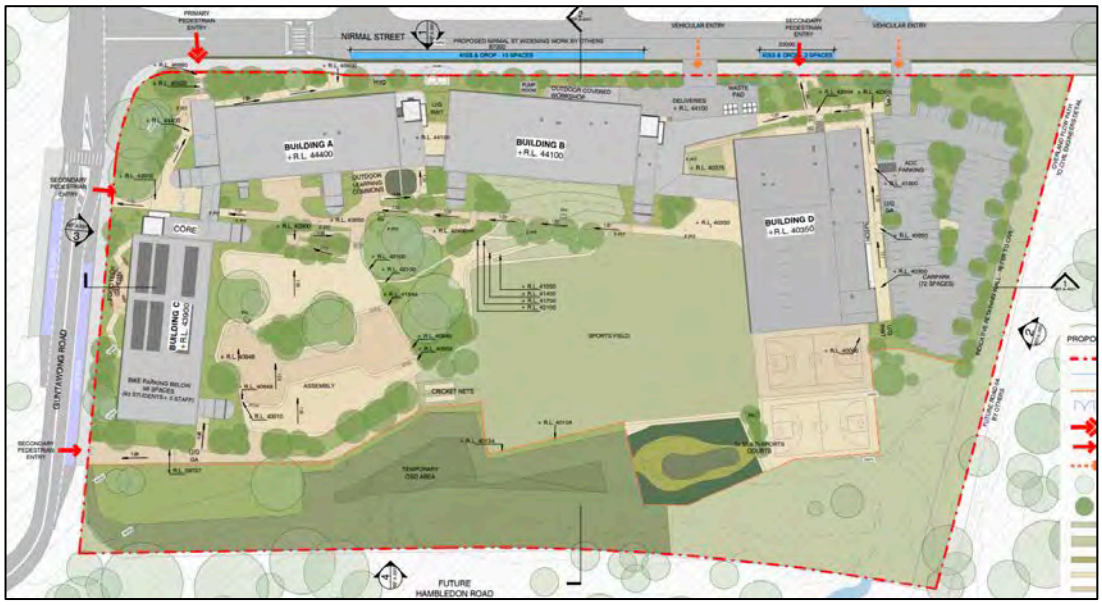


Figure 41: The proposed layout (Source: Architectural Plan Sett by Djrd Architects Issue 9 dated 20/01/2025).

8.1.2 Initial Concept

The initial Concept Design option largely developed the final masterplan option with little change to the spatial layouts on the site. However, as it became clear through better understanding of the surrounding infrastructure proposals and timelines, as well as onsite conditions such as the high value existing tree locations and topography, some design features were questioned ea. location of the courts + field, response to locate the lecture unit underneath the Hall, and the setback of buildings A + B from Nirmal St

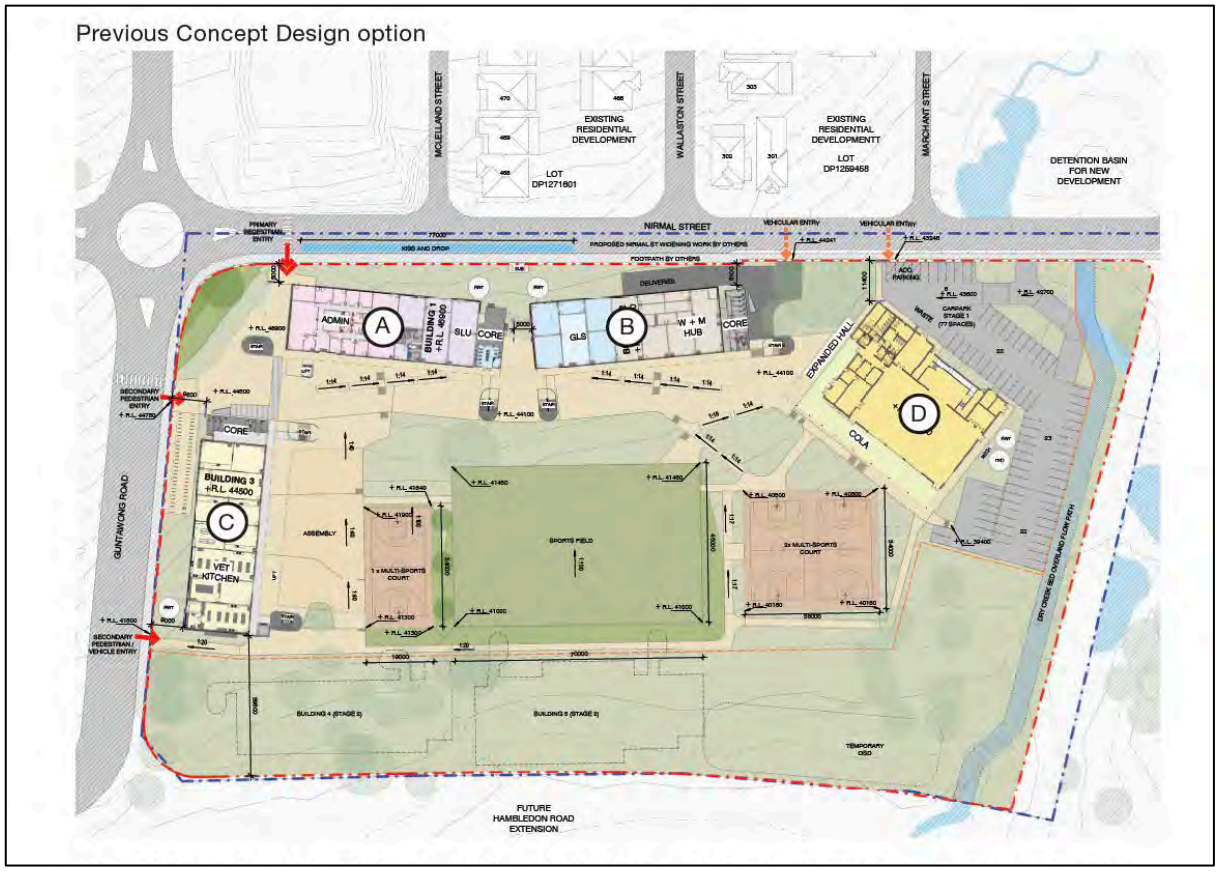


Figure 42: The initial concept layout (Source: Architectural and Landscape Design Report by DJRD Version 4 dated 22/01/2025).

8.1.3 Design Workshop

The original Concept resulted in close to 100% tree removal. Following the Preliminary tree assessment, the tree detail was placed on survey and the Civil, Architectural and Landscape teams adjusted the layout. The design teams were able to accommodate 32 mature trees in the design. During the design a workshop was held between the civil, architectural and landscape disciplines with Arborist input on design modifications to accommodate additional trees. As a result of the tree detail being included in design, the retention of trees in the final design was able to be prioritised.

9 Impact from Proposed Activity

If the current proposed construction layout is to proceed, then 267 trees are proposed for removal in order to facilitate the layout. Trees for removal include; 254 trees within the site boundary, and 13 trees on the Guntawong Road street verge.

32 trees within the site are to be retained and protected from the activity.

Complete TPZ impact data is seen in the Data Spreadsheet.

9.1 267 Tree Removals

If the current proposed construction layout is to proceed, then 267 trees are proposed for removal in order to facilitate the layout. Trees for removal include; 254 trees within the site boundary, and 13 trees on the Guntawong Road street verge. Reason for tree removal include,

- Tree within Proposed Building Envelope
- Tree to have major TPZ encroachment from Building Envelope
- Major earthworks within TPZ
- Tree within Proposed Roadway
- Tree within proposed Carpark
- Tree within proposed Sports field
- Tree Conflicts with Stormwater works
- Within Proposed bus Stop foot print.

The data sheet provides specific impacts per tree. All proposed plans show the tree detail allowing for accurate analysis of project impacts. The trees for retention are shown all final plans to ensure successful retention and consideration / protection of these trees during works.

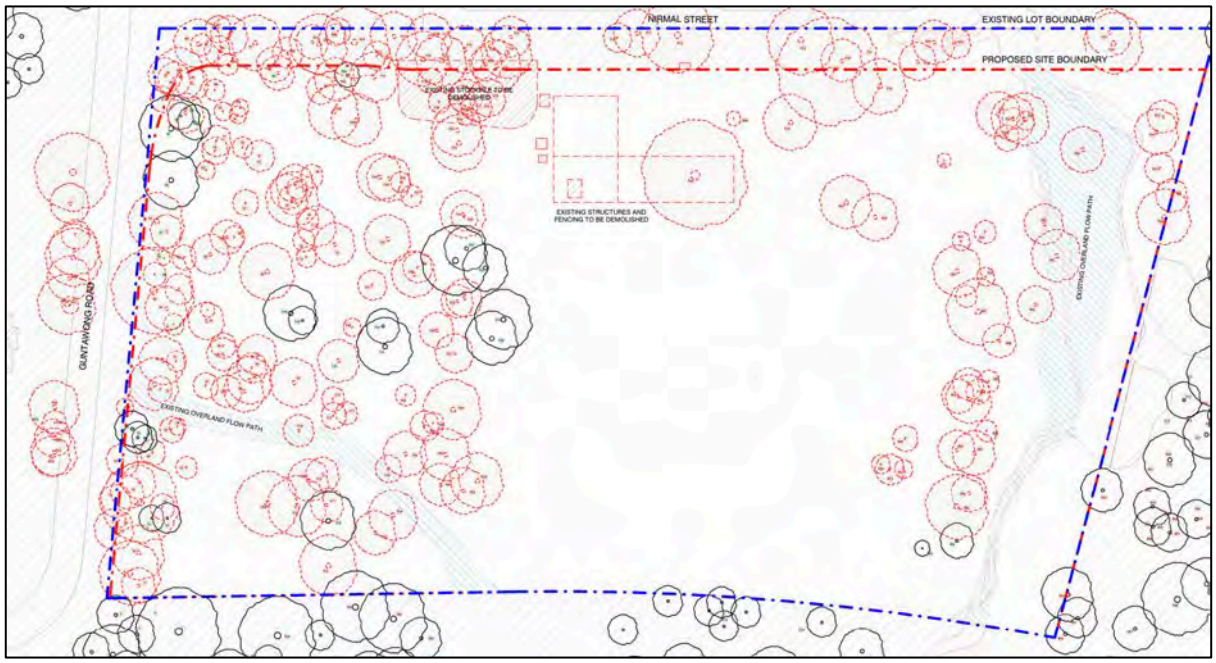


Figure 43: The demolition plan can be observed. (Source: Architectural Planset by Djrd Architects Issue 6 dated 20/01/2025)

9.1.1 254 Trees for Removal within the Project area

254 trees within the site acquisition boundary require removal to facilitate the layout. Tree details were provided to all consultants during the design stage to enable them to design around existing trees of significance. The numerous project deliverables and extent of required construction resulted in the majority (90%) of the site trees requiring removal.

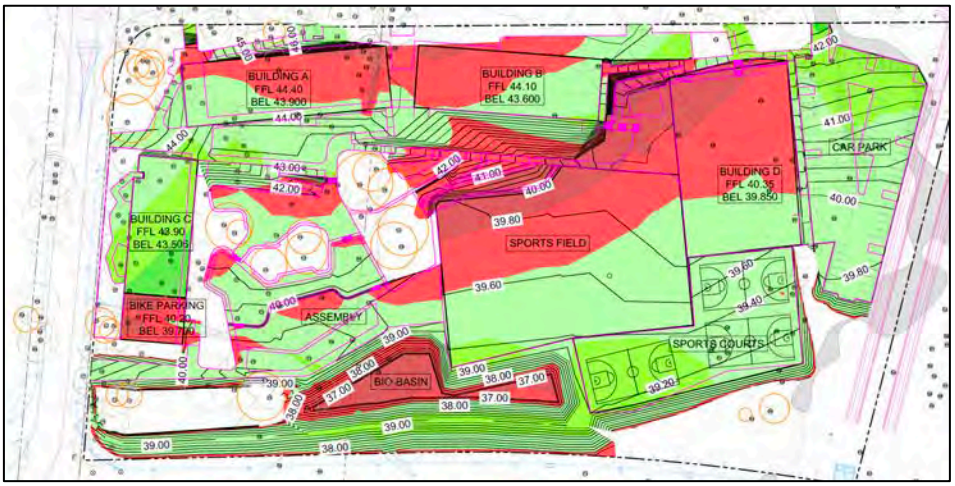


Figure 44: The demolition plan can be observed. (Source: Earthworks Cut and Fill Volumes Plan, by TTW, Rev 4 dated 22/01/2025)

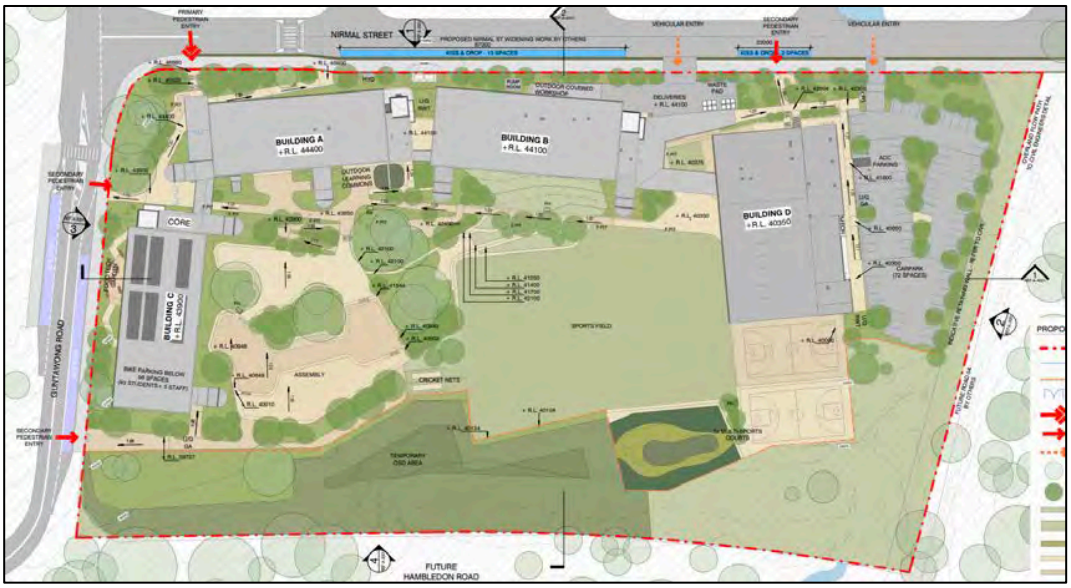


Figure 45: The site plan. (Source: Architectural Plan Set by Djrd Architects Issue 9 dated 20/01/2025)

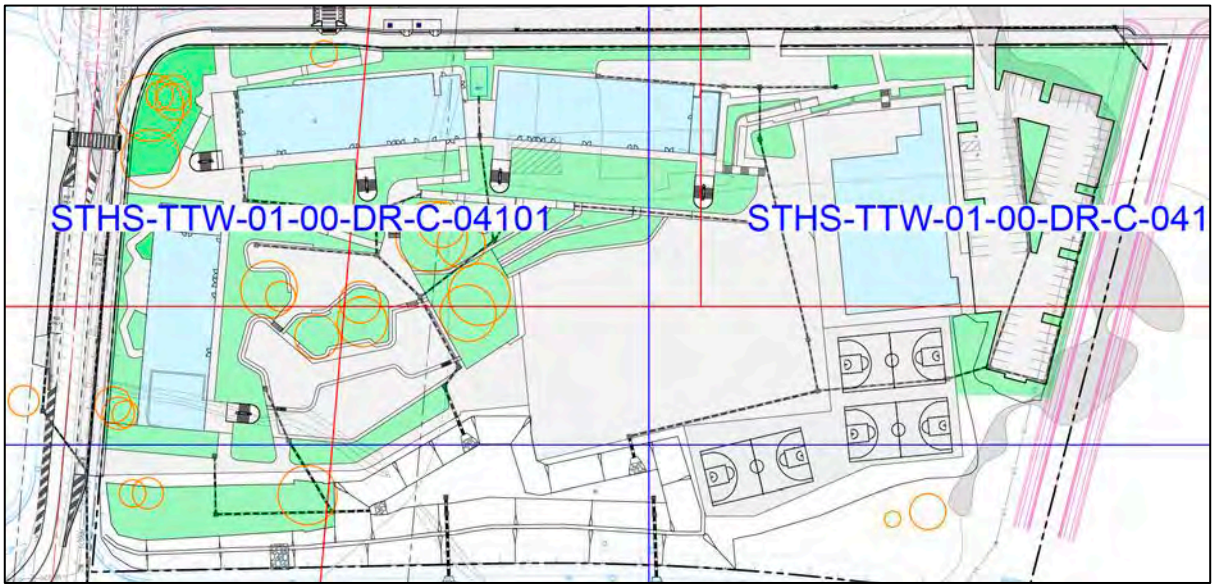


Figure 46: The general arrangement plan can be observed. (Source: Complete Plan set, by TTW Rev 4 Dated 22/1/2025)

9.1.2 13 Tree Removals on the Guntawong Road verge

13 trees numbered 341 – 352 require removal on the Guntawong road verge to enable the Bus Stop construction. These same trees are shown as remove in the adjacent sites Roads Act Approval Plans tiled Road and Drainage Design, by Barker, Stewart Ryan, for the Bathla group, Rev 1 dated 5/4/2024.

The trees also conflict with the proposed Bus Stop in this REF.

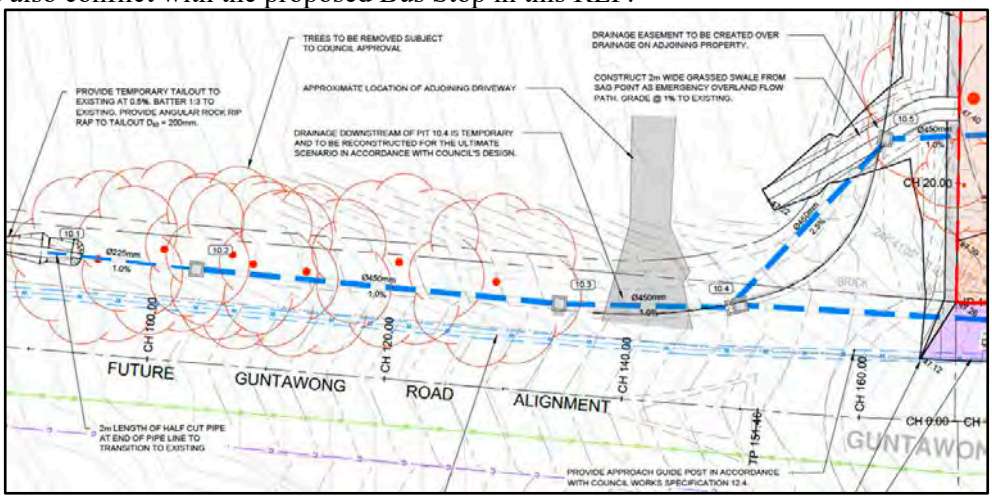
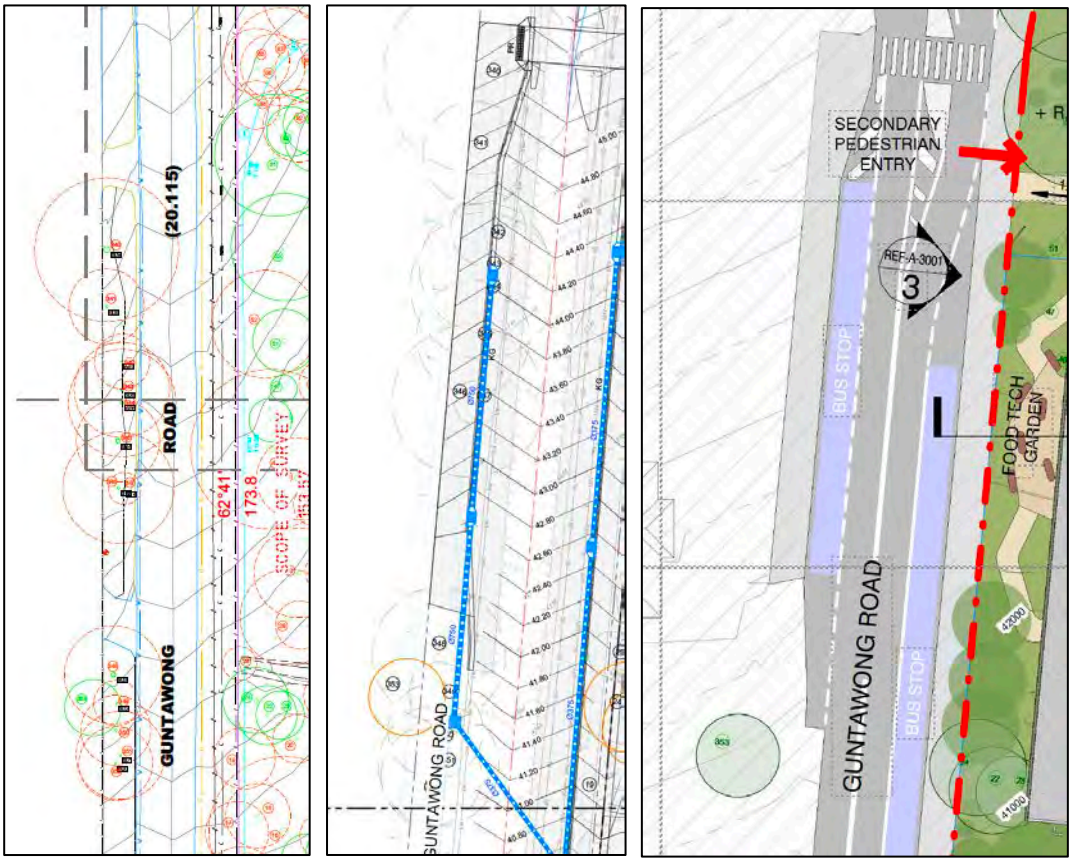


Figure 47: The 13 trees numbered 341 – 352 require removal on the Guntawong Road verge can be seen in the Roads Act Approval for the adjacent site. Source: Road and Drainage Design, by Barker, Stewart Ryan, for the Bathla group, Rev 1 dated 5/4/2022).



Figures 48, 49 & 50: The 13 trees numbered 341 – 352 require removal on the Guntawong Road verge can be observed in the Site Survey and Drainage Plan. The proposed layout can be seen in the architectural plans. (Source: Left Site Survey, Issue F by SDG dated 15/01/2025, Middle - Stormwater And Subsoil Drainage Plan from Complete Plan set, by TTW Rev 4 Dated 22/1/2025, Right Architectural Planset by Djrd Architects Issue 9 dated 20/01/2025)

9.2 32 Trees for Retention

32 trees within the site are to be retained and protected from the activity. The Trees for retention are shown on all construction plans including, Civil, Architectural and Landscape to ensure trees for retention are considered by each discipline and each contractor completing works.

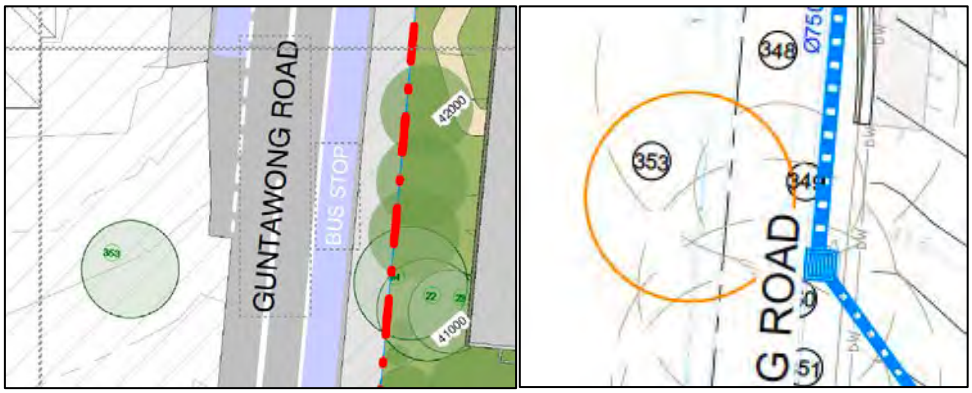
To ensure the 32 trees nominated for retention remain viable during and post construction, mitigation measures including the engagement of a project arborist, tree protection fencing, tree protection signage, trunk protection, sensitive construction techniques, arborist supervision of works in the Tree Protection Zones (TPZ's), a restriction of activities within Tree Protection Zones (TPZ's) and compliance reporting must be incorporated into the project.

Project arborist supervision and sensitive excavation techniques must be included for any excavation works in the TPZ of trees nominated for retention.

Figure 51: The Tree Retention Plan. (Source: Landscape Plans by Site Image, Issue 3, dated 20/01/2025).

9.2.1 Neighbours tree 353

Neighbours tree 353, Located within 194 Guntawong Rd is not impacted by the proposed works.

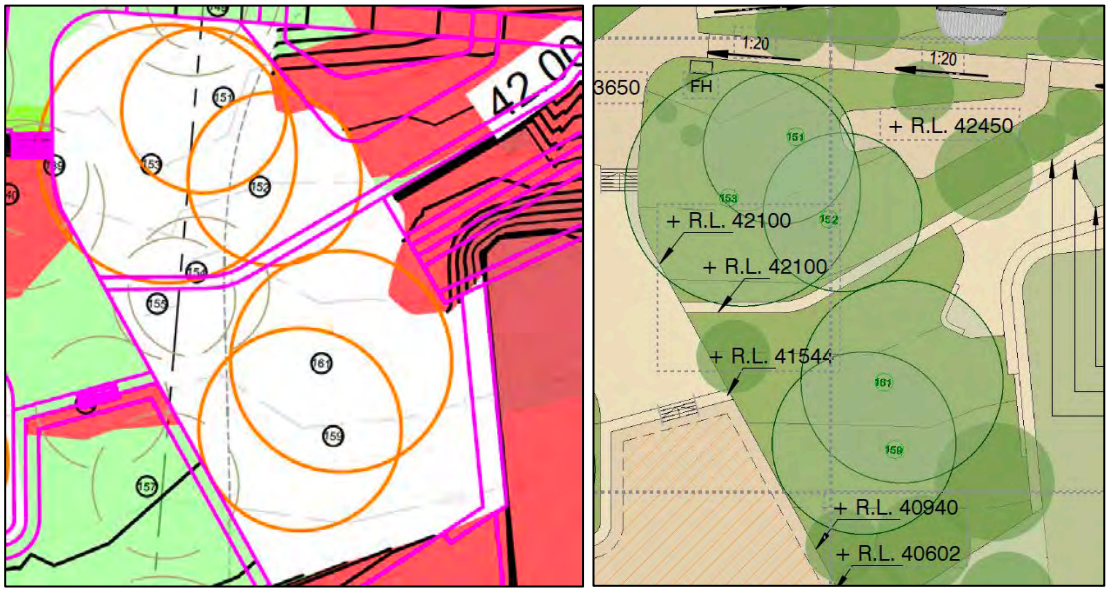


Figures 52 & 53: The Site Plan (Left) and Drainage Plan (right) in relation to neighbours tree 353 can be observed.(Source: Left - Architectural Plan Set by Djrd Architects Issue 6 dated 20/01/2025 and Right - stormwater And Subsoil Drainage Plan from Complete Plan set, by TTW Rev 4 Dated 22/1/2025).

9.2.2 Central Site Trees

Several trees central to the site are good examples of how the design has prioritised tree retention by excluding all construction activities from the TPZ.

Trees 151 (Low Retention Value), 152 & 153 (Both High Retention Value) as well as Trees 159 & 162 (Both High Retention Value) can be seen below with only minor earth works and stormwater installation at the edge of the TPZs.



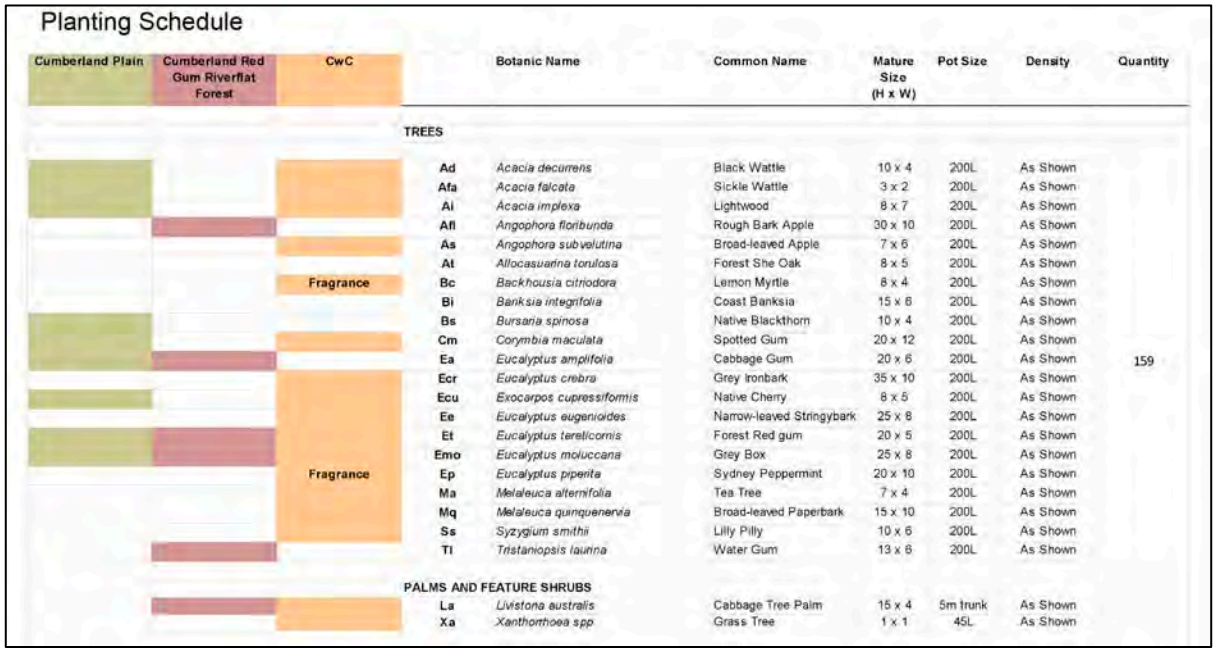
Figures 54 & 55: The Earthworks Plan (Left) and Site Plan (right) in relation to the central site trees can be observed.(Source: Left - Earthworks Cut and Fill Volumes Plan, by TTW, Rev 4 dated 22/01/2025, and Right - Architectural Planset by Djrd Architects Issue 9 dated 20/01/2025).

Figures 55: The Drainage Plan in relation to the central site trees for retention can be observed.(Source: - Stormwater And Subsoil Drainage Plan from Complete Plan set, by TTW Rev 4 Dated 22/1/2025).

10 159 New Tree Plantings

159 new tree plantings are proposed within the project. The proposed Trees include numerous Cumberland Plain Woodland Species and trees as well as large canopy trees. The replacement plantings provide species that are included in the Cumberland Plain Woodland Species assemblage.

Figure 56: The proposed landscape Master plan. (Source: Landscape Plans by Site Image, Issue 3, dated 20/01/2025).



Planting Schedule

Cumberland Plain	Cumberland Red Gum Riverflat Forest	CwC		Botanic Name	Common Name	Mature Size (H x W)	Pot Size	Density	Quantity
			TREES						
			Ad	*Acacia decurrens*	Black Wattle	10 x 4	200L	As Shown	
			Afa	*Acacia falcata*	Sickle Wattle	3 x 2	200L	As Shown	
			Ai	*Acacia implexa*	Lightwood	8 x 7	200L	As Shown	
			Afl	*Angophora floribunda*	Rough Bark Apple	30 x 10	200L	As Shown	
			As	*Angophora subvelutina*	Broad-leaved Apple	7 x 6	200L	As Shown	
			At	*Allocasuarina torulosa*	Forest She Oak	8 x 5	200L	As Shown	
		Fragrance	Bc	*Backhousia citriodora*	Lemon Myrtle	8 x 4	200L	As Shown	
			Bi	*Banksia integrifolia*	Coast Banksia	15 x 6	200L	As Shown	
			Bs	*Bursaria spinosa*	Native Blackthorn	10 x 4	200L	As Shown	
			Cm	*Corymbia maculata*	Spotted Gum	20 x 12	200L	As Shown	
			Ea	*Eucalyptus amplifolia*	Cabbage Gum	20 x 6	200L	As Shown	159
			Ecr	*Eucalyptus crebra*	Grey Ironbark	35 x 10	200L	As Shown	
			Ecu	*Exocarpos cupressiformis*	Native Cherry	8 x 5	200L	As Shown	
			Ee	*Eucalyptus eugenioides*	Narrow-leaved Stringybark	25 x 8	200L	As Shown	
			Et	*Eucalyptus tereticornis*	Forest Red gum	20 x 5	200L	As Shown	
			Emo	*Eucalyptus moluccana*	Grey Box	25 x 8	200L	As Shown	
		Fragrance	Ep	*Eucalyptus piperita*	Sydney Peppermint	20 x 10	200L	As Shown	
			Ma	*Melaleuca alternifolia*	Tea Tree	7 x 4	200L	As Shown	
			Mq	*Melaleuca quinquenervia*	Broad-leaved Paperbark	15 x 10	200L	As Shown	
			Ss	*Syzygium smithii*	Lilly Pilly	10 x 6	200L	As Shown	
			Tl	*Tristaniopsis laurina*	Water Gum	13 x 6	200L	As Shown	
				PALMS AND FEATURE SHRUBS					
			La	*Livistona australis*	Cabbage Tree Palm	15 x 4	5m trunk	As Shown	
			Xa	*Xanthorrhoea spp*	Grass Tree	1 x 1	45L	As Shown	

Figure 57: The proposed planting schedule showing tree species and quantities. (Source: Landscape Plans by Site Image, Issue 3, dated 20/01/2025).

10.1 Canopy Cover

Canopy cover has been developed to maximise tree planting and shading to hardstand areas, in particular to the assembly and court to provide shade amenity for users.

Canopy cover at maturity is maximised at 15% to conform with APZ requirements.

10.1.1 Canopy Cover at Planting

Figure 58: The canopy cover at planting (Source: Landscape Plans by Site Image, Issue 3, dated 20/01/2025).

10.1.2 Canopy Cover at Maturity

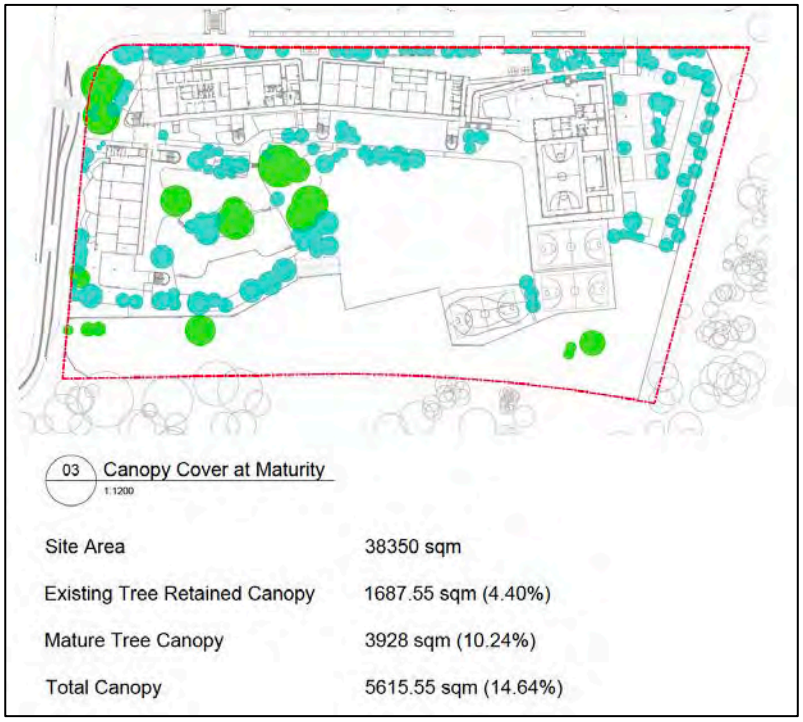


Figure 59: The canopy cover at maturity (Source: Landscape Plans by Site Image, Issue 3, dated 20/01/2025).

11 Mitigation Measures

32 Trees will be retained if the tree protection measures in the report are adhered to. The trees for retention are shown on all plans and listed in the data sheet. In order to minimise the impact to the tree nominated for retention, the following mitigation measures must be incorporated into the activity.

11.1 Summary Table for Mitigation measures

Table 3				
Mitigation Number/ Name	**Reason for Mitigation Measure**	**Mitigation Measure**	**Timing**	**Significance after mitigation**
TR1	**To protect trees for retention from unnecessary damage.**	**All trees shown on all plans and listed in the data sheet as being retained must be retained and protected.**	**Pre-Construction and Construction**	**Not significant**
TR2	**To protect trees for retention from unnecessary damage.**	**Protect all trees for retention with Tree Protection fencing compliant with AS4970:2009**	**Pre-Construction**	**Not significant**
TR3	**To protect trees for retention from unnecessary damage.**	**Protect all trees for retention with Tree Protection signage compliant with AS4970:2009**	**Pre-Construction**	**Not significant**
TR4	**To protect trees for retention from unnecessary damage.**	**An official "Project Arborist" must be commissioned to oversee the tree protection, any activity within the TPZ's and complete compliance certification.**	**Construction**	**Not significant**
TR5	**To prevent injury to wildlife..**	**An ecologist must supervise any pruning or removal works to trees with habitat features.**	**Construction**	**Not significant**
TR6	**To protect trees for retention from unnecessary damage.**	**Project Arborist to supervise any earthwork or service installation the TPZ's of trees to be retained.**	**Construction**	**Not significant**
TR7	**To protect trees for retention from unnecessary damage.**	**Construction Manager to ensure activities listed in Section 11.7 of the AIA do not occur in the TPZ of trees to be retained.**	**Construction**	**Not significant**
TR8	**To protect trees for retention from unnecessary damage.**	**The Project Arborist is to complete monthly site visits and record photographic evidence to ensure compliance with mitigation measures**	**Construction**	**Not significant**
TR9	**To reduce the impact of 267 removed trees and introduce a new tree population for the future.**	**159 New trees to be planted in the site as per the Landscape Plans by Site Image, Issue 3, dated 20/01/2025.**	**Pre-occupation**	**Not significant**
TR10	**To ensure trees for retention were protected and will remain viable post construction.**	**Project Arborist to inspect and report on the condition of trees for retention and quality of tree new plantings.**	**Within 12 months of commencement of operations**	**Not significant**

11.2 Project Arborist

An official "Project Arborist" must be commissioned to oversee the tree protection, any works within the TPZ's and complete compliance certification. The Project Arborist must have a AQF Level 5 Arboriculture Qualification and have minimum five (5) years industry experience in the field of arboriculture.

11.3 Tree Works

11.3.1 267 Tree Removals

267 trees are proposed for removal and should be removed at the beginning of the project. The trees nominated for retention must not be damaged during the tree removal works. The trees for removal are shown on the tree retention and removal plan, the demolition plans and listed in the data sheet.

11.3.2 Standard of Works

To ensure a high standard of works is achieved, all proposed arboricultural works must be completed by a suitably qualified and experienced Arborist(s) of a minimum AQF Level 3 in accordance with the principles of the Australian Standard *4373-2007 Pruning of Amenity Trees.*

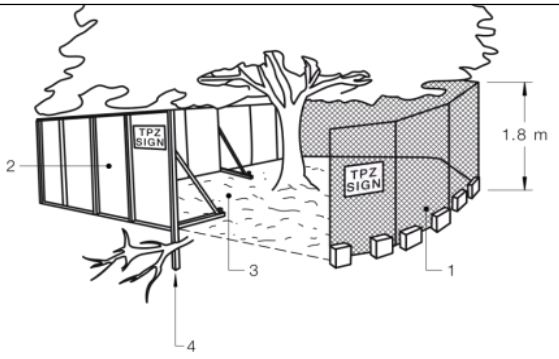
11.3.3 Habitat Features

16 Trees numbered 34, 35, 37, 38, 55, 81, 93, 103 (Group of 2), 118, 123, 138, 159, 161, 287 & 320 had habitat features observed including stick nests, cracks, and hollows observed during the assessment. An ecologist must inspect these trees and supervise any removal works if these trees are to be removed or pruned.

11.4 Tree Protection Fencing

The 32 trees for retention must be protected by Tree Protection fencing. Protective fencing is to be installed as close as practicable from the trunk to the TPZ distances listed in the Tree Data table. Existing site features such as boundary fences will influence the extent of the TPZ fencing. The project arborist is to determine the suitability and extent of the tree protection fencing to be used.

Tree protection fencing must remain intact throughout all proposed construction works and must only be dismantled after the activity is complete. The temporary dismantling of tree protection fencing must only be done with the authorisation of the project arborist and/or the responsible authority.



LEGEND:
1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2 Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

Figure 60: TPZ fencing specification. (Source: AS 4970:2009).

11.5 Tree Protection Signage

The tree protection signage below must be installed along the Tree Protection Fences.

Figure 61: TPZ signage specification. (Source: Austin 2025).

11.6 Activities within TPZ's

All activitiews within the TPZs must be completed by techniques that do not damage tree roots. Any excavation works should be undertaken using techniques that are sensitive to tree roots to avoid unnecessary damage. Such techniques include:

- Excavation/demolition by hand
- Excavation/demolition by machine with Arborist supervision
- Excavation using a high-pressure water jet and vacuum truck
- Excavation using an air spade with vacuum truck

Machine excavation is prohibited within the remaining TPZ areas of retained trees unless undertaken at the direct consent from the project arborist and/or the responsible authority.

11.7 Activities Restricted within the TPZ

- Machine excavation without Arborist supervision
- Demolition by machine without Arborist supervision
- Excavation for silt fencing
- Storage
- Preparation of chemicals, including preparation of cement products
- Dumping of waste
- Wash down and cleaning of equipment
- Placement of fill other than what is proposed
- Soil level changes
- Temporary or permanent installation of services, utilities, or signs
- Physical damage to the tree
- Parking or driving of vehicles/machinery.

11.8 Compliance Inspections & Reports

Inspections should be conducted by the Project Arborist at key points during the construction to ensure that protection measures are being adhered to during construction stages and any decline in tree health or additional remediation measures can be identified.

Tree inspections and compliance reporting by the project arborist is required at the following points;

1. Following the tree removal works and the installation of the tree protection measures including, tree protection fencing and signage.
2. Every month during the activity to ensure compliance with the Mitigation Measures
3. If excavation works are to occur in the TPZ of any tree for retention.
4. At the practical completion of the project

Following each inspection, the project arborist shall prepare a brief compliance report detailing the condition of the trees. These reports should contain photographic evidence where required to demonstrate that the protection measures are in place as specified.

Any Non-Compliance Statements shall be submitted to the Project Manager (as well as the clients' nominated representative) if tree protection conditions have been breached. Reports should contain clear remedial action specifications to minimise any adverse impact on any subject tree.

12 Evaluation of Environmental Impacts

This Arboricultural Impact Assessment has provided a detailed analysis of the trees that could be affected by the proposed activity on the subject site. The requirements for Tree Preservation Zones are in line with AS 4970:2009 *Protection of tree on development sites*. This report examines and takes into account the relevant environmental factors in the Guidelines and Environmental Planning and Assessment Regulations 2021 under Section 170, Section 171 and Section 171A of the EP&A Regulation as outlined in Table 1.

Potential impacts can be managed to ensure that there is minimal impact on the locality, community and/or the environment - by protecting the 32 trees nominated for retention from activity construction impacts and planting 159 new trees to restore some of the lost tree canopy.

The viability of the trees nominated for retention is not anticipated to be impacted if the protection measures are applied as per the guidance in this report.

13 References

Australian Standard 4970: 2009 *Protection of trees on development sites.*

British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations.*

14 Industry Qualifications

- AQF Level 5 & 8 Consulting Arborist.
- ISA Certified Arborist # AU-0348A
- Tree Risk Assessment Qualification (TRAQ) (Exp Oct 2028)
- Advanced Quantified Tree Risk Assessment Registered User # 3692
- Masters of Environmental Law

15 Appendices

15.1 Significance of a Tree Assessment Rating System (IACA 2010)©

The landscape significance of a tree is an essential criterion for establishing the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of *High*, *Medium* and *Low* significance in the landscape. Once the landscape significance and *Useful Life Expectancy* of an individual tree has been defined, the retention value can be determined.

Tree Significance - Assessment Criteria

1. High Significance in landscape.

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa *in situ* - tree is appropriate to the site conditions.

2. Medium Significance in landscape.

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area;
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street;
- The tree provides a fair contribution to the visual character and amenity of the local area;
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa *in situ*.

3. Low Significance in landscape.

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings;
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area;
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms

and can easily be replaced with a suitable specimen;
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa *in situ* - tree is inappropriate to the site conditions;
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms;
- The tree has a wound or defect that has potential to become structurally unsound.

Environmental Pest / Noxious Weed Species:

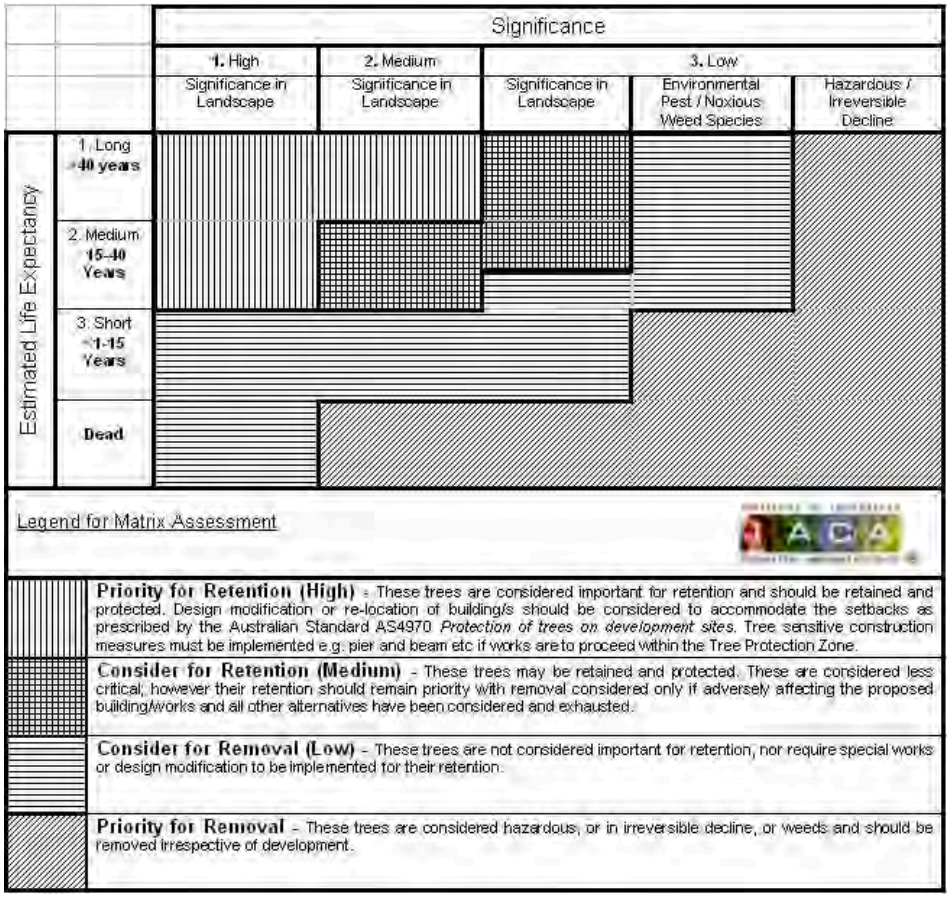
- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties;
- The tree is a declared noxious weed by legislation.

Hazardous/Irreversible Decline:

- The tree is structurally unsound and/or unstable and is considered potentially dangerous;
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group. Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety

Table - Tree Retention Value - Priority Matrix



15.2 Complete Tree and Project Impact Data Spreadsheet

15.3 Site Survey with Tree Detail

15.4 Demolition Plan with Trees numbered.

15.5 Sediment Control Plan with Trees numbered.

15.6 Proposed Site Plan with Trees numbered.

15.7 Tree Retention Plan

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
8	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	40	45	4.8	72.38	2.4	10-15	<5	Poor	Poor	Semi-mature	Short 5-15 years	Suppressed, trunk wound, dieback, thinning, epicormics,		Low			C		Major Earthworks	Remove
9	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	74	85	8.9	247.73	3.1	15-20	10-15	dead	Poor	Mature	0			Medium			R		Major Earthworks	Remove
10	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	62	70	7.4	173.90	2.8	15-20	5-10	Fair	Fair	Mature	Medium 15-40 years	Co dominant, epicormics, minor basal wound		Medium			B		Major Earthworks	Remove
11	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	47	51	5.6	99.93	2.5	15-20	5-10	Fair	Good	Semi-mature	Medium 15-40 years	Epicormics,		Medium			B		Major Earthworks	Remove
12	Within Site Boundary	*Araucaria heterophylla* (Norfolk Island Pine)	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Semi-mature	Medium 15-40 years	trunk wound		Low			C		Major Earthworks	Remove
13	Within Site Boundary	*Jacaranda mimosifolia* (Jacaranda)	1	30	33	3.6	40.72	2.1	5-10	5-10	Fair	Fair	Semi-mature	Medium 15-40 years			Low			C			Retain and Protect
14	Within Site Boundary	*Cupressus sp* (Cypress Pine)	1	35	40	4.2	55.42	2.3	5-10	5-10	Good	Good	Semi-mature	Long 40+ years			Low			C			Retain and Protect
15	Within Site Boundary	Dead Tree	2	30	30	3.6	40.72	2.0	10-15	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Major Earthworks	Remove
16	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	93	105	11.2	391.27	3.4	15-20	10-15	Good	Good	Mature	Long 40+ years	Epicormics, minor deadwood		High			A		Major Earthworks	Remove
17	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	39	44	4.7	68.81	2.3	10-15	<5	Fair	Fair	Semi-mature	Short 5-15 years	Wire wound on trunk		Low			C		Major Earthworks	Remove
18	Within Site Boundary	Dead Tree	2	40	40	4.8	72.38	2.3	10-15	5-10	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Major Earthworks	Remove
19	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	38	44	4.6	65.33	2.3	10-15	5-10	Good	Good	Semi-mature	Long 40+ years	Minor deadwood		Medium			B		Major Earthworks	Remove
20	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	30	35	3.6	40.72	2.1	10-15	5-10	Good	Good	Semi-mature	Long 40+ years	Minor deadwood		Medium			B		Major TPZ Encroachment form BE	Remove
21	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	2	26	29	3.1	30.58	2.0	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE, Major Earthworks	Remove
22	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	37	44	4.4	61.93	2.3	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B			Retain and Protect
23	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	30	36	3.6	40.72	2.2	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B			Retain and Protect
24	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	41	49	4.9	76.05	2.5	15-20	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B			Retain and Protect
25	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	20	22	2.4	18.10	1.8	5-10	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Within BE	Remove
26	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	30	35	3.6	40.72	2.1	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
27	Within Site Boundary	Dead Tree	3	30	40	3.6	40.72	2.3	10-15	5-10	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Within BE	Remove
28	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	60	68	7.2	162.86	2.8	15-20	10-15	Fair	Good	Mature	Medium 15-40 years	Epicormics,		Medium			B		Within BE,Major Earthworks	Remove
29	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	20	25	2.4	18.10	1.8	<5	<5	Fair	Poor	Semi-mature	Short 5-15 years	Suppressed, trimmed for powerlines		Low		Poor form.	C		Major TPZ Encroachment form BE	Remove
30	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	56	64	6.7	141.87	2.7	15-20	10-15	Good	Good	Mature	Long 40+ years			Medium			A		Major TPZ Encroachment form BE	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
31	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	2	24	31	2.9	26.06	2.0	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Low			C		Major TPZ Encroachment form BE	Remove
32	Within Site Boundary	Dead Tree	3	30	40	3.6	40.72	2.3	10-15	5-10	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Within BE	Remove
33	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	37	48	4.4	61.93	2.4	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed, basal wound, borers		Medium			B		Within BE	Remove
34	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	48	58	5.8	104.23	2.6	15-20	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Previous branch failures, epicormics	Stick nest	Medium			B		Within BE	Remove
35	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	55	65	6.6	136.85	2.8	15-20	5-10	Fair	Poor	Semi-mature	Limited <5 years	Major deadwood, fungal fruiting bodies, dead stems, major union split, decay	15cm+ hollow	Medium	remove		R		Major TPZ Encroachment form BE	Remove
36	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	2	35	40	4.2	55.42	2.3	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Major TPZ Encroachment form BE	Remove
37	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	57	65	6.8	146.98	2.8	20-30	10-15	Fair	Fair	Mature	Medium 15-40 years	Trunk wound, epicormics	Hollow <5cm at 6m.	Medium			B		Within BE, Major Earthworks	Remove
38	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	48	55	5.8	104.23	2.6	15-20	5-10	Good	Good	Semi-mature	Long 40+ years		Medium Stick nest	Medium			B		Major TPZ Encroachment form BE	Remove
39	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	39	45	4.7	68.81	2.4	15-20	5-10	Poor	Poor	Semi-mature	Limited <5 years	Major stem has died, borers		Medium			R		Major TPZ Encroachment form BE	Remove
40	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	30	35	3.6	40.72	2.1	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Major TPZ Encroachment form BE	Remove
41	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	43	48	5.2	83.65	2.4	15-20	10-15	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
42	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	12	15	2.0	12.57	1.5	<5	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Within BE	Remove
43	Within Site Boundary	Dead Tree	1	25	30	3.0	28.27	2.0	10-15	5-10	Dead	Poor	Semi-mature	Limited <5 years	Split		Low			R		Within BE	Remove
44	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	51	58	6.1	117.67	2.6	15-20	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Previous branch failures, wounds,		Medium			B		Major TPZ Encroachment form BE	Remove
45	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	99	99	11.9	443.39	3.3	15-20	15-20	Fair	Fair	Mature	Medium 15-40 years	Trunk wound, epicormics, co dominant, included bark one side of base, deadwood >100mm, dieback, epicormics		Medium	Remove deadwood > 50mm		B		Major TPZ Encroachment form BE	Remove
46	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	27	32	3.2	32.98	2.1	5-10	5-10	Fair	Fair	Semi-mature	Medium 15-40 years	Suppressed		Low			C			Retain and Protect
47	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	2	15	18	2.0	12.57	1.6	10-15	<5	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Low			C			Retain and Protect
48	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	4	28	30	3.4	35.47	2.0	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
49	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	38	44	4.6	65.33	2.3	15-20	<5	Fair	Fair	Mature	Medium 15-40 years			Medium			B		Within BE	Remove
50	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	46	54	5.5	95.73	2.6	15-20	10-15	Fair	Good	Semi-mature	Medium 15-40 years	Deadwood, dieback		Medium			B		Within BE	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
51	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	39	45	4.7	68.81	2.4	15-20	<5	Fair	Good	Semi-mature	Medium 15-40 years	Epicormics		Medium			B			Retain and Protect
52	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	52	62	6.2	122.33	2.7	15-20	10-15	Good	Fair	Mature	Medium 15-40 years	Trunk wound, suppressed. Included bark		High			B		Major Earthworks in and outside site	Remove
53	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	67	75	8.0	203.08	2.9	15-20	10-15	Good	Fair	Mature	Medium 15-40 years	Trunk wound, good response growth		Medium			B	Path moved to reduce impact	Minor Earthworks	Retain and Protect
54	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	2	22	26	2.6	21.90	1.9	5-10	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Major Earthworks	Remove
55	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	63	68	7.6	179.55	2.8	15-20	5-10	Good	Poor	Semi-mature	Limited <5 years	Minor basal cavity, trunk wounds, decay, fungal fruiting bodies, compromised major union at 12m	Small hollow at 12m	Medium			R		Within BE	Remove
56	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	20	24	2.4	18.10	1.8	10-15	<5	Fair	Fair	Semi-mature	Short 5-15 years	Basal wounds, dieback		Low			C		Within BE, Major Earthworks	Remove
57	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	30	34	3.6	40.72	2.1	10-15	<5	Good	Good	Semi-mature	Long 40+ years			Medium			B		Major Earthworks,Covered walkway	Remove
58	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	45	52	5.4	91.61	2.5	15-20	5-10	Fair	Fair	Mature	Medium 15-40 years	Dieback, thinning, deadwood.		Medium			B		Major Earthworks	Remove
59	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	61	71	7.3	168.33	2.9	20-30	10-15	Good	Good	Mature	Long 40+ years	Wounds, borers		High			A		Major Earthworks	Remove
60	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	2	25	29	3.0	28.27	2.0	10-15	<5	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
61	Within Site Boundary	Dead Tree	1	40	40	4.8	72.38	2.3	10-15	5-10	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Within BE	Remove
62	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	65	75	7.8	191.13	2.9	15-20	5-10	Fair	Good	Semi-mature	Medium 15-40 years	Minor deadwood, minor trunk wounds, active borers		Medium			B		Major Earthworks	Remove
63	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	27	32	3.2	32.98	2.1	5-10	<5	Good	Fair	Semi-mature	Medium 15-40 years	Minor stem wounds,		Low			C		Major Earthworks	Remove
64	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	40	40	4.8	72.38	2.3	15-20	5-10	Fair	Fair	Semi-mature	Medium 15-40 years	Epicormics,		Medium			B		Major Earthworks	Remove
65	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	35	40	4.2	55.42	2.3	10-15	<5	Good	Fair	Semi-mature	Medium 15-40 years	Minor stem wounds		Low			B		Major Earthworks	Remove
66	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	25	28	3.0	28.27	1.9	10-15	<5	Fair	Fair	Semi-mature	Short 5-15 years	Suppressed, dieback. Active borer		Low			C		Major Earthworks	Remove
67	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	44	48	5.3	87.58	2.4	15-20	10-15	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
68	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	27	30	3.2	32.98	2.0	15-20	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
69	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	27	30	3.2	32.98	2.0	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Low			C		Major Earthworks	Remove
70	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	26	29	3.1	30.58	2.0	10-15	5-10	Fair	Good	Semi-mature	Medium 15-40 years	Dieback		Low			C		Major Earthworks	Remove

Tree no.	Ownership	Botanical Name	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
71	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	48	58	5.8	104.23	2.6	15-20	5-10	Fair	Poor	Semi-mature	Limited <5 years	Fungal fruiting body, trunk wound, decay, deadwood, dieback		Medium			R		Major Earthworks	Remove
72	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	23	25	2.8	23.93	1.8	5-10	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Major Earthworks	Remove
73	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	50	57	6.0	113.10	2.6	15-20	5-10	Good	Good	Semi-mature	Long 40+ years	Minor deadwood		Medium			B		Within BE	Remove
74	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	36	36	4.3	58.81	2.2	15-20	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
75	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	24	29	2.9	26.06	2.0	10-15	5-10	Poor	Poor	Semi-mature	Short 5-15 years	Previous failures, stem wounds, severe decline		Low			R		Major Earthworks	Remove
76	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	4	32	35	3.8	46.32	2.1	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Low			B		Major Earthworks	Remove
77	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	20	25	2.4	18.10	1.8	10-15	5-10	Fair	Fair	Semi-mature	Short 5-15 years	Suppressed, dieback		Low			C		Major Earthworks	Remove
78	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	6	22	25	2.6	21.90	1.8	10-15	<5	Fair	Fair	Semi-mature	Short 5-15 years	Dieback, thinning, epicormics		Low			C		Major Earthworks	Remove
79	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	20	25	2.4	18.10	1.8	10-15	<5	Good	Fair	Semi-mature	Medium 15-40 years			Low			C		Major Earthworks	Remove
80	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	35	39	4.2	55.42	2.2	15-20	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B			Retain and Protect
81	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	76	88	9.1	261.30	3.1	15-20	15-20	Fair	Fair	Mature	Medium 15-40 years	Previous branch failures, minor cavity, epicormic, dieback, deadwwod to 60mm. Trunk wound, good response growth.	5cm hollow	Medium	Remove deadwood > 50mm		B			Retain and Protect
82	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	31	35	3.7	43.47	2.1	10-15	<5	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Low			C			Retain and Protect
83	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	39	45	4.7	68.81	2.4	15-20	5-10	Good	Fair	Semi-mature	Short 5-15 years	Basal wound, active borer		Medium			C			Retain and Protect
84	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	4	30	33	3.6	40.72	2.1	10-15	<5	Good	Fair	Semi-mature	Medium 15-40 years	Trunk wounds		Low			C		Within proposed road footprint	Remove
85	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	41	47	4.9	76.05	2.4	15-20	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Medium			B		Within proposed road footprint	Remove
86	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	40	45	4.8	72.38	2.4	15-20	5-10	Fair	Fair	Semi-mature	Medium 15-40 years	Epicormics, suppressed, minor trunk wounds		Medium			B		Within proposed road footprint	Remove
87	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	61	67	7.3	168.33	2.8	20-30	10-15	Fair	Fair	Mature	Medium 15-40 years	Previous failures, stem wounds, good response growth minor deadwood		Medium			B		Within proposed road footprint	Remove
88	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	39	44	4.7	68.81	2.3	15-20	5-10	Good	Good	Semi-mature	Long 40+ years	Minor deadwood		Medium			B		Within proposed road footprint	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
89	**Within Site Boundary**	Dead Tree	4	25	25	**3.0**	28.27	**1.8**	10-15	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Within sports fields	Remove
90	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	57	65	**6.8**	146.98	**2.8**	15-20	10-15	Fair	Fair	Mature	Medium 15-40 years	Thinning, dieback, suppressed		Medium			B		Within proposed road footprint	Remove
91	**Within Site Boundary**	Dead Tree	3	25	25	**3.0**	28.27	**1.8**	10-15	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Within proposed road footprint	Remove
92	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	2	45	51	**5.4**	91.61	**2.5**	15-20	5-10	Fair	Fair	Semi-mature	Short 5-15 years	Basal wound, previous failures, dieback		Medium			C		Within proposed road footprint	Remove
93	**Within Site Boundary**	Dead Tree	1	25	25	**3.0**	28.27	**1.8**	10-15	<5	Dead	Poor	Semi-mature	Limited <5 years		3x 10cm Hollows	Low			R		Within proposed road footprint	Remove
94	**Within Site Boundary**	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	36	42	**4.3**	58.63	**2.3**	10-15	5-10	Good	Fair	Semi-mature	Short 5-15 years	Trunk wound, suppressed. Active borers		Low			C		Within proposed road footprint	Remove
95	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	44	48	**5.3**	87.58	**2.4**	15-20	5-10	Good	Good	Semi-mature	Long 40+ years	Soil level change in tpz from neighbours development. Minor trunk wounds, minor deadwood		Medium			B		Within proposed road footprint	Remove
96	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	31	35	**3.7**	43.47	**2.1**	10-15	5-10	Good	Fair	Semi-mature	Short 5-15 years	Soil level change in SRZ from neighbours development. Suppressed		Low			C		Within proposed road footprint	Remove
97	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	64	74	**7.7**	185.30	**2.9**	20-30	15-20	Good	Good	Mature	Medium 15-40 years	Minor previous branch failures, Soil level change in tpz from neighbours development.		High			A		Within proposed road footprint	Remove
98	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	25	28	**3.0**	28.27	**1.9**	10-15	<5	Good	Fair	Semi-mature	Long 40+ years	Suppressed, trunk wounds		Low			C			Retain and Protect
99	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	41	48	**4.9**	76.05	**2.4**	15-20	5-10	Fair	Good	Semi-mature	Long 40+ years	Trunk wound, epicormics, dieback		Medium			B		Within proposed road footprint	Remove
100	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	3	36	39	**4.3**	58.63	**2.2**	15-20	5-10	Fair	Fair	Semi-mature	Long 40+ years	Dieback, thinning, deadwood, trunk wounds		Medium	Remove deadwood > 50mm		B		Within proposed road footprint	Remove
101	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	39	45	**4.7**	68.81	**2.4**	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Medium			B		Within proposed road footprint	Remove
102	**Within Site Boundary**	*Eucalyptus tereticornis* (Forest Red Gum)	1	69	75	**8.3**	215.38	**2.9**	20-30	10-15	Fair	Fair	Mature	Medium 15-40 years	dieback, Deadwood, canopy thinning, borer epicormic growth, Soil level change in tpz from neighbours development.		High	Remove deadwood > 50mm		B		Within proposed road footprint	Remove
103	**Within Site Boundary**	Dead Tree	2	30	30	**3.6**	40.72	**2.0**	10-15	<5	Dead	Poor	Semi-mature	Limited <5 years		3x 10cm Hollows	Low			R		Within proposed road footprint	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
104	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	85	85	10.2	326.85	3.1	15-20	10-15	Good	Good	Mature	Long 40+ years	Codominant, minor deadwood		High			A		Within proposed road footprint	Remove
105	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	30	36	3.6	40.72	2.2	10-15	5-10	Fair	Fair	Semi-mature	Medium 15-40 years	Minor suppression, dieback		Medium			B	Cant be retined individually due to supressed form.		Remove
106	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	50	58	6.0	113.10	2.6	15-20	5-10	Good	Good	Semi-mature	Medium 15-40 years	Minor stem wounds,		Medium			B		Major Earthworks	Remove
107	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	34	38	4.1	52.30	2.2	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Medium			B		Major Earthworks	Remove
108	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	62	68	7.4	173.90	2.8	20-30	5-10	Good	Good	Mature	Long 40+ years	Minor Stem wounds		Medium			A		Within BE	Remove
109	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	60	68	7.2	162.86	2.8	15-20	10-15	Poor	Fair	Mature	Short 5-15 years	Minor Stem wounds, wire at base. Dieback, canopy thinning		Medium	Remove deadwood > 50mm		C		Within BE	Remove
110	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	58	64	7.0	152.18	2.7	15-20	5-10	Fair	Good	Mature	Medium 15-40 years	Dieback, epicormics		Medium			B		Major Earthworks	Remove
111	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	33	35	4.0	49.27	2.1	20-30	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within proposed road footprint	Remove
112	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	56	65	6.7	141.87	2.8	15-20	5-10	Fair	Fair	Mature	Short 5-15 years	Basal wound,, dieback, canopy thinning, neighbouring earthwoirks in TPZ		Medium			C		Within proposed road footprint	Remove
113	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	53	58	6.4	127.08	2.6	15-20	10-15	Fair	Fair	Mature	Medium 15-40 years	Minor deadwood, earthworks in TPZ mechanical damage to trunk. ,		High			B		Within proposed road footprint	Remove
114	Within Site Boundary	Dead Tree	0	40	40	4.8	72.38	2.3	10-15	<5	Dead	Poor	Semi-mature	0			Low			RPI		Within BE	RPI
115	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	55	65	6.6	136.85	2.8	15-20	10-15	Fair	Good	Mature	Medium 15-40 years	Co dominant, earthworks in TPZ epicormics,		Medium			B		Within proposed road footprint	Remove
116	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	30	35	3.6	40.72	2.1	10-15	5-10	Poor	Poor	Semi-mature	Short 5-15 years	Minor suppression, trunk wounds, wire at base		Low			C		Within proposed road footprint	Remove
117	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	62	68	7.4	173.90	2.8	15-20	10-15	Good	Poor	Mature	Short 5-15 years	Previous failures, hangers, wounds, co dominant, included bark, earthworks in TPZ epicormics,		Medium			C		Within proposed road footprint	Remove
118	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	64	68	7.7	185.30	2.8	15-20	10-15	Fair	Poor	Semi-mature	Short 5-15 years	Minor trunk cavity, basal wounds, previous failure, earthworks in TPZ epicormics.	2 x 10cm hollow	Low			C		Within proposed road footprint	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
119	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	28	32	3.4	35.47	2.1	10-15	5-10	Good	Fair	Semi-mature	Short 5-15 years	Fungal fruiting body, trunk wound, suppressed		Low			C		Major Earthworks	Remove
120	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	26	28	3.1	30.58	1.9	10-15	5-10	Fair	Fair	Semi-mature	Short 5-15 years	Suppressed		Low			C		Within BE	Remove
121	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	65	71	7.8	191.13	2.9	15-20	10-15	Fair	Fair	Mature	Short 5-15 years	Active borers, major basal wound, wire on trunk.		Medium			C		Within BE	Remove
122	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	60	65	7.2	162.86	2.8	15-20	10-15	Good	Good	Mature	Long 40+ years	Trunk wound, good response growth		High			A		Within BE	Remove
123	Within Site Boundary	Dead Tree	1	20	20	2.4	18.10	1.7	5-10	<5	Dead	Poor	Semi-mature	Limited <5 years		3x 10cm Hollows	Low			R		Within BE	Remove
124	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	20	24	2.4	18.10	1.8	10-15	5-10	Good	Fair	Semi-mature	Short 5-15 years	Minor suppression, trunk wounds, wire at base		Low			C		Within BE	Remove
125	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	26	28	3.1	30.58	1.9	10-15	<5	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
126	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	40	48	4.8	72.38	2.4	15-20	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within BE	Remove
127	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	40	48	4.8	72.38	2.4	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within proposed road footprint	Remove
128	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	60	68	7.2	162.86	2.8	20-30	10-15	Good	Fair	Mature	Long 40+ years	Minor previous failures		Medium			B		Within proposed road footprint	Remove
129	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	25	30	3.0	28.27	2.0	10-15	5-10	Fair	Poor	Semi-mature	Short 5-15 years	Suppressed, previous branch failures		Low			C		Within proposed road footprint	Remove
130	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	61	68	7.3	168.33	2.8	15-20	10-15	Good	Fair	Mature	Medium 15-40 years	Trunk wounds, wire at base		Medium			B		Within proposed road footprint	Remove
131	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	47	54	5.6	99.93	2.6	10-15	10-15	Good	Fair	Semi-mature	Medium 15-40 years	Multiple previous branch failures,		Medium			B		Within proposed road footprint	Remove
132	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	44	48	5.3	87.58	2.4	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Minor suppression		Medium			B		Within BE	Remove
133	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	38	45	4.6	65.33	2.4	10-15	5-10	Good	Good	Semi-mature	Medium 15-40 years	growing in bank		Medium			B		Within BE	Remove
134	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	53	56	6.4	127.08	2.6	10-15	5-10	Fair	Fair	Semi-mature	Medium 15-40 years	Minor basal wounds, suppressed		Medium			B		Within BE	Remove
135	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	53	59	6.4	127.08	2.7	15-20	10-15	Good	Good	Mature	Long 40+ years			High			A		Within BE	Remove
136	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	23	25	2.8	23.93	1.8	10-15	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Within BE	Remove
137	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	31	35	3.7	43.47	2.1	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Major Earthworks	Remove
138	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	55	64	6.6	136.85	2.7	20-30	5-10	Good	Good	Semi-mature	Long 40+ years	Previous branch failures	Stick nest	High			A		Major Earthworks	Remove
139	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	35	40	4.2	55.42	2.3	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Mechanical trunk wounds		Medium			B		Major Earthworks	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
140	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	53	58	6.4	127.08	2.6	15-20	5-10	Poor	Poor	Mature	Short 5-15 years	Dieback, thinning, epicormics, deadwood, severe decline		Medium	remove		R		Major Earthworks	Remove
141	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	35	58	4.2	55.42	2.6	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Major Earthworks	Remove
142	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	47	57	5.6	99.93	2.6	15-20	10-15	Good	Good	Mature	Long 40+ years			High			A		Minor Earthwork impact	Retain and Protect
143	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	57	65	6.8	146.98	2.8	15-20	10-15	Good	Good	Mature	Long 40+ years			High			A			Retain and Protect
144	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	64	72	7.7	185.30	2.9	20-30	10-15	Fair	Good	Mature	Medium 15-40 years	Epicormics		High			B			Retain and Protect
145	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	33	38	4.0	49.27	2.2	10-15	5-10	Fair	Good	Semi-mature	Medium 15-40 years	canopy thinning		Medium			B			Retain and Protect
146	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	22	24	2.6	21.90	1.8	5-10	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Major Earthworks	Remove
147	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	50	58	6.0	113.10	2.6	10-15	5-10	Poor	Poor	Semi-mature	Limited <5 years	Dieback, deadfwood, basal decay, basal wound to 70% circumference		Medium	remove		R			Remove
148	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	45	51	5.4	91.61	2.5	15-20	10-15	Fair	Fair	Mature	Medium 15-40 years	Wounds at base, wire on trunk, minor dieback		Medium			B		Major Earthworks	Remove
149	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	32	35	3.8	46.32	2.1	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Major Earthworks	Remove
150	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	55	62	6.6	136.85	2.7	15-20	10-15	Fair	Good	Mature	Medium 15-40 years	Dieback, epicormics		High			B		Major Earthworks	Remove
151	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	52	55	6.2	122.33	2.6	10-15	10-15	Fair	Poor	Mature	Short 5-15 years	Larger stem removed, remaining stem leans over track. Wound, recent branch failure		Medium			C	Modified earthworks and stormwater	Minor Earthwork impact	Retain and Protect
152	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	54	60	6.5	131.92	2.7	20-30	10-15	Good	Good	Mature	Long 40+ years	Minor trunk wounds		High			A	Modified earthworks and stormwater	Minor Earthwork impact	Retain and Protect
153	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	81	90	9.7	296.81	3.2	15-20	15-20	Good	Good	Mature	Long 40+ years	Basal wound with good response growth, deadwood to 60mm.		High	Remove deadwood >50mm		A		Minor Earthwork impact	Retain and Protect
154	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	44	50	5.3	87.58	2.5	15-20	5-10	Fair	Good	Semi-mature	Long 40+ years	Epicormics		Medium			B		Major Earthworks	Remove
155	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	38	42	4.6	65.33	2.3	15-20	10-15	Poor	Poor	Semi-mature	Limited <5 years	Dieback, thinning, deadwood. Severe decline		Medium	remove		R		Major Earthworks	Remove
156	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	42	46	5.0	79.80	2.4	15-20	10-15	dead	Poor	Semi-mature	Limited <5 years			Medium	remove		R		Major Earthworks	Remove
157	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	46	52	5.5	95.73	2.5	15-20	10-15	Good	Fair	Semi-mature	Medium 15-40 years	borers, trunk wounds		Medium			B		Major Earthworks	Remove
158	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	27	29	3.2	32.98	2.0	10-15	<5	Good	Fair	Semi-mature	Medium 15-40 years	Trunk wounds, good response growth		Medium			B		Major Earthworks	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
159	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	63	70	7.6	179.55	2.8	20-30	15-20	Good	Good	Mature	Long 40+ years	Minor cavity, minor bird browsing wounds	2 x 10cm hollow	High			A			Retain and Protect
160	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	31	33	8.3	215.38	3.0	10-15	<5	Good	Good	Semi-mature	Long 40+ years	Wire at base		Low			B		Major Earthworks	Remove
161	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	69	79	8.3	215.38	3.0	20-30	10-15	Good	Good	Mature	Long 40+ years	Minor cavity	5cm Hollow	High			A			Retain and Protect
162	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	64	72	7.7	152.18	2.8	15-20	15-20	Good	Good	Mature	Long 40+ years	Minor stem wounds,		High			A		Major Earthworks	Remove
163	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	57	62	6.6	136.85	2.7	15-20	10-15	Good	Good	Mature	Long 40+ years	Minor stem wounds,		High			A		Major Earthworks	Remove
164	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	50	58	6.0	113.10	2.6	15-20	10-15	Good	Good	Mature	Long 40+ years	Wire at base, minor deadwood at base.		High			A		Major Earthworks	Remove
165	Within Site Boundary	Dead Tree	1	60	60	7.2	162.86	2.7	5-10	<5	Dead	Poor	Mature	Limited <5 years			Low			R		Major Earthworks	Remove
166	Within Site Boundary	Dead Tree	1	25	30	3.0	28.27	2.0	5-10	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Major Earthworks	Remove
167	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	2	35	40	4.2	55.42	2.3	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Wound on northern tree trunk		Medium			B		Major Earthworks	Remove
168	Within Site Boundary	Dead Tree	1	25	30	3.0	28.27	2.0	5-10	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Major Earthworks	Remove
169	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	52	58	6.2	122.33	2.6	15-20	5-10	Fair	Fair	Mature	Medium 15-40 years	Basal wound, dieback, epicormic growth		High			B		Major Earthworks	Remove
170	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	32	35	3.8	46.32	2.1	10-15	5-10	Fair	Fair	Semi-mature	Short 5-15 years	Significant basal wound, dieback, epicormic growth		Medium			C		Major Earthworks	Remove
171	Within Site Boundary	Dead Tree	1	27	30	3.2	32.98	2.0	5-10	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Major Earthworks	Remove
172	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	31	33	3.7	43.47	2.1	10-15	<5	Good	Poor	Semi-mature	Limited <5 years	Severe basal wound, mechanical damage		Low	remove		R		Major Earthworks	Remove
173	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	28	33	3.4	35.47	2.1	10-15	<5	Fair	Fair	Semi-mature	Medium 15-40 years			Low			C		Major Earthworks	Remove
174	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	37	40	4.4	61.93	2.3	10-15	<5	Good	Good	Semi-mature	Medium 15-40 years	Codominant,		Medium			B		Major Earthworks	Remove
175	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	40	40	4.8	72.38	2.3	10-15	5-10	Good	Poor	Semi-mature	Short 5-15 years	Multi stem, included bark		Low			C		Major Earthworks	Remove
176	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	50	56	6.0	113.10	2.6	15-20	10-15	Fair	Fair	Mature	Medium 15-40 years	Wound on trunk, large deadwood., diebacl		Medium	Remove deadwood >50mm, Monitor health		B		Major Earthworks	Remove
177	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	40	40	4.8	72.38	2.3	5-10	5-10	Good	Poor	Semi-mature	Short 5-15 years	Suppressed, Multistem.		Low			C		Major Earthworks	Remove
178	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	70	75	8.4	221.67	2.9	15-20	10-15	Good	Fair	Mature	Medium 15-40 years	Wire around stem base, co dominant		Medium			B		Major Earthworks	Remove
179	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	67	75	8.0	203.08	2.9	15-20	5-10	Poor	Fair	Mature	Short 5-15 years	Basal wound, dieback, thinning, epicormics		Medium			C	Modify stormwater	Minor Earthwork Stormwater and	Retain and Protect
180	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	75	82	9.0	254.47	3.0	15-20	5-10	Poor	Fair	Mature	Short 5-15 years	Basal wound, dieback, thinning, deadwood, co dominant		Medium			C		Major Earthworks	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
181	Within Site Boundary	Dead Tree	0	35	35	4.2	55.42	2.1	5-10	<5	Dead	Poor	Semi-mature	0			Low			RPI			RPI
182	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	69	69	8.3	215.38	2.8	10-15	10-15	Good	Fair	Mature	Medium 15-40 years	Multi stem, included bark		Medium			B		Major Earthworks	Remove
183	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	50	55	6.0	113.10	2.6	10-15	5-10	Good	Good	Mature	Long 40+ years			High			A		Major Earthworks	Remove
184	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	58	65	7.0	152.18	2.8	15-20	5-10	Fair	Fair	Mature	Medium 15-40 years	Basal wound, wire on trunk, good response growth, deadwood		Medium	Remove deadwood >50mm,		B		Major Earthworks	Remove
280	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	22	24	2.6	21.90	1.8	5-10	<5	Good	Good	Low	Long 40+ years			Low			C		Within sports fields	Remove
281	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	35	38	4.2	55.42	2.2	10-15	5-10	Good	Good	Medium	Long 40+ years			Medium			B		Within sports fields	Remove
282	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	22	26	2.6	21.90	1.9	5-10	<5	Fair	Fair	Low	Short 5-15 years	Dieback		Low			C		Within sports fields	Remove
283	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	5	18	22	2.2	14.66	1.8	5-10	<5	Good	Good	Semi-mature	Long 40+ years	Group of small trees.		Low			C			Retain and Protect
284	Within Site Boundary	*Angophora floribunda* (Rough barked Apple)	1	41	46	4.9	76.05	2.4	10-15	5-10	Fair	Fair	Semi-mature	Short 5-15 years	Canopy skewed west		Medium			C			Retain and Protect
285	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	50	57	6.0	113.10	2.6	15-20	5-10	Good	Fair	Mature	Medium 15-40 years	Trunk wound, mistletoe, minor borer		Medium			B		Major Earthworks	Remove
286	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	43	49	5.2	83.69	2.5	15-20	5-10	Poor	Fair	Mature	Short 5-15 years	Dieback, deadwood, thinning, co dominant		Low			C		Major Earthworks	Remove
287	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	52	58	6.2	122.33	2.6	15-20	10-15	Poor	Fair	Mature	Short 5-15 years	Dieback, deadwood, thinning, co dominant, previous branch failures	Stick nest	Medium			C		Within sports fields	Remove
288	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	46	46	5.5	95.73	2.4	10-15	10-15	Poor	Fair	Mature	Short 5-15 years	Dieback, deadwood, thinning, co dominant, wire at base.		Medium			C		Within sports fields	Remove
289	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	25	28	3.0	28.27	1.9	10-15	<5	Poor	Fair	Semi-mature	Short 5-15 years	Dieback, deadwood, thinning,		Low			C		Within sports fields	Remove
290	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	30	33	3.6	40.72	2.1	10-15	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within sports fields	Remove
291	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	56	65	6.7	141.87	2.8	15-20	15-20	Fair	Fair	Mature	Medium 15-40 years	Previous branch failure, stem wound, minor deadwood		Medium			B		Within sports fields	Remove
292	Within Site Boundary	Dead Tree	1	40	30	4.8	72.38	2.0	15-20	<5	Dead	Poor	Mature	Limited <5 years	Termites		Low			R		Within sports fields	Remove
293	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	37	42	4.4	61.93	2.3	15-20	5-10	Good	Good	Semi-mature	Long 40+ years			Medium			B		Within sports fields	Remove
294	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	29	33	3.5	38.05	2.1	5-10	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Suppressed		Low			C		Major Earthworks	Remove
295	Within Site Boundary	*Eucalyptus moluccana* (Grey Box)	1	26	29	3.1	30.58	2.0	5-10	<5	Poor	Fair	Semi-mature	Short 5-15 years	Dieback, deadwood, epicormics		Low			C		Major Earthworks	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
296	Within Site Boundary	Dead Tree	1	40	30	4.8	72.38	2.0	15-20	<5	Dead	Poor	Mature	Limited <5 years			Low			R		Major Earthworks, Within Carpark	Remove
297	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	77	87	9.2	268.22	3.1	15-20	10-15	Good	Good	Mature	Long 40+ years	Co dominant		High			A		Major Earthworks, Within Carpark	Remove
298	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	25	28	3.0	28.27	1.9	10-15	<5	Fair	Good	Semi-mature	Short 5-15 years	Dieback		Medium			C		Major Earthworks, Within Carpark	Remove
299	Within Site Boundary	*Eucalyptus crebra* (Narrow Leaf Iron Bark)	1	60	66	7.2	162.86	2.8	15-20	10-15	Fair	Fair	Mature	Medium 15-40 years	Cankers, previous branch failures, stem wounds, deadwood, dieback		Medium	remove deadwood > 50mm		B		Major Earthworks, Within BE	Remove
300	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	22	24	2.6	21.90	1.8	5-10	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Major Earthworks, Within Carpark	Remove
301	Within Site Boundary	Dead Tree	1	22	24	2.6	21.90	1.8	5-10	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Major Earthworks, Within Carpark	Remove
302	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	32	36	3.8	46.32	2.2	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Wire around base, stem wound.. Previous branch failures		Medium			B		Major Earthworks, Within Carpark	Remove
303	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	43	48	5.2	83.69	2.4	15-20	5-10	Poor	Fair	Semi-mature	Short 5-15 years	Co dominant, dieback, canopy thinning, epicormic growth		Medium			C		Major Earthworks, Within Carpark	Remove
304	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	48	54	5.8	104.23	2.6	15-20	<5	Dead	Poor	Semi-mature	Limited <5 years	Dead		Low			R		Major Earthworks, Within Carpark	Remove
305	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	60	66	7.2	162.86	2.8	15-20	10-15	Good	Good	Mature	Long 40+ years	Minor deadwood		High			A		Major Earthworks, Within Carpark	Remove
306	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	55	64	6.6	136.85	2.7	15-20	10-15	Fair	Good	Mature	Medium 15-40 years	Minor deadwood, soil compaction. Dieback, canopy thinning		High			B		Within BE	Remove
307	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	62	66	7.4	173.90	2.8	15-20	10-15	Fair	Good	Mature	Medium 15-40 years	Deadwood, soil compaction. Epicormic growth, dieback,		High	Remove deadwood > 50mm		B		Within BE	Remove
308	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	130	130	15.0	706.86	3.7	15-20	10-15	Good	Fair	Mature	Long 40+ years	Exposed roots, metal at base, multi stem form, included bark, rubbing branches. Grows in old cattle yard.		High			A		Within BE	Remove
309	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	16	19	2.0	12.57	1.6	5-10	<5	Good	Good	Semi-mature	Long 40+ years			Low			C		Within BE	Remove
310	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	34	38	4.1	52.30	2.2	10-15	5-10	Good	Fair	Semi-mature	Medium 15-40 years	Tree not tagged, Damage to roots within SRZ. Excavation in SRZ.		Medium			B		Within proposed road footprint	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
311	**Within Site Boundary**	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	54	62	**6.5**	131.92	**2.7**	15-20	5-10	Good	Fair	Mature	Medium 15-40 years	Tree not tagged, Damage to roots within SRZ. Excavation in SRZ. Previous branch failure, epicormics, minor hangers		Medium			B		Within proposed road footprint	Remove
312	**Within Site Boundary**	*Eucalyptus tereticornis (Forest Red Gum)*	1	87	95	**10.4**	342.41	**3.2**	20-30	15-20	Good	Fair	Mature	Medium 15-40 years	Damage to roots within SRZ. Excavation in SRZ Previous branch failures, basal wound, minor deadwood, soil compaction..		High			A		Within proposed road footprint	Remove
313	**Within Site Boundary**	*Eucalyptus tereticornis (Forest Red Gum)*	1	80	88	**9.6**	289.53	**3.1**	15-20	10-15	Poor	Fair	Mature	Short 5-15 years	Borers at base, dieback, large deadwood, thinning		Medium	Remove deadwood > 50mm		C		Within proposed road footprint	Remove
314	**Within Site Boundary**	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	65	65	**7.8**	191.13	**2.8**	10-15	10-15	Fair	Fair	Mature	Short 5-15 years	Multistem form, large deadwood, previous stem failures, cracked stem, stem wounds		Medium	Remove deadwood > 50mm		C		Major Earthworks	Remove
315	**Within Site Boundary**	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	124	124	**14.9**	695.59	**3.6**	20-30	15-20	Good	Good	Mature	Long 40+ years	Multi stem form, minor deadwood. Epicormics		High			A		Major Earthworks	Remove
316	**Within Site Boundary**	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	50	58	**6.0**	113.10	**2.6**	20-30	10-15	Good	Good	Mature	Long 40+ years	Minor trunk wound		High			A		Within proposed road footprint	Remove
317	**Within Site Boundary**	Dead Tree	1	35	35	**4.2**	55.42	**2.1**	15-20	<5	Dead	Poor	Semi-mature	Limited <5 years	Termites		Low			R		Within proposed road footprint	Remove
318	**Within Site Boundary**	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	65	75	**7.8**	191.13	**2.9**	15-20	10-15	Good	Good	Mature	Long 40+ years	Co dominant, included bark		High			A		Major Earthworks	Remove
319	**Within Site Boundary**	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	1	44	49	**5.3**	87.58	**2.5**	15-20	10-15	Good	Fair	Mature	Medium 15-40 years	Minor trunk wounds, previous branch failures		Medium			B		Within proposed road footprint	Remove
320	**Within Site Boundary**	*Eucalyptus tereticornis (Forest Red Gum)*	1	51	55	**6.1**	117.67	**2.6**	20-30	5-10	Fair	Poor	Mature	Limited <5 years	Trunk wound with nails, earthworks in SRZ	Stick nests	Medium			R		Within proposed road footprint	Remove
321	**Within Site Boundary**	*Eucalyptus tereticornis (Forest Red Gum)*	1	35	38	**4.2**	55.42	**2.2**	10-15	5-10	Poor	Fair	Semi-mature	Limited <5 years	Tree not tagged, Severe decline, earthworks in TPZ		Low			R		Within proposed road footprint	Remove
322	**Within Site Boundary**	*Eucalyptus tereticornis (Forest Red Gum)*	1	60	66	**7.2**	162.86	**2.8**	20-30	10-15	Good	Good	Mature	Long 40+ years			High			A		Major Earthworks, Within Carpark	Remove
323	**Within Site Boundary**	*Eucalyptus tereticornis (Forest Red Gum)*	1	52	56	**6.2**	122.33	**2.6**	20-30	5-10	Good	Fair	Mature	Medium 15-40 years	Minor basal wound, borer damage, suppressed, Minor deadwood.		Medium			B		Major Earthworks, Within Carpark	Remove
324	**Within Site Boundary**	*Eucalyptus tereticornis (Forest Red Gum)*	1	52	58	**6.2**	122.33	**2.6**	15-20	10-15	Good	Good	Mature	Long 40+ years	Minor deadwood.		High			A		Major Earthworks, Within Carpark	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
325	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	30	35	3.6	40.72	2.1	15-20	5-10	Poor	Fair	Mature	Short 5-15 years	Minor suppression, dieback, epicormics		Medium			C		Major Earthworks, Within Carpark	Remove
326	Within Site Boundary	Dead Tree	0	32	32	3.8	46.32	2.1	15-20	<5	Dead	Poor	Semi-mature	0	Termites		Low			RPI			RPI
327	Within Site Boundary	*Eucalyptus crebra (Narrow Leaf Iron Bark)*	15	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Semi-mature	Long 40+ years	Group of 15 small trees.		Low			C		Major Earthworks, Within Carpark	Remove
328	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	53	56	6.4	127.08	2.6	15-20	10-15	Fair	Good	Mature	Medium 15-40 years	Previous branch failure, canopy thinning, dieback		High			B		Minor Earth works, Stormwater, carpark	Remove
329	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	65	72	7.8	191.13	2.9	15-20	10-15	Poor	Poor	Mature	Limited <5 years	Tree in severe decline		Medium	remove		R		Swale changing to outside site. Impacted by Swale	Remove
330	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	38	44	4.6	65.33	2.3	10-15	5-10	Poor	Poor	Semi-mature	Limited <5 years	Abnormal lean, dieback, severe decline		Medium	remove		R		Swale changing to outside site. Impacted by Swale	Remove
331	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	36	39	4.3	58.63	2.2	10-15	5-10	Poor	Good	Semi-mature	Short 5-15 years	Canopy thinning , dieback		Medium			C		Swale changing to outside site. Impacted by Swale	Remove
332	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	37	42	4.4	61.93	2.3	15-20	5-10	Fair	Good	Semi-mature	Medium 15-40 years	Dieback		Medium			B		Swale changing to outside site. Impacted by Swale	Remove
334	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	52	56	6.2	122.33	2.6	20-30	10-15	Good	Good	Mature	Long 40+ years	Moderate deadwood		High	remove deadwood > 50mm		A		Swale changing to outside site. Impacted by Swale	Remove
335	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	55	62	6.6	136.85	2.7	20-30	10-15	Good	Good	Mature	Long 40+ years	Minor deadwood, epicormics		High			A		Within proposed road footprint	Remove
336	Within Site Boundary	*Eucalyptus tereticornis (Forest Red Gum)*	1	70	78	8.4	221.67	3.0	20-30	15-20	Good	Good	Mature	Long 40+ years	Minor deadwood, epicormics		High			A		Within proposed road footprint	Remove
79A	Within Site Boundary	*Eucalyptus tereticornis* (Forest Red Gum)	1	20	25	2.4	18.10	2.2	10-15	<5	Dead	Poor	Semi-mature	Limited <5 years			Low			R		Major Earthworks	Remove
340	Guntawong Road Verge	*Eucalyptus crebra*	1	89	107	10.68	358.16	3.4	23	15	Good	Good	Mature	Long (>40 years)	Borers, Co-dominant stems, Deadwood > 30mm, Hanger(s), Previous branch failure(s)		High			A		With external bus stop and road works.	Remove
341	Guntawong Road Verge	*Eucalyptus crebra*	1	47	61	5.64	99.88	2.69	17	10	Good	Average	Mature	Long (>40 years)	Deadwood > 30mm, Wounded branches from trucks		High			B		With external bus stop and road works	Remove
342	Guntawong Road Verge	*Eucalyptus crebra*	1	34	46	4.08	52.27	2.39	14	6	Good	Good	Semi-Mature	Long (>40 years)	Crossing/rubbing branches, Mechanical damage, Trunk Wound(s)		Medium			B		With external bus stop and road works	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
343	**Guntawong Road Verge**	*Eucalyptus tereticornis*	1	59	72	7.08	157.4	2.88	20	8	Good	Average	Mature	Medium (15-40 years)	Co-dominant stems, Deadwood > 30mm, Suppressed		Medium			B		With external bus stop and road works	Remove
344	**Guntawong Road Verge**	*Eucalyptus moluccana*	1	67	83	8.04	202.97	3.06	23	11	Good	Good	Mature	Long (>40 years)	Deadwood Minor		High			A		With external bus stop and road works	Remove
345	**Guntawong Road Verge**	*Eucalyptus moluccana*	1	52	71	6.24	122.26	2.87	16	8	Average	Good	Semi-Mature	Medium (15-40 years)	Canopy Dieback, Co-dominant stems, Crossing/rubbing branches, Hanger(s), Previous branch failure(s)		Medium			B		With external bus stop and road works	Remove
346	**Guntawong Road Verge**	*Eucalyptus moluccana*	1	69	73	8.28	215.27	2.9	21	11	Good	Average	Mature	Medium (15-40 years)	Cavity - trunk, Crossing/rubbing branches, Deadwood > 30mm, Termites, Trunk Wound(s), Wound response growth - Good		Medium		Large trunk wound at 3m with termite mudding throughout. No active termites sighted.	B		With external bus stop and road works	Remove
347	**Guntawong Road Verge**	*Eucalyptus crebra*	1	20	21	2.4	18.09	1.72	28	6	Good	Average	Juvenile	Medium (15-40 years)	Suppressed		Medium			B		With external bus stop and road works	Remove
348	**Guntawong Road Verge**	*Eucalyptus moluccana*	1	61	71	7.32	168.25	2.87	17	8	Poor	Average	Mature	Limited (<5 years)	Borers, Canopy Dieback, Canopy thinning, Co-dominant stems, Deadwood > 100mm, Epicormic growth - Shoots, Trunk Wound(s)		Hazardous / Irreversible Decline		Tree health is in advanced decline.	R		With external bus stop and road works	Remove
349	**Guntawong Road Verge**	*Eucalyptus crebra*	1	28	34	3.36	35.45	2.1	9	6	Good	Average	Juvenile	Medium (15-40 years)	Crossing/rubbing branches, Suppressed		Medium			B		With external bus stop and road works	Remove
350	**Guntawong Road Verge**	*Eucalyptus crebra*	1	43	47	5.16	83.6	2.41	20	8	Good	Average	Semi-Mature	Medium (15-40 years)	Co-dominant stems, Epicormic growth - Shoots, Included bark		Medium			B		With external bus stop and road works	Remove
351	**Guntawong Road Verge**	*Eucalyptus moluccana*	1	55	68	6.6	136.78	2.81	25	13	Good	Good	Mature	Long (>40 years)	Deadwood > 100mm, Deadwood low volume, Epicormic growth - Shoots		High			A		With external bus stop and road works	Remove

Tree no.	Ownership	*Botanical Name*	Tree in Group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	SULE	Observations	Hollows/ Fauna	Landscape Significance	Reccomended Action (irrespective of development)	Arborist comments	Retention Value	Development Notes	Project Impacts	Proposed Action
352	**Guntawong Road Verge**	*Eucalyptus crebra*	1	46	56	5.52	95.68	2.59	17	11	Good	Average	Mature	Medium (15-40 years)	Deadwood > 30mm, Epicormic growth - Shoots, Excessive end weight, Previous branch failure(s), Suppressed		Medium			B		With external bus stop and road works	Remove
353	Neighbouring Residential land	*Eucalyptus crebra*	1	35	40	4.2	55.39	2.25	15	6	Good	Good	Semi-Mature	Long (>40 years)			Medium		Located within 194 Guntawong Rd. Base of tree is 1m from boundary fence. Tree not tagged.	B			Retain and Protect

A1

Schedule of Easements & Restrictions	
No	Description
(E2)	EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP1274414)

MGA
BEARINGS SHOWN ARE ON MGA ORIENTATION
TN
1°00' APPROX.

denotes TREE TO BE REMOVED
denotes TREE TO BE RETAINED AND PROTECTED (CIRCLE INDICATES TPZ)
denotes DEAD TREE TO BE RETAINED AND PROTECTED (CIRCLE INDICATES TPZ)

1 DP1300811

471 DP1271601
465 DP1271601
470 DP1271601
466 DP1271601
469 DP1271601
467 DP1271601
468 DP1271601
304 DP1259458
303 DP1259458
335 DP1259458
43 DP30186
42 DP30186

MCCLELLAND STREET
WALLASTON STREET
MARCHANT STREET
NIRMAL STREET
CLARKE STREET
GUNTAWONG ROAD

SURVEY MARK 2
SURVEY MARK 3
SURVEY MARK 1
147°25'40" 502.12
146°31'10" 20.235
62°41" 173.8
62°41" 330.31
(20.115)

SHEETS 2, 6 & 10
SHEETS 4, 8 & 12
SHEETS 3, 7 & 11
SHEETS 5, 9 & 13

JOIN LINE
JOIN LINE
JOIN LINE

EMBANKMENT
CONCRETE PAD
DILAPIDATED YARDS
TRACK
TABLE DRAIN
VEHICULAR
SEWER MAIN
SWAMPY DEPRESSION
EXISTING

(E2)
Remove

SCOPE OF SURVEY 453.57

1
DP1283186

1
DP1290067

UNDERGROUND SERVICES LEGEND
QUALITY LEVEL B & D (AS 5488.1:2022)

W	POTABLE WATER MAIN
D	STORMWATER PIPE
S	SEWER MAIN
C	COMMUNICATIONS CABLES
E	ELECTRICITY CABLES
G	200mm dia. HIGH PRESSURE GAS MAIN

CAUTION: FIBRE OPTIC CABLES ARE PRESENT IN THIS AREA

SERVICES NOTES:-

1. ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND IF SHOWN AS *'+ 89.67'* ARE QUALITY LEVEL A AS DEFINED BY AS 5488.1:2022. LEVELS SHOWN ARE SURFACE LEVELS UNLESS NOTED OTHERWISE.
2. UNDERGROUND SERVICES HAVE BEEN LOCATED FOR POSITION AND DEPTH AND HAVE BEEN DETERMINED FROM USING EQUIPMENT ON REPORT PROVIDED BY ONPOINT LOCATING ON 11/10/24. THE SERVICE POSITION IS SHOWN ON THE PLAN AND THEIR RESPECTIVE DEPTH AND QUALITY ARE AS STATED IN THE TABLE. ALL RELEVANT AUTHORITIES MUST BE CONTRACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.
3. SOME UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFORE'YOU-DIG' PLANS, ARE QUALITY LEVEL D AS DEFINED BY AS 5488.1:2022, ARE ONLY CURRENT AT THE DATE OF SEARCH AND HAVE BEEN LABELLED AS CLASS D ON THE PLAN.

PROPOSED SITE BOUNDARY
SCHEDULE OF SHORT LINES

No.	BEARING	DISTANCE	ARC	RADIUS
1	78°25'40"	10.545	10.56	55.265
2	105°26'15"	8.505	8.695	11.9
3	19°52'30"	7.93	9.155	5

123.45 PROPOSED ACQUISITION BOUNDARY
123.45 PROPOSED SITE BOUNDARY

SEE SHEETS:
1 - SURVEY OVERVIEW
2 TO 5 - LEVELS & CONTOURS
6 TO 9 - UNDERGROUND SERVICES
10 TO 13 - TREES
14 - UNDERGROUND SERVICES TABLE & AREA OF SURVEY LOCATION

SCHEDULE OF SURVEY MARKS
MGA COORDINATE (MGA2020 ZONE 56) (GROUND COORDINATES)

NO.	MARK	EASTING	NORTHING	RL(AHD)
1	PM43374 (ORIGIN)	304269.167	6271001.246	38.27
2	SSM177377	304465.509	6271008.365	46.24
3	SSM198876	304533.124	6270902.456	43.19

2 4 6 8 10 20 30 40 50
1:500

ISSUE	DATE	AMENDMENT	SURV	CHK
F	15/01/25	REVISE TREE REMOVAL / RETENTION	JM	JB
E	10/12/24	TREE REMOVAL / RETENTION	JM	JB

ISSUE	DATE	AMENDMENT	SURV	CHK
A	09/10/24	ORIGINAL ISSUE	PQ	JB
B	18/11/24	ADD ARBORIST TREE NUMBERS	PD	
C	22/11/24	ADD TREE PROTECTION ZONES AND REMOVED TREES NOT ON ARBORIST REPORT	PD	
D	10/12/24	ADD PROPOSED BOUNDARIES TO PLAN	JB	

GENERAL NOTES

ONLY TREES GREATER THAN 3 METRES IN HEIGHT ARE SHOWN ON THIS PLAN AND THEIR POSITIONS ARE DIAGRAMMATIC ONLY AND MAY REQUIRE ADDITIONAL SURVEY WHERE CRITICAL TO DESIGN.

CONTOURS ARE INDICATIVE AT GROUND FORM ONLY. SPOT LEVELS ONLY SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.

LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD).

ALL SETOUT LEVELS MUST BE REFERRED TO THE SURVEY MARKS SHOWN ON THIS PLAN.

BOUNDARY NOTES

A BASIC BOUNDARY SURVEY HAS BEEN DONE SUITABLE FOR DA LODGEMENT PURPOSES.

BOUNDARIES HAVE NOT BEEN MARKED.

SURVEY INFORMATION NOTES

THE ORIGIN OF COORDINATES COMES FROM PM43374 E304269.167 N6271001.246 CLASS B POSITIONAL UNCERTAINTY (PU) 0.02 (MGA2020) ADOPTED FROM SCIMS DATED 08/10/2024.

THE ORIGIN OF LEVELS COMES FROM PM43374 RL38.274 CLASS LB POSITIONAL UNCERTAINTY (PU) 0.02 ADOPTED FROM SCIMS DATED 08/10/2024.

THE ORIENTATION OF THIS PLAN IS MGA NORTH WHICH HAS BEEN DETERMINED BY A COORDINATE JOIN BETWEEN PM43374 AND PM29842.

CERTIFICATE OF TITLE NOTES

THE FOLLOWING INFORMATION RELATES TO THE RESPECTIVE CERTIFICATE OF TITLE OF EACH LOTS:

- LOT 1 IN DP1283186
  (CT EDITION 1 DATED 17/11/2022 SEARCH DATE 18/10/2024)
  - AFFECTED BY:
    - EASEMENT TO DRAIN WATER 4.4 METRE(S) WIDE (DP1236293) NOT SHOWN ON PLAN AS EASEMENT IS OUTSIDE THE AREA OF SURVEY.
    - EASEMENT FOR SUPPORT, ACCESS AND MAINTENANCE VARIABLE WIDTH (DP1245121) NOT SHOWN ON PLAN AS EASEMENT IS OUTSIDE THE AREA OF SURVEY.
    - EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP1274414) SHOWN LABELLED AS (E2) ON PLAN
    - EASEMENT FOR ASSET PROTECTION ZONE 7 METRE(S) WIDE (DP1282094) NOT SHOWN ON PLAN AS EASEMENT IS OUTSIDE THE AREA OF SURVEY.

COVENANTS AND RESTRICTIONS NOTED ON THE TITLE HAVE NOT BEEN INVESTIGATED. THESE SHOULD BE INVESTIGATED PRIOR TO DESIGN TO ENSURE ANY FUTURE DEVELOPMENT COMPLIES.

SERVICES NOTES

ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND ARE QUALITY LEVEL A AS DEFINED BY AS 5488.1:2022.

UNDERGROUND SERVICES HAVE BEEN LOCATED FOR BY ONPOINT LOCATING ON 11/10/2024 USING EQUIPMENT AS NOTED ON REPORT PROVIDED DATED 11/10/2024. THE SERVICE POSITION IS SHOWN ON THE PLAN AND THEIR RESPECTIVE DEPTH AND QUALITY ARE AS STATED IN THE TABLE.

SOME UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFORE'YOU-DIG' PLANS, ARE QUALITY LEVEL D AS DEFINED BY AS 5488.1:2022, ARE ONLY CURRENT AT THE DATE OF SEARCH AND HAVE BEEN LABELLED AS CLASS D ON THE PLAN ON PAGES 5-8 IF APPLICABLE.

ALL RELEVANT AUTHORITIES MUST BE CONTACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.

LEGEND

TAG	DESCRIPTION
BB	BOTTOM OF BANK
CL	CENTRELINE OF ROAD
COM	COMMUNICATIONS PIT
CS	COMMUNICATIONS SIGN
DP	DEPOSITED PLAN
ELP	ELECTRICITY PILLAR
EOT	END OF TRACE
GS	GAS SIGN
HYD	HYDRANT
IL	INVERT LEVEL
LIN	LINTEL
LIP	LIP OF KERB
LP	LIGHT POLE
OHP	OVERHEAD POWER
PC	PRAM CROSSING
PP	POWER POLE
RL	REDUCED LEVEL
SMH	SEWER MANHOLE
SMS	SEWER MAINTENANCE SHAFT
SS	STREET SIGN
SV	STOP VALVE
TK	TOP OF KERB
TMS	TERMINAL MAINTENANCE SHAFT

PROJECT:
DETAIL AND LEVEL SURVEY OF
LOT 1 IN DP1283186

SURVEY OVERVIEW
201 GUNTAWONG ROAD
TALLAWONG

CLIENT: SCHOOL INFRASTRUCTURE NSW
FILE: DDWO05755-23-Proposed Schofields Tallawong High School Guntawong Road SDG Pty Ltd
LGA: BLACKTOWN
REF: 9107 | CONTOURS: 0.5m
ISSUE: F | DATUM: AHD
SURVEY DATE: 10/12/2024 | AZIMUTH: MGA2020
SCALE: 1:500 | SHEET 1 OF 14 SHEETS

SDG Pty Ltd
abn 85 213 523 621
Suite 1, 3 Railway Street, Baulkham Hills NSW 2153
t: (02) 9630 7955 w: sdg.net.au
Liability limited by a scheme approved under Professional Standards Legislation

JONATHAN BURKE ID: SU000684
REGISTERED LAND SURVEYOR

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300mm at A1

MCLELLAND STREET

WALLASTON STREET

MARCHANT STREET

NIRMAL STREET

EXISTING LOT BOUNDARY

PROPOSED SITE BOUNDARY

EXISTING STOCKPILE TO BE DEMOLISHED

EXISTING STRUCTURES AND FENCING TO BE DEMOLISHED

EXISTING OVERLAND FLOW PATH

GUNTAWONG ROAD

EXISTING OVERLAND FLOW PATH

CLARKE STREET

DEMOLITION LEGEND

- SITE BOUNDARY (PROPOSED)
- SITE BOUNDARY (EXISTING)
- EXISTING TREES TO REMAIN
- EXISTING TREES TO BE DEMOLISHED
- EXISTING SITE ELEMENTS TO BE DEMOLISHED
- EXISTING OVERLAND FLOW
- AREA NOT IN PROJECT SCOPE

ISSUE	DATE	SUBJECT	AUTHORISED
01	22/11/2024	FINAL DRAFT ISSUE FOR REF	TD
02	09/12/2024	UPDATED DRAFT ISSUE FOR REF	TD
03	20/12/2024	ISSUE FOR REF	TD
04	10/01/2025	ISSUE FOR REF	TD
05	16/01/2025	ISSUE FOR ARBORIST	TD
06	20/01/2025	ISSUE FOR REF	TD

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SITE IMAGE Landscape Architects
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PROJECT MANAGER
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Level 15, 207 Kent Street, Sydney
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Nominated Architects:
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Daniel Beekwilder 6192
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Chippendale NSW 2008
Sydney Australia
djrd.com.au

DISCLAIMER

This drawing should be read in conjunction with all the standard notes & abbreviations in the drawing pack, relevant contracts, specifications and drawings. Dimensions are in millimetres. Levels are metres. Do not scale off drawings. Use figured dimensions only. Check dimensions on Site. Report discrepancies immediately.

PROJECT
NEW HIGH SCHOOL FOR SCHOFIELDS AND TALLAWONG
GUNTAWONG ROAD, TALLAWONG NSW 2155

0 5 10 15 25 1:500

SCALE As indicated @ A1

DATE PRINTED: 21/01/2025 10:58:39 AM

DESCRIPTION
DEMOLITION PLAN

PROJECT No	DRAWING No				REVISION
24-411	STHS-DJRD-00-00-REF-A-0102				06
PURPOSE OF ISSUE	STATUS	DRAWN BY	SHEET SIZE	ORIGIN DATE	
ISSUE FOR REF	S4	NWF	A1	22/11/24	

NOT FOR CONSTRUCTION

PROVIDE CATCH DRAIN
REFER DETAILS DRAWING
STHS-TTW-01-00-DR-C-02001

PROVIDE HAY BALE
SEDIMENT FILTER
REFER DETAILS DRAWING
STHS-TTW-01-00-DR-C-02001

PROVIDE SANDBAG KERB SEDIMENT TRAP
REFER DETAILS DRAWING
STHS-TTW-01-00-DR-C-02001

PROVIDE SANDBAG KERB INLET
SEDIMENT TRAP
REFER DETAILS DRAWING
STHS-TTW-01-00-DR-C-02001

Remove

INDICATIVE LOCATION OF SEDIMENTATION BASIN.
CONTRACTOR TO SUIT THE TEMPORARY AND PERMANENT LOCATION TO SUIT STAGING OF WORKS.

TOTAL STORAGE VOLUME= 1,075m³
MINIMUM SEDIMENT STORAGE (SOIL) VOLUME= 308m³
MINIMUM SEDIMENT STORAGE (WATER) VOLUME= 767m³

BASED ON 37,220m² DISTURBED GROUND AREA.

PROVIDE TEMPORARY
CONSTRUCTION VEHICLE EXIT
REFER DETAILS DRAWING
STHS-TTW-01-00-DR-C-02001

PROVIDE SILTATION FENCE
REFER DETAILS DRAWING
STHS-TTW-01-00-DR-C-02001

PROVIDE HAY BALE
FILTER AT EXISTING
OVERLAND FLOW PATH

MCCLELLAND STREET
WALLASTON STREET
MARCHANT STREE
ROAD 2
NIRMAL STREET
ROAD 4
FUTURE ROAD
GUNTAWONG ROAD
CLARKE STREET
FUTURE HAMBLEDON ROAD EXTENSION
PROPOSED EXTENSION TO GUNTAWONG ROAD

DP 30186
302 DP 1259458
301 DP 1259458
335 DP 1259458
DP 407863
X DP 416187
F DP 407863

Z:\jobs\24\241460\civil\sheets\10\241460-TTW-10-DR-CI-02101.dwg

Rev	Description	Eng Draft	Date
3	SCHEMATIC DESIGN FOR REF	JL	ES 10.01.2025
2	SCHEMATIC DESIGN FOR REF	JL	ES 06.12.2024
1	FINAL DRAFT ISSUE FOR REF	JL	ES 21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: NEW HIGH SCHOOL FOR SCHOFIELDS TALLAWONG

Drawing Title: EROSION AND SEDIMENT CONTROL PLAN

Scale at A1	Drawn	Designed	Approved
1:500	ES	AW	CR

Project No | Originator | Type | Role | Sheet No. | Rev
STHS-TTW-01-00-DR-C-02101-3

13.01.2025 2:04 PM

PROPOSED SITE PLAN - LEGEND

- SITE BOUNDARY
- PROPOSED EXTERNAL FENCE LINE
- PROPOSED INTERNAL FENCE LINE
- PROPOSED GATE
- PROPOSED VISITOR ENTRY
- PROPOSED PEDESTRIAN ENTRY
- PROPOSED VEHICULAR ENTRY
- EXISTING TREES
- PROPOSED TREES
- TURF
- SEEDED GRASS AREA
- SOFTSCAPE
- HARDSCAPE (TYPE 1)
- HARDSCAPE (TYPE 2)
- HARDSCAPE (TYPE 3)
- FEATURE HARDSCAPES
- VEHICLE HARDSTAND
- KISS & DROP
- ASSEMBLY ZONE
- AREA OUT OF SCOPE

ISSUE	DATE	SUBJECT	AUTHORISED
01	22/11/2024	FINAL DRAFT ISSUE FOR REF	TD
02	26/11/2024	FINAL DRAFT ISSUE FOR REF	TD
03	09/12/2024	UPDATED DRAFT ISSUE FOR REF	TD
04	18/12/2024	UPDATED SITE PLAN	TD
05	20/12/2024	ISSUE FOR REF	TD
06	08/01/2025	ISSUE FOR REF	TD
07	10/01/2025	ISSUE FOR REF	TD
08	16/01/2025	ISSUE FOR ARBORIST	TD
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PROJECT
NEW HIGH SCHOOL FOR SCHOFIELDS AND TALLAWONG
GUNTAWONG ROAD, TALLAWONG NSW 2155

DESCRIPTION
SITE PLAN

1:500
0 5 10 15 25

PROJECT No	DRAWING No		REVISION
24-411	STHS-DJRD-00-00-REF-A-0103		09
SCALE: As indicated @ A1	PURPOSE OF ISSUE	STATUS	
DATE PRINTED: 21/01/2025 10:59:25 AM	ISSUE FOR REF	S4	
DRAWN BY	SHEET SIZE	ORIGIN DATE	
NWF	A1	22/11/24	

Issue	Revision Description	Drawn	Check	Date
03	REF	RG	NM	20.01.2025
02	REF	RG	NM	10.01.2025
01	Final Draft Issue for REF	RG	NM	22.11.2024

Legend

- Site Boundary
- Existing Trees to be Retained
- Existing Trees to be Removed
- TPZ
- SRZ

Guntawong Road

McLelland Street

Wallastone Street

Marchant Street

Nirimal Street

Proposed New Road

Future Hambledon Road Extension

Proposed Extension to Guntawong Road

NOT FOR CONSTRUCTION

A1

Client

NSW GOVERNMENT Education School Infrastructure

Project

New High School for Schofields and Tallawong

Guntawong Road, Tallawong NSW 2155

SITE IMAGE

Level 1, 3-5 Baptist Street
Redfern NSW 2016
Australia

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Fax: (61 2) 9698 2877
www.siteimage.com.au

Site Image (NSW) Pty Ltd
ABN 44 801 262 380

Landscape Architects

REF

Drawing Name

Tree Retention Plan

Scale 1:500 @ A1

0 2 5 10 15 25m

Job Number	Drawing Number	Issue
SS24-5343	901	03