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Landscape Management Plan



DesignInc Pty Ltd

Lindfield Learning Village
Eton Road, Lindfield NSW

18 December 2018

Landscape Management Plan

Lindfield Learning Village

Eton Road, Lindfield NSW

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Prepared for:

DESIGNINC PTY LTD

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ABBREVIATIONS

APZ	Asset Protection Zone
Council	Ku-ring-gai Council
DP	Deposited Plan
DoE	Department of Education
ha	hectare
IPA	Inner Protection Area
LGA	Local Government Area
MZ	Management Zone
NSW RFS	New South Wales Rural Fire Service
Subject Site	Land owned by DoE
Study Area	Total area for tree data collection

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1. INTRODUCTION

The proposed redevelopment of the old University of Technology Sydney (UTS) Campus and attendant Development Application (DA) are being administered for the Department of Education (DoE) by DesignInc Sydney Pty Ltd.

Kleinfelder have been engaged to prepare a Landscape Management Plan (LMP) for the Phase 1 development plan for the new school development, in accordance with the Bushfire Report prepared by Blackash Bushfire Consulting (August 2018, version 1.3).

This LMP satisfies the Vegetation Management Plan (VMP), the Bushfire Management Plan (BMP) and LMP conditions.

1.1 SCOPE

This LMP is a management plan for APZ construction and initial works (Phase 1) only. Kleinfelder has prepared this LMP for the site in July-August 2018. The scope of our study has focused on the subject site (DoE land) and extended out to the study area (including the pathway extension to the bus stop).

The study areas includes:

- establishment of a 100m APZ around Phase 1;
- installation of a new boundary fence,
- landscaped area to the north of the building for an outdoor play area;
- construction of a small footpath to the bus stop area north-east of the subject site;
- construction of a fire trail to the south of the building;
- Construction of the water hydrant ring main.

The LMP had been developed for the purpose of analysing the optimal tree retention and tree removal for the asset protection zones (APZ), and identifying the tree removal proposal. Further to this the LMP details the actions required for vegetation management, incorporates a baseline weed survey (**Appendix 2**, Kleinfelder 2018; EcoPlanning 2018), and threatened

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species management on site (**Appendix 3**). The LMP does not detail tree management on external properties (i.e. dealing with neighbouring APZ's), except for the proposed impacts associated with the footpath widening for bus stop access.

This LMP has been prepared in accordance with the following published guidelines and standards:

- *NSW RFS Standards for Asset Protection Zones* (2005);
- *NSW RFS Planning for Bushfire Protection* (2006/2017);
- *Ku-ring-gai Local Environmental Plan* (2015).

1.1.1 DPE Request for Information - December 2018

This report has further been updated following consultation with the NSW Department of Planning and Environment (DPE) in December 2018 (see **Appendix 5**).

Specifically, DPE requested the following to demonstrate compliance with Condition B13 of the Conditions of Consent:

- Inclusion of items as listed under Condition B13 either within the body of the LMP or attached as an Appendix (see **Table 1**).
- Inclusion of a consolidated landscape plan into the LMP.

Table 1: Compliance with Condition B13 of the Conditions of Consent

Condition		Response
B13. Prior to the commencement of vegetation removal, the Applicant must prepare a Landscape Management Plan to manage the revegetation and landscaping works on-site, to the satisfaction of the Planning Secretary. The plan must:		
A	Ensure no more than 872 trees are removed from the site.	See **Figure 1** and Landscape Plans by DesignInc (**Appendix 6**).
B	Identify all existing tree/shrub species to be retained (at least 228 trees must be retained).	See **Figure 1** and Landscape Plans by DesignInc (**Appendix 6**).
C	Have regard to the heritage setting of the site.	See Aconex Urbis Heritage Review (**Appendix 10**).
D	Have regard to the bush fire protection measures (B5 - B6).	See AR-T-1040 and AR-T-1047 of **Appendix 11**.
E	Include the entirety of the site (fire trails, footpaths, bus stop etc).	See **Figure 1** and Consolidated Landscape Plans by DesignInc (**Appendix 7**).
F	Identify existing natural features such as rock outcrops.	See **Section 2.6** and sheet LA-T-1001 under the Landscape Plans by DesignInc (**Appendix 6**).

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Condition		Response
B13. Prior to the commencement of vegetation removal, the Applicant must prepare a Landscape Management Plan to manage the revegetation and landscaping works on-site, to the satisfaction of the Planning Secretary. The plan must:		
G	Include contour lines and levels.	See Consolidated Landscape Plans by DesignInc (**Appendix 7**).
H	Include details of terracing or other slope stability measures.	See **Section 2.6** and Landscape Plans by DesignInc (**Appendix 6**).
I	Include details for managing stormwater runoff.	See **Section 2.7** and Erosion and Sediment Controls by EWFW Consulting Engineers (**Appendix 9**).
J	Include native grasses endemic to the locality.	See Landscape Plans by DesignInc (**Appendix 6**).
K	Detail the species to be planted on-site.	See Landscape Plans by DesignInc (**Appendix 6**).
L	Describe the monitoring and maintenance measures to manage revegetation and landscaping works.	See **Appendix 4**.
M	Include details of all boundary and internal fencing constructed of non-combustible materials.	See AR-T-1040 and AR-T-1047 of External Design Plans by DesignInc (**Appendix 11**), and EFSG Fencing Standards to be applied (**Appendix 8**).
N	Include details of any landscape furniture/structures such as seating, lighting etc.	See Landscape Plans by DesignInc (**Appendix 6**).

1.2 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The study area lies within the central-eastern area of the Sydney Basin Bioregion and is part of the Ku-ring-gai Local Government Area (LGA) (**Figure 1**). The bushland on the study area is contiguous with Lane Cove National Park, being used for recreation and educational purposes.

The study area is bounded by Lane Cover River National Park to the south, east and west, and existing residential development to the northern perimeters. The majority of the site is mapped as the Hawkesbury soil landscape. The northern part of the study area is mapped as the Lucas Heights soil landscape. Shallow soils and exposed sandstone are common surface features.

The subject site has existing UTS buildings within a natural bushland environment. The building has been dis-used for a period of time, and the bushland management has not been appropriately managed for bushfire asset protection purposes.

The proposed development would redevelop the existing UTS Lindfield Campus to a school, which is being approved in proposed 3 Phases, this current phase being Phase 1. Phase 1 will require the management of the bushland environment to meet the prescribed standards for Asset Protection Zones (NSW RFS 2005).

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To adequately plan for APZ management, a tree survey is required to ascertain the trees on site, their density, connectivity and selection for removal to meet the NSW RFS standards.

1.3 VEGETATION CLASSIFICATION

The existing environment for the UTS has overgrown landscape gardens (unmanaged – minimal management) and APZ's surrounding the building. The surrounding lands to the east and west have APZ management requirements associated with other development approvals. EcoPlanning (2017) provide detail the environment. Vegetation types are considered for the purpose of this LMP. The study area contains two natural vegetation communities and one area of modified vegetation:

1. Smooth-barked Apple - Red Bloodwood open forest on enriched sandstone slopes around Sydney and the Central Coast (ME64; PCT1776)
2. Dwarf Apple - Broad-leaved Scribbly Gum - Sydney Peppermint low open woodland on sandstone ridges with subtle enrichment in northern Sydney (ME67; PCT1782).
3. Cleared land exotics and exotic/non-indigenous plantings.

For any further information please see *Biodiversity Assessment Report (*Ecoplanning 2017).

1.4 HERITAGE

Known heritage values are associated with the Lindfield Learning Village include:

- The Lindfield Learning Village is a locally listed heritage building.

Heritage values within the APZ are assessed in this LMP.

1.5 TREE SURVEY

A tree survey was conducted throughout the study area to catalogue all trees. A Garmin 62S GPS was used to take the location of each tree that was recorded. The details of each tree recorded included:

- Tree species;

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- Approximate height of the tree;
- Diameter of the tree at breast height (DBH) in mm was split into 4 categories (10-20mm, 20-40mm, 40-80mm and 80+mm);
- Presence of hollows or Nest Boxes;
- Condition of the tree (dead, dying or has any dangerous limbs);
- Previous tagging; and
- Any other significant features.

The data was analysed using ArcGIS and presented as maps which will be used for ongoing consultation (**Figures 1-4**). Results are provided in **Appendix 14**.

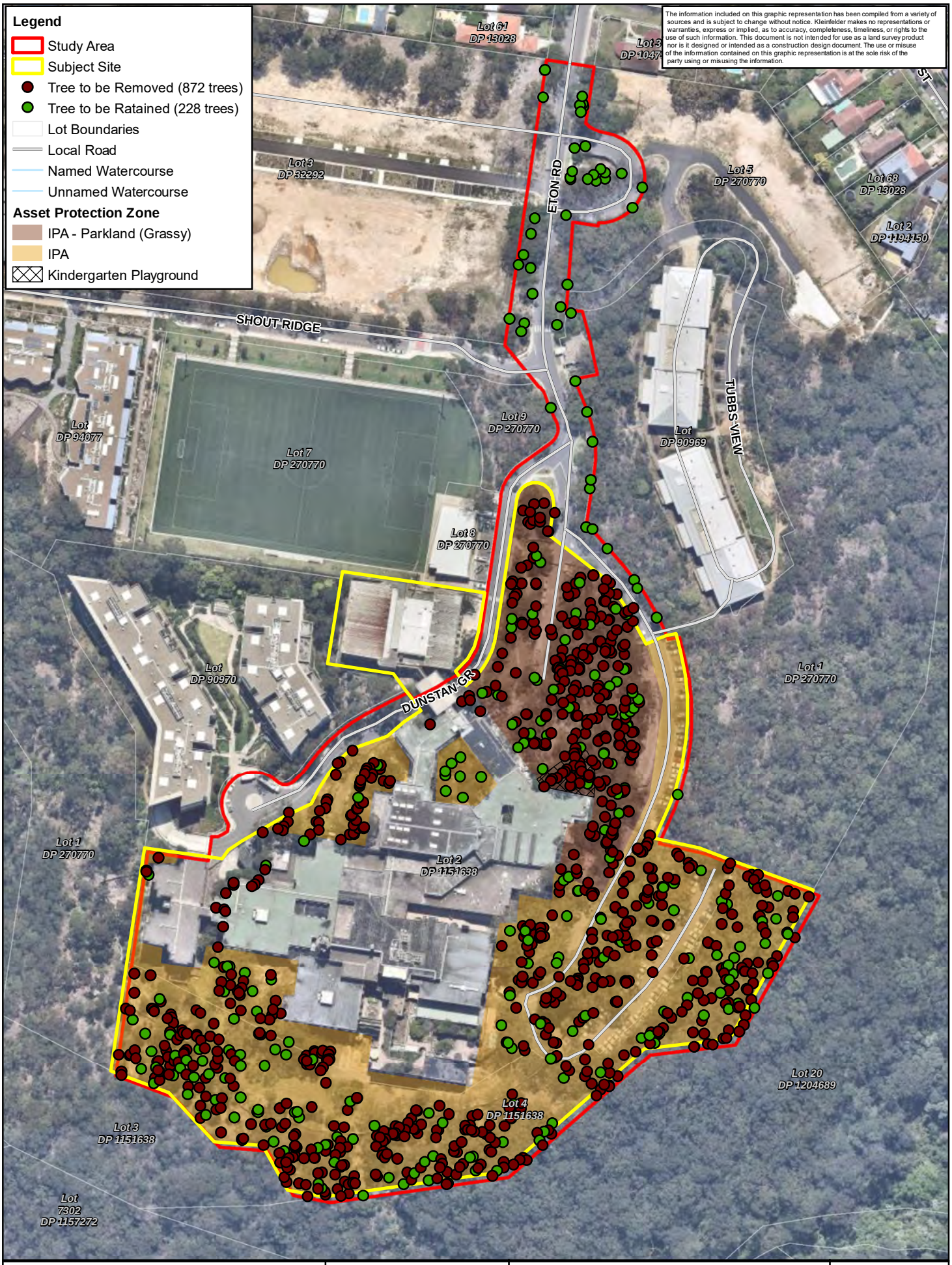
1.5.1 Tree Survey Assessment Limitations

All trees onsite were mapped using a Garmin GPS. Garmin's accuracy is between 3-4m when in good conditions but accuracy could drop further due to thick canopy cover. To mitigate this limitation there are three potential actions:

1. Moving of point/tree locations on the map (once surveyors have pegged locations of services to be constructed);
2. Removal of trees if they are impeding on any services (i.e. the Ring Main or Fire Trail) under direct supervision of onsite ecologist; and
3. Moving or relocation of services (i.e. fences or fire trail) around trees that are marked to be retained which will be supervised by the onsite ecologist.

To assist with the co-ordination of required tree removal, a project ecologist should oversee the clearing to ensure the correct outcome is achieved in line with this document.

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2. LMP OBJECTIVES AND ZONES

2.1 MANAGEMENT AIMS AND OBJECTIVES

The primary aim of this LMP is to provide a working document that will outline the actions and procedures required to:

- To identify trees to be removed or retained to ensure the APZ will meet the performance criteria set out under NSW RFS published documentation for APZ management (Standards for Asset Protection Zones, 2005);
- To provide a flexible data set to assist in ongoing planning and construction throughout the study area.
- While achieving the above, optimise the ecological functionality of the APZ and surrounding native vegetation areas, both during development and into perpetuity;
- Consider weed management;
- Consider threatened species interactions and management;
- Be consistent with the requirements of the Ku-Ring-Gai Council Local Environmental Plan (2015).
- Provide a works schedule to ensure the site meets its performance criteria in perpetuity.

2.2 MANAGEMENT ZONES

The site has been divided into five management zones (**Figure 5**) based on the landscape characteristics and planned APZ management and outcomes:

- **Management Zone (IPA Parkland):** This Management Zone will follow the same guidelines as IPA management (*an IPA should provide a tree canopy cover of less than 15% and should be located greater than 2 metres from any part of the roofline of a dwelling. Garden beds of flammable shrubs are not to be located under trees and should be no closer than 10 metres from an exposed window or door. Trees should have lower limbs removed up to a height of 2 metres above the ground (NSW RFS 2006). The vegetation for landscaping within IPA will eliminate potential fire ignition and spread sources by using/retaining specific species and total native tree and shrub cover should be retained*

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as clumps or islands and should maintain a covering of no more than 20% of the total area. Tree removal will take place to come into line with the standards of the NSW Rural Fire Services). Specifically, **the trees will be removed including stumps and ground roots to 150mm below finish level**, and ground cover within the IPA Parkland will be highly modified to a mown grassy parkland standard and garden beds with specific plant species (see Design Inc Partial School Materials, Finishes and Planting Schedules (Doc No. LA-T-1000) for transplanting onsite plants for garden beds and additional planting species) to eliminate ignition and spread sources (where possible include native grasses endemic to the locality). This area will form part of the landscaped area to the north of the building for an outdoor play area. (**See figure 5**).

- **IPA Management Zone (IPA):** The remaining IPA will provide a tree canopy cover of less than 15% and should be located greater than 2 metres from any part of the roofline of a dwelling. Garden beds of flammable shrubs are not to be located under trees and should be no closer than 10 metres from an exposed window or door. Trees should have lower limbs removed up to a height of 2 metres above the ground (NSW RFS 2006). The ground layer will be managed to less than 10cm on a regular (as-needed) basis. The vegetation for landscaping within IPA will eliminate potential fire ignition and spread sources by using/retaining specific species and total native tree and shrub cover should be retained as clumps or islands and should maintain a covering of no more than 20% of the total area. Tree removal will take place to come into line with the standards of the NSW Rural Fire Services (See figure 5). Specifically, **the trees will be removed by cutting at ground level and leaving root structures in place.**

- **Pathway Management Zone (PMZ):** The proposed path to the bus stop is on adjacent landholding. Within the pathway to the north all trees within the study area will be retained until clarification of this area is received in regards to tree removal. One tree has been highlighted for removal (tree #38, Brush Box).

2.3 SUBJECT SITE INFRASTRUCTURE REQUIREMENTS

Within the subject site area are the following proposed infrastructure:

2.3.1 Fire Trail

Construction of a fire trail to the south of the building will need to be done in conjunction with the design of the APZ clearing in relation to trees that are being retained. The site currently

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has ample space to construct a fire trail without additional tree clearance. The passage for the fire trail will require flexibility as set out in the assessment limitation Section 1.5.1.

The proposed Fire Trail is required to be suitable for NSW Rural Fire Service (NSWRFS) Category 1 type vehicles. Fire Trail Construction requirements are contained in the NSWRFS document Fire Trail Standards (2017) and for the proposed fire trail detailed in **Table 2**.

Table 2 Category 1 Fire trail Requirements

Requirement	Performance Criteria	Acceptable Solutions
Width	The width of the trail provides for safe, reliable and unobstructed passage by a Category 1 firefighting vehicle within acceptable operational limits.	› The trafficable surface has a width of 4 metres except for short constrictions to 3.5 metres for no more than 30 metres in length where an obstruction cannot be reasonably avoided or removed. › Curves have a minimum inner radius of 6 metres. The minimum distance between inner and outer curves is 6 metres.
Capacity	The construction and formation of the trail is trafficable under all weather conditions (other than due to flood, storm surge or snowfall) for a Category 1 firefighting vehicle.	› Trail surfaces and crossing structures are capable of carrying vehicles with a gross vehicle mass of 15 tonnes and an axle load of 9 tonnes.
Grade and Crossfall	The vertical profile of the trail provides for traction and safe working angle within the physical operational capability of a Category 1 firefighting vehicle. Note: This includes design that does not impede the undercarriage of a vehicle.	› The maximum grade of a trail is not more than 15 degrees. › The crossfall of the trail surface is not more than 6 degrees.
Clearance	A cleared corridor is provided around the trail which permits the unobstructed passage of a Category 1 firefighting vehicle and for a working corridor either side of the vehicle to enable firefighters to exit from, and access equipment in, the vehicle.	› A minimum vertical clearance of 4 metres is provided above the surface of the trafficable surface clear of obstructions.
Passing	The trail provides for two Category 1 firefighting vehicles to pass at appropriate intervals so as to avoid unacceptable delays in operations.	Capacity for passing is provided every 250 metres comprising: › A widened trafficable surface of at least 6 metres for a length of at least 20 metres; or › A 6 metre wide and 8 metre long area clear of the trafficable surface with a minimum inner curve radius of 6 metres and minimum outer radius of 12 metres; or › A turnaround as provided for in this table.
Turnarounds	The trail provides for a turning manoeuvre for a Category 1 firefighting vehicle to return in the direction from which it came at	A turning area is provided at the termination of a trail and every 500 metres and is achieved by: › An area clear of the trafficable

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Requirement	Performance Criteria	Acceptable Solutions
	appropriate intervals and at the termination of a trail.	surface 6 metres wide and 8 metres deep, with a minimum inner curve radius of 6 metres and outer minimum radius of 12 metres; or › A turning circle of minimum 22 metre diameter. › A T-junction with each terminating end of the junction being at least 10 metres in length from the intersection of the roads and the inner radius of that intersection being at least 6 metres › A fire trail or road intersection.
Drainage	The fire trail is drained effectively to manage rainfall runoff to prevent damage to the trafficable surface.	› Drainage of the trail is designed and constructed in accordance with the *NSW RFS Fire Trail Design, Construction and Maintenance Manual.*
Access	Access shall not be obstructed to use by firefighting services.	›Any installed gate must be operable by a single person and provide a clear area for passing of 4m. ›where gates are to be locked, access arrangements satisfactory to firefighting services must be provided.
Signage	Signage clearly identifying entry points to fire trails should be provided.	Fire trail signage installed conforming to *NSW RFS Standards for Fire Trails 2017 Appendix B*

Annual monitoring of the Fire Trail will be dependent on the NSWRFS determining that the Fire trail should be registered on the Fire Trail Register. Two possible scenarios exist;

1. The Fire Trail is not registered with the NSWRFS. The landowner will be responsible for carrying out regular monitoring of the Fire Trail condition and compliance with the required standard. Monitoring should be carried out, as a minimum, prior to the declared fire danger period. (usually October 1 to 31 March)

2. The Fire Trail is registered with the NSWRFS. The landowner will be responsible for providing an annual report to the NSWRFS as to the condition of the Fire Trail and compliance with the standards. By agreement with the NSWRFS, the annual inspection may be carried out by Officers of the NSWRFS.

Ongoing maintenance costs for the Fire Trail will be the responsibility of the Landowner unless funding is applied for and granted through the Hunters Hill, Ryde, Lane Cove, Willoughby Bush Fire Management Committee.

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Suitable arrangement must be put in place to ensure the ongoing management and availability of fire trails for fire management purposes by the Landowner.

2.3.2 Boundary Fence

The boundary fence will need to be constructed in relation to trees being retained. During surveying or construction of the fence a supervising ecologist will need to be present to determine either the location of the fence line or whether the proposed tree is to be removed. This will require flexibility as set out in the assessment limitation **Section 1.5.1**. The boundary and internal fencing are to be constructed with non-combustible materials rated to be BAL FZ.

2.3.3 Hydrant Main Line (Ring Main)

The water supply hydrant main line will need to be constructed in relation to trees being retained. During surveying or construction of the hydrant line a supervising ecologist will need to be present to determine either the location of the hydrant line or whether the proposed tree is to be removed. This will require flexibility as set out in the assessment limitation **Section 1.5.1**.

2.3.4 Kindergarten Play Area

All trees within the kindergarten play area to be removed during construction. This will require flexibility as set out in the assessment limitation **Section 1.5.1**.

2.3.5 Landscape Furniture

Details of any landscape furniture/structures such as seating, playground equipment etc are set out in Design Inc's Partial School Materials, Finishes and Planting Schedules (Doc No. LA-T-1000).

2.4 WEED MANAGEMENT

Weed management is considered in this LMP. Kleinfelder have prepared a Baseline Weed Survey which has been incorporated into this LMP (**Appendix 2**). Exotic flora species are found in low number across the subject site, except in areas of planting and in drainage lines. Where exotic species have naturalised or planted specimens have escaped garden beds into

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the bushland, they should be treated in accordance with the methods detailed by Ecoplanning (2018), incorporated into the Baseline Weed Survey (**Appendix 2**).

2.5 THREATENED SPECIES AND FAUNA MANAGEMENT

No threatened fauna species have been recorded in the subject site (EcoPlanning 2017), however management in accordance with this LMP includes mitigation measures for threatened species that potentially utilise the site (e.g. Powerful Owl) (see **Appendix 3**).

Further to threatened species, all fauna potentially impacted from the APZ implementation will be managed through the fauna displacement protocol (see **Appendix 4**).

2.5.1 Nest Boxes and Hollow Bearing Trees

The subject site has several trees with nest boxes installed and a potential hollow bearing tree present. These fauna habitat features were identified in the tree survey (**Appendix 14**), and will be adequately protected through the retention of that tree and the provision of a project ecologist supervision throughout the APZ clearing.

2.6 APZ ON SLOPES GREATER THAN 18 DEGREES

The NSW RFS make recommendations where APZ are located on slopes greater than 18 degrees. These slopes are difficult to maintain and have potential to be exposed to erosion issues. Sandstone boulders and cliffs are suitably stable and do not require actions, however, where slopes have exposed soils and are affected by drainage, it is recommended these slopes be terraced or landscaped, and be provided with suitable access to allow for ongoing maintenance. Rock features are in the South East of the subject site within the Natural Slopes to be retained area (Design Inc. Drawing No. LA-T-1001 and 1002) these rock features will be retained within the APZ area.

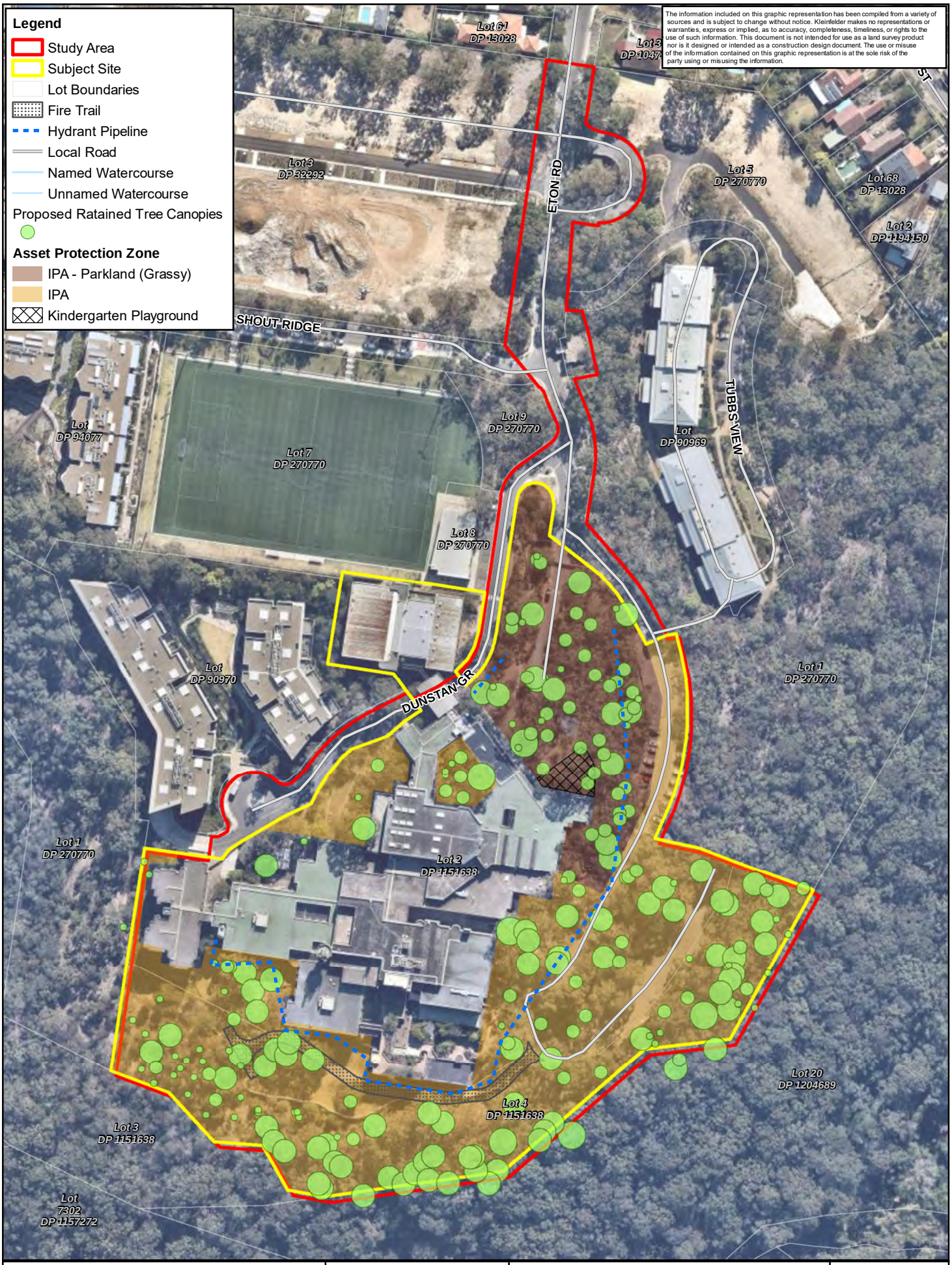
Maintenance for slopes that are greater than 18 degrees include only the use of hand held tools and hand held machinery. On slopes greater than 10 degrees slashing must not leave vegetation shorter than 10cm from the ground surface. When removing trees, the root structure of the removed tree must be left undisturbed. (NRFS 2006)

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2.7 EROSION SEDIMENT CONTROL

EWFW Consulting Engineers have designed an Erosion and Sediment Control Plan for the Lindfield Learning Village – Partial School. These plans are there to manage stormwater runoff throughout the site. (EWFW Consulting Engineers Plans No. C-0110-A, C-012-A, C-013-A, C-014-A, C-015-A, C-016-A and C-017-A).

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Metres
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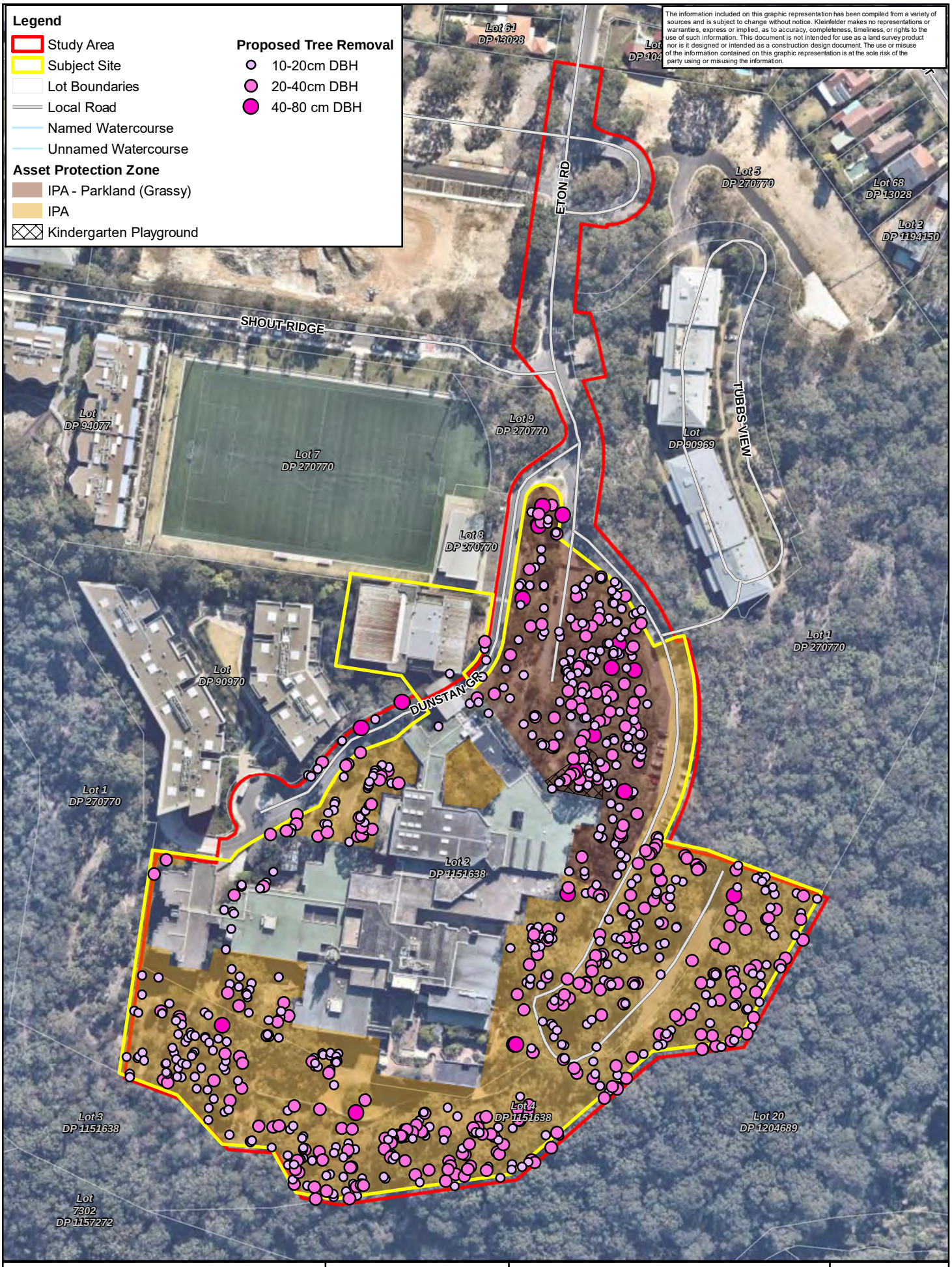
PROJECT REFERENCE: 20191317
DATE DRAWN: 18/10/2018 13:23 Version 9
DRAWN BY: gjoyce
DATA SOURCE:
NSW DFSI - 2017
nearmap - 2018

Proposed Retained Trees

DesignInc Sydney Pty Ltd
Landscape Management Plan
Lindfield Learning Village
APZ Landscape Management Plan

FIGURE:
2

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Metres
0 10 20 40 60 80 100
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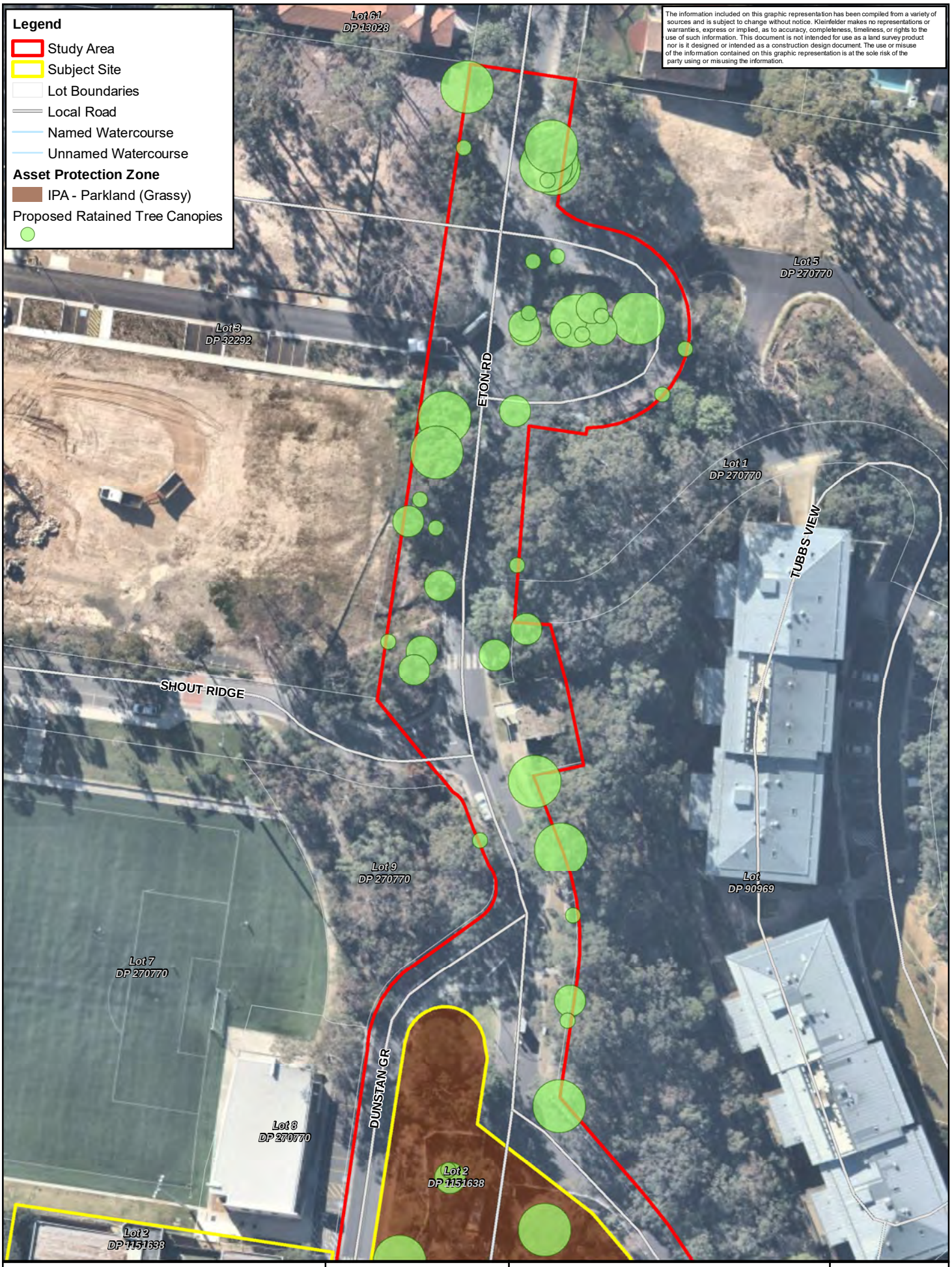
PROJECT REFERENCE: 20191317
DATE DRAWN: 18/10/2018 13:25 Version 9
DRAWN BY: gjoyce
DATA SOURCE:
NSW DFSI - 2017
nearmap - 2018

Proposed Tree Removal

DesignInc Sydney Pty Ltd
Landscape Management Plan
Lindfield Learning Village
APZ Landscape Management Plan

FIGURE:
3

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Metres
0 5 10 20 30 40 50
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PROJECT REFERENCE: 20191317

DATE DRAWN: 28/08/2018 09:11 Version 4

DRAWN BY: gjoyce

DATA SOURCE:
NSW DFSI - 2017
nearmap - 2018

Tree Locations and Proposed Retained Trees Around Footpath

DesignInc Sydney Pty Ltd
Landscape Management Plan
Lindfield Learning Village
APZ Landscape Management Plan

FIGURE:

4

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3. IMPLEMENTATION OF ASSET PROTECTION ZONES

3.1 IMPLEMENTATION OF ASSET PROTECTION ZONES

Clearing for APZ implementation, construction of fire trails, boundary fences, hydrant main line and kindergarten play area will occur concurrently.

All clearing of trees will be conducted under the supervision of a qualified and experienced Project Ecologist engaged by the Project Manager.

At completion, the clearing performance criteria is to be certified by a suitably qualified bushfire consultant (BPAD Level 3).

The NSW RFS provide documentation detailing performance criteria for APZs. The APZ dimensions extend from the external building elevation directly toward the bushfire hazard (bushland). Subsequently, the APZ would be managed in accordance with the NSW RFS *Standards for Asset Protection Zones* (2006), reducing fuel in the APZ through mechanical and manual methods.

For implementation of management actions time and performance criteria refer to **Section 5.**

3.1.1 APZ Vegetation Structure Management

The optimal vegetation structure within the APZ will be a woodland canopy over a managed sedge/grassland which is maintained to less than 100 mm in height at least once annually. Tree stumps will be removed at ground level in the IPA, and removed to 150mm below finish level in the IPA Parkland and play areas.

Initially, significant tree clearing and pruning will be required. A majority of the existing trees will be removed, focussing on smaller regrowth trees and retaining healthy, mature trees.

All vegetation green waste will need to be removed from the APZ unless and appropriate location can be determined by project manager, throughout the APZ implementation period. Stockpiles will not be acceptable when the school is occupied by students unless approved.

Ongoing fuel management will require annual monitoring and maintenance, reducing sedge/ grassland fuels to less than 100mm and separating any canopies by at least 2-5m. This would occur at least every September and once again before January (or as required).

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3.1.2 Clearing Protocols

Protocols have been developed to minimise the potential impacts of clearing on fauna, retained vegetation and heritage sites, weed infestation and threatened species within and adjacent to the study area. These protocols are detailed in **Appendix 1-3** and **14**.

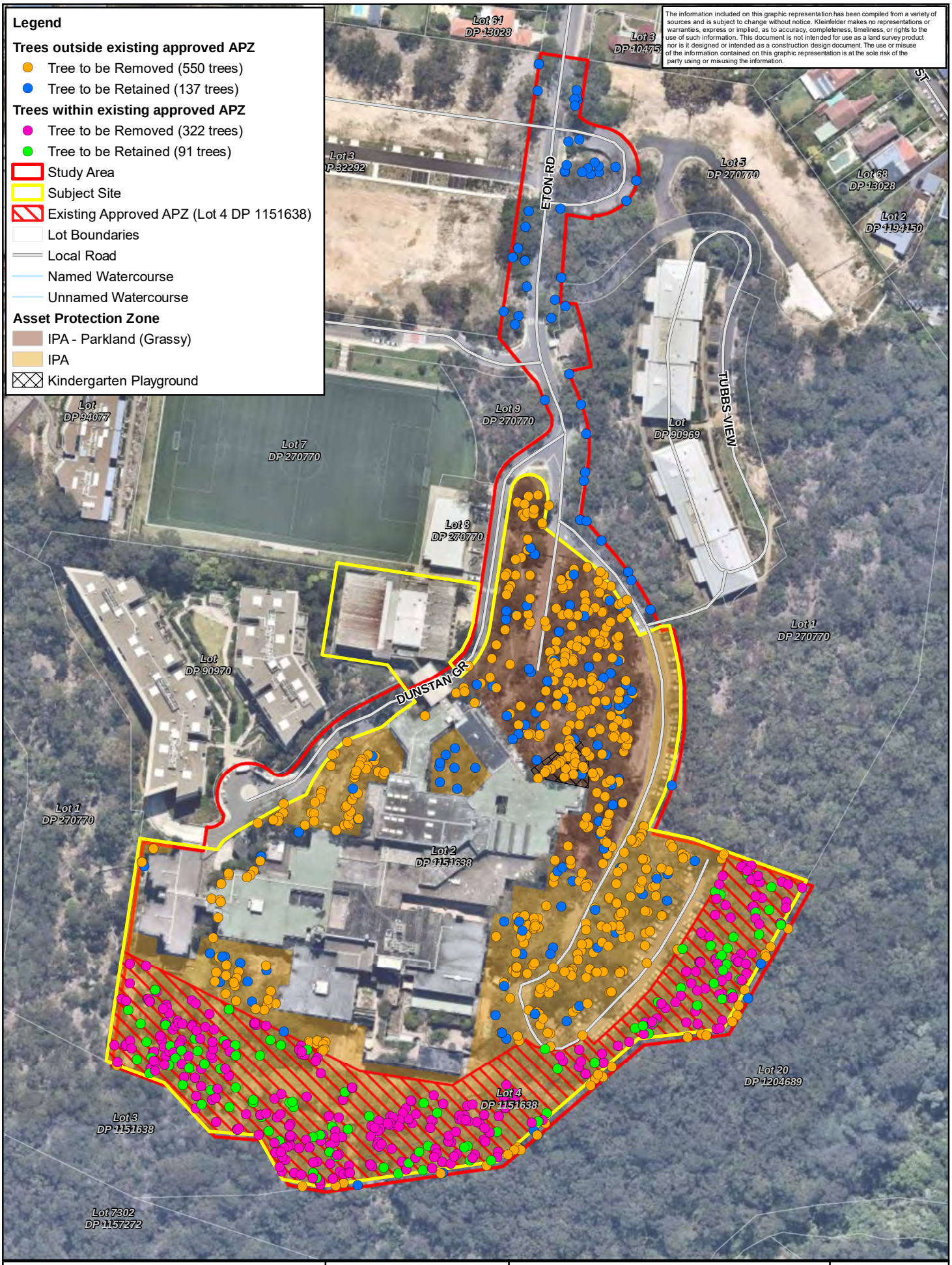
Tree removal will need to be conducted to avoid indirect impacts or impacts to retained trees (e.g. scarring, hanging limbs). Methodology of tree removal that avoids damaging of retained trees is detailed in **Appendix 1**.

Onsite Ecologists are to ensure that no more than 872 trees are removed from the site. To identify all existing tree/shrub species to be retained (228 trees to be retained).

Stumps will be cut to the ground level unless adequate planning provides alternate solution. The stumps are not necessarily a fire hazard but more alike an access issue or trip hazard.

The pre-clearing protocol requires the retained vegetation and subject site infrastructure to be surveyed and clearly delineated prior to the commencement of clearing. These zones will be confirmed by project ecologist prior to commencement of clearing.

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PROJECT REFERENCE: 20191317	Proposed Tree Retention & Removal - Existing Approved APZ
DATE DRAWN: 30/10/2018 13:04 Version 9	FIGURE: 5
DRAWN BY: gjoyce	
DATA SOURCE: NSW DFSI - 2017 nearmap - 2018 Cardno - 2018	DesignInc Sydney Pty Ltd Landscape Management Plan Lindfield Learning Village APZ Landscape Management Plan

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4. MONITORING AND REPORTING

4.1 MONITORING

Monitoring within the management zones will enable the site to be assessed against performance criteria and recommend specific actions to be prescribed for ongoing maintenance works. Monitoring will involve the project ecologist to observe the site attributes.

At each monitoring event the information will be collected through a site inspection across all areas, using the Monitoring Datasheet in **Appendix 4**.

Ongoing fuel management will require monitoring and maintenance, reducing sedge/ grassland fuels to less than 100mm and separating any canopies by at least 2-5m. This would occur at least every September and once again before January (or as required).

4.2 REPORTING

The following reports are required under this plan:

- A detailed daily log will be kept by the project ecologist, detailing where clearing occurred and any relevant information associated;
- If/when assessment limitations in **Section 1.5.1** have been acted upon and modifications have been made they need to be catalogued by the supervising ecologist; and
- Vegetation Clearing: Upon the completion of clearing, the project ecologist supervising clearing works will provide a letter/ report including the daily log.

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5. IMPLEMENTATION OF MANAGEMENT PLAN

Table 3: Management Actions, Timing and Performance Criteria

Item	Action	Performance criteria	Document reference	Timing/ Duration	Management Zone	Responsibility
APZ Site Delineation						
1.	Boundaries and subject site construction zones to be surveyed and delineated	Survey pegs are in place at reasonable intervals.	Section 2.3	Prior to LMP being activated	All Zones	-
VEGETATION CLEARING AND MANAGEMENT						
2.	Vegetation in IPA, (Parkland Grassy) managed to IPA standards,	Ground stratum removed to allow for managed grassy lawns. Tree stumps removed to 150mm below finish level. Retained trees accounted for onsite. Tree canopy pruned to less than 15% canopy cover. 2-5m Canopy separation.	Section 3.1	-	IPA Parkland	Arborist and project ecologist
3.	Vegetation in IPA managed to IPA standards,	Ground stratum managed to less than 100mm high. Tree canopy pruned to less than 15% canopy cover. Trees removed at ground level. 2-5m Canopy separation.	Section 3.1	-	IPA	Arborist and project ecologist

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Item	Action	Performance criteria	Document reference	Timing/ Duration	Management Zone	Responsibility
Reporting						
4.	Daily logs	All daily activities whilst onsite to be recorded.	Section 4	During the implementation of the APZ's.	All zones	Project ecologist
5.	Completion Report	A summary of all works that have occurred during the construction phase.	Section 4.2	Completion of the implementation of the APZ's	All Zones	Project ecologist
Monitoring						
6.	Ongoing monitoring to ensure fuel loads and vegetation structure meet APZ standards	Ongoing fuel management will require annual monitoring to recommend maintenance. Reducing sedge/ grassland fuels to less than 100mm and separating any canopies by at least 2-5m. Using the annual monitoring checklist (appendix 4)	Section 4	This would occur at least every September and once again before January (or as required).	All Zones	Project Ecologist or Bushfire Consultant

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APPENDIX 1. TREE CLEARING PROTOCOLS

PRE-CLEARING PROTOCOL

Prior to the commencement of any clearing within the study area, delineation (surveyed) of the clearing area and infrastructure routes will occur to ensure there are no accidental incursions. All delineation works will be confirmed by a registered surveyor engaged by the Construction Contractor.

CLEARING PROTOCOL

A suitably qualified and experienced Project Ecologist engaged by the Project Manager will supervise all vegetation clearing and relocate any displaced animals that cannot safely self-relocate into adjoining vegetation (see below for details of fauna displacement). The following methodology will be followed:

- The vegetation clearing team will require a site-specific induction prepared and delivered by the Project Ecologist, detailing vegetation to be removed, the process of removal, identification of tree and delineation, and the procedures to be followed;
- All vehicles are to remain on established trails and tracks where possible to minimise un-necessary soil disturbance;
- Vegetation will be cleared in a way that maintains tree integrity as specified and allows fauna living in or near the clearing site to move safely form the site to adjacent areas:
    - Clearing will occur from IPA parkland outwards towards IPA and then connecting external vegetation;
    - Clearing will occur in direction that ensures fauna species are directed away from threats such as roads and developed or disturbed areas (e.g. residential areas or cleared spaces > 100 m);
- Clearing of vegetation will be conducted in a manner that minimises the impact on retained hollow bearing habitat trees and heritage sites;

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- The clearing of the smaller wooded vegetation, lower shrub layer and ground layer shall be conducted by hand using tools such as brush cutters, chainsaws, and potentially a posi-track with a mulcher attachment mounted. All equipment shall be free of any material or soil from other sites (i.e. providing dedicated vegetation maintenance equipment is most desirable);

- Clearing of larger vegetation (trees) will be undertaken predominantly by chainsaw and wood-chipper (removing fuel load associated with trees, limbs and majority of mid shrub layer biomass from the APZ) and will avoid any topsoil disturbance where practicable;

- All green waste material generated during the clearing of vegetation within all the Management Zones must be removed from site or to an arranged stockpile location:

    - Small wooded vegetation that has been mulched by the posi-track can remain on site if the total volume of mulch remaining does not pose a significant fuel source;

- The Project Ecologist will prepare a letter/ report at the conclusion of all clearing works within the study area detailing works conducted against performance criteria, and an inventory of fauna species encountered during clearing.

FAUNA DISPLACEMENT PROTOCOL

Displacement of fauna may occur as part of the clearing process. All clearing will be supervised by a suitably qualified and experienced ecologist engaged by the project manager (Project Ecologist or fauna spotter catcher). The following protocol will be followed:

- If possible any fauna should be allowed to self-relocate if safe to do so, if necessary and safe to do so the animal will be captured, assessed and, if appropriate, released into a pre-agreed area;

- All fauna will be handled in such a way as to prevent injury to the animal and people and if necessary the animal should be kept in an appropriate container (calico bag, hessian sack, pet pack etc.) and nocturnal species released at dusk;

- Any microbats can be soft released, that is put in a nest box and allowed to self-relocate at dusk;

- If any animal is injured during the construction process, a veterinarian will be contacted immediately for professional advice on the best course of action;

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- If any native animal is injured during other operational/ construction processes while an ecologist, environmental representative or animal handler is not present, they must be contacted immediately; and

- If during clearing any protected species are injured or killed, the Project Ecologist will inform Ku-ring-gai Council immediately (same day as injury/ death).

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APPENDIX 2. BASELINE WEED SURVEY

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Baseline Weed Survey



DesignInc Pty Ltd

Lindfield Learning Village
Eton Road, Lindfield NSW

7 December 2018

Baseline Weed Survey

Lindfield Learning Village

Eton Road, Lindfield NSW

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Prepared for:

DESIGNINC PTY LTD

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Document Control:

Version	Description	Date	Author	Technical Reviewer	Peer Reviewer
1.	Draft for client review	7 December 2018	B.Deane	D.Pedersen	D.Pedersen

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1. INTRODUCTION

The proposed redevelopment of the old University of Technology Sydney (UTS) Campus and attendant Development Application (DA) are being administered for the Department of Education (DoE) by DesignInc Sydney Pty Ltd.

Figure 1 provides an aerial image of the proposed development site, located at Eton Road, Lindfield NSW 2070 (the subject site).

Kleinfelder have been engaged to prepare a Baseline Weed Survey (BWS) prior to clearing works for the Phase 1 new school development plan, in accordance with the project Construction Flora and Fauna Management Sub-Plan (FFMP) and Landscape Management Plan (LMP).

This BWS has been prepared to address comments received by the NSW Office of Environment and Heritage in relation to the project LMP, and the potential for weed infestations to spread onto the NPWS Land Cove National Park estate. The BWS will identify the extent of weed management works within the Phase 1 development footprint (including asset protection zone (APZ) implementation).

An onsite weed inspection was required (conducted on 4 December 2018) prior to APZ clearing conducted under the Linfield Learning Village (LLV) State Significant Development Application (SSDA).

1.1 SCOPE

The scope of this study has focused on the subject site (DoE land) footprint to be impacted by APZ clearing.

The proposed development includes:

- establishment of an APZ to property extent around Phase 1 of construction;
- installation of a new boundary fence,
- landscaped area to the north of the building for an outdoor play area;
- construction of a small footpath to the bus stop area north-east of the subject site;

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- construction of a fire trail to the south of the building; and
- construction of the water hydrant ring main.

This BWS has been prepared to provide a baseline weed occurrence and concentration outlined within the LLV site boundary, identifying areas where pre-clearing and ongoing weed management will be required and where APZ installation will need to be conducted in such a manner as to not propagate the spread of existing weeds within the LLV site boundary.

This document will further address the requirement to establish a visual weed buffer zone where the site borders on the Lane Cove National Park.

1.2 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The subject site is bounded by Lane Cove National Park to the south, east and west, and existing residential development to the northern perimeters. Shallow soils and exposed sandstone are common surface features.

The subject site has existing UTS buildings within a natural bushland environment. The building has been dis-used for a period of time, and the bushland management has not been appropriately managed, including weed control.

The proposed development would redevelop the existing UTS Lindfield Campus to a school, which is being approved in proposed 3 Phases, this current phase being Phase 1. Phase 1 will require the management of the bushland environment to meet the prescribed standards for Asset Protection Zones (NSW RFS 2005).

1.3 VEGETATION CLASSIFICATION

The existing environment for the UTS has overgrown landscape gardens (unmanaged – minimal management) and APZ's surrounding the building. The surrounding lands to the east and west have APZ management requirements associated with other development approvals. EcoPlanning (2017) have mapped two natural vegetation communities and one area of modified vegetation within the LLV site boundary:

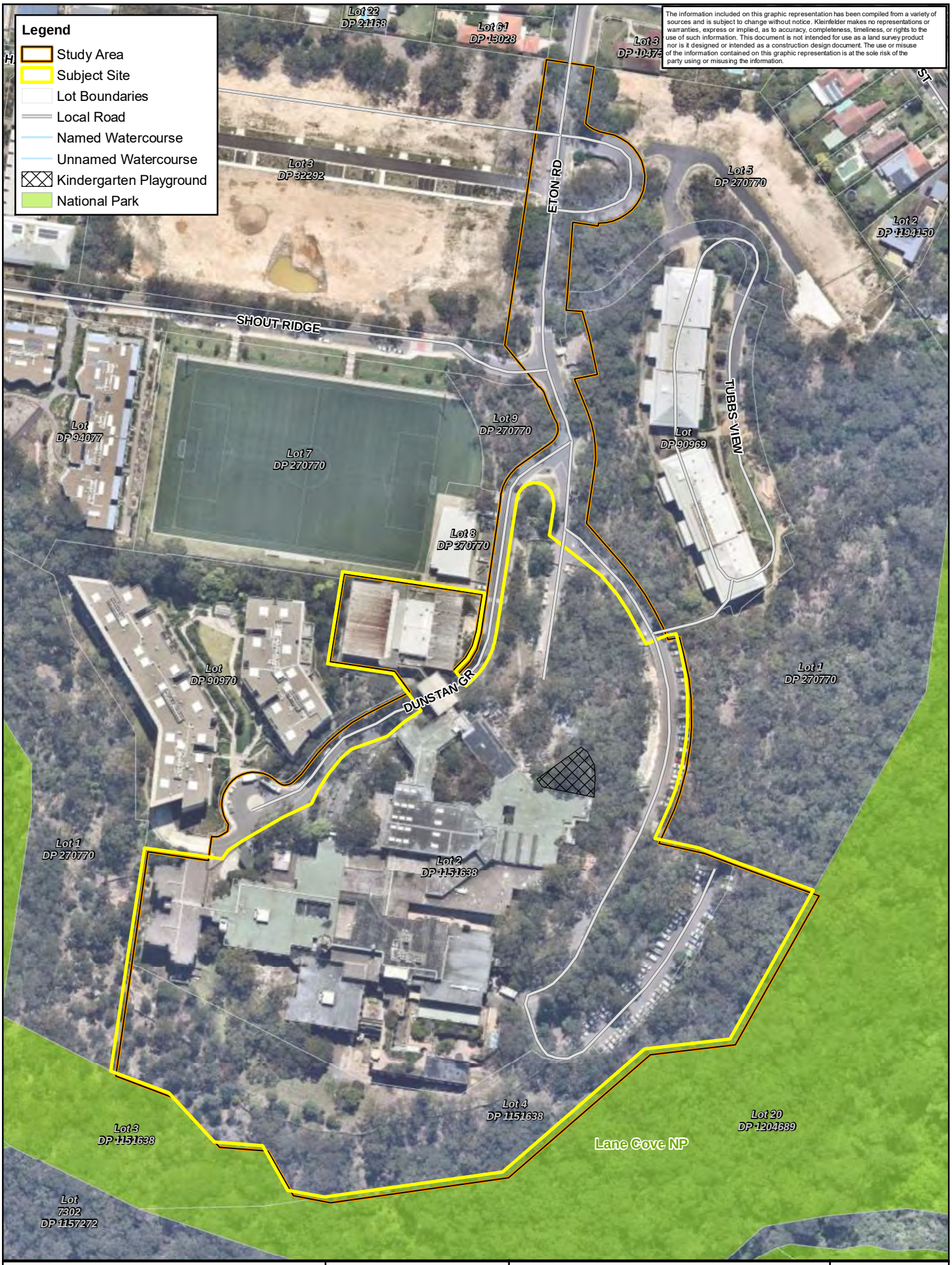
- Smooth-barked Apple - Red Bloodwood open forest on enriched sandstone slopes around Sydney and the Central Coast (ME64; PCT1776) – located upon sandstone outcrops to the southeast of the site.

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- Dwarf Apple - Broad-leaved Scribbly Gum - Sydney Peppermint low open woodland on sandstone ridges with subtle enrichment in northern Sydney (ME67; PCT1782).
- Cleared land exotics and exotic/non-indigenous plantings, which is captured in Management Zones C and E.

For further information please see the project *Biodiversity Assessment Report* (Ecoplanning 2017).

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NSW DFSI - 2017
nearmap - 2018

Subject Site

DesignInc Sydney Pty Ltd
Baseline Weed Survey
Lindfield Learning Village
APZ Landscape Management Plan

FIGURE:
1

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2. BWS OBJECTIVES AND ZONES

2.1 MANAGEMENT AIMS AND OBJECTIVES

The primary aim of this BWS is to provide a working document that will outline the actions and procedures required to:

- Identify the presence of all weeds within the boundaries of the subject land.
- Illustrate/mapping the distribution of weeds within the subject site.
- Provide recommendations for pre-clearing treatment and ongoing maintenance of weeds onsite.
- Prevent the propagation and spread of weeds during APZ installation into the adjacent Lane Cove National Park.

2.2 MANAGEMENT ZONES

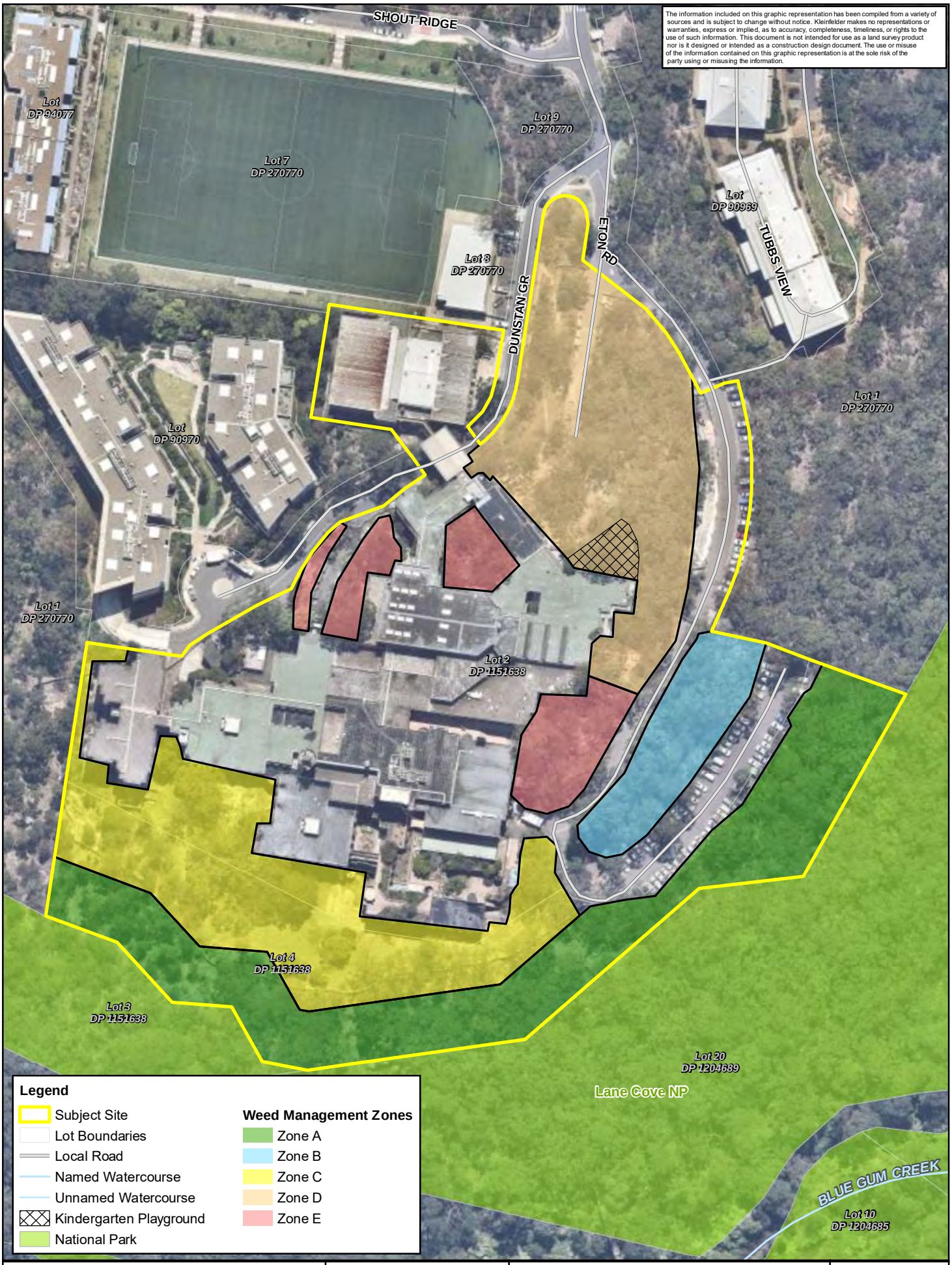
Five separate Management Zones have been delineated for the purposes of this assessment (see **Figure 2**). The area of each management zone has been determined based upon environmental sensitivity, method of APZ installation, current condition and level of management required. These Management Zones include:

- **Management Zone A:** Management Zone A denotes the 20m buffer between vegetation within the subject land and the adjacent Lane Cove National Park. Effective management and ongoing monitoring of this zone is essential to prevent the propagation of weeds into the adjacent National Park.
- **Management Zone B:** Management Zone B is located between the south-eastern carpark and the main site building. Management Zone B contains a high density of weeds within close proximity to drainage lines, and is bordered by open roads and carparking space. A lack of native groundcover means weed management will need to be undertaken in conjunction with erosion control in this zone.
- **Management Zone C:** Management Zone C is located within the existing perimeter fence line to the south of the former UTS buildings. Management Zone C contains a mixed of land cleared for construction, former landscaping vegetation and remnant vegetation.

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- **Management Zone D:** Management Zone D denotes the proposed Grassy Parkland Inner Protection Area (IPA). This area will be cleared for construction with ongoing maintenance expected as part of site landscaping works.
- **Management Zone E:** Management Zone E denotes the internal courtyard and vegetation to the north-west of the former UTS buildings.

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Legend

- Subject Site
- Lot Boundaries
- Local Road
- Named Watercourse
- Unnamed Watercourse
- Kindergarten Playground
- National Park

Weed Management Zones

- Zone A
- Zone B
- Zone C
- Zone D
- Zone E

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Management Zones

DesignInc Sydney Pty Ltd
Baseline Weed Survey
Lindfield Learning Village
APZ Landscape Management Plan

FIGURE:

2

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3. METHODOLOGY

3.1 DOCUMENT REVIEW

Kleinfelder have reviewed the project Biodiversity Assessment Report (BAR), prepared by Ecoplanning Pty Ltd (Ecoplanning 2017) to support the project Environmental Impact Statement (EIS). Weeds identified as part of surveys, including their location within the subject site, were noted to provide background information for the current assessment.

3.2 FIELD SURVEY

A field survey of the subject site was undertaken on 4 November 2018 by a Kleinfelder ecologist. Weed mapping was undertaken by walking, observing and recording locations using a Garmin™ 64S GPS unit.

It should be noted that GPS systems do not produce survey-accurate field records, with inaccuracies of up to 5m or more, particularly under dense canopy cover. However, this inaccuracy is not considered to detriment their use, as GPS recordings will illustrate the area in which a weed is found, supported by recommendations that weed management be undertaken by trained bush regenerators with knowledge of the weeds identified onsite.

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4. RESULTS

4.1 WEED SURVEY

A total of 19 weed species were identified during site surveys. See **Table 2** in **Appendix 1** for a list of weed species identified on-site and **Figure 3** for the distribution of these species within the subject site.

4.2 ZONE A (VISUAL WEED BUFFER)

Weed density within the 20m visual weed buffer zone (Zone A) was generally low, with the majority of weed presence limited to areas surrounding drainage lines from the subject site.

Ongoing monitoring of this zone will be required to ensure weed propagation into the adjacent Lane Cove National Park does not occur.

Two locations of sediment run-off through sediment and erosion controls from the subject site were observed in Zone A (See *Areas of Concern* in **Figure 3**). Inspection and replacement of sediment controls (when insufficient or damaged) must be conducted regularly as transfer of seed-containing sediment aids in weed propagation and spread.

4.2.1 Drainage Line Weed Density

Drainage lines contained high weed density (see *Areas of Concern* in **Figure 3**) in close proximity to the site boundary with the Lane Cove National Park, resulting from runoff and associated erosion. Treatment of weeds in these areas strictly within the subject site will need to occur prior to Zone A APZ installation to reduce the potential for weed spread propagation. This would include ensuring sediment controls are in place and adequate.

Ongoing monitoring of this zone will be required to ensure weed propagation into the adjacent Lane Cove National Park does not occur.

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4.3 ZONE B

Zone B was dominated by woody weeds (e.g. lantana, small-leaved privet, mickey mouse) as part of two large clumps surrounding drainage lines. The remainder of this zone contained a loose distribution of woody weeds such as hen and chicken and mickey mouse, with groundcover largely limited to ground asparagus and bare earth.

Ongoing management of this zone is essential for managing the spread of seed into Zone A and the adjacent Lane Cove National Park.

It is expected that woody weeds will be removed from this Management Zone during installation of the APZ. As such, treatment of this zone under the BWS will be as per Management Zones C – E. Subsequent management of groundcover and weed growth will occur during post APZ installation weed management and monitoring.

4.4 ZONE C

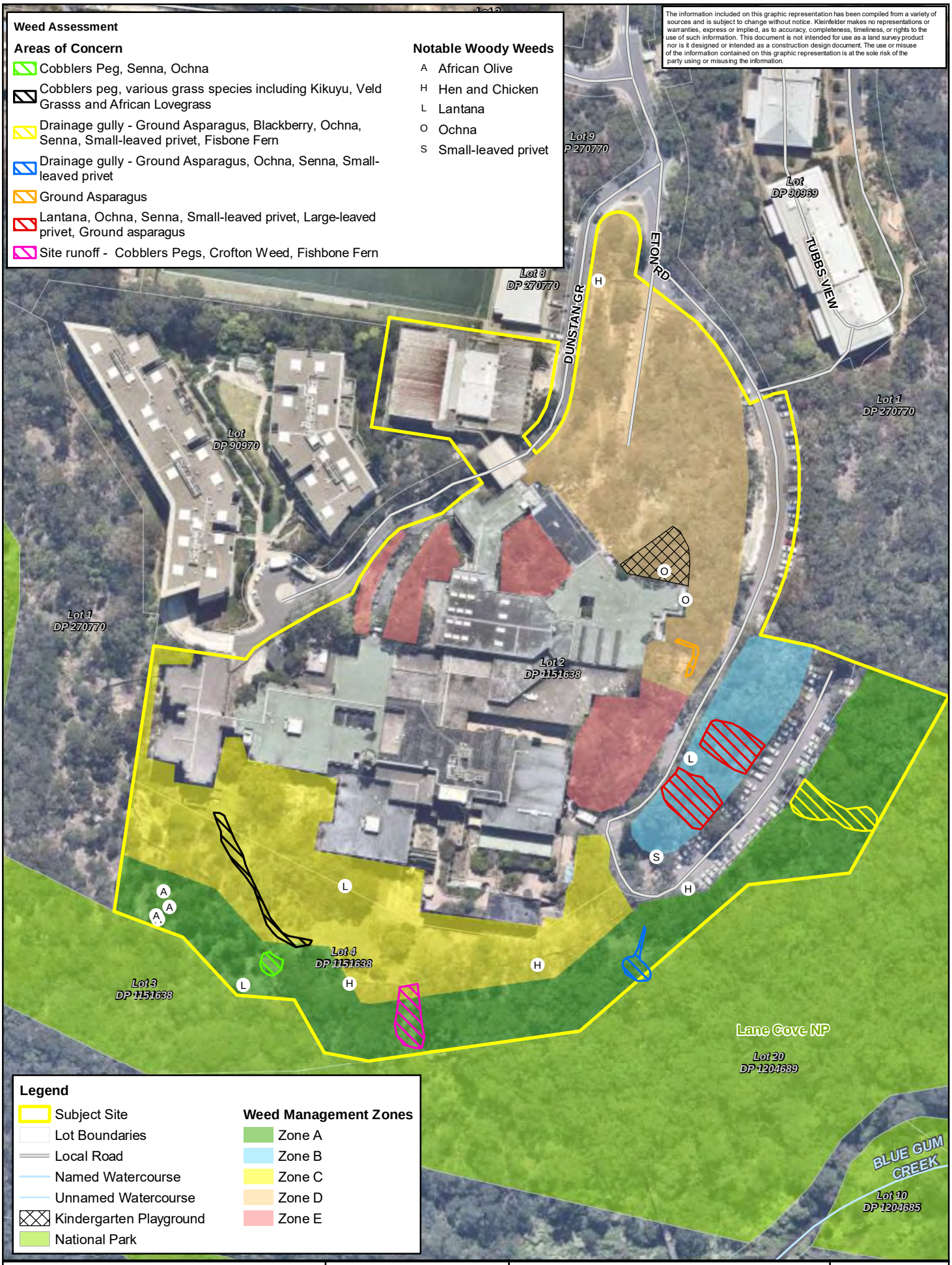
Zone C is dominated by a combination of exotic and native grasses surrounded by unmanaged garden beds containing both exotic and native woody vegetation. The absence of defined drainage lines between Zone C and Zone A (buffer zone) mitigate to need for urgent weed management. Weed infestation will be controlled via post APZ installation management and monitoring (see **Section 5.1.3**).

4.5 ZONES D & E

Zone D and E have been mapped separately due to differences in ongoing management. Zone D is to be managed as a grassy parkland while Zone E will be managed as a landscaped garden.

Both sites have a low prevalence of weeds throughout. One *Area of Concern* (**Figure 3**) containing a high density of ground asparagus is located within Management Zone D. This area is located within a concrete bound garden bed that will not be disturbed during APZ installation. Treatment of this area will occur during post APZ installation weed management works (see **Section 5.1.3**).

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DATA SOURCE:
NSW DFSI - 2017
nearmap - 2018

Baseline Weed Survey

DesignInc Sydney Pty Ltd
Baseline Weed Survey
Lindfield Learning Village
APZ Landscape Management Plan

FIGURE:

3

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5. RECOMMENDATIONS

5.1.1 Works Prior to Weed Control

Prior to any weed control works being undertaken the extent of Zone A will be delineated by para-webbing fencing (or similar) to prevent accidental intrusion into the adjacent Lane Cove National Park by bush regeneration personnel.

A site induction will be provided to works crews conducting the work, to ensure all personnel are award of the sensitivity of the site and species of weeds requiring treatment. The site induction will be provided by the project ecologist to the bush regeneration supervisor, who will thus be responsible for the actions of their crew.

Sediment and erosion controls surrounding existing drainage lines will be confirmed as secure/functional so that these areas do not provide passage for seed dispersal into the adjacent Lane Cove National Park.

5.1.2 Weed Control Prior to APZ Installation

Weed control works are to occur as per **Appendix 1**.

In summary, targeted weed control is to occur within Management Zone A prior to vegetation removal to manage the risk of weed propagation during vegetation modification. It is expected that all woody weeds will be manually removed during APZ installation outside of this zone, with ongoing control of weed regrowth occurring as part of the ongoing maintenance of the site APZ (see **Section 5.1.4**).

5.1.3 Weed Control Post APZ Installation

Weed control within the remainder of the subject site (Zones B-E) is to occur within 1-2 weeks following installation of the APZ, and scope of management required would be determined and monitored by the project ecologist.

5.1.4 Monitoring and Ongoing Management

A part of the project Partial Development Consent (SSD 8114), DoE (the proponent) must prepare an "*Operational Flora and Fauna Management Plan (OFFMP) in consultation with OEH*" (Condition D16).

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Results from this baseline survey will be utilised during the preparation of the OFFMP to adequately address weed management and monitoring at the Lindfield Learning Village, applying the following key considerations:

- Ensuring weeds located within the subject site boundary do not spread into the adjacent Lane Cove National Park. This will include specific attention given to BWS Management Zone A.
- Priority weeds as detailed within the Lane Cove / Ku-ring-gai region, will be specifically targeted within the subject site.
- Weeds of National Significance (WoNS) will be controlled.
- Weed control will occur on a progressive basis, with ongoing monitoring applied to gauge the success of control efforts and identify potential weed infestation establishment.

A works plan that will be applied with regards to weed management is provided in Appendix 1.

.

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6. REFERENCES

EcoPlanning (2017) *Biodiversity Assessment Report, Framework for Biodiversity Assessment – Lots 1, 2 and 4 // DP 1151638,* University of Technology, Ku-ring-gai Campus, Lindfield.

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APPENDIX 1: WORKS PLAN

The Bradley method described by Buchanan (1999) is recommended for weed control within remnant forest areas. This method aims to remove weeds with minimal disturbance and allow native species to re-establish naturally from the existing seed bank and rootstock. The following steps are to be followed when controlling weeds on the site:

1. The weed removal team will require a site-specific induction, to understand what weeds are to be removed, the process of removal, identification of the native species, and the procedures to be followed;
2. Manual weed removal. Where there is native understorey present, dominant weeds will need to be manually treated within Zone A where possible;
3. Weed vegetative material collected during weed control activities is to be take offsite (where practical) to prevent re-establishment. This material is to be taken to an appropriate waste disposal centre to prevent further weed spread in the region;
4. Chemical weed control. Chemical should be applied only where application to larger weeds can be isolated (i.e. no broad application). No spraying should be conducted in ecologically sensitive areas of the site (i.e. high potential of spraying native species or non-target plants).

For concentrations and dosage rates on targeted chemical control, refer to the NSW Department of Primary Industries *New South Wales Weed Control Handbook* (2018). Any weed spraying should be conducted by an authorised person, having a Chemical Application Certificate or similar qualification. This would ensure that best practice is adhered to in consideration of the ecological sensitivities adjoining the subject site.

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Table 1: The Weed Management Strategy prepared by EcoPlanning (2018), included into the LMP, provides treatment in accordance with the following methods

Weed type	Treatment
Tall annual herbaceous weeds	Tall herbaceous weeds are to be kept at low levels and treated prior to seeding where possible. Treatment of herbaceous weeds prior to seeding will ensure the gradual reduction of the sites weed seed bank over the management period. Techniques considered appropriate in controlling herbaceous weeds onsite include (as required and appropriate): • Spot spraying • Slashing • Hand removal
Woody weeds	Primary and secondary woody weeds are to be treated by cut/scrape and painting with neat Roundup Biactive®, accordingly. *Rubus fruticosus* should initially be removed in areas of high resilience, and where it is smothering native mid-storey growth. Woody weeds should be treated in degraded areas as a lower priority. All woody weed biomass should be neatly piled and retained onsite as habitat. Large expanses of woody weeds should be evaluated for their habitat values prior to primary removal. Juveniles woody weeds are to be treated by hand removal or careful spot spraying with a Metsulfuron-methyl based herbicide where appropriate.
Exotic grasses and monocots	Exotic grasses are to be treated throughout the site, with areas of high resilience receiving first priority. A combination of hand removal, careful spot spraying and broad scale blanket spraying will be utilised. *Ehrharta erecta* should be sprayed with a low glyphosate solution (e.g. 0.2%), which will allow for careful spot spraying amongst native species.
Exotic vines	Exotic vines are to be maintained at low levels and skirted from all mid-storey and canopy species throughout the site. Techniques considered appropriate in controlling exotic vines weeds on site include (as required and appropriate): • Hand weeding • Scrape and painting • Spot spraying

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Table 2: Weeds identified within the subject site and preferred treatment method

Scientific Name	Common Name	Management Zone	Weed Type (see Table 1 above for treatment)
Lantana camara	Lantana	Zone A, Zone B, Zone C	Woody
Sida rhombifolia	Paddy's Lucerne	Zone A, Zone C, Zone D, Zone E	Herbaceous
Phyllanthus tennellus	Hen and Chicken	Zone A, Zone B, Zone C, Zone D	Woody
Nephrolepis cordifolia	Fishbone fern	Zone A, Zone C, Zone D	Other (treat as per 'Exotic grasses and monocots')
Conzya sp.	Fleabane	All zones	Herbaceous
Ochna serrulata	Mickey Mouse	Zone A, Zone B, Zone C, Zone D	Woody
Ligustrum sinense	Small-leaved privet	Zone A, Zone C	Woody
Eragrostis curvula	African lovegrass	Zone A, Zone C	Exotic grasses and monocots
Olea europaea subsp. cuspidata	African olive	Zone A	Woody
Asparagus virgatus	Asparagus fern	All Zones	Exotic grasses and monocots
Ageratina adenophora	Crofton weed	Zone A, Zone B, Zone C	Other (treat as per 'Exotic grasses and monocots')
Bidens pilosa	Cobblers Pegs	All zones	Herbaceous
Andropogen virginicus	Whiskey Grass	Zone A, Zone C	Exotic grasses and monocots
Cenchrus clandestinus	Kikuyu	Zone A, Zone B, Zone C, Zone D	Exotic grasses and monocots
Erhata erecta	Panic Veldgrass	Zone A, Zone B, Zone C, Zone D	Exotic grasses and monocots
Lugustrum lucidum	Large-leaved Privet	Zone A, Zone C	Woody
Solanum nigrum	Black-berry Nightshade	Zone A, Zone D	Herbaceous
Acacia saligna	Golden wreath wattle	Zone C	Woody
Rubus fruticosus species aggregate	Blackberry	Zone A	Woody

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LINDFIELD LEARNING VILLAGE BASELINE WEED CONTROL WORKS PLAN DEC 2018					
Item	**Action**	**Timing**	**Performance Criteria**	**Area**	**Responsibility**
Prior to weed control					
Site delineation.	Installation of Para webbing fencing to clearly delineate works area, and ensure no entry occurs into NPWS Lane Cove National Park.	Prior to weed control in Management Zone A	Works area clearly delineated using Para webbing fencing (or similar)	Management Zone A	Site Manager / Project Ecologist
Induction	Induct personnel involved in weed removal, highlighting target weed species, sensitive weed removal is to be undertaken in preference to spraying where possible and highlighting that no personnel are to enter the adjacent National Park.	Prepared prior to weed control in Management Zone A. Induction is to be given to each new supervisor conducting bush regeneration works as required.	Personnel do not stray into adjacent National Park and limit off target damage.	Management Zone A	Project Ecologist / Bush regeneration supervisor
Drainage Line Management	Confirm downslope sediment controls within subject site as required when potential for of erosion and seed deposition into NPWS is apparent.	Prior to weed control, immediately prior to and following rainfall	Suitable sediment controls in place to control sediment run-off	Management Zone A	Site Manager / Project Ecologist
Actions to be Undertaken Prior the Installation of APZ ZONE A					
Weed Management	Weed control for species listed as occurring in 'Zone A' under **Table 2** as per methods outlined in **Table 1**.	Prior to APZ installation in Management Zone A	Treatment of all 'areas of concern' identified on **Figure 3**. Formation of buffer with identified weeds treated between the Lane Cove National Park and subject site.	Management Zone A	Project Ecologist
'Areas of Concern' Management	Targeted weed control for species within drainage lines as shown on **Figure 3** using methods outlined in **Table 1**.	Prior to APZ installation in Management Zone A	Treatment of weeds growing in drainage lines to provide for ongoing management of regrowth and seed stock.	'Areas of Concern' Management Zone A.	Project Ecologist
Actions to be Undertaken Prior the Installation of APZ ZONES B-E					
No action proposed. Weed management will be specifically targeted post clearing.					

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LINDFIELD LEARNING VILLAGE BASELINE WEED CONTROL WORKS PLAN DEC 2018					
Item	**Action**	**Timing**	**Performance Criteria**	**Area**	**Responsibility**
Actions to be Undertaken During the Installation of APZ					
Weed identification	Where the project ecologist notes potential for works to spread weed infestations works will stop and one of two methods will be adopted: 1. Adoption of different removal technique. 2. Stop work and treat weeds prior to continuation.	Ongoing during installation of site APZ.	Material with potential to spread weeds (e.g. fruit, root system) removed from site.	All Zones.	Project Ecologist
Foreign material control	Ensure all vehicles involved in APZ installation free of material with the potential to contain seed.	Ongoing during installation of site APZ.	-	All Zones.	All personnel.
Avoid weed propagation.	Confirm downslope sediment controls as required when potential for of erosion and seed deposition following clearing on slopes is observed.	Ongoing during installation of site APZ.	-	All Zones.	Site Manager
	All vegetation green waste will need to be removed from the APZ unless an appropriate location can be determined by project manager.	Ongoing during installation of site APZ.	-	All Zones.	Site Manager / Clearing personnel
	Vehicle access within the APZ will be managed to avoid areas of weed cover so as not to provide a suitable vector of propagation.	Ongoing during installation of site APZ.	-	All Zones.	Project Ecologist / Clearing personnel
	The project ecologist will maintain effective communication with arborists to establish progressive work zones. No clearing is to be undertaken outside the prescribed zone without confirmation with the project ecologist.	Ongoing during installation of site APZ.	-	All Zones.	Project Ecologist / Clearing personnel
Actions to be Undertaken within 1-2 Weeks following APZ Installation					
Weed Control	Weed control for species listed as occurring in Zone B, Zone C, Zone D and Zone E under **Table 2** as per methods outlined in **Table 1**.	Within 1-2 weeks following complete installation of LLV APZ	Treatment of all 'areas of concern' identified on **Figure 3**. Treatment of all weeds onsite with targeted	Management Zones B – E.	Project Ecologist / Bush regeneration supervisor

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LINDFIELD LEARNING VILLAGE BASELINE WEED CONTROL WORKS PLAN DEC 2018					
Item	**Action**	**Timing**	**Performance Criteria**	**Area**	**Responsibility**
			75% cover reduction of mature presence.		
Monitoring / Management					
Site Monitoring	Monitoring of weeds within the subject site.	Every 6 months following APZ installation for minimum of 3 years. Annual monitoring thereafter.	Any weed infestation recorded and presented in mapping with supporting letter.	All Zones	Project Ecologist until otherwise confirmed
Weed Control (Zone A)	Control of weeds within the 20 m buffer from Lane Cove National Park.	Within 3 months following APZ installation then as per below.	Formation of buffer zone that is free of weeds between the subject site and Lane Cove National Park.	Zone A	Project Ecologist until otherwise confirmed
Weed Control (all Zones)	Control of weeds onsite as per the New South Wales Weed Control Handbook (2018).	Every 6 months for a minimum of 3 years, with annual monitoring thereafter. Areas of focus will be determined during monitoring assessments.	Eradication of mature weeds onsite. Control of regrowth from seed bank.	All Zones	Project Ecologist until otherwise confirmed

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APPENDIX 2: STAFF CONTRIBUTIONS

The following staff were involved in the compilation of this report.

Name	Qualification	Title/Experience	Contribution
Dan Pedersen	BSCEngTech GIFireE, BDAP-A	Senior Ecologist/ Botanist Bushfire Consultant	Report preparation and review
Brad Deane	B.BioCons, M.WIdMgt	Ecologist / Environmental Consultant	Field surveys, report and figure preparation

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APPENDIX 3: STATEMENT OF LIMITATIONS

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The findings and conclusions contained within this report are relevant to the conditions of the site and the state of legislation currently enacted in the relevant jurisdiction in which the site is located as at the date of this report.

Additionally, the findings and conclusions contained within this report are made following a review of certain information, reports, correspondence and data noted by methods described in this report including information supplied by the client or its assigns. Kleinfelder has designed and managed the program for this report in good faith and in a manner that seeks to confirm the information provided and test its accuracy and completeness. However, Kleinfelder does not provide guarantees or assurances regarding the accuracy, completeness and validity of information and data obtained from these sources and accepts no responsibility for errors or omissions arising from relying on data or conclusions obtained from these sources.

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APPENDIX 4: LICENSING

Kleinfelder employees involved in the current study are licensed or approved under the *Biodiversity Conservation Act 2016* (License Number: SL100730, Expiry: 31 March 2019) and the *Animal Research Act 1985* to harm/trap/release protected native fauna and to pick for identification purposes native flora and to undertake fauna surveys.

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APPENDIX 3. THREATENED SPECIES MANAGEMENT

Although no threatened fauna has been surveyed on the subject site, the site has potential to provide habitat for such species. The Powerful Owl is a known species for this location, and many micro-bats utilise the habitat provided. The fauna displacement protocols in **Appendix 1** provide an overall management strategy for all fauna species potentially occurring on site during the APZ implementation works. Further, for the additional management of threatened fauna:

- No clearing should occur during the early evening or at night (i.e. when most fauna species are active and likely to be active);
- Hollow-bearing trees that have been identified will be protected through the actions of the Clearing Protocol (**Appendix 1**);
- On all occasions, trees having potential habitat hollows, nest boxes, or nests will be protected from impacts.

Threatened flora has not been surveyed on the subject site, however *Darwinia biflora* is recorded adjacent to the site, and has potential to occur due to habitat values. This species can be identified through its foliage, and the attending Project Ecologist will be aware and familiar with the plant for identification purposes.

Although highly unlikely, if any threatened species are found on site, the Project ecologist would appropriately manage through either relocation (fauna) or seeking advice from the Project Manager of resolution of a threatened flora being identified.

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APPENDIX 4. LANDSCAPE AND FUEL MONITORING DATASHEET

This data sheet provides an annual (or as required) account of the landscape and vegetation retention and fuel loading elements across the Lindfield Learning Village APZ area.

Each monitoring event will record the performance and recommend actions for any element not meeting the performance. The completion will be recorded after recommendations have been actioned.

Date:	Name: Company

Monitoring Data

APZ Landscape Element	Performance Criteria	Recommended Action	Completed Action (Y/N)
Retained tree health	Designated and numbered trees (228) remain in place. Expect there may be some tree mortality and succession. Dead trees to be recorded and be replaced by same species (seedling). Dangerous limbs to be recorded and removed by arborist.		
APZ – tree canopy	Minimum 2-5m separation between tree canopies or clumps. Where canopy connection creates a link between canopies or clumps, separation will be required using arborist to prune limbs. Maximum 15% canopy cover within the APZ.		
APZ - ground fuel loads	Ground fuels managed to 100mm height (fine fuels associated with grasses, shrubs, sedges etc.). Managed through slashing, mowing or brushcutting prior to the bushfire season (before October annually). Monitoring of ground fuels to be conducted in January, prior to school year commencing.	October: January:	
Vegetation impact on pathways	Vegetation obstructions on pathways to be kept clear of pedestrians.		

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APZ Landscape Element	Performance Criteria	Recommended Action	Completed Action (Y/N)
	Tree pruning as required to achieve 2-3m height clearance and 1-2m cleared width from pathways.		
Erosion and sediment deposit	No active erosion or sedimentation on the APZ. Any identified areas of sediment erosion or deposition will be recorded.		
Vegetation impact on fire hydrants	All fire hydrants will be clear of obstruction for a minimum distance of 1m (such as storage material, trees and shrubby vegetation etc). All hydrants to be confirmed.		
Fire trail standard	The fire trail will meet minimum specifications as detailed in LMP Section 2.3.1 (**Table 2**).		
Vegetation impact on fencing	School fencing will have a minimum 1m separation (height and width) from standing vegetation (2m wide corridor clear of trees and shrubs). Tree pruning by arborist may be required.		

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APPENDIX 5. SAVILLS RESPONSE TO CONDITION B13

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3 December 2018

Savills Project Management Pty Ltd
ABN 59 129 012 700

Level 25, Governor Phillip Tower
1 Farrer Place, Sydney NSW 2000
T: +61 (0) 2 8215 8888
F: 02 8215 8828
savills.com.au

Rebecca Willott
Senior Project Director
Department of Education
259 George Street
Sydney NSW 2000

SSDA Application Number: SSD16_8114
Lindfield Learning Village – Condition B13 Landscape Management Plan_Rev 1d

Dear Rebecca,

SSD Condition:

Landscaping

B13. Prior to the commencement of vegetation removal, the Applicant must prepare a Landscape Management Plan to manage the revegetation and landscaping works on-site, to the satisfaction of the Planning Secretary. The plan must:

(a) ensure no more than 872 trees are removed from the site;
(b) identify all existing tree/shrub species to be retained (at least 228 trees must be retained);
(c) have regard to the heritage setting of the site;
(d) have regard to the bush fire protection measures (B5 - B6);
(e) include the entirety of the site (fire trails, footpaths, bus stop etc);
(f) identify existing natural features such as rock outcrops;
(g) include contour lines and levels;
(h) include details of terracing or other slope stability measures;
(i) include details for managing stormwater runoff;
(j) include native grasses endemic to the locality;
(k) detail the species to be planted on-site;
(l) describe the monitoring and maintenance measures to manage revegetation and landscaping works; and
(m) include details of all boundary and internal fencing constructed of non-combustible materials;
(n) include details of any landscape furniture/structures such as seating, lighting etc.

Document Reference:

Document	Dated	Issued to DPE
Kleinfelder Landscape Management Plan	18th October 2018	1 November 2018
DesignInc Landscape Plans LA-T-0000 – 5500	18th October 2018	1 November 2018
EWFW Erosion and Sediment Control Plans C-011 to C-017	Issue A	1 November 2018

DesignInc External Works Plan AR-T-1040 to AR AR-T 1047	9th August 2018	1 November 2018
LMP Certification_BlackAsh	31st October 2018	2 November 2018
Aconex Urbis Heritage review of Landscape Plans	24th October 2018	1 November 2018
Kleinfelder Landscape Management Plan	12th November 2018	15 November 2018
LMP Certification_BlackAsh	15th November 2018	15 November 2018
EFSG fence detail specification	Not dated	15 November 2018

Savills Review:

Savills has reviewed the Landscape Management Plan and the supporting documents as submitted and outlined in the table above, and appended, in conjunction with the scope required as outlined in the SSD Conditions of Consent B13. In our opinion, the information provided adequately addresses the condition.

Please confirm the Department's concurrence with the above, after which, please forward on to DPE if required as noted below.

Please note we have issued this package to the certifier for their records and action as required.

Conditions Compliance:

The following items are satisfied by the documents below:

B13a) Refer Design Inc Landscape drawings and Figure 1 Landscape Management Plan
b) Refer Design Inc Landscape drawings and Figure 1 Landscape Management Plan
c) Refer Aconex Urbis Heritage review of Landscape Plans dated 24th October 2018
d) DesignInc External Works Plans AR-T-1040 to AR-T-1047 illustrate the access road upgrades required for B5. Section 4.3.1 refers to the fire trail required for B6. Also shown on AR-T-1046 and AR-T-1045.
e) LMP Figure 1 includes the entire site
f) Refer to Section 2.6 of LMP and rock outcrops are identified on Design Inc Landscape Plans LA-T-1001 highlighted in yellow
g) Contour lines and levels are identified on Design Inc Landscape Plans
h) Refer to Section 2.6 of LMP
i) Refer Section 2.7 of the LMP
j) Refer Design Inc Landscape drawings
k) Refer Design Inc Landscape drawings
l) Refer Appendix 4 of the LMP
m) Refer Design Inc External Works Plan AR-T-1040 to AR AR-T 1047, EFSG fence specification will be used for design guidelines.
n) Refer Design Inc Landscape drawing LA-T-1000

Issue to:

Department of Education					
For Approval	YES				
Planning Secretary					
For Approval:	YES				
Private Certifying Authority					
For Information:	YES				

RESPONSE TO DPE Comments:

DPE response 7 November 2018:

1. e) Figure 2 shows that most of the site is covered by the red line (study area). Why is the area in the centre of the figure below the sporting field excluded?
2. h) provide detail about which areas are required to be terraced?
3. k) Are only 4 species listed in LA-T-1000 to be used in landscaping on site?
4. l) section 4.1 is incomplete and missing information to be collected at each monitoring event.
5. m) details of fencing are not provided.
6. Pg 7 – states all trees would be retained in the IPA Heritage Zone. Table 2 page 20 allows for trees within the heritage zone to be removed at ground level. The management of trees in the Heritage zone needs to be clarified and consistent.
7. Appendix 1 – tree survey has a lot of trees listed as N/A under the retain column. What does this mean or relate to?

Savills Response 15 November 2018:

1. e) Figure 2 in LMP has been amended to include the gymnasium building.
2. h) No terracing to slopes greater than 18 degrees is anticipated at this time and hence has not been shown on the plans. This will be reconfirmed at completion of vegetation works and the commencement of the maintenance of the APZ and included in the requirement at Condition D16.
3. k) Yes, only the 4 species listed in LA-T-1000 will be used on the landscaping on site.
4. l). Appendix 4 of the LMP has been updated to include a monitoring data sheet.
5. m) Refer DesignInc External Works Plan AR-T-1040 to AR AR-T 1047 and EFSG fence specification will be used for design specification guidelines.
6. There are no IPA heritage zones on site, reference has been removed in 12 November 2018 revised LMP.
7. This was a typo, reference has been removed in revised 12 November 2018 LMP.

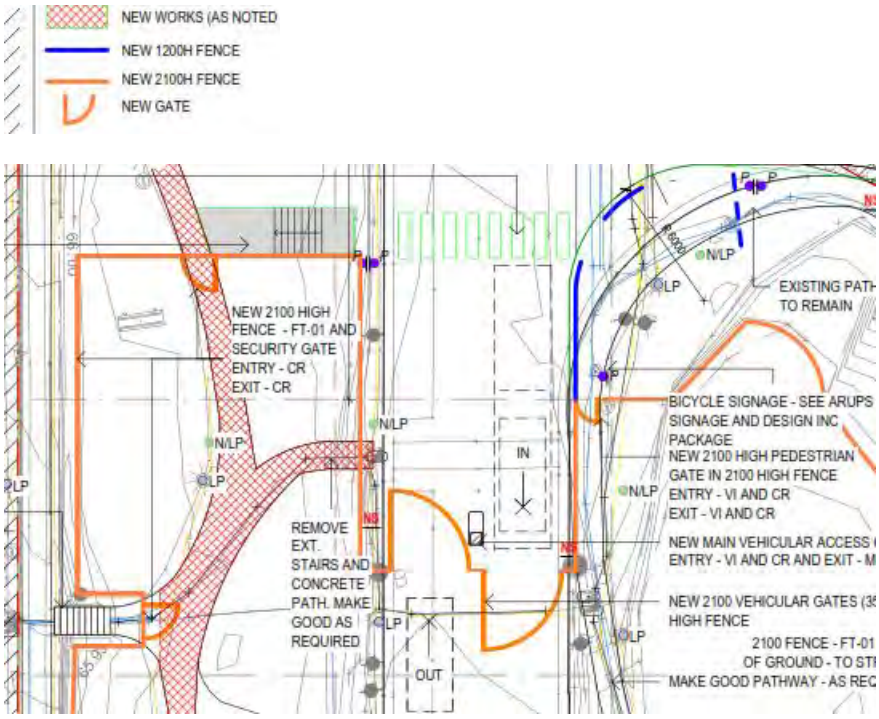
DPE response 30 November 2018:

Snippet from email dated 30 November 2018:

Condition #	DPE Comment
B13 Landscape Management Plan	Documentation received and to be reviewed by DPE. **Further information required**: • Landscape plans showing the fencing details and all of the requirements as stated by Condition B13.

Savills Response (date of this letter):

Issued under B13 were AR-T-1040 to AR-T-1047 which show the fence line and have the following key to indicate the same.



Further, we have responded to all of the B13 a – n requirements as follows, snippet from Savills letter dated 15th November 2018.

Conditions Compliance:

The following items are satisfied by the documents below:

B13a) Refer Design Inc Landscape drawings and Figure 1 Landscape Management Plan
b) Refer Design Inc Landscape drawings and Figure 1 Landscape Management Plan
c) Refer Aconex Urbis Heritage review of Landscape Plans dated 24th October 2018
d) DesignInc External Works Plans AR-T-1040 to AR-T-1047 illustrate the access road upgrades required for B5. Section 4.3.1 refers to the fire trail required for B6. Also shown on AR-T-1046 and AR-T-1045.
e) LMP Figure 1 includes the entire site
f) Refer to Section 2.6 of LMP and rock outcrops are identified on Design Inc Landscape Plans LA-T-1001 highlighted in yellow
g) Contour lines and levels are identified on Design Inc Landscape Plans
h) Refer to Section 2.6 of LMP
i) Refer Section 2.7 of the LMP
j) Refer Design Inc Landscape drawings
k) Refer Design Inc Landscape drawings
l) Refer Appendix 4 of the LMP
m) Refer Design Inc External Works Plan AR-T-1040 to AR AR-T 1047, EFSG fence specification will be used for design guidelines.
n) Refer Design Inc Landscape drawing LA-T-1000

Yours sincerely,



Sasha Serrao
Project Manager
Savills Project Management

CC: Andrew Kyraicou – Department of Education
Jim Lewis - Department of Education
Robert Walker – Savills Project Management
Stewart Boyce – BCA Logic Pty Ltd
Sarita Ellison - BCA Logic Pty Ltd

APPENDIX 6. LANDSCAPE PLANS (DESIGNINC, 2018)

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LINDFIELD PARTIAL SCHOOL DEVELOPMENT LANDSCAPE PACKAGE

DRAWING LIST

DWG NO.	REV	DRAWING NAME
LA-T-0000	B	PARTIAL SCHOOL COVER SHEET AND DRAWING REGISTER
LA-T-1000	A	PARTIAL SCHOOL MATERIALS, FINISHES AND PLANTING SCHEDULES
LA-T-1001	B	PARTIAL SCHOOL LANDSCAPE TREE PROTECTION PLAN AND OVERALL LANDSCAPE PLAN (SHEET 1 OF 2)
LA-T-1002	B	PARTIAL SCHOOL LANDSCAPE TREE PROTECTION PLAN AND OVERALL LANDSCAPE PLAN (SHEET 2 OF 2)
LA-T-1003	A	PARTIAL SCHOOL DEMOLITION PLAN
LA-T-2010	B	PARTIAL SCHOOL KINDERGARDEN OUTDOOR PLAY LANDSCAPE PLAN
LA-T-2011	B	PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 1 OF 5)
LA-T-2012	B	PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 2 OF 5)
LA-T-2013	B	PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 3 OF 5)
LA-T-2014	B	PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 4 OF 5)
LA-T-2015	B	PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 5 OF 5)
LA-T-5100	A	PARTIAL SCHOOL TYPICAL PLANTING DETAILS
LA-T-5200	A	PARTIAL SCHOOL TYPICAL DETAILS
LA-T-5300	A	PARTIAL SCHOOL SEATING SOFTFALL DETAILS
LA-T-5400	A	PARTIAL SCHOOL PLAY ELEMENTS DETAILS
LA-T-5500	A	PARTIAL SCHOOL PLAY ELEMENTS DETAILS 2

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Figured dimensions take preference to scale readings. Verify all dimensions on site. Report any discrepancies to the Architect for decision before proceeding with the work.

Nominated Architects

Anthony Quan 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

No	DATE	REVISIONS	BY
A	12/10/2018	PRELIMINARY TENDER ISSUE	IC
B	19/10/2018	DRAWINGS UPDATED	IC

ARCHITECT

DesignInc| Lacoste + Stevenson| bmc2
architects in association

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Architecture Urban Design Interiors

CLIENT

PROJECT: LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE: PARTIAL SCHOOL COVER SHEET & DRAWING REGISTER

N

DRAWN BY	IC
SCALES	NTS @ A1
PLOT DATE	12/10/2018
PROJECT Nº.	P18-023
REVISION	B
DRAWING Nº.	LA-0000

DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
FOR INFORMATION ONLY	MR		18/10/2018

QUALITY CERTIFIED ISO 9001

Completion of the Drawing Status is evidence the design has been verified as conforming to the requirements of the Project M.S. Plan. Initialling the "Drawn By" box confirms that this drawing has been prepared in conformity with DesignInc Sydney M.S. procedures.

FOR INFORMATION ONLY

LINDFIELD PARTIAL SCHOOL MATERIALS AND FURNITURE SCHEDULE

CODE	DESCRIPTION	PRODUCT	FIXING	INSTALLATION	SUPPLIER	QTY	LOCATION	REF IMAGE
MATERIAL								
-	SANDSTONE BLOCK	SANDSTONE BLOCKS FOR SEATING AND RETAINING WALL (NEW AND EXISTING RECLAIMED FROM SITE) SIZE: 500W x 450H WITH MINIMUM LENGTH AT 1000mm	ON GRADE	BY CONTRACTOR	RECLAIMED FROM SITE + NEW AS REQUIRED	CONFIRM ON SITE	PLAYGROUND	
-	SANDSTONE BOULDER	SANDSTONE (NEW AND EXISTING RECLAIMED FROM AROUND LINDFIELD SITE) SIZE: MAX 2000W x 2000L x 700H, MIN 500W x 500L x 600H	ON GRADE IN SANDPIT	BY CONTRACTOR	RECLAIMED FROM SITE + NEW AS REQUIRED	4 (2000W x 200W x 700H) 4 (MIX DIMENSION MIN HEIGHT 600H) 6 (500W x 500W x 600H) VARIATIONS TO SIZES MAY BE ACCEPTED - TO BE APPROVED BY LANDSCAPE	AROUND TREES	
FURNITURE								
BUB	BUBBLER	WALLSEND PATTERN BUBBLER TROUGH WITH MIN 5 BUBBLER OUTLETS. ALLOW 400mm DISTANCE BETWEEN EACH. MODEL B6 19/N	AS PER MANUFACTURERS INSTRUCTIONS AND IN ACCORDANCE TO EFSG'S STANDARD SG603/3	BY CONTRACTOR	MARKO STAINLESS STEEL	1 TROUGH WITH 5 BUBBLERS	REFER TO PLAN	
BIN	GARBAGE BIN	MONSOON BIN CAPACITY: 80L	ON SUBSTRATE ON GRADE	BY CONTRACTOR	STREET FURNITURE AUSTRALIA OR EQUIVALENT	3	REFER TO PLAN	
-	BIKE PARKING	RECLAIMED BIKE PARKING	AS PER MANUFACTURERS INSTRUCTIONS & IN ACCORDANCE WITH AS2890.3	BY CONTRACTOR	RECLAIMED FROM SITE	CONFIRM ON SITE	REFER TO PLAN	
PLAY EQUIPMENT								
DL	DRESSED LOG FROM SYDNEY BLUE GUM TREES REMOVED AND SALVAGED FROM SITE	SELECTED TREE TRUNKS SALVAGED FROM SITE TO BE DRESSED AND SEALED FOR USE AS PLAY AND SEATING ELEMENTS	FIXED TO GROUND	BY CONTRACTOR	RECLAIM FROM SITE	AS REQUIRED	REFER TO PLAN	

LINDFIELD PARTIAL SCHOOL FINISHES SCHEDULE

CODE	DESCRIPTION	PRODUCT	SUPPPLIER	SUBSTRATE
-	SOIL MIX A	NATIVE LOW 'P' MIX	AUSTRALIAN NATIVE LANDSCAPE	IN RAISED PLANTER
-	RECLAIMED SOIL	RECLAIMED SOIL FROM SITE	RECLAIMED	ON GRADE
TE	TIMBER EDGE	TIMBER HARD WOOD	BY CONTRACTOR	ON GRADE
SA	SAND	WASHED NEWCASTLE PLAY SAND	BY CONTRACTOR	IN SANDPIT
PAV 1	CONCRETE TYPE 1	PLAIN CONCRETE BROOM FINISHED	BY CONTRACTOR	ON GRADE
PAV 2	COLOUR CONCRETE TYPE 1	COLOUR OXIDE CONCRETE PAVING COLOUR: TBA	CATHAY INDUSTRIES	ON GRADE
PAV 3	COLOUR CONCRETE TYPE 2	COLOUR OXIDE CONCRETE PAVING COLOUR: TBA	CATHAY INDUSTRIES	ON GRADE
PAV 4	COLOUR CONCRETE TYPE 3	COLOUR OXIDE CONCRETE PAVING COLOUR: TBA	CATHAY INDUSTRIES	ON GRADE

LINDFIELD PARTIAL SCHOOL PLANTING SCHEDULE

Botanical Name	Common Name	HEIGHT RANGE	POT SIZE	QTY
TREES				
Eucalyptus saligna	Sydney Blue Gum	30m	200L	3
GRASS / GROUND COVER				
Dianella caerulea	Blue Flax Lily	0.3-0.5m	140mm	
Lomandra juncus	Spiny-Head Mat-Rush	0.5-0.6m	140mm	
Xanthorrhoea resinosa	Grass Tree	0.5-0.9m	140mm	

NOTE:
INFILL PLANTING QUANTITIES AND SPECIES TO BE CONFIRMED ON SITE WITH LANDSCAPE ARCHITECT. REFER TO DETAIL 03/LA5100
ALL MATERIALS TO BE BAL FZ RATED.

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No	DATE	REVISIONS	BY
A	12/10/2018	PRELIMINARY TENDER ISSUE	IC
B	19/10/2018	REVISION AS CLOUDED	IC
C	25/10/2018	ISSUE FOR PLANNING SUBMISSION	IC

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LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

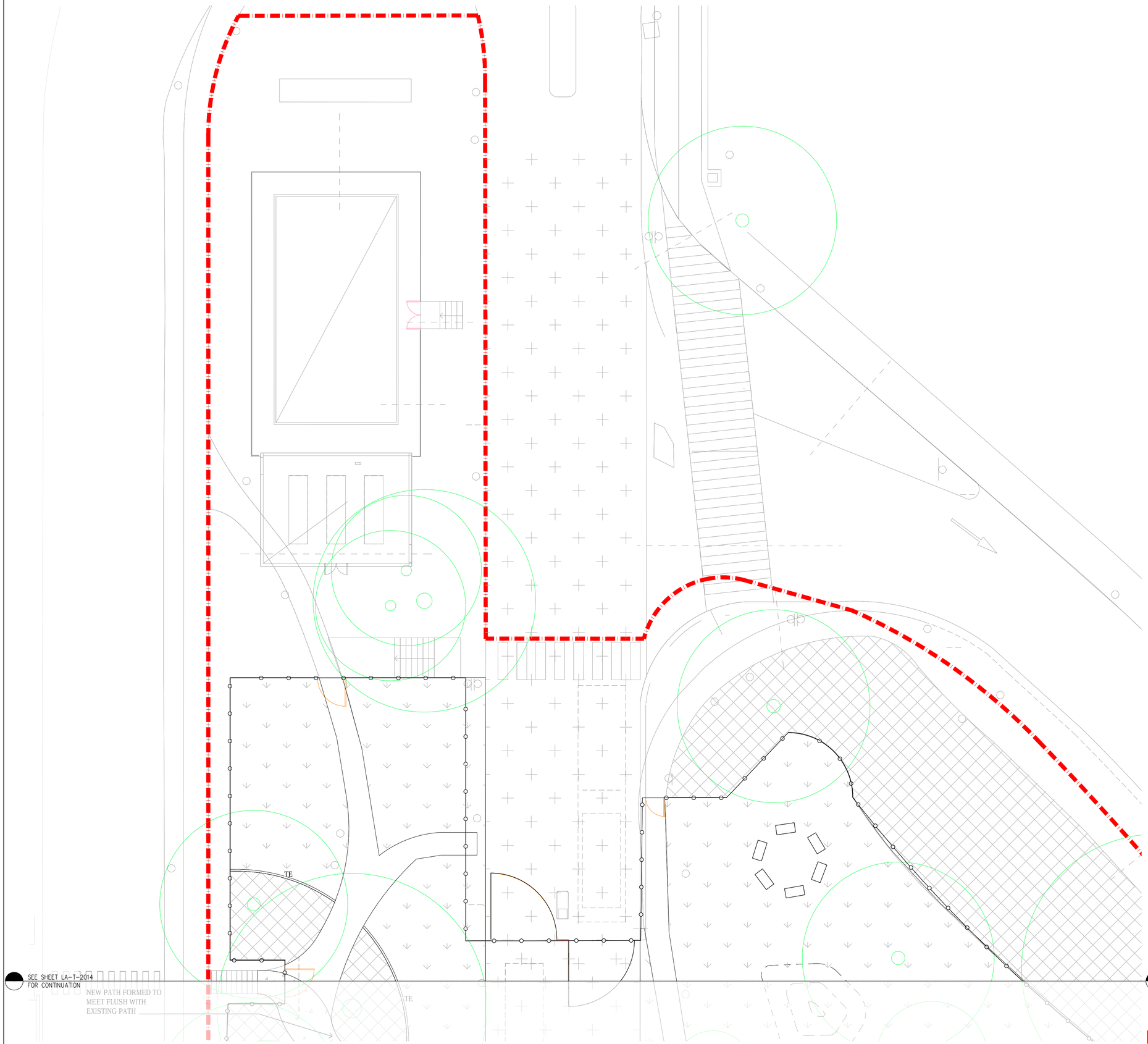
TITLE
PARTIAL SCHOOL MATERIALS, FINISHES AND PLANTING SCHEDULES

DRAWN BY	IC
SCALES	NTS @ A1
PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
DRAWING Nº.	**LA-T-1000**
REVISION	C

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LEGEND

- EXTENT OF LANDSCAPE WORKS
- FENCE REFER TO ARCHITECT'S DETAIL
- EXISTING TREE TO BE RETAINED
- PROPOSED TREE
- PAV 1 — PLAIN CONCRETE BROOM FINISHED
- PAV 2 — COLOUR CONCRETE TYPE 1
- PAV 3 — COLOUR CONCRETE TYPE 2
- PAV 4 — COLOUR CONCRETE TYPE 3
- ALL CONCRETE FINISHES TO ENGINEER'S DETAIL
- SA — SAND
- PLANTER BED WITH TRANSPLANTED PLANTS FROM SITE AND ADDITIONAL PLANTING REFER TO PLANTING SCHEDULE FOR SPECIES
- GROUNDCOVER PLANTING UNDER TREES
- EXISTING ASPHALT
- TURF - BUFFALO GRASS
- SE — SANDSTONE BLOCK SEAT
- SW — SANDSTONE WALL
- PT — OVERSIZED PLANTER - VEGETABLE GARDEN TO BE PLANTED BY SCHOOL PROVIDE SOIL MIX ONLY
- DL — LOG RETRIEVED FROM SITE SANDED TO REMOVE SHARED EDGES, ROUGH FACES AND POTENTIAL SPLINTER AREAS
- TE — TIMBER EDGE
- BIKE RACK (RECLAIMED FROM SITE OR AS REQUIRED)
- BUB — WATER BUBBLER
- BIN — NEW GARBAGE BIN

NOTE:
ALL TREE REMOVALS TO BE CONFIRMED ON-SITE WITH ARBORIST PRIOR TO ANY TREES BEING REMOVED.

TREES WILL BE CUT TO GROUND LEVEL. FOR ALL PLAY AND TURF AREAS, TAKE OUT STUMPS AND GROUND ROOTS TO 150mm BELOW FINISH LEVEL. IN OTHER AREAS RETAIN STUMPS AND ROOTS.

ANY TREES OUTSIDE SITE BOUNDARY TO BE RETAINED.

ALL MATERIALS TO BE BAL FZ RATED. PROTECT ALL EXISTING VEGETATION TO BE RETAINED.

CONTOURS ARE AS SUPPLIED BY SITE SURVEY.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE LANDSCAPE MANAGEMENT PLAN AND ARBORIST REPORT. ADVISE THE PROJECT MANAGER AND LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THESES DOCUMENTS AND DRAWINGS FOR RESOLUTION BEFORE COMMENCING WORKS.

MOUND LOCATIONS MAY BE ADJUSTED ON SITE AS REQUIRED TO SUIT GROUND CONDITIONS. RELOCATED MOUNDS TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

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Nominated Architects

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0 1 2 3 4 5 m
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PROJECT
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE
PARTIAL SCHOOL
OUTDOOR PLAY LANDSCAPE PLAN (SHEET 5 OF 5)

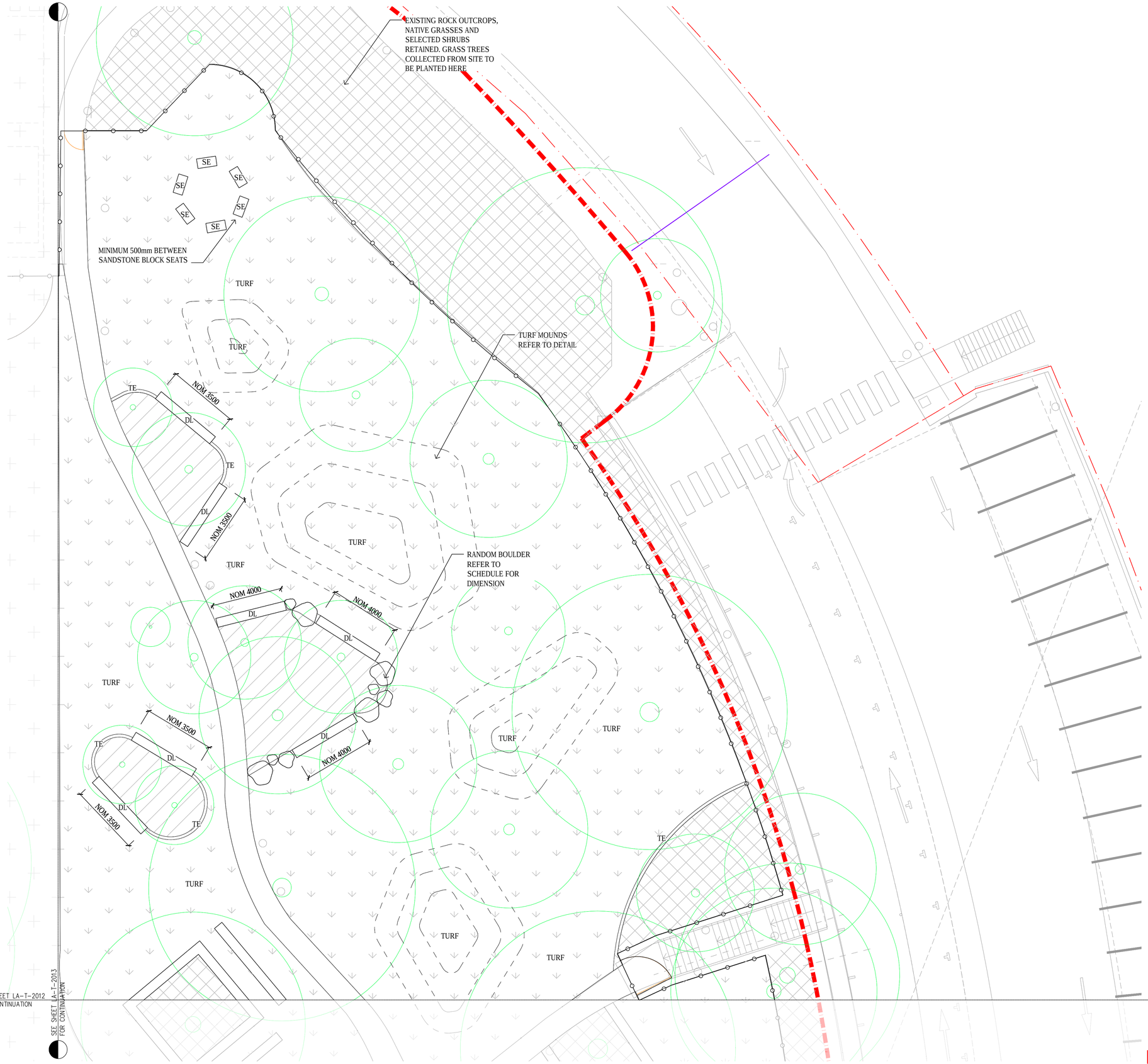
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PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
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DRAWING Nº.	LA-T-2015

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LEGEND

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	FENCE REFER TO ARCHITECT'S DETAIL
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	PROPOSED TREE
PAV 1	PLAIN CONCRETE BROOM FINISHED
PAV 2	COLOUR CONCRETE TYPE 1
PAV 3	COLOUR CONCRETE TYPE 2
PAV 4	COLOUR CONCRETE TYPE 3
	ALL CONCRETE FINISHES TO ENGINEER'S DETAIL
SA	SAND
	PLANTER BED WITH TRANSPLANTED PLANTS FROM SITE AND ADDITIONAL PLANTING REFER TO PLANTING SCHEDULE FOR SPECIES
	GROUNDCOVER PLANTING UNDER TREES
	EXISTING ASPHALT
	TURF - BUFFALO GRASS
SE	SANDSTONE BLOCK SEAT
SW	SANDSTONE WALL
PT	OVERSIZED PLANTER - VEGETABLE GARDEN TO BE PLANTED BY SCHOOL PROVIDE SOIL MIX ONLY
DL	LOG RETRIEVED FROM SITE SANDED TO REMOVE SHARED EDGES, ROUGH FACES AND POTENTIAL SPLINTER AREAS
TE	TIMBER EDGE
	BIKE RACK (RECLAIMED FROM SITE OR AS REQUIRED)
BUB	WATER BUBBLER
BIN	NEW GARBAGE BIN

NOTE:
ALL TREE REMOVALS TO BE CONFIRMED ON-SITE WITH ARBORIST PRIOR TO ANY TREES BEING REMOVED.

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B	12/10/2018	PRELIMINARY TENDER ISSUE	IC
C	19/10/2018	REVISION AS CLOUDED	IC
D	25/10/2018	ISSUE FOR PLANNING SUBMISSION	IC

0 1 2 3 4 5 m
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CLIENT

PROJECT: LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE: PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 4 OF 5)

N

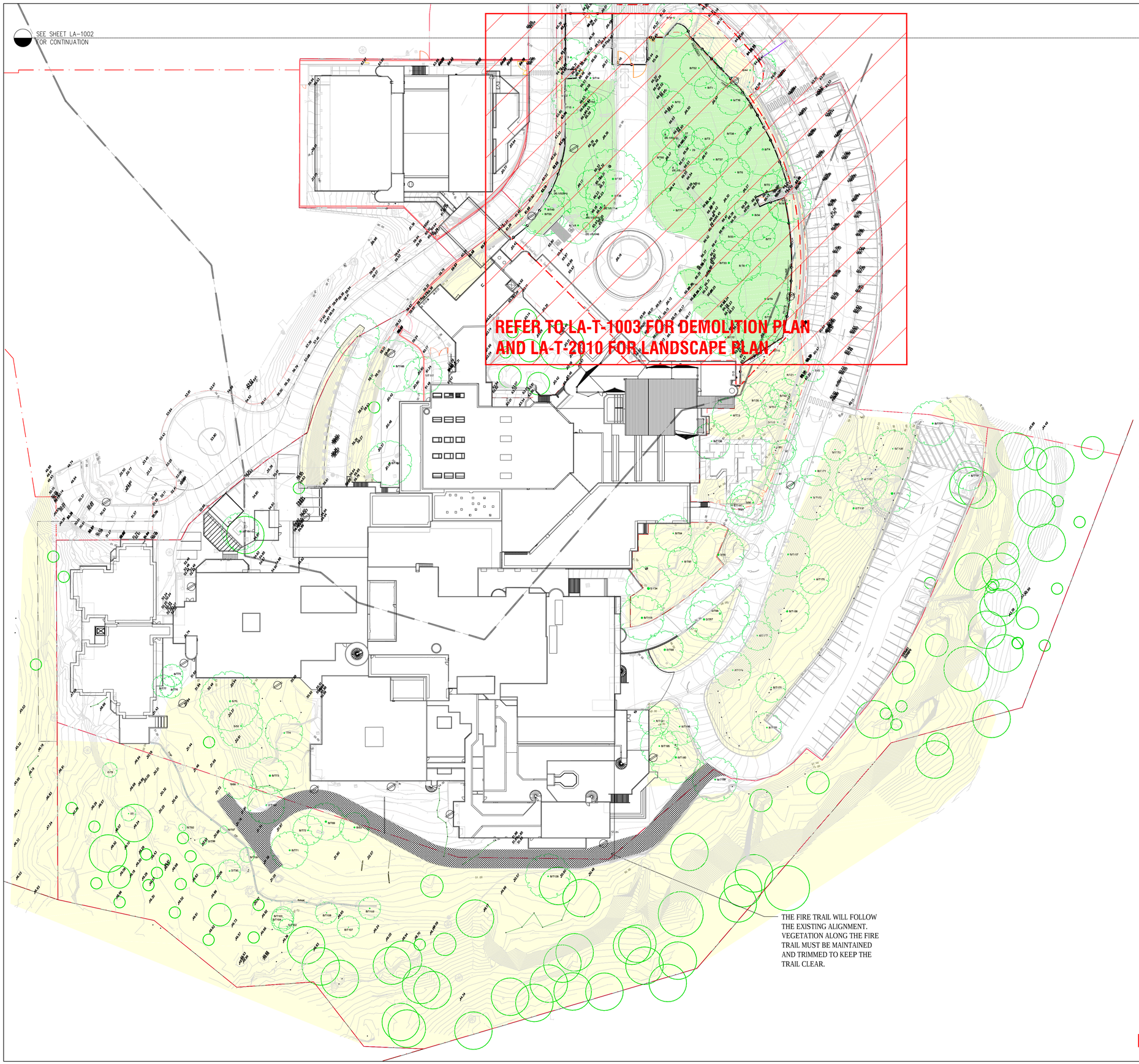
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PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	D
DRAWING Nº.	LA-T-2014

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SEE SHEET LA-1002
FOR CONTINUATION



THE FIRE TRAIL WILL FOLLOW THE EXISTING ALIGNMENT. VEGETATION ALONG THE FIRE TRAIL MUST BE MAINTAINED AND TRIMMED TO KEEP THE TRAIL CLEAR.

NOTE:
TREE LOCATIONS ON THIS DRAWING ARE PROVIDED BY ARBORIST. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE LANDSCAPE MANAGEMENT PLAN.

THE MAXIMUM TREES TO BE REMOVED WILL BE NO MORE THAN 872 TREES AND THE MINIMUM TREES TO BE RETAINED WILL BE 228 TREES.

ALL TREE REMOVALS TO BE CONFIRMED ON-SITE WITH ARBORIST PRIOR TO ANY TREES BEING REMOVED.

TREES WILL BE CUT TO GROUND LEVEL. FOR ALL PLAY AND TURF AREAS, TAKE OUT STUMPS AND GROUND ROOTS TO 150mm BELOW FINISH LEVEL. IN OTHER AREAS RETAIN STUMPS AND ROOTS.

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THE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE LANDSCAPE MANAGEMENT PLAN AND REQUEST CLARIFICATION.

WHERE THE APZS ARE LOCATED IN SLOPES GREATER THAN 18 DEGREES, THE APZ MUST BE LANDSCAPED OR MANAGED (EG. TERRACING) WITH SUITABLE ACCESS BEING PROVIDED TO THE APZ TO ENSURE THE ONGOING MAINTENANCE OF THE AREA.

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LEGEND

- EXTENT OF WORKS
- APZ LINE
- PROPOSED SECURITY FENCE BY ARCHITECT
- EXISTING TREES TO BE RETAINED AS PER LANDSCAPE MANAGEMENT PLAN
- EXISTING TREES TAGGED WITH BLUE FLAGGING TO BE RETAINED
- NATURAL SLOPES TO BE RETAINED
- PLAY/ TURF AREA

0 5 10 15 20 25 m
SCALE BAR - 1:500

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PROJECT
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE
PARTIAL SCHOOL LANDSCAPE TREE PLAN AND OVERALL LANDSCAPE PLAN (SHEET 1 0F 2)

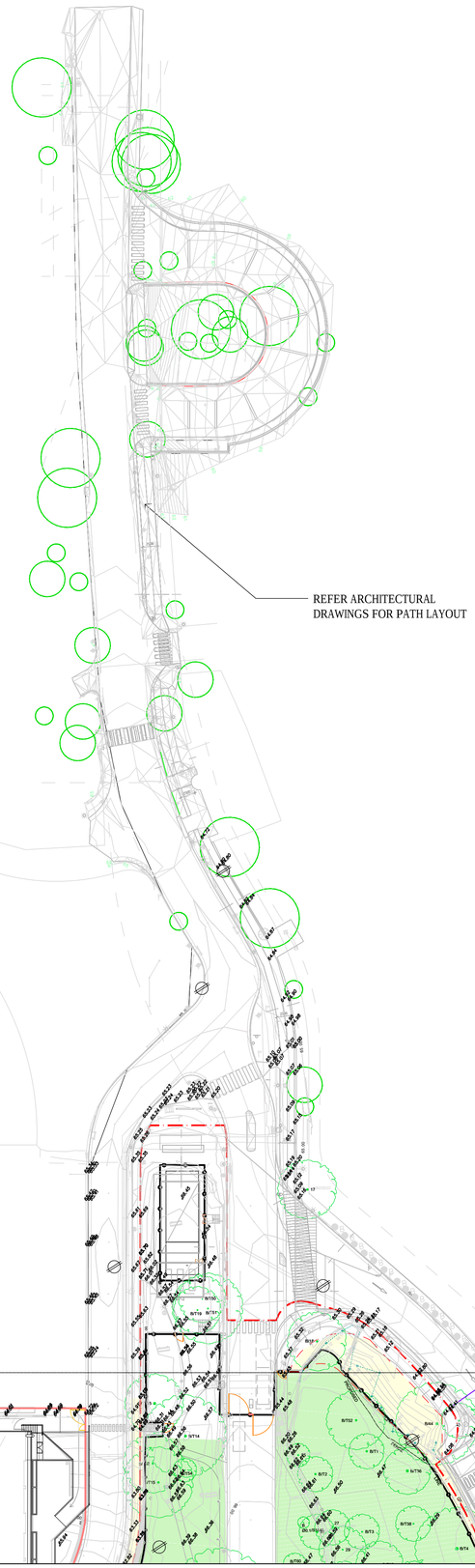
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PLOT DATE	25/10/2018
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DRAWING Nº.	LA-T-1001

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LEGEND

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- APZ LINE
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- EXISTING TREES TO BE RETAINED AS PER LANDSCAPE MANAGEMENT PLAN
- EXISTING TREES TAGGED WITH BLUE FLAGGING TO BE RETAINED
- NATURAL SLOPES TO BE RETAINED
- PLAY/ TURF AREA

0 5 10 15 20 25 m
SCALE BAR - 1:500

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PROJECT: LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE: PARTIAL SCHOOL LANDSCAPE TREE PLAN AND OVERALL LANDSCAPE PLAN (SHEET 2 OF 2)

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PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	C
DRAWING Nº.	LA-T-1002

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ANY TREES OUTSIDE SITE BOUNDARY TO BE RETAINED.

ALL MATERIALS TO BE BAL FZ RATED. PROTECT ALL EXISTING VEGETATION TO BE RETAINED.

CONTOURS ARE AS SUPPLIED BY SITE SURVEY.

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LEGEND

- SITE BOUNDARY
- REMOVE EXISTING KERB
- EXISTING TREE TO BE RETAINED. REFER TO ARBORIST'S REPORT
- +66.47 EXISTING LEVELS
- REMOVE EXISTING HARD SURFACE
- REMOVE EXISTING VEGETATION AND TOPSOIL
- TRANSPLANT ALL XANTHORRHOEA TO DESIGNATED PLANTING AREAS. REFER TO LANDSCAPE PLAN FOR LOCATIONS. REMOVE EXISTING VEGETATION TO BEDROCK AND REMOVE ALL LOOSE SANDSTONE FOR RE-USE ON SITE. STOCKPILE SITE TOPSOIL FOR REUSE ON SITE.

SCALE BAR - 1:200

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PROJECT: LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE: PARTIAL SCHOOL DEMOLITION PLAN

DRAWN BY	IC
SCALES	1 : 200 @ A1
PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	C
DRAWING Nº.	LA-T-1003

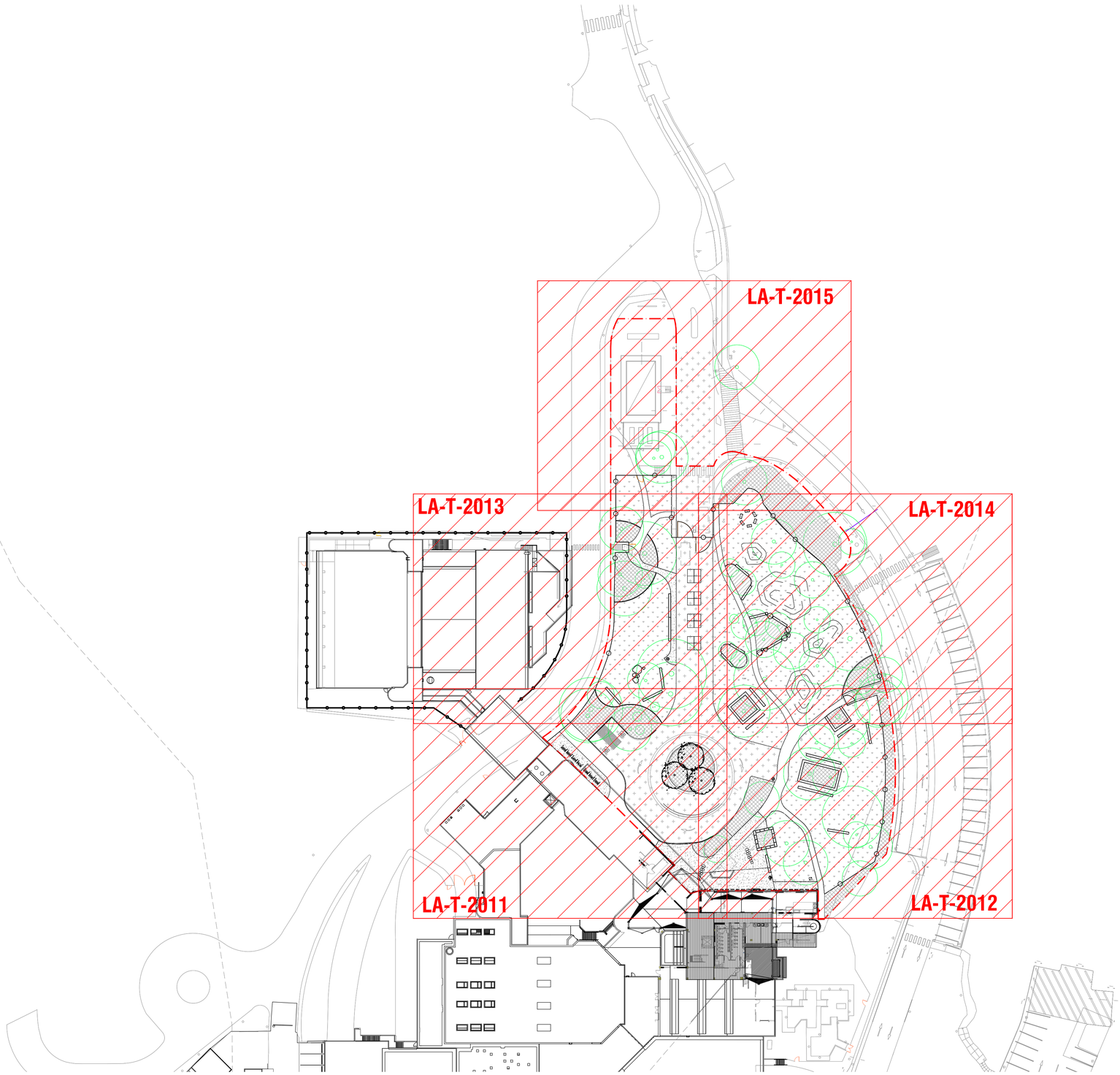
DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
FOR INFORMATION ONLY	MR		25/10/2018

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Nominated Architects

Anthony Quan 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

No	DATE	REVISIONS	BY
A	11/10/2018	PRELIMINARY TENDER ISSUE	IC
B	12/10/2018	PRELIMINARY TENDER ISSUE	IC
C	25/10/2018	ISSUE FOR PLANNING SUBMISSION	IC

0 5 10 15 20 25 m

SCALE BAR - 1:500

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PROJECT

LINDFIELD LEARNING VILLAGE -
PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE

PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE KEY PLAN

N

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SCALES	1:500 @ A1
PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	C
DRAWING Nº.	LA-T-2010

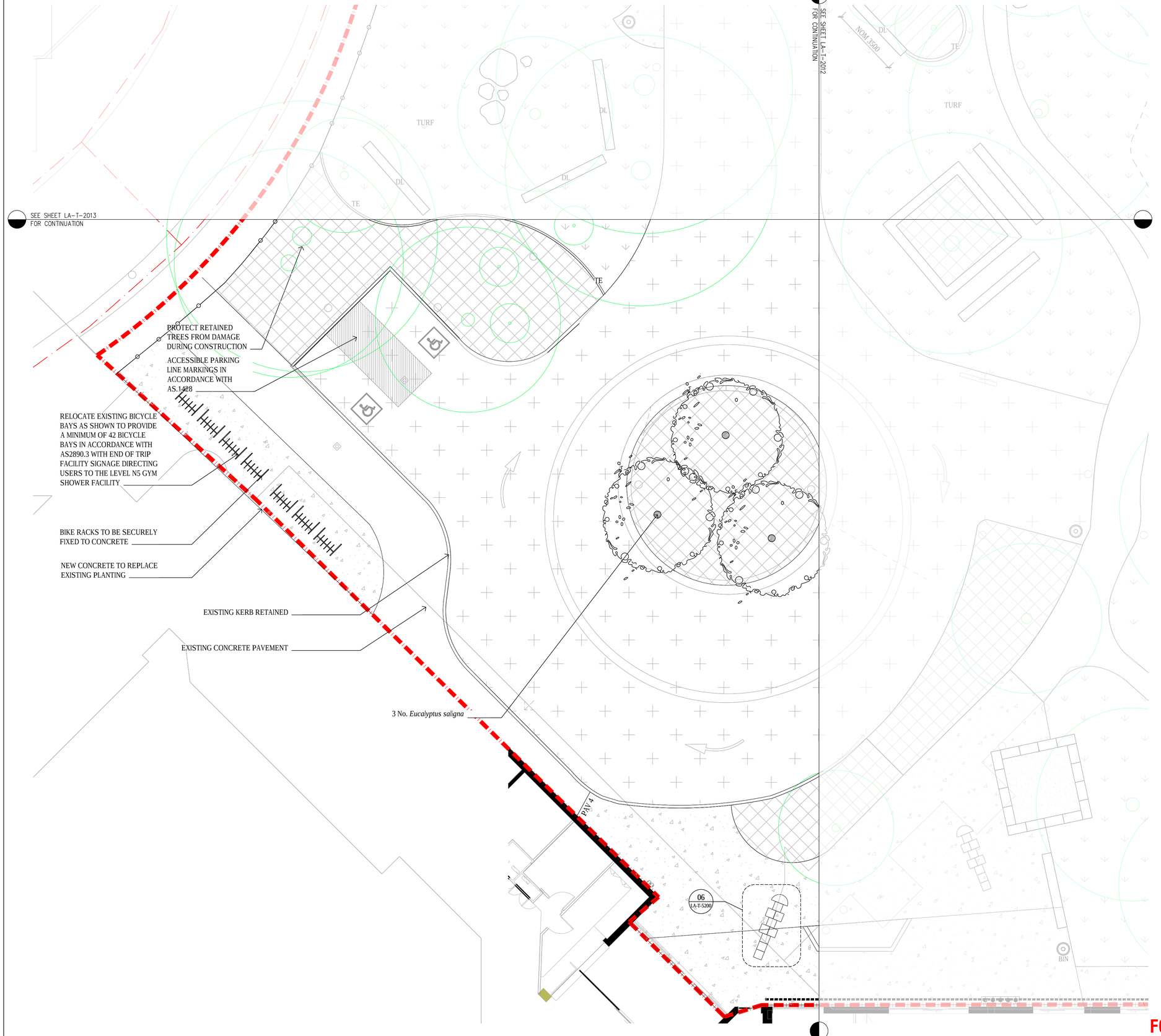
DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
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- FENCE REFER TO ARCHITECT'S DETAIL
- EXISTING TREE TO BE RETAINED
- PROPOSED TREE
- PAV 1 — PLAIN CONCRETE BROOM FINISHED
- PAV 2 — COLOUR CONCRETE TYPE 1
- PAV 3 — COLOUR CONCRETE TYPE 2
- PAV 4 — COLOUR CONCRETE TYPE 3
- ALL CONCRETE FINISHES TO ENGINEER'S DETAIL
- SA — SAND
- PLANTER BED WITH TRANSPLANTED PLANTS FROM SITE AND ADDITIONAL PLANTING REFER TO PLANTING SCHEDULE FOR SPECIES
- GROUNDCOVER PLANTING UNDER TREES
- EXISTING ASPHALT
- TURF - BUFFALO GRASS
- SE — SANDSTONE BLOCK SEAT
- SW — SANDSTONE WALL
- PT — OVERSIZED PLANTER - VEGETABLE GARDEN TO BE PLANTED BY SCHOOL PROVIDE SOIL MIX ONLY
- DL — LOG RETRIEVED FROM SITE SANDED TO REMOVE SHARED EDGES, ROUGH FACES AND POTENTIAL SPLINTER AREAS
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- BUB — WATER BUBBLER
- BIN — NEW GARBAGE BIN

NOTE:
ALL TREE REMOVALS TO BE CONFIRMED ON-SITE WITH ARBORIST PRIOR TO ANY TREES BEING REMOVED.

TREES WILL BE CUT TO GROUND LEVEL. FOR ALL PLAY AND TURF AREAS, TAKE OUT STUMPS AND GROUND ROOTS TO 150mm BELOW FINISH LEVEL. IN OTHER AREAS RETAIN STUMPS AND ROOTS.

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No	DATE	REVISIONS	BY
A	11/10/2018	PRELIMINARY TENDER ISSUE	IC
B	12/10/2018	PRELIMINARY TENDER ISSUE	IC
C	19/10/2018	REVISION AS CLOUDED	IC
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0 1 2 3 4 5 m
SCALE BAR - 1:100

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CLIENT

PROJECT LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 1 OF 5)

N

DRAWN BY	IC
SCALES	1:100 @ A1
PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	D
DRAWING Nº.	LA-T-2011

DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
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- FENCE REFER TO ARCHITECT'S DETAIL
- EXISTING TREE TO BE RETAINED
- PROPOSED TREE
- PAV 1 — PLAIN CONCRETE BROOM FINISHED
- PAV 2 — COLOUR CONCRETE TYPE 1
- PAV 3 — COLOUR CONCRETE TYPE 2
- PAV 4 — COLOUR CONCRETE TYPE 3
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C	19/10/2018	REVISION AS CLOUDED	IC
D	25/10/2018	ISSUE FOR PLANNING SUBMISSION	IC

0 1 2 3 4 5 m
SCALE BAR - 1:100

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CLIENT

PROJECT: LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE: PARTIAL SCHOOL OUTDOOR PLAY LANDSCAPE PLAN (SHEET 2 OF 5)

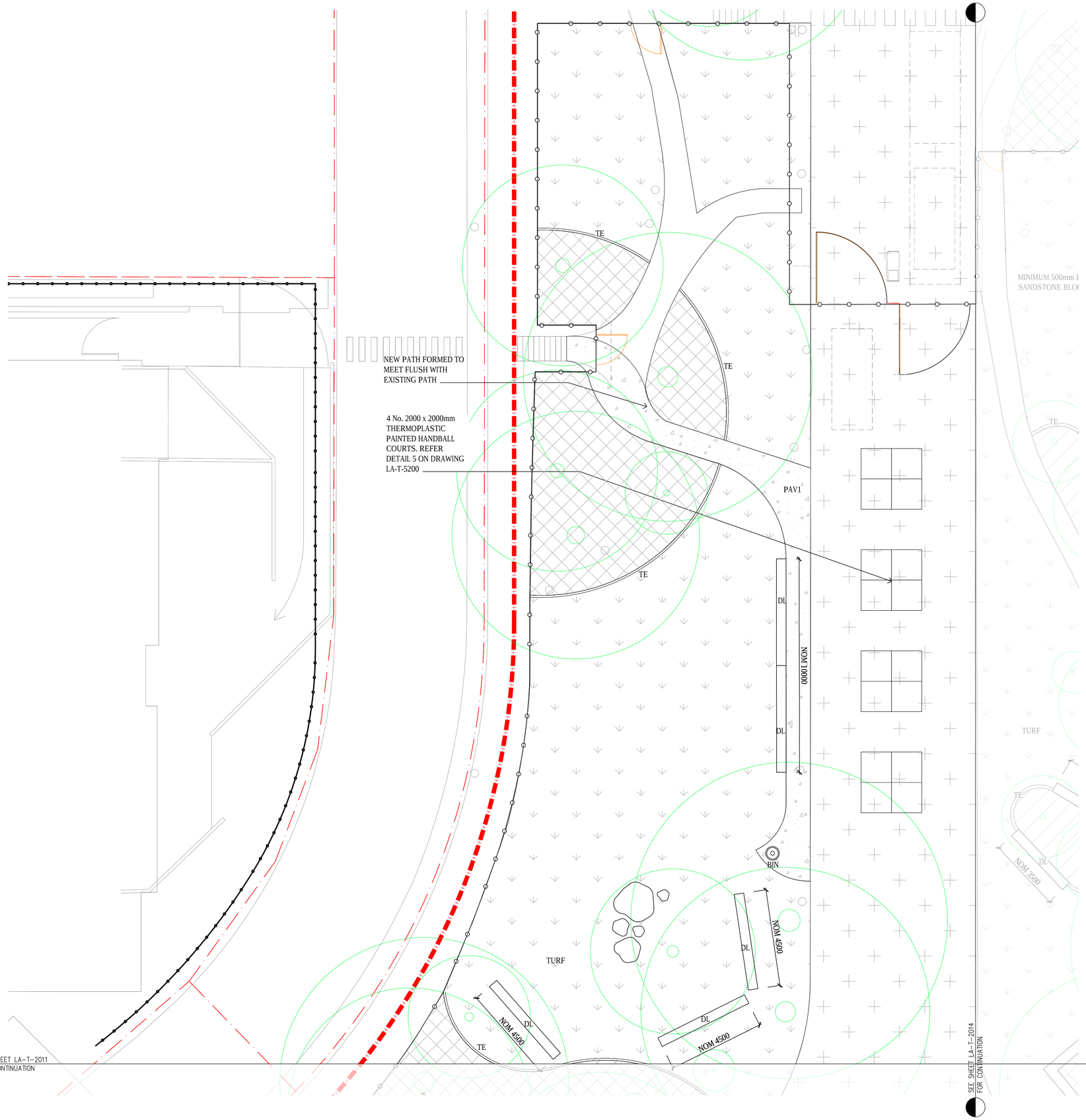
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PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	D
DRAWING Nº.	LA-T-2012

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B	12/10/2018	PRELIMINARY TENDER ISSUE	IC
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0 1 2 3 4 5 m
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CLIENT

PROJECT
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

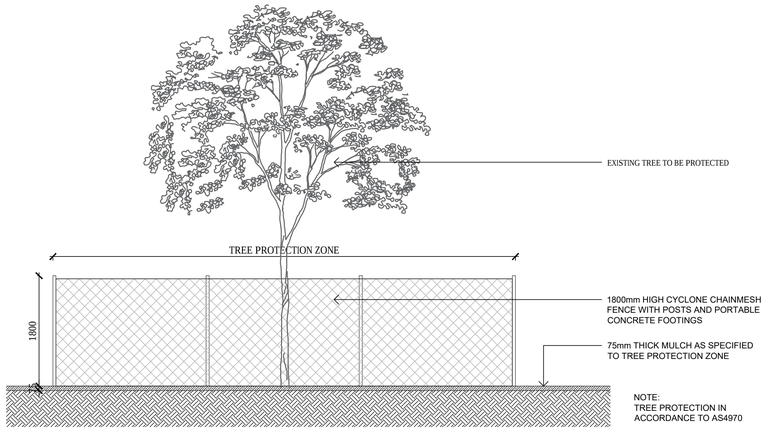
TITLE
PARTIAL SCHOOL
OUTDOOR PLAY LANDSCAPE PLAN (SHEET 3 OF 5)

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PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	C
DRAWING Nº.	LA-T-2013

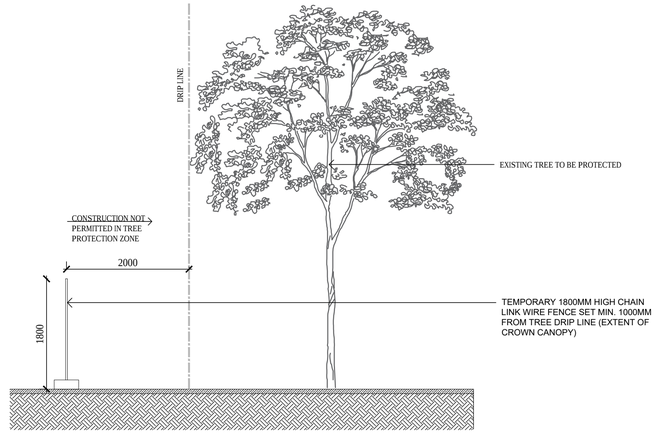
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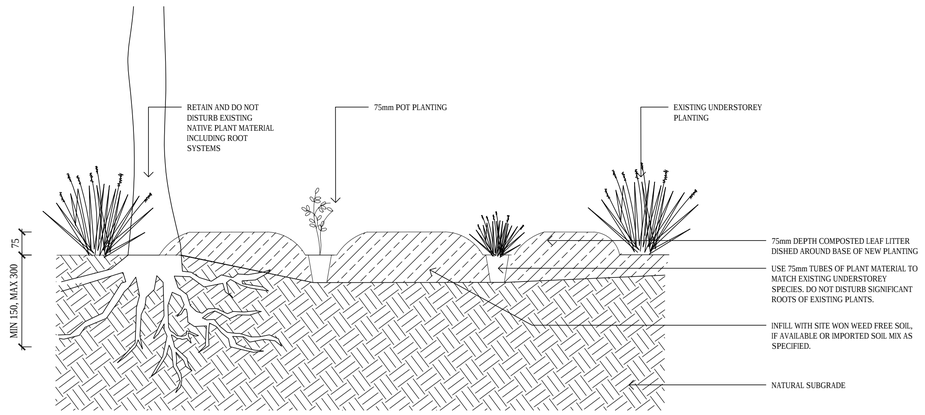
FOR INFORMATION ONLY



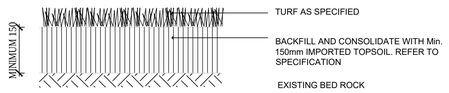
01 TYP. TREE PROTECTION FOR EXISTING TREES - ELEVATION
SCALE 1 : 50



02 TYP. TREE PROTECTION FOR EXISTING TREES - SECTIONAL ELEVATION
SCALE 1 : 50



03 INFILL PLANTING
SCALE 1 : 10



04 TYPICAL TURF PLANTING
SCALE 1 : 10

NOTE:
ALL PLANTING TO BE CONSISTENT WITH RFS ASSET PROTECTION ZONE STANDARDS - APPENDIX B.

CONFIRM TREE PROTECTION DETAILS WITH ARBORIST REPORT AND LANDSCAPE MANAGEMENT PLAN.

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B	25/10/2018	ISSUE FOR PLANNING SUBMISSION	IC

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SCALE BAR - 1:50

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SCALE BAR - 1:10

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PROJECT
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE
PARTIAL SCHOOL
TYPICAL PLANTING DETAILS

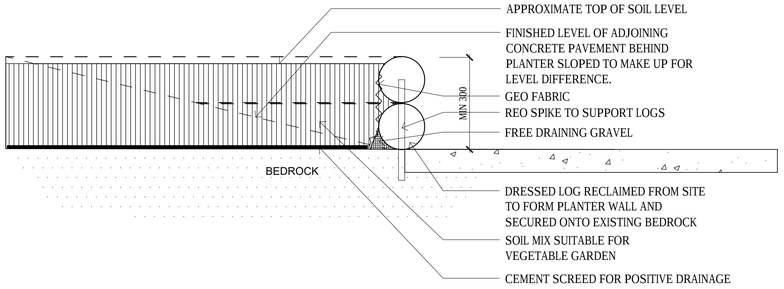
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PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	B
DRAWING Nº.	LA-T-5100

DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
FOR INFORMATION ONLY	MR		25/10/2018

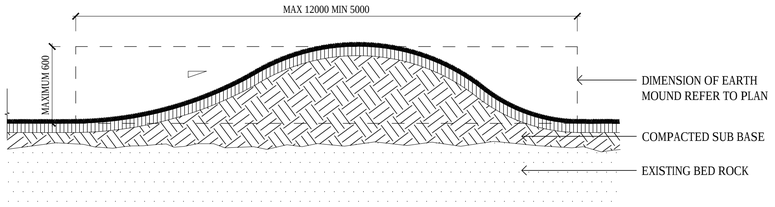
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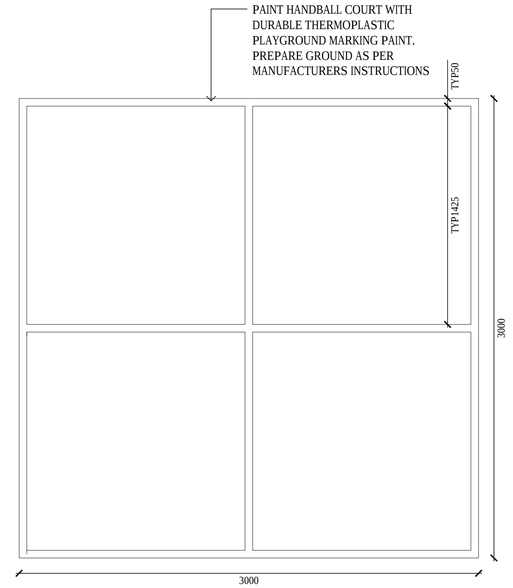
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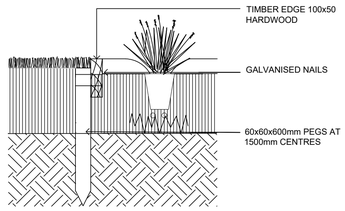
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SCALE 1 : 10



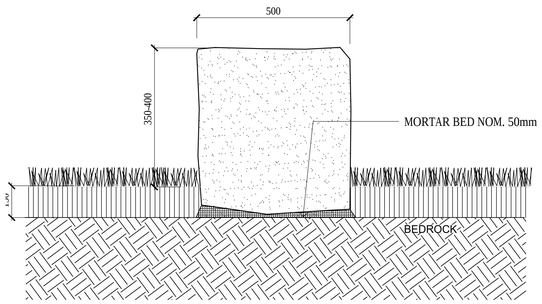
02 TURFED MOUNDS DETAIL - SECTION
SCALE 1 : 50



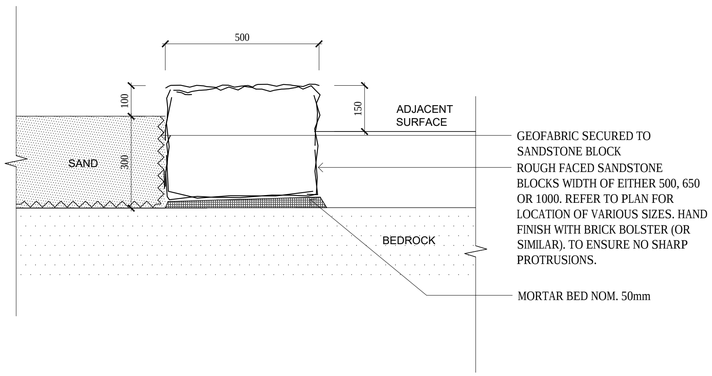
05 HANDBALL COURT - PLAN
SCALE 1 : 20



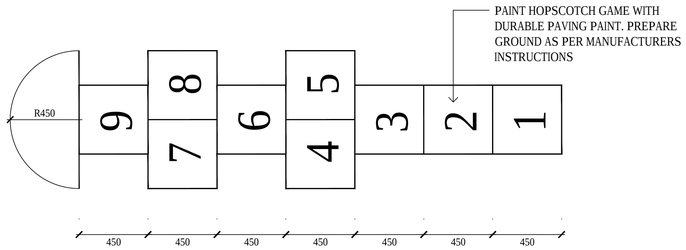
08 TYP. TIMBER EDGE
SCALE 1 : 10



03 SANDSTONE SEAT DETAIL - SECTION
SCALE 1 : 10



04 SANDSTONE SANDPIT EDGE WALL DETAIL - SECTION
SCALE 1 : 10



06 HOPSCOTCH PATTERN - PLAN
SCALE 1 : 20



07 RANDOM BOULDERS REFERENCE IMAGE
NOT TO SCALE

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Nominated Architects
Anthony Quan 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

No	DATE	REVISIONS	BY
A	12/10/2018	TENDER ISSUE	IC
B	25/10/2018	ISSUE FOR PLANNING SUBMISSION	IC

NOTE:
ALL MATERIALS TO BE BAL FZ RATED.

SCALE BAR - 1:50 (0, 0.5, 1, 1.5, 2, 2.5 m)

SCALE BAR - 1:10 (0, 0.1, 0.2, 0.3, 0.4, 0.5 m)

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Architecture Urban Design Interiors

CLIENT

PROJECT
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE
PARTICAL SCHOOL TYPICAL DETAILS

DRAWN BY	IC
SCALES	AS SHOWN @ A1
PLOT DATE	25/10/2018
PROJECT Nº.	P18-023
REVISION	B
DRAWING Nº.	LA-T-5200

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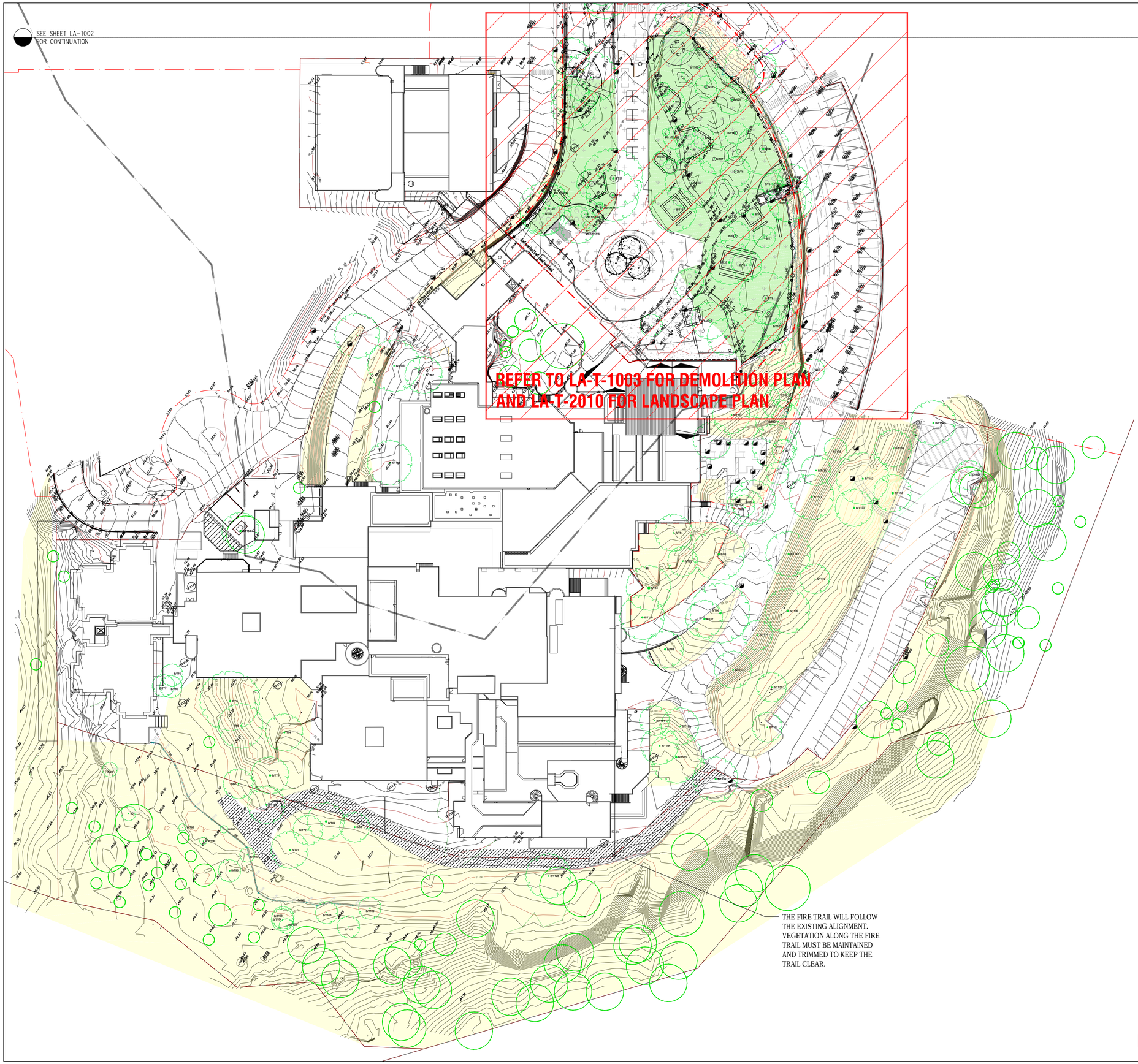
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APPENDIX 7. CONSOLIDATED LANDSCAPE PLANS (DESIGNINC, 2018)

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SEE SHEET LA-1002
FOR CONTINUATION



THE FIRE TRAIL WILL FOLLOW THE EXISTING ALIGNMENT. VEGETATION ALONG THE FIRE TRAIL MUST BE MAINTAINED AND TRIMMED TO KEEP THE TRAIL CLEAR.

GENERAL NOTES:
THE LANDSCAPE PLANS SHOULD CROSS REFERENCE THE VEGETATION MANAGEMENT AND LANDSCAPE MANAGEMENT PLAN AND SHOULD BE IMPLEMENTED IN CONJUNCTION TO EACH OTHER WITH AN ARBORIST AND ECOLOGIST OVERSEEING THE PROCESS.

THE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE LANDSCAPE MANAGEMENT PLAN AND REQUEST CLARIFICATION.

WHERE THE APZS ARE LOCATED IN SLOPES GREATER THAN 18 DEGREES, THE APZ MUST BE LANDSCAPED OR MANAGED (EG. TERRACING) WITH SUITABLE ACCESS BEING PROVIDED TO THE APZ TO ENSURE THE ONGOING MAINTENANCE OF THE AREA.

LANDSCAPE MANAGEMENT PLAN:
FOR MONITORING AND MAINTENANCE MEASURES TO MANAGE REVEGETATION AND LANDSCAPE WORKS REFER TO APPENDIX 4 OF LANDSCAPE MANAGEMENT PLAN.

REFER TO LANDSCAPE MANAGEMENT PLAN FOR SPECIES OF ALL RETAINED TREES AND SHRUBS

TREES AND PLANTING:
TREE LOCATIONS ON THIS DRAWING ARE PROVIDED BY ARBORIST. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE LANDSCAPE MANAGEMENT PLAN.

THE MAXIMUM TREES TO BE REMOVED WILL BE NO MORE THAN 872 TREES AND THE MINIMUM TREES TO BE RETAINED WILL BE 228 TREES.

ALL TREE REMOVALS TO BE CONFIRMED ON-SITE WITH ARBORIST PRIOR TO ANY TREES BEING REMOVED.

TREES WILL BE CUT TO GROUND LEVEL. FOR ALL PLAY AND TURF AREAS, TAKE OUT STUMPS AND GROUND ROOTS TO 150mm BELOW FINISH LEVEL. IN OTHER AREAS RETAIN STUMPS AND ROOTS.
NATIVE GRASSES AND TREES ENDEMIC TO THE LOCALITY SUCH AS *Eucalyptus saligna*, *Dianella caerulea*, *Lomandra juncus* AND *Xanthorrhoea resinosa* ARE SELECTED TO BE PLANTED THROUGHOUT THE SITE.

BUSHFIRE:
THE LANDSCAPE DESIGN HAS CONSIDERED BUSH FIRE PROTECTION MEASURES AND IS ENDORSED BY BLACKASH BUSHFIRE CONSULTING IN LETTER DATED 13 NOVEMBER 2018.

HERITAGE:
THE LANDSCAPE DESIGN HAS CONSIDERED HERITAGE MEASURES AND IS ENDORSED BY URBIS IN EMAIL REFERENCE NUMBER URBIS-1-GCOR-000044 ON ACONEX.

STORMWATER MANAGEMENT:
REFER TO EROSION & SEDIMENT CONTROL PLANS C-011-A TO C-017-A.

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Nominated Architects

Anthony Quin 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

No	DATE	REVISIONS	BY
A	13/12/2018	ISSUE FOR PLANNING SUBMISSION	IC

LEGEND

- EXTENT OF WORKS
- APZ LINE
- PROPOSED SECURITY FENCE BY ARCHITECT
- EXISTING TREES TO BE RETAINED AS PER LANDSCAPE MANAGEMENT PLAN
- EXISTING TREES TAGGED WITH BLUE FLAGGING TO BE RETAINED
- NATURAL SLOPES TO BE RETAINED
- PLAY/ TURF AREA IRRIGATED
- EXISTING ASPHALT PAVING
- CONCRETE BROOM FINISHED
- SAND
- PLANTER BED WITH TRANSPLANTED PLANTS FROM SITE AND ADDITIONAL PLANTING
- PROPOSED NEW PLANTING
  Dianella caerulea
  Lomandra juncus
  Xanthorrhoea resinosa
- TURF - BUFFALO GRASS
- BIKE RACK (RECLAIMED FROM SITE OR AS REQUIRED)
- BIN NEW GARBAGE BIN
- PROPOSED NEW LIGHTS

0 5 10 15 20 25 m
SCALE BAR - 1:500

ARCHITECT

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architects in association

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CLIENT

PROJECT: LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE: PARTIAL SCHOOL LANDSCAPE TREE PLAN AND OVERALL LANDSCAPE PLAN (SHEET 1 0F 2)

N

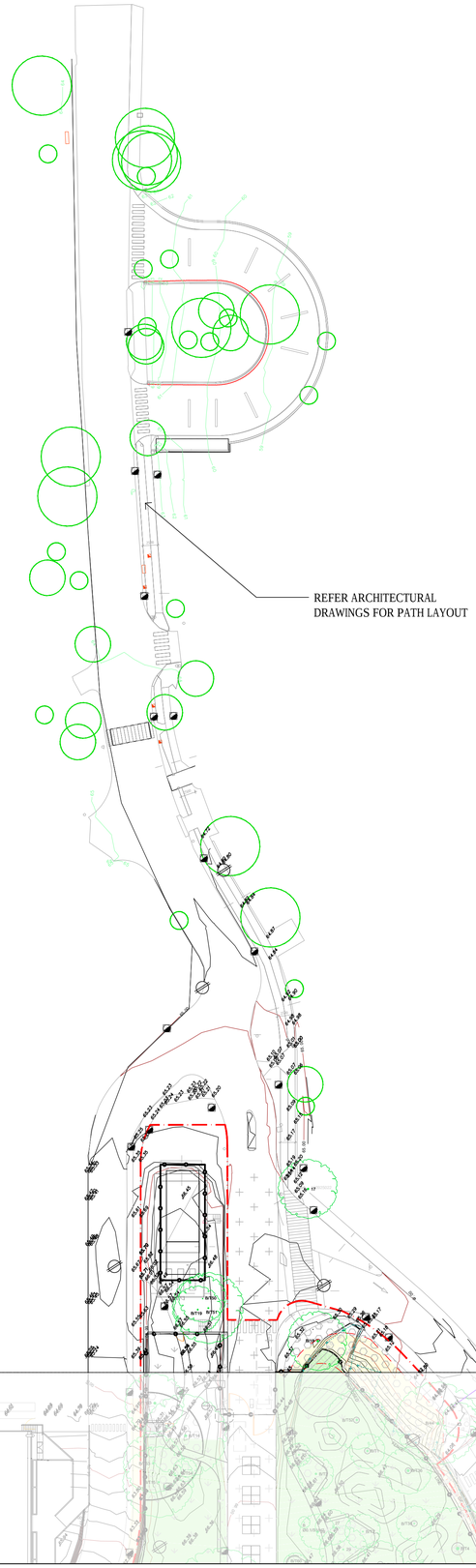
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SCALES	1 : 500 @ A1
PLOT DATE	7/11/2018
PROJECT Nº.	P18-023
REVISION	A
DRAWING Nº.	LA-P-1001

DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
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GENERAL NOTES:
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HERITAGE:
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STORMWATER MANAGEMENT:
REFER TO EROSION & SEDIMENT CONTROL PLANS C-011-A TO C-017-A.

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No	DATE	REVISIONS	BY
A	13/12/2018	ISSUE FOR PLANNING SUBMISSION	IC

LEGEND

- EXTENT OF WORKS
- APZ LINE
- PROPOSED SECURITY FENCE BY ARCHITECT
- EXISTING TREES TO BE RETAINED AS PER LANDSCAPE MANAGEMENT PLAN
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  Dianella caerulea
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- TURF - BUFFALO GRASS
- BIKE RACK (RECLAIMED FROM SITE OR AS REQUIRED)
- BIN — NEW GARBAGE BIN
- PROPOSED NEW LIGHTS

0 5 10 15 20 25 m
SCALE BAR - 1:500

ARCHITECT

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architects in association

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CLIENT

PROJECT
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE
PARTIAL SCHOOL LANDSCAPE TREE PLAN AND OVERALL LANDSCAPE PLAN (SHEET 2 OF 2)

N

DRAWN BY	IC
SCALES	1 : 500 @ A1
PLOT DATE	13/12/2018
PROJECT Nº.	P18-023
REVISION	A
DRAWING Nº.	LA-P-1002

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APPENDIX 8. EFSG FENCING SPECIFICATION

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EFSG fencing specification:

3.11 Tubular Steel Security Fence - Square Hollow Section

GUIDE NOTE: The specification below is based on the DoE security unit's specification for tubular steel security fence. The extend of fencing is to be determined by the DoE.

Positioning of fence: The fence is to have a minimum clearance of 1000mm from any obstacle that may reduce the effective height of the fence. (e.g. stairs, retaining walls, trees, substation, etc.). Returns should be installed around such objects).

- Adjoining fence: Provide a return panel to prevent access between the security fence end post and adjacent property fence.

Fence type: Proprietary galvabond square hollow section pickets and frame security fencing.

- Height: 2150mm
- Fence clearance: 50mm minimum and a 150mm maximum above ground level (concrete mower strip or retaining wall whichever is higher) to underside of fence. Where ground clearance exceeds the maximum clearance the panels are to be cut, stepped, infilled etc. to achieve the appropriate clearance. Stepped panels must be a minimum length of 1200mm.
- Panels (mm): 2400 long x 2100 high x 40mm square hollow section frame 1.6mm thick.
- Pickets: Pressed and cut to form spear point top, 2100 long x 25mm square x 1.2mm thick.
- Picket spacings: 115mm (nominal) fixed to all panels and gates.
- Welds: Silicone bronze

Posts:

- Galvabond square hollow section posts complete with permanently fitted proprietary galvabond steel caps.
- Posts: 65 x 65 x 3000 x 2.5mm thick wall.

Gate posts:

- Galvabond square hollow section posts complete with galvabond steel cap:
- Single gates with less than 3000mm opening, and double gates with less than 6000mm opening to be hinged from:
- 100 x 100 x 3000 x 5 x 3000mm long posts.
- Double gates with a 6000mm opening or more to be hinged from:
- Twin (2) 100 x 100 x 3000 x 5 x 3000mm long posts.

Fittings:

- Rail brackets: Compatible rail brackets and sleeves fastened to post using 5mm stainless steel rivets. Rivets are to be on the inside of the fence unless prevented by bracket positioning
- Brackets and sleeves must be powder coated to match finishes panels and posts.

Footing to posts:

- General:
    - Finish: 50mm below ground level. In paved areas, finish the concrete flush with the paved surface.

    - Backfilling, (other than paved surfaces): Earth, well rammed to effect
    - Rigidity of posts
- Other than rock:
    - Position each post on a minimum 75mm bed of concrete, consolidate posts in the holes to full depth (concrete) with a minimum of 100mm of concrete cover all round.
    - Intermediate post holes: 800 deep x 250mm minimum diameter.
- Posts minimum setting depth: 700mm
    - Gate, change of direction and end posts: 900 deep x 300mm minimum diameter.
- Posts minimum setting depth: 700mm
- Rock:
    - Excavate post holes to full depth to allow a minimum of 30mm of concrete cover all round. Consolidate with concrete for full depth
- Concrete: 20MPa minimum strength for all footings

Gates, general: Galvabond frame, pickets and fittings

- Vertical stiles: 65 x 65 x 1.6mm (minimum).
- Horizontal rails; 65 x 65 x 1.6mm (minimum).
- Twin (2) 65 x 65mm bottom rails
- Pickets: 25mm square picket to match fence panels.
- Drop bolt/s: Lockable 850mm long on each gate.
- Pipe dowel keepers: Provide at ground level to lock bolts in both open and closed position.
- Where drop bolts do not reach the ground when the gate/s are in the open position, a yellow 1800mm high post and steel cap with bolt keeper, is to be installed. Post is to be concreted 600mm in the ground.
- Yellow posts: 65 x 65 x 2.5mm galvabond steel with galvabond steel caps.
- Finish: Gates must be fully powder coated in nominated colour.

Gates, single:

- Proprietary locking mechanism: Internal protected encased locking device positioned 1500mm from bottom of gate.
- Proprietary item: Broadhurst lock.
- Slide bolt to be lockable in both open and closed positions.
- The internal protected encased locking device to have a 20mm diam. Steel bar.
- Proprietary lug to be elongated height and to be bolted to closing post.

Gates, double:

- Proprietary locking mechanism: Internal protected encased locking device positioned 1500mm from bottom of gates.
- Proprietary item: Broadhurst lock.
- Slide bolt to be lockable in both open and closed positions.
- The internal protected encased locking device to have 20mm diam. steel bar. Shoot bolt to prevent gates opening when drop bolts are not closed and/or locked.

Hardware:

- Refer *to SG / DOOR HARDWARE* for gate pivots, padbolts, padlocks and keying requirements for gates generally.

Protection:

- All damaged, cut or welded surfaces to have two coats of zinc rich paint and two coats of colour touch up paint to match original colour surface. All surfaces must receive the

appropriate preparation and application in accordance with the paint manufacturer's instructions

Colour finish:

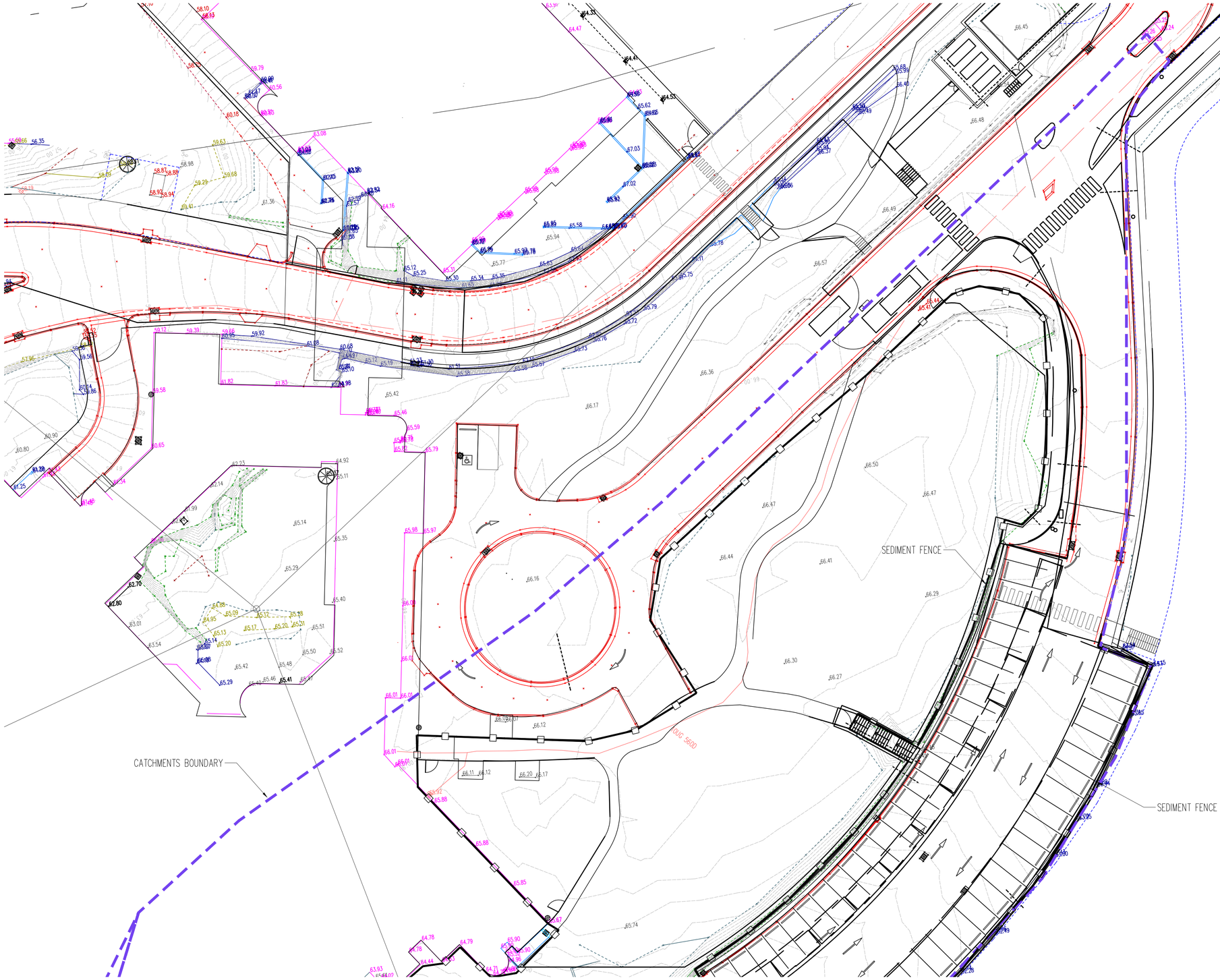
- All fencing panels, pickets, posts, gates and accessories are to be fully powder coated.

GUIDE NOTE: Include the following if a colour finish is required to the fencing. Nominate colour.

- Colour:
  >

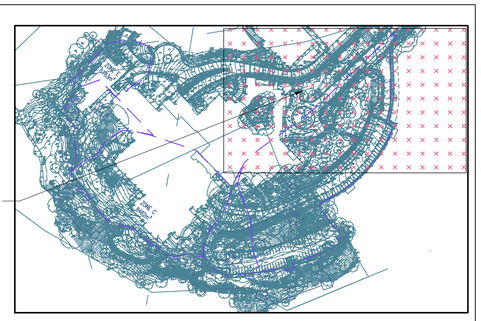
APPENDIX 9. EROSION AND SEDIMENT CONTROL PLANS (EWFW CONSULTING ENGINEERS, 2018)

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PLAN VIEW

SCALE 1:250



KEY PLAN

NTS

PRELIMINARY

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Issue	Date	Amendment	Ist.	App.
A	12-10-18	FOR PARTIAL DA ISSUE	LDG	DDG

COORDINATED REFERENCE DRAWINGS			
SERVICE	DRAWING NUMBER	ISSUE	DATE
ARCH			
HYD			
MECH			
STRUCT			
ELEC			
CIVIL	21151	A	12-10-08

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ISO 9001 Quality Management

Project:
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
EATON ROAD
LINDFIELD NSW 2070

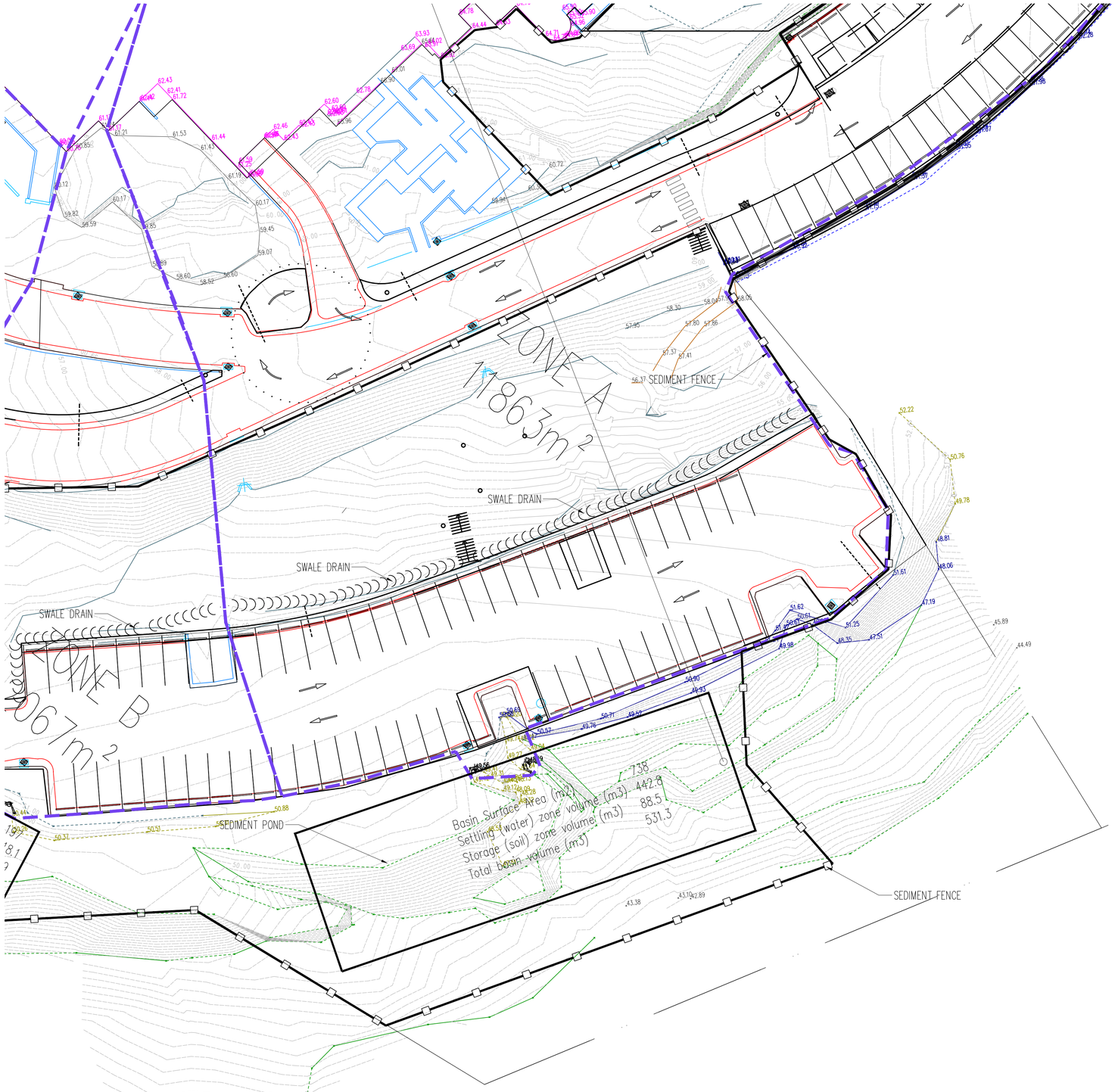
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EROSION AND SEDIMENT CONTROL PLAN
1 OF 4

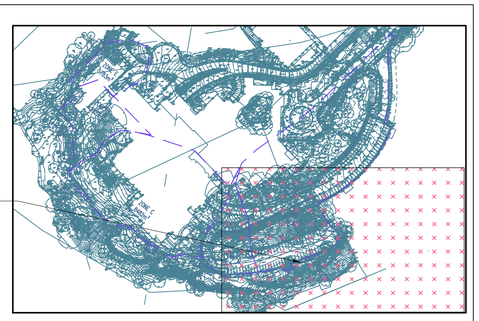
North Point:	Design: SB
	Design Validated: LDG
	Amendment Approved: DDG
	Drawn: DS
Date: 12/10/2018	Scale: (A1) AS SHOWN

Job No:	Area:	Disc:	Dwg No:	Stage:	Issue:
21151	EX -	C	011	1	A

ORIGINAL SIZE: A1

FILE NAME & PATH: W:\21151\21151 - UTS Kuring-gai Campus Redevelopment\002 - Storm Water Stage 2\CAD\Civil\CAD\Working\C-011.dwg PLOTTED BY: stefan.bahnow PLOT DATE & TIME: 16 Oct, 2018 - 4:02pm





KEY PLAN

NTS

5 0 5 10 15 20 25 1:250 (A1)

DIMENSIONS ARE IN METRES

PLAN VIEW

SCALE 1:250

PRELIMINARY

NOT FOR CONSTRUCTION

Issue	Date	Amendment	Int.	App.
A	12-10-18	FOR PARTIAL DA ISSUE	LDG	DDG

COORDINATED REFERENCE DRAWINGS			
SERVICE	DRAWING NUMBER	ISSUE	DATE
ARCH			
HYD			
MECH			
STRUCT			
ELEC			
CIVIL	21151	A	12-10-08

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Engineer:
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LEVEL 4, 360-362 KENT STREET,
SYDNEY NSW 2000
TELE: 1300 553 654
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ISO 9001 Quality Management

Project:
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
EATON ROAD
LINDFIELD NSW 2070

Drawing Title:
EROSION AND SEDIMENT CONTROL PLAN
2 OF 4

North Point:

Design:	SB
Design Validated:	LDG
Amendment Approved:	DDG
Drawn:	DS
Date:	12/10/2018
Scale: (A1)	AS SHOWN

Job No:	Area:	Disc:	Dwg No:	Stage:	Issue:
21151	EX -	C	012	1	A

ORIGINAL SIZE: A1

FILE NAME & PATH: W:\21151\Civil\21151 - UTS Kuring-gai Campus Redevelopment\002 - Storm Water Stage 2\CAD\Civil\CAD Working\C-012.dwg PLOTTED BY: 'stefan.bahnow' PLOT DATE & TIME: 16 Oct, 2018 - 4:04pm

SEDIMENT POND

SWALE DRAIN

SWALE DRAIN

SEDIMENT FENCE

SITE BOUNDARY

SEDIMENT POND

SEDIMENT FENCE

ZONE E
178.3m²

ZONE D
232m²

CATCHMENT BOUNDARY

Basin Surface Area (m2) 222
Settling (water) zone volume (m3) 103.3
Storage (soil) zone volume (m3) 67
Total basin volume (m3) 110.0

SHEET 13

KEY PLAN
NTS

5 0 5 10 15 20 25
DIMENSIONS ARE IN METRES

1:250 (A1)

PLAN VIEW
SCALE 1:250

PRELIMINARY

NOT FOR CONSTRUCTION

Issue	Date	Amendment	Int.	App.
A	12-10-18	FOR PARTIAL DA ISSUE	LDG	DDG

COORDINATED REFERENCE DRAWINGS			
SERVICE	DRAWING NUMBER	ISSUE	DATE
ARCH			
HYD			
MECH			
STRUCT			
ELEC			
CIVIL	21151	A	12-10-08

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ISO 9001 Quality Management

Project:
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
EATON ROAD
LINDFIELD NSW 2070

Drawing Title:
EROSION AND SEDIMENT CONTROL PLAN
3 OF 4

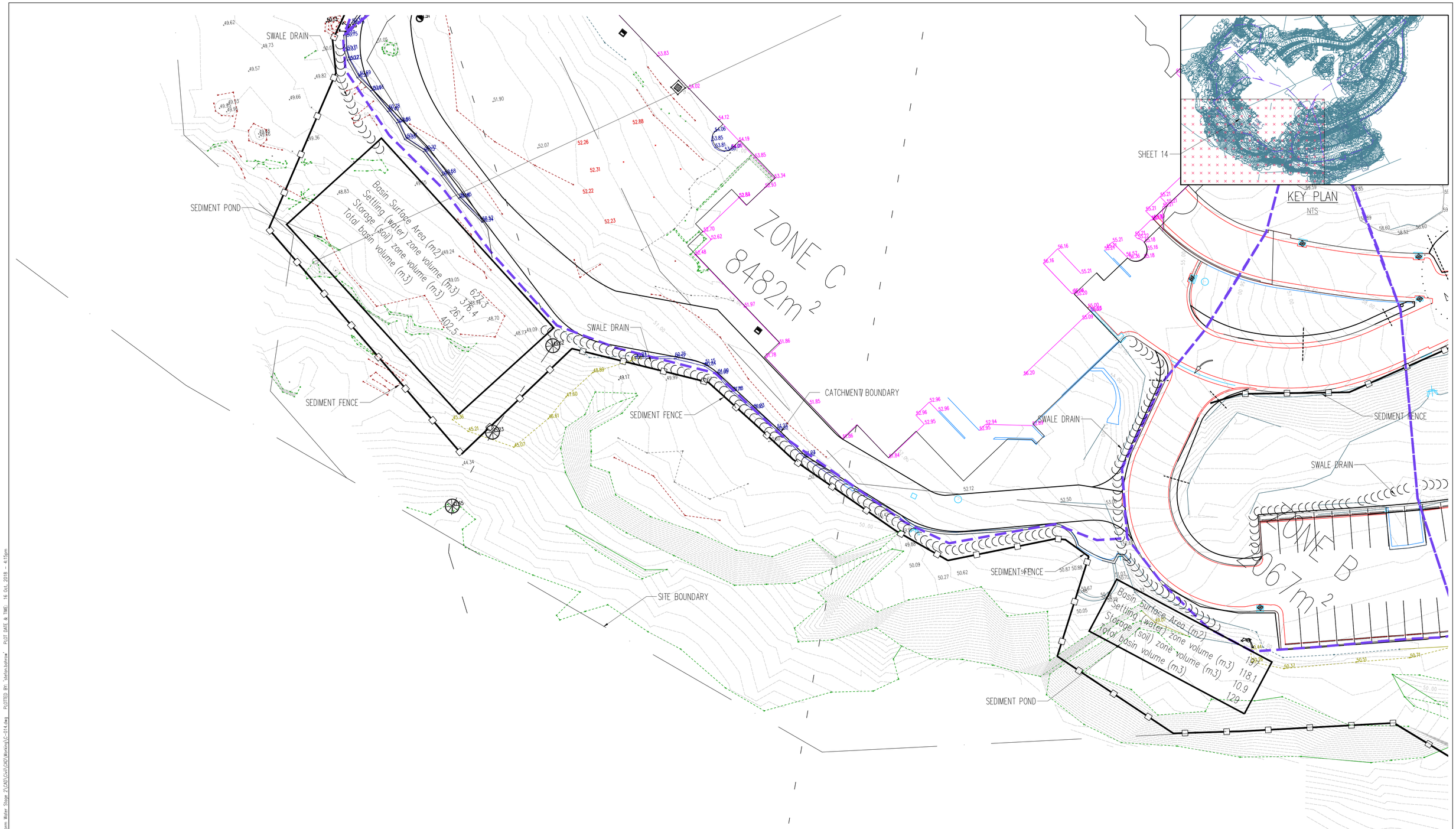
North Point:

Design:	SB
Design Validated:	LDG
Amendment Approved:	DDG
Drawn:	DS
Date:	12/10/2018
Scale:	AS SHOWN (A1)

Job No:	Area:	Disc:	Dwg No:	Stage:	Issue:
21151	EX -	C	013	1	A

ORIGINAL SIZE: A1

FILE NAME & PATH: W:\21\ex\21151 – UTS Kuring-gai Campus Redevelopment\002 – Storm Water Stage 2\CAD\Civil\CAD\Working\C-013.dwg PLOTTED BY: 'stefan.bohrne' PLOT DATE & TIME: 16 Oct, 2018 – 4:09pm



5 0 5 10 15 20 25

DIMENSIONS ARE IN METRES

1:250 (A1)

PLAN VIEW

SCALE 1:250

PRELIMINARY

NOT FOR CONSTRUCTION

Issue	Date	Amendment	Int.	App.
A	12-10-18	FOR PARTIAL DA ISSUE	LDG	DDG

COORDINATED REFERENCE DRAWINGS

SERVICE	DRAWING NUMBER	ISSUE	DATE
ARCH			
HYD			
MECH			
STRUCT			
ELEC			
CIVIL	21151	A	12-10-08

NOTE : SYMBOLS ARE DRAWN IN THE CORRECT POSITION BUT ARE NOT SHOWN TO SCALE

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4 OF 4

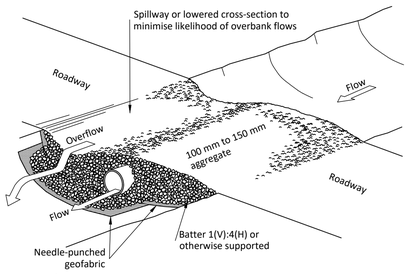
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Design:	SB
Design Validated:	LDG
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Drawn:	DS
Date:	12/10/2018
Scale: (A1)	AS SHOWN

Job No:	Area:	Disc:	Dwg No:	Stage:	Issue:
21151	EX -	C	014	1	A

ORIGINAL SIZE: A1

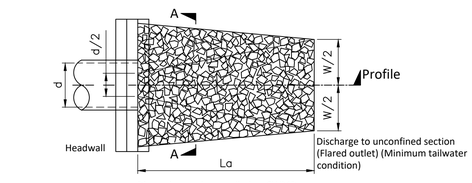
FILE NAME & PATH: W:\21151\21151 - UTS Kuring-gai Campus Redevelopment\002 - Storm Water Stage 2\CAD\Civil\CAD Working\C-014.dwg PLOTTED BY: 'stefan.bahnow' PLOT DATE & TIME: 16 Oct, 2018 - 4:15pm



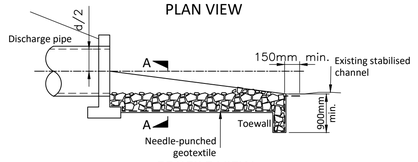
Construction Notes:

1. All traffic prohibited until access way is constructed
2. Strip topsoil and place a needle punched fabric over the base of the crossing
3. Place clean rigid non-polluting aggregate or gravel in 100mm to 150mm class over fabric to a minimum depth of 200mm
4. Provide 3 metre wide carriage way along with sufficient length of culvert pipe to allow less than a 3(H): 1(V) slope on side batters
5. Ensure that culvert outlets extend beyond the toe of fill embankments.

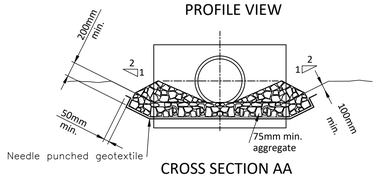
WATERWAY CROSSING



PLAN VIEW



PROFILE VIEW

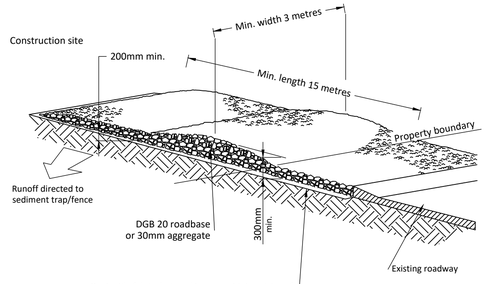


CROSS SECTION AA

Construction Notes:

1. Subgrade fill to be compacted to the density of the surrounding undisturbed material
2. Ensure that concrete or riprap used for energy dissipater or outlet protection conforms to the grading limits specified on the SWMP/ESCP
3. Ensure that the geotextile does not sustain serious damage by preparing a smooth, even foundation
4. Repair minor damage to the geotextile before spreading any aggregate For repairs, patch one piece of fabric over the damage, making sure that all joints and patches overlap more than 300 mm.

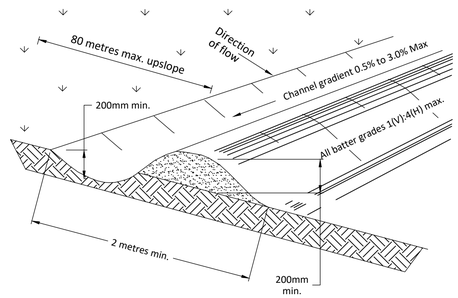
ENERGY DISSIPATER



Construction Notes:

1. Strip topsoil and level site
2. Compact subgrade
3. Cover area with needle-punched geotextile
4. Construct 200mm thick pad over geotextile using roadbase or 30mm aggregate. Minimum length 15 metres or to building alignment. Minimum width 3 metres
5. Construct hump immediately within boundary to divert water to a sediment fence or other sediment trap.

STABILISED SITE ACCESS



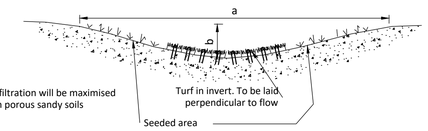
NOTE: Only to be used as temporary bank where max. upslope length is 80 metres

Construction Notes:

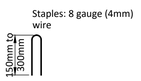
1. Construct along gradient as specified
2. Maximum spacing between banks shall be 75 metres
3. Drains to be of parabolic or trapezoidal cross section not V-shaped
4. Earth banks to be adequately compacted in order to prevent failure
5. Construction is of a temporary nature and shall be completed at the end a days work or immediately prior to rain
6. All outlets from disturbed lands are to feed into a sediment basin or similar
7. Discharge runoff collected from undisturbed lands onto either a stabilised or an undisturbed disposal site within the same subcatchment area from which the water originated
8. Compact with a suitable implement in situations where they are required to function for more than five days
9. Earth banks to be free of projections or other irregularities that will impede normal flow.

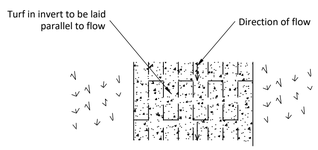
CATCH DRAINS

Dimensions including channel gradient to be specified on SWMP/ESCP



Section





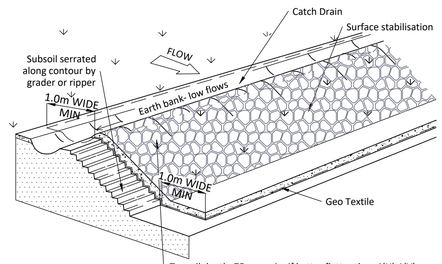
Plan

NOTE: This practice can only be used to treat runoff free of sediment.

Construction Notes:

1. Ensure that sufficient upstream site work practices are in place to ensure that sediment is unlikely to reach the swale
2. Remove topsoil and stockpile outside swale area
3. Form a shallow depression as shown on the SWMP/ESCP ensuring that its grade does not exceed 5 per cent and sideslopes do not exceed 30 per cent
4. Prepare seedbed and sow seed in accordance with Standard Drawing 4-3
5. Turf the invert as specified in the SWMP/ESCP
6. Pin turf through topsoil to natural ground at 1 pin per square metre
7. Fertilise and irrigate frequently for two months to establish vigorous ground cover.

GRASS SWALES



Topsoil depth: 75 mm min. if batter flatter than 4(H):1(V)
40 mm to 60 mm if batter steeper than 4(H):1(V) with jute mesh stapled down over face
Specialised techniques (Stone pitching required) if batter slopes steeper than 2(H):1(V)
Stone size min 75mm dn

EMBANKMENT STABLISATION

Construction Notes:

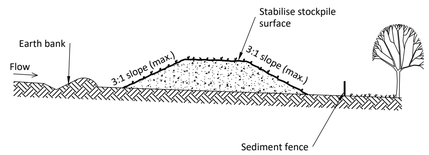
1. Scarify ground surface along the line of the contour to a depth of 50mm to 100mm to break up any hardsetting surfaces and provide a good bond between the respread material and subsoil

2. Add soil ameliorants as required by the SWMP/ESCP

3. Rip to a depth of 300mm where a compacted layer occurs

4. Replace topsoil.

REPLACING TOPSOIL



Construction Notes:

1. Locate stockpile at least 5 metres from existing vegetation, concentrated water flows, roads and hazard areas

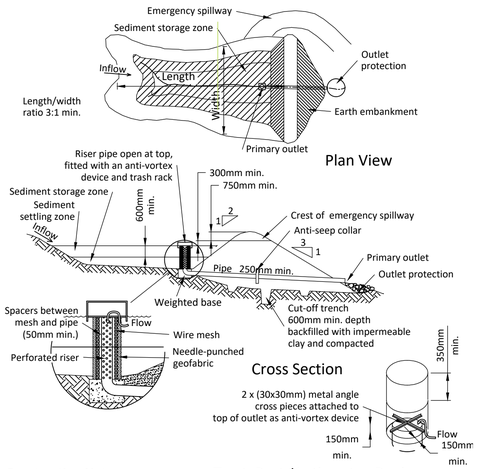
2. Construct on the contour as a low, flat, elongated mound

3. Where there is sufficient area topsoil stockpiles shall be less than 4 metres in height

4. Rehabilitate in accordance with the SWMP/ESCP

5. Construct earth bank on the upslope side to divert run off around the stockpile and a sediment fence (Standard Drawing 6-7) 1 to 2 metres downslope of stockpile.

STOCKPILES



Trash Rack/Anti-vortex Device

Construction Notes:

1. Remove all vegetation and topsoil from under the dam wall and from within the storage area
2. Form a cut off trench under the centreline of the embankment 600mm deep and 1200mm wide extending to a point on the gully wall above the riser sill level
3. Maintain the trench free of water and recompact the materials with equipment as specified in the SWMP to 95 per cent Standard Proctor Density
4. Select fill according to the directions of the SWMP that is free from roots, wood, rock, large stone or foreign material
5. Prepare the site under the embankment by ripping at least 100mm deep to help bond compacted fill to existing substrate
6. Spread fill in 100mm to 150mm layers and compact at optimum moisture content in accordance with the SWMP
7. Install pipe outlet with seepage collars as specified in SWMP
8. Form batter grades at 2(H):1(V) upstream and 3(H):1(V) downstream or as specified in SWMP
9. Install pipe riser as specified in SWMP
10. Construct emergency spillway 300mm above sill height of riser pipe
11. Rehabilitate structure in accordance with the SWMP
12. Geotextile to be replaced with the specified material if basin does not freely drain within four days
13. Place a "Full of Sediment" marker to show when less than design capacity occurs and sediment removal is required.

PRELIMINARY

NOT FOR CONSTRUCTION

Issue	Date	Amendment	Int.	App.
A	12-10-18	FOR PARTIAL DA ISSUE	LDG	DDG

COORDINATED REFERENCE DRAWINGS			
SERVICE	DRAWING NUMBER	ISSUE	DATE
ARCH			
HYD			
MECH			
STRUCT			
ELEC			
CIVIL	21151	A	12-10-08

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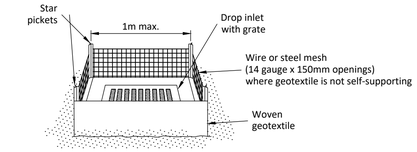
Drawing Title:
EROSION AND SEDIMENT CONTROL DETAIL SHEET 1 OF 2

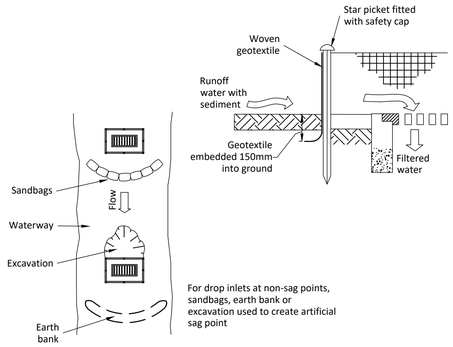
North Point:	Design: SB
	Design Validated: LDG
	Amendment Approved: DDG
	Drawn: DS
Date: 12/10/2018	Scale: AS SHOWN (A1)

Job No:	Area:	Disc:	Dwg No:	Stage:	Issue:
21151	EX -	C	015	1	A

ORIGINAL SIZE: A1

FILE NAME & PATH: W:\21\ex\21151 - UTS Ku-ring-gai Campus Redevelopment\002 - Storm Water Stage 2\CAD\Civil\CAD\Working\C-015.dwg PLOTTED BY: 'stefan.bobrow' PLOT DATE & TIME: 16 Oct, 2018 - 3:57pm



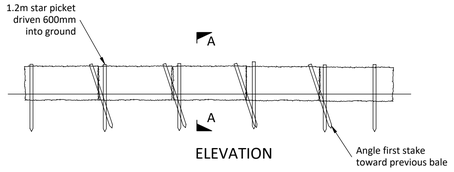


For drop inlets at non-sag points, sandbags, earth bank or excavation used to create artificial sag point

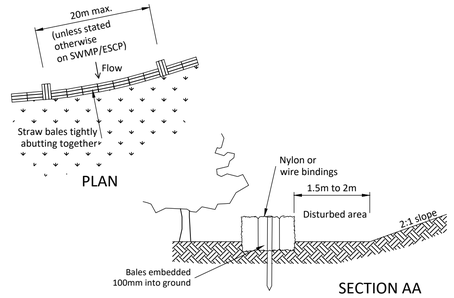
Construction Notes:

1. Fabricate a sediment barrier made from geotextile or straw bales.
2. Support geotextile with mesh tied to posts at 1 metre centres.
3. Do not cover inlet with geotextile.
4. Construction details are similar to Standard Drawing 6-6 and Standard Drawing 6-7.

GEOTEXTILE INLET FILTER



ELEVATION



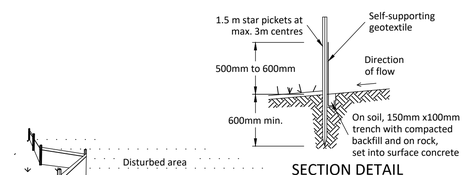
PLAN

SECTION AA

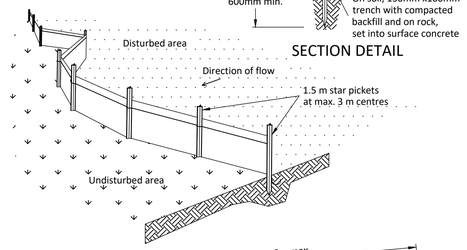
Construction Notes:

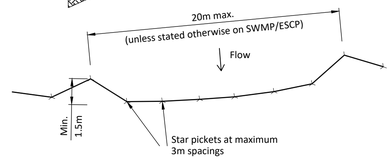
1. Construct straw bale filter as close as possible to parallel to the contours of the site or at the toe of a slope.
2. Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straws to be placed parallel to ground.
3. Maximum height of filter is one bale.
4. On soft materials, embed each bale in the ground 75mm to 100mm and anchor with two 1.2 metre star pickets. Angle the first stake in each bale towards the previously laid bale. Drive stakes 600mm into the ground and flush with the top of the bales.
5. Where a straw bale filter is constructed downslope from a disturbed batter the bales should be located 1.5 to 2 metres downslope from the toe of the batter.

STRAW BALE FILTER



SECTION DETAIL



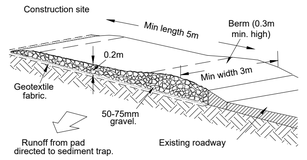


PLAN

Construction Notes:

1. Construct sediment fence as close as possible to parallel to the contours of the site.
2. Drive 1.5 metre long star pickets into ground, 3 metres apart.
3. Dig a 150mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
4. Backfill trench over base of fabric.
5. Fix self-supporting geotextile to upslope side of posts with wire ties or as recommended by geotextile manufacturer.
6. Join sections of fabric at a support post with a 150mm overlap.

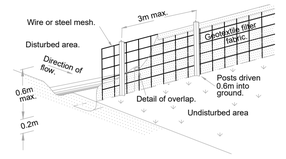
SEDIMENT FENCE



TEMPORARY CONSTRUCTION ACCESS TREATMENT

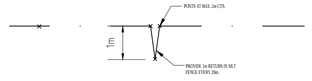
MAINTENANCE

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND / OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.



SEDIMENT FENCE DETAIL

N.T.S.



SILT FENCE RETURN DETAILS

GEOTEXTILE FABRIC (BIDIM U24 OR SIMILAR)

SOIL EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

1. THE SITE SUPERINTENDENT WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED.
2. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
   a. LOCAL AUTHORITY REQUIREMENTS
   b. EPA REQUIREMENTS
   c. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
3. MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
4. THE WATER IN THE SEDIMENT BASIN(S) SHALL BE LOWERED PERIODICALLY TO MAINTAIN THE MINIMUM STORAGE VOLUME REQUIRED FOR FINE SOILS
5. AT ALL TIMES A WATER CART(S) SHALL BE MAINTAINED ON SITE TO:
   (A) WATER THE AREAS OF HYDROMULCH
   (B) CONTROL DUST
   WATERING OF MULCH, DUST OR VEGETATION MUST BE KEPT TO THE MINIMUM REQUIRED TO ACHIEVE SPECIFIED OUTCOMES. IN NO CASE SHALL AREAS BE OVER WATERED TO SATURATION OR TO THE POINT WHERE WATER PONDS ON THE SURFACE.
6. STORMWATER IN THE SETTLING ZONE SHALL BE DRAINED OR PUMPED OUT WITHIN 7 DAYS (NO LATER THAN 14 DAYS AS SITE CONDITIONS ALLOW) FOLLOWING RAINFALL EVENT IF THE NOMINATED WATER QUALITY TARGETS CAN BE MET. THE LOWER LEVEL OF THE SETTLING ZONE SHALL BE IDENTIFIED WITH A PEG THAT SHOWS CLEARLY THE LEVEL WHICH DESIGN CAPACITY IS AVAILABLE.
7. ON THE SUPERINTENDENT'S INSTRUCTIONS AIDED FLOCCULATION SHOULD BE EMPLOYED WHERE EXTENDED SETTLING IS LIKELY TO FAIL TO MEET QUALITY STANDARDS WITHIN 5 DAYS.
8. STORED SEDIMENT SHALL NOT ENCROACH INTO SETTLING ZONE. SEDIMENT REMOVED FROM SEDIMENT BASINS SHALL BE DISPOSED IN PLACES THAT WILL NOT RESULT IN A FUTURE EROSION OR POLLUTION HAZARD.
9. WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
10. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

11. THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
    (A) INSTALL A WIND FENCE ALONG THE BOUNDARIES
    (B) INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES REFER DETAIL.
    (C) CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
    (D) INSTALL SEDIMENT BASIN AS SHOWN ON PLAN
    (E) INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
    (F) UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

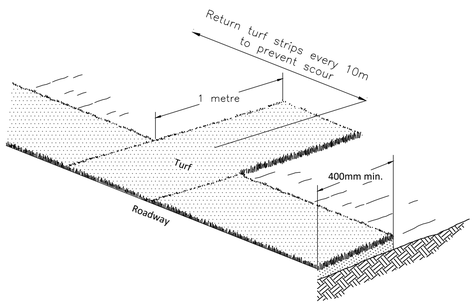
12. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.

SEDIMENT CONTROL

14. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
15. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
16. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
17. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

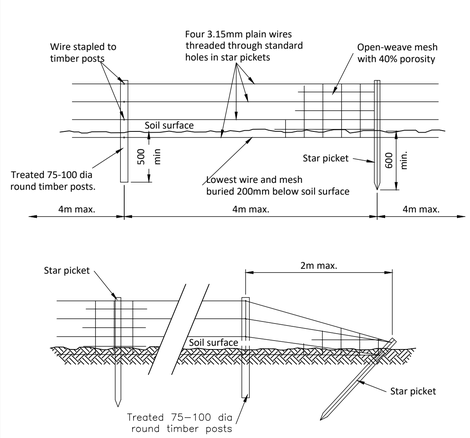
18. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
19. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
    (A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
    (B) ENSURING THAT NOTHING IS NAILED TO THEM
    (C) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.



CONSTRUCTION NOTES:

1. Install min. 400mm wide roll of turf on the footpath adjacent to the kerb and at the same level as the top of the kerb.
2. Lay 1.5 metre long turf strips normal to the kerb every 10 metres.
3. Rehabilitate disturbed soil behind the turf strip in accordance with the SWMP/ESCP.

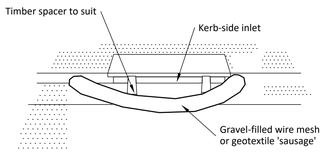
KERBSIDE TURF STRIP

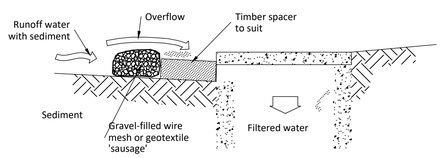


Construction Notes:

1. Install fence to height and location as specified on SWMP/ESCP
2. Cut a channel 200mm deep along the fence line
3. Place wire and light resistant, open-weave polymer mesh with 40% porosity on prevailing wind side of fence
4. Fasten mesh to all wires using ring fasteners at 100mm - 150mm intervals on top wire and 300mm intervals on other wires
5. Use one 75mm - 100mm dia. treated round timber post every 20 metres
6. Star pickets to be fitted with safety caps.

CONTROL OF WIND EROSION





NOTE: This practice only to be used where specified in an approved SWMP/ESCP

Construction Notes:

1. Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit
2. Fill the sleeve with 25mm to 50mm gravel
3. Form an elliptical cross-section about 150mm high x 400mm wide
4. Place the filter at the opening of the kerb inlet leaving a 100mm gap at the top to act as an emergency spillway
5. Maintain the opening with spacer blocks
6. Form a seal with the kerbing and prevent sediment bypassing the filter
7. Fit to all kerb inlets at sag points.

MESH AND GRAVEL INLET FILTER SD6-8

PRELIMINARY

NOT FOR CONSTRUCTION

Issue	Date	Amendment	Int.	App.
A	12-10-18	FOR PARTIAL DA ISSUE	LDG	DDG

COORDINATED REFERENCE DRAWINGS			
SERVICE	DRAWING NUMBER	ISSUE	DATE
ARCH			
HYD			
MECH			
STRUCT			
ELEC			
CIVIL	21151	A	12-10-08

NOTE : SYMBOLS ARE DRAWN IN THE CORRECT POSITION BUT ARE NOT SHOWN TO SCALE

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WEB: www.ewfw.com.au
ISO 9001 Quality Management

Project:
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
EATON ROAD
LINDFIELD NSW 2070

Drawing Title:
EROSION AND SEDIMENT CONTROL DETAIL SHEET 2 OF 2

North Point:	Design: SB	
	Design Validated: LDG	
	Amendment Approved: DDG	
	Drawn: DS	
Date: 12/10/2018	Scale: AS SHOWN (A1)	

Job No:	Area:	Disc:	Dwg No:	Stage:	Issue:
21151	EX -	C	016	1	A

ORIGINAL SIZE: A1

FILE NAME & PATH: W:\21\ex\21151 - UTS Ku-ring-gai Campus Redevelopment\002 - Storm Water Stage 2\CAD\Civil\CAD\Working\C-016.dwg PLOTTED BY: 'stefan.bobrow' PLOT DATE & TIME: 16 Oct, 2018 - 3:55pm

1. Erosion Hazard and Sediment Basins

Site Name: UTS Linfield

Site Location: Eaton Road, Linfield. NSW 2070

Precinct/Stage: Stage 1

Other Details:

Site area	Sub-catchment or Name of Structure						Notes
	Zone A	Zone B	Zone C	Zone D	Zone E		
Total catchment area (ha)	1.186	0.267	0.848	0.232	0.176		
Disturbed catchment area (ha)	0.783	0.124	0.524	0.102	0.076		

Soil analysis (enter sediment type if known, or laboratory particle size data)

Sediment Type (C, F or D) if known:	C	C	C	C	C		From Appendix C (if known)
% sand (fraction 0.02 to 2.00 mm)							Enter the percentage of each soil fraction. E.g. enter 10 for 10%
% silt (fraction 0.002 to 0.02 mm)							
% clay (fraction finer than 0.002 mm)							
Dispersion percentage	11.0	11.0	11.0	11.0	11.0		E.g. enter 10 for dispersion of 10%
% of whole soil dispersible							See Section 6.3.3(e). Auto-calculated
Soil Texture Group	C	C	C	C	C		Automatic calculation from above

Rainfall data

Design rainfall depth (no of days)	20	20	20	20	20		See Section 6.3.4 and, particularly, Table 6.3 on pages 6-24 and 6-25.
Design rainfall depth (percentile)	90	90	90	90	90		
x-day, y-percentile rainfall event (mm)	172	172	172	172	172		
Rainfall R-factor (if known)	3470.67	3470.67	3470.67	3470.67	3470.67		Only need to enter one or the other here
IFD: 2-year, 6-hour storm (if known)	12.68	12.68	12.68	12.68	12.68		

RUSLE Factors

Rainfall erosivity (*R*-factor)	3470.67	3470.67	3470.67	3470.67	3470.67		Auto-filled from above
Soil erodibility (*K*-factor)	0.04	0.04	0.04	0.04	0.04		RUSLE LS factor calculated for a high rill/interrill ratio.
Slope length (m)	190.63	93.25	76.6	46.1	39.2		
Slope gradient (%)	9.65	11.2	8.4	13	17.2		
Length/gradient (*LS*-factor)	4.78	3.72	2.11	2.80	3.56		
Erosion control practice (*P*-factor)	1.3	1.3	1.3	1.3	1.3	1.3	
Ground cover (*C*-factor)	1	1	1	1	1	1	

Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Type C basins)

Storage (soil) zone design (no of months)	9	6	3	4	2	2	Minimum is generally 2 months
Cv (Volumetric runoff coefficient)	0.63	0.63	0.63	0.63	0.63		See Table F2, page F-4 in Appendix F

Calculations and Type D/F Sediment Basin Volumes

Soil loss (t/ha/yr)	862	671	381	505	642		
Soil Loss Class	6	5	4	5	5		See Table 4.2, page 4-13
Soil loss (m^3/ha/yr)	663	516	293	389	494		Conversion to cubic metres
Sediment basin storage (soil) volume (m^3)	389	32	38	13	6		See Sections 6.3.4(i) for calculations
Sediment basin settling (water) volume (m^3)	1285	289	919	252	191		See Sections 6.3.4(i) for calculations
Sediment basin total volume (m^3)	1674	321	957	265	197		

2. Flow Calculations

Peak flow is given by the Rational Formula: $Qy = 0.00278 \times C_{10} \times F_Y \times I_{y,\,tc} \times A$

where:
- Q_y is peak flow rate (m^3/sec) of average recurrence interval (ARI) of "Y" years
- C_{10} is the runoff coefficient (dimensionless) for ARI of 10 years.
- F_y is a frequency factor for "Y" years.
- A is the catchment area in hectares (ha)
- $I_{y,\,tc}$ is the average rainfall intensity (mm/hr) for an ARI of "Y" years and a design duration of "tc" (minutes or hours)

Time of concentration (t_c) = $0.76 \times (A/100)^{0.38}$ hrs

Note: For urban catchments the time of concentration should be determined by more precise calculations or reduced by a factor of 50 per cent. Place an x in the appropriate row below to automatically halve the time of concentration for that sub-catchment.

Structure Details									Notes
Name	Zone A	Zone B	Zone C	Zone D	Zone E				
Catchment Area (ha)	1.1863	0.267	0.848	0.2323	0.176				
Place an x here to halve tc									Place an x if disturbed catchment
Time of concentration (tc)	8	5	7	5	4				minutes

Rainfall Intensities

1-year, tc	80.3	95.3	80.3	95.3	95.3				Enter the relevant rainfall intensities (in mm/hr) for each of the nominated rainfall events. The time of concentration (tc) determines the duration of the event to be used
2-year, tc	102.6	121.9	102.6	121.9	121.9				
5-year, tc	130.2	154.1	130.2	154.1	154.1				
10-year, tc	145.9	172.4	145.9	172.4	172.4				
20-year, tc	167	196.9	167	196.9	196.9				
50-year, tc	194.2	228.7	194.2	228.7	228.7				
100-year, tc	214.9	252.65	214.9	252.65	252.65				
C10 runoff coefficient	0.85	0.85	0.85	0.85	0.85				Use AR&R or Table F3, pg F-6

Frequency Factors

FF, 1-year	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	Can use 0.8 for a construction site
FF, 2-year	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	Can use 0.85 for a construction site
FF, 5-year	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	Can use 0.95 for a construction site
FF, 10-year	1	1	1	1	1	1	1	1	Generally always 1
FF, 20-year	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	Can use 1.05 for a construction site
FF, 50-year	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	Can use 1.15 for a construction site
FF, 100-year	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	Can use 1.2 for a construction site

Flow Calculations									Notes
1-year, tc (m^3/s)	0.18	0.048	0.129	0.042	0.032				
2-year, tc (m^3/s)	0.244	0.065	0.175	0.057	0.043				
5-year, tc (m^3/s)	0.347	0.092	0.248	0.08	0.061				
10-year, tc (m^3/s)	0.409	0.109	0.292	0.095	0.072				
20-year, tc (m^3/s)	0.492	0.13	0.351	0.113	0.086				
50-year, tc (m^3/s)	0.626	0.166	0.448	0.144	0.109				
100-year, tc (m^3/s)	0.723	0.191	0.517	0.166	0.126				

NB for flow calculations on sediment basin spillways, see Worksheet 3 (if required).

3. Sediment Basin Spillway Design

Structure Details

Structure Name	Zone A	Zone B	Zone C	Zone D	Zone E		Auto-filled from Worksheet 1
Catchment Area (ha)	1.1863	0.267	0.848	0.2323	0.176		Auto-filled from Worksheet 1
Time of concentration (tc)	4	2	4	2	2		Auto-calculated assuming tc is halved

Rainfall Intensities (IFD Values)

1 year, tc	80.3	95.3	95.3	95.3	95.3		Enter the relevant rainfall intensities (in mm/hr) for each of the nominated rainfall events. The time of concentration (tc) determines the duration of the event to be used
2 year, tc	102.6	121.9	121.9	121.9	121.9		
5 year, tc	130.2	154.1	154.1	154.1	154.1		
10 year, tc	145.9	172.4	172.4	172.4	172.4		
20 year, tc	167	196.9	196.9	196.9	196.9		
50 year, tc	194.2	228.7	228.7	228.7	228.7		
100 year, tc	214.9	252.65	252.65	252.65	252.65		
C_{10} runoff coefficient	0.85	0.85	0.85	0.85	0.85		Use AR&R or Table F3, pg F-6
Design ARI event (select):	20	20	100	100	100	100	Select design ARI (years) from dropdown
Frequency Factor	1.05	1.05	1.2	1.2	1.2	1.2	Auto-filled based on selected ARI
Flow Calculation	0.492	0.13	0.608	0.166	0.126		Auto-calculated based on selected ARI

4. Volume of Type C (Coarse) Sediment Basins

Type C Basin Design Criteria

Structure Name	Zone A	Zone B	Zone C	Zone D	Zone E		Auto-filled from Worksheet 1
Catchment Area (ha)	1.1863	0.267	0.848	0.2323	0.176		Auto-filled from Worksheet 1
Sediment type (C, F or D)	C	C	C	C	C		Auto-filled from Worksheet 1
Design rainfall event	1	1	1	1	1		Choose design event from dropdown
Flow volume (m^3/s)	0.18	0.048	0.153	0.042	0.032		Calculated from IFD values above
Area Factor	4100	4100	4100	4100	4100	4100	Default is 4,100. See pg 6-12
Depth of settling (water zone) (m)	0.6	0.6	0.6	0.6	0.6	0.6	Minimum is 0.6m (pg 6-12)

Type C Basin Volume Calculations

Basin Surface Area (m^2)	738	196.8	627.3	172.2	131.2	Not Type C	Auto-calculated
Settling (water) zone volume (m^3)	442.8	118.1	376.4	103.3	78.7	Not Type C	Auto-calculated
Storage (soil) zone volume (m^3)	88.3	10.9	26.1	6.7	6.4	Not Type C	Auto-calculated
Total basin volume (m^3)	531.1	129	402.5	110	85.1	Not Type C	Auto-calculated

Basin Shape

Enter length:width ratio	3	3	2	3	3	3	E.g. for 3:1 (L:W) enter 3.
Length (m)	47.1	24.3	35.4	22.7	19.8	N/A	These figures should be taken as a guide only. Detailed calcs might be required.
Width (m)	15.7	8.1	17.7	7.6	6.6	N/A	

PRELIMINARY

NOT FOR CONSTRUCTION

Issue	Date	Amendment	Int.	App.
A	12-10-18	FOR PARTIAL DA ISSUE	LDG	DDG

COORDINATED REFERENCE DRAWINGS			
SERVICE	DRAWING NUMBER	ISSUE	DATE
ARCH			
HYD			
MECH			
STRUCT			
ELEC			
CIVIL	21151	A	12-10-08

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Project:
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
EATON ROAD
LINDFIELD NSW 2070

Drawing Title:
EROSION AND SEDIMENT CONTROL CALCULATION SHEET
1 OF 1

North Point:		Design: SB			
		Design Validated: LDG			
		Amendment Approved: DDG			
		Drawn: DS			
Date: 12/10/2018		Scale: (A1) AS SHOWN			
Job No: 21151	Area: EX -	Disc: C	Dwg No: 017	Stage: 1	Issue: A

ORIGINAL SIZE: A1

FILE NAME & PATH: W:\21151\21151 - UTS Kuring-gai Campus Redevelopment\002 - Storm Water Stage 2\CAD\Civil\CAD\Working\C-017.dwg PLOTTED BY: 'stefan.bohrow' PLOT DATE & TIME: 16 Oct, 2018 - 4:26pm

APPENDIX 10. ACONEX URBIS HERITAGE REVIEW OF LANDSCAPE PLANS (2018)

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Lindfield Learning Village
100 Eton Road
Linfield
NSW 2070 Australia

MAIL TYPE
General Correspondence
REFERENCE NUMBER
Savills-GCOR-000728

MAIL NUMBER
urbis-1-GCOR-000044

Re: Condition B13: Landscape Plans and LMP

From	Keira De Rosa - Urbis
To (10)	Mr Sandeep Amin - DesignInc Sydney Pty Ltd
	Maria Rigoli - DesignInc Sydney Pty Ltd
	Mr Luke De Gioia - EWFW
	Mr Dominic De Gioia - EWFW
	Dan Pedersen - Kleinfelder Australia Pty Ltd
	Ms Dodie McMenamin - Lacoste +Stevenson Architects
	Ms Emma Viljoen - Savills Project Management Pty Ltd
	Mr Dean Fondas - Taylor Construction Group
	Ms Fiona Binns - Urbis
	Ms Alaine Roff - Urbis
Cc (11)	Mr Lew Short - Blackash Bushfire Consulting
	Mr Tim Garry - DesignInc Sydney Pty Ltd
	Ingrid Cheng - DesignInc Sydney Pty Ltd
	Jess Ronchi - DesignInc Sydney Pty Ltd
	Debra Stephen - EWFW
	Jim Lewis - NSW Department of Education
	Rebecca Willott - NSW Department of Education (rebecca.willott@det.nsw.edu.au)
	Andrew Kyriacou - NSW Department of Education (andrew.kyriacou@det.nsw.edu.au)
	Robert Walker - Savills Project Management Pty Ltd
	Stephanie Edmondson - Savills Project Management Pty Ltd
	Ms Sasha Serrao - Savills Project Management Pty Ltd
Sent	Tuesday, 23 October 2018

MESSAGE

Hello Maria,

Generally the scaled back landscape plan is ok from a heritage perspective, given the required tree removal and other APZ requirements which restrict what can be achieved within this area.

Our main feedback and points of concern are as follows:

- The proposed areas of coloured concrete at the main entry to the building may be too bold (keeping in mind we don't know the intensity of the proposed colors). We would prefer to keep any proposed colours for the concrete to a more natural palette with subdued natural colours (grass green, complimentary earthy colours to the sandstone bedrock etc.)
- Small pops of bold colour are ok, like the exercise track (which we note has been removed), however, we want to avoid any large swathes of colour which detract from both the natural landscape and the building. The intention should be to make it feel like the new playground area has been softly placed into the landscape and should as far as practicable (given all the constraints and the new use) reflect the original design intent of Bruce Mackenzie's landscape design.
- The use of salvaged logs from the trees and boulders from salvaged sandstone to be removed is great. The more inclusion of these elements the better.
- Areas of transplanted ground covering to break up the turfed areas are great.
- in meeting yesterday we discussed natural grasses and on site plantings where children would not be playing due to slope of rock outcrops and would supportive of these inclusions as well.

We hope this feedback assists in the development of the landscape plans. This does not superseded our advice that further approvals may be required (modification to the consent) pending confirmation with the certifier.
Kind regards,
Keira

From: M Rigoli
Sent: 22/10/2018 4:56:56 PM AEDT (GMT +11:00)
To: lew short, Sandeep Amin, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin, Emma Viljoen, Dean Fondas, Fiona Binns, Keira De Rosa, Alaine Roff
Cc: Ingrid Cheng, Tim Garry, Maria Rigoli, Jess Ronchi, Debra Stephen, Andrew Kyriacou, Jim Lewis, Rebecca Willott, Stephanie Edmondson, Sasha Serrao, Robert Walker
Mail Number: DESI-GCOR-000411
Subject: Re: Condition B13: Landscape Plans and LMP

Good afternoon everyone,

Following a number of discussions with various interested parities, we have marked up the landscape plan to provide an indication of what we are planning to provide as a "Stage 1 landscape plan" that will (hopefully) meet the requirements of the condition B13, as well as the a naturalistic landscape that will satisfy the requirements of heritage, and not be too far removed from the original SSDA submission to satisfy the planning requirement.

We have also considered the time line for construction.

There is an urgency to have this plan completed asap. Could you all please review the mark-ups and provide feedback tomorrow so that we understand whether or not we are heading in the right direction?

Regards,

Maria

From: L De Gioia
Sent: 22/10/2018 4:36:30 PM AEDT (GMT +11:00)
To: lew short, Sandeep Amin, Dominic De Gioia, Dan Pedersen, Dodie McMenamin, Emma Viljoen, Fiona Binns, Keira De Rosa, Alaine Roff
Cc: Ingrid Cheng, Tim Garry, Maria Rigoli, Jess Ronchi, Debra Stephen, Andrew Kyriacou, Jim Lewis, Rebecca Willott, Stephanie Edmondson, Sasha Serrao, Robert Walker
Mail Number: EWFW-GCOR-000005
Subject: Re: Condition B13: Landscape Plans and LMP

Emma, et al.

Please include Debra on all correspondence.
Debra has been cc'ed into this aconex

Regards,
Luke De Gioia
EWFW
T 1300 553 654
M 0412 766 997
E luke.degioia@ewfw.com.au
W www.ewfw.com.au

From: S Amin
Sent: 22/10/2018 2:41:22 PM AEDT (GMT +11:00)
To: lew short, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin, Emma Viljoen, Fiona Binns, Keira De Rosa, Alaine Roff
Cc: Sandeep Amin, Ingrid Cheng, Tim Garry, Maria Rigoli, Jess Ronchi, Andrew Kyriacou, Jim Lewis, Rebecca Willott, Stephanie Edmondson, Sasha Serrao, Robert Walker
Mail Number: DESI-GCOR-000407
Subject: Re: Condition B13: Landscape Plans and LMP

Hi Emma,

Thanks for your call to discuss the Landscape Plans (design) issued by our team last week and again to the heritage team this morning subsequent to their meeting at our office.

there is other two chains of correspondence that have been attached with this one as they are relevant.

I note that as discussed by Dean Fondas with our landscape team, he is going to confirm later today what is possible to be done for landsaping on D1T1 2019.

The agreed plan of action is to mark up the latest landscpae design docs with minimal works that is able to be delivered by the building team and then get these refviewed by Rrbis Planning and Urbis Heritage to

make sure that the proposed works are within current planning approval scope and acceptable to heritage team for endorsement. This will happe by end today.

Once the Urbis teams have responeded affirmatively then we will produce CAD documentation in accordance and confirm timeline for completion.

Please feel free to comment.

Regards,

Sandeep Amin

Managing Director

Nominated Architect

DesignInc

Level 12, 77 Pacific Highway

North Sydney, NSW 2060

T +61 2 8905 7100

M +61 411 598 470

Architecture

Urban Design

Landscape

Interiors

designinc.com.au

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From: E Viljoen
Sent: 18/10/2018 6:32:09 PM AEDT (GMT +11:00)
To: Rebecca Kwok, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin, Fiona Binns, Keira De Rosa
Cc: Sandeep Amin, Tim Garry, Jess Ronchi, Andrew Kyriacou, Jim Lewis, Rebecca Willott, Stephanie Edmondson, Sasha Serrao, Robert Walker
Mail Number: Savills-GCOR-000828
Subject: Re: Condition B13: Landscape Plans and LMP

Hi Keira and Fiona
Attached the updated LMP - only change to the earlier is the heritage courtyard removed.
We are working extremely hard to get the Conditions closed out by the end of the week.
We were expecting your outstanding items last week and the on Tuesday (which don't rely on other consultants).
These are extremely **urgent**, can you please issue to us as soon as possible items on Savills-GCOR-000746, so that
we can issue to the DoE and
Planning Secretary.
Kind Regards
Emma

From: K De Rosa
Sent: 18/10/2018 5:41:02 PM AEDT (GMT +11:00)
To: Rebecca Kwok, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin, Emma Viljoen, Fiona Binns
Cc: Sandeep Amin, Tim Garry, Jess Ronchi, Stephanie Edmondson, Sasha Serrao
Mail Number: urbis-1-GCOR-000030
Subject: Re: Condition B13: Landscape Plans and LMP

Hello Emma,

Fiona and I are not in the office tomorrow, so we cannot review the updated Landscape Management Plan first thing tomorrow.

Kind regards,

Keira

From: E Viljoen
Sent: 18/10/2018 5:26:40 PM AEDT (GMT +11:00)
To: Rebecca Kwok, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin, Fiona Binns, Keira De Rosa
Cc: Sandeep Amin, Tim Garry, Jess Ronchi, Stephanie Edmondson, Sasha Serrao
Mail Number: Savills-GCOR-000827
Subject: Re: Re: Condition B13: Landscape Plans and LMP

Kiera/ Fiona
LMP is being updated to remove heritage item from the courtyard.
This will be issued this afternoon, please make time to review it first thing.
Kind Regards
Emma

From: Ms Emma Viljoen
Sent: 18/10/2018 02:04:50 am
To: Ms Fiona Binns, Mr Luke De Gioia, Mr Dominic De Gioia, Ms Emma Viljoen, Rebecca Kwok, Dan Pedersen, Ms Dodie McMenamin, Keira De Rosa
Cc: Mr Sandeep Amin, Stephanie Edmondson, Mr Tim Garry, Ms Sasha Serrao, Jess Ronchi
Mail Number: Savills-GCOR-000810
Subject: Re: Condition B13: Landscape Plans and LMP

Kiera/ Fiona

Please provide comment on Landscape Management Plan and a statement on letterhead confirm it has regard to the 'heritage setting of the site' to satisfy B13 (a).

Can we please have this by the end of the day?

Thanks

Emma

From: E Viljoen

Sent: 16/10/2018 12:16:49 PM AEDT (GMT +11:00)

To: Rebecca Kwok, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin, Emma Viljoen

Cc: Sandeep Amin, Tim Garry, Jess Ronchi, Stephanie Edmondson, Sasha Serrao

Mail Number: Savills-GCOR-000751

Subject: Re: Condition B13: Landscape Plans and LMP

Landscape plans issued to Kleinfelder for incorporation of their LMP.

Also the attached plans issued to satisfy item l and m.

Awaiting EWFW statement.

Kind Regards

Emma

Issued from Design Inc:

From: "Ingrid Cheng (DESIGNINC SYDNEY (Sydney))" <icheng@sydney.designinc.com.au>

Date: 12 October 2018 at 5:24:03 pm AEDT

To: "Emma Viljoen (Savills Project Management)" <eviljoen@savills.com.au>

Subject: Document Issue No. 2 - Project: P18-023 - Lindfield Landscape Drawings - Draft Preliminary Issue: B13, B8, B9, B10

Reply-To: "Ingrid Cheng (DESIGNINC SYDNEY (Sydney))" <icheng@sydney.designinc.com.au>

From: E Viljoen

Sent: 15/10/2018 8:30:39 PM AEDT (GMT +11:00)

To: Rebecca Kwok, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin, Emma Viljoen

Cc: Sandeep Amin, Tim Garry, Jess Ronchi, Stephanie Edmondson, Sasha Serrao

Mail Number: Savills-GCOR-000739

Subject: Re: Condition B13: Landscape Plans and LMP

Copying Mark Dean who will be reviewing the drawings for Kleinfelder to close out B13.

From: E Viljoen

Sent: 15/10/2018 4:31:27 PM AEDT (GMT +11:00)

To: Rebecca Kwok, Dominic De Gioia, Luke De Gioia, Dan Pedersen, Dodie McMenamin

Cc: Sandeep Amin, Tim Garry, Jess Ronchi, Stephanie Edmondson, Sasha Serrao

Mail Number: Savills-GCOR-000728

Subject: Condition B13: Landscape Plans and LMP

Rebecca / Dodie

Can you please send Kleinfelder and Urbis Heritage the latest landscape and external works plans to satisfy Condition B13 on Aconex.

Tony – are you on Aconex?

This will involve some of Dodie's external works drawings to satisfy l and m.

Kleinfelder need the drawings to include in the updated Landscape Management Plan.

Urbis Heritage need to provide a statement against Item a.

EWFW need to provide a statement against item g.

B13. Prior to the commencement of vegetation removal, the Applicant must prepare a Landscape Management Plan to manage the revegetation and landscaping works on-site, to the satisfaction of the Planning Secretary. The plan must:

(a) have regard to the heritage setting of the site;

(b) have regard to the bush fire protection measures (B5 - B6);

(c) include the entirety of the site (fire trails, footpaths, bus stop etc);

(d) identify existing natural features such as rock outcrops;

(e) include contour lines and levels;

(f) include details of terracing or other slope stability measures;

(g) include details for managing stormwater runoff;

(h) identify all existing tree/shrub species to be retained;

(i) include native grasses endemic to the locality;

(j) detail the species to be planted on-site;

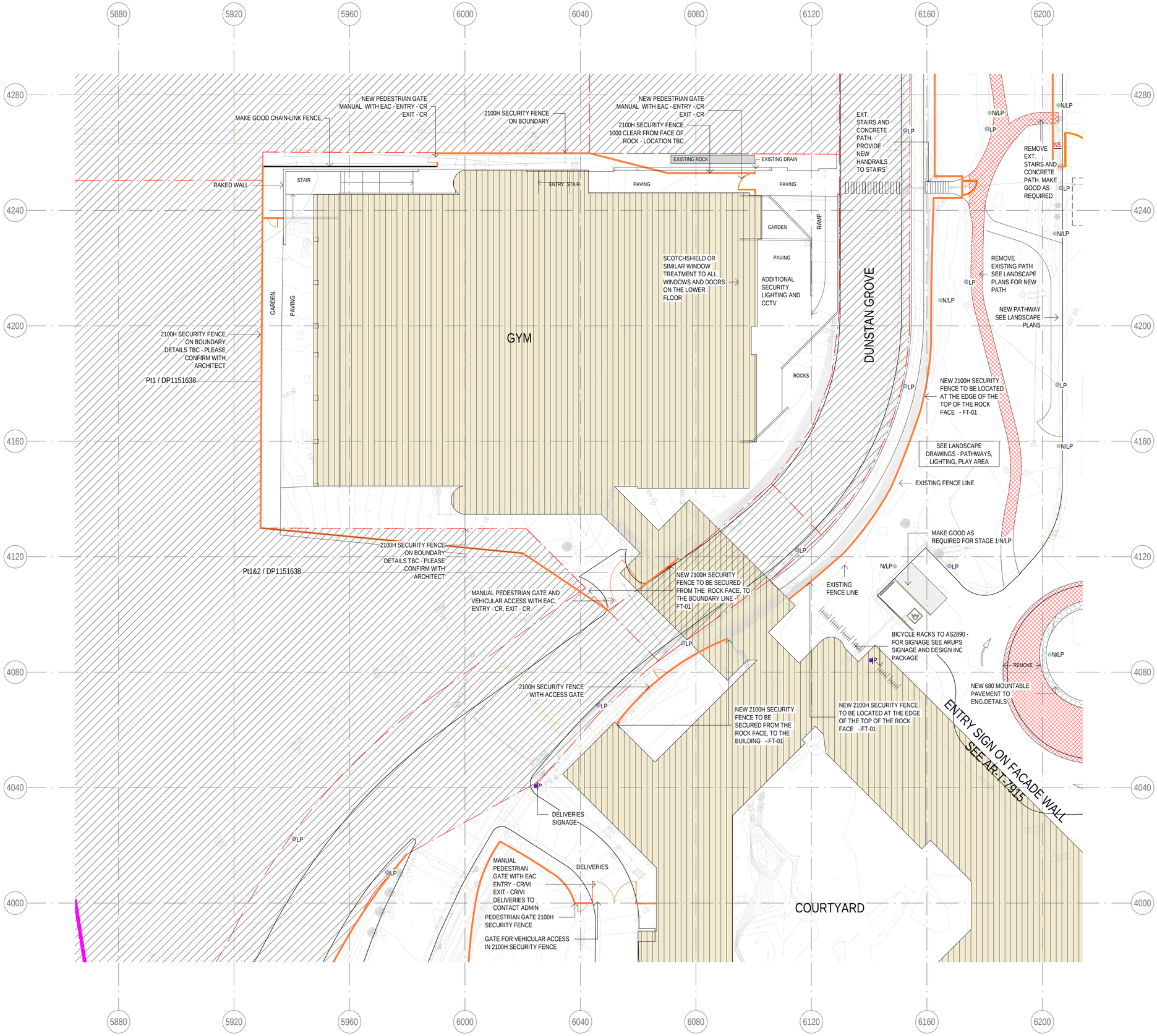
(k) describe the monitoring and maintenance measures to manage revegetation and landscaping works; and

(l) include details of all boundary and internal fencing constructed of non-combustible materials;

(m) include details of any landscape furniture/structures such as seating, lighting etc.

APPENDIX 11. EXTERNAL WORK SPECIFICATION (DESIGNINC, 2018)

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SERVICES ENTRY AND GYM
AR-3001 SCALE 1 : 200

SCALE BAR - 1:200
0 2 4 6 8 10 m

LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
- NEW GATE
- KISS AND DROP ZONE
- FUTURE WORKS
- NEW STAFF PARKING
- BOOMGATE
- DETAIL - SEE STRUCT. ENG. DETAILS
- MOUNTABLE KERB - SEE STRUCT. ENG. DETAILS
- NS NO STOPPING SIGN
- NP NO PARKING SIGN
- P SIGN POST - CROSSING
- SP DIRECTIONAL SIGNAGE
- EXISTING BIN LOACTION
- NEW BIN LOACTION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

NOTES TO CONTRACTORS

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2. ELECTRICIAN TO MAKE PROVISION FOR RELOCATION OF EXISTING LIGHT POLES - SEE PLAN
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9. ROAD WIDENING - SEE PLANS FOR LOCATIONS - SEE STRUC. ENG. DETAILS AND SPEC.
10. ROAD MARKINGS - REFER TO ARUP'S DETAILS
11. REPAINT EXISTING ROAD MARKINGS AND PAINT NEW DIRECTIONAL ARROWS - REFER TO ARUP'S DETAILS .
12. MAKE GOOD ROAD, GUARDRAILS AND PLANTERS DAMAGED BY TREE ROOTS - WHERE REQUIRED - SEE PLANS
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14. SIGNAGE - REMOVE ALL SIGNAGE WITH REFERENCE TO 'UTS'
15. RELOCATE REDUNDANT EXISTING SIGNAGE AND REPLACE WITH NEW SIGNAGE APPROPRIATE FOR NEW ROAD CONDITIONS
16. SEE SIGNAGE PACKAGES (DESIGNINC AND ARUP) - FOR NEW DIRECTIONAL SIGNAGE AND ROAD SIGNAGE - INSTALL AS REQUIRED TO AUSTRALIAN STANDARDS.

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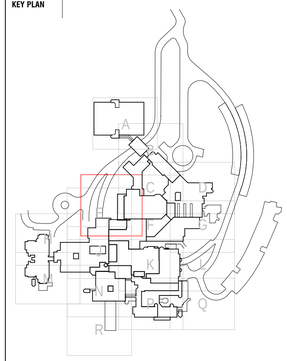
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Nominated Architects

Anthony Quan 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

No	DATE	REVISIONS	BY
A	09/10/2018	PRELIMINARY	DM
B	10/10/2018	PRELIMINARY	DM
C	17/10/2018	PRELIMINARY	DM
D	19/10/2018	ISSUE FOR CONSTRUCTION	DM
E	22/10/2018	PRELIMINARY	DM

KEY PLAN



CONSULTANTS

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FIRE ENGINEER	AFFINITY FIRE ENGINEERING Ph: (02) 9194 0590
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ARCHITECT

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Architecture Urban Design Interiors

CLIENT

SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS- SERVICES ENTRY AND GYM - SHEET 8 OF 8

DRAWN BY	TG, RK, HC, DM, DL
SCALES	As indicated @ A1
PLOT DATE	09/07/18
PROJECT Nº.	P18-023
REVISION	E
DRAWING Nº.	AR-T-1047

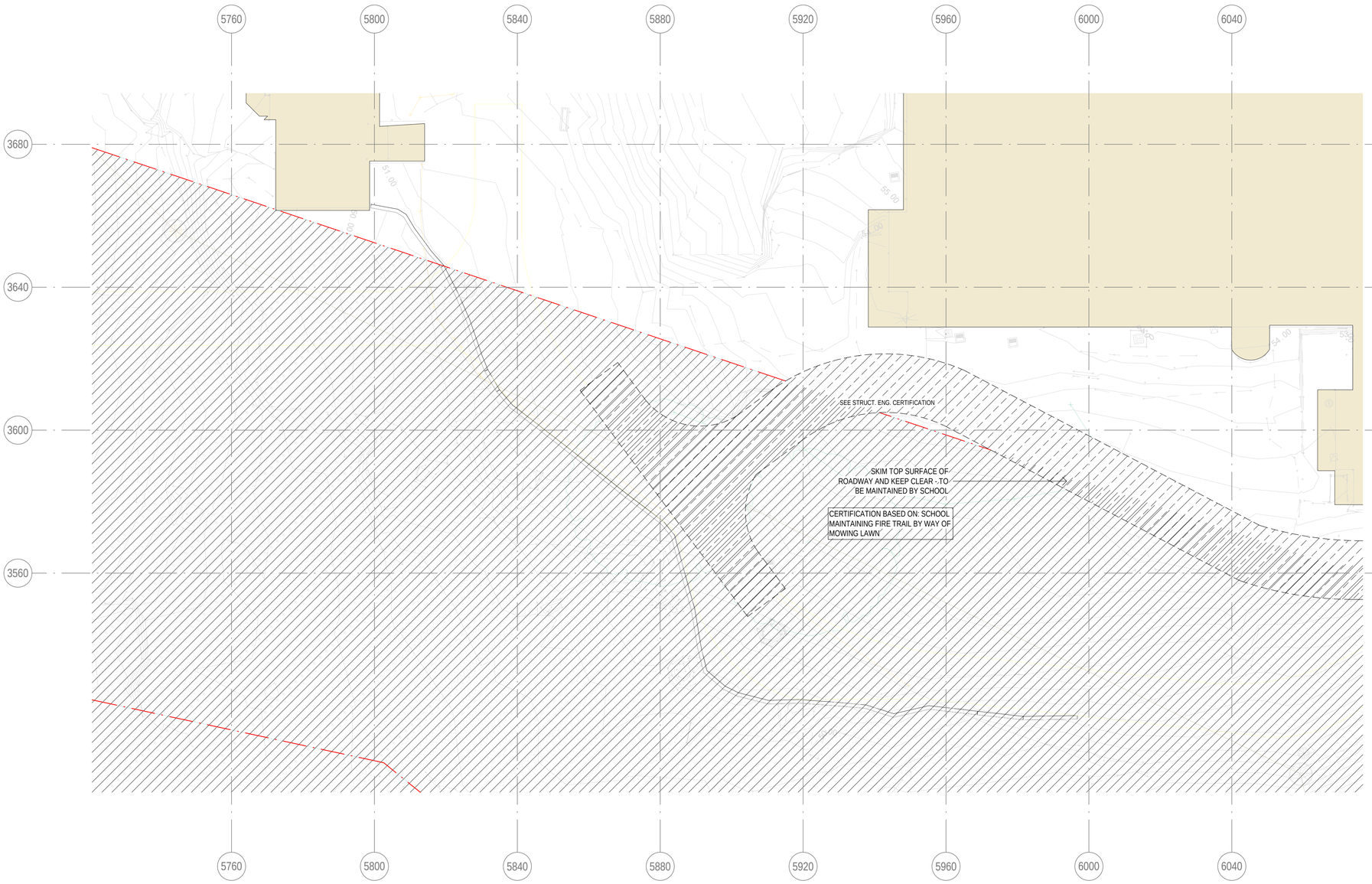
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1 AR-3001 PARTIAL SCHOOL EXTERNAL WORKS - FIRE TRAIL
SCALE 1 : 200

LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
- NEW GATE
- KISS AND DROP ZONE
- DEMOLISH
- NEW STAFF PARKING
- BOOMGATE
- DETAIL - SEE STRUCT. ENG. DETAILS
- MOUNTABLE KERB - SEE STRUCT. ENG. DETAILS
- FIRE TRAIL - AREA ZONED FOR MAINTENANCE
- NS NO STOPPING SIGN
- NP NO PARKING SIGN
- P SIGN POST - CROSSING
- SP DIRECTIONAL SIGNAGE
- EXISTING BIN LOCATION
- NEW BIN LOCATION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

NOTES TO CONTRACTORS

1. NEW LIGHTS, SECURITY REQUIREMENTS AND SPEAKERS - REFER TO ELECTRICAL ENG. DETAILS AND PLANS
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SCALE BAR - 1:200
0 2 4 6 8 10 m

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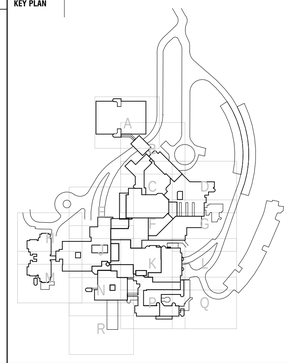
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No	DATE	REVISIONS	BY
A	20/09/2018	PRELIMINARY	DM
B	25/09/2018	PRELIMINARY - EXTERNAL WORKS	DM
C	09/10/2018	PRELIMINARY	DM
D	10/10/2018	PRELIMINARY	DM
E	17/10/2018	PRELIMINARY	DM
F	19/10/2018	ISSUE FOR CONSTRUCTION	DM
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Architecture Urban Design Interiors

CLIENT

SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS - FIRE TRAIL - SHEET 7 OF 8

DRAWN BY	TG, RK, HC, DM, DL
SCALES	As indicated @ A1
PLOT DATE	09/07/18
PROJECT Nº.	P18-023
REVISION	G
DRAWING Nº.	AR-T-1046

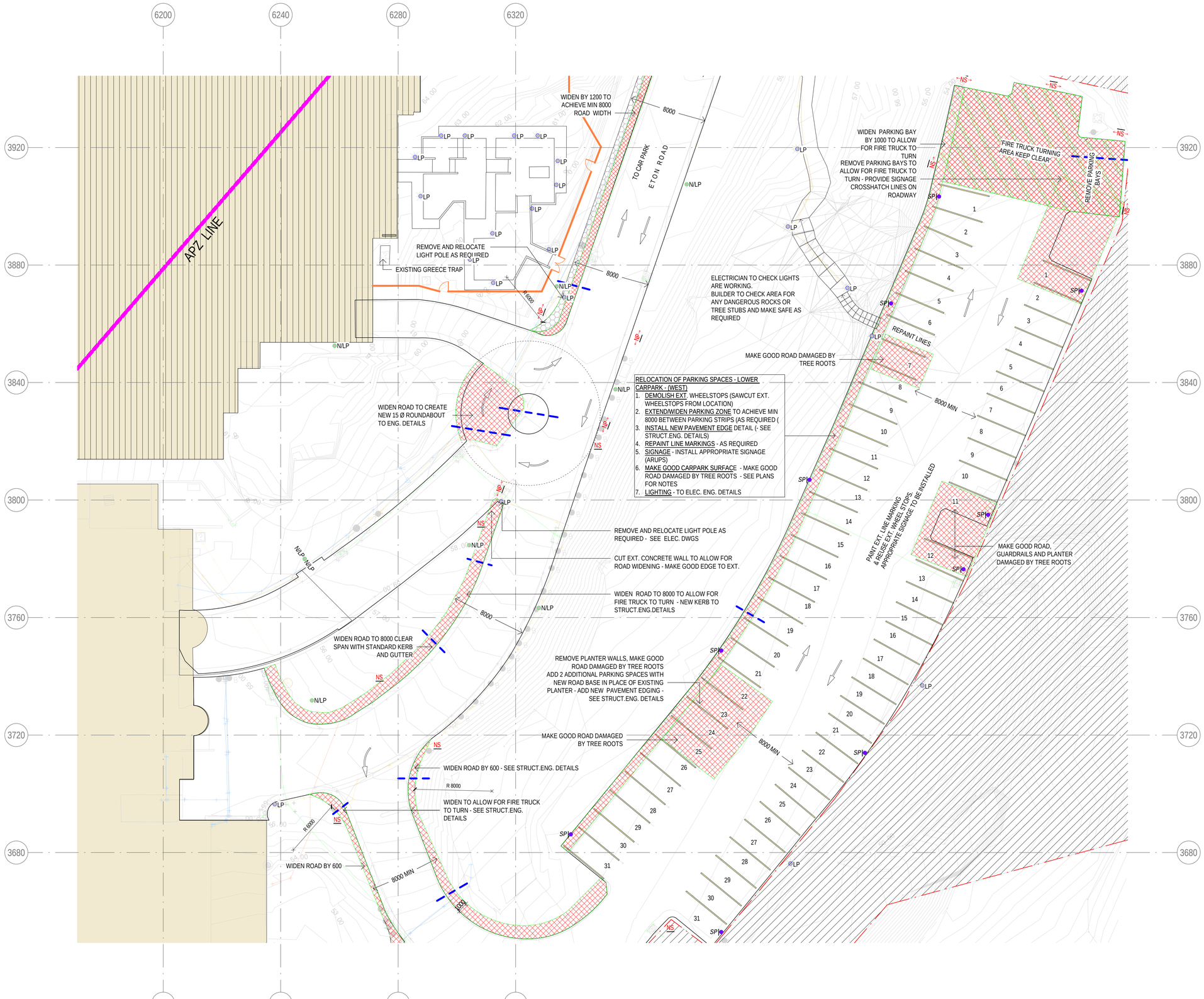
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1 PARTIAL SCHOOL EXTERNAL WORKS - LOWER CARPARK AND TURNING CIRCLE
AR-3001 SCALE 1 : 200

SCALE BAR - 1:200

LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
- NEW GATE
- KISS AND DROP ZONE
- FUTURE WORKS
- NEW STAFF PARKING
- BOOMGATE
- DETAIL - SEE STRUCT. ENG. DETAILS
- MOUNTABLE KERB - SEE STRUCT. ENG. DETAILS
- NS NO STOPPING SIGN
- NP NO PARKING SIGN
- P SIGN POST - CROSSING
- SP DIRECTIONAL SIGNAGE
- EXISTING BIN LOACTION
- NEW BIN LOACTION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

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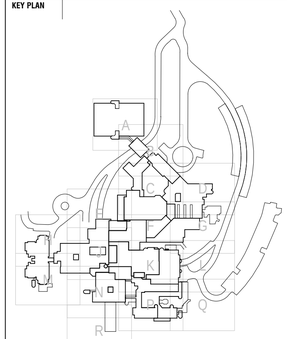
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SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS - LOWER CARPARK AND TURNING CIRCLE - SHEET

DRAWN BY	TG, RK, HC, DM, DL
SCALES	As indicated @ A1
PLOT DATE	09/07/18

5 OF 8

PROJECT Nº.	P18-023	REVISION G
DRAWING Nº.	AR-T-1044	

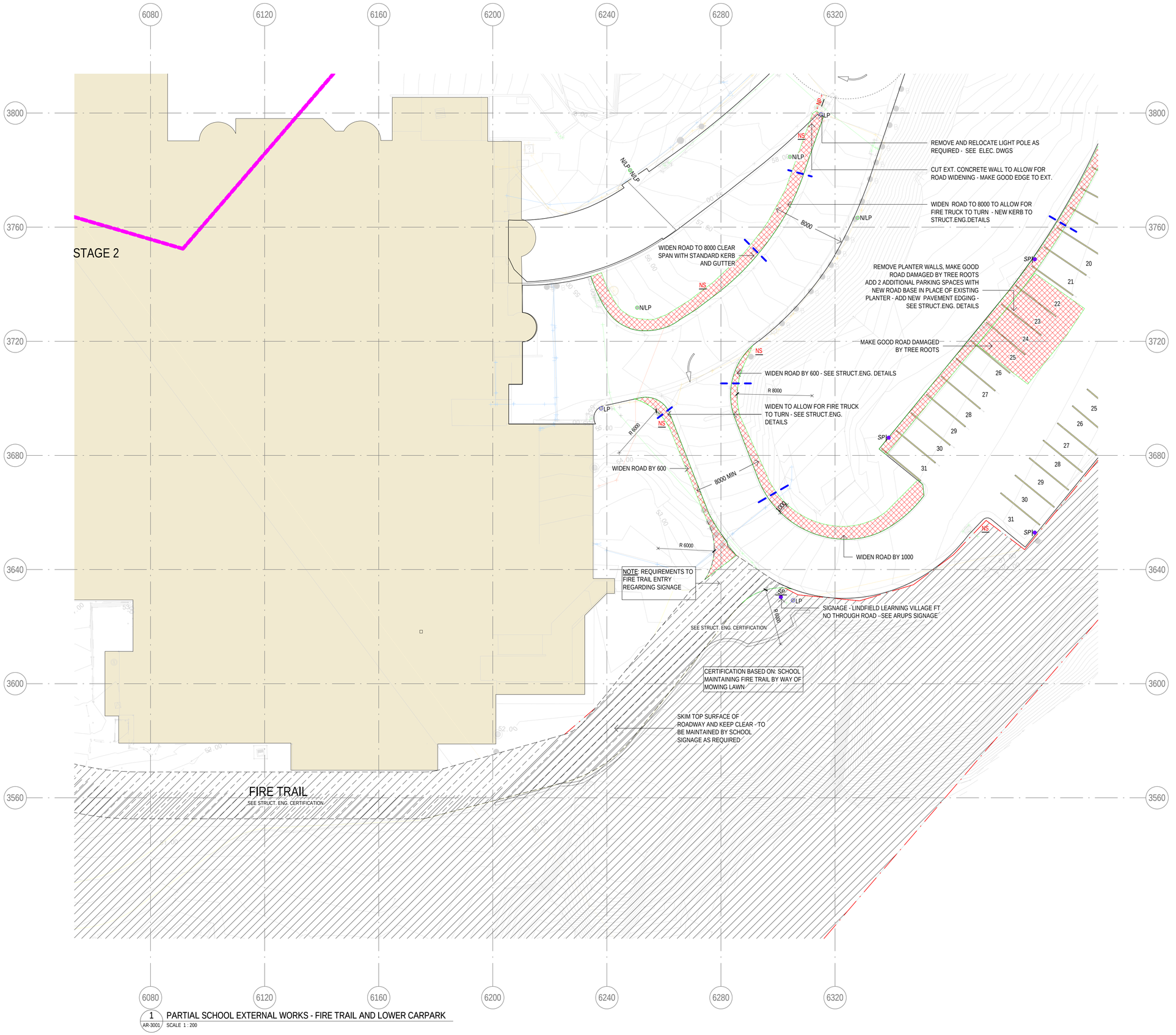
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1 AR-3001 PARTIAL SCHOOL EXTERNAL WORKS - FIRE TRAIL AND LOWER CARPARK
SCALE 1 : 200

SCALE BAR - 1:200 (0, 2, 4, 6, 8, 10 m)

LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
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- NS NO STOPPING SIGN
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- SP DIRECTIONAL SIGNAGE
- EXISTING BIN LOACTION
- NEW BIN LOACTION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

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2. ELECTRICIAN TO MAKE PROVISION FOR RELOCATION OF EXISTING LIGHT POLES - SEE PLAN
3. ELECTRICIAN TO MAKE PROVISION FOR NEW LIGHTS AS NOTED ON PLANS AS REQUIRED
4. ELECTRICIAN TO MAKE PROVISION FOR GATES (INCLUDING INTERCOMS AND ACCESS AND SECURITY LIGHTING) - AS NOTED ON PLANS
5. NEW LIGHTS, SECURITY REQUIREMENTS AND SPEAKERS - REFER TO ELECTRICAL ENG. DETAILS AND PLANS
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7. SPEAKERS LINKED TO EWIS / PA SYSTEM WILL BE LOCATED ON LIGHT POLES IN ACCORDANCE WITH FIRE SERVICES
8. ROADWORKS - SEE STRUCTURAL ENGINEERS DETAILS FOR SPECIFIC DETAILS
9. ROAD WIDENING - SEE PLANS FOR LOCATIONS - SEE STRUC. ENG. DETAILS AND SPEC.
10. ROAD MARKINGS - REFER TO ARUP'S DETAILS
11. REPAINT EXISTING ROAD MARKINGS AND PAINT NEW DIRECTIONAL ARROWS - REFER TO ARUP'S DETAILS .
12. MAKE GOOD ROAD, GUARDRAILS AND PLANTERS DAMAGED BY TREE ROOTS - WHERE REQUIRED - SEE PLANS
13. REPLACE AND INSTALL SIGNAGE AS REQUIRED TO COMPLY WITH STANDARDS - REFER TO ARUP'S DETAILS.
14. SIGNAGE - REMOVE ALL SIGNAGE WITH REFERENCE TO 'UTS'
15. RELOCATE REDUNDANT EXISTING SIGNAGE AND REPLACE WITH NEW SIGNAGE APPROPRIATE FOR NEW ROAD CONDITIONS
16. SEE SIGNAGE PACKAGES (DESIGNINC AND ARUP) - FOR NEW DIRECTIONAL SIGNAGE AND ROAD SIGNAGE - INSTALL AS REQUIRED TO AUSTRALIAN STANDARDS.

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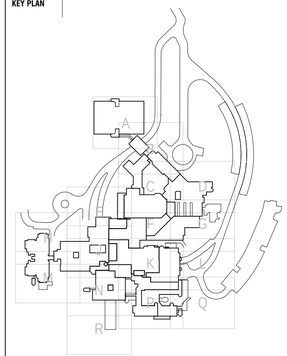
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Nominated Architects

Anthony Quan 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

No	DATE	REVISIONS	BY
A	20/09/2018	PRELIMINARY	DM
B	25/09/2018	PRELIMINARY - EXTERNAL WORKS	DM
C	09/10/2018	PRELIMINARY	DM
D	10/10/2018	PRELIMINARY	DM
E	17/10/2018	PRELIMINARY	DM
F	19/10/2018	ISSUE FOR CONSTRUCTION	DM
G	22/10/2018	PRELIMINARY	DM

KEY PLAN



CONSULTANTS

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Architecture Urban Design Interiors

CLIENT

SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS - FIRE TRAIL AND LOWER CARPARK - SHEET 6 OF 8

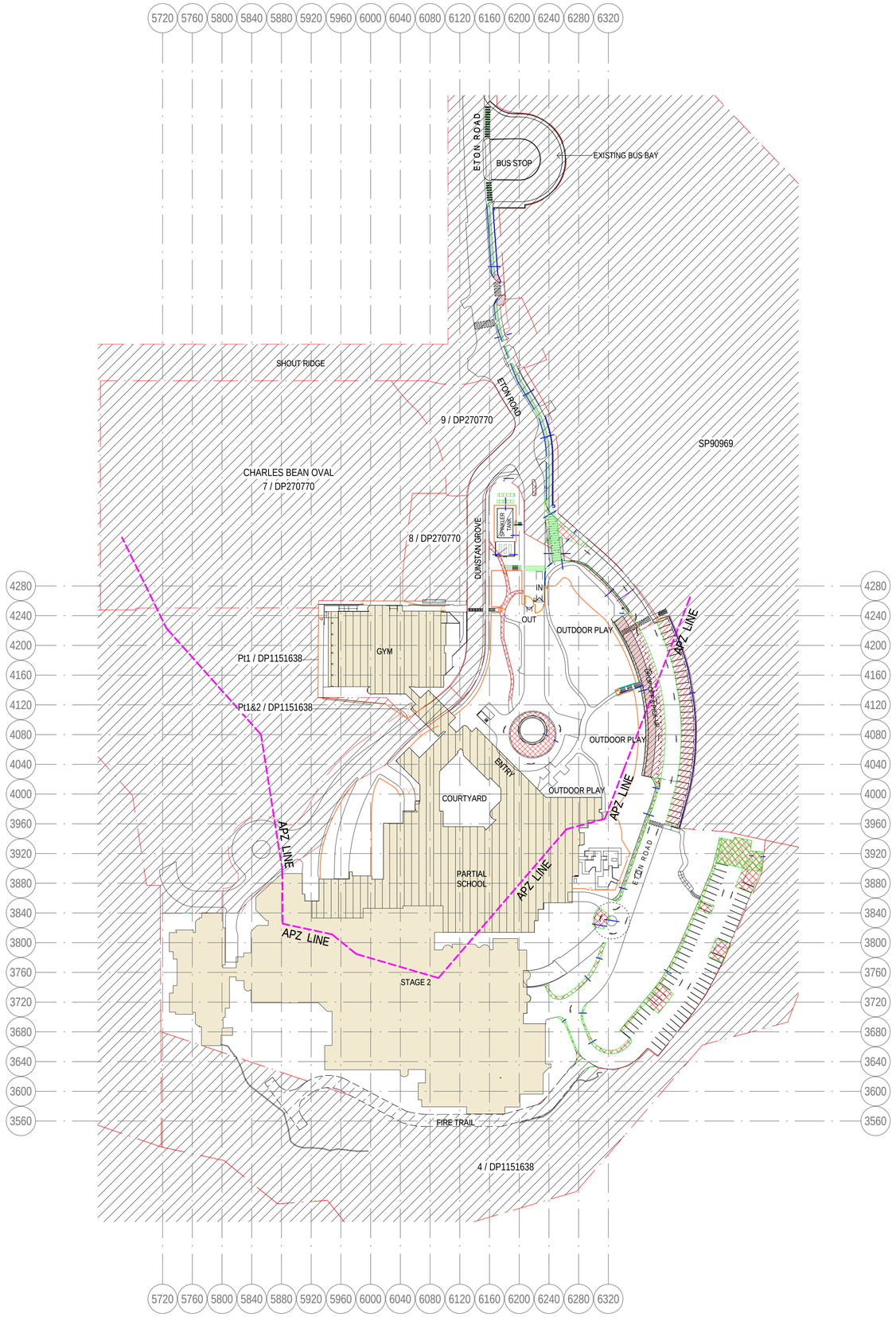
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SCALES	As indicated @ A1
PLOT DATE	09/07/18
PROJECT Nº.	P18-023
REVISION	G
DRAWING Nº.	AR-T-1045

DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
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1 AR-3001 PARTIAL SCHOOL EXTERNAL WORKS - OVERALL SCOPE OF WORKS

SCALE 1 : 1000

SCALE BAR - 1:1000

LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
- NEW GATE
- KISS AND DROP ZONE
- DEMOLISH
- NEW STAFF PARKING
- BOOMGATE
- DETAIL - SEE STRUCT. ENG. DETAILS
- MOUNTABLE KERB - SEE STRUCT. ENG. DETAILS
- FIRE TRAIL - AREA ZONED FOR MAINTENANCE
- NS NO STOPPING SIGN
- NP NO PARKING SIGN
- *P* SIGN POST - CROSSING
- *SP* DIRECTIONAL SIGNAGE
- EXISTING BIN LOCATION
- NEW BIN LOCATION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

NOTES TO CONTRACTORS

1. NEW LIGHTS, SECURITY REQUIREMENTS AND SPEAKERS - REFER TO ELECTRICAL ENG. DETAILS AND PLANS
2. ELECTRICIAN TO CONFIRM ALL LIGHTS ARE IN GOOD WORKING ORDER - SEE PLANS FOR EXTENT OF SCOPED WORKS
3. SPEAKERS LINKED TO EWIS / PA SYSTEM WILL BE LOCATED ON LIGHT POLES IN ACCORDANCE WITH FIRE SERVICES
4. ROADWORKS - SEE STRUCTURAL ENGINEERS DETAILS FOR SPECIFIC DETAILS
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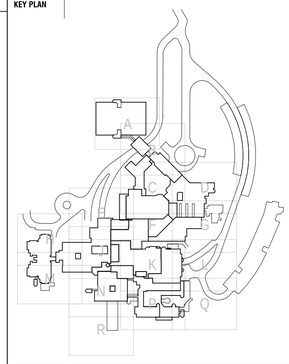
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Nominated Architects

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B	25/09/2018	PRELIMINARY - EXTERNAL WORKS	DM
C	10/10/2018	PRELIMINARY	DM
D	17/10/2018	PRELIMINARY	DM
E	19/10/2018	ISSUE FOR CONSTRUCTION	DM
F	22/10/2018	PRELIMINARY	DM

KEY PLAN



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Architecture Urban Design Interiors

CLIENT

SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS - OVERALL SCOPE OF WORKS - SHEET 1 OF 8

DRAWN BY	TG, RK, HC, DM, DL
SCALES	As indicated @ A1
PLOT DATE	09/07/18
PROJECT Nº.	P18-023
REVISION	F
DRAWING Nº.	AR-T-1040

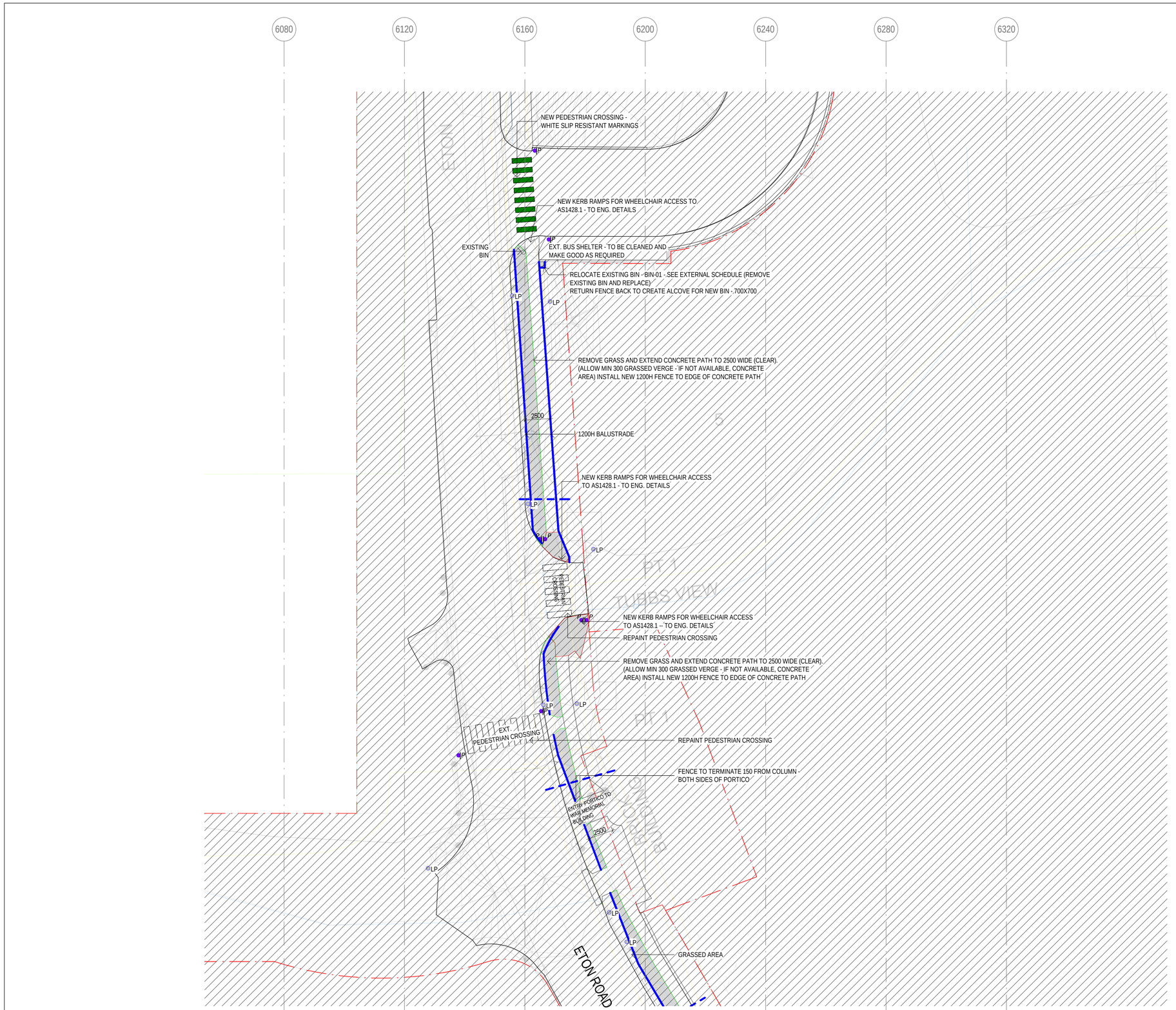
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1 AR-3001 PARTIAL SCHOOL EXTERNAL WORKS - PEDESTRIAN ENTRY AND EXISTING BUS STOP
SCALE 1 : 200

SCALE BAR - 1:200

LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
- NEW GATE
- KISS AND DROP ZONE
- DEMOLISH
- NEW STAFF PARKING
- BOOMGATE
- DETAIL - SEE STRUCT. ENG. DETAILS
- MOUNTABLE KERB - SEE STRUCT. ENG. DETAILS
- FIRE TRAIL - AREA ZONED FOR MAINTENANCE
- NS NO STOPPING SIGN
- NP NO PARKING SIGN
- *P* SIGN POST - CROSSING
- *SP* DIRECTIONAL SIGNAGE
- EXISTING BIN LOCATION
- NEW BIN LOCATION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

NOTES TO CONTRACTORS

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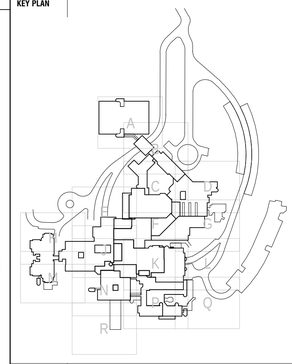
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Nominated Architects

Anthony Quan 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

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B	25/09/2018	PRELIMINARY - EXTERNAL WORKS	DM
C	09/10/2018	PRELIMINARY	DM
D	10/10/2018	PRELIMINARY	DM
E	17/10/2018	PRELIMINARY	DM
F	19/10/2018	ISSUE FOR CONSTRUCTION	DM
G	22/10/2018	PRELIMINARY	DM

KEY PLAN



CONSULTANTS

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QUANTITY SURVEYOR	WILDE AND WOOLLARD Ph: (02) 9411 2777
PROJECT MANAGER	SAVILLS Ph: (02) 8215 8888

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Architecture Urban Design Interiors

CLIENT

SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS - PEDESTRIAN ENTRY AND EXISTING BUS STOP - SHEET 2 OF 8

N

DRAWN BY	TG, RK, HC, DM, DL
SCALES	As indicated @ A1
PLOT DATE	09/07/18
PROJECT Nº.	P18-023
REVISION	G
DRAWING Nº.	AR-T-1041

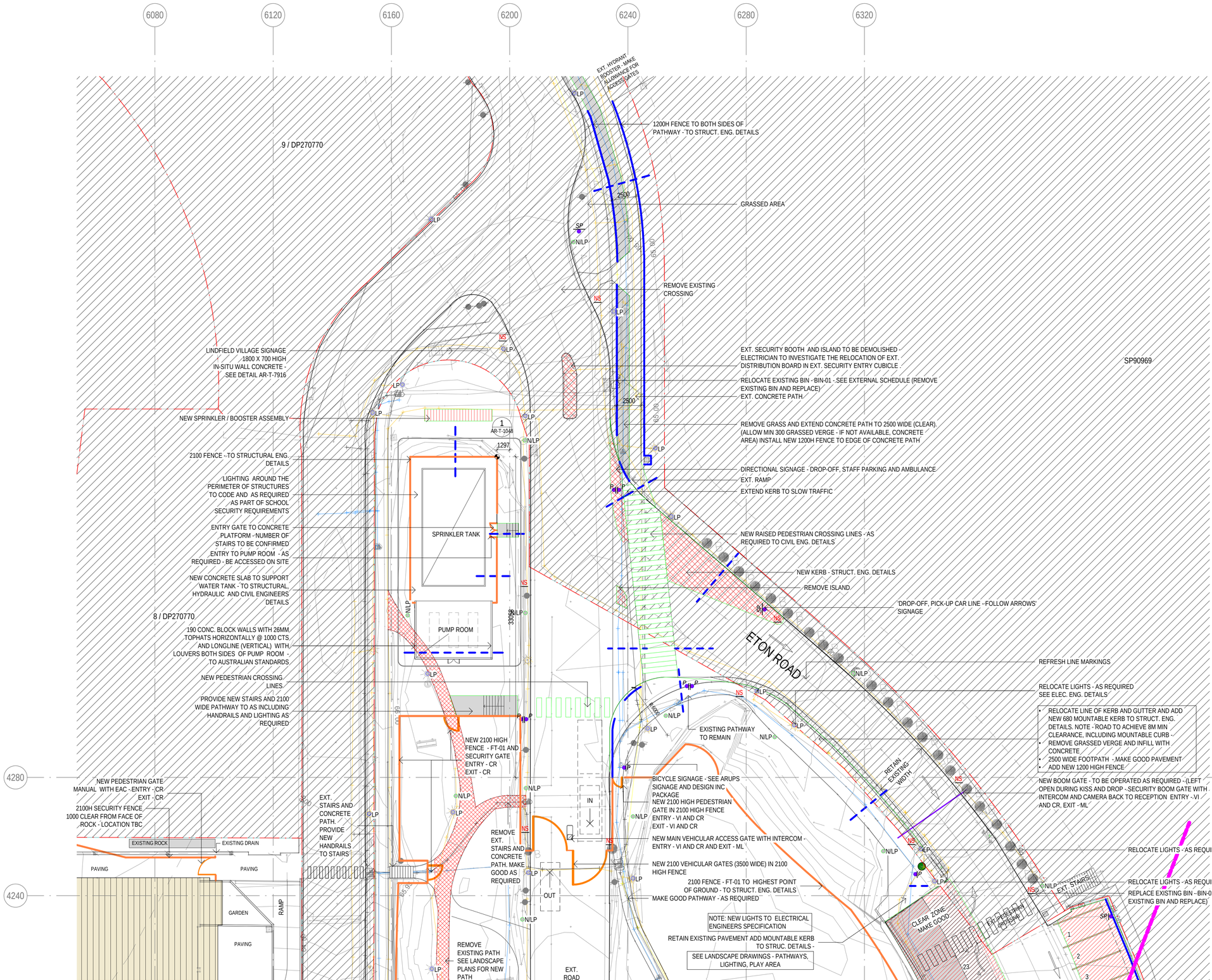
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LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
- NEW GATE
- KISS AND DROP ZONE
- DEMOLISH
- NEW STAFF PARKING
- BOOMGATE
- DETAIL - SEE STRUCT. ENG. DETAILS
- MOUNTABLE KERB - SEE STRUCT. ENG. DETAILS
- FIRE TRAIL - AREA ZONED FOR MAINTENANCE
- NS NO STOPPING SIGN
- NP NO PARKING SIGN
- P SIGN POST - CROSSING
- SP DIRECTIONAL SIGNAGE
- EXISTING BIN LOCATION
- NEW BIN LOCATION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

NOTES TO CONTRACTORS

1. NEW LIGHTS, SECURITY REQUIREMENTS AND SPEAKERS - REFER TO ELECTRICAL ENG. DETAILS AND PLANS
2. ELECTRICIAN TO CONFIRM ALL LIGHTS ARE IN GOOD WORKING ORDER - SEE PLANS FOR EXTENT OF SCOPED WORKS
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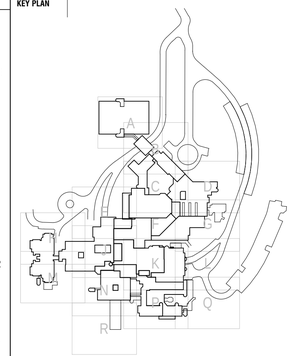
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C	09/10/2018	PRELIMINARY	DM
D	10/10/2018	PRELIMINARY	DM
E	17/10/2018	DA CONDITIONS	DM
F	17/10/2018	PRELIMINARY	DM
G	19/10/2018	ISSUE FOR CONSTRUCTION	DM
H	22/10/2018	PRELIMINARY	DM

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Architecture Urban Design Interiors

CLIENT

SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS - SERVICES ENTRY AND PEDESTRIAN ENTRY -

SHEET 3 OF 8

DRAWN BY	TG, RK, HC, DM, DL
SCALES	As indicated @ A1
PLOT DATE	09/07/18
PROJECT Nº.	P18-023
REVISION	H
DRAWING Nº.	AR-T-1042

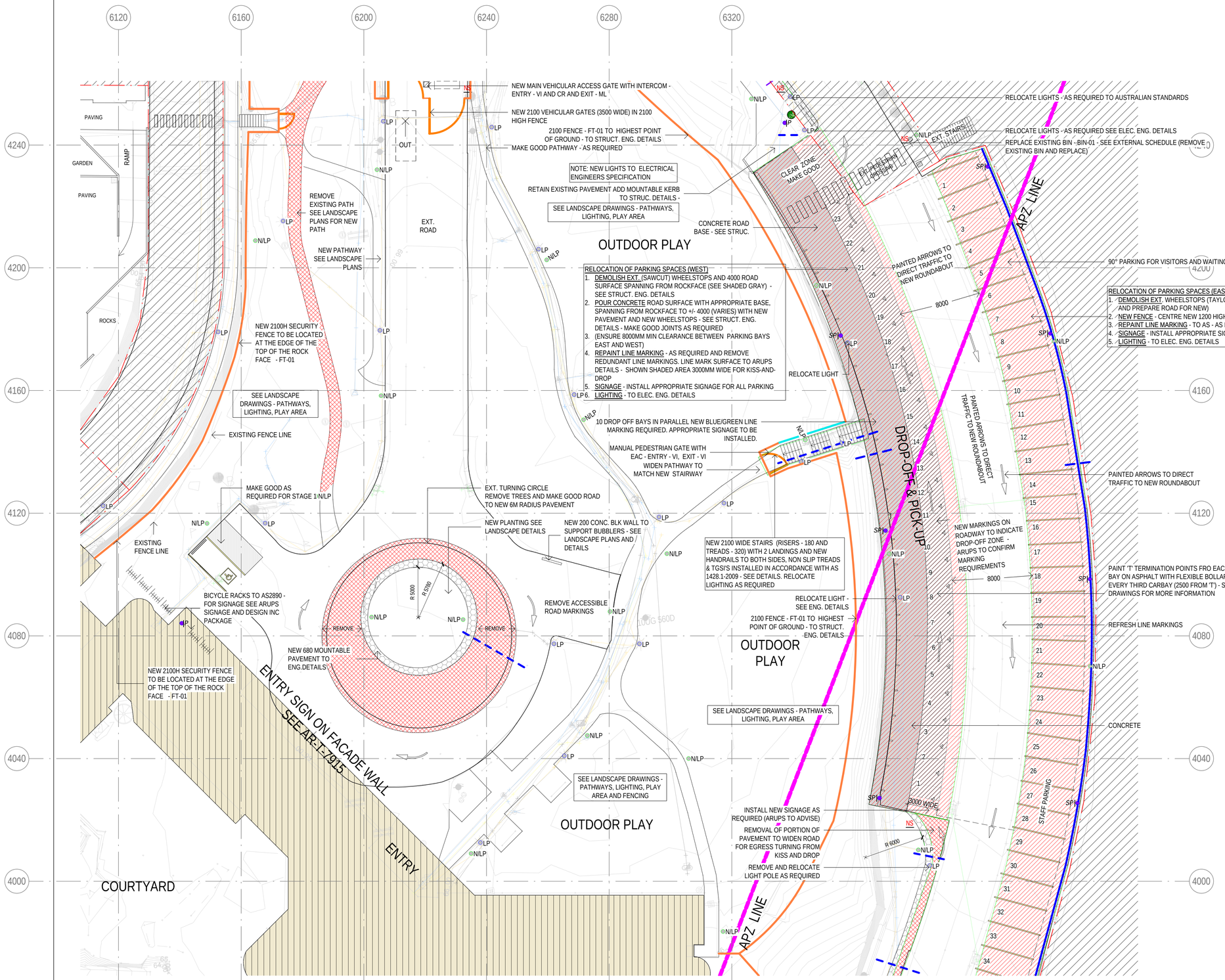
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PARTIAL SCHOOL EXTERNAL WORKS - UPPER CARPARK AND SERVICES ENTRY

AR-3001 SCALE 1 : 200

SCALE BAR - 1:200

LEGEND

- EXISTING BUILDING
- PARTIAL SCHOOL - NEW WORKS
- NEW CONCRETE ROAD
- OUT OF BOUNDARY
- SCHOOL BOUNDARY
- NEW WORKS (AS NOTED ON PLAN)
- NEW 1200H FENCE
- NEW 2100H FENCE
- NEW GATE
- KISS AND DROP ZONE
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- NEW STAFF PARKING
- BOOMGATE
- DETAIL - SEE STRUCT. ENG. DETAILS
- MOUNTABLE KERB - SEE STRUCT. ENG. DETAILS
- NS NO STOPPING SIGN
- NP NO PARKING SIGN
- P SIGN POST - CROSSING
- SP DIRECTIONAL SIGNAGE
- EXISTING BIN LOACTION
- NEW BIN LOACTION - 700X700 - SEE SCHEDULE
- N/LP NEW LIGHT POST

NOTES TO CONTRACTORS

1. ELECTRICIAN TO INVESTIGATE THE RELOCATION OF EXISTING DISTRIBUTION BOARD IN EXISTING SECURITY ENTRY CUBICLE.
2. ELECTRICIAN TO MAKE PROVISION FOR RELOCATION OF EXISTING LIGHT POLES - SEE PLAN
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8. ROADWORKS - SEE STRUCTURAL ENGINEERS DETAILS FOR SPECIFIC DETAILS
9. ROAD WIDENING - SEE PLANS FOR LOCATIONS - SEE STRUC. ENG. DETAILS AND SPEC.
10. ROAD MARKINGS - REFER TO ARUP'S DETAILS
11. REPAINT EXISTING ROAD MARKINGS AND PAINT NEW DIRECTIONAL ARROWS - REFER TO ARUP'S DETAILS .
12. MAKE GOOD ROAD, GUARDRAILS AND PLANTERS DAMAGED BY TREE ROOTS - WHERE REQUIRED - SEE PLANS
13. REPLACE AND INSTALL SIGNAGE AS REQUIRED TO COMPLY WITH STANDARDS - REFER TO ARUP'S DETAILS.
14. SIGNAGE - REMOVE ALL SIGNAGE WITH REFERENCE TO 'UTS'
15. RELOCATE REDUNDANT EXISTING SIGNAGE AND REPLACE WITH NEW SIGNAGE APPROPRIATE FOR NEW ROAD CONDITIONS
16. SEE SIGNAGE PACKAGES (DESIGNINC AND ARUP) - FOR NEW DIRECTIONAL SIGNAGE AND ROAD SIGNAGE - INSTALL AS REQUIRED TO AUSTRALIAN STANDARDS.

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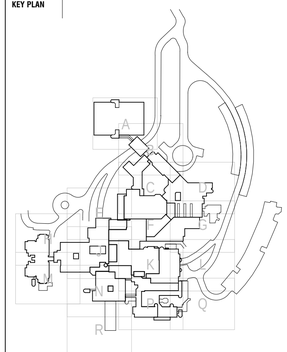
Figured dimensions take preference to scale readings. Verify all dimensions on site. Report any discrepancies to the Architect for decision before proceeding with the work.

Nominated Architects

Anthony Quan 5421 I Sandeep Amin 7337 I Ian Armstrong 7260 I Richard Does 8126

No	DATE	REVISIONS	BY
A	20/09/2018	PRELIMINARY	DM
B	25/09/2018	PRELIMINARY - EXTERNAL WORKS	DM
C	09/10/2018	PRELIMINARY	DM
D	10/10/2018	PRELIMINARY	DM
E	17/10/2018	PRELIMINARY	DM
F	19/10/2018	ISSUE FOR CONSTRUCTION	DM
G	22/10/2018	PRELIMINARY	DM

KEY PLAN



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Architecture Urban Design Interiors

CLIENT

SCHOOL INFRASTRUCTURE NSW

PROJECT

100 ETON RD, LINDFIELD
NSW 2070

TITLE

PARTIAL SCHOOL EXTERNAL WORKS - UPPER CARPARK AND SERVICES ENTRY - SHEET 4 OF 8

DRAWN BY	TG, RK, HC, DM, DL
SCALES	As indicated @ A1
PLOT DATE	09/07/18

PROJECT Nº.	P18-023	REVISION G
DRAWING Nº.	AR-T-1043	

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APPENDIX 12. LICENSING

Kleinfelder employees involved in the current study are licensed or approved under the *Biodiversity Conservation Act 2016* (License Number: SL100730, Expiry: 31 March 2019) and the *Animal Research Act 1985* to harm/trap/release protected native fauna and to pick for identification purposes native flora and to undertake fauna surveys.

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APPENDIX 13. STAFF CONTRIBUTIONS

The following staff were involved in the compilation of this report.

Name	Qualification	Title/Experience	Contribution
Dan Pedersen	BSCEngTech GIFireE, BDAP-A	Senior Ecologist/ Botanist Bushfire Consultant	Report preparation and review
Mark Dean	BEnvSc & Mgt	Ecologist	Report preparation
Gayle Joyce	BSc (Forestry) (Hons)	GIS Specialist	Preparation of figures
Bradley Deane	B.BioCons, M.WldMgt	Environmental Consultant / Ecologist	Preparation of figures and report update

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APPENDIX 14. TREE SURVEY

Table 4: Tree Survey Data

Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_001	Eucalyptus punctata	10	10-20	No			
GPS11_002	Angophora costata	12	20-40	No			
GPS11_003	Angophora costata	12	40-80	No			
GPS11_004	Angophora costata	10	20-40	No			
GPS11_005	Angophora floribunda	10	10-20	No			
GPS11_006	Angophora floribunda	14	20-40	No			
GPS11_007	Acacia irrorata	12	10-20	No			
GPS11_008	Casuarina glauca	14	40-80	No			
GPS11_009	Angophora crassifolia	6	10-20	No			
GPS11_010	Acacia irrorata	6	20-40	No			
GPS11_011	Acacia irrorata	12	40-80	No			
GPS11_012	Banksia serratta	6	20-40	No			
GPS11_013	Eucalyptus saligna	25	40-80	NO		t17	Existing
GPS11_014	Eucalyptus punctata	25	40-80	NO			
GPS11_015	Eucalyptus saligna	30	40-80	NO		t16	Existing
GPS11_016	Eucalyptus punctata	20	20-40	NO			
GPS11_017	Eucalyptus saligna	25	20-40	NO			
GPS11_018	Angophora costata	10	10-20	NO			
GPS11_019	Angophora costata	15	10-20	NO		t15	Existing
GPS11_020	Casuarina glauca	20	20-40	NO			
GPS11_021	Corymbia gummifera	20	20-40	NO			
GPS11_022	Casuarina glauca	20	10-20	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_023	Eucalyptus saligna	30	40-80	NO		t13	Existing
GPS11_024	Acacia irrorata	15	10-20	NO			
GPS11_025	Eucalyptus punctata	20	20-40	NO			
GPS11_026	Eucalyptus punctata	25	40-80	NO			
GPS11_027	Eucalyptus racemosa	25	40-80	NO			
GPS11_028	Allocasuarina littoralis	25	40-80	NO	Significant tree	t12	Existing
GPS11_029	Corymbia gummifera	20	40-80	NO			
GPS11_030	Eucalyptus saligna	30	80+	NO		t992	Existing
GPS11_031	Eucalyptus saligna	30	40-80	NO		t991	Existing
GPS11_032	Palm	15	20-40	NO			
GPS11_033	Eucalyptus pilularis	30	80+	NO		t1070	Existing
GPS11_034	Eucalyptus saligna	30	40-80	NO		t1071	Existing
GPS11_035	Pittosporum undulatum	15	20-40	NO			
GPS11_036	Angophora costata	20	20-40	NO		t9	Existing
GPS11_037	Glochidion ferdinandi	10	20-40	NO		t10	Existing
GPS11_038	Lophostemon confertus	20	40-80	NO			
GPS11_039	Eucalyptus racemosa	20	20-40	NO			
GPS11_040	Angophora costata	15	20-40	NO			
GPS11_041	Corymbia gummifera	20	20-40	NO			
GPS11_042	Casuarina glauca	20	20-40	NO			
GPS11_043	Casuarina glauca	15	10-20	NO			
GPS11_044	grevillia robusta	15	10-20	NO		t7	Existing
GPS11_045	Eucalyptus pilularis	20	20-40	NO		t6	Existing
GPS11_046	Eucalyptus pilularis	35	80+	NO	2x nest box	t5	Existing
GPS11_047	Eucalyptus saligna	30	20-40	NO			
GPS11_048	Glochidion ferdinandi	10	20-40	NO			
GPS11_049	Casuarina glauca	10	10-20	NO	Dead tree		
GPS11_050	Eucalyptus punctata	35	40-80	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_051	Angophora costata	20	20-40	NO			
GPS11_052	Eucalyptus saligna	35	40-80	NO	2x nest box		
GPS11_053	Eucalyptus saligna	35	40-80	NO			
GPS11_054	Glochidion ferdinandi	10	10-20	NO			
GPS11_055	Glochidion ferdinandi	11	10-20	NO			
GPS11_056	Eucalyptus racemosa	20	40-80	NO			
GPS11_057	Eucalyptus racemosa	15	20-40	NO	leaning on bus u-turn bay		
GPS11_058	Glochidion ferdinandi	15	10-20	NO			
GPS11_059	Glochidion ferdinandi	15	10-20	NO			
GPS11_060	Glochidion ferdinandi	15	10-20	NO			
GPS11_061	Glochidion ferdinandi	15	10-20	NO			
GPS11_062	Glochidion ferdinandi	15	10-20	NO			
GPS11_063	Dead Stag	10	10-20	NO		t926	Existing
GPS11_064	Hakea sp.	10	10-20	NO			
GPS11_065	Angophora costata	15	20-40	NO			
GPS11_066	Glochidion ferdinandi	15	20-40	NO			
GPS11_067	Corymbia gummifera	15	20-40	NO			
GPS11_068	Eucalyptus racemosa	20	40-80	NO			
GPS11_069	Eucalyptus racemosa	15	40-80	NO			
GPS11_070	Corymbia gummifera	15	20-40	NO			
GPS11_071	Pittosporum undulatum	15	10-20	NO			
GPS11_072	Pittosporum undulatum	15	10-20	NO			
GPS11_073	Pittosporum undulatum	15	20-40	NO			
GPS11_074	Eucalyptus saligna	35	40-80	NO			
GPS11_075	Pittosporum undulatum	10	10-20	NO			
GPS11_076	Eucalyptus racemosa	20	20-40	NO			
GPS11_077	Pittosporum undulatum	15	20-40	NO			
GPS11_078	Pittosporum undulatum	10	10-20	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_079	Acacia irrorata	10	10-20	NO			
GPS11_080	Banksia serratta	10	10-20	NO			
GPS11_081	Glochidion ferdinandi	15	20-40	NO			
GPS11_082	Pittosporum undulatum	10	20-40	NO			
GPS11_083	Glochidion ferdinandi	10	10-20	NO			
GPS11_084	Pittosporum undulatum	10	10-20	NO			
GPS11_085	Eucalyptus saligna	30	40-80	NO			
GPS11_086	Angophora costata	25	40-80	NO			
GPS11_087	Eucalyptus racemosa	25	40-80	NO		t2	Existing
GPS11_088	Pittosporum undulatum	10	10-20	NO			
GPS11_089	Corymbia gummifera	30	40-80	NO			
GPS11_090	Pittosporum undulatum	10	10-20	NO			
GPS11_091	Corymbia gummifera	25	40-80	NO			
GPS11_092	Angophora costata	25	40-80	NO			
GPS11_093	Glochidion ferdinandi	20	20-40	NO			
GPS11_094	Pittosporum undulatum	15	20-40	NO			
GPS11_095	Lophostemon confertus	10	20-40	NO			
GPS11_096	Eucalyptus	20	20-40	NO			
GPS11_097	Eucalyptus saligna	20	40-80	NO			
GPS11_098	Eucalyptus	15	10-20	NO	Dead tree	t25	Existing
GPS11_099	Eucalyptus	25	40-80	NO			
GPS11_100	Eucalyptus	25	40-80	NO			
GPS11_101	Eucalyptus	10	20-40	NO			
GPS11_102	Ficus sp.	25	40-80	NO			
GPS11_103	Angophora costata	30	40-80	NO			
GPS11_104	Eucalyptus saligna	25	40-80	NO			
GPS11_105	Pittosporum undulatum	10	10-20	NO			
GPS11_106	camphor laurel	15	20-40	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_107	Pittosporum undulatum	10	10-20	NO			
GPS11_108	Corymbia gummifera	20	20-40	NO			
GPS11_109	Corymbia gummifera	15	20-40	NO			
GPS11_110	Corymbia gummifera	20	20-40	NO			
GPS11_111	Allocasuarina littoralis	10	10-20	NO			
GPS11_112	Corymbia gummifera	15	20-40	NO		t453	Existing
GPS11_113	Corymbia gummifera	10	10-20	NO			
GPS11_114	Corymbia gummifera	8	10-20	NO		t454	Existing
GPS11_115	Corymbia gummifera	10	10-20	NO			
GPS11_116	Banksia serratta	5	10-20	NO			
GPS11_117	Corymbia gummifera	15	20-40	NO		t455	Existing
GPS11_118	Corymbia gummifera	8	10-20	NO			
GPS11_119	Corymbia gummifera	15	40-80	NO			
GPS11_120	Allocasuarina littoralis	10	10-20	NO			
GPS11_121	Corymbia gummifera	10	20-40	NO			
GPS11_122	Corymbia gummifera	10	20-40	NO			
GPS11_123	Corymbia gummifera	5	10-20	NO			
GPS11_124	Corymbia gummifera	10	20-40	NO			
GPS11_125	Corymbia gummifera	5	10-20	NO			
GPS11_126	Corymbia gummifera	5	10-20	NO			
GPS11_127	Angophora costata	15	20-40	NO			
GPS11_128	Angophora costata	10	10-20	NO			
GPS11_129	Angophora costata	10	10-20	NO			
GPS11_130	Angophora costata	10	10-20	NO			
GPS11_131	Corymbia gummifera	15	20-40	NO			
GPS11_132	Acacia irrorata	8	10-20	NO			
GPS11_133	Acacia irrorata	10	10-20	NO			
GPS11_134	Allocasuarina littoralis	15	20-40	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_135	Angophora costata	15	20-40	NO			
GPS11_136	Acacia irrorata	10	10-20	NO			
GPS11_137	Acacia irrorata	10	10-20	NO			
GPS11_138	Angophora costata	8	10-20	NO			
GPS11_139	Acacia irrorata	10	10-20	NO			
GPS11_140	Angophora costata	8	10-20	NO			
GPS11_141	Angophora costata	20	20-40	NO			
GPS11_142	Acacia irrorata	10	10-20	NO			
GPS11_143	grevillia robusta	15	10-20	NO			
GPS11_144	Acacia irrorata	10	10-20	NO			
GPS11_145	Corymbia gummifera	20	40-80	NO			
GPS11_146	Corymbia gummifera	20	40-80	NO			
GPS11_147	Corymbia gummifera	15	20-40	NO			
GPS11_148	Corymbia gummifera	15	20-40	NO			
GPS11_149	Corymbia gummifera	8	10-20	NO			
GPS11_150	Corymbia gummifera	15	20-40	NO			
GPS11_151	Angophora floribunda	20	20-40	NO			
GPS11_152	Corymbia gummifera	10	10-20	NO			
GPS11_153	Corymbia gummifera	15	20-40	NO			
GPS11_154	Eucalyptus racemosa	12	20-40	NO			
GPS11_155	Banksia serratta	5	10-20	NO			
GPS11_156	Corymbia gummifera	15	20-40	NO			
GPS11_157	Corymbia gummifera	10	10-20	NO			
GPS11_158	Corymbia gummifera	10	10-20	NO			
GPS11_159	Corymbia gummifera	15	20-40	NO			
GPS11_160	Corymbia gummifera	15	20-40	NO			
GPS11_161	Corymbia gummifera	10	10-20	NO			
GPS11_162	Eucalyptus racemosa	20	40-80	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_163	Eucalyptus racemosa	10	20-40	NO			
GPS11_164	Corymbia gummifera	15	20-40	NO			
GPS11_165	Eucalyptus racemosa	10	20-40	NO			
GPS11_166	Eucalyptus racemosa	8	20-40	NO			
GPS11_167	Angophora crassifolia	5	10-20	NO			
GPS11_168	Corymbia gummifera	10	10-20	NO			
GPS11_169	Glochidion ferdinandi	5	10-20	NO			
GPS11_170	Eucalyptus saligna	15	20-40	NO			
GPS11_171	Corymbia gummifera	15	20-40	NO			
GPS11_172	Eucalyptus saligna	20	20-40	NO			
GPS11_173	Acacia irrorata	15	20-40	NO			
GPS11_174	Eucalyptus punctata	15	20-40	No			
GPS11_175	Eucalyptus punctata	15	10-20	No			
GPS11_176	Eucalyptus saligna	20	20-40	No			
GPS11_177	Eucalyptus saligna	20	20-40	No			
GPS11_178	Eucalyptus saligna	15	20-40	No			
GPS11_179	Eucalyptus saligna	25	20-40	No	Nest		
GPS11_180	Eucalyptus punctata	20	20-40	No			
GPS11_181	Corymbia gummifera	10	10-20	No			
GPS11_182	Eucalyptus saligna	20	20-40	No			
GPS11_183	Eucalyptus saligna	20	20-40	No			
GPS11_184	Eucalyptus punctata	20	20-40	Yes		T172	KLF
GPS11_185	Eucalyptus punctata	15	20-40	Yes		T170	KLF
GPS11_186	Eucalyptus punctata	10	10-20	No			
GPS11_187	Corymbia gummifera	12	10-20	No			
GPS11_188	Eucalyptus saligna	20	20-40	No			
GPS11_189	Eucalyptus punctata	20	20-40	No			
GPS11_190	Corymbia gummifera	10	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_191	Angophora costata	10	10-20	No			
GPS11_192	Corymbia gummifera	20	40-80	Yes		T157	KLF
GPS11_193	Corymbia gummifera	20	20-40	No			
GPS11_194	Corymbia gummifera	10	10-20	No			
GPS11_195	Eucalyptus punctata	20	20-40	No			
GPS11_196	Eucalyptus saligna	15	10-20	No			
GPS11_197	Angophora costata	20	20-40	No			
GPS11_198	Eucalyptus punctata	20	20-40	No			
GPS11_199	Corymbia maculata	20	20-40	No			
GPS11_200	Corymbia maculata	15	20-40	No			
GPS11_201	Angophora costata	15	10-20	No			
GPS11_202	Corymbia maculata	15	10-20	No			
GPS11_203	Corymbia maculata	15	10-20	No			
GPS11_204	Corymbia maculata	20	20-40	No			
GPS11_205	Corymbia maculata	25	20-40	Yes		T173	KLF
GPS11_206	Corymbia maculata	15	10-20	No			
GPS11_207	Corymbia maculata	30	20-40	No			
GPS11_208	Corymbia maculata	15	20-40	No			
GPS11_209	Corymbia maculata	30	20-40	No			
GPS11_210	Corymbia maculata	30	20-40	No			
GPS11_211	Corymbia maculata	15	20-40	No			
GPS11_212	Corymbia maculata	30	20-40	No			
GPS11_213	Corymbia maculata	25	20-40	No			
GPS11_214	Eucalyptus racemosa	10	20-40	No			
GPS11_215	Pittosporum undulatum	5	10-20	No			
GPS11_216	Corymbia maculata	10	10-20	No			
GPS11_217	Corymbia maculata	15	10-20	No			
GPS11_218	Acacia irrorata	8	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_219	Corymbia maculata	10	10-20	No			
GPS11_220	Allocasuarina littoralis	5	10-20	No			
GPS11_221	Corymbia maculata	10	10-20	No			
GPS11_222	Corymbia maculata	25	20-40	Yes		T191	KLF
GPS11_223	Pittosporum undulatum	5	10-20	No			
GPS11_224	Allocasuarina littoralis	10	10-20	No			
GPS11_225	Eucalyptus saligna	25	20-40	Yes		T175	KLF
GPS11_226	Eucalyptus saligna	20	20-40	No			
GPS11_227	Eucalyptus saligna	20	20-40	No			
GPS11_228	Allocasuarina littoralis	8	10-20	No			
GPS11_229	Eucalyptus saligna	25	20-40	No			
GPS11_230	Eucalyptus saligna	20	20-40	No			
GPS11_231	Allocasuarina littoralis	15	20-40	No			
GPS11_232	Eucalyptus saligna	25	20-40	No			
GPS11_233	Eucalyptus saligna	15	10-20	No			
GPS11_234	Angophora costata	10	10-20	No			
GPS11_235	Eucalyptus saligna	25	20-40	No			
GPS11_236	Eucalyptus saligna	20	20-40	No			
GPS11_237	Eucalyptus saligna	10	10-20	No			
GPS11_238	Eucalyptus saligna	15	10-20	No			
GPS11_239	Acacia irrorata	10	10-20	No			
GPS11_240	Eucalyptus saligna	15	10-20	No			
GPS11_241	Eucalyptus saligna	25	40-80	Yes		T156	KLF
GPS11_242	Eucalyptus punctata	10	10-20	No			
GPS11_243	Eucalyptus saligna	15	10-20	No			
GPS11_244	Acacia irrorata	15	10-20	No			
GPS11_245	Eucalyptus punctata	20	20-40	No			
GPS11_246	Eucalyptus punctata	20	20-40	Yes		T176	KLF

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_247	Allocasuarina littoralis	10	10-20	No			
GPS11_248	Acacia sp	10	10-20	No			
GPS11_249	Eucalyptus punctata	10	10-20	No			
GPS11_250	Eucalyptus punctata	20	20-40	No			
GPS11_251	Eucalyptus saligna	25	20-40	No			
GPS11_252	Eucalyptus punctata	15	10-20	No			
GPS11_253	Eucalyptus saligna	15	10-20	No			
GPS11_254	Eucalyptus saligna	15	10-20	No			
GPS11_255	Eucalyptus saligna	10	10-20	No			
GPS11_256	Eucalyptus punctata	10	10-20	No			
GPS11_257	Acacia irrorata	15	10-20	No			
GPS11_258	Acacia irrorata	15	10-20	No			
GPS11_259	Acacia irrorata	15	20-40	No			
GPS11_260	Eucalyptus saligna	30	40-80	Yes		T155	KLF
GPS11_261	Eucalyptus saligna	15	10-20	No			
GPS11_262	Eucalyptus saligna	25	20-40	No			
GPS11_263	Eucalyptus saligna	15	10-20	No			
GPS11_264	Acacia irrorata	10	10-20	No			
GPS11_265	Eucalyptus saligna	20	20-40	No			
GPS11_266	Eucalyptus saligna	15	10-20	No			
GPS11_267	Eucalyptus saligna	10	10-20	No			
GPS11_268	Acacia irrorata	15	20-40	No			
GPS11_269	Acacia irrorata	10	10-20	No			
GPS11_270	Allocasuarina littoralis	10	10-20	No			
GPS11_271	Allocasuarina littoralis	10	10-20	No			
GPS11_272	Melaleuca	10	10-20	No			
GPS11_273	Allocasuarina littoralis	10	10-20	No			
GPS11_274	Allocasuarina littoralis	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS11_275	Allocasuarina littoralis	10	10-20	No			
GPS11_276	Eucalyptus racemosa	25	40-80	Yes		T153	KLF
GPS11_277	Eucalyptus racemosa	15	40-80	Yes		T154	KLF
GPS11_278	Eucalyptus saligna	30	40-80	NO			
GPS11_279	Corymbia gummifera	20	20-40	No			
GPS11_280	Corymbia gummifera	20	20-40	No			
GPS11_281	Corymbia gummifera	10	20-40	No			
GPS11_282	Corymbia gummifera	20	20-40	No			
GPS11_283	Corymbia gummifera	15	20-40	No			
GPS11_284	Eucalyptus saligna	20	20-40	No			
GPS11_285	Corymbia gummifera	15	10-20	Yes		T169	KLF
GPS11_286	Corymbia gummifera	15	10-20	No			
GPS11_287	Corymbia gummifera	10	10-20	No			
GPS11_288	Eucalyptus saligna	10	10-20	No			
GPS11_289	Corymbia gummifera	25	40-80	Yes		T152	KLF
GPS11_290	Eucalyptus saligna	20	20-40	No			
GPS11_291	Eucalyptus saligna	15	20-40	No			
GPS11_292	Eucalyptus saligna	15	10-20	No			
GPS11_293	Eucalyptus punctata	15	20-40	No			
GPS11_294	Eucalyptus saligna	20	20-40	No	Birds nest		
GPS11_295	Eucalyptus pilularis	20	20-40	No			
GPS11_296	Angophora costata	15	10-20	No			
GPS11_297	Corymbia gummifera	25	40-80	NO			
GPS11_298	Corymbia gummifera	25	20-40	NO			
GPS11_299	Corymbia gummifera	20	20-40	NO			
GPS11_300	Corymbia gummifera	15	20-40	NO			
GPS10_300	Corymbia gummifera	10	10-20	No			
GPS10_301	Eucalyptus saligna	15	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_302	Eucalyptus saligna	20	10-20	No			
GPS10_303	Eucalyptus saligna	35	20-40	No			
GPS10_304	Eucalyptus saligna	15	10-20	No			
GPS10_305	Eucalyptus saligna	10	10-20	No			
GPS10_306	Eucalyptus saligna	25	20-40	No			
GPS10_307	Eucalyptus saligna	20	10-20	No			
GPS10_308	Corymbia maculata	12	10-20	No			
GPS10_309	Corymbia maculata	12	10-20	No			
GPS10_310	Corymbia maculata	35	20-40	No			
GPS10_311	Eucalyptus pilularis	12	10-20	No			
GPS10_312	Eucalyptus pilularis	20	10-20	No			
GPS10_313	Eucalyptus pilularis	15	10-20	No			
GPS10_314	Eucalyptus pilularis	20	10-20	No			
GPS10_315	Allocasuarina littoralis	12	10-20	No			
GPS10_316	Eucalyptus saligna	15	20-40	No			
GPS10_317	Eucalyptus saligna	35	40-80	Yes		T64	KLF
GPS10_318	Eucalyptus pilularis	12	10-20	No			
GPS10_319	Eucalyptus saligna	35	40-80	Yes		t88	Existing
GPS10_320	Eucalyptus saligna	35	40-80	No			
GPS10_321	Eucalyptus saligna	30	20-40	No			
GPS10_322	Lophostemon confertus	5	10-20	Yes		T63	KLF
GPS10_323	Corymbia gummifera	20	20-40	Yes		T198	KLF
GPS10_324	Pittosporum undulatum	20	10-20	No			
GPS10_325	Pittosporum undulatum	15	10-20	No			
GPS10_326	Pittosporum undulatum	15	10-20	No			
GPS10_327	Corymbia gummifera	10	10-20	No			
GPS10_328	Corymbia gummifera	20	20-40	Yes		T197	KLF
GPS10_329	Eucalyptus racemosa	20	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_330	Eucalyptus racemosa	12	10-20	No			
GPS10_331	Eucalyptus racemosa	30	20-40	No			
GPS10_332	Eucalyptus racemosa	15	20-40	No			
GPS10_333	Corymbia gummifera	8	10-20	No			
GPS10_334	Eucalyptus pilularis	20	20-40	No			
GPS10_335	Eucalyptus	5	10-20	No			
GPS10_336	Allocasuarina littoralis	12	10-20	No			
GPS10_337	Acacia irrorata	15	10-20	No			
GPS10_338	Eucalyptus racemosa	20	40-80	Yes		t93	Existing
GPS10_339	Allocasuarina littoralis	10	10-20	No			
GPS10_340	Allocasuarina littoralis	5	10-20	No			
GPS10_341	Eucalyptus racemosa	20	40-80	Yes		T22	KLF
GPS10_342	Allocasuarina littoralis	10	10-20	No			
GPS10_343	Corymbia gummifera	15	10-20	No			
GPS10_344	Eucalyptus racemosa	25	20-40	Yes	Ringtail possum seen in tree	T23	KLF
GPS10_345	Acacia irrorata	15	10-20	No			
GPS10_346	Acacia irrorata	10	10-20	No			
GPS10_347	Allocasuarina littoralis	10	10-20	No			
GPS10_348	Allocasuarina littoralis	10	10-20	No			
GPS10_349	Acacia irrorata	15	10-20	No			
GPS10_350	Acacia irrorata	10	10-20	No			
GPS10_351	Corymbia gummifera	20	20-40	Yes		T20	KLF
GPS10_352	Corymbia gummifera	20	20-40	No			
GPS10_353	Eucalyptus racemosa	10	20-40	No	Part dead		
GPS10_354	Corymbia gummifera	20	20-40	No			
GPS10_355	Corymbia gummifera	15	20-40	No			
GPS10_356	Corymbia gummifera	25	20-40	No			
GPS10_357	Corymbia gummifera	25	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_358	Acacia irrorata	15	10-20	No			
GPS10_359	Acacia irrorata	5	10-20	No			
GPS10_360	Corymbia gummifera	20	20-40	Yes		T21	KLF
GPS10_361	Corymbia gummifera	15	20-40	No			
GPS10_362	Corymbia gummifera	20	20-40	Yes		T62	KLF
GPS10_363	Corymbia gummifera	10	10-20	No			
GPS10_364	Corymbia gummifera	25	20-40	No			
GPS10_365	Corymbia gummifera	15	20-40	Yes		T10	KLF
GPS10_366	Corymbia gummifera	15	10-20	No			
GPS10_367	Eucalyptus racemosa	10	10-20	No			
GPS10_368	Corymbia gummifera	25	20-40	Yes		T18	KLF
GPS10_369	Banksia serratta	5	10-20	No			
GPS10_370	Corymbia gummifera	25	40-80	No			
GPS10_371	Corymbia gummifera	25	40-80	Yes		T9	KLF
GPS10_372	Corymbia gummifera	15	20-40	No			
GPS10_373	Corymbia gummifera	10	10-20	No			
GPS10_374	Corymbia gummifera	15	10-20	No			
GPS10_375	Corymbia gummifera	10	10-20	No			
GPS10_376	Corymbia gummifera	10	10-20	No			
GPS10_377	Corymbia gummifera	15	20-40	No			
GPS10_378	Corymbia gummifera	10	10-20	No			
GPS10_379	Corymbia gummifera	15	10-20	No			
GPS10_380	Corymbia gummifera	20	20-40	No			
GPS10_381	Corymbia gummifera	12	20-40	No			
GPS10_382	Banksia serratta	8	10-20	Yes		T35	KLF
GPS10_383	Corymbia gummifera	10	10-20	No			
GPS10_384	Corymbia gummifera	15	10-20	No			
GPS10_385	Corymbia gummifera	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_386	Corymbia gummifera	20	20-40	Yes		T7	KLF
GPS10_387	Corymbia gummifera	25	40-80	Yes		t39	Existing
GPS10_388	Corymbia gummifera	15	20-40	Yes		t40	Existing
GPS10_389	Allocasuarina littoralis	10	10-20	No		t42	Existing
GPS10_390	Banksia serratta	5	10-20	Yes		t41	Existing
GPS10_391	Corymbia gummifera	12	20-40	No		t31	Existing
GPS10_392	Eucalyptus racemosa	20	40-80	Yes		t34	Existing
GPS10_393	Corymbia gummifera	20	20-40	No			
GPS10_394	Corymbia gummifera	10	10-20	No			
GPS10_395	Corymbia gummifera	8	10-20	No			
GPS10_396	Corymbia gummifera	25	20-40	No			
GPS10_397	Corymbia gummifera	20	20-40	Yes		T11	KLF
GPS10_398	Corymbia gummifera	8	10-20	No			
GPS10_399	Eucalyptus saligna	30	20-40	No			
GPS10_400	Corymbia gummifera	10	10-20	No			
GPS10_401	Corymbia gummifera	8	10-20	No			
GPS10_402	Acacia irrorata	10	10-20	No			
GPS10_403	Corymbia gummifera	20	20-40	Yes		T12	KLF
GPS10_404	Corymbia gummifera	15	20-40	No			
GPS10_405	Corymbia gummifera	10	10-20	No			
GPS10_406	Eucalyptus saligna	20	10-20	No			
GPS10_407	Corymbia gummifera	20	20-40	Yes		T8	KLF
GPS10_408	Allocasuarina littoralis	10	10-20	No			
GPS10_409	Corymbia gummifera	10	10-20	No			
GPS10_410	Corymbia gummifera	10	10-20	No			
GPS10_411	Corymbia gummifera	8	10-20	No			
GPS10_412	Corymbia gummifera	20	20-40	No			
GPS10_413	Corymbia gummifera	20	20-40	No		t32	Existing

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_414	Corymbia gummifera	25	40-80	No		T33	KLF
GPS10_415	Corymbia gummifera	12	20-40	No			
GPS10_416	Corymbia gummifera	8	20-40	No			
GPS10_417	Corymbia gummifera	18	20-40	Yes		T44	KLF
GPS10_418	Eucalyptus saligna	15	10-20	No			
GPS10_419	Corymbia gummifera	12	10-20	No			
GPS10_420	Corymbia gummifera	20	20-40	No			
GPS10_421	Eucalyptus saligna	35	20-40	No			
GPS10_422	Eucalyptus saligna	15	10-20	No			
GPS10_423	Eucalyptus saligna	15	10-20	No			
GPS10_424	Eucalyptus saligna	20	20-40	No			
GPS10_425	Eucalyptus saligna	10	10-20	No			
GPS10_426	Eucalyptus saligna	10	10-20	No			
GPS10_427	Eucalyptus racemosa	20	20-40	No			
GPS10_428	Corymbia gummifera	8	10-20	No			
GPS10_429	Eucalyptus saligna	20	10-20	No		T13	KLF
GPS10_430	Eucalyptus saligna	10	10-20	No			
GPS10_431	Eucalyptus saligna	20	10-20	No			
GPS10_432	Eucalyptus saligna	10	10-20	No			
GPS10_433	Eucalyptus saligna	10	10-20	No			
GPS10_434	Eucalyptus saligna	35	20-40	No			
GPS10_435	Eucalyptus saligna	35	40-80	No			
GPS10_436	Eucalyptus saligna	25	20-40	No			
GPS10_437	Eucalyptus saligna	20	20-40	No			
GPS10_438	Banksia serratta	10	20-40	No			
GPS10_439	Banksia serratta	12	10-20	No			
GPS10_440	Pittosporum undulatum	5	10-20	No			
GPS10_441	Acacia irrorata	15	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_442	Melaleuca	10	20-40	Yes		T45	KLF
GPS10_443	Corymbia gummifera	20	20-40	No			
GPS10_444	Corymbia gummifera	20	20-40	Yes		T47	KLF
GPS10_445	Glochidion ferdinandi	12	10-20	No			
GPS10_446	Corymbia gummifera	20	20-40	No			
GPS10_447	Corymbia gummifera	20	20-40	No			
GPS10_448	Corymbia gummifera	15	20-40	No			
GPS10_449	Corymbia gummifera	8	10-20	No			
GPS10_450	Corymbia gummifera	15	10-20	No			
GPS10_451	Corymbia gummifera	8	10-20	No	Dead tree		
GPS10_452	Corymbia gummifera	20	20-40	Yes		T43	KLF
GPS10_453	Corymbia gummifera	5	10-20	No			
GPS10_454	Eucalyptus racemosa	25	80+	Yes	termites present	T39	KLF
GPS10_455	Banksia serratta	5	10-20	Yes		T40	KLF
GPS10_456	Corymbia gummifera	12	10-20	No			
GPS10_457	Banksia serratta	5	10-20	Yes		T41	
GPS10_458	Corymbia gummifera	18	20-40	No			
GPS10_459	Banksia serratta	5	10-20	No			
GPS10_460	Corymbia gummifera	10	10-20	Yes		T42	KLF
GPS10_461	Corymbia gummifera	20	20-40	Yes		T59	KLF
GPS10_462	Corymbia gummifera	10	10-20	No			
GPS10_463	Corymbia gummifera	20	20-40	No			
GPS10_464	Allocasuarina littoralis	12	10-20	No			
GPS10_465	Allocasuarina littoralis	10	10-20	No			
GPS10_466	Eucalyptus saligna	25	20-40	No			
GPS10_467	Pittosporum undulatum	10	10-20	No			
GPS10_468	Corymbia maculata	12	20-40	No			
GPS10_469	Eucalyptus racemosa	20	40-80	Yes		T49	KLF

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_470	Eucalyptus saligna	30	40-80	Yes		T48	KLF
GPS10_471	Pittosporum undulatum	6	10-20	No			
GPS10_472	Ceropetalum reticul	8	10-20	No			
GPS10_473	Acacia irrorata	10	10-20	No			
GPS10_474	Corymbia gummifera	10	10-20	No			
GPS10_475	Eucalyptus racemosa	20	40-80	Yes		T56	
GPS10_476	Eucalyptus racemosa	20	40-80	Yes		T57	
GPS10_477	Corymbia gummifera	12	20-40	No			
GPS10_478	Corymbia gummifera	10	10-20	No			
GPS10_479	Eucalyptus microcarpa	20	20-40	Yes		T15	KLF
GPS10_480	Eucalyptus racemosa	10	20-40	Yes		T53	KLF
GPS10_481	Angophora costata	8	10-20	Yes		T54	KLF
GPS10_482	Dead Stag	12	20-40	No			
GPS10_483	Dead Stag	12	10-20	No			
GPS10_484	Pittosporum undulatum	8	10-20	No			
GPS10_485	Eucalyptus punctata	25	20-40	No			
GPS10_486	Angophora costata	25	40-80	Yes		T14	KLF
GPS10_487	Acacia irrorata	15	10-20	No			
GPS10_488	Allocasuarina littoralis	8	10-20	No			
GPS10_489	Corymbia gummifera	5	10-20	No			
GPS10_490	Pittosporum undulatum	8	10-20	No			
GPS10_491	Angophora costata	15	20-40	Yes		T19	KLF
GPS10_492	Allocasuarina littoralis	10	10-20	No			
GPS10_493	Allocasuarina littoralis	15	20-40	Yes		T51	KLF
GPS10_494	Glochidion ferdinandi	5	10-20	Yes		T50	
GPS10_495	Allocasuarina littoralis	10	10-20	No			
GPS10_496	Corymbia gummifera	20	20-40	No		t31	Existing
GPS10_497	Corymbia gummifera	5	10-20	No		t35	Existing

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_498	Corymbia gummifera	10	20-40	No		t30	Existing
GPS10_499	Corymbia gummifera	20	20-40	Yes		t38,T5	existing & KLF
GPS10_500	Corymbia gummifera	20	20-40	No			
GPS10_501	Corymbia gummifera	15	20-40	No			
GPS10_502	Eucalyptus racemosa	10	20-40	Yes		T4	KLF
GPS10_503	Eucalyptus racemosa	15	40-80	No			
GPS10_504	Corymbia gummifera	20	20-40	Yes		T38	KLF
GPS10_505	Allocasuarina littoralis	10	10-20	No			
GPS10_506	Allocasuarina littoralis	10	10-20	No			
GPS10_507	Corymbia gummifera	15	20-40	No			
GPS10_508	Allocasuarina littoralis	10	10-20	No			
GPS10_509	Corymbia gummifera	20	20-40	No			
GPS10_510	Corymbia gummifera	10	20-40	No			
GPS10_511	Corymbia gummifera	15	40-80	No			
GPS10_512	Corymbia gummifera	10	10-20	No			
GPS10_513	Angophora crassifolia	8	10-20	No			
GPS10_514	Allocasuarina littoralis	10	10-20	No			
GPS10_515	Allocasuarina littoralis	12	10-20	No			
GPS10_516	Corymbia gummifera	15	20-40	No			
GPS10_517	Allocasuarina littoralis	10	20-40	No		t43	Existing
GPS10_518	Corymbia gummifera	25	40-80	Yes		t44	Existing
GPS10_519	Pittosporum undulatum	5	10-20	No			
GPS10_520	Angophora crassifolia	8	10-20	No			
GPS10_521	Acacia sp	8	10-20	No			
GPS10_522	Allocasuarina littoralis	12	20-40	No			
GPS10_523	Allocasuarina littoralis	10	10-20	No			
GPS10_524	Corymbia gummifera	10	10-20	No			
GPS10_525	Allocasuarina littoralis	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_526	Allocasuarina littoralis	6	10-20	No			
GPS10_527	Pittosporum undulatum	4	10-20	No			
GPS10_528	Allocasuarina littoralis	15	10-20	No			
GPS10_529	Allocasuarina littoralis	8	10-20	No			
GPS10_530	Allocasuarina littoralis	8	10-20	No			
GPS10_531	Allocasuarina littoralis	8	10-20	No			
GPS10_532	Corymbia gummifera	12	10-20	Yes		T52	KLF
GPS10_533	Allocasuarina littoralis	20	10-20	No			
GPS10_534	Allocasuarina littoralis	15	10-20	No			
GPS10_535	Allocasuarina littoralis	15	10-20	No			
GPS10_536	Allocasuarina littoralis	15	10-20	No			
GPS10_537	Allocasuarina littoralis	12	10-20	No			
GPS10_538	Allocasuarina littoralis	10	10-20	No			
GPS10_539	Corymbia gummifera	20	20-40	No			
GPS10_540	Corymbia gummifera	20	20-40	Yes		T1	KLF
GPS10_541	Corymbia gummifera	15	20-40	No			
GPS10_542	Corymbia gummifera	15	20-40	No			
GPS10_543	Corymbia gummifera	20	20-40	No		t25	Existing
GPS10_544	Corymbia gummifera	15	10-20	No		t24	Existing
GPS10_545	Corymbia gummifera	20	20-40	Yes		t23	Existing
GPS10_546	Allocasuarina littoralis	10	10-20	No	Dead tree		
GPS10_547	Allocasuarina littoralis	10	10-20	No	Dead tree		
GPS10_548	Corymbia gummifera	15	20-40	No		t22	Existing
GPS10_549	Angophora costata	8	10-20	No		t21	Existing
GPS10_550	Angophora costata	10	10-20	No		t20	Existing
GPS10_551	Allocasuarina littoralis	8	10-20	No		t19	Existing
GPS10_552	Eucalyptus saligna	30	40-80	Yes		t18	Existing
GPS10_553	Allocasuarina littoralis	10	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_554	Allocasuarina littoralis	10	10-20	No			
GPS10_555	Allocasuarina littoralis	10	10-20	No			
GPS10_556	Corymbia gummifera	18	20-40	No		t26	Existing
GPS10_557	Corymbia gummifera	15	20-40	No		t27	Existing
GPS10_558	Eucalyptus racemosa	10	10-20	No			
GPS10_559	Allocasuarina littoralis	8	10-20	No			
GPS10_560	Corymbia gummifera	10	10-20	No			
GPS10_561	Allocasuarina littoralis	10	10-20	No			
GPS10_562	Corymbia gummifera	15	10-20	No			
GPS10_563	Corymbia gummifera	12	10-20	No			
GPS10_564	Angophora crassifolia	8	10-20	No			
GPS10_565	Corymbia gummifera	20	20-40	Yes		T3	KLF
GPS10_566	Allocasuarina littoralis	10	10-20	No			
GPS10_567	Allocasuarina littoralis	10	10-20	No			
GPS10_568	Corymbia gummifera	15	10-20	No			
GPS10_569	Eucalyptus racemosa	15	40-80	No			
GPS10_570	Corymbia gummifera	20	20-40	Yes		T37	KLF
GPS10_571	Corymbia gummifera	20	20-40	No			
GPS10_572	Corymbia gummifera	20	20-40	Yes		T6	KLF
GPS10_573	Allocasuarina littoralis	10	10-20	No			
GPS10_574	Corymbia gummifera	18	20-40	No			
GPS10_575	Corymbia gummifera	20	20-40	No			
GPS10_576	Allocasuarina littoralis	12	10-20	No			
GPS10_577	Corymbia gummifera	18	20-40	No			
GPS10_578	Corymbia gummifera	8	10-20	No			
GPS10_579	Corymbia gummifera	20	20-40	No		t30	Existing
GPS10_580	Corymbia gummifera	12	10-20	No			
GPS10_581	Acacia irrorata	8	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_582	Corymbia gummifera	10	10-20	No			
GPS10_583	Corymbia gummifera	15	20-40	Yes		T2	KLF
GPS10_584	Allocasuarina littoralis	8	10-20	No			
GPS10_585	Allocasuarina littoralis	10	10-20	No			
GPS10_586	Allocasuarina littoralis	15	10-20	No			
GPS10_587	Corymbia gummifera	12	10-20	No			
GPS10_588	Allocasuarina littoralis	10	10-20	No			
GPS10_589	Corymbia gummifera	20	20-40	No		t8	Existing
GPS10_590	Allocasuarina littoralis	10	10-20	No			
GPS10_591	Allocasuarina littoralis	10	10-20	No			
GPS10_592	Allocasuarina littoralis	8	10-20	No			
GPS10_593	Allocasuarina littoralis	8	10-20	No			
GPS10_594	Allocasuarina littoralis	10	10-20	No			
GPS10_595	Allocasuarina littoralis	10	10-20	No			
GPS10_596	Corymbia gummifera	15	10-20	Yes		T60	KLF
GPS10_597	Allocasuarina littoralis	12	10-20	No			
GPS10_598	Allocasuarina littoralis	10	10-20	No			
GPS10_599	Allocasuarina littoralis	12	10-20	No			
GPS10_600	Corymbia gummifera	15	10-20	No			
GPS10_601	Corymbia gummifera	15	20-40	No			
GPS10_602	Corymbia gummifera	25	40-80	Yes		T16	KLF
GPS10_603	Corymbia gummifera	25	20-40	No			
GPS10_604	Eucalyptus racemosa	8	10-20	No			
GPS10_605	Corymbia gummifera	20	20-40	No			
GPS10_606	Corymbia gummifera	20	20-40	Yes		T17	KLF
GPS10_607	Corymbia gummifera	20	20-40	No			
GPS10_608	Corymbia gummifera	12	10-20	No			
GPS10_609	Allocasuarina littoralis	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_610	Corymbia gummifera	8	10-20	No			
GPS10_611	Corymbia gummifera	8	10-20	No			
GPS10_612	Corymbia gummifera	12	10-20	No			
GPS10_613	Corymbia gummifera	20	20-40	No			
GPS10_614	Corymbia gummifera	15	10-20	No			
GPS10_615	Corymbia gummifera	15	10-20	No			
GPS10_616	Allocasuarina littoralis	10	10-20	No			
GPS10_617	Corymbia gummifera	10	10-20	No			
GPS10_618	Corymbia gummifera	20	40-80	No			
GPS10_619	Corymbia gummifera	10	10-20	No			
GPS10_620	Melaleuca	8	10-20	No			
GPS10_621	Allocasuarina littoralis	10	20-40	NO			
GPS10_622	Acacia irrorata	20	20-40	NO			
GPS10_623	Angophora costata	15	20-40	NO			
GPS10_624	Eucalyptus saligna	35	40-80	NO			
GPS10_625	Eucalyptus saligna	35	20-40	NO			
GPS10_626	Eucalyptus saligna	30	20-40	NO			
GPS10_627	Pittosporum undulatum	10	10-20	NO			
GPS10_628	Banksia serratta	5	10-20	No			
GPS10_629	Corymbia gummifera	12	10-20	No			
GPS10_630	Acacia irrorata	10	10-20	No			
GPS10_631	Melaleuca	8	10-20	No			
GPS10_632	Eucalyptus punctata	15	20-40	No			
GPS10_633	camphor laurel	10	10-20	NO			
GPS10_634	Acacia sp	12	10-20	NO			
GPS10_635	Corymbia gummifera	15	10-20	No			
GPS10_636	Eucalyptus saligna	15	10-20	NO			
GPS10_637	Angophora crassifolia	6	10-20	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_638	Eucalyptus saligna	30	20-40	NO			
GPS10_639	Eucalyptus racemosa	15	40-80	No			
GPS10_640	Melaleuca	8	10-20	No			
GPS10_641	Melaleuca	8	10-20	No			
GPS10_642	Eucalyptus saligna	25	20-40	No			
GPS10_643	Eucalyptus saligna	35	20-40	No			
GPS10_644	Eucalyptus racemosa	6	10-20	No			
GPS10_645	Eucalyptus saligna	12	10-20	No			
GPS10_646	Eucalyptus saligna	10	10-20	No			
GPS10_647	Eucalyptus saligna	12	10-20	NO			
GPS10_648	Eucalyptus saligna	15	10-20	NO			
GPS10_649	Eucalyptus saligna	15	10-20	NO			
GPS10_650	Eucalyptus saligna	15	10-20	NO			
GPS10_651	Eucalyptus saligna	25	20-40	NO			
GPS10_652	Corymbia gummifera	15	20-40	No			
GPS10_653	Banksia serratta	15	20-40	No			
GPS10_654	Melaleuca	10	20-40	No			
GPS10_655	Acacia sp	8	10-20	No			
GPS10_656	Allocasuarina littoralis	12	10-20	No			
GPS10_657	Melaleuca	8	10-20	No			
GPS10_658	Acacia sp	8	10-20	No			
GPS10_659	Allocasuarina littoralis	6	10-20	No			
GPS10_660	Allocasuarina littoralis	8	10-20	No			
GPS10_661	Acacia sp	8	10-20	No			
GPS10_662	Lophostemon confertus	25	20-40	No			
GPS10_663	Lophostemon confertus	10	10-20	Yes		T168	KLF
GPS10_664	Eucalyptus saligna	35	20-40	No			
GPS10_665	Eucalyptus saligna	25	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_666	Eucalyptus saligna	12	10-20	No			
GPS10_667	Acacia sp	5	10-20	No			
GPS10_668	Eucalyptus saligna	30	20-40	No			
GPS10_669	Eucalyptus saligna	30	20-40	No			
GPS10_670	Banksia serratta	15	20-40	NO			
GPS10_671		5	10-20	NO			
GPS10_672	Corymbia gummifera	25	20-40	NO			
GPS10_673	Banksia serratta	18	20-40	No			
GPS10_674	Allocasuarina littoralis	15	20-40	NO			
GPS10_675	Banksia serratta	8	10-20	Yes		T163	KLF
GPS10_676	Corymbia gummifera	12	10-20	No			
GPS10_677	Eleaocarpus reticulatus	12	10-20	Yes		T162	KLF
GPS10_678	Eucalyptus punctata	10	20-40	No			
GPS10_679	Allocasuarina littoralis	8	10-20	NO			
GPS10_680	Eucalyptus	20	20-40	NO			
GPS10_681	Banksia serratta	8	10-20	Yes		T78	KLF
GPS10_682	Eucalyptus	20	20-40	NO			
GPS10_683	Allocasuarina littoralis	20	20-40	NO			
GPS10_684	Allocasuarina littoralis	15	10-20	No			
GPS10_685	Allocasuarina littoralis	8	10-20	No			
GPS10_686	Allocasuarina littoralis	12	10-20	NO			
GPS10_687	Allocasuarina littoralis	10	10-20	NO			
GPS10_688	Allocasuarina littoralis	12	10-20	NO			
GPS10_689	Allocasuarina littoralis	10	10-20	NO			
GPS10_690	Allocasuarina littoralis	10	10-20	No			
GPS10_691	Eucalyptus	15	10-20	No			
GPS10_692	Eucalyptus	15	10-20	No			
GPS10_693	Eucalyptus	12	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_694	Corymbia gummifera	5	10-20	No			
GPS10_695	Allocasuarina littoralis	10	10-20	Yes		T79	KLF
GPS10_696	Allocasuarina littoralis	12	10-20	No			
GPS10_697	Allocasuarina littoralis	12	10-20	No			
GPS10_698	Allocasuarina littoralis	8	10-20	No			
GPS10_699	Allocasuarina littoralis	12	10-20	No			
GPS10_700	Allocasuarina littoralis	10	10-20	No			
GPS10_701	Dead Stag	4	20-40	No			
GPS10_702	Allocasuarina littoralis	10	10-20	No			
GPS10_703	Allocasuarina littoralis	12	10-20	No			
GPS10_704	Allocasuarina littoralis	15	10-20	Yes		T82	KLF
GPS10_705	Allocasuarina littoralis	10	10-20	No			
GPS10_706	Allocasuarina littoralis	10	10-20	No			
GPS10_707	Corymbia gummifera	15	20-40	Yes		T84	KLF
GPS10_708	Dead Stag	5	20-40	No			
GPS10_709	Allocasuarina littoralis	12	10-20	Yes		T83	KLF
GPS10_710	Dead Stag	5	20-40	No			
GPS10_711	Allocasuarina littoralis	8	10-20	No			
GPS10_712	Allocasuarina littoralis	8	10-20	No			
GPS10_713	Dead Stag	8	40-80	Yes		T81	KLF
GPS10_714	Allocasuarina littoralis	10	10-20	No			
GPS10_715	Allocasuarina littoralis	8	10-20	No			
GPS10_716	Allocasuarina littoralis	15	10-20	Yes		T80	KLF
GPS10_717	Corymbia gummifera	5	10-20	No			
GPS10_718	Corymbia gummifera	5	10-20	No			
GPS10_719	Kunzea ambigua	3.	10-20	Yes		t78	Existing
GPS10_720	Acacia irrorata	15	20-40	No			
GPS10_721	Allocasuarina littoralis	15	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_722	Allocasuarina littoralis	12	10-20	No			
GPS10_723	Allocasuarina littoralis	10	10-20	No			
GPS10_724	Allocasuarina littoralis	8	10-20	No			
GPS10_725	Allocasuarina littoralis	12	10-20	No			
GPS10_726	Eucalyptus racemosa	20	40-80	Yes		T85	KLF
GPS10_727	Allocasuarina littoralis	15	10-20	No		t80	Existing
GPS10_728	Allocasuarina littoralis	12	10-20	No			
GPS10_729	Allocasuarina littoralis	18	10-20	No			
GPS10_730	Allocasuarina littoralis	15	10-20	Yes		T?	KLF
GPS10_731	Allocasuarina littoralis	12	10-20	No			
GPS10_732	Allocasuarina littoralis	10	10-20	No			
GPS10_733	Allocasuarina littoralis	12	10-20	No			
GPS10_734	Allocasuarina littoralis	15	10-20	No			
GPS10_735	Dead Stag	15	10-20	No			
GPS10_736	Melaleuca stypheloides	20	10-20	No			
GPS10_737	Dead Stag	10	10-20	No			
GPS10_738	Homolanthus	8	10-20	No			
GPS10_739	Syzygium paniculatum	25	20-40	Yes		T75	KLF
GPS10_740	Syzygium paniculatum	8	10-20	Yes		T77	KLF
GPS10_741	Syzygium paniculatum	8	10-20	Yes		T76	KLF
GPS10_742	Lophostemon confertus	25	20-40	Yes		t71	Existing
GPS10_743	Eucalyptus resinifera	30	40-80	Yes		t70	Existing
GPS10_744	Allocasuarina littoralis	8	10-20	No			
GPS10_745	Eucalyptus resinifera	30	40-80	Yes		t69	Existing
GPS10_746	Pittosporum undulatum	10	10-20	No			
GPS10_747	Allocasuarina littoralis	8	10-20	No			
GPS10_748	Dead Stag	6	10-20	No			
GPS10_749	Corymbia gummifera	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_750	Corymbia gummifera	15	10-20	No			
GPS10_751	Eucalyptus pilularis	12	10-20	No			
GPS10_752	Eucalyptus pilularis	25	20-40	No			
GPS10_753	Corymbia gummifera	10	20-40	No			
GPS10_754	Eucalyptus pilularis	8	10-20	No			
GPS10_755	Eucalyptus resinifera	35	40-80	Yes		T74	KLF
GPS10_756	Eucalyptus pilularis	15	10-20	No			
GPS10_757	Eucalyptus pilularis	25	20-40	No			
GPS10_758	Corymbia gummifera	15	20-40	No			
GPS10_759	Allocasuarina littoralis	8	10-20	No			
GPS10_760	Eucalyptus pilularis	15	10-20	No			
GPS10_761	Angophora costata	15	10-20	No			
GPS10_762	Eucalyptus resinifera	30	40-80	Yes		T73	KLF
GPS10_763	Eucalyptus pilularis	12	10-20	No			
GPS10_764	Angophora costata	25	20-40	Yes		t66	Existing
GPS10_765	Corymbia gummifera	20	20-40	No			
GPS10_766	Corymbia gummifera	15	20-40	No			
GPS10_767	Eucalyptus pilularis	15	10-20	No			
GPS10_768	Eucalyptus pilularis	15	10-20	No			
GPS10_769	Allocasuarina littoralis	10	10-20	No			
GPS10_770	Allocasuarina littoralis	8	10-20	No			
GPS10_771	Acacia irrorata	25	40-80	No			
GPS10_772	Allocasuarina littoralis	15	10-20	No			
GPS10_773	Allocasuarina littoralis	15	10-20	No			
GPS10_774	Allocasuarina littoralis	12	10-20	No			
GPS10_775	Allocasuarina littoralis	12	10-20	No			
GPS10_776	Allocasuarina littoralis	15	10-20	No			
GPS10_777	Allocasuarina littoralis	15	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_778	Allocasuarina littoralis	15	10-20	No			
GPS10_779	Allocasuarina littoralis	12	10-20	No			
GPS10_780	Allocasuarina littoralis	12	10-20	Yes		T90	KLF
GPS10_781	Allocasuarina littoralis	15	10-20	Yes		T98	KLF
GPS10_782	Allocasuarina littoralis	12	10-20	Yes		T87	KLF
GPS10_783	Allocasuarina littoralis	12	10-20	No			
GPS10_784	Allocasuarina littoralis	12	10-20	No			
GPS10_785	Allocasuarina littoralis	15	10-20	No			
GPS10_786	Allocasuarina littoralis	15	10-20	Yes		T91	KLF
GPS10_787	Allocasuarina littoralis	15	10-20	Yes		T92	KLF
GPS10_788	Allocasuarina littoralis	15	10-20	No			
GPS10_789	Allocasuarina littoralis	15	10-20	No			
GPS10_790	Dead Stag	5	20-40	No			
GPS10_791	Allocasuarina littoralis	10	10-20	Yes		T89	KLF
GPS10_792	Allocasuarina littoralis	15	10-20	No			
GPS10_793	Allocasuarina littoralis	10	10-20	Yes		T88	KLF
GPS10_794	Allocasuarina littoralis	15	10-20	No			
GPS10_795	Corymbia gummifera	20	20-40	Yes		T93	KLF
GPS10_796	Allocasuarina littoralis	15	10-20	No			
GPS10_797	Allocasuarina littoralis	18	10-20	No			
GPS10_798	Dead Stag	10	10-20	No			
GPS10_799	Corymbia gummifera	18	10-20	No			
GPS10_800	Allocasuarina littoralis	12	10-20	No			
GPS10_801	Eleaocarpus reticulatus	12	10-20	Yes		T97	
GPS10_802	Allocasuarina littoralis	15	20-40	No			
GPS10_803	Dead Stag	15	20-40	No			
GPS10_804	Dead Stag	12	20-40	No			
GPS10_805	Corymbia gummifera	20	40-80	Yes		T194	KLF

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_806	Eucalyptus racemosa	20	40-80	Yes		T96	KLF
GPS10_807	Allocasuarina littoralis	18	20-40	Yes		T95	KLF
GPS10_808	Melaleuca	5	10-20	No			
GPS10_809	Eucalyptus	8	10-20	No			
GPS10_810	Allocasuarina littoralis	10	10-20	No			
GPS10_811	Allocasuarina littoralis	8	10-20	Yes		T94	KLF
GPS10_812	Allocasuarina littoralis	18	20-40	No			
GPS10_813	Allocasuarina littoralis	18	20-40	No			
GPS10_814	Allocasuarina littoralis	8	20-40	No			
GPS10_815	Allocasuarina littoralis	12	10-20	No			
GPS10_816	Glochidion ferdinandi	10	10-20	Yes		T192	KLF
GPS10_817	Eucalyptus racemosa	15	40-80	Yes		T71	KLF
GPS10_818	Eucalyptus racemosa	10	40-80	Yes		T72	KLF
GPS10_819	Eucalyptus racemosa	20	40-80	Yes		T69	KLF
GPS10_820	Corymbia gummifera	20	40-80	Yes		T70	KLF
GPS10_821	Dead Stag	10	10-20	No			
GPS10_822	Allocasuarina littoralis	8	10-20	No			
GPS10_823	Allocasuarina littoralis	8	10-20	No			
GPS10_825	Dead Stag	5	10-20	No			
GPS10_826	Dead Stag	5	10-20	No			
GPS10_827	Allocasuarina littoralis	10	10-20	No			
GPS10_828	Allocasuarina littoralis	12	10-20	No			
GPS10_829	Banksia serratta	3	10-20	No			
GPS10_830	Allocasuarina littoralis	10	10-20	No			
GPS10_831	Allocasuarina littoralis	8	10-20	No			
GPS10_832	Allocasuarina littoralis	8	10-20	No			
GPS10_833	Allocasuarina littoralis	10	10-20	No			
GPS10_834	Allocasuarina littoralis	12	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_835	Allocasuarina littoralis	10	10-20	No			
GPS10_836	Allocasuarina littoralis	12	20-40	No			
GPS10_837	Eucalyptus pilularis	20	20-40	No			
GPS10_838	Eucalyptus pilularis	30	40-80	Yes		t53	KLF
GPS10_839	Allocasuarina littoralis	10	10-20	No			
GPS10_840	Glochidion ferdinandi	4	10-20	Yes		T101	KLF
GPS10_841	Allocasuarina littoralis	8	10-20	No			
GPS10_842	Allocasuarina littoralis	8	10-20	No			
GPS10_843	Allocasuarina littoralis	8	10-20	Yes		T100	KLF
GPS10_844	Dead Stag	10	10-20	No			
GPS10_845	Dead Stag	8	10-20	No			
GPS10_846	Dead Stag	8	10-20	No			
GPS10_847	Dead Stag	8	10-20	No			
GPS10_848	Dead Stag	6	20-40	No			
GPS10_849	Glochidion ferdinandi	5	10-20	Yes		T102	KLF
GPS10_850	Glochidion ferdinandi	6	10-20	Yes		T103	KLF
GPS10_851	Glochidion ferdinandi	5	10-20	Yes		T104	KLF
GPS10_852	Melaleuca	8	10-20	No			
GPS10_853	Glochidion ferdinandi	8	20-40	No			
GPS10_854	Eucalyptus	20	40-80	Yes		T105	KLF
GPS10_855	Eucalyptus	15	20-40	No			
GPS10_856	Eucalyptus	15	20-40	No			
GPS10_857	Eucalyptus	15	20-40	No			
GPS10_858	Eucalyptus pilularis	10	10-20	No			
GPS10_859	Eucalyptus	20	40-80	Yes		T106	KLF
GPS10_860	Eucalyptus pilularis	8	10-20	No			
GPS10_861	Corymbia gummifera	10	10-20	No			
GPS10_862	Glochidion ferdinandi	12	10-20	Yes		T107	KLF

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_863	Glochidion ferdinandi	12	10-20	Yes		T108	KLF
GPS10_864	Glochidion ferdinandi	12	10-20	Yes		T109	KLF
GPS10_865	Glochidion ferdinandi	10	20-40	No			
GPS10_866	Glochidion ferdinandi	10	20-40	No			
GPS10_867	Glochidion ferdinandi	8	20-40	No			
GPS10_868	Eleaocarpus reticulatus	12	10-20	Yes		T113	KLF
GPS10_869	Eucalyptus saligna	30	40-80	Yes		T119	KLF
GPS10_870	Eucalyptus saligna	30	20-40	Yes		T118	KLF
GPS10_871	Corymbia gummifera	6	10-20	No			
GPS10_872	Eucalyptus	10	10-20	No			
GPS10_873	Angophora crassifolia	5	10-20	No			
GPS10_874	Eucalyptus	15	20-40	No			
GPS10_875	Eucalyptus	15	10-20	No			
GPS10_876	Eucalyptus	12	10-20	No			
GPS10_877	Eucalyptus	10	10-20	No			
GPS10_878	Eucalyptus	15	40-80	Yes		T112	KLF
GPS10_879	Eucalyptus	15	40-80	Yes		T111	KLF
GPS10_880	Eucalyptus	15	20-40	No			
GPS10_881	Eucalyptus	15	20-40	No			
GPS10_882	Eucalyptus	15	10-20	No			
GPS10_883	Allocasuarina littoralis	10	10-20	No			
GPS10_884	Corymbia gummifera	8	10-20	No			
GPS10_885	Corymbia gummifera	8	10-20	No			
GPS10_886	Corymbia gummifera	6	10-20	No			
GPS10_887	Corymbia gummifera	5	10-20	No			
GPS10_888	Corymbia gummifera	5	10-20	No			
GPS10_889	Eucalyptus	20	40-80	Yes		T110	KLF
GPS10_890	Corymbia gummifera	5	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_891	Eucalyptus	20	20-40	No			
GPS10_892	Dead Stag	6	10-20	No			
GPS10_893	Corymbia gummifera	20	20-40	NO			
GPS10_894	Corymbia gummifera	15	20-40	NO			
GPS10_895	Allocasuarina littoralis	10	10-20	NO			
GPS10_896	Corymbia gummifera	15	20-40	NO			
GPS10_897	Corymbia gummifera	5	20-40	No	Part dead		
GPS10_898	Corymbia gummifera	12	10-20	No			
GPS10_899	Dead Stag	4	10-20	NO			
GPS10_900	Angophora crassifolia	4	10-20	No			
GPS10_901	Corymbia gummifera	15	20-40	No			
GPS10_902	Angophora crassifolia	8	20-40	No			
GPS10_903	Angophora crassifolia	8	10-20	No			
GPS10_904	Angophora crassifolia	5	10-20	No			
GPS10_905	Eucalyptus racemosa	12	20-40	No			
GPS10_906	Corymbia gummifera	15	20-40	No			
GPS10_907	Corymbia gummifera	8	10-20	No			
GPS10_908	Eucalyptus	15	10-20	No			
GPS10_909	Corymbia gummifera	12	20-40	No			
GPS10_910	Corymbia gummifera	12	20-40	No			
GPS10_911	Eucalyptus	15	40-80	Yes		T114	KLF
GPS10_912	Eucalyptus	20	40-80	Yes	Nest Box	T115	KLF
GPS10_913	Eucalyptus	15	20-40	No			
GPS10_914	Eucalyptus	8	20-40	No			
GPS10_915	Eucalyptus	8	10-20	No			
GPS10_916	Angophora crassifolia	8	10-20	No			
GPS10_917	Corymbia gummifera	8	10-20	No	Dead tree		
GPS10_918	Acacia irrorata	6	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_919	Acacia irrorata	6	10-20	No			
GPS10_920	Eucalyptus	20	40-80	Yes		No Tag	
GPS10_921	Corymbia gummifera	12	10-20	No			
GPS10_922	Corymbia gummifera	18	20-40	No			
GPS10_923	Corymbia gummifera	18	20-40	No			
GPS10_924	Corymbia gummifera	15	20-40	No			
GPS10_925	Angophora crassifolia	6	10-20	No			
GPS10_926	Corymbia gummifera	12	20-40	No			
GPS10_927	Corymbia gummifera	18	20-40	NO			
GPS10_928	Corymbia gummifera	10	10-20	No			
GPS10_929	Corymbia gummifera	10	10-20	No			
GPS10_930	Eucalyptus	20	40-80	Yes		T116	KLF
GPS10_931	Eucalyptus	25	40-80	Yes	Nest Box	T117	KLF
GPS10_932	Corymbia gummifera	12	20-40	No			
GPS10_933	Allocasuarina littoralis	12	40-80	No		t50	Existing
GPS10_934	Glochidion ferdinandi	15	20-40	Yes		t49	Existing
GPS10_935	Melaleuca	3	10-20	No			
GPS10_936	Melaleuca	5	20-40	No			
GPS10_937	Lophostemon confertus	25	20-40	No			
GPS10_938	Acacia irrorata	6	10-20	No			
GPS10_939	Eucalyptus saligna	30	20-40	No			
GPS10_940	Eucalyptus saligna	30	20-40	No			
GPS10_941	Eucalyptus saligna	30	20-40	No			
GPS10_942	Eucalyptus saligna	15	10-20	No			
GPS10_943	Eucalyptus saligna	35	40-80	Yes		T165	KLF
GPS10_944	Eucalyptus saligna	20	20-40	No			
GPS10_945	Eucalyptus saligna	30	20-40	No			
GPS10_946	Melaleuca	6	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_947	Dead Stag	10	20-40	No			
GPS10_948	Dead Stag	8	10-20	No			
GPS10_949	Dead Stag	8	10-20	No			
GPS10_950	Eucalyptus saligna	20	10-20	No			
GPS10_951	Dead Stag	15	10-20	No			
GPS10_952	Eucalyptus saligna	20	20-40	No			
GPS10_953	Eucalyptus saligna	15	10-20	No			
GPS10_954	Eucalyptus saligna	10	10-20	No			
GPS10_955	Melaleuca	8	10-20	No			
GPS10_956	Melaleuca	8	10-20	No			
GPS10_957	Acacia binervia	15	20-40	No			
GPS10_958	Acacia binervia	25	20-40	No			
GPS10_959	Acacia binervia	25	10-20	No			
GPS10_960	Eucalyptus saligna	25	20-40	Yes		T166	KLF
GPS10_961	Eucalyptus saligna	20	10-20	No			
GPS10_962	Eucalyptus saligna	10	10-20	No			
GPS10_963	Eucalyptus saligna	10	10-20	No			
GPS10_964	Eucalyptus saligna	20	10-20	No			
GPS10_965	Eucalyptus saligna	30	20-40	No			
GPS10_966	Eucalyptus saligna	25	20-40	No			
GPS10_967	Eucalyptus saligna	12	10-20	No			
GPS10_968	Angophora crassifolia	8	10-20	No			
GPS10_969	Melaleuca	10	10-20	No			
GPS10_970	Ceropetalum reticul	8	10-20	Yes		T167	KLF
GPS10_971	Banksia serratta	18	40-80	Yes		T164	KLF
GPS10_972	Grevillea sp.	10	10-20	No			
GPS10_973	Palm	10	10-20	No			
GPS10_974	Glochidion ferdinandi	18	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_975	Pittosporum undulatum	10	10-20	No			
GPS10_976	Pittosporum undulatum	12	10-20	No			
GPS10_977	Pittosporum undulatum	10	10-20	No			
GPS10_978	Melaleuca	12	20-40	No			
GPS10_979	Palm	12	10-20	No			
GPS10_980	Palm	10	10-20	No			
GPS10_981	Palm	10	10-20	No			
GPS10_982	Allocasuarina littoralis	8	10-20	NO			
GPS10_983	Allocasuarina littoralis	12	10-20	NO			
GPS10_984	Allocasuarina littoralis	12	10-20	NO			
GPS10_985	Allocasuarina littoralis	10	10-20	NO			
GPS10_986	Allocasuarina littoralis	8	10-20	NO			
GPS10_988	Allocasuarina littoralis	8	10-20	NO			
GPS10_989	Allocasuarina littoralis	8	20-40	NO			
GPS10_990	Dead Stag	10	20-40	NO			
GPS10_991	Allocasuarina littoralis	10	10-20	NO			
GPS10_992	Eucalyptus racemosa	25	80+	Yes	hollows	No Tag	
GPS10_993	Eucalyptus racemosa	15	20-40	Yes		No Tag	
GPS10_994	Eucalyptus racemosa	15	20-40	Yes		No Tag	
GPS10_995	Corymbia gummifera	25	20-40	Yes		No Tag	
GPS10_996	Allocasuarina littoralis	15	10-20	Yes		No Tag	
GPS10_997	Corymbia gummifera	15	20-40	Yes		No Tag	
GPS10_998	Corymbia gummifera	10	10-20	Yes		No Tag	
GPS10_999	Pittosporum undulatum	10	10-20	Yes		No Tag	
GPS10_001	Allocasuarina littoralis	12	10-20	No			
GPS10_002	Allocasuarina littoralis	10	10-20	No			
GPS10_003	Corymbia gummifera	15	10-20	No			
GPS10_004	Eucalyptus racemosa	15	40-80	Yes		T24	KLF

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_005	Corymbia gummifera	8	10-20	No			
GPS10_006	Corymbia gummifera	6	10-20	No			
GPS10_007	Corymbia gummifera	15	10-20	No			
GPS10_008	Corymbia gummifera	15	20-40	Yes		T25	KLF
GPS10_009	Corymbia gummifera	10	10-20	No			
GPS10_010	Angophora crassifolia	5	10-20	No			
GPS10_011	Corymbia gummifera	20	40-80	Yes		T188	KLF
GPS10_012	Corymbia gummifera	15	10-20	No			
GPS10_013	Corymbia gummifera	20	20-40	No			
GPS10_014	Corymbia gummifera	15	20-40	Yes		T30	KLF
GPS10_015	Corymbia gummifera	12	10-20	No			
GPS10_016	Angophora crassifolia	10	10-20	No			
GPS10_017	Corymbia gummifera	15	20-40	No			
GPS10_018	Corymbia gummifera	15	20-40	No			
GPS10_019	Corymbia gummifera	15	10-20	No			
GPS10_020	Corymbia gummifera	5	10-20	No			
GPS10_021	Banksia serratta	5	10-20	Yes		T186	KLF
GPS10_022	Banksia serratta	5	10-20	Yes		T187	KLF
GPS10_023	Corymbia gummifera	20	20-40	No			
GPS10_024	Angophora crassifolia	5	10-20	No			
GPS10_025	Corymbia gummifera	10	20-40	No			
GPS10_026	Corymbia gummifera	15	20-40	No			
GPS10_027	Corymbia gummifera	25	40-80	Yes	Nest box	T26	KLF
GPS10_028	Corymbia gummifera	10	10-20	No			
GPS10_029	Corymbia gummifera	10	10-20	No			
GPS10_030	Corymbia gummifera	25	40-80	Yes		T27	KLF
GPS10_031	Corymbia gummifera	20	20-40	No			
GPS10_032	Corymbia gummifera	15	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_033	Angophora crassifolia	10	10-20	No			
GPS10_034	Corymbia gummifera	10	10-20	No			
GPS10_035	Corymbia gummifera	20	20-40	No			
GPS10_036	Corymbia gummifera	20	20-40	Yes		T28	KLF
GPS10_037	Corymbia gummifera	20	20-40	No			
GPS10_038	Corymbia gummifera	20	20-40	No			
GPS10_039	Eucalyptus racemosa	15	40-80	Yes		T191	KLF
GPS10_040	Eucalyptus racemosa	20	40-80	Yes		T29	KLF
GPS10_041	Angophora costata	20	40-80	No			
GPS10_042	Eucalyptus racemosa	15	10-20	No			
GPS10_043	Corymbia gummifera	20	20-40	No			
GPS10_044	Corymbia gummifera	15	20-40	No			
GPS10_045	Angophora costata	20	20-40	No			
GPS10_046	Angophora costata	25	20-40	No			
GPS10_047	Eucalyptus racemosa	15	20-40	No			
GPS10_048	Eucalyptus saligna	30	40-80	Yes		T182	KLF
GPS10_049	Angophora crassifolia	8	10-20	No			
GPS10_050	Eucalyptus racemosa	20	40-80	Yes		T184	KLF
GPS10_051	Corymbia gummifera	10	20-40	No			
GPS10_052	Corymbia gummifera	8	10-20	No			
GPS10_053	Corymbia gummifera	10	10-20	No			
GPS10_054	Eucalyptus saligna	30	40-80	Yes		T185	KLF
GPS10_055	Corymbia gummifera	10	10-20	No			
GPS10_056	Corymbia gummifera	15	10-20	Yes		T31	KLF
GPS10_057	Eucalyptus saligna	15	10-20	No			
GPS10_058	Allocasuarina littoralis	25	20-40	Yes		T32	KLF
GPS10_059	Eucalyptus saligna	20	20-40	No			
GPS10_060	Eucalyptus saligna	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_061	Eucalyptus saligna	12	10-20	No			
GPS10_062	Eucalyptus saligna	10	10-20	No			
GPS10_063	Cyathea sp.	4	10-20	Yes		T181	KLF
GPS10_064	Cyathea sp.	4	10-20	Yes		T180	KLF
GPS10_065	Eucalyptus saligna	25	20-40	No			
GPS10_066	Eucalyptus saligna	25	20-40	No			
GPS10_067	Eucalyptus saligna	30	40-80	Yes		T179	KLF
GPS10_068	Eucalyptus punctata	20	20-40	No			
GPS10_069	Banksia serratta	5	10-20	Yes		T177	KLF
GPS10_070	Banksia serratta	5	10-20	Yes		T151	KLF
GPS10_071	Angophora crassifolia	8	10-20	No			
GPS10_072	Corymbia gummifera	10	10-20	No			
GPS10_073	Eucalyptus racemosa	15	40-80	Yes		T150	KLF
GPS10_074	Corymbia gummifera	10	10-20	No			
GPS10_075	Corymbia gummifera	8	10-20	No			
GPS10_076	Corymbia gummifera	12	10-20	No			
GPS10_077	Banksia serratta	4	10-20	Yes		T178	KLF
GPS10_078	Banksia serratta	10	20-40	No			
GPS10_079	Corymbia gummifera	10	10-20	No			
GPS10_080	Corymbia gummifera	20	20-40	No			
GPS10_081	Corymbia gummifera	10	20-40	No			
GPS10_082	Eucalyptus racemosa	20	20-40	No			
GPS10_083	Corymbia gummifera	10	10-20	No			
GPS10_084	Corymbia gummifera	12	10-20	NO			
GPS10_085	Angophora crassifolia	8	20-40	NO			
GPS10_086	Eucalyptus pilularis	15	40-80	Yes		T149	KLF
GPS10_087	Angophora crassifolia	10	20-40	No			
GPS10_088	Corymbia gummifera	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_089	Corymbia gummifera	20	20-40	No			
GPS10_090	Corymbia gummifera	8	10-20	No			
GPS10_091	Eucalyptus pilularis	25	80+	Yes		T148	KLF
GPS10_092	Eucalyptus pilularis	25	40-80	Yes		T183	KLF
GPS10_093	Eucalyptus saligna	25	20-40	No			
GPS10_094	Allocasuarina littoralis	10	10-20	No			
GPS10_095	Acacia irrorata	12	10-20	No			
GPS10_096	Eucalyptus saligna	25	20-40	No			
GPS10_097	Eucalyptus saligna	25	20-40	No			
GPS10_098	Eucalyptus saligna	20	10-20	No			
GPS10_099	Eucalyptus saligna	8	10-20	Yes		T193	KLF
GPS10_100	Corymbia maculata	30	20-40	No			
GPS10_101	Angophora costata	15	20-40	No			
GPS10_102	Corymbia gummifera	20	10-20	No			
GPS10_103	Corymbia gummifera	20	20-40	Yes		T190	KLF
GPS10_104	Angophora crassifolia	5	10-20	No			
GPS10_105	Eucalyptus	20	20-40	No			
GPS10_106	Eucalyptus	15	20-40	No			
GPS10_107	Eucalyptus racemosa	10	10-20	No			
GPS10_108	Corymbia gummifera	20	20-40	Yes		T189	KLF
GPS10_109	Corymbia gummifera	20	20-40	No			
GPS10_110	Angophora crassifolia	5	10-20	No			
GPS10_111	Eucalyptus racemosa	20	40-80	Yes		T142	KLF
GPS10_112	Angophora crassifolia	10	20-40	No			
GPS10_113	Angophora crassifolia	10	20-40	No			
GPS10_114	Angophora crassifolia	8	10-20	No			
GPS10_115	Banksia serratta	5	10-20	Yes		T143	KLF
GPS10_116	Angophora crassifolia	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_117	Banksia serratta	4	10-20	Yes		T144	KLF
GPS10_118	Banksia serratta	10	10-20	Yes		T145	KLF
GPS10_119	Angophora crassifolia	6	10-20	No			
GPS10_120	Corymbia gummifera	20	20-40	No			
GPS10_121	Corymbia gummifera	20	20-40	No			
GPS10_122	Corymbia gummifera	20	20-40	No			
GPS10_123	Corymbia gummifera	20	20-40	NO			
GPS10_124	Eucalyptus pilularis	20	20-40	Yes		T147	KLF
GPS10_125	Corymbia gummifera	10	10-20	NO			
GPS10_126	Eucalyptus pilularis	25	40-80	Yes		T146	KLF
GPS10_127	Angophora crassifolia	5	10-20	No			
GPS10_128	Eucalyptus racemosa	15	20-40	No			
GPS10_129	Eucalyptus saligna	30	20-40	No			
GPS10_130	Corymbia gummifera	15	20-40	No			
GPS10_131	Corymbia gummifera	15	20-40	No			
GPS10_132	Acacia irrorata	10	10-20	No			
GPS10_133	Allocasuarina littoralis	10	20-40	No			
GPS10_134	Corymbia gummifera	18	20-40	Yes		T141	KLF
GPS10_135	Angophora costata	15	10-20	No			
GPS10_136	Angophora costata	15	20-40	No			
GPS10_137	Melaleuca	5	10-20	No			
GPS10_138	Angophora costata	15	20-40	No			
GPS10_139	Angophora costata	10	10-20	No			
GPS10_140	Corymbia gummifera	10	10-20	No			
GPS10_141	Angophora costata	10	10-20	No			
GPS10_142	Corymbia gummifera	15	20-40	No			
GPS10_143	Corymbia gummifera	10	10-20	NO			
GPS10_144	Angophora costata	15	20-40	NO			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_145	Angophora costata	20	20-40	NO			
GPS10_146	Angophora costata	20	20-40	Yes		T140	KLF
GPS10_147	Angophora costata	20	20-40	No			
GPS10_148	Eucalyptus punctata	15	20-40	No			
GPS10_149	Eucalyptus punctata	25	20-40	No			
GPS10_150	Acacia irrorata	10	10-20	No	Dead tree		
GPS10_151	Angophora costata	30	40-80	Yes		T159	KLF
GPS10_152	Eucalyptus punctata	30	40-80	Yes		T160	KLF
GPS10_153	Eucalyptus punctata	15	40-80	No			
GPS10_154	Eucalyptus punctata	20	40-80	No			
GPS10_155	Corymbia gummifera	15	20-40	No			
GPS10_156	Corymbia gummifera	15	10-20	No			
GPS10_157	Angophora costata	15	20-40	Yes		T195	KLF
GPS10_158	Banksia serratta	10	10-20	Yes		T161	KLF
GPS10_159	Corymbia gummifera	15	20-40	No			
GPS10_160	Corymbia gummifera	12	10-20	No			
GPS10_161	Angophora costata	20	20-40	Yes		T196	KLF
GPS10_162	Eucalyptus saligna	10	10-20	No			
GPS10_163	Eucalyptus saligna	25	20-40	No			
GPS10_164	Eucalyptus saligna	25	20-40	No			
GPS10_165	Eucalyptus saligna	30	40-80	Yes		T139	KLF
GPS10_166	Eucalyptus saligna	15	10-20	No			
GPS10_167	Eucalyptus saligna	30	20-40	No			
GPS10_168	Eucalyptus saligna	25	20-40	No			
GPS10_169	Eucalyptus saligna	30	20-40	No			
GPS10_170	Corymbia maculata	15	20-40	No			
GPS10_171	Angophora costata	20	20-40	NO			
GPS10_172	Angophora costata	20	80+	Yes		T138	KLF

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_173	Eucalyptus	20	20-40	NO			
GPS10_174	Eucalyptus saligna	20	10-20	NO			
GPS10_175	Eucalyptus saligna	20	10-20	No			
GPS10_176	Eucalyptus saligna	35	40-80	Yes		T137	KLF
GPS10_177	Eucalyptus saligna	25	20-40	No			
GPS10_178	Angophora costata	25	40-80	Yes		T136	KLF
GPS10_179	Angophora costata	15	10-20	No			
GPS10_180	Angophora costata	20	40-80	Yes		T134	KLF
GPS10_181	Eleaocarpus reticulatus	15	20-40	No			
GPS10_182	Eleaocarpus reticulatus	15	20-40	NO			
GPS10_183	Eucalyptus pilularis	15	20-40	No			
GPS10_184	Eucalyptus pilularis	15	20-40	No			
GPS10_185	Eucalyptus pilularis	25	80+	Yes		T135	KLF
GPS10_186	Angophora costata	15	10-20	No			
GPS10_187	Angophora costata	10	10-20	No			
GPS10_188	Angophora costata	20	10-20	No			
GPS10_189	Angophora costata	15	10-20	No			
GPS10_190	Eucalyptus pilularis	20	40-80	Yes		T133	KLF
GPS10_191	Eucalyptus pilularis	20	40-80	Yes		T132	KLF
GPS10_192	Eucalyptus pilularis	10	10-20	No			
GPS10_193	Angophora costata	10	10-20	No			
GPS10_194	Eucalyptus saligna	30	40-80	Yes		T131	KLF
GPS10_195	Eucalyptus saligna	25	20-40	No			
GPS10_196	Eucalyptus pilularis	20	40-80	Yes		T130	KLF
GPS10_197	Eucalyptus saligna	20	20-40	No			
GPS10_198	Eucalyptus saligna	35	40-80	Yes		T129	KLF
GPS10_199	Angophora costata	20	20-40	No			
GPS10_200	Angophora costata	20	20-40	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_201	Eucalyptus pilularis	20	20-40	No			
GPS10_202	Eucalyptus saligna	25	20-40	No			
GPS10_203	Eucalyptus saligna	25	10-20	No			
GPS10_204	Eucalyptus saligna	15	10-20	No			
GPS10_205	Eucalyptus saligna	10	10-20	No			
GPS10_206	Eucalyptus saligna	15	20-40	No			
GPS10_207	Eucalyptus saligna	15	20-40	No			
GPS10_208	Eucalyptus saligna	25	20-40	No			
GPS10_209	Eucalyptus saligna	25	20-40	No			
GPS10_210	Eucalyptus saligna	25	20-40	No			
GPS10_211	Eucalyptus saligna	25	20-40	No			
GPS10_212	Eucalyptus saligna	15	10-20	No			
GPS10_213	Eucalyptus saligna	20	20-40	No			
GPS10_217	Eucalyptus saligna	15	10-20	No			
GPS10_218	Eucalyptus saligna	15	10-20	No			
GPS10_219	Eucalyptus saligna	15	10-20	No			
GPS10_220	Eucalyptus saligna	15	10-20	No			
GPS10_221	Eucalyptus saligna	20	10-20	No			
GPS10_222	Eucalyptus pilularis	15	20-40	No			
GPS10_223	Eucalyptus pilularis	30	40-80	Yes		T126	KLF
GPS10_224	Corymbia maculata	25	40-80	Yes		T128	KLF
GPS10_225	Eucalyptus saligna	10	10-20	No			
GPS10_226	Angophora costata	10	10-20	No			
GPS10_227	Eucalyptus saligna	25	20-40	No			
GPS10_228	Eucalyptus saligna	10	10-20	No			
GPS10_229	Eucalyptus saligna	30	20-40	No			
GPS10_230	Eucalyptus saligna	20	10-20	No			
GPS10_231	Allocasuarina littoralis	10	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_232	Eucalyptus saligna	30	20-40	No			
GPS10_233	Eucalyptus saligna	25	20-40	No			
GPS10_234	Eucalyptus saligna	25	20-40	No			
GPS10_235	Eucalyptus saligna	25	20-40	No			
GPS10_236	Eucalyptus saligna	15	10-20	No			
GPS10_237	Eucalyptus saligna	25	20-40	No			
GPS10_238	Eucalyptus saligna	15	10-20	No			
GPS10_239	Eucalyptus saligna	15	10-20	No			
GPS10_240	Corymbia gummifera	10	10-20	No			
GPS10_241	Eucalyptus saligna	30	20-40	No			
GPS10_242	Eucalyptus saligna	30	20-40	No			
GPS10_243	Eucalyptus saligna	25	20-40	No			
GPS10_244	Eucalyptus saligna	25	20-40	No			
GPS10_245	Eucalyptus saligna	25	20-40	No			
GPS10_246	Eucalyptus saligna	30	20-40	No			
GPS10_247	Eucalyptus saligna	15	10-20	No			
GPS10_248	Corymbia gummifera	10	10-20	No			
GPS10_249	Eucalyptus saligna	30	20-40	No			
GPS10_250	Eucalyptus saligna	15	10-20	No			
GPS10_251	Eucalyptus saligna	30	20-40	No			
GPS10_252	Eucalyptus saligna	15	10-20	No			
GPS10_253	Angophora costata	25	20-40	No			
GPS10_254	Corymbia gummifera	15	10-20	No			
GPS10_255	Corymbia gummifera	10	10-20	No			
GPS10_256	Eucalyptus pilularis	15	20-40	No			
GPS10_257	Eucalyptus pilularis	20	40-80	Yes		T120	KLF
GPS10_258	Corymbia gummifera	18	20-40	No			
GPS10_259	Corymbia gummifera	25	40-80	Yes		No Tag	

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_260	Corymbia gummifera	10	10-20	No			
GPS10_261	Corymbia gummifera	15	40-80	Yes		T121	KLF
GPS10_262	Corymbia gummifera	20	20-40	No			
GPS10_263	Eucalyptus pilularis	15	40-80	Yes		T123	KLF
GPS10_264	Eucalyptus pilularis	20	40-80	Yes		T124	KLF
GPS10_265	Eucalyptus pilularis	20	20-40	No			
GPS10_266	Corymbia gummifera	15	20-40	No			
GPS10_267	Eucalyptus pilularis	20	20-40	NO			
GPS10_268	Corymbia gummifera	20	40-80	Yes		T122	KLF
GPS10_269	Eucalyptus pilularis	20	20-40	No			
GPS10_270	Angophora costata	25	40-80	Yes		T125	KLF
GPS10_271	Eucalyptus pilularis	10	10-20	No			
GPS10_272	Angophora costata	25	20-40	No			
GPS10_273	Angophora costata	20	20-40	No			
GPS10_274	Eucalyptus saligna	25	20-40	No			
GPS10_275	Eucalyptus pilularis	15	20-40	No			
GPS10_276	Eucalyptus saligna	30	20-40	No			
GPS10_277	Eucalyptus saligna	15	10-20	No			
GPS10_278	Eucalyptus saligna	20	20-40	No			
GPS10_279	Eucalyptus saligna	15	10-20	No			
GPS10_280	Eucalyptus pilularis	20	20-40	No			
GPS10_281	Eucalyptus scias	20	20-40	No			
GPS10_282	Eucalyptus scias	25	20-40	Yes		T68	KLF
GPS10_283	Pittosporum undulatum	10	10-20	No			
GPS10_284	Pittosporum undulatum	8	10-20	No			
GPS10_285	Pittosporum undulatum	5	10-20	No			
GPS10_286	Pittosporum undulatum	5	10-20	No			
GPS10_287	Allocasuarina littoralis	5	10-20	No			

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Unique ID	Scientific Name	Height (m)	DBH mm	Retain	Comments	Tag No	Tagged By
GPS10_288	Eucalyptus racemosa	15	20-40	No			
GPS10_289	Corymbia maculata	15	10-20	No			
GPS10_290	Eucalyptus pilularis	30	40-80	Yes		T66	KLF
GPS10_291	Eucalyptus pilularis	30	40-80	Yes		T67	KLF
GPS10_292	Eucalyptus saligna	35	40-80	Yes		T158	KLF
GPS10_293	Eucalyptus sp.	5	10-20	No			
GPS10_294	Eucalyptus saligna	30	80+	Yes		T34	KLF
GPS10_295	Corymbia gummifera	25	20-40	No			
GPS10_296	Eucalyptus saligna	25	20-40	No			
GPS10_297	Eucalyptus saligna	10	10-20	No			
GPS10_298	Eucalyptus saligna	15	10-20	No			
GPS10_299	Eucalyptus saligna	30	40-80	Yes		T65	KLF
GPS1_007	Eucalyptus racemosa	8	20-40	Yes		T46	KLF
GPS1_013	Angophora costata	15	20-40	Yes		T58	KLF
GPS1_014	Angophora floribunda	6	10-20	Yes		T55	KLF
GPS1_019	Eucalyptus racemosa	10	20-40	Yes		T61	KLF
	Corymbia gummifera	20	20-40	Yes		T171	KLF
	Corymbia maculata	30	20-40	Yes		T174	KLF

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