

JACKSONS NATURE WORKS

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ARBORICULTURAL IMPACT ASSESSMENT REPORT

At

6 Miriam Street, Bass Hill

Prepared for

Rev & Mrs M Sleiman

28th February 2022

Prepared by: Ross Jackson

Graduate Certificate in Arboriculture (AQF L 8)

Dip. Horticulture (Arboriculture – AQF L 5)

Certificate III in Horticulture (Arboriculture)

Certificate in Horticulture (Landscape)

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Member of the Australian Institute of Horticulture

Consulting Arborist Nos.1695

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DISCLAIMER

The Client acknowledges that this Report, and any opinions, advice or recommendations expressed or given in it, are the information supplied by the Client and on the data inspections, measurements and analysis carried out or obtained by Jacksons Nature Works (JNW) and referred to in the Report. The Client should rely on The Report, and on its contents, only to that extent.

Care has been taken to obtain all information from reliable sources. All data has been verified as far as possible. However, Ross Jackson – Consulting Arborist can neither guarantee nor be responsible for the accuracy of information provided by others.

Unless stated otherwise:

- Information contained in this report covers only the trees examined and reflects the health and structure of the trees at the time of inspection. The documented, observations, results, recommendations and conclusions given may vary after the site visit due to environmental conditions.
- The inspection was limited to visual examination from the base of the subject tree without dissection, probing or coring.
- There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future; &
- Unauthorised use of this report in any form is prohibited and remains the intellectual property of Jacksons Nature Works until all costs are settled.

Ross Jackson

Consulting Arborist

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1. BACKGROUND and METHODOLOGY

- 1.1 The purpose of this Tree Report is to inform and accompany the development application works at 6 Miriam Street, Bass Hill – The Site.
- 1.2 The report was commissioned by Rev M Sleiman to respond to Council's requirements to consider the development impacts on trees located on and around the Site.
- 1.3 This report outlines the health and condition of the subject trees, the remaining life expectancy of the trees, identifies any visible defects or other problems, describes which trees require pruning, removal, retention or represent a potential hazard and comments on the impact on these trees in relation to the works proposed. The report also provides recommended tree protection measures (Tree Management Plan) to ensure the long-term preservation of the trees to be retained where appropriate.
- 1.4 The Site is a residential site with gardens at Bass Hill.
- 1.5 The trees were identified by ground level Visual Tree Assessment (VTA) ¹ only in the data collection, taken on 24.2.2022. No aerial (climbing) was undertaken.
- 1.6 All site photographs were taken by the author at the site. All photographs were taken using a digital camera (Canon 7D) with no image enhancement either within the camera or on computer.
- 1.7 The subject trees were located on plans supplied. The trees have been plotted and can be found on Annexure B – Tree Location Plan.
- 1.8 The trees were identified and their genus species and common name used. The trees were identified by the use of data collected and compared to G Burnie, S Forrester et al (1997) **Botanica** Random House, Milsons Point, NSW, Australia.
- 1.9 DBH. The Trunk Diameter at Breast Height (1.4 metres above ground level) in centimetres was measured over bark using a metal tape which automatically converts to diameter and assumes a circular trunk cross section.
- 1.10 DRB. The trunk Diameter above Root Buttress in centimetres was measured over bark using a metal tape which automatically converts to diameter and assumes a circular trunk cross section.
- 1.11 Height. Estimated overall height in metres.
- 1.12 Spread. Measured with a metal tape measure and shown in metres.
- 1.13 Useful Life Expectancy (ULE)².
A systematic pre-development tree assessment procedure developed by Jeremy Barrell, Hampshire, England. It gives a length of time that the Arborist feels a

¹ Mattheck, Dr. Clause & Breloer, Helge (1994) – Sixth Edition (2001) **The Body Language of Trees – A Handbook for Failure Analysis** The Stationery Office, London, England

² Barrell, Jeremy (1996, 2001) **Pre-development Tree Assessment** Proceedings of the International Conference on Trees and Building Sites (Chicago) International Society of Arboriculture, Illinois, USA

particular tree can be retained with an acceptable level of risk based on the information available at the time of the inspection. SULE ratings are Long (retainable for 40 years or more with an acceptable level of risk), Medium, (retainable for 16 – 39 years), Short (retainable for 5 – 15 years) and Removal (tree requiring immediate removal due to imminent hazard or absolute unsuitability).

1.14 The Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) have been calculated in terms of AS 4970 – 2009 Protection of trees on development site Section 3.

1.15 To prepare this report we have reviewed the following documents:

- Architectural plans by Allcastle Homes dated 14.1.2022
- The New City of Canterbury Bankstown, (Bankstown Development Control Plan 2005 Part E2 Tree Preservation Order) [TPO]; &
- Australian Standard AS 4970 – 2009 Protection of trees on development sites.

2. OBSERVATIONS as seen on the days of inspection (24.2.2022)

2.1 Our tree observations can be found in Annexure A.

3. DISCUSSIONS

3.1 We have been commissioned by Rev M Sleiman, to examine the health and condition of the trees on and around this development site.

It is proposed to demolish the existing and the construction of a dual occupancy on Site (development works).

3.2 We have examined the trees on site and can suggest the following considerations for the development works:

1. Tree 1 *Callistemon viminalis* is a street tree in front of the Site – refer plate 1.

The existing driveway will be moved towards this tree and a new driveway constructed on the east of this tree for Unit 2 – refer Annexure C.

These works are outside the TPZ of this tree, thus ensuring its retention.

Note this tree for retention and protection in the Tree Management Plan (TMP).



Plate 1: Street tree.

2. Tree 2 *Photinia glabra* is showing good condition and form – refer plate 2.

The widening of the driveway has an encroachment of less than 10% of its TPZ, thus ensuring retention.

Note this tree for protection and retention in the TMP.



Plate 2: Tree 2.

3. Tree 3 *Callistemon citrinus* is showing good vitality with the typical internal dieback and deadwood – refer plate 3.

This tree is within the eastern corner of Unit 2, impacted by the driveway and access path to the rear of Unit 2 – refer Annexure C.

This tree is assessed to be of low retention value and can be easily replaced in the landscaping works.

Note this tree FOR removal in the TMP.



Plate 3: Tree 3.

4. The following trees are classified as Exempt trees in Council's DCP and can be removed: Tree 4 *Camellia sasanqua* (<3m from enclosed wall), tree 5 *Psidium guajava* (fruit tree), tree 6 *Prunus sp.* (fruit tree), tree 7 *Ligustrum lucidum* (Noxious Weed), tree 9 *Syagrus romanzoffiana* (exempt species), tree 11 *Syagrus romanzoffiana* (exempt species).

To undertake the development works the following Exempt tree will be removed: Tree 4 & 5.

Tree 7 must be removed as it is a declared Noxious Weed.

The remaining Exempt trees will be retained: Trees 6, 9 & 11.

Note trees 4 & 5 for removal in the TMP.

5. Tree 8 *Eucalyptus botryoides* and tree 10 *Eucalyptus paniculata* are located along the rear boundary – refer plate 4.

The development works are well away from these trees and outside their TPZ, thus ensuring retention.

Note these trees for retention and protection in the TMP.



Plate 4: Trees 8 & 10.

6. Tree 12 *Melaleuca linariifolia* is showing fair condition and is located at the rear of the existing dwelling – refer plate 5.

The construction of Unit 2 has encroachment of 25% of this tree's TPZ which is assessed to be a major encroachment as described in Section 3 of AS 4970 – 2009.

This tree is located along the NSW coast on heavy soils and into Queensland³.

In this location it appears to be a planted specimen, rather than a remnant tree, therefore it is considered to be neither rare nor an endangered tree and can be supported for removal to allow the development to proceed.

There is ample space on Site to replant an endemic species found in the Bankstown area, e.g., *Eucalyptus moluccana*, *Eucalyptus tereticornis*, *Backhousia myrtifolia* or *Casuarina glauca*⁴

Note this tree for removal in the TMP with the replanting of one endemic tree.

³ Fairley. A. & Moore. P. (2010). Native Plants of the Sydney Region. Jacana Books / Allen & Unwin. Crows Nest. NSW.

⁴ Benson. D. & Howell. J. (1995). Taken for Granted The Bushland of Sydney and its Suburbs. Kangaroo Press.



Plate 5: Tree 12.

4. RECOMMENDATIONS

The following recommendations are advised:

- a) Retain the following council street tree: Tree 1.
- b) Remove the following tree on site: Tree 3, 4, 5, 7 & 12.
- c) Retain the following trees on site: Tree 2, 6, 8, 9, 10 & 11.
- d) Tree removal work shall be carried out by an experienced tree surgeon in accordance with *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal (2016)*.
- e) That one tree be replanted on site to compensate for the removal of Tree 12 and selected from the following species: *Eucalyptus moluccana*, *Eucalyptus tereticornis*, *Backhousia myrtifolia* or *Casuarina glauca*.
- f) Install the following Tree Protection Measures around the retained street tree: Tree 1, tree protection measures shall be a temporary fence of chain wire panels 1.8 metres in height (or equivalent), supported by steel stakes or concrete blocks as required and fastened together and supported to prevent sideways movement. Existing boundary fences or walls are to be retained shall constitute part of the tree protection fence where appropriate. A sign is to be erected on the tree protection fences of the trees to be retained that the trees are covered by Council's tree preservation orders and that "No Access" is permitted into the tree protection zone – refer Annexure D.
- g) Install the following Tree Protection Measures around the retained trees on site: Tree 6, 8, 9, 10, 11, tree protection measures shall be a temporary fence of chain wire panels 1.8 metres in height (or equivalent), supported by steel stakes or concrete blocks as required and fastened together and supported to prevent sideways movement. A sign is to be erected on the tree protection fences of the trees to be retained that the trees are covered by Council's tree preservation orders and that "No Access" is permitted into the tree protection zone – refer Annexure D.

- h) That a Tree Management Plan be prepared as part of the Construction Certificate by a consulting arborist who holds the Diploma in Horticulture (Arboriculture), Level 5 or above under the Australian Qualification Framework.
- i) An AQF Level 5 Project Arborist shall be engaged to supervise the building works and certify compliance with all Tree Protection Measures.
- j) The tree location plan can be found on Annexure B; &
- k) The tree impact plan can be found on Annexure C.



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Graduate Certificate in Arboriculture AQF Level 8 (Honours)
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Certificate III in Horticulture
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Annexure A: Observations as seen on the day of inspection of trees

Tree No	Botanical Name	Age Class	Height (m)	Spread (m)	D.B.H. (cm)	D.R.B. (cm)	TPZ (radius m)	SRZ (radius m)	Condition comments as seen on site	ULE
1	<i>Callistemon viminalis</i>	M	4	2	15	20	2.0	1.7	F vitality, ST	2
2	<i>Photinia glabra</i>	M	3	3	4 x 15	40	3.6	2.3	G vitality	2
3	<i>Callistemon citrinus</i>	M	4	4	30	35	3.6	2.1	G vitality	2
4	<i>Camellia sasanqua</i>	M	4	3	15, 10	20	2.2	1.7	<3m from house = Exempt	4
5	<i>Psidium guajava</i>	M	4	4	3 x 10	30	2.1	2.0	Exempt (fruit tree)	4
6	<i>Prunus sp.</i>	M	6	6	35	40	4.2	2.3	F vitality. Exempt (fruit tree)	3
7	<i>Ligustrum lucidum</i>	M	6	-	-	-	-	-	Exempt species	4
8	<i>Eucalyptus botryoides</i>	M	7	5	35	40	4.2	2.3	F vitality, suppressed	2
9	<i>Syagrus romanzoffiana</i>	M	7	-	-	-	2.5	1.5	Exempt species	4
10	<i>Eucalyptus paniculata</i>	M	12	10	55	65	6.6	2.8	G vitality	1
11	<i>Syagrus romanzoffiana</i>	M	8	-	-	-	2.5	1.5	Exempt species	4
12	<i>Melaleuca linariifolia</i>	M	8	8	45	50	5.4	2.5	F vitality	3

Terms used in Tree Survey & Report:

Age Class

(Y) – Young refers to a well-established but juvenile tree. Less than 1/3 life expectancy

(SM) – Semi-mature refers to a tree at growth stages between immaturity and full size. A tree has reached First Adult Form i.e. displays adult characteristics. 1/3 to 2/3 life expectancy

(M)- Mature refers to a full size tree with some capacity for future growth. Older than 2/3 life expectancy

(OM) – Over-mature refers to a tree approaching decline or already declining. Older than 2/3 life expectancy and showing signs of irreversible decline.

Health refers to a tree's vigour, growth rate, disease and/or insects.

Vitality summarises observations about the health and structure of the tree on a scale of: **(G) Good, (F) Fair, (P) Poor & (D) Dead.**

Good: Tree is generally healthy and free from obvious signs of structural weaknesses or significant effects of pests and diseases or infection;

Fair: Tree is generally vigorous although has some indication of being adversely affected by the early effects of disease or infection or environmental or mechanical damage. Appropriate tree maintenance can usually improve overall health and halt decline;

Poor: Tree in decline and is not likely to improve with reasonable maintenance practices or has a structural fault such as bark inclusion;

Dead: Tree no longer capable of sustained growth.

Deadwood (DW) – deadwood found in canopy as a percentage.

Over Head Power Lines (OHPL) – upper canopy pruned to accommodate power lines at a given height.

Height expressed in metres refers to estimated overall height of tree.

Next Door tree (ND) – tree located in the neighbour's property.

Street Tree (ST) – tree located in Councils footpath reserve.

Spread expressed in metres refers to estimated spread of crown at the drip line.

(DBH) Diameter at Breast Height expressed in millimetres refers to the trunk diameter at 1.4 metres above ground level. Where there are multiple trunks the combined diameter has been calculated in terms of Appendix A – AS 4970 – 2009, shown in brackets.

(DRB) Diameter above Root Buttress expressed in millimetres refers to the trunk diameter above root buttress.

(TPZ) Tree Protection Zone & Structural Root Zone (SRZ) as defined by AS 4970 – 2009 Section 3

(ULE) The various ULE categories indicate the useful life anticipated for an individual tree or trees assessed as a group. Factors such as the location, age, condition and vitality of the tree are significant to the determination of this rating. Other influences such as the tree's effect on better specimens and the economics of managing the tree successfully in its location are also relevant to ULE (Barrell 1993, 1995, 2001).

ULE RATING (UPDATED 1/4/01) BARRELL

1.Long ULE: Trees that appear to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.	2.Medium ULE: Trees that appear to be retainable at the time of assessment for more than 15-40 years with an acceptable level of risk.	3.Short ULE: Trees that appear to be retainable at the time of assessment for more than 5-15 years with an acceptable level of risk.	4.Remove: Trees that should be removed within the next 5 years.	5.Small, young or regularly pruned: Trees that can be reliably moved or replaced.
(A) Structurally sound trees located in positions that can accommodate future growth	(A) Trees that may only live between 15 and 40 more years.	(A) Trees that may only live between 5 and 15 more years.	(A) Dead, dying, suppressed or declining trees because of disease or inhospitable conditions.	(A) Small trees less than 5 Metres in height.
(B) Trees that could be made suitable for retention in the long term by remedial tree care.	(B) Trees that could live for more than 40 years but may be removed for safety or nuisance reasons.	(B) Trees that could live for more than 15 years but may be removed for safety or nuisance reasons.	(B) Dangerous trees because of instability or recent loss of adjacent trees.	(B) Young trees less than 15 years old but over 5 metres in height.
(C) Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.	(C) Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	(C) Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	(C) Dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form.	(C) Formal hedges and trees intended for regular pruning to artificially control growth.
	(D) Trees that could be made suitable for retention in the medium term by remedial tree care.	(D) Trees that require substantial remedial tree care and are only suitable for retention in the short term.	(D) Damaged trees that are clearly not safe to retain.	
			(E) Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	
			(F) Trees that are damaging or may cause damage to existing structures within 5 years.	
			(G) Trees that will become dangerous after removal of other trees for the reasons given in (A) to (F).	
			(H) Trees in categories (A) to (G) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review.	

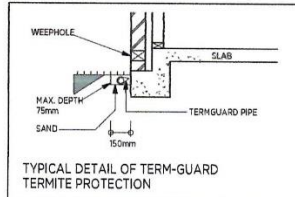
Annexure C: Tree impact plan

FLOOR COVERING			
UNIT 1			
GROUND FLOOR		FIRST FLOOR	
LOBBY	CARPET	REAR	CARPET

EXTERNAL COLOUR	
ROOF	EXTERNAL WALL
LIGHT/MEDIUM/DARK	LIGHT/MEDIUM/DARK

FLOOR COVERING			
UNIT 2			
GROUND FLOOR		FIRST FLOOR	
LOUNGE	CARPET	BEDS	CARPET

EXTERNAL COLOUR	
ROOF	EXTERNAL WALL
LIGHT/MEDIUM/DARK	LIGHT/MEDIUM/DARK



NOTE:
STORMWATER TO BE CONNECTED
TO RAINWATER TANK, OVERFLOW
TO HYDRAULIC'S DETAIL (DESIGN &
CONSTRUCT BY OWNER)

RAINWATER DUAL PLUMBING
CONNECTED AS PER BASIX
CERTIFICATE










ALL WORKS TO BE CARRIED OUT
IN ACCORDANCE WITH
REQUIREMENTS SET OUT ON THE
ABSA CERTIFICATE

L.G.A : BANKSTOWN COUNCIL
SITE CALCULATIONS

A. UNIT 1 GROUND FLOOR AREA	107.90 m ²
B. UNIT 1 FIRST FLOOR AREA	86.27 m ²
C. UNIT 2 GROUND FLOOR AREA	107.90 m ²
D. UNIT 2 FIRST FLOOR AREA	86.27 m ²
E. TOTAL BUILDING AREA	388.14 m²
F. UNIT 1 GARAGE AREA	17.95 m ²
G. UNIT 2 GARAGE AREA	17.95 m ²
H. UNIT 1 PORCH AREA	1.79 m ²
I. UNIT 2 PORCH AREA	1.79 m ²
J. UNIT 1 ALFRESCO AREA	19.74 m ²
K. UNIT 2 ALFRESCO AREA	19.74 m ²
L. EXT WALLS/VOIDS AREA	36.72 m ²
M. DRIVEWAY AREA	35.00 m ²
N. SITE AREA	633.00 m ²

$$\text{FSR: } (E - (F+G+H+I+J+K+L)) / N$$

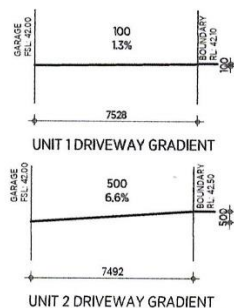
SITE COVERAGE: (A+C+M) / N	39.59 %
LANDSCAPE:	60.41 %

KEY	
ET : Electric Turret	 LIN : Lintel
LP : Light Pole	 KO : Kerb Outlet
PP : Power Pole	 SIP : Sewer Insp Point
GM : Gas Meter	 SMS : Sewer Maint. Shaft
HY : Hydrant	 SMH : Sewer Manhole
SV : Stop Valve	 TEL : Telecom Pit
WC : Water Connection	 PC : Pram Crossing
WM : Water Meter	 VC : Vehicle Crossing
SWP : Stormwater Pit	 DH&W: Drillhole & Wing

OWNER TO IDENTIFY TREE SPECIES WITHIN
3M OF HOUSE (SHOWN DASHED) TREES TO
BE REMOVED (BY OWNER) MUST BE
CHECKED AGAINST COUNCIL'S PROTECTED
REGISTER PRIOR TO APPROVAL

EXISTING HOUSE, PAVING,
DRIVEWAY, SHEDS ETC
(SHOWN DOTTED) TO BE
REMOVED BY OWNER
AFTER APPROVAL PRIOR
TO CONSTRUCTION

H CLASS SLAB



**NOTE: REFER TO ELECTRICAL PLAN
PREPARED BY CLIPSAL FOR ALL ELECTRICAL
REQUIREMENTS**

OWNER(S) ACCEPTANCE

WE HEREBY APPROVE OUR BUILDING PLANS
TO BE BUILT ON OUR LAND

WE HAVE STUDIED THE PLANS AND HAVE
HAD THEM EXPLAINED TO US AND ACCEPT
AND APPROVE THE FRONT/REAR/SIDE
SETBACKS AND CUT/FILL LEVELS AS SHOWN
ON THE PLAN,
WE ACCEPT NO CHANGES CAN BE MADE.

WE HAVE HAD THE DRIVEWAY GRADIENT EXPLAINED.

WE HAVE HAD THE BASIX WATER TANK OR
HE DUAL WATER PLUMBING EXPLAINED.

WE HAVE HAD OUR CHOSEN
ALTERATIONS/VARIATIONS EXPLAINED TO US.

WE HEREBY APPROVE OUR PLANS AND GIVE
CONSENT TO ALLCASTLE HOMES P/L TO
FORGE OUR PLANS TO APPROVING
AUTHORITY FOR A DEVELOPMENT
APPLICATION.

WE UNDERSTAND THAT NO FURTHER PHYSICAL CHANGES CAN BE MADE. WE UNDERSTAND THAT DUE TO CONSTRUCTION CONSTRAINTS, THE BUILDER MAY VARY PLANS ON SITE TO SUIT.

WE UNDERSTAND ANY SURFACE DRAINAGE
OR RETAINING WALLS REQUIRED BY
APPROVING AUTHORITY ARE TO BE
COMPLETED WITH LANDSCAPING BY OWNER

OWNER _____ OWNER _____ DATE _____

14.01.22	A (T02)	FIRST DRAW
DATE	ISSUE	REVISION

NOTE: ALL WORKS TO COMPLY WITH RELEVANT NCC AND AUSTRALIAN STANDARDS
- NOTE: ALL WALLS WITHIN 900mm OF BOUNDARY TO BE 60/60/60 - ALL DIMENSIONS
ARE IN MILLIMETRES. - ALL DIMENSIONS ARE FRAME TO FRAME. DO NOT SCALE - USE
WRITTEN DIMENSIONS. - THIS DRAWING IS SUBJECT TO COPYRIGHT LAWS AND MAY NOT
BE COPIED WITHOUT THE WRITTEN PERMISSION OF ALLCASTLE HOMES PTY LTD.
- 4RN 12057 761 729

ALLCASTLE HOMES PTY LTD WILL TAKE NO RESPONSIBILITY FOR ANY VERBAL DISCUSSIONS OR INSTRUCTIONS. ALL CHANGES AND SPECIAL INCLUSIONS MUST BE DOCUMENTED IN WRITING. IT IS THE RESPONSIBILITY OF THE OWNER TO ENSURE THAT THE LAYOUT AND ALL SPECIAL INCLUSIONS ARE CORRECT. NOTE: WET AREA SYMBOLS ARE STRICTLY SYMBOLIC, OWNERS TO CONFIRM WET AREA ITEMS WITH SELECTIONS.

WE UNDERSTAND THAT NO FURTHER PHYSICAL CHANGES CAN BE MADE TO THE SITE. WE UNDERSTAND THAT DUE TO CONSTRUCTION CONSTRAINTS, THE BUILDER MAY VARY PLANS ON SITE TO SUIT.

WE UNDERSTAND ANY SURFACE DRAINAGE RETAINING WALLS REQUIRED BY APPROVING AUTHORITY ARE TO BE COMPLETED WITH LANDSCAPING BY OWNER

OWNER OWNER DATE

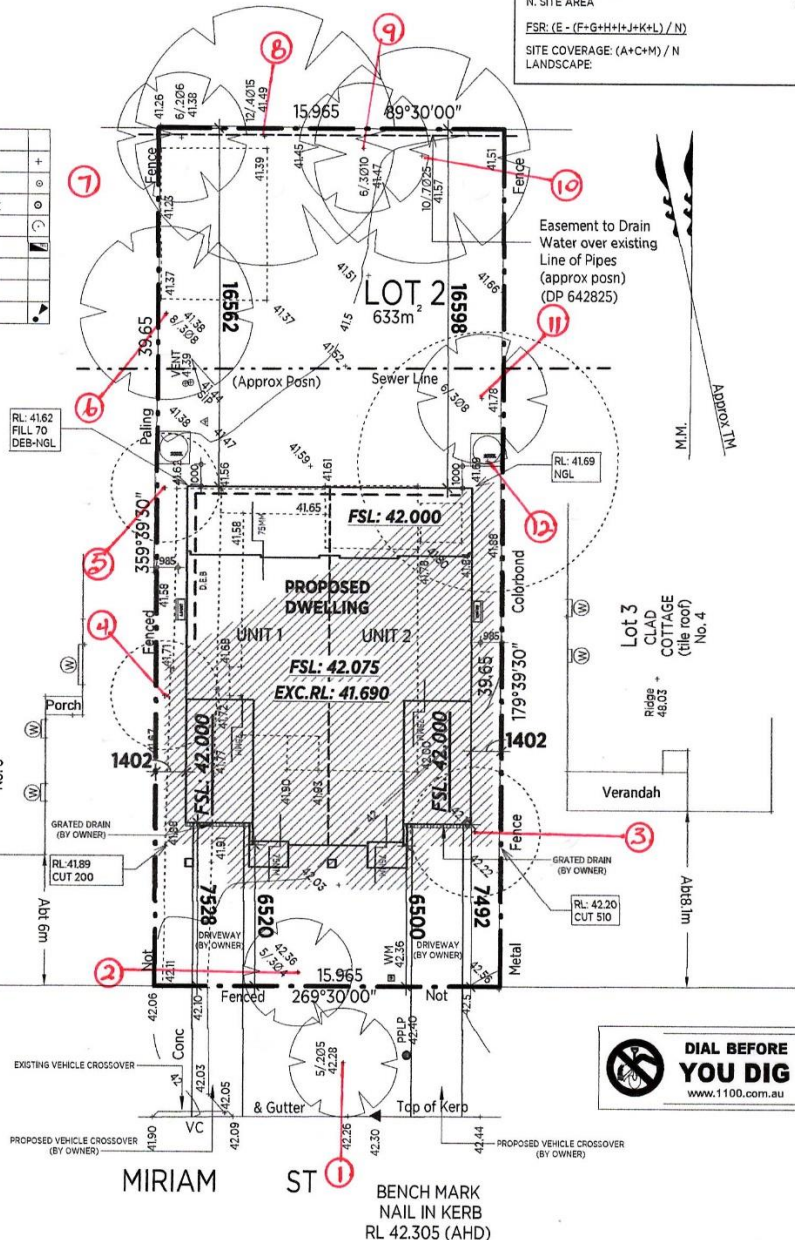
AT: LOT 2 (#6) MIRIAM STREET, BALMAIN NSW 2197

PROPOSED RESIDENCE

FOR: MR & MRS SLEIMAN

BANNABY DUPLEX	
EDGE FAÇADE	
DATE: 14.01.22	SCALE: 1: 20
DRAWN: DI	CHECKED
SHEET NO: 01	JOB NO: 6923

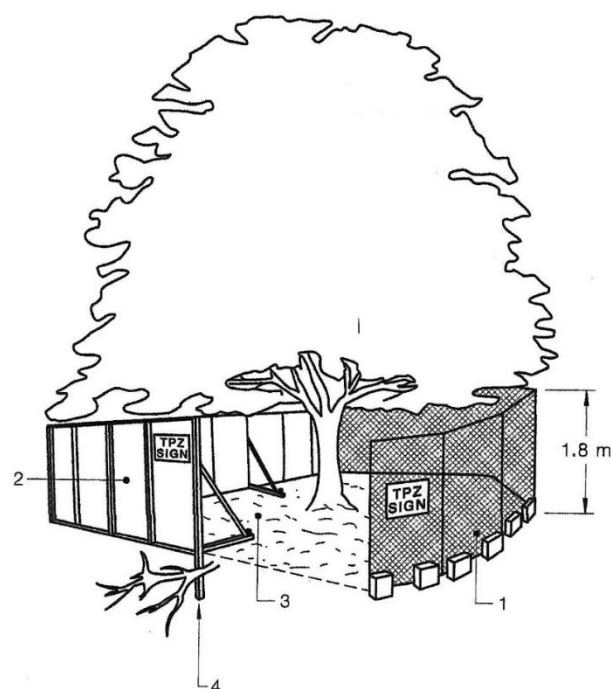
SALES: PHONE: (02) 9629 4772
FAX: (02) 9629 5813
HEAD OFFICE: 96-100 TOONGABBIE ROAD
GIRRAWEE NSW 2145
PHONE: (02) 9672 7055
FAX: (02) 9672 7033
ABN: 12057761378 **BLDG.LIC.** 39371



**DIAL BEFORE
YOU DIG**
www.1100.com.au

SITE PLAN

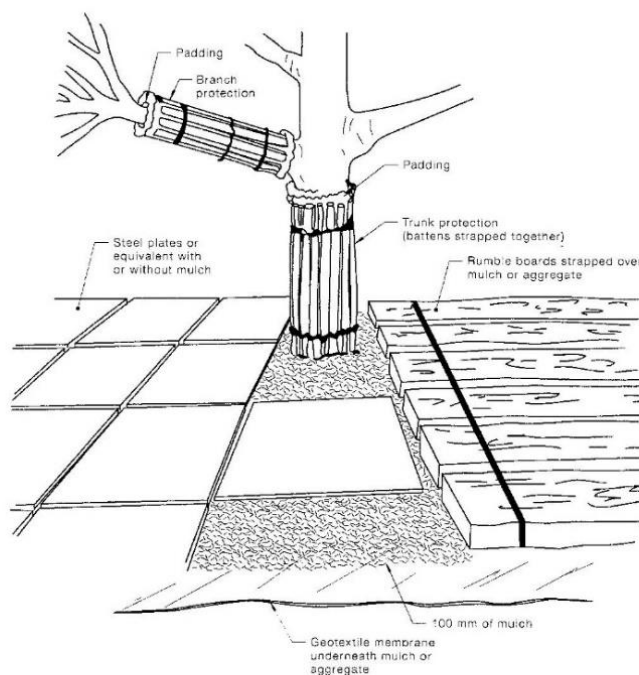
Annexure D: Tree protection details



LEGEND:

- 1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
- 2 Alternative plywood or wooden piling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
- 3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
- 4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

FIGURE 3 PROTECTIVE FENCING



NOTES:

- 1 For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
- 2 Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

FIGURE 4 EXAMPLES OF TRUNK, BRANCH AND GROUND PROTECTION

