

05\06/2018 Our reference:HD101

Bunnings Group Limited 11 Shirley Street, Rosehill NSW 2142 Locked Bag 30, Granville NSW 2142

Att Phil Drew

Construction staging of proposed Roundabout on Northcliffe Drive, Kembla Grange

Based off the current design plan submitted to council with the DA High Definition Design (HDD) believe that construction of the roundabout would take place in 4 stages. Being:

STAGE 1

Construction of offline works (works with no impaction existing traffic)

- All work on western side of the roundabout being constructed, this would allow for the existing travel condition be as they currently are, however the travel lanes would be reduced to 3.0m lanes.
- Concrete barriers and fencing would be in place to fence of the construction areas as shown on the stage 1 plan (HD101 ST1r1)
- No traffic would be affected all work constructed off line
- Existing access to all properties open at all times

STAGE 2

Construct of centre of roundabout

- Northbound travel lanes diverted onto southbound side
- Traffic reduced to single lane in both directions
- New Northbound cycle lane open for northbound pedestrians and cyclist
- Temporary access road created in median
- Central median and central traffic island completed
- Traffic reduced to 40km/h through work zone
- Concrete barriers and fencing would be in place to fence of the construction areas as shown on the stage 2 plan (HD101 ST2r1)

STAGE 3

Construction of eastern side of roundabout and closure of median break at the Pharlap avenue intersection

- Northbound travel lanes on roundabout open
- lane closed around the median on Pharlap avenue
- roundabout still not operational
- temporary access road removed and median restored
- traffic still reduced to 40km/h through work zone
- Concrete barriers and fencing would be in place to fence of the construction areas as shown on the stage 3 plan (HD101 ST3r1)

STAGE 4

Completion of Works

- final AC wearing course
- final signage and linemarking
- turfing and landscaping
- · concrete barriers place at future flyover
- roundabout in operation
- speed zone restored
- construction compound removed and area restored

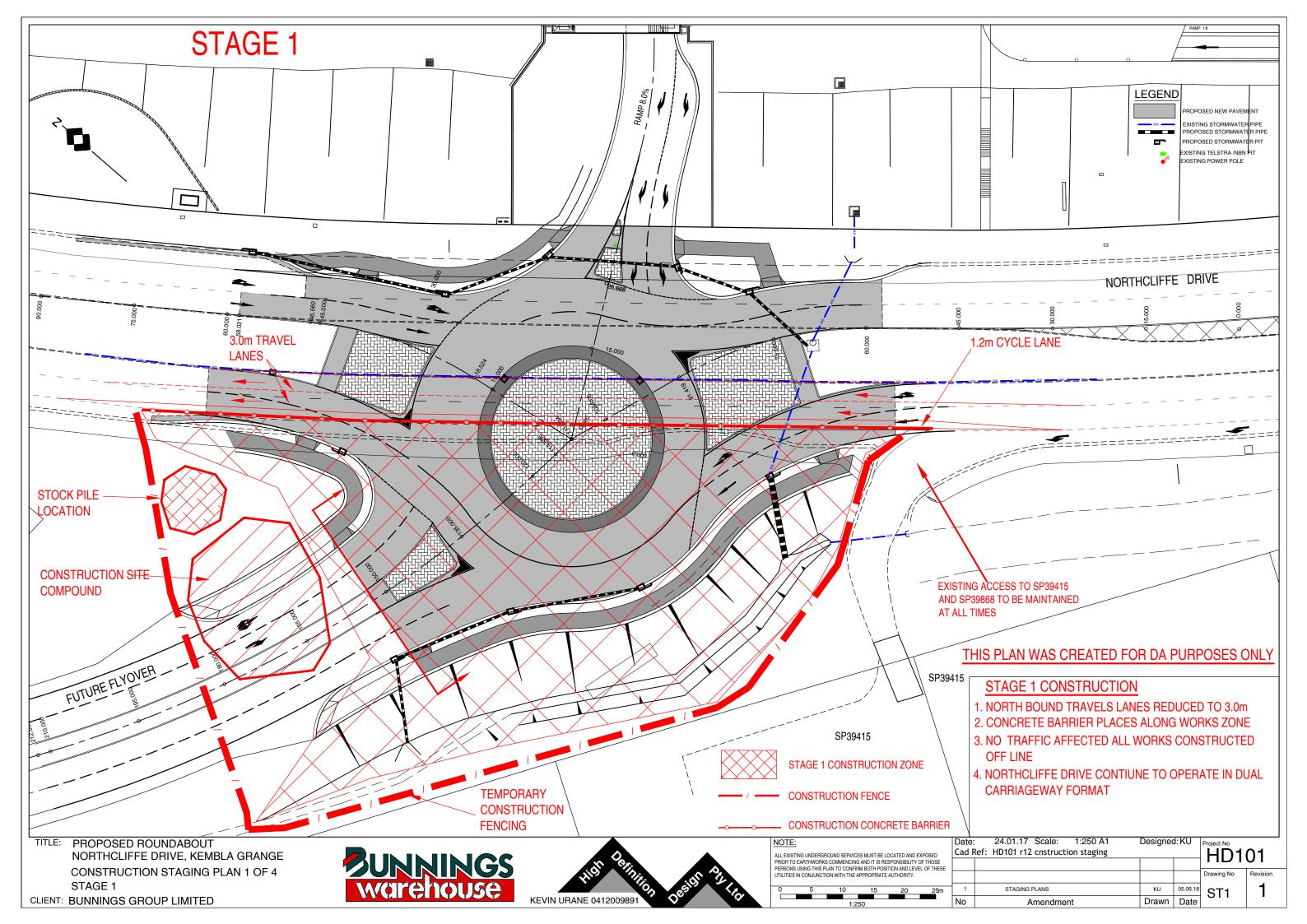
with the proposed staging the existing properties will have their existing access maintained at all time, during stage 2 when the traffic is switched to the eastern side VMS boards and signage will be in place to advertise the access is still available.

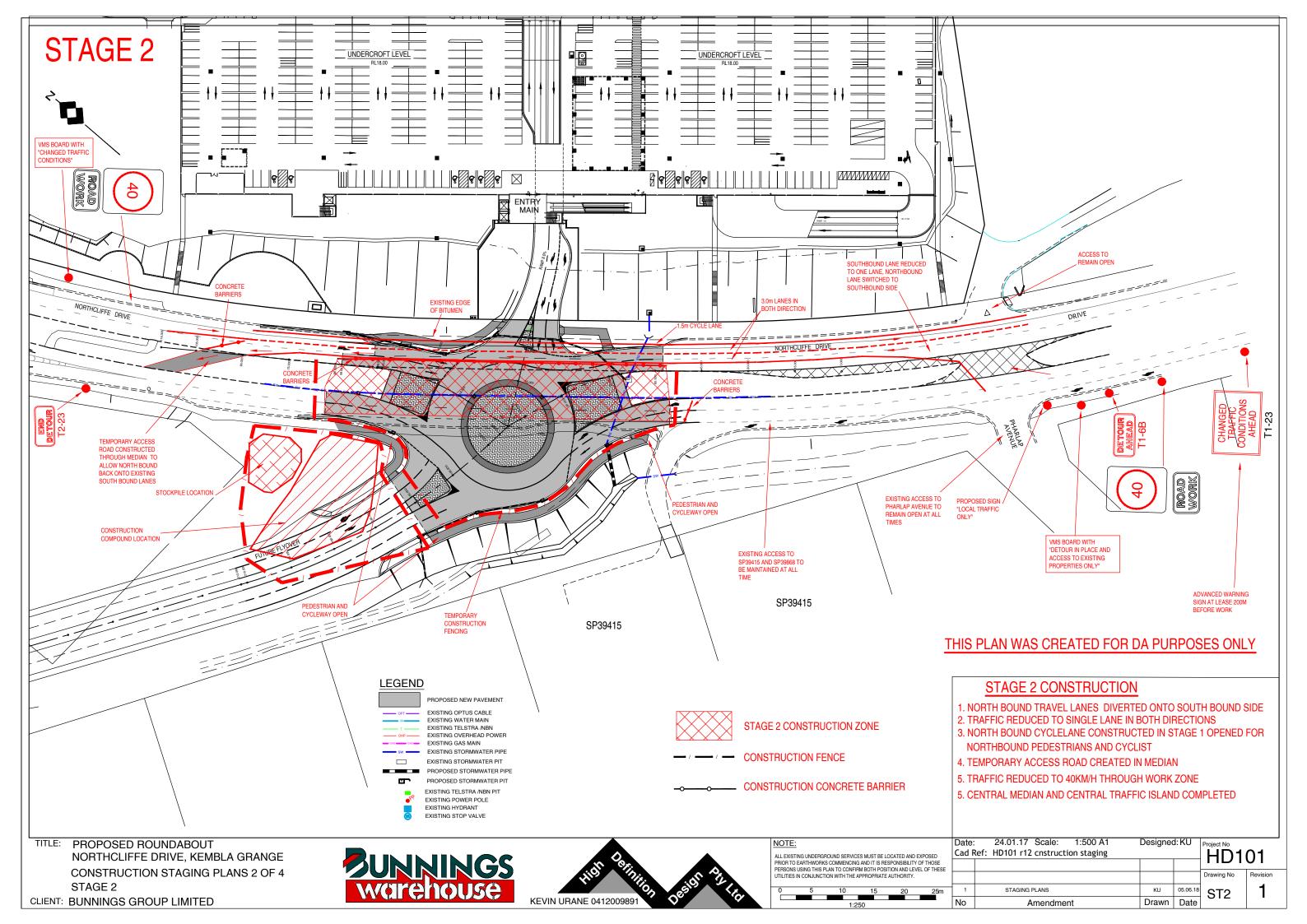
Please refer to the attached Construction staging plans. These plans have been prepared for Da purpose.

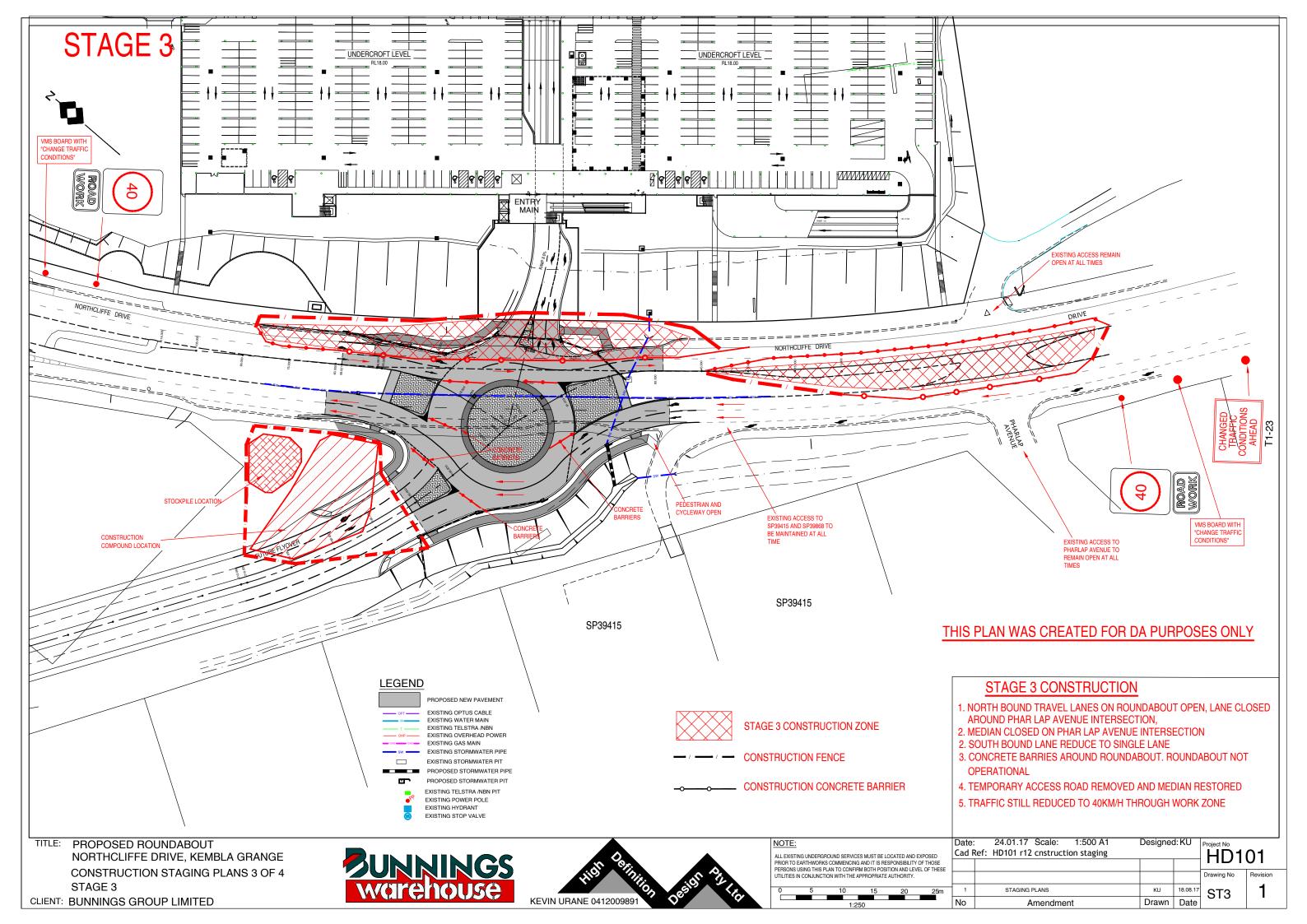
Should you require any further information please feel free to contact me on 0412009891 of by email.

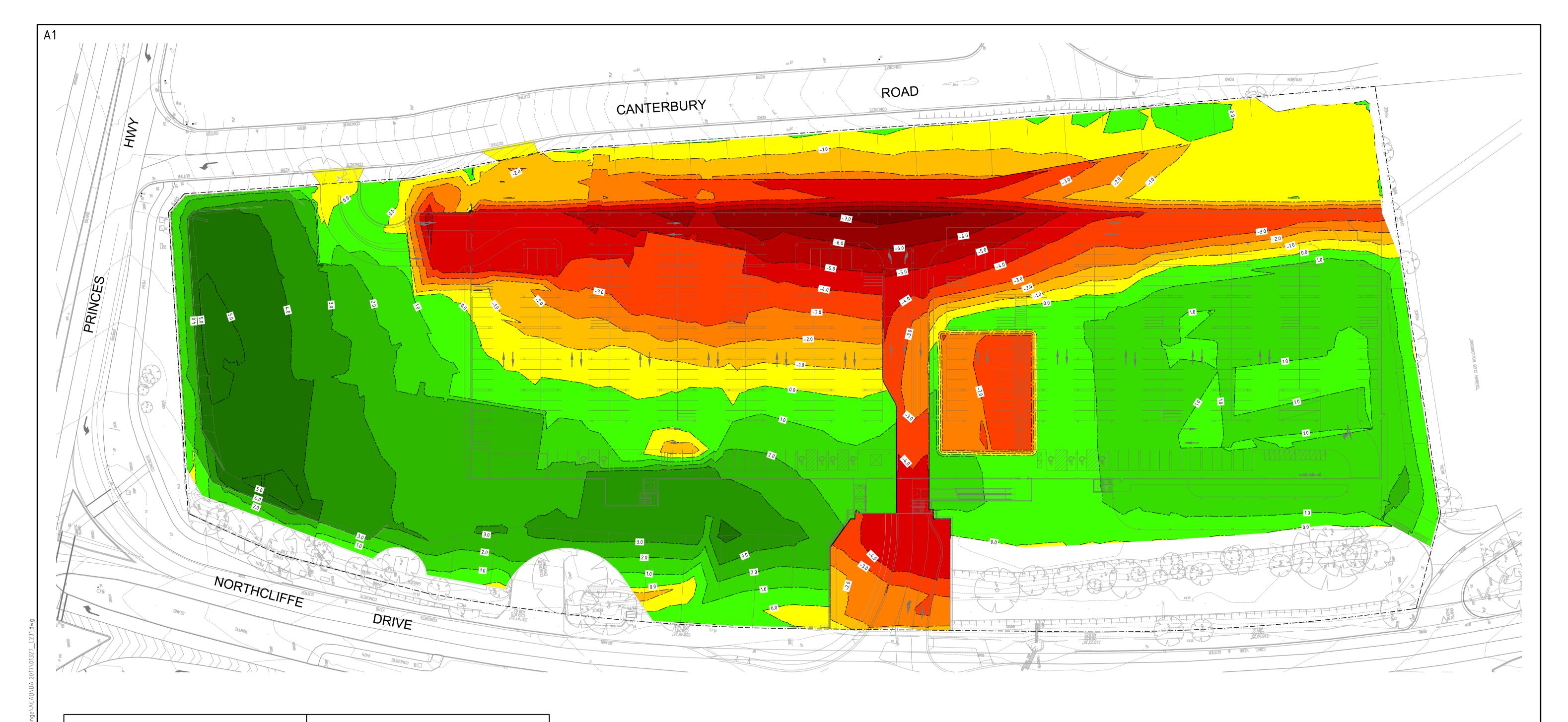
Yours sincerely,

Kevin Urane High definition Design Kevin@highdefdesign.com.au









	Levels Table				
No.	From Depth	To Depth	Colour	Depth Ra	nge Volume
1	-7.516	-7.000		13 m³	CUT
2	-7.000	-6.000		329m³	CUT
3	-6.000	-5.000		1073 m ³	CUT
4	-5.000	-4.000		2701m ³	CUT
5	-4.000	-3.000		5336 m ³	CUT
6	-3.000	-2.000		8266m ³	CUT
7	-2.000	-1.000		10746 m ³	CUT
8	-1.000	0.000		13912m ³	CUT
9	0.000	1.000		17864m³	FILL
10	1.000	2.000		10183m ³	FILL
11	2.000	3.000		6169m ³	FILL
12	3.000	4.000		3014m³	FILL
13	4.000	6.000		1385m ³	FILL

PRELIMINARY CUT VOLUME = PRELIMINARY FILL VOLUME =

PRELIMINARY NET VOLUME = (EXCESS)

EARTHWORKS NOTES: PRELIMINARY BULK EARTHWORKS VOLUMES ARE BASED ON: - EARTHWORKS AREAS STRIPPED OF TOPSOIL (200mm)

 ALL VEHICLE PAVEMENTS BOXED OUT TO SUBGRADE LEVEL (ASSUMED PAVEMENT DEPTH OF 300mm). - SITE REGRADING AREAS BOXED OUT TO SUBGRADE LEVEL (ASSUMED DEPTH OF 200mm).

PRIOR TO EARTHWORKS.

- BUILDING BOXED OUT TO PAD LEVEL (ASSUMED SLAB & SAND DEPTH OF 300mm) - MATERIAL GENERATED FROM STORMWATER, SEWER & SERVICE TRENCHES HAVE <u>NOT</u> BEEN INCLUDED IN THIS

EARTHWORKS QUANTITIES ARE FOR INFORMATION ONLY AND DO NOT FORM PART OF THE CONTRACT

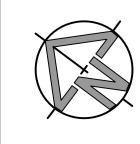
CUT FILL CONTOUR LEGEND

----- 1.0 ----- DEPTH CONTOUR (FILL) ----- -1.0 ----- DEPTH CONTOUR (CUT)

NOT FOR CONSTRUCTION



03	W.M.	28/05/18	A.M.	EXISTING TREES RETAINED, RE-ISSUED FOR DA APPROVAL
02	W.M.	30/08/17	A.M.	GENERAL AMENDMENTS, ISSUED FOR DA APPROVAL
01	W.M.	22/08/17	A.M.	ISSUED FOR DA APPROVAL
REV.	DES.	DATE	VER.	DESCRIPTION





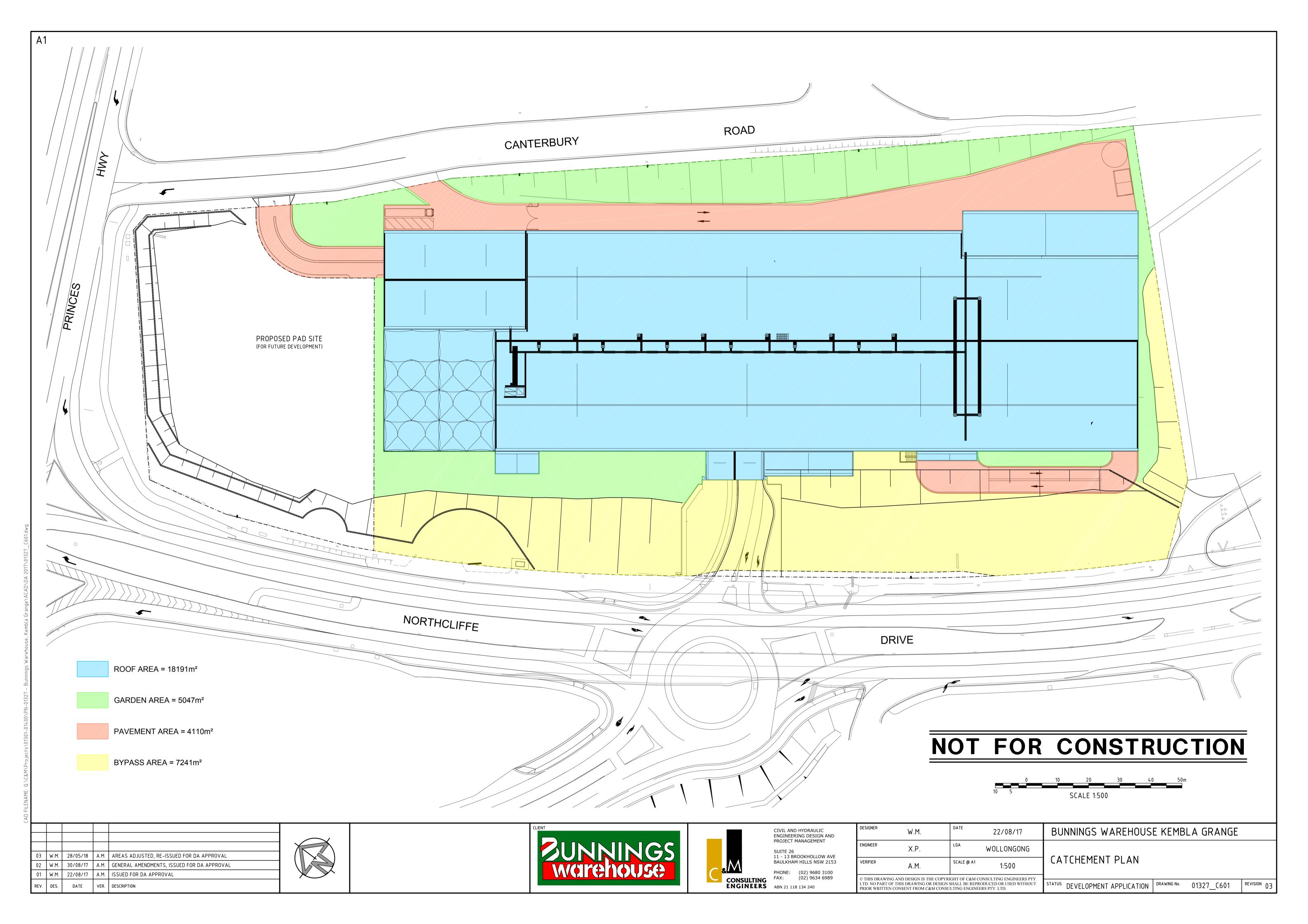


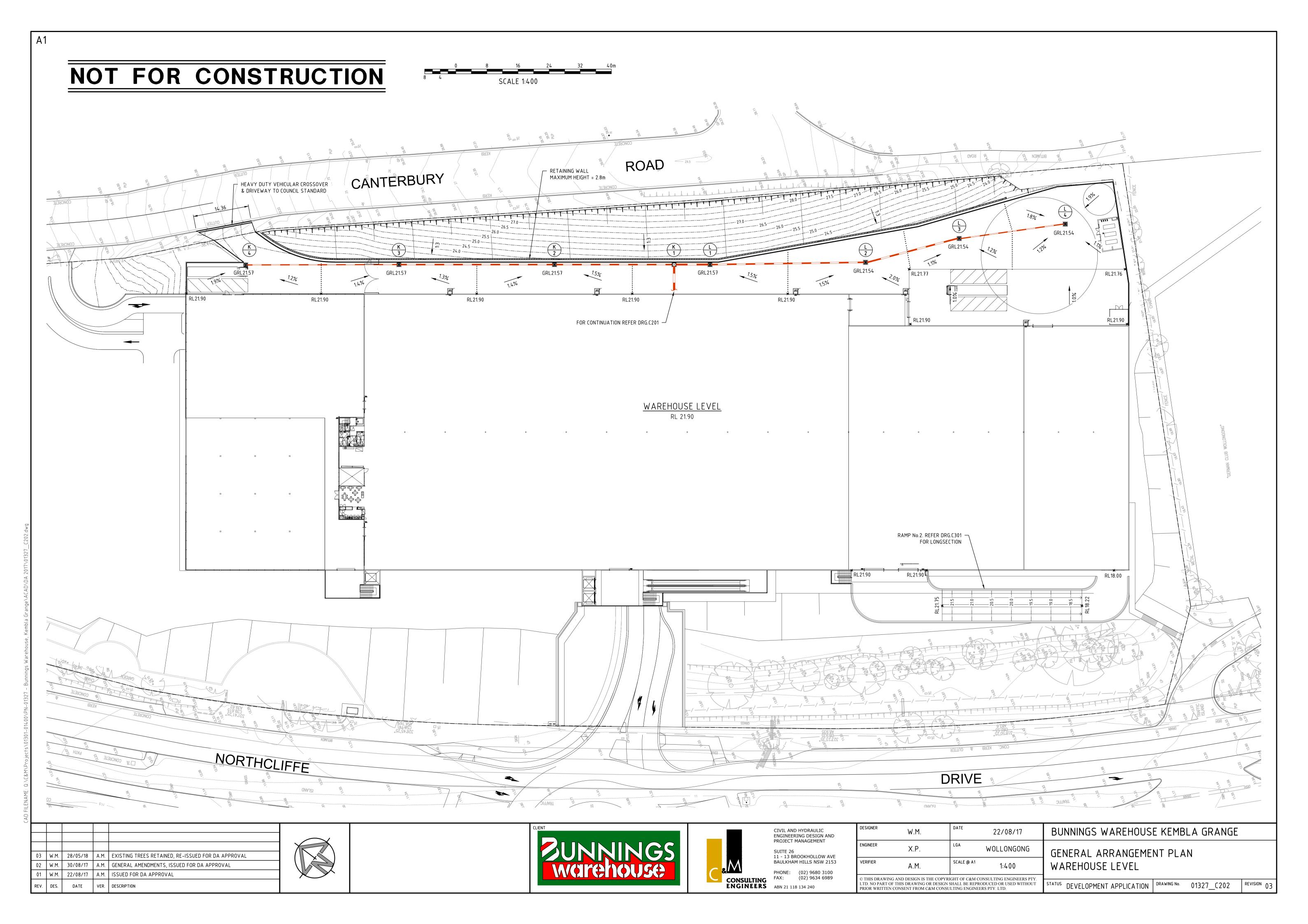
ENGINEERING DESIGNOPHICS MANAGEME
SUITE 26 11 - 13 BROOKHOLLO BAULKHAM HILLS NS

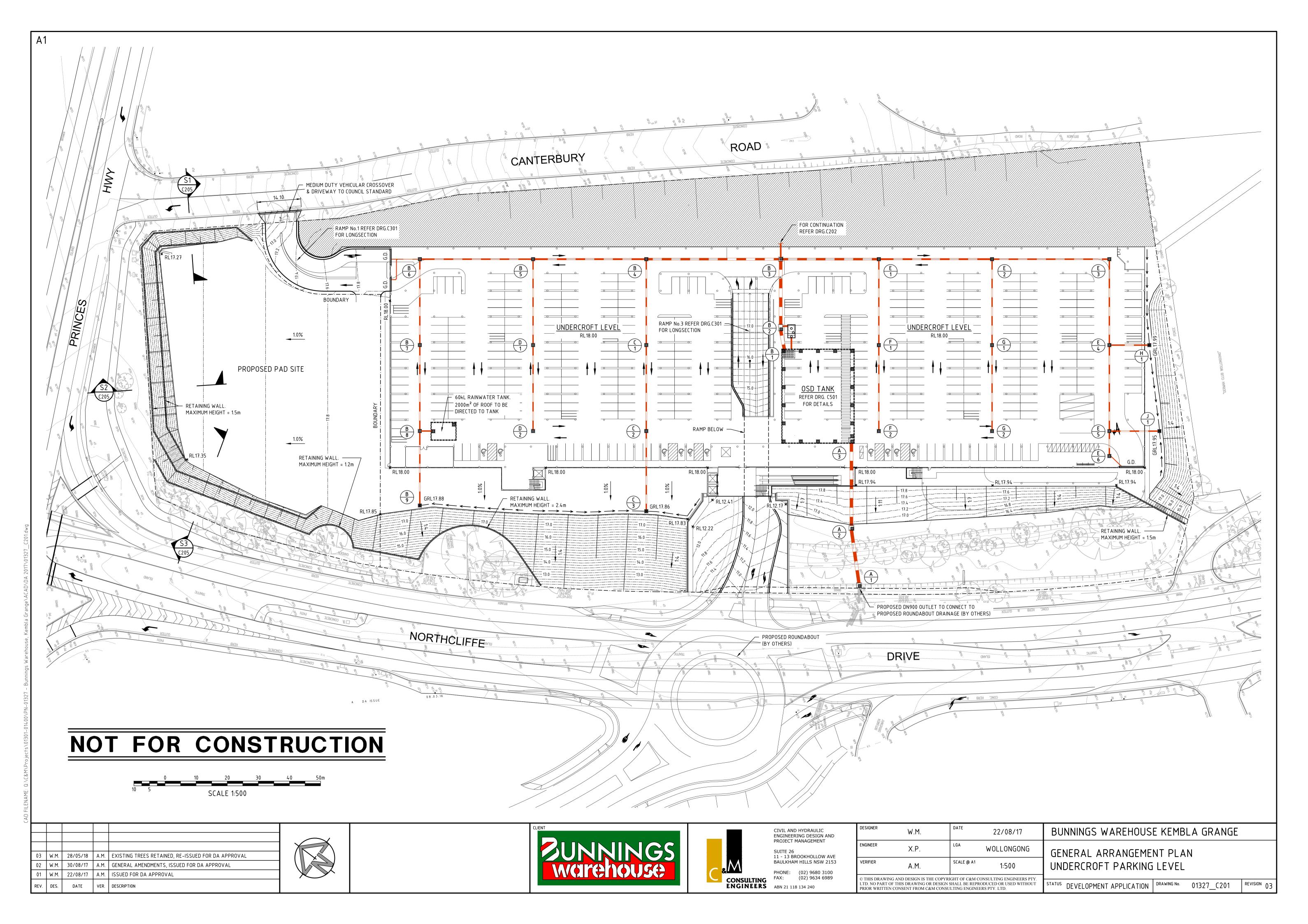
		ROOKHOLLOW AVE M HILLS NSW 2153
NG	PHONE: FAX:	(02) 9680 3100 (02) 9634 6989

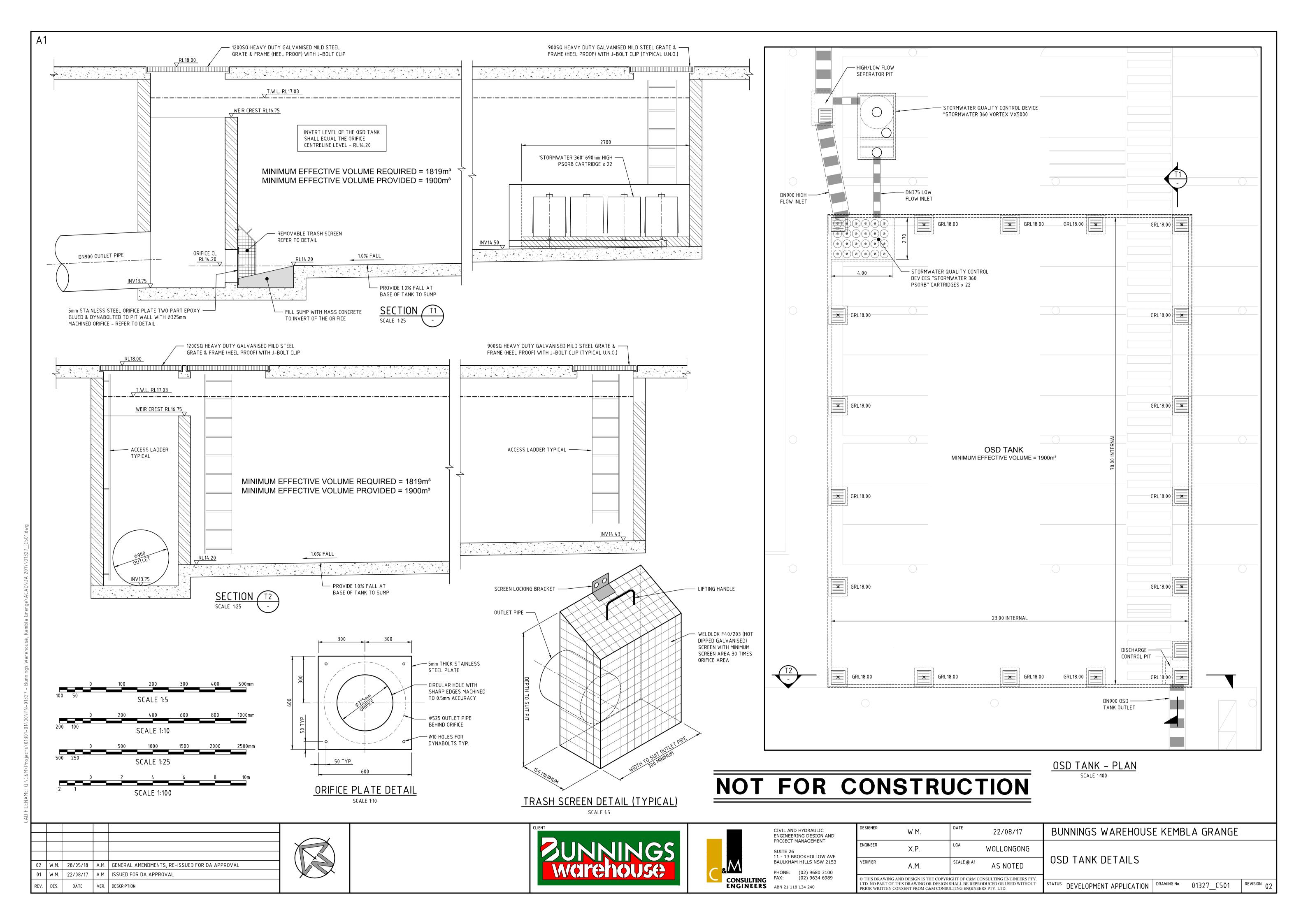
DESIGNER	W.M.	DATE	22/08/17	
ENGINEER	X.P.	LGA	WOLLONGONG	
VERIFIER	A.M.	SCALE @ A1	1:500	
© THIS DRAWING AND DESIGN IS THE COPYRIGHT OF C&M CONSULTING ENGINEERS PTY. LTD. NO PART OF THIS DRAWING OR DESIGN SHALL BE REPRODUCED OR USED WITHOUT PRIOR WRITTEN CONSENT FROM C&M CONSULTING ENGINEERS PTY. LTD.				

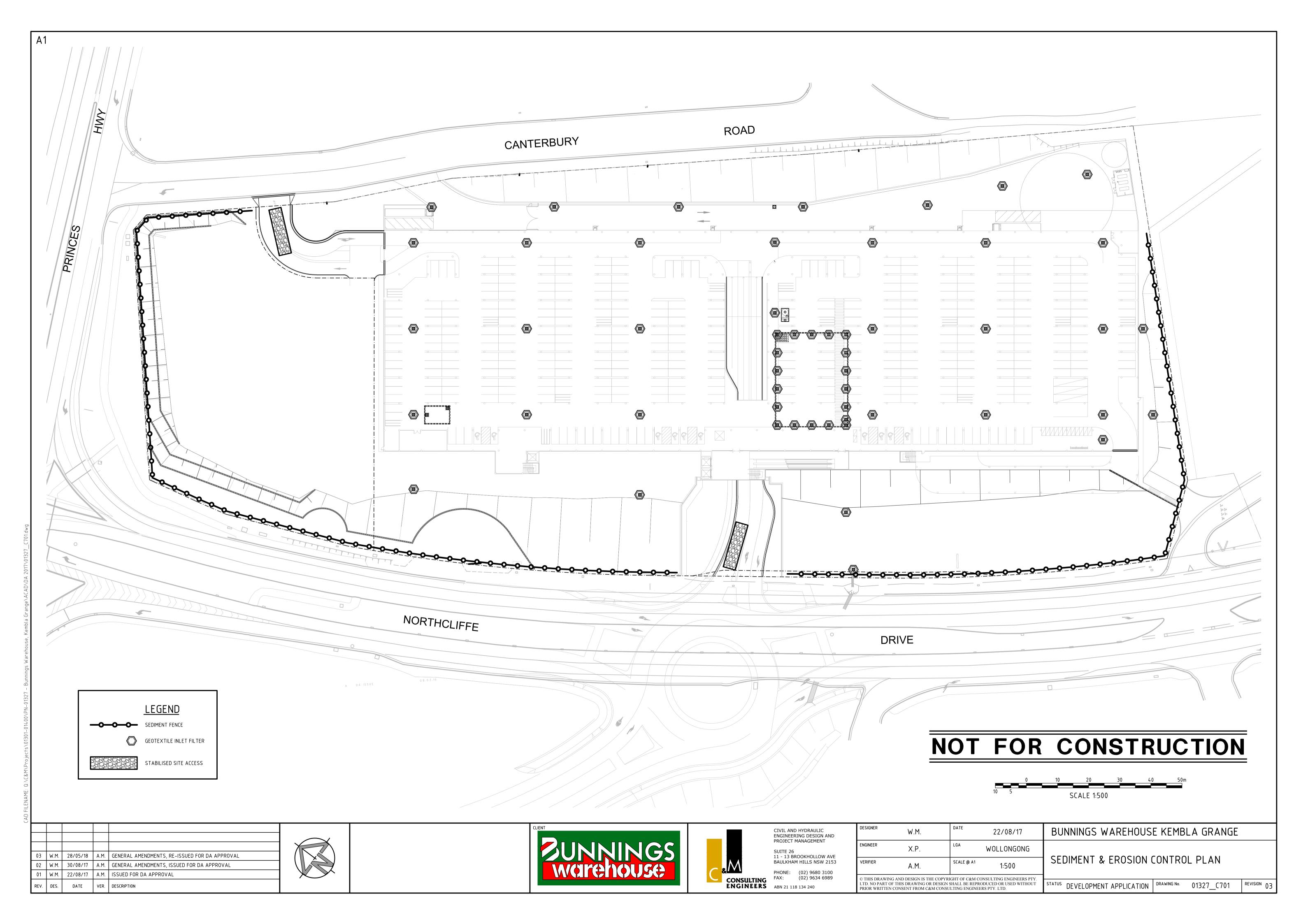
	BUNNINGS WAREHOUSE KEMBLA GRANGE					
	BULK EARTHWORKS CUT/FILL PLAN					
Y. JT	STATUS DEVELOPMENT APPLICATION	DRAWING No.	01327_C231	REVISION 03		













28th April 2018

Philip Drew

Bunnings Group Limited 11 Shirley Street Rosehill NSW 2142

Dear Phil

Re: Changes to the Landscape Design
Proposed Bunnings Warehouse Kembla Grange
Corner Northcliffe Drive & Princes Highway Kembla Grange NSW 2526

In order to address the issue of retaining the existing trees to the Northcliffe Drive frontage, the landscape setback has been regraded, shifting the proposed batter closer to the building. This will result in the existing ground levels around the existing trees to be maintained, and enable trees to be retained where possible.

The accompanying Landscape Plan and Existing Tree Plan indicate a total of 25 additional trees to be retained, as indicated in the table below (part table of existing trees). The regraded batter is documented on the revised Civil Design Plan (General Arrangement Plan 01327_C201 [03], 2018-05-28), C+M Consulting Engineers.

PART TABLE OF EXISTING TREES FRONT SETBACK

57	Eucalyptus botryoides	RETAIN
58	Jacaranda mimosifolia	REMOVE
59	Eucalyptus robusta	RETAIN
60	Casuarina glauca	RETAIN
61	Casuarina glauca	RETAIN
62	Jacaranda mimosifolia	REMOVE
63	Casuarina glauca	RETAIN
64	Populus nigra var. italica	REMOVE
65	Brachychiton acerifolius	RETAIN
66	Eucalyptus botryoides	RETAIN
67	Eucalyptus botryoides	RETAIN
68	Eucalyptus botryoides	RETAIN
69	Casuarina glauca	RETAIN
70	Eucalyptus botryoides	RETAIN
71	Eucalyptus botryoides	RETAIN
72	Casuarina glauca	RETAIN
73	Populus nigra var. italica	REMOVE
74	Casuarina glauca	RETAIN
75	Casuarina glauca	RETAIN
76	Casuarina glauca	RETAIN
77	Eucalyptus microcorys	RETAIN
78	Casuarina glauca	RETAIN
79	Casuarina glauca	RETAIN
80	Eucalyptus microcorys	RETAIN
81	Casuarina glauca	REMOVE
82	Casuarina glauca	REMOVE
83	Casuarina glauca	REMOVE
84	Casuarina glauca	REMOVE
85	Eucalyptus microcorys	REMOVE
86	Casuarina glauca	REMOVE
87	Casuarina glauca	RETAIN
88	Eucalyptus microcorys	RETAIN
89	Casuarina glauca	RETAIN
90	Casuarina glauca	RETAIN
91	Casuarina glauca	RETAIN

The grove of trees 81-86, consisting of Casuarina glauca & Eucalyptus microcorys, whilst not affected by regrading are proposed for removal due to their condition. These trees are currently affected by the impacts of lanatana and moth vines which has suppressed their growth making these trees in poor condition and not worthy of retention within the new landscape setting.

81 Casuarina glauca

82 Casuarina glauca

83 Casuarina glauca

84 Casuarina glauca

85 Eucalyptus microcorys

86 Casuarina glauca

Other isolated trees that have low retention values with the proposed landscape and also proposed for removal include:

53, 54, 55, 56, 64, 73, 93, 97,

Populus nigra var. italica

Out of character with proposed planting theme and will be replaced with native canopy trees. The 3 existing trees on the boundary adjacent the verge will be replaced with an avenue of Forest Red gum along Northcliffe Drive

98 Erythrina x sykesii WEED species

27, 26, 100, 101

Acacia longifolia

Short lived and mostly in the proposed entry drive

52, 58, 62

Jacaranda mimosifolia

These trees will be in within the construction line of the proposed vehicle ramp and will be replaced with native canopy trees

In total 25 additional trees are now proposed for retention with the revised Civil and Landscape Design. Several other poor quality trees will be removed and replaced with new native canopy trees.

Yours faithfully

John Lock

