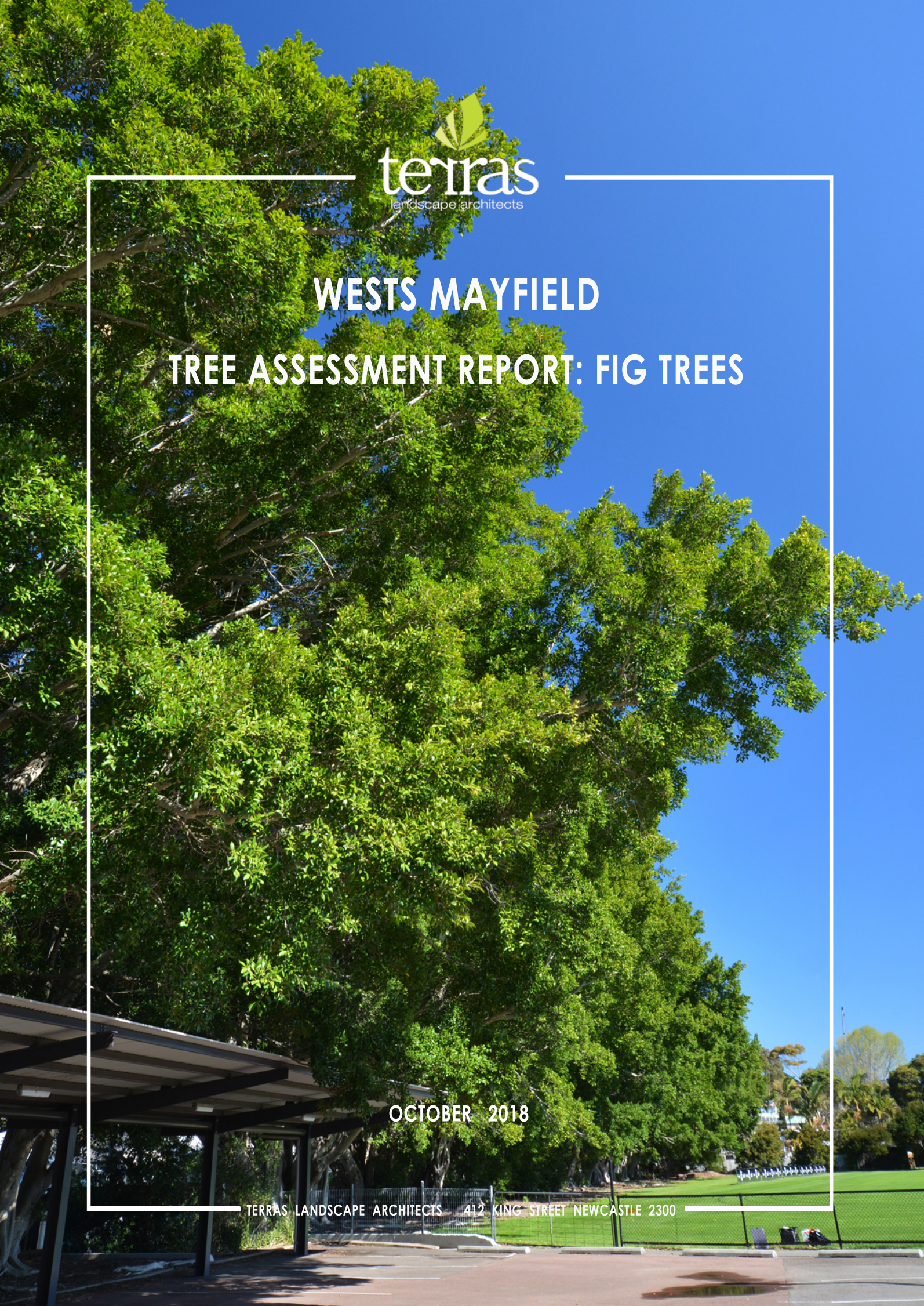

terras
landscape architects

WESTS MAYFIELD

TREE ASSESSMENT REPORT: FIG TREES

OCTOBER 2018

TERRAS LANDSCAPE ARCHITECTS 412 KING STREET NEWCASTLE 2300

WESTS, MAYFIELD

TREE ASSESSMENT REPORT : FIG TREES

LOCATION: 32 INDUSTRIAL DRIVE, MAYFIELD

PROJECT NO. 11964.5
DATE: OCTOBER 2018
REVISION B

TERRAS REF: 11964.5-TAR-001-A-WESTS-B

WESTS, MAYFIELD

TREE ASSESSMENT REPORT

CONTENTS

REV	DESCRIPTION	DATE
A	CLIENT REVIEW	2018-10-08
B	FOR ISSUE	2018-10-09

1 INTRODUCTION

Terras Landscape Architects has been engaged by Graph Building on behalf of Western Suburbs (N'cle) Leagues Club to undertake an assessment of 20 mature fig trees (*Ficus macrocarpa var. hillii)*.

The need to undertake the assessment was the result of a request for further information from NSW Department of Planning & Environment[1] as part of a Site Compatibility Certificate Application for the site to be developed for Seniors Living.

The engagement included:

- assessing health, vigour and retention value of the subject trees;
- providing advice on the likely Useful Life Expectancy of the subject trees.

The details included in this report are based on observations made during a site inspection undertaken on 21st September 2018.

It has been determined that the trees have not been listed as having heritage significance.

2 ASSESSING ARBORIST

NAME:	Phillip Williams
COMPANY:	Terras Landscape Architects
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ADDRESS:	412 King Street,Newcastle, NSW, 2300
PHONE:	02 4929 4926 [B] 0419 619 466 [M]
EMAIL:	pwilliams@terras.com.au
QUALIFICATIONS:	B.Sc.(Arch.), B.Land.Arch. Hort.Cert., Dip.Hort.(Arboriculture) AQF Level 5/Certificate No. 6262394

3 CLIENT

CLIENT:	Western Suburbs (N'cle) Leagues Club
ADDRESS:	88 Hobart Road, New Lambton, NSW, 2305
CONTACT & NO:	Mr Anthony Williams Development Manager, Graph Building 0484694122

1 EMAIL FROM JAMES SHELDON [NSW DEPT. PLANNING & ENVIRONMENT] TO ANTHONY WILLIAMS [GRAPH BUILDING], 30TH AUGUST 2018.

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. All trees likely to be affected by the construction work both on and off the subject site, were inspected and assessed from the ground. The VTA included all visible above ground parts of the tree including; exposed roots; trunk; branches; and, foliage.
- Diameter at breast height (DBH) and diameter at base –above the basal flare (DAB) measurements were taken and used to calculate the tree protection zones (TPZ) and structural root zones (SRZ) of each tree undertaken in accordance with AS 4970 – *Protection of trees on development sites.*
- Useful Life Expectancy (ULE) and TREE AZ ratings were assessed using several factors such as: location; species; age; health; and, structure.
- Retention values have also been determined.

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 located on Lot 100//DP1084939, 32 Industrial Drive, Mayfield. [FIGURE 2]

The subject trees are growing parallel to the eastern boundary of the site which it shares with William Street, Mayfield. The trees form a single row broken into two groups: Group 1contains Trees 1-4 that are located alongside a sealed car park; and, Group 2 contains Trees 5 – 20 that located next to Avon Oval. A pathway providing access from William Street to the club and associated facilities divides the two groups. All trees were found to be growing in a mulched garden bed with a concrete retaining wall located on the boundary approximately 2.6 metres from the centre of the trees.

FIGURE 1: OVERALL VIEW OF THE TREES FROM AVON OVAL

FIGURE 2
SITE AERIAL

SOURCE: NEARMAP,
USED UNDER LICENCE

6 TREE ASSESSMENT

A total of 20 trees have been assessed. The tree numbers and locations are shown in Figure 3 with an overall summary of data collected and assessment comments given in Appendix A.

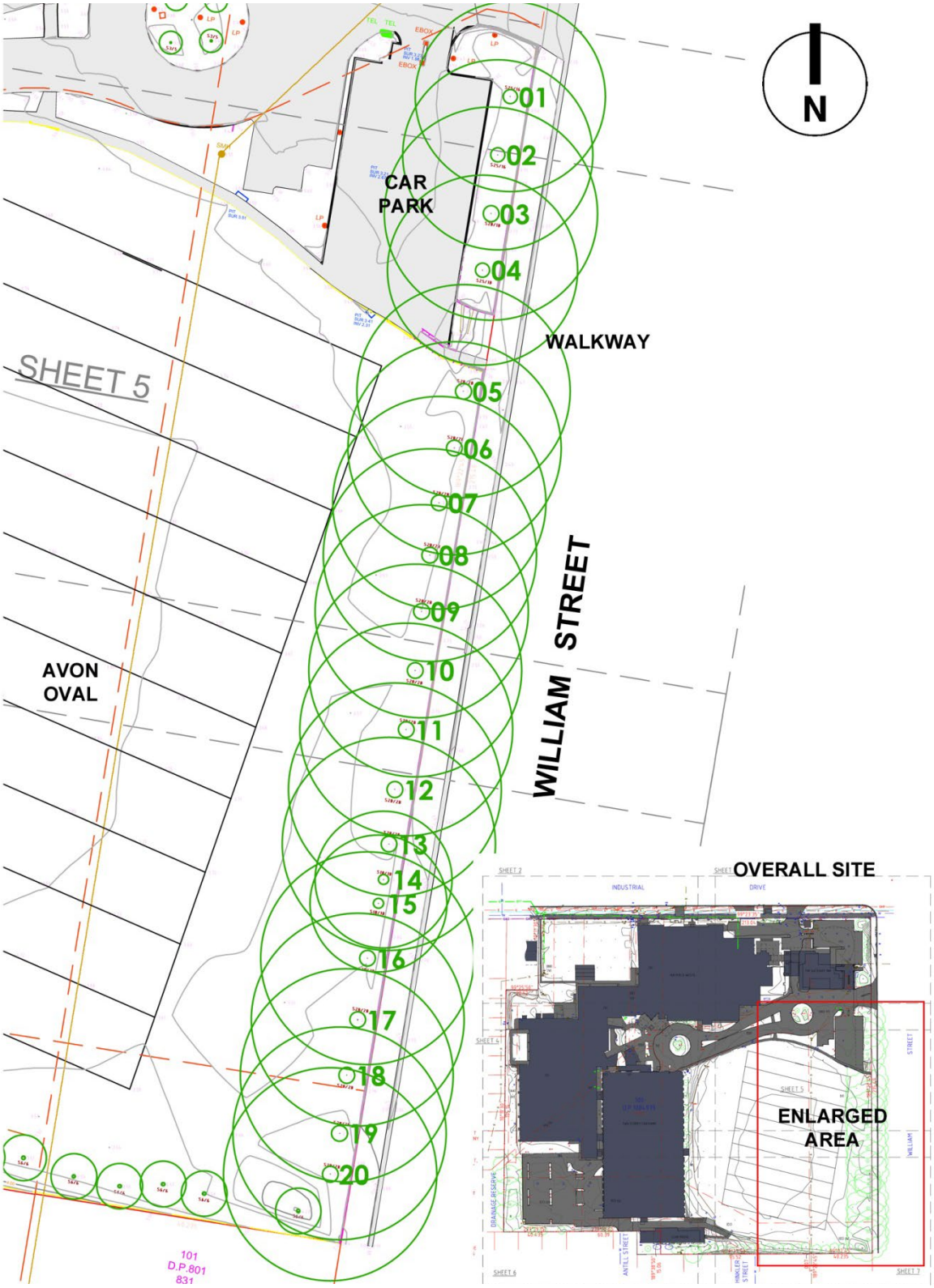

FIGURE 3: TREE LOCATIONS [SOURCE: DE WITT CONSULTING, DETAIL CONTOUR SURVEY, 18/01/2018]

Trees 1-13 and Trees 16-20 are all approximately the same size and appearance. They have been planted at roughly 7.5 metre (25') centres. These trees are generally healthy specimens with vigorous growth, free of pests and significant disease. In some locations where limbs have been lost and not properly attended to, decay has occurred but confined to small areas. All trees appeared to have had some branches removed via pruning. Some larger limbs have been removed to allow for a carport to be constructed near to Trees 1-4 or to relieve pressure on the boundary fence, often after the top rail has buckled. Large surface roots are common, generally up to 3-4 metres beyond the trunk, but do not appear to have sustained any damage assisted by the fact that mowing is not required to maintain turf underneath.

The most striking and common characteristic that these trees have is either multiple trunks or very short trunks with large, first order branches originating close to the base of the trees. Included bark is present in some branch unions but not common throughout.

It would seem that the majority of trees (i.e. Trees 1-13 and Trees 16-20) were planted in the late 1930-early 1940s as evidenced in the below aerial image taken c.1950 which shows the trees as being well established [FIGURE 4]. It has been suggested in a report prepared by Newcastle City Council (NCC, 2012) that the figs planted within Newcastle in this period were propagated from cuttings take from a specimen growing in a Brisbane Park. These trees, such as the former Laman Street and Tighes Hill TAFE figs, had a structural weakness resulting in an inherent defect in branch attachment, the impact of which has become apparent in recent years as the trees have matured and reached their full adult size. This inherent defect was compounded by pruning practises whereby trees were lopped with the intention of keeping trees neat and rounded. This practice stopped in the 1970 and so allowing trees to reach heights in excess of 25 metres.

FIGURE 4: c.1950 AERIAL VIEW OF STEWARTS & LLOYDS WITH AVON OVAL AND FIGS IN THE FOREGROUND
[SOURCE: NEWCASTLE REGION LIBRARY PICTURE GALLERY/ACCESSION No. 345 000321]

Trees 14 and 15 are younger specimens and planted at closer centres than the others (3-4 metres). It is assumed that these trees were planted to replace an earlier tree that had failed. These two trees are also vigorous and disease free although they show evidence of suppressed growth arising from the competition imposed by the nearby trees. Unlike the older trees, these two trees have taller trunks and a better structure.

FIGURE 5: TREE 4 WITH NUMEROUS MULTIPLE TRUNKS (TYPICAL).

FIGURE 6: TREE 2 WITH DETAIL OF MULTIPLE TRUNK BASE.

FIGURE 7: TREE 5 SHOWING SURFACE ROOTS WITH MULCHED GARDEN BED UNDERNEATH.

FIGURE 8: TREES 14 AND 15 WITH SINGLE TRUNKS ALBIET WITH PRONOUNCED LEANS AS THE RESULT OF COMPETITION FROM NEARBY MATURE TREES.

FIGURE 9: BRANCHES REMOVED TO TREE 3 TO RELIEVE PRESSURE ON BOUNDARY FENCE AND PREVENT FURTHER BUCKLING.

FIGURE 10: ONE OF THE WORSE EXAMPLES OF DECAY ORGINATING FROM THE PREVOIUS REMOVAL OF AN OVERHANG BRANCH.

7 TREE RETENTION VALUES

Tree retention values were assessed in accordance with standard practice using tree retention criteria as described by Morton, (2006) and applying the following table:-

TREE RETENTION VALUES[2]							
	LANDSCAPE SIGNIFICANCE READING						
TREE SUSTAINABILITY	1	2	3	4	5	6	7
Greater than 40 years		HIGH VALUE					
15 to 40 years			MODERATE VALUE				
5 to 15 years				LOW VALUE			
Less than 5 years					VERY LOW VALUE		
Dead or Hazardous							

Below is a summary of the trees with high/moderate retention values. This list is comprised generally of healthy trees with larger live crown sizes (i.e. >100m^2).

TREES WITH HIGH OR MODERATE RETENTION VALUES				
TREE NO.	SPECIES	SUSTAINABILITY PERIOD (YEARS)	LANDSCAPE SIGNIFICANCE RATING	RATING
1	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
2	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
3	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
4	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
5	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
6	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
7	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
8	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
9	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
10	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
11	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
12	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
13	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
14	*Ficus macrocarpa var. hillii*	>40 YEARS	4	MODERATE
15	*Ficus macrocarpa var. hillii*	>40 YEARS	4	MODERATE
16	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
17	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
18	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
19	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE
20	*Ficus macrocarpa var. hillii*	15-40 years	3	MODERATE

[2] TABLE ADAPTED FROM NEWCASTLE CITY COUNCIL'S NEWCASTLE URBAN FOREST TECHNICAL MANUAL, 2018 – PAGE 18

8 CONCLUSIONS

Trees 14 and 15 are relatively young trees with a ULE rating of 1A and having a life expectancy of over 40 years. Their main problem is suppressed growth arising from being planted between two mature, well established trees.

Trees 1–13 and Trees 16-20 have been assessed as having a ULE rating 2B with a life expectancy of between 15 and 40 years. This is mainly due to the poor structure of the trees as the result of multiple trunks and low branching. It is expected that these trees will live beyond the minimum 15 years as there are no major faults currently present although it is expected that as the trees continue to grow and age, the chance of failures occurring, will increase. The main concern would be increased end-weight to major branches resulting in them shearing and becoming hazardous.

The life expectancy of Trees 1-13 and Trees 16-20 could be extended by implementing the following recommendations:

- Routinely monitor the trees on an annual basis with inspections by an AQF5 arborist.
- Inspect the trees after heavy storms and where winds exceed 50 km/hr[3]. This may be carried out by an employee of the club with some familiarity of the trees. The aim of the inspection will be to identify obvious occurrences such as: cracked, damaged or hanging branches; splits in the trunk possibly leading to the separation of the multiple trunks; trunks with excessive leans; cracks forming in the ground (being evidence of loss of support by the soil/roots); and, anything that looks to be unusual. If detected, restrict access and have the trees inspected by an AQF5 arborist as soon as possible.
- Improve soil conditions around the bases of trees with regular mulching. An organic mulch shall be maintained at a thickness of 75mm for the purpose of retaining moisture, increasing biological activity within the soil and providing protection to the roots.
- Water the trees during periods of prolonged dry spells (i.e. no significant rain[4] in any 4 week period).
- Tidy up any broken branches by removing stubs in accordance with AS 4373 – *Pruning of amenity trees.*
- Reduce the end-weight on branches when there exists: a significant imbalance; faults within branches; or, where there is an increased hazard based on a heighten level of use.

All trees have been assessed as having a moderate retention value and therefore compensatory planting would be required should removal be deemed necessary. This would need to be negotiated with Newcastle City Council.

[3] 50km winds are considered as being a strong wind that is characterised by large branches in motion, whistling heard in overhead wires, umbrella use becomes difficult and flags beat against supports.

[4] Significant rains shall be determined by inspecting the soil underneath the mulch and determining whether moisture is present a minimum of 30mm below the surface.

9 REFERENCES

Barrell Tree Consultancy	*Tree AZ,* version 10.10-ANZ (2010)
Costello, L.R. & Jones, K. S.	*Reducing Infrastructure Damage By Tree Roots (A Compendium of Strategies)* WCISA, Porterville, 2003.
Draper, D. & Richards, P.A.	*Dictionary for Managing Trees in Urban Environments*. CSIRO, Collingwood Vic, 2009.
Link Tree System Ltd. (Barrell, J.)	*Arboricultural Journal* 1993, Vol. 17pp. 33-46, 01/03/98
Matheck, C. & Breloer, H.	*The Body Language of Trees: A Handbook for Failure Analysis.*TSO, London, England.
Matheny, N. & Clark, J.R.	*Trees and Development (A Technical Guide to Preservation of Trees During Land Development),* ISA, Illinois, 1998.
Morton, A.	*"Determining the Retention Value of Trees on Development Sites", The 7th National Street Tree Symposium,* Treenet, 2016
Newcastle City Council	*Tree Failure Casebook History: Informing Tree Management in Newcastle, 2000-2011,* 2012

10 APPENDICES

APPENDIX A – SUMMARY TREE ASSESSMENT TABLE

TREE ASSESSMENT SUMMARY

No	BOTANICAL NAME	COMMON NAME	AGE CLASS	HEIGHT [M]	DBH[1] [MM]	TPZ [M]	DAB[2] [M]	SRZ [M]	ULE	TREE AZ	STRUCT	HEALTH	COMMENTS
01.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	16	1390	15*	1.9	4.33	2B	Z5	P	Av	TREES GROWING IN GARDEN BED EAST OF SEALED CAR PARK WITH BANK OF CAR-PORTS CLOSE TO TREES. EVIDENCE OF ROOTS EXTENDING UNDER BITUMEN AND CAUSING DAMAGE. THE ROOTS ARE CONFINED ON THE EASTERN SIDE BY A MASS CONCRETE, WALL LOCATED ON THE BOUNDARY AND BEING APPROX 2.6 METRES FROM THE TREE CENTRES. THE TREES ARE MULTI-TRUNKED WITH MULTIPLE FIRST ORDER BRANCHES OCCURRING CLOSE TO THE BASE, SOME WITH MINOR INCLUDED BARK. EVIDENCE OF PREVIOUS BRANCH LOSS SOME PROPERLY PRUNED, OTHERS WITH BRANCH TEARS AND EXPOSED STUBS. OVERALL VIGOUR IS EXCELLENT.
02.	*Ficus macrocarpa var. hillii*	Hills weeping Fig	M	17	1130	15*	1.7	4.14	2B	Z5	P	Av	
03.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1490	15*	2.2	4.61	2B	Z5	P	Av	
04.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1040	12.48	1.46	3.88	2B	Z5	P	Av	
05.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	16	1460	15*	2.06	4.48	2B	Z5	P	Av	TREES GROWING IN GARDEN BED EAST OF A WELL MAINTAINED AND IRRIGATED SPORTS OVAL. SURFACE ROOTS EVIDENT GROWING IN ALL DIRECTIONS. IT IS ASSUMED THAT THE MAJOR OF THE ROOT PLATE WOULD BE BIASED TO THE WEST BENEFITTING FROM THE ADDITIONAL WATERING AND FERTILISING OF THE OVAL. THE ROOTS ARE CONFINED ON THE EASTERN SIDE BY A MASS CONCRETE, WALL LOCATED ON THE BOUNDARY AND BEING APPROX 2.6 METRES FROM THE TREE CENTRES. THE TREES ARE MULTI-TRUNKED WITH MULTIPLE FIRST ORDER BRANCHES OCCURRING CLOSE TO THE BASE, SOME WITH MINOR INCLUDED BARK. EVIDENCE OF PREVIOUS BRANCH LOSS SOME PROPERLY PRUNED, OTHERS WITH BRANCH TEARS AND EXPOSED STUBS. OVERALL VIGOUR IS EXCELLENT. TREES 12 AND 13 HAVE CAVITIES FROM PAST DECAY (NO LONGER ACTIVE). MINOR DEADWOOD THROUGHOUT – NOTHING SIGNIFICANT. SURFACE ROOTS ARE NUMEROUS AND PRESENT IN MULCHED GARDEN BED AND IN ADJOINING ROAD VERGE. IT WOULD APPAER THAT SECTIONS OF THE ROAD SURFACE IN WILLIAMS STREET HAVE BEEN REPAIRED, PRESUMABLY DUE TO DAMAGE CAUSED BY THE ROOTS OF THE FIGS. (TO BE CONFIRMED.)
06.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1410	15*	1.95	4.38	2B	Z5	P	Av	
07.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1730	15*	1.7	4.14	2B	Z5	P	Av	
08.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	19	1300	15*	1.89	4.32	2B	Z5	P	Av	
09.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	20	1530	15*	2.5	4.86	2B	Z5	P	Av	
10.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	20	1470	15*	2.3	4.70	2B	Z5	P	Av	
11.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	19	1420	15*	2.1	4.52	2B	Z5	P	Av	
12.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1250	15*	1.55	3.98	2B	Z5	P	Av	
13.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	17	1100	15*	1.4	3.81	2B	Z5	P	Av	
14.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	16	400	4.80	0.53	2.53	1A	A2	Av	Av	THESE TWO TREES APPEAR TO HAVE BEEN PLANTED TO REPLACE A FAILED, FORMER TREE. THESE TREES HAVE A WELL-DEVELOPED MAIN TRUNKS ALBIET SLIGHTLY TWISTED DUE TO COMPETITION FROM ADJOINING TREES.
15.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	16	460	5.52	0.49	2.45	1A	A2	Av	Av	
16.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	17	1450	15*	2.2	4.61	2B	Z5	P	Av	
17.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1220	15*	1.47	3.89	2B	Z5	P	Av	
18.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1340	15*	1.95	4.38	2B	Z5	P	Av	SAME COMMENTS FOR TREES 5-13 APPLY ALSO FOR THESE TREES.
19.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	18	1270	15*	1.6	4.03	2B	Z5	P	Av	
20.	*Ficus macrocarpa var. hillii*	Hills Weeping Fig	M	17	1350	15*	1.87	4.3	2B	Z5	P	Av	

1. MULTI TRUNKED TREES HAVE AN AVERAGE MEASUREMENT CALCULATED IN ACCORDANCE WITH AS 4970. 2. DAB = DIAMETER ABOVE BUTTRESS USED WHEN CALCULATING SRZ.

LEGEND

AGE CLASS	**Y**	**YOUNG** SAPLING/HAS NOT REACHED 1ST ADULT FORM	**SM**	**SEMI-MATURE** DBH < 300mm/APPROACHING FULL HEIGHT	**M**	**MATURE** DBH BET. 300 -700/APPROACH. MAX HT & SPREAD	**OM**	**OVER-MATURE/SENESCENT** LGE DBH, LGE BRANCH FAILURES/STRUCT FAULTS
STRUCTURE	**P**	**POOR** NUMEROUS STRUCTURAL FAULTS/HIGH RISK OF SEVERE FAILURE	**F**	**FAIR** STRUCTURAL FAULTS PRESENT /MODERATE RISK OF SEVERE FAILURE	**Av**	**AVERAGE** SOME MINOR FAULTS /MODERATE RISK FOR MAJOR FAILURE	**Ex**	**EXCELLENT** SOME MINOR FAULTS/LOW-MOD RISK OF MINOR FAILURES
HEALTH	**P**	**POOR** SIG. SIGNS OF LOST VIGOUR EG DIEBACK, REDUCED CANOPY	**F**	**FAIR** SIGNS OF REDUCED VIGOUR EG LEAF UNDER STRESS, STUNTING	**Av**	**AVERAGE** LOCALISED PATCHES OF LOST VIGOUR/NOT WIDESPREAD	**Ex**	**EXCELLENT** NO EVIDENCE OF STRESS/SIGNS OF NEW GROWTH/WIDESPREAD
RETENTION	**TREES TO BE RETAINED**		**TREES TO BE REMOVED**			**THREATENED TREE**		

APPENDIX B – ULE CLASSIFICATIONS/TREE AZ RATINGS

The following tables provide supplementary information to assist in interpreting the previous tables.

ULE CLASSIFICATIONS	
1	LONG ULE : GREATER THAN 40 YEARS [>40] TREES THAT APPEAR TO BE RETAINABLE WITH AN ACCEPTABLE LEVEL OF RISK FOR MORE THAN 40 YEARS
A	Structurally sound trees located in positions that can accommodate future growth.
B	Storm damaged or defective trees that could be made suitable for retention by remedial tree surgery.
C	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.
2	MEDIUM ULE : MORE THAN 15 YEARS, LESS THAN 40 YEARS [15 - 40] TREES THAT APPEAR TO BE RETAINABLE WITH AN ACCEPTABLE LEVEL OF RISK FOR 15 TO 40 YEARS
A	Trees that may only live between 15 and 40 more years
B	Trees that may live for more than 40 years but would be removed to allow the safe development of more suitable individuals
C	Trees that may live for more than 40 years but would be removed during the course of normal management for safety or nuisance reasons
D	Storm damaged or defective trees that can be made suitable for retention by remedial work
3	SHORT ULE : MORE THAN 5 YEARS, LESS THAN 15 YEARS [5 -15] TREES THAT APPEAR TO BE RETAINABLE WITH AN ACCEPTABLE LEVEL OF RISK FOR 5 TO 15 YEARS
A	Trees that may only live between 5 and 15 more years
B	Trees that may live for more than 15 years but would be removed to allow the safe development of more suitable individuals
C	Trees that may live for more than 15 years but would be removed during the course of normal management for safety or nuisance reasons
D	Storm damaged or defective trees that require substantial remedial work to make safe, and are only suitable for retention in the short term
4	REMOVE : LESS THAN 5 YEARS [<5] TREES WITH A HIGH LEVEL OF RISK THAT WOULD NEED REMOVING WITHIN THE NEXT 5 YEARS
A	Dead trees
B	Dying or suppressed and declining trees through disease or inhospitable conditions
C	Dangerous trees through instability or recent loss of adjacent trees
D	Dangerous trees through structural defects, including cavities, decay, included bark, wounds or poor form
E	Damaged trees that are considered unsafe to retain
F	Trees that will become dangerous after removal of others for the reasons given in A to E

REFERENCE: **LINK TREE SYSTEM LTD. JEREMY BARRELL, ARBORICULTURAL JOURNAL 1993, VOL. 17PP. 33-46, 01/03/98**

TREE A-Z CATEGORIES

CATEGORY Z: UNIMPORTANT TREES NOT WORTHY OF BEING A MATERIAL CONSTRAINT	
Local policy exemptions: Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species.	
Z1	Young or insignificant small trees, i.e. below the local size threshold for legal protection.
Z2	Too close to a building i.e. exempt from legal protection because of proximity.
Z3	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.
High risk of death or failure: Trees that are likely to be removed within 10 years because of acute health issues or severe structural failure	
Z4	Dead, dying, diseased or declining
Z5	Severe damage and/or structural defects where a high risk of failure **cannot** be satisfactorily reduced by reasonable remediation care, i.e. cavities, decay, included bark, wounds, excessive imbalance, overgrown and vulnerable to adverse weather conditions.
Z6	Instability, i.e. poor anchorage and/or increased exposure.
Excessive nuisance: Trees that are likely to be removed within 10 years because of unacceptable impact on people	
Z7	Excessive, severe and intolerable inconvenience to the extent that a locally recognised court or tribunal would be likely to authorise removal, i.e. dominance, debris and/or interference.
Z8	Excessive, severe and intolerable damage to property to the extent that a locally recognised court or tribunal would be likely to authorise removal, i.e. severe structural damage to surfacing and buildings.
Good management: Trees that are likely to be removed within 10 years through responsible management of the tree population	
Z9	Severe damage and/or structural defects where high risk of failure can be **temporarily** reduces by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, overgrown and vulnerable to adverse weather conditions.
Z10	Poor condition or location with a low potential for recovery or improvement, i.e. dominated by adjacent trees or buildings and/or poor architectural framework.
Z11	Removal would benefit better adjacent trees, i.e. relieve physical interference and/or suppression.
Z12	Unacceptably expensive to retain, i.e. severe defects requiring excessive levels of maintenance.

NOTE: Z trees with a high risk of death/failure (Z4, Z5 & Z6) or causing severe inconvenience (Z7 & Z8) at the time of assessment and need an urgent risk assessment can be designated as ZZ. ZZ trees are likely to be unsuitable for retention and at the bottom of the categorisation hierarchy. In contrast, although Z trees are not worthy of influencing new designs, urgent removal is not essential and they could be retained in the short term, if appropriate.

CATEGORY A: IMPORTANT TREES SUITABLE FOR RETENTION FOR MORE THAN 10 YEARS AND WORTHY OF BEING A MATERIAL CONSTRAINT	
A1	No significant defects and could be retained with minimal remedial care.
A2	Minor defects that could be addressed remedial care and/or work to adjacent trees.
A3	Special significance for historical, cultural, commemorative or rarity reasons that would warrant extraordinary efforts to retain for more than 10 years.
A4	Trees that may be worthy of legal protection form ecological reasons (Advisory requiring specialist assessment)

NOTE: Category A1 trees that are already large and exceptional, or have potential to become so with minimal maintenance, can be designated as AA at the discretion of the assessor. Although all A trees are sufficiently important to be material constraints, AA trees are at the top of the categorisation hierarchy and should be given the most weight in any selection process.

CAUTION: Tree AZ assessments must be carried out by a competent person qualified and experienced in arboriculture. The preceding category descriptions are designed to be a brief field reference and are not to be self explanatory. They must be read in conjunction with the most current explanations published at www.treeaz.com