22nd November, 2019

Vahuvu Pty. Ltd, C/- Matthew Cernec (Watershed Design) 66 Bower Street, MANLY NSW 2095



Dear Mr Cernec,

Arborist Statement: 66 Bower Street, Manly

Blues Brothers Arboriculture has been engaged to inspect and report on trees located in the front yard of the property for development purposes. Site attendance occurred on the 18th November 2019 to undertake the assessment of nine trees.

In accordance with the published directives of Northern Beaches Council, a single street tree (Lilli Pilli) met Council's definition of a protected tree. All remaining trees are listed as exempt species (Palms, other than Cabbage Tree Palm) or were assessed with a height of less than 5 meters.

The trees were assessed using the Visual Tree Assessment (VTA) Methodology derived by Mattheck and Breloer (1994). Assessment included inspection of canopy health (Structure, dieback, pests / disease) and tree stability (Cracks, Wounding, Damage Disturbance).

The development is limited to the garage area and proposes to re-build the existing garages and building entrance. The new garages are proposed to encompass a slightly larger footprint than existing with storage rooms located beneath. The development proposes associated landscaping of the front yard consisting of new gardens and pathways.

Trees 1-5 are exempt due to size or species are located within the proposed development area and are not retainable.

Trees 6-8 are neighbouring palms (exempt species) and are separated from the development site by a large masonry retaining wall (and associated footings). It is suspected that these trees were planted shortly after the construction of the wall which has likely acted as a barrier to root growth. Due to the wall and characteristic fibrous root ball of palms, development impacts are likely to be low.

Tree 9 (Lilli Pilli) is a street tree assessed to be in moderate health. The tree presented with an almost (80%) dead eastern trunk and signs of impact from Borer and line trimmer. The tree displayed a moderate vigour and appeared to be struggling to recover as evidenced by the limited visible reaction wood around wounds.

It was noted during inspection that Tree 6 was in contact with the dividing masonry wall and has likely been a contributing factor of wall displacement into 66 Bower Street. The remediation of the wall is considered to be outside of the scope of this report; Commentary is provided for completeness of assessment regarding this development only.

Recommendations:

It is recommended that Trees 1-5 are removed due to their location in respect to the proposed development.

It is recommended that the demolition of the existing western garage is undertaken with attention to protecting the neighbouring palms:

- Trees 7 & 8 require trunk armouring to be installed prior to the commencement of development. Trunk protection shall consist of wrapping the trunk in a porous material (Shade cloth, GeoTech Fabric, Hessian) and arranging timber battens around the Trunk. Battens shall be a minimum of 40x90mm and spaced no further than100mm apart. Under no circumstances may the tree be drilled, nailed into or otherwise used for the securing of ropes, cables, guy wires during development.
- Tree 6, whilst separated by the masonry wall, may still have roots growing within the development area. Due to the unknown construction of the retaining wall and associated shallow soil volumes of the area, it is recommended that an AQF5 Arborist is onsite to supervise excavation.

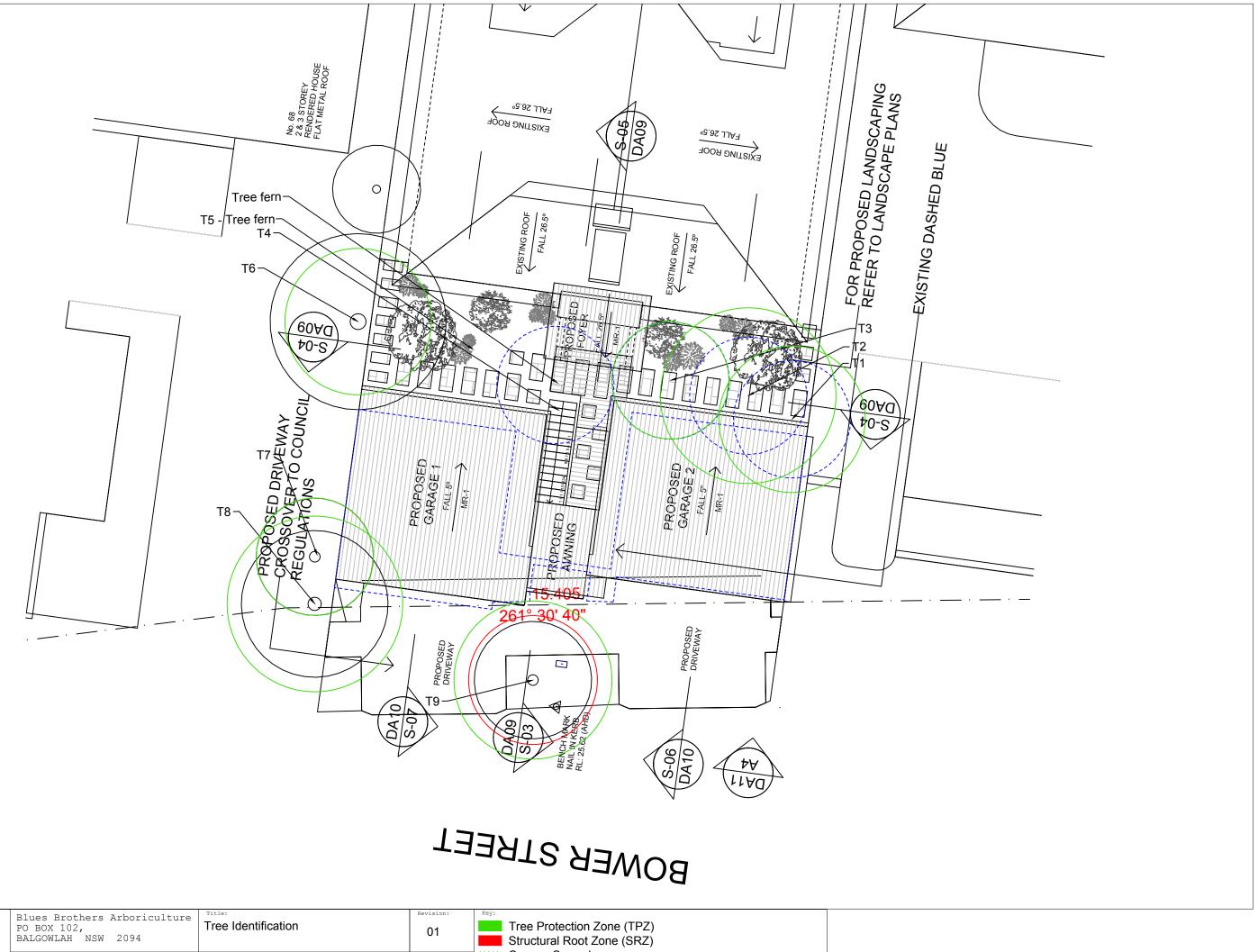
It is recommended that application for the removal of the street tree, T9, is submitted in conjunction with DA lodgement. The proposed driveway construction will likely overwhelm the already struggling Lilli Pilli. Alternative options are unviable.

Due to the scale of the development and exempt status of the majority of the cohort, a formal Arboricultural Impact Assessment (AIA) is not considered necessary.

Kind regards

Gordon Blues Consulting Arborist (AQF 5) 0439991122

Tree Data Summary - 66 Bower Street, Manly - Assessed 18/11/2019																		
Tree ID	Species	Height (m)	Canopy dims n/s in metres	DBH (cm)	DGL (cm)	Foliage condition	Maturity	Trunk type	Trunk lean	Canopy Balanced	Past Pruning	Stability	Vigour	Canopy deadwood	Significance value	Notes	TPZ (M) Radius	SRZ (M) Radius
F	Howea fosteriana	4.5	5			Coord	Semi-	Trada								Adjacent to s/stone wall		
T1	(Kentea palm) Howea fosteriana	4.5	5	0		Good	Mature Semi-	IWIN								Adjacent to s/stone wall	0.0	0.0
T2	(Kentea palm)	5	6	0		Good	Mature	Twin									0.0	0.0
	Howea fosteriana																	
T3	(Kentea palm)	5	4	0		Good	Mature	Single									0.0	0.0
	Howea fosteriana																	
T4	(Kentea palm)	6	4	0		Good	Mature	Single									0.0	0.0
T5	Tree fern	4.5		0													0.0	0.0
	Archontophoenix							Unknow				Appears				Neighbouring palm. In hard contact with masonry boundary wall which has displaced		
T6	cunninghamiana	8	5	35		Good	Mature	n	Upright	Yes		stable	Good	0-5%	Moderate	approx 30mm to East.	4.2	0.0
	Archontophoenix						Semi-					Appears						
T7	cunninghamiana	5	4	25		Good	Mature	Single	Upright	Yes		stable	Good	0-5%	Moderate		3.0	0.0
	Archontophoenix	_	6					c: 1				Appears	- I	0.50				
T8	cunninghamiana	/	6	41.037		Good	Mature		Upright Slight boas	Yes	No Lower limbs	stable	Good	0-5%	woderate	Neighbouring/ street palm, reduced growing area due to concrete. Street tree, Eastern leader approx 80% dead. Loss of bark around lower trunks on both	4.9	0.0
Т9	Syzygium sp	5	4	22.804	36	Moderate				Bias west		stable	Moderate	15%	Low	sides, limited reactionwood. Evidence of borer (holes and frass) Slight whipper	2.7	2.2
				0													0.0	0.0
	Denotes protected tree			0													0.0	0.0
	Denotes neighbouring tree			0													0.0	0.0



Blues	Blues Brothers Arboriculture PO BOX 102, BALGOWLAH NSW 2094	Tree Identification	Revision: 01	Tree Protection Zone (TPZ) Structural Root Zone (SRZ)
ARBORICULTURE	0439991122 www.bluesbros.com.au gordon@bluesbros.com.au	Project: 66 Bower Street, Manly	Plot Date: 22/11/2019	Canopy Spread Encroachment Area

Photographs:



Image 1: The property, seen from the street.



Image 2: T9 (Lilli Pilli).



Image 3: Close-up of decay in T9.



Image 5: Neighbouring Palms. Note masonry wall.



Image 4: Trees 1-3.



Trees: 4-6 from existing landing.