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Arborist Assessment

West Ryde Redevelopment

Compiled by
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Dated
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1. Background

1.1 Introduction

1.1.1 This assessment was commissioned MPA (Major Projects Direct) on behalf of Housing New South Wales to assess the health and condition of those trees documented within the 7 residential blocks between 63 and 77 West Parade, North Ryde and to make recommendations as to their significance within the context of a proposed development.

1.1.2 The proposed development will involve the demolition of the remaining houses to allow for the construction of the proposed 4 residential tower blocks as documented. This is a significant project affecting a large number of people and will require the removal of those trees located within the construction impact zone (CIZ).

1.1.3 The existing houses within the site are all in a poor condition and only 1 is currently occupied. There are 2 blocks that have been cleared and are now home to a range of different vegetation.

1.1.4 There were 29 trees documented within and adjacent to the site. Of these there are a number of well established and significant trees, although the majority are less significant, more recent plantings that have not established well, or are poorly formed trees with structural faults. There were only 3 trees located outside the CIZ that has been recommended for preservation.

1.3 The Subject Trees

1.3.1 The general findings and data collected for each of the subject trees is contained in the following Tree Schedule.

1.3.2 As noted, there are 29 trees documented for this report. The remainder of the vegetation on site is not considered of sufficient size or significance to warrant documentation.

1.3.3 Of these only 2 are considered to be of high arboricultural significance. These are Trees 12 and 15 of which only Tree 15 can be preserved. Tree 12 is located centrally within the construction impact zone and due to its large, mature age, decay at its base and the problems associated with adjacent construction it has been recommended for removal.

1.3.4 There are a number of trees suitable for transplantation that are currently located within the CIZ. The most significant of these is Tree 14, a mature Senegal Date palm. This tree could be transplanted and retained on site as part of the landscape works, as to could the 2 Frangipani trees documented as Trees 16 and 18.

1.3.5 The majority of the remaining trees are considered to be significant, but have issues that limit their arboricultural significance. These include Trees 1,2,3,4,9,10,13,16,18 and 20. Of these all but 1 is located within the construction impact zone and will require removal to allow for the construction process to occur. This is Tree 4, the Brush box located on the front verge and although flawed due to poor power line clearance pruning still provides an important arboricultural amenity.

1.3.6 The remaining 13 trees are of little arboricultural significance and would be recommended for removal irrespective of the proposed development due to irreparable structural faults, poor species characteristics or advanced decline.

1.3.7 The majority of the trees detailed are located centrally within the site and will require removal to allow for the construction process to occur. The most significant of these is a fully mature Lemon Scented Gum documented as Tree12. It can be estimated to be over 50years of age and is a prominent feature. The tree has a trunk diameter of over 1.2 meters and will have a large critical root zone. This will limit construction within approximately 10+ meters of its base.

1.3.8 This Lemon Scented Gum tree also has a large wound on the northern side of its base and its structural integrity would be questioned if it was to be retained in an urban environment. The mature age of the tree will also limit its ability to compartmentalize wounds and reduce the spread of decay as well as adapt to an altered environment. These are important issues when considering its long term viability within the context of the proposed development.

1.4 The Proposed Works

1.4.1 As noted the proposed works will require the demolition and clearing of all existing trees and houses within the site. This will be done to allow for the construction of the four residential tower blocks as documented. This is a significant social project and affects a large number of people as well as the surrounding economy.

1.4.2 The proposed works will therefore involve;

- The removal of those trees documented.
- The excavation of the footings required allowing for the construction of the underground carport and construction of the 4 residential tower blocks as documented.

2. Methodology

2.1 Data Collection

2.1.1 An on site inspection and visual tree assessment (VTA) was undertaken on the 22 June 2009. No aerial (climbing) inspections were done. The site photos were taken by the author at the time of inspection with a digital camera.

2.1.2 Neither the site architect or property owner was on site during the site inspection. Discussion regarding the health and condition of the surrounding trees was made subsequently.

2.1.3 The following plans have been presented as the existing site layout.

- Donovan Associates plan showing the 7existing blocks and the location of the adjacent trees.
- Caldis Cook Group ground Floor Plan showing the location and building footprint of the 4 residential tower blocks.
- Caldis Cook Group Section showing the heights and proposed locations of the blocks.
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2.1.4 Whilst the location of the trees, as per the plans viewed, appear to be accurate, measurements of their location in relation to the existing and proposed work has not been taken for the purpose of this report. All significant trees over 4 meters in height have been assessed from ground level and tabled within.

2.1.5 Tree heights and canopy spreads have been estimated and trunk diameters have been measured with a diameter tape where applicable.

3. Discussion

3.1 Site Conditions

3.1.1 The site is currently underused with only 1 of the 7 residential blocks currently occupied. The remainder have either been demolished or are uninhabitable. There are 2 houses that have been demolished and removed and the blocks have become overgrown.

3.1.2 The majority of the vegetation on and surrounding the site is of limited arboricultural significance. The largest and most significant trees are located centrally within the site and their preservation would require the remodelling of the proposed development. As noted this is not considered appropriate given the age and practical limitations of these trees.

Figure 1 Shows Trees 10, 11 and 12 located within the vacant block.

Figure 2 Shows Tree 1 with its lower trunk covered in Ivy.

4. Recommendations

4.1 Site Specific

4.1.1 Trees 14, 16 and 18 should be considered for transplantation within proposed landscape works only. All are currently located within the construction impact zone and will otherwise be required for removal.

4.1.2 Trees 4. 15 and 29 are the semi mature Brush box trees located on the front verge. These should be fenced off and separated from the construction within Tree Preservation Zones as detailed.

4.1.3 The remainder of the trees documented for removal should be removed in accordance with current Australian Standards and WorkCover code of practice.

4.2.1 Tree Protection Requirements Generic

The following is a list of tree protection recommendations that should be implemented to limit the impact of the construction process on those trees documented for preservation. These recommendations should be implemented for the duration of the construction process if no site specific recommendations have been detailed.

4.2.2 Arborists Involvement

A suitable qualified arborist should be employed prior to the commencement of the construction process. The Arborists scope of work should include the monitoring and documentation of all trees on and adjacent to the site. Consequently ensuring the impact of the construction process is minimised.

The Arborist should be present to supervise any excavation, trenching or tunnelling within the Primary Root Zone (PRZ) of any tree documented for preservation.

The Schedule of Work must acknowledge the role of the Site Arborist and the need to preserve and protect retained trees. Adequate notice should be given to allow access to site during critical stages of the construction process.

4.2.3 Tree Protective Fencing

Trees to be retained throughout the construction process should be protected with fencing or have trunk protection installed, thereby enclosing a sufficient area to prevent any additional construction impact to the critical root zones and trunks.

Fencing should be erected before any materials are brought on to site or before any site work and construction is to occur and are to remain for the duration of the building work. The fencing should be installed to enclose the critical root zone, where applicable.

The location of the fencing should be determined at a site meeting between the Foreperson and the site arborist to prevent the need to move the fencing during construction.

The enclosed area should be mulched and irrigated and kept free from building materials and/or contaminants. If scaffolding is required within a Tree Protection Zone the area must be mulched.

4.2.4 Tree Pruning and Removal

All tree and tree root pruning shall be carried out by a suitable qualified and experienced arborist to Australian Standards AS4373-2007, “Pruning of Amenity Trees” and to the WorkCover Code of Practice for the Amenity Tree Industry, 1998.

Stump grinding shall be done for stumps that are within the PRZ or trees documented for retention to limit the disturbance to the adjacent tree. The poisoning of stumps should be limited to minimise the chance of poisoning adjacent trees with fussed root systems.

4.2.5 Mulching

If construction is documented within the PRZ of a retained tree, mulching is required. Mulch and maintain to a depth of 100mm with composted green waste mulch for the duration of the construction process.

4.2.6 Irrigation

Where the construction process has reduced water availability to a retained tree temporary irrigation may be required. This shall be done to maintain previous water schedules or to compensate a tree for the loss of a portion of feeder roots.

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4.2.7 Soil Compaction

The affects of soil compaction are often the most arboriculturaly significant impact of the construction process. Reducing traffic volumes and limiting the access to specific tracks will reduce the affect on adjacent trees.

Should heavy and regular vehicular access be required within the PRZ of a retained tree be required an access track should be formed using large diameter railway ballast (100mm) over a geofabric or a corduroy of heavy timbers.

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Tree No	Genus and Species	Common name	Height (m)	Spread (m)	Trunk Diameter (cm)	Tree Protection Zone	Retention value	Recommendation	Observations and comments
1	*Cedrus deodara*	Deodar Cedar	9	9	60	NA	B	Remove	A semi mature example of the species covered in Ivy
2	*Liquidambar straciflua*	Sweet Gum	7	5	50cm	NA	B	Remove	A semi mature tree located within the CIZ and covered in Ivy.
3	*Sapium sebiferum*	Chinese Tallow Tree	8	5	60cm	NA	B	Remove	A fully mature example of the species that has been regularly reduction pruned.
4	*Lophostemon confertus*	Brush Box	7	4	30cm	3	B	Retain	A semi mature street tree located outside the CIZ and can be retained.
5	*Melia azedarach*	White Cedar	6	4	26cm	NA	D	Remove	Co dominant trunk with inclusion at ground level. Remove irrespective of the proposed development.
6	*Prunus x blireana*	Double Flowering Plum	4	4	25cm	NA	C	Remove	1 of 2 semi mature examples of the species located within the CIZ
7	*Prunus x blireana*	Double Flowering Plum	6	4	27cm	NA	C	Remove	As above.
8	*Elaeocarpus reticulatus*	Blue berry Ash	6	4	X 3 30cm	NA	C	Remove	A semi mature example of the species located within the CIZ. Included bark at base and would be recommended for removal irrespective of the proposed development.
9	*Casantospermum australe*	Morton Bay Chestnut	11	8	70cm	NA	B	Remove	A larger tree located predominantly within the vacant block. Co dominant at 1.3m
10	*Melaleuca quinquinervia*	Paperbark	9	3	27cm	3	B	Remove	A semi mature example of the species located within the CIZ and required for removal.

11	*Macadamia tetraphylla*	Queensland Nut	7	4	2 x 20cm	NA	C	Remove	Co dominant and included at the base. Located within the CIZ
12	*Corymbia citriodora*	Lemon Scented Gum	20	16	1.2+m	NA	A	Remove	The sites most prominent and significant tree located within the CIZ and required for removal.
13	*Jacaranda mimosifolia*	Jacaranda	7	8	38cm	NA	B	Remove	A semi mature example of the species located within the CIZ.
14	*Phoenix reclinata*	Senegal Date Palm	8	3	30cm	NA	A	Transplant/ Remove	A mature example of the species located within the CIZ and required for removal.
15	*Lophostemon confertus*	Brush Box	7	5	38cm	4	A	Retain	A semi mature street tree located outside the CIZ and can be retained.
16	*Plumeria acutifolia*	Frangipani	5	4	20cm	NA	B	Transplant/ Remove	A mature example of this tree species located within the CIZ
17	*Ligustrum*	Privet	5	5	20cm	NA	D	Remove	A self seeded weed species that should be removed irrespective of the proposed development.
18	*Plumeria acutifolia*	Frangipani	4	5	20cm	NA	B	Transplant/ Remove	A semi mature example of the species located within the CIZ.
19	*Ligustrum*	Privet	6	5	20cm	NA	D	Remove	A self seeded weed species that should be removed irrespective of the proposed development.
20	*Cedrus deodara*	Cedar	6	5	51	3	B	Remove	A semi mature example of the species located within the CIZ and required for removal.
21	*Syagrus romanzoffiana*	Cocos Palm	5	2	20	NA	D	Remove	A poor species of palm that should be removed irrespective of the proposed development.
22	*Syagrus romanzoffiana*	Cocos Palm	5	2	20	NA	D	Remove	A poor species of palm that should be removed irrespective of the proposed development.
23	*Syagrus romanzoffiana*	Cocos Palm	5	2	20	NA	D	Remove	A poor species of palm that should be removed irrespective of the proposed development.

24	*Acacia baileyana*	Wattle	6	3	20	NA	C	Remove	A semi mature example of the species located within the CIZ
25	*Casuarina glauca*	She Oak	7	4	30	NA	C	Remove	A semi mature example of the species located within the CIZ and required for removal.
26	*Quercus robor*	Oak	8	4	34cm	NA	C	Remove	A semi mature example of the species located within the CIZ and required for removal.
27	*Ligustrum*	Privet	6	5	20cm	NA	D	Remove	A self seeded weed species that should be removed irrespective of the proposed development.
28	*Ligustrum*	Privet	6	5	20cm	NA	D	Remove	A self seeded weed species that should be removed irrespective of the proposed development.
29	*Lophostemon confertus*	Brush Box	7	4	30cm	3	B	Retain	A semi mature street tree located outside the CIZ and can be retained.

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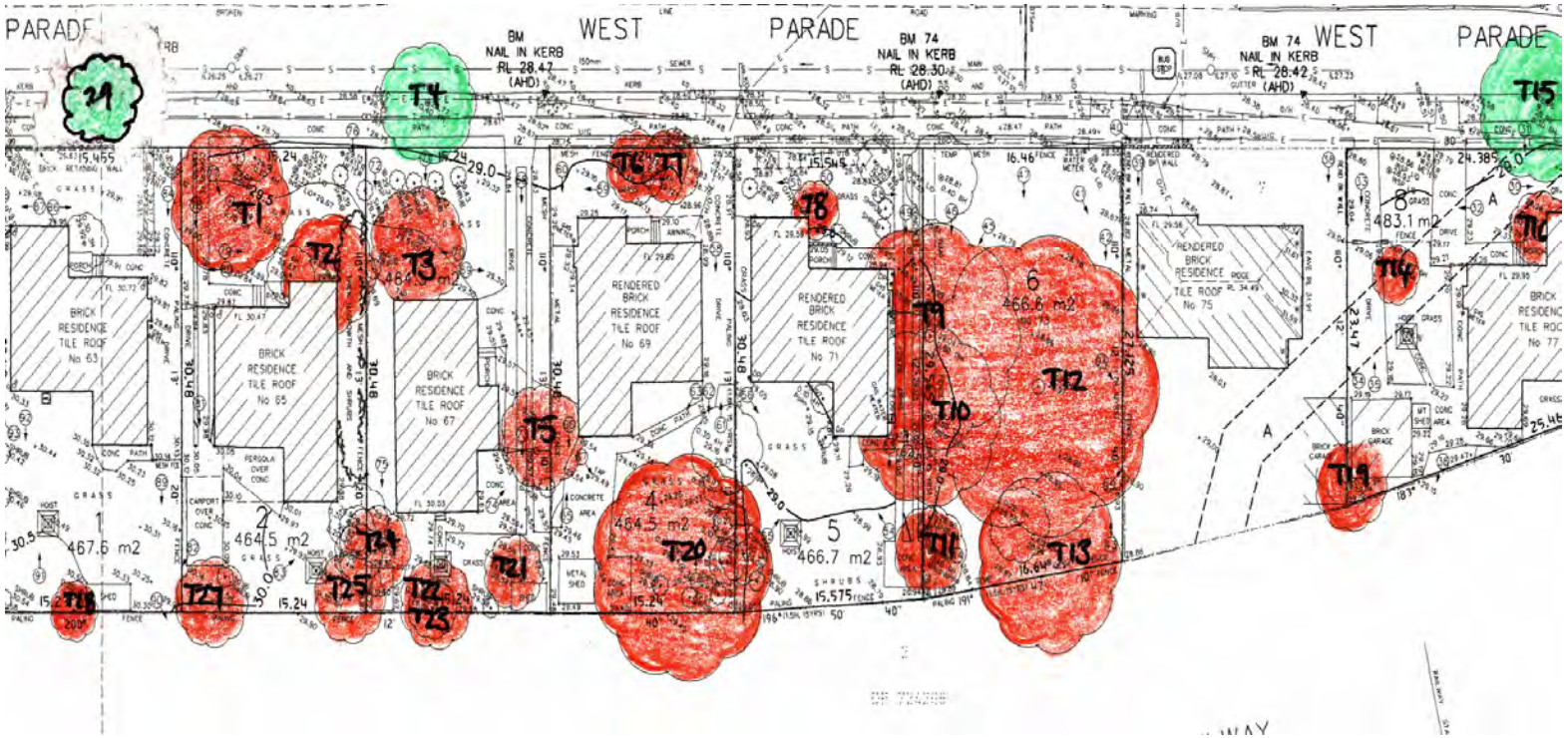

Figure 3 Shows those trees documented on site. Red indicates those trees recommended for removal. Green shows those trees that should be preserved throughout the construction.

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