ADVANCED TREESCAPE CONSULTING

AQF5 ARBORICULTURIST & AQF8 HORTICULTURIST

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17/02/2022

Abax Contracting Pty Ltd 126 Toongabbie Road GIRRAWEEN NSW 2145

ATTN: Tom Baxter 0412 553 104 tom@abaxcontracting.com.au

RE: ADDENDUM TO ADVANCED TREESCAPE CONSULTING REPORT DATED 26/11/2021 FOR 328-330 ANNANGROVE ROAD, ROUSE HILL NSW 2155

On 9/02/2022 I, Russell Kingdom of Advanced Treescape Consulting, attended the site at the above address to address Contention 2. (a) & (b) of the Amended Statement of Facts and Contentions, Case number 2021/00088386, dated 28 January 2022.

Contention 2. (a)

This contention refers to trees identified in the Arboriculturist Impact Assessment prepared by Advanced Treescape Consulting. Some of the trees are within the area shown as a batter in bulk earthworks plans prepared for Robert Moore & Associates, version C, dated 26/11/2021. These plans were not available to Advanced Treescape Consulting for the preparation of the above-mentioned report. In view of this, the trees in this area and some of the surrounding trees have been re-assessed to establish tree protection zones and measures to mitigate any impacts on the trees.

In the area where Trees 1c to 13c are, there are sixteen extra young trees that haven't been shown in the plans. All of these small trees can be retained if the proposed roadway has a retaining wall 1m from the edge of the roadway and the existing ground levels are not impacted. This is a positive outcome for the remnant Endangered Ecological Community (EEC) trees on the northern side of the access road.

On the southern side of the access road is the main stand of trees (in the Endangered Vegetation Zone (EVZ)) that are heavily infested with *Olea europaea* subsp. *cuspidate* (African Olive). The African olive trees have suppressed all young tree and understorey growth in the immediate area to the south of the access way. The trees located at the front of the site are impacted by powerline clearance and possibly road widening in the future.

The three trees located on the south-eastern corner of the site (Tree 21c, 22c & 23c) are young mature trees. There are a lot of young trees in this area that are not identified on any plan which are located within the environmental reserve area.

The EVZ needs to have the African olive trees removed as a matter of urgency because it is impacting understory plants and the remnant trees throughout the area. Once the olives are removed there will be young seedlings and more understory regrowth occurring throughout the entire area. These trees would greatly benefit from the removal of the environmental weeds.

The outcome of the assessment of the trees that are closest to the proposed area that was proposed to be cut is that if a retaining wall is constructed 1m from the adjacent road and parking area all trees identified in the plan can be retained successfully with an acceptable impact on all trees. The removal

of the weed species within the site will also enhance the long-term viability of all these trees and allow for re-growth which will ultimately greatly improve the stand of trees and the endangered ecological community on the site.

Gradient of Impacts1

0% of TPZ impacted - no impact of significance:

0 to 10% of TPZ impacted - low level of impact:

- Tree 2c (1.57%)
- Tree 23c (0.81%)
- Tree 20a (4.33%)

Tree 20a (3.07% - suggested stormwater route) + (1.06% - suggested retaining wall)

10 to 15% of TPZ impacted - low to moderate level of impact:

Tree 12c (14.24%)

15 to 20% of TPZ impacted – moderate level of impact:

Tree 22a (17.22%

Tree 22a (3.23% - suggested stormwater route)

20 to 25% of TPZ impacted - moderate to high level of impact:

25 to 35% of TPZ impacted - high level of impact:

>35% of TPZ impacted - significant level of impact:

Contention 2. (b)

This contention refers to Tree 20a in the eastern conservation area.

The stormwater issues are not a problem as the pipes can be hand dug through tree protection zones of the trees (20a & 22a) close to the pipe route. These works must be supervised by the project arborist.

The plan excerpt in Appendix 4 shows a proposed realignment of the stormwater pipe to further reduce the intrusion into the tree protection zones of Trees 20a & 22a.

This stormwater route shown in red is the current proposal and the stormwater route shown in dark grey is the proposed alteration. If this were adopted the intrusions would be minimal which would be advantageous because it would alleviate the need for hand digging through the tree protection zones as the intrusion is well under 10% refer to the 'Gradient of Impacts' above.

These works will not reduce the long-term viability of the trees (refer to plans by Robert Moore & Associates, November 2021 - Appendix 3).

Trees 20a & 25b, as well as 26b, are identified in this contention in regard to the impact in the tree protection zone.

It is proposed to construct a retaining wall approximately 1m from the edge of the parking bays to retain the endangered vegetation zone. This suggestion will alleviate the need for a batter around the cut for the car park. A retaining wall is a better option than a batter because there is less surface area exposed to the elements and drawing of the soil which greatly enhances the long-term viability of the retained trees.

Construction of a retaining wall will ensure the long-term viability of Trees 20a, 25b & 26b.

Please see attached photographs, tree schedule and site plan.

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 $^{^{\}rm 1}$ Used with permission of Landscape Matrix.

I trust that this report meets with your approval. Should you have any further questions please do not hesitate to contact me directly.

Yours sincerely,

Russell Kingdom Arboriculturist & Horticulturist

MIACA MAIH MAA Diploma of Arboriculture (AQF5) | Graduate Diploma of Horticulture (AQF8)

Principal: Russell Kingdom
Fully insured: Public Liability \$20M, Professional Indemnity \$5M.
Advanced Treescape Consulting is committed to providing a safe working environment for its employees in accordance with the Work Health and Safety Act 2011.





Figure 7: Canopy of Tree 21c.

Figure 9

Figure 8



Figure 17: Tree 6c.

Figure 18: Tree 14c.



Figure 19: Front of site showing powerlines.



Figure 20: Showing flat-topped trees at the front of the site.



Figure 21: Trees at the front of the site that are not impacted by the powerline clearance works.

Appendix 2: Tree Schedule

ABBREVIATIONS: m-metres, mm-millimetres, DBH-trunk diameter @ 1.4m, DGL-trunk diameter at ground level, VP-very poor, P-poor, F-fair, G-good, VG-very good, CD-co-dominant trunk, TD-tri-dominant trunk, QD-quad-dominant trunk, Multi-5+ trunks/leaders, J-juvenile, YM-young mature, SM-semi mature, M-mature, OM-over mature, REC-recommendation, S-save, R-remove, T-transplant, C-council determination, W-work needed to be carried out, mon-monitor, VTA-visual tree assessment, Hazard Rating-3=low hazard ~ 12=dangerous, N/A-not applicable, SULE-safe & useful life expectancy, STARS-Significance of a Tree, Assessment Rating System.

TREE NO.	SPECIES	HEIGHT (m)	DBH (mm)	DGL (mm)	RADIUS OF FULL TPZ (m)	RADIUS OF FULL SRZ (m)	HEALTH/VIGOUR	STRUCTURAL CONDITION	CANOPY SPREAD (m) N S E W	AGE CLASS	VTA	HAZARD RATING (3 - 12)	SIGNIFICANCE RATING	SULE	STARS	COMMENTS	REC
1c	Eucalyptus tereticornis (Forest Red Gum)	15	470	580	5.6	2.6	F	G	4 radial	YM	Pass	5	High	2B	High	This tree has some small deadwood and epicormic shoots. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
2c	E. tereticornis (Forest Red Gum)	16	450	520	5.4	2.5	F	G	6 radial	YM	Pass	5	High	28	High	1. This tree has some small deadwood. It passes the VTA and is suitable to be considered for retention. 2. There will be an intrusion into the TPZ of this tree from the proposed driveway of 1.44m² (1.57%) (including 1m setback of suggested retaining wall). This is an acceptable, low to moderate level of impact. Retain and protect. see Appendix 5 for more information. 3. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
3c	E. tereticornis (Forest Red Gum)	15	450	540	5.4	2.6	F	G	6 2 2 4	YM	Pass	5	High	28	High	This tree has a sparse canopy and tip dieback. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
4c	E. tereticornis (Forest Red Gum)	12	290	350	3.5	2.1	G	G	3 radial	J	Pass	4	High	28	High	This tree has some small deadwood. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S

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TREE NO.	SPECIES	HEIGHT (m)	DBH (mm)	DGL (mm)	RADIUS OF FULL TPZ (m)	RADIUS OF FULL SRZ (m)	HEALTH/VIGOUR	STRUCTURAL		(m)	PREAD W	AGE CLASS	VTA	HAZARD RATING (3 - 12)	SIGNIFICANCE	SULE	STARS	COMMENTS	REC
5c	Eucalyptus crebra (Narrow-leaved Ironbark)	18	420	600	5.0	2.7	F	G	8	4	4	8	М	Pass	6	High	28	High	This tree has some small deadwood and a minor basal trunk wound. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
6c	Eucalyptus eugenioides (Thin-leaved Stringybark)	16	200	250	2.4	1.9	G	G		2 1	radia	al	YM	Pass	4	High	28	High	This tree is in good health and structural condition. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
7c	E. tereticornis (Forest Red Gum)	14	210	300	2.5	2.0	F	G	3	1	2	2	YM	Pass	4	High	2B	High	This tree has some small deadwood and leaf damage by chewing mouth-piece insects. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
8c	E. tereticornis (Forest Red Gum)	16	CD 150 350 (380)	600	4.6	2.7	F	G	3	3	2	3	YM	Pass	4	High	28	High	This tree has some small deadwood. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
9c	E. tereticornis (Forest Red Gum)	14	300	440	3.6	2.3	F	G	3	-	2	3	YM	Pass	4	High	28	High	This tree has some small deadwood, a sparse canopy and leaf damage by chewing mouth-piece insects. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S

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ADVANCED TREESCAPE CONSULTING [8]

TREE NO.	SPECIES	HEIGHT (m)	DBH (mm)	DGL (mm)	RADIUS OF FULL TPZ (m)	RADIUS OF FULL SRZ (m)	HEALTH/VIGOUR	STRUCTURAL		(m	SPREA 1) E W	D	AGE CLASS	VTA	HAZARD RATING (3 - 12)	SIGNIFICANCE RATING	SULE	STARS	COMMENTS	REC
10c	E. tereticornis (Forest Red Gum)	15	310	460	3.7	2.4	F	G	4	4	6 2		YM	Pass	4	High	28	High	This tree has branch wounds at 2-3m and some small deadwood. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
11c	E. tereticornis (Forest Red Gum)	14	280	360	3.4	2.1	F	F	6	6	2 4		YM	Pass	6	High	2D	High	This tree has canker in the trunk and some small deadwood. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
12c	E. tereticornis (Forest Red Gum)	15	340	450	4.1	2.4	F	F	6	6	4 4		YM	Pass	4	High	2B	High	1. This tree has canker in the trunk, tip dieback, epicormic shoots and some small deadwood. 2. There will be an intrusion into the TPZ of this tree from the proposed driveway/carpark of 7.52m² (14.24%) (including 1m setback of suggested retaining wall). This is an acceptable, low to moderate level of impact. Retain and protect. see Appendix 5 for more information. 3. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
13c	E. crebra (Narrow-leaved Ironbark)	12	200	250	2.4	1.9	G	G		4 rad	dial		YM	Pass	4	High	28	High	This is a good young tree. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
14c	Eucalyptus moluccana (Grey Box)	22	460	750	5.5	2.9	G	G		8 rad	dial		М	Pass	6	High	28	High	This is a fine specimen. There is some small deadwood. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S

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ADVANCED TREESCAPE CONSULTING [9]

TREE NO.	SPECIES	HEIGHT (m)	DBH (mm)	DGL (mm)	RADIUS OF FULL TPZ (m)	RADIUS OF FULL SRZ (m)	HEALTH/VIGOUR	STRUCTURAL	CANOPY SPREAD (m) N S E W	AGE CLASS	VTA	HAZARD RATING (3 - 12)	SIGNIFICANCE RATING	SULE	STARS	COMMENTS	REC
15c	E. moluccana (Grey Box)	22	450	810	5.4	3.0	G	G	8 radial	М	Pass	6	High	28	High	This tree has some small deadwood. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
16c	E. tereticornis (Forest Red Gum)	4	330	450	4.0	2.4	E	VP	2 radial	М	Fail	6	Low	38	Low	This tree has been flat-topped at 4m and has powerlines to the west. This tree fails the VTA and is not suitable to be considered for retention. Removal is recommended. N/A.	R
17c	E. crebra (Narrow-leaved Ironbark)	16	CD 180 350 (390)	550	4.7	2.6	G	G	4 4 6 2	М	Pass	5	High	2B	High	There has been no powerline trimming for this tree. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	5
18c	E. moluccana (Grey Box)	20	550	720	6.6	2.9	G	G	6 6 8 3	М	Pass	5	High	2B	High	There has been minor powerline trimming for this tree. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
19c	E. tereticornis (Forest Red Gum)	15	330	440	4.0	2.3	F	G	3 radial	YM	Pass	4	High	2В	High	This tree has some small deadwood and is being suppressed by O. europaea subsp. cuspidate (African Olive) trees. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S

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TREE NO.	SPECIES	HEIGHT (m)	DBH (mm)	DGL (mm)	RADIUS OF FULL TPZ (m)	RADIUS OF FULL SRZ (m)	HEALTH/VIGOUR	STRUCTURAL CONDITION	CANOPY SPREAD (m) N S E W	AGE CLASS	VTA	HAZARD RATING (3 - 12)	SIGNIFICANCE RATING	SULE	STARS	COMMENTS	REC
20c	E. tereticornis (Forest Red Gum)	14	240	300	2.9	2.0	F	G	3 radial	YM	Pass	4	High	2В	High	This tree has some small deadwood and is being suppressed by O. europaea subsp. cuspidate (African Olive) trees. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
21c	E. tereticornis (Forest Red Gum)	15	350	470	4.2	2.4	F	G	3 radial	YM	Pass	4	High	2B	High	This tree has an old trunk would. It has leaf damage from chewing mouth-piece insects, a sparse canopy, and some small deadwood. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
22c	E. tereticornis (Forest Red Gum)	16	360	480	4.3	2.4	G	G	3 radial	YM	Pass	4	High	2B	High	This tree has some small deadwood. It passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
23c	E. tereticornis (Forest Red Gum)	20	680	900	8.2	3.2	F	G	6 radial	М	Pass	6	High	28	High	This tree is co-dominant at 8m. It has leaf damage from chewing mouth-piece insects, a sparse canopy, and some small deadwood. There will be an intrusion into the TPZ of this tree from the proposed retaining wall of 1.72m² (0.81%). This is an acceptable, low level of impact. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S

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ADVANCED TREESCAPE CONSULTING [11]

TREE NO.	SPECIES	HEIGHT (m)	DBH (mm)	DGL (mm)	RADIUS OF FULL TPZ (m)	RADIUS OF FULL SRZ (m)	HEALTH/VIGOUR	STRUCTURAL CONDITION		(n	SPRE n) E V		AGE CLASS	VTA	HAZARD RATING (3 - 12)	SIGNIFICANCE RATING	SULE	STARS	COMMENTS	REC
20A	E. tereticornis (Forest Red Gum)	20	590	740	7.1	2.9	G	G	8	4	8 €	5	М	Pass	7	Medium	28	Medium	1. This tree has some large deadwood. This tree passes the VTA and is suitable to be considered for retention. 2. Current Plans: There will be an intrusion into the TPZ of this tree from the proposed stornwater trench and pipe of 6.85m² (4.33%). Suggested Alterations: There will be an intrusion into the TPZ of this tree from the suggested retaining wall of 1.68m² (1.06%). There will be an intrusion into the TPZ of this tree from the suggested stornwater trench and pipe of 4.86m² (3.07%) - for a total of 4.13%. This is an acceptable, low level of impact. Retain and protect. See Appendix 4 for more information. 3. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S
22A	E. tereticornis (Forest Red Gum)	22	650	760	7.8	3.0	G	G	8	10	10 8	В	M	Pass	5	Medium	2B	Medium	1. This tree has some small deadwood and epicormic shoots. This tree passes the VTA and is suitable to be considered for retention. 2. Current Plans: There will be an intrusion into the TPZ of this tree from the proposed stormwater trench and pipe of 32.92m² (17.22%). This is an acceptable, moderate level of impact. Retain and protect. 3. Suggested Alterations: There will be an intrusion into the TPZ of this tree from the suggested stormwater trench and pipe of 6.18m² (3.23%). This is an acceptable, low level of impact. Retain and protect. 3. EXEMPLIES OF THE STAND O	S
25B	E. tereticornis (Forest Red Gum)	22	CD 350 490 (600)	750	7.2	2.9	F	F	10	4	6 6	5	М	Pass	5	Medium	2D	Medium	This tree has some large deadwood. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S

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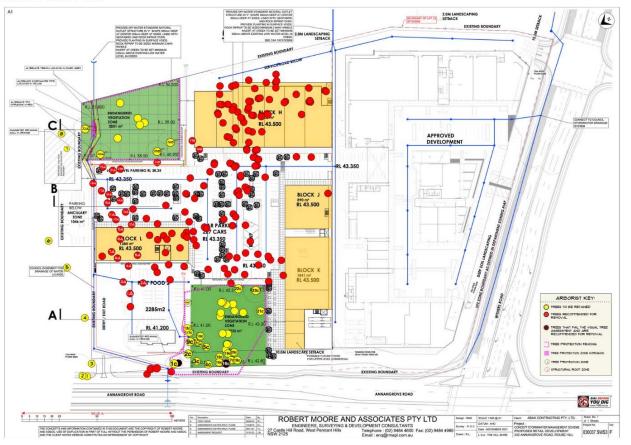
ADVANCED TREESCAPE CONSULTING [12]

TREE NO.	SPECIES	HEIGHT (m)	DBH (mm)	DGL (mm)	RADIUS OF FULL TPZ (m)	RADIUS OF FULL SRZ (m)	HEALTH/VIGOUR	STRUCTURAL CONDITION		(m	SPREAD) E W	AGE CLASS	VTA	HAZARD RATING (3 - 12)	SIGNIFICANCE RATING	SULE	STARS	COMMENTS	REC
26B	E. tereticornis (Forest Red Gum)	22	680	750	8.2	2.9	G	G	4	8	8 8	М	Pass	6	Medium	2D	Medium	This tree has some large deadwood. This tree passes the VTA and is suitable to be considered for retention. The full TPZ of this tree will not be impacted by the proposed development. Retain and protect. TPZ fencing is required as per Appendix 8. The size of the TPZ is shown in this table (radius of full TPZ) and highlighted in yellow.	S

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Appendix 3: Site Plan

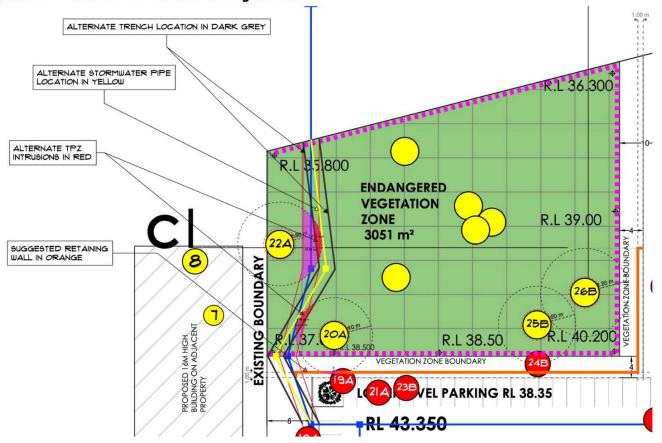


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ADVANCED TREESCAPE CONSULTING [14]

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Appendix 4: Possible Stormwater Realignment

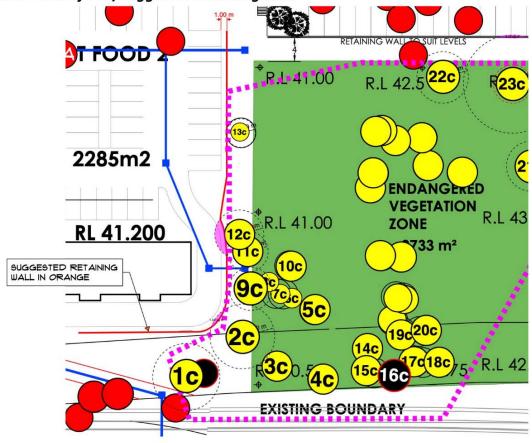


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ADVANCED TREESCAPE CONSULTING [15]

ast opened/updated at 1:17 pm on Thursday, 17 February 2022

Appendix 5: Front of Site/Suggested Retaining Wall



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