



CLOSEBOURNE VILLAGE TANK STREET COTTAGES

TREE ASSESSMENT REPORT

MAY 2023

CLOSEBOURNE VILLAGE – TANK ST. COTTAGES

TREE ASSESSMENT REPORT

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REV	DESCRIPTION	DATE
A	ISSUE TO CLIENT	2023-03-10
B	REVISED ISSUE TO CLIENT	2023-05-24

1 INTRODUCTION

Terras Landscape Architects has been engaged by Lendlease Retirement Living to undertake a tree impact assessment on trees occurring within the vicinity of the Tank Street Cottages that may have become contaminated by asbestos as the result of a recent fire affecting the cottages.

The engagement included:

- assessing health, vigour and retention value of the subject trees;
- holding discussions with client and site hygienist (Trinitas Group); and
- determining what impacts the proposed site decontamination works will have on the trees.

The details included in this report are based on observations made during a site inspection undertaken on 3rd March 2023. Due to the presence of asbestos fibres detected by the site hygienist, the inspection had to be made from outside the fenced of site and so mainly relied of observations of the canopy. Reference was also made to fieldwork undertaken by Terras in 2018 as part undertaking the preparation of a site-wide tree management plan.

2 ASSESSING ARBORIST

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3 CLIENT

CLIENT:	Lendlease Retirement Living
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EMAIL:	numa.miller@lendlease.com



BRUSH BOX AVENUE

TANK STREET

59 58 57

60 61 62

159

158

C2

50

49

48

FIGURE 1: AERIAL VIEW OF THE SITE SHOWING TREE LOCATIONS
[BASE AERIAL: NEARMAP - USED UNDER LICENCE]

4 METHODOLOGY

The following is a summary of the approach taken to assess the trees leading to the preparation of this report:

- Visual Tree Inspection (VTA), (Mattheck & Breloer, 1994) was undertaken from a distance. The VTA included all visible above ground parts of the tree including; exposed roots; trunk; branches; and, foliage.
- Data previously collected by Terras was reviewed which included: diameter at breast height and diameter at basal flare dimensions; Useful Life Expectancy (ULE); health; vigour etc. and compared with current on-site observations.
- Liaison was carried out between the client and hygienist to review possible options for tree retention whilst ensuring no risk of exposure to asbestos fibres was afforded users of the site.

It should be noted that the following, more detailed assessment measures did not form part of the VTA inspection:

- No below ground inspections or analyses were undertaken within the root zone.
- No internal inspections or tissue analyses were undertaken on the subject trees.
- No aerial inspections were undertaken.

5 THE SITE

The overall site is Closebourne Village, located at 361-367 Morpeth Road, Morpeth. The Tank Street Cottages occur on land with the real property description of Lot 3, DP 841759. This parcel of land is dedicated, protected and preserved under a Heritage Agreement the aim of which is to retain rural aspects.¹ The cottages occur to the eastern edge of the Morpeth Road Front Paddock and are partially visible through trees and undergrowth from Tank Street. The buildings were built c1946-1947 for use by the Newcastle Boys' Grammar School and relocated in their current position between 1967 and 1975.² The buildings have been most recently been used for general storage.



¹ PAGE 40, DOBLER, 2006

² PAGE 98, CITY PLAN HERITAGE PTY LTD

6 FEBRUARY FIRE AND RESPONSE

On the night of 16th February 2023 a fire broke out in the western section of the disused buildings. These buildings were proposed to be demolished late February/early March. The fire destroyed the first (western) building and affected approximately 25% of the second (eastern) building. The effect of the fire was that friable asbestos fibres were dispersed into the air and spread around nearby grounds and into the vegetation, therefore contaminating the area. A Licensed Asbestos Assessor (LAA) from Trinitas Group, was promptly engaged to undertake a PVA makesafe of the fire affected structures, this included spraying PVA over fire affected materials and to commence a site investigation. Trinitas Group also prepared report that detailed the required remediation works (Trinitas Group, 2023).

The report proposed that the site will be remediated in three main stages resulting in the release of a Clearance Certificate confirming that the site had been properly made safe.

- Stage 1: Demolition of the fire-affected buildings and associated structures with the safe removal of debris to an approved receiving facility.
- Stage 2: The felling and removal to an approved receiving facility of 11 trees that may contain asbestos fibres etc. within their canopies. (This is required as it is not possible to thoroughly inspect the canopies of trees, to guarantee that there is no risk to humans of being exposed to asbestos fibre. The option of hosing down the trees was considered; however, there could still be no way of confirming that the asbestos had been eliminated. Failure to remove the trees would result in a qualified Clearance Certificate and the need for the trees to be placed on the site's Asbestos Register.)
- Stage 3: The removal of up to 150mm of asbestos contaminated topsoil and vegetation located in the currently fenced area that has been assessed as contained asbestos material. The contaminated spoil is to be taken to an approved receiving facility.



FIGURE 3: VIEW OF FIRE RAVAGED WESTERN COTTAGE

7 TREE ASSESSMENT

11 trees were assessed occurring within the fenced exclusion zone with an additional dead tree included, although not affected by the fire or the spread of asbestos fibres. A summary tree assessment is given below with a more detailed assessment given in Appendix A. The "Comment" column gives an assessment on whether a tree should be removed based on its current condition having regard to the impact of the fire but **not** the potential hazard arising from the presence of asbestos.

SUMMARY ASSESSMENT			
TREE No.	FIG No.	Bot. NAME	COMMENTS
FIRE AFFECTED TREES			
49	4B	<i>Cupressus leylandii</i>	Dead tree. Suitable for removal.
50	4C	<i>Eucalyptus tereticornis</i>	Tree in decline. Suitable for removal.
57	4D	<i>Eucalyptus tereticornis</i>	Tree in decline. Suitable for removal.
58	4E	<i>Eucalyptus tereticornis</i>	Tree host to strangler fig. Suitable for retention
59	4F	<i>Eucalyptus tereticornis</i>	Tree with poor structure. Suitable for removal.
60	5B	<i>Eucalyptus tereticornis</i>	Tree host to strangler fig. Suitable for retention
61	5A	<i>Ficus rubiginosa</i>	Actively growing strangler fig. Suitable for retention.
62	5D	<i>Eucalyptus tereticornis</i>	Tree significantly affected by fire but should regenerate. Suitable for retention.
158	5E	<i>Liquidambar styraciflua</i>	Tree with partial fire damage to its canopy. Suitable for retention with remedial work.
159	5F	<i>Cinnamomum camphora</i>	Tree significantly affected by fire and will not regenerate adequately. Suitable for removal.
C2	6C	<i>Jacaranda mimosifolia</i>	Struggling tree not affected by fire. Suitable for retention.
OTHER			
48	4A	<i>Cupressus leylandii</i>	Tree in severe decline. Suitable for removal.

As can be seen from the above table not all trees have been affected by the fire and could be retained (notwithstanding the asbestos contamination) with some affected trees being able to regenerate albeit resulting with an altered form.

Tree 48 due to its poor condition, has been included in the assessment; however, it is **not** one of the trees that have been fire affected.

Based on the need to ensure that the area is free from contamination, it has been deemed necessary that all 11 trees within the exclusion area will be required to be removed.







8 CONCLUSIONS & RECOMMENDATIONS

CONCLUSIONS

Fire Affected Trees

Although some of the trees would be suitable for retention following the fire, in order to ensure that the site has been properly decontaminated and the risk of hazard from the presence of asbestos is eliminated, it will be necessary to remove all the trees located within the exclusion area.

Other

Tree 48 should also be removed due its severe state of decline although this tree has not been affected by the fire.

TREES TO BE REMOVED			
NO.	BOTANICAL NAME	NO.	BOTANICAL NAME
49	<i>Cupressus leylandii</i>	61	<i>Ficus rubiginosa</i>
50	<i>Eucalyptus tereticornis</i>	62	<i>Eucalyptus tereticornis</i>
57	<i>Eucalyptus tereticornis</i>	158	<i>Liquidambar styraciflua</i>
58	<i>Eucalyptus tereticornis</i>	159	<i>Cinnamomum camphora</i>
59	<i>Eucalyptus tereticornis</i>	C2	<i>Jacaranda mimosifolia</i>
60	<i>Eucalyptus tereticornis</i>	48	<i>Cupressus leylandii</i>

RECOMMENDATIONS

- It is recommended that approval be sought to remove all trees as nominated above.
- As a suggestion, plant **one** standard tree (45 litre) on the site for each tree removed as compensatory planting with suitable trees able to reach a similar size that matches the existing to ensure that the amenity of the site is maintained. It is suggested that the current trees be replaced with *Eucalyptus tereticornis* (Forest Red Gum) due to their suitability to the site conditions, the presence of other Forest Red Gums nearby, and to assist in maintaining and enhancing the rural aspects of the site. (Refer Appendix B)
- It is recommended that an ecologist be engaged to assess Tree 50 due to its potential to provide habitat for local fauna before removal.
- Ensure tree removal work is carried out by or supervised by a qualified tree worker (AQF Level 3 or equivalent) in accordance with the *Guide to Managing Risks of Tree Trimming and Removal Work* (Safe Work Australia, 2016).
- Tree remains to be removed from site to an approved facility that can take asbestos contaminated material.

9 REFERENCES

City Plan Heritage Pty Ltd	<i>Conservation Management Plan: Morpeth House Heriateg Estate, 2017</i>
Design 5 Architects	<i>Morpeth House and St John's College Morpeth Conservation Management Plan, prepared for Dobler Consulting and the Anglican Diocese of Newcastle, 2005</i>
Draper, D. & Richards, P.A.	<i>Dictionary for Managing Trees in Urban Environments. CSIRO, Collingwood Vic., 2009.</i>
HDB Town Planning & Design	<i>Morpeth House Heriate Estate, Volume 1 – Background Report, prepared for Providence Projects Pty Ltd, 2006</i>
Matheck, C. & Breloer, H.	<i>The Body Language of Trees: A Handbook for Failure Analysis. TSO, London, England.</i>
Safe Work Australia	<i>Guide to Managing Risks of Tree Trimming and Removal Work, Australian Government, 2016.</i>
Trinitas Group	<i>Technocal Specification for Asbestos Remediation, 18/05/2023 – report prepared for Earthworx</i>

11 APPENDICES

- APPENDIX A - TREE ASSESSMENT TABLE
- APPENDIX B – COMPENSATORY PLANTING DIAGRAM

APPENDIX A –TREE ASSESSMENT TABLE

FIRE AFFECTED TREES														
Tree ID	Species	Age Class	Height	DBH1	DBH TOTAL	DAB	TPZ	SRZ	Structure	Condition	ULE	Tree AZ	Original Field Comments	Image
49	<i>Cupressus leylandii</i>	M	10	0.78	0.78	1	9.36	3.31	Ex	Ex	1A	A2	Minimal retention requirements	
49	2023 Observations	Tree dead prior to fire. Tree requires removal and replacement.											4B	
50	<i>Eucalyptus tereticornis</i>	OM	17	1.46	1.46	1.35	10.56	3.75	F	F	4D	Z5	Large, co-dominant trunk dead with one dead trunk, borer activity present	
50	2023 Observations	No apparent fire damage/heat impact. Tree in decline with dead co-dominant trunk showing signs of decay and borer activity. Possible habitat tree that would require an ecologist to inspect prior to removal.											4C	
57	<i>Eucalyptus tereticornis</i>	M	14	0.79	0.79	0.85	9.48	3.09	P	F	2C	Z9	Large wound area under plane of lean	
57	2023 Observations	Minor fire damage/heat impact to approximately 10-15% of canopy. Tree already in decline. Hanging branch present shed from Tree 58.											4D	
58	<i>Eucalyptus tereticornis</i>	M	16	0.55	0.55	0.62	6.60	2.71	P	P	2C	Z9	Strangler Fig at 4 meters, Minor cambium intact	
58	2023 Observations	No apparent fire damage/heat impact. Strangler fig has grown higher into the canopy since 2018 and almost reached the top of Tree 58's canopy.											4E	
59	<i>Eucalyptus tereticornis</i>	M	13	0.64	0.64	0.65	7.68	2.76	P	P	2C	Z9	Multiple wound areas, hosted by Ficus growing aloft	
59	2023 Observations	No apparent fire damage/heat impact. Tree with strong lean to NNW. ULE Rating now 3C. Unable to observe Ficus within canopy as observed in 2018.											4F	
60	<i>Eucalyptus tereticornis</i>	M	18	0.8	0.80	0.95	9.60	3.24	P	P	2C	Z9	Multiple wound areas, suppressed by Ficus	
60	2023 Observations	No apparent fire damage/heat impact. Supporting Tree 61 which is expected to dominate and take over in time.											5B	
61	<i>Ficus rubiginosa</i>	SM	11	0.4	0.40	0.5	4.80	2.47	Av	Ex	1A	A1	Supressing Tereticornis	
61	2023 Observations	No apparent fire damage/heat impact. Currently being supported by Tree 60 which it is expect to dominate over time.											5A	
62	<i>Eucalyptus tereticornis</i>	M	18	0.8	0.80	0.8	9.60	3.01	F	F	2C	Z9	Multiple wound areas	
62	2023 Observations	Significant fire damage/heat impact to the upper canopy although it is expected that the canopy would recover due to epicormic regrowth occurring.											5D	
158	<i>Liquidambar styraciflua</i>	M	14	0.70	0.70	0.78	8.40	2.98	Av	Ex	1B	A2	Included bifurcation@5m, minor overextended branch structure	
158	2023 Observations	Lower portions of the canopy fire damage/heat impact. Approximately 20-30% canopy loss. It is estimated that the tree would survive if left. Pruning of damaged branches would be required.											5E	
159	<i>Cinnamomum camphora</i>	M	12	0.75	0.75	0.75	9.00	2.93	Av	Av	1B	A2	Decline in crown, large DW	
159	2023 Observations	Extensive fire damage/heat impact. This tree appears to have suffered the worst from the fire whilst shielding Tree 158 to some degree.											5F,6AB	
C2	<i>Jacaranda mimosifolia</i>	SM	3	N/A	N/A	N/A	N/A	N/A	Av	Av	2B	A2	Small tree struggling under latent ground conditions	
C2	2023 Observations	Minor tree. Not making a strong contribution to Tank Street. Low branching. Sucker growth at base.											6C	

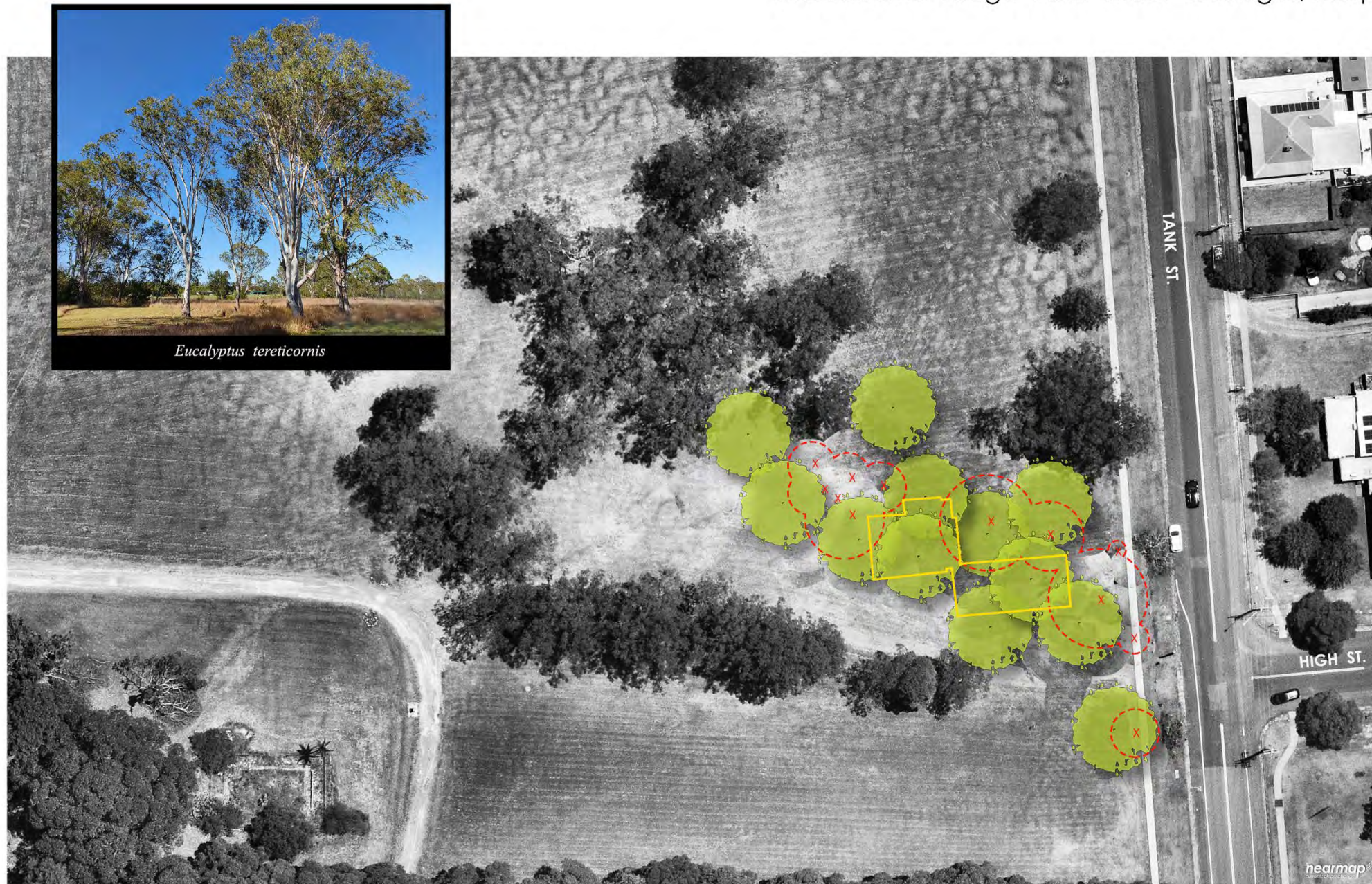
OTHER TREES														
Tree ID	Species	Age Class	Height	DBH1	DBH TOTAL	DAB	TPZ	SRZ	Structure	Condition	ULE	Tree AZ	Original Field Comments	Image
48	<i>Cupressus leylandii</i>	M	10	0.68	0.68	0.66	8.16	2.78	Ex	Ex	1A	A2	Minimal retention requirements	
48	2023 Observations	Tree located outside exclusion zone. Tree in severe decline. Passing resident commented that the tree had suddenly started to die over the past four weeks.											4A	

NOTE: BASE DATA (IN BLACK) TAKEN FROM THE TREE SURVEY CONDUCTED BY TERRAS IN 2018 AS PART OF PREPARATION OF THE CLOSEBOURNE TREE MANANAGMENT PLAN. COMMENTS IN RED ARE BASED ON OBSERVATIONS MADE ON 2023/03/03 TAKEN FROM OUTSIDE THE EXCLUSION AREA.

APPENDIX B – COMPENSATORY PLANTING DIAGRAM

Site Plan/Compensatory Planting | L01

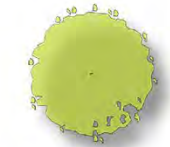
Closebourne Village Tank Street Cottages, Morpeth



 LANDSCAPE PLAN

LEGEND:

COMPENSATORY TREE PLANTING



Eucalyptus tereticornis



TREE TO BE REMOVED



COTTAGE LOCATION

REV	DATE	COMMENTS
A	2023/03/09	CLIENT ISSUE

PROJECT:
**CLOSEBOURNE VILLAGE
TANK STREET COTTAGES**

SITE:
**365 MORPETH ROAD, MORPETH,
2321**

CLIENT:
LENLEASE RETIREMENT LIVING

14775.5_TAR_3_Closebourne Secret Gardens.docx 19/12/22

DRAWN BY: DATE: PHASE:
PMW 2023/03/03 RPT

JOB NUMBER: SCALE @ A3: REV:
14775.5 NTS A