

15 November 2022

Our ref: 21CAN-18872

Hansen Yuncken
Sydney Corporate Park
Building 1, L3, 75-85 O’Riordan Street
Alexandria NSW 2015

Attention: Emily Dzinkic

Dear Emily,

Jindabyne Education Campus – SSDA Modification 1 Review of Proposed Changes

Eco Logical Australia (ELA) have been commissioned by Hansen Yuncken to undertake a review of the Jindabyne Education Campus (SSDA15788005) Modification 1 (MOD 1) development footprint to confirm any changes to trees impacts as identified in the Monaro Cluster – Jindabyne Site Arboricultural Impact Assessment (AIA) prepared by ELA (dated 10 December 2021).

In undertaking this review, the following plans have been considered:

- *Jindabyne Education Campus MOD 1 SSDA Report* (Taylor Brammer Landscape Architects 2022) (Figure 1), which includes details related to design changes.
- *Jindabyne Education Campus Civil Engineering Works SSDA Modification* (Northrop 2022) (Figure 2), which includes new cut and fill levels.

The impact footprint resulting from these two plans was mapped and the extent compared to the previous footprint as shown in Figure 3. The encroachment of the MOD 1 impact footprint into the TPZ/SRZ of each tree was reassessed as per the methods outlined in section 2 of the AIA. Based on the outcomes of this analysis, ELA have determined the net result from the amended footprint for Modification 1 is the retention of an additional six (6) trees compared to the Response to Submissions, and retention of an additional 25 trees when compared to the original submission as shown in Table 1. Individual outcomes for each tree subject to a change in assessment are detailed in Table 2. Figure 3 below maps these tree locations.

Table 1: Net outcome of proposed tree actions

Proposed Action	Modification 1	Response to Submissions*	AIA (Original Submission)
Retain / retain with mitigation measures	101	95	76
Remove	109	115	134

*AN ACCOMPANYING AIA UPDATE WAS NOT SUBMITTED WITH THIS RESPONSE

The outcomes identified in Table 1 includes the retention of Tree 281. It is noted that analysis indicates SRZ encroachment is likely for this tree based off the MOD 1 design. However, as TPZ encroachment is minor (less than 10%) and the level of SRZ encroachment is marginal (associated with fringing works for the proposed fill and batter), subject to these works being conducted under the guidance of the Project Arborist, this tree can be considered for retention.

Tree 265 is currently identified for removal due to TPZ encroachment > 20%, however as there is no SRZ encroachment and impacts are associated with the proposed batter, ELA recommends working with the Project Arborist to redesign the batter placement to reduce encroachment to a level supporting long term viable retention of this tree. Subject to the outcome of this, there may be potential to retain this tree. If the batter cannot be redesigned, this tree will remain subject to a major encroachment.

To support the viable retention of any trees proposed to be retained, the mitigation measures outlined in Section 5 of the AIA (ELA 2022) are to be implemented in consultation with the Project Arborist (AQF Level 5 Consulting Arborist). In addition, fill works within the TPZ of trees identified for retention should be avoided, unless approved by the Project Arborist. Any works within the TPZ of trees to be retained require consultation with the Project Arborist. All works within TPZs of trees for retention should only proceed under the guidance and supervision of the Project Arborist.

Should you have any questions, feel free to contact me on 0457 388 499.

Regards,



Jemima Kenworthy
Environmental Consultant

2.0 Changes to Design

(Approved SSDA Drawings to MOD1)

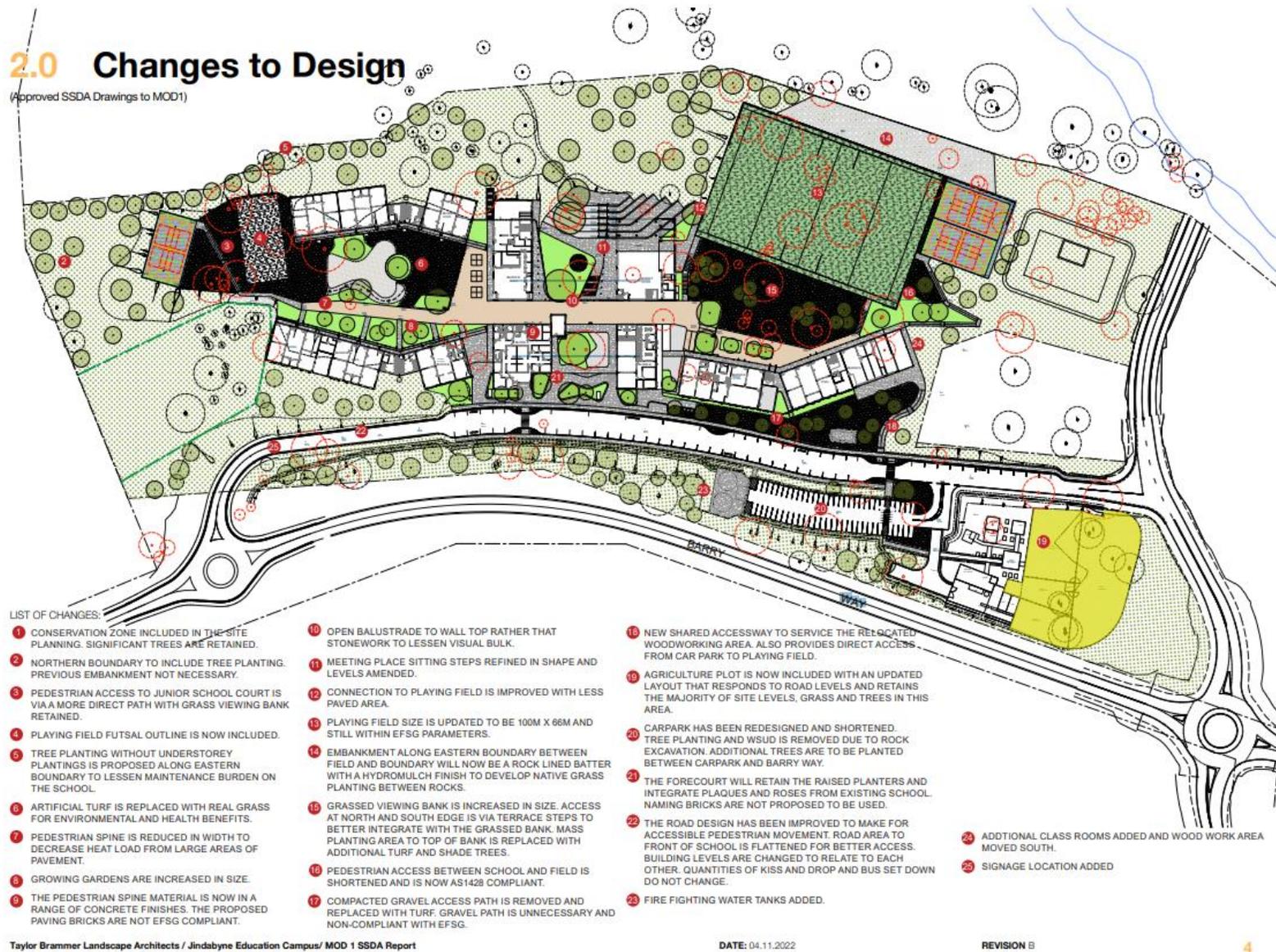


Figure 1: MOD 1 Landscape Plan (Taylor Brammer Landscape Architects 2022)

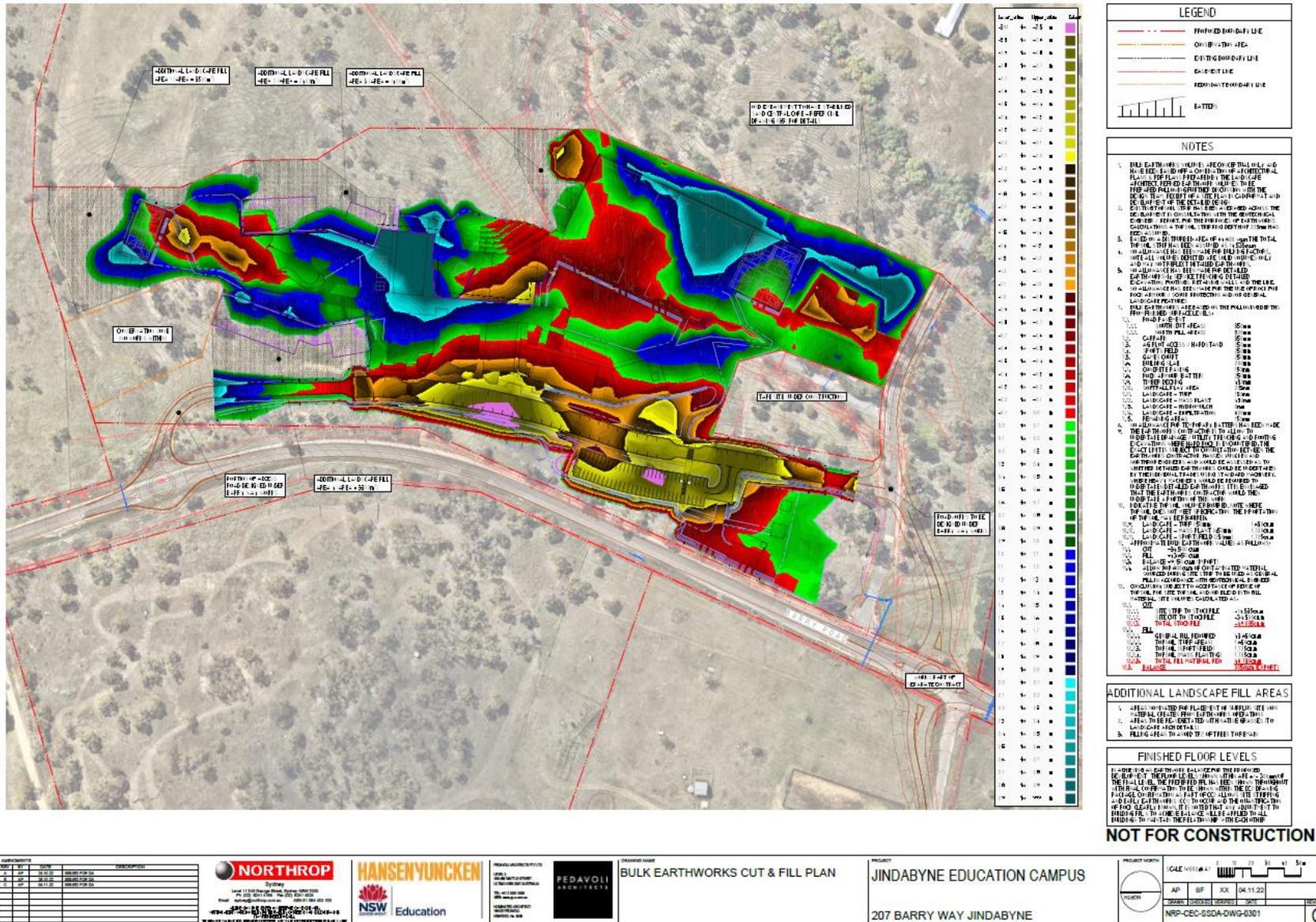
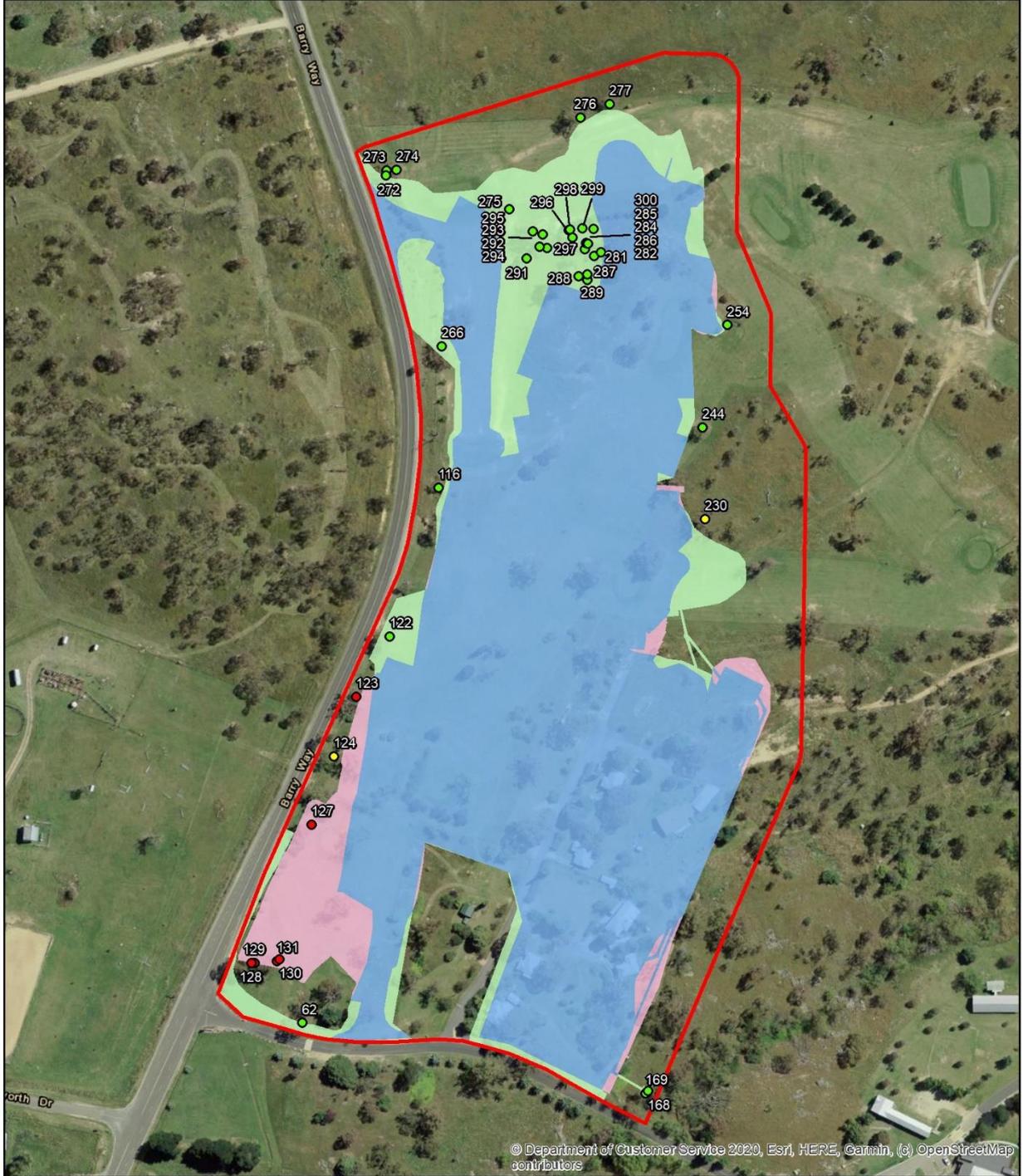


Figure 2: MOD 1 Engineering Plans (Northrop 2022)

Footprint Comparison



Legend

- Study Area
- Footprint unchanged
- Reduction in footprint
- Additional footprint

Amended tree actions

- Remove
- Retain with mitigation measures
- Retain

0 50 100
Metres
Datum/Projection: GDA 1994 MGA Zone 56



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Prepared by: SC Date: 15/11/2022

Figure 3: Footprint Comparison and changed tree actions resulting from amended footprint

Table 2: Assessment outcomes for trees subject to a change in proposed action

#	Botanical Name	Height	Spread	DBH (mm)	Health	Structure	ULE	Landscapes	Retention	TPZ	SRZ	TPZ encroachment (%)	SRZ Encroachment	Impact	Proposed action under Modification 1	Previous action under AIA (ELA 2021)
62	<i>Eucalyptus dalrympleana</i>	14	14	980	Fair	Fair	Medium (15-40 years)	High	High	11.76	3.28	0.00	No	No Impact: 0%	Retain	Remove
116	<i>Eucalyptus pauciflora</i>	9	12	520	Fair	Fair	Medium (15-40 years)	Medium	Medium	6.24	2.51	3.07	No	Low Impact: <10%	Retain	Remove
122	<i>Eucalyptus rubida</i>	16	18	1050	Fair	Fair	Long (>40 years)	High	High	12.6	3.38	0.81	No	Low Impact: <10%	Retain	Remove
123	<i>Eucalyptus rubida</i>	18	17	1150	Fair	Fair	Long (>40 years)	High	High	13.8	3.51	38.51	Yes	High Impact: >20%	Remove	Retain with mitigation measures
124	<i>Eucalyptus pauciflora</i>	11	12	620	Fair	Good	Medium (15-40 years)	Medium	Medium	7.44	2.71	13.49	No	Medium Impact: <20%	Retain with mitigation measures	Retain
127	<i>Eucalyptus rubida</i>	15	18	1100	Fair	Fair	Long (>40 years)	High	High	13.2	3.44	79.75	Yes	High Impact: >20%	Remove	Retain
128	<i>Eucalyptus rubida</i>	22	16	1200	Good	Good	Long (>40 years)	High	High	14.4	3.57	38.94	Yes	High Impact: >20%	Remove	Retain with mitigation measures
129	<i>Eucalyptus rubida</i>	14	12	760	Good	Fair	Long (>40 years)	High	High	9.12	2.95	51.47	Yes	High Impact: >20%	Remove	Retain
130	<i>Eucalyptus rubida</i>	22	10	650	Poor	Poor	Medium (15-40 years)	High	High	7.8	2.76	84.76	Yes	High Impact: >20%	Remove	Retain

#	Botanical Name	Height	Spread	DBH (mm)	Health	Structure	ULE	Landscapes	Retention	TPZ	SRZ	TPZ encroachment (%)	SRZ Encroachment	Impact	Proposed action under Modification 1	Previous action under AIA (ELA 2021)
131	<i>Eucalyptus rubida</i>	20	10	650	Fair	Fair	Long (>40 years)	High	High	7.8	2.76	77.61	Yes	High Impact: >20%	Remove	Retain
168	<i>Eucalyptus viminalis</i>	9	7	400	Good	Fair	Medium (15-40 years)	Low	Low	4.8	2.25	0.00	No	No Impact: 0%	Retain	Remove
169	<i>Eucalyptus viminalis</i>	7	7	190	Good	Good	Long (>40 years)	Low	Low	2.28	1.65	0.00	No	No Impact: 0%	Retain	Remove
183	<i>Eucalyptus viminalis</i>	17	17	1040	Fair	Good	Long (>40 years)	High	High	12.48	3.364352	60.32	Yes	High Impact: >20%	Remove	Remove
230	<i>Eucalyptus viminalis</i>	15	16	1050	Fair	Good	Long (>40 years)	High	High	12.6	3.38	10.44	No	Medium Impact: <20%	Retain with mitigation measures	Remove
244	<i>Eucalyptus viminalis</i>	11	14	920	Fair	Fair	Medium (15-40 years)	Medium	Medium	11.04	3.20	0.74	No	Low Impact: <10%	Retain	Retain with mitigation measures
254	<i>Eucalyptus viminalis</i>	5	7	340	Good	Poor	Short (5-15 years)	Low	Low	4.08	2.10	3.49	No	Low Impact: <10%	Retain	Retain with mitigation measures
265	<i>Eucalyptus viminalis</i>	10	16	1130	Fair	Good	Medium (15-40 years)	High	High	13.56	3.48367	27.38	No	High Impact: >20%	Remove	Remove
266	<i>Eucalyptus viminalis</i>	13	11	680	Poor	Poor	Short (5-15 years)	Medium	Medium	8.16	2.81	9.96	No	Low Impact: <10%	Retain	Remove
272	<i>Eucalyptus viminalis</i>	6	7	75	Good	Fair	Medium (15-40 years)	Medium	Medium	2	1.50	0.00	No	No Impact: 0%	Retain	Remove

#	Botanical Name	Height	Spread	DBH (mm)	Health	Structure	ULE	Landscapes	Retention	TPZ	SRZ	TPZ encroachment (%)	SRZ Encroachment	Impact	Proposed action under Modification 1	Previous action under AIA (ELA 2021)
273	<i>Eucalyptus viminalis</i>	6	5	510	Good	Fair	Medium (15-40 years)	Low	Medium	6.12	2.49	0.00	No	No Impact: 0%	Retain	Remove
274	<i>Eucalyptus viminalis</i>	8	12	1040	Good	Good	Long (>40 years)	High	High	12.48	3.36	0.00	No	No Impact: 0%	Retain	Remove
275	<i>Eucalyptus viminalis</i>	14	18	930	Good	Good	Long (>40 years)	High	High	11.16	3.21	0.00	No	No Impact: 0%	Retain	Remove*
276	<i>Eucalyptus viminalis</i>	13	10	1170	Poor	Fair	Short (5-15 years)	Medium	Medium	14.04	3.53	0.00	No	No Impact: 0%	Retain	Remove
277	<i>Eucalyptus viminalis</i>	7	12	670	Good	Fair	Long (>40 years)	Medium	High	8.04	2.80	0.00	No	No Impact: 0%	Retain	Remove
281	<i>Eucalyptus viminalis</i>	7	3	150	Good	Good	Long (>40 years)	Low	Medium	2	1.5	9.818465	Yes	High Impact: SRZ encroachment	Retain	Remove
282	<i>Eucalyptus viminalis</i>	6	5	360	Good	Fair	Long (>40 years)	Low	Medium	4.32	2.15	0.00	No	No Impact: 0%	Retain	Remove*
284	<i>Eucalyptus viminalis</i>	7	2	140	Good	Fair	Medium (15-40 years)	Low	Low	2	1.50	0.00	No	No Impact: 0%	Retain	Remove*
285	<i>Eucalyptus viminalis</i>	7	3	150	Good	Fair	Medium (15-40 years)	Low	Low	2	1.50	0.00	No	No Impact: 0%	Retain	Remove*
286	<i>Eucalyptus viminalis</i>	7	5	300	Good	Fair	Medium (15-40 years)	Low	Medium	3.6	2.00	0.00	No	No Impact: 0%	Retain	Remove*

#	Botanical Name	Height	Spread	DBH (mm)	Health	Structure	ULE	Landscapes	Retention	TPZ	SRZ	TPZ encroachment (%)	SRZ Encroachment	Impact	Proposed action under Modification 1	Previous action under AIA (ELA 2021)
287	Eucalyptus viminalis	4	6	370	Fair	Poor	Medium (15-40 years)	Low	Low	4.44	2.18	0.00	No	No Impact: 0%	Retain	Remove*
288	Eucalyptus viminalis	7	5	590	Good	Fair	Medium (15-40 years)	Medium	Medium	7.08	2.65	0.06	No	Low Impact: <10%	Retain	Remove*
289	Eucalyptus viminalis	5	5	380	Good	Fair	Medium (15-40 years)	Medium	Medium	4.56	2.20	0.00	No	No Impact: 0%	Retain	Remove*
291	Eucalyptus viminalis	7	6	730	Good	Fair	Long (>40 years)	Medium	Medium	8.76	2.90	0.00	No	No Impact: 0%	Retain	Remove*
292	Eucalyptus viminalis	6	3	210	Good	Poor	Short (5-15 years)	Low	Low	2.52	1.72	0.00	No	No Impact: 0%	Retain	Remove*
293	Eucalyptus viminalis	14	16	1190	Good	Good	Long (>40 years)	High	High	14.28	3.56	0.00	No	No Impact: 0%	Retain	Remove*
294	Eucalyptus viminalis	6	3	190	Good	Poor	Short (5-15 years)	Low	Low	2.28	1.65	0.00	No	No Impact: 0%	Retain	Remove*
295	Eucalyptus viminalis	7	4	380	Poor	Poor	Remove (<5 years)	Low	Low	4.56	2.20	0.00	No	No Impact: 0%	Retain	Remove*
296	Eucalyptus viminalis	8	4	460	Poor	Poor	Remove (<5 years)	Low	Low	5.52	2.39	0.00	No	No Impact: 0%	Retain	Remove*
297	Eucalyptus viminalis	7	3	150	Good	Good	Medium (15-40 years)	Low	Low	2	1.50	0.00	No	No Impact: 0%	Retain	Remove*

#	Botanical Name	Height	Spread	DBH (mm)	Health	Structure	ULE	Landscapes	Retention	TPZ	SRZ	TPZ encroachment (%)	SRZ Encroachment	Impact	Proposed action under Modification 1	Previous action under AIA (ELA 2021)
298	Eucalyptus viminalis	8	3	160	Good	Fair	Medium (15-40 years)	Low	Medium	2	1.53	0.00	No	No Impact: 0%	Retain	Remove*
299	Eucalyptus viminalis	8	2	180	Good	Fair	Medium (15-40 years)	Low	Low	2.16	1.61	0.00	No	No Impact: 0%	Retain	Remove*
300	Eucalyptus viminalis	5	4	270	Good	Poor	Short (5-15 years)	Low	Low	3.24	1.91	0.00	No	No Impact: 0%	Retain	Remove*

*TREES PROPOSED TO BE RETAINED IN THE RESPONSE TO SUBMISSION