GALBRAITH & Associates

Tree Consultants & Contractors

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7 Oct 2020

Planning Panels Victoria
Level 1
8 Nicholson Street
East Melbourne 3002

Dear Sir,

re: Amendment to the C214 Shenstone Park Precinct Structure Plan

Introduction

Amendment C214 to the Whittlesea Planning Scheme (**Amendment**) proposes to introduce the Shenstone Park Precinct Structure Plan (**PSP**). The PSP proposes a long-term plan for urban development and sets out how the land in the proposed PSP area, including the Subject Site, is expected to be developed, and how and where services are planned to support the creation of the Shenstone Park community.

Galbraith and Associates has been requested by Best Hooper Lawyers to assess and report on two mature native trees within the property of 1150 Donnybrook Road, Wollert. These trees are regarded as of high worth retention (Tree 162) and medium worth for retention (Tree 23) on the PSP however it is proposed to have these trees removed in the Amendment.

The two trees have each been described in two prior Arborist Reports.

The initial Arborist Report of the site was conducted by Treetec on behalf of The City of Whittlesea and dated February 2017, as part of a report on the trees for the whole of the Shenstone Park PSP. The two trees of concern were labelled as Tree 162 and Tree 23 in that report. Tree 162 was described as a mature Swamp Gum (Eucalyptus ovata) of 9m height by 8m spread of fair-good health, fair structure and of high retention value with a useful life expectancy of 20 + years. Tree 23 was described as a mature subspecies of Manna Gum (Eucalyptus viminalis) of 15m height by 17m spread of fair health, fair-poor structure and of medium retention value with a ULE of < 20 years.

Subsequently a report was conducted on the property of 1150 Donnybrook Road by Treelogic Pty. Ltd. dated 24/04/2017 on behalf of the applicant, Marantali Pty. Ltd. The trees of concern were labelled as tree 17 and tree 25. Tree 17 (Tree 162 in the Treetec report) was described as an over mature Swamp Gum (Eucalyptus ovata) of

10m height by 13m spread of fair-poor health and structure and of moderate arboricultural value. Tree 25 (Tree 23 in the Treetec report) was described as an over mature Manna Gum (Eucalyptus viminalis) of 12m height by 8m spread of poor health and structure and of no arboricultural value.

Methodology

The two trees were visited on foot and assessed using Visual Tree Assessment (Mattheck, C. & Breloer, H. (1994) *The Body Language of Trees* 'HMSO Publications'. Stem diameters of the trees were measured with a diameter tape. Heights were estimated by eye. Crown spread figures were obtained by pacing out the relevant distances. Photographs were taken with a digital camera. Tree Protection Zones (TPZs) and Indicative Structural Root Zones (SRZs) were calculated according to the Australian Standard 4970:2009 'Protection of trees on development sites' approach.

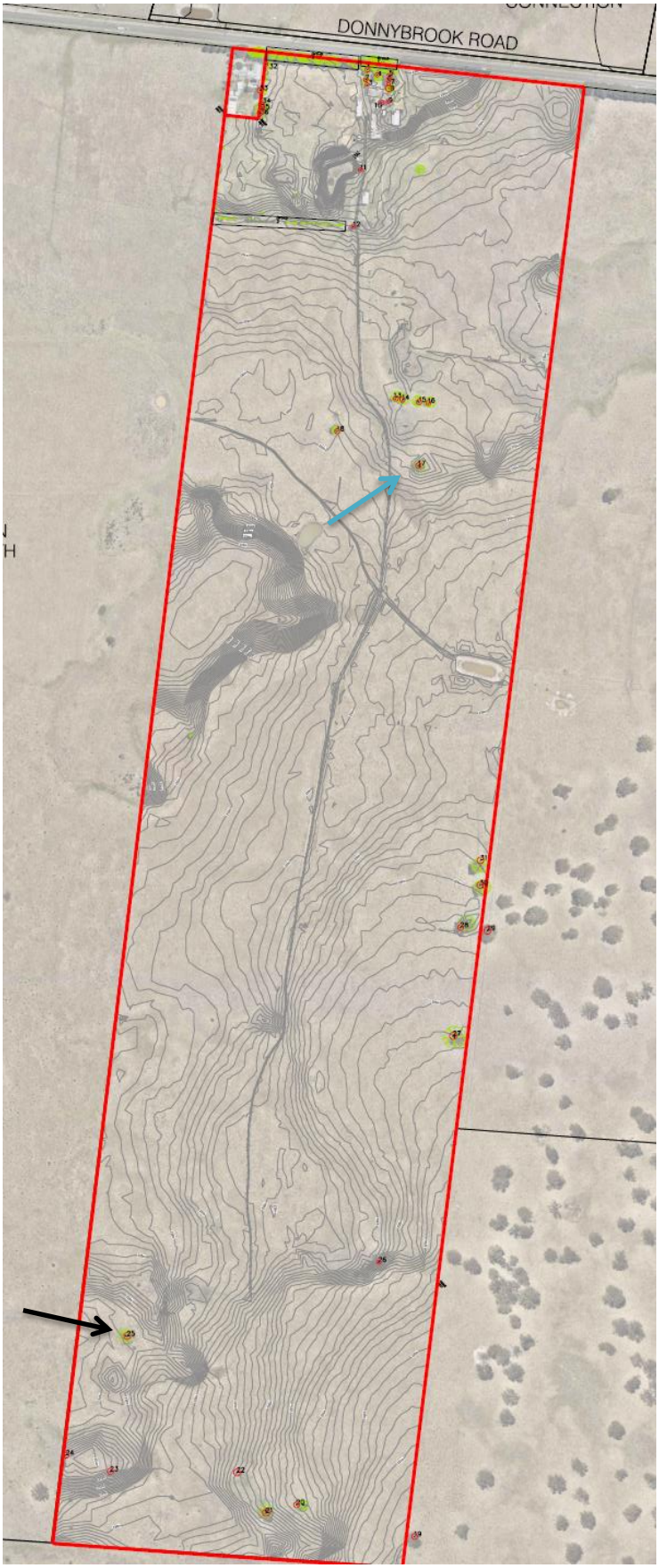
The TPZs are also provided using the alternative methodology as designated by The City of Whittlesea.

The locations of the two trees are shown on the extract of the Tree Data/Aerial image by Tract, drawing No. 0316-005400-D007 dated 27/05/20, on page 2 of this report.

The trees were initially assessed by Mr Knud Hansen of this office in June 2020. I subsequently assessed them in late September of 2020.

Summary

Tree 162 (PSP Treetec), or 17 according to Treelogic, is an over mature extensively decayed and hollowed out structurally poor Swamp Gum. Tree 23 (PSP Treetec) or Tree 25 (Treelogic) is an over mature Yellow Box hybrid in very poor health with extensive die-back and prominent branch shed history. Both have low worth for retention in any re-development of the site due to the high risks they pose of major branch shed or total collapse. Thus I am supportive of their removal and replacement.



Tree 162 (PSP Treetec) or 17 (Treelogic) is arrowed blue.
Tree 23 (PSP Treetec) or Tree 25 (Treelogic) is arrowed black.

PSP Tree 162 (Tree 17 Treelogic)
Eucalyptus ovata (Swamp Gum)
Indigenous self-sown
Diameter at 1.4m above ground (DBH): 85cm
Height x Spread: 9m x11m
Condition: Poor
Worthiness of Retention: 3

Comments: Over mature self-sown tree. The base of the tree is effectively a hollow shell, with decay extending into the buttress roots. Minor upper canopy die-back. The tree has suffered massive collapses of parts of the crown over the years. Crown spread to N: 6m, S: 5m, E: 6m, W: 5m.
TPZ (City of Whittlesea): 7m north of trunk centre , 6m south of trunk centre, 7m east of trunk centre and 6m west of trunk centre.
TPZ (Australian Standard): 10.2m radius from the trunk centre.

Given the extent of decay of the trunk and buttress roots, and hence risk of uprooting or entire trunk failure, in tandem with the risk of further major limb fracture, the tree is inappropriate for retention in any residential subdivision of the site. It is near the end of its safe useful life expectancy (SULE), particularly in the context that there will be a residential development around it.

PSP Tree 162.

Extensive basal cavity blocked with a basalt boulder.

The above two photos are views of the interior of the cavity behind the basalt boulder.

The above 2 photos are of the decaying major roots.

Decaying roots.

PSP Tree 23 (Tree 25 Treelogic)
This is a Eucalyptus melliodora (Yellow Box) with some hybridising, probably with Swamp Gum or possibly with Manna Gum. The foliage is very close to typical Yellow Box with adult leaves up to 14cm length by 1.8cm width of densely reticulate veination, and marginal vein set in well from the margin. The juvenile leaves are petiolate, opposite for a few pairs and elliptical, again typical of Yellow Box. The young bark is also typical of Yellow Box although the old outer bark on the stems is much more like that of Swamp Gum, as is the exposed wood left visible on the wounds left by massive limb failures. Few reproductive parts (gumnuts) were available but those which could be found were a few flowering buds which could be construed as being a hybrid between Yellow Box and Swamp Gum or even Manna Gum. There is no sign of any of the ribbon type de-corticating bark which is typical of the Manna Gum.

Indigenous
DBH:125cm
Height x Spread: 15m x17m
Condition: Poor
Worthiness of Retention: 1-2

Comments: Overmature self-sown tree which has shed various major branches and which has only some patchy crown regrowth on the branches remaining. Extensively decayed throughout and at high risk of shedding major parts in the near future.
Crown spread to N: 8m, S: 10m, E: 8m, W: 8m.
TPZ (City of Whittlesea): N: 9m, S: 11m, E: 9m and W: 9m from trunk centre.
TPZ (Australian Standard): 15.0m radius from the trunk centre.

The tree on account of its poor health, extensively decayed structure and extremely high risk of shedding more massive sections in the near future makes it inappropriate for retention in any residential subdivision.

PSP Tree 23

Extensive decay throughout

The arrows point to where there is high risk of fracture.

Epicormic shoot with young bark typical of Yellow Box

Foliage from PSP Tree 23, typical of Yellow Box.

Notes on Terminology
In order to understand the terminology, I have provided the following explanations:

DBH diameter of trunk over bark at breast height In a number of cases where the tree has forked into multiple trunks below breast height (1.3-1.5m) the diameter is measured below the fork and an estimate is made for the single trunk equivalent at breast height, or else figures for each of the individual stems can be given.

HxS This is the estimated height (H) of the tree and its average crown spread (S).

SULE Safe useful life expectancy in years. Taken in the context that the area is to be developed for residential use, and that sensible distances are maintained between the buildings and the trees, this is the estimate of time that the tree will continue to provide useful amenity without imposing an onerous financial burden in order to maintain relative safety, and avoid excessive nuisance.

Worthiness of Retention (WOR):
The worth for retention of a tree is based on the assumption that the site is to be re-developed, and that there is the opportunity for new tree planting. It is based on a number of factors. These factors are:

1. structure, health, form and safe useful life expectancy,
2. size, prominence in the landscape,
3. species rarity,
4. whether indigenous,
5. whether an environmental weed.
6. importance for habitat of native wildlife
7. whether of historical or cultural interest

Any tree with a WOR rating of 3 or less should be seriously considered for removal before development begins because it is dead, nearly dead or dangerous, a weed, is causing or is likely to cause a severe nuisance in the near future, or just of very little significance and readily replaceable with new plantings. Trees rated 4-6 are of some significance. Some of these trees may respond to treatments such as formative pruning, removal of dead wood, weight reduction pruning etc. Trees rated 7 or higher are of high significance (the higher the ranking the more so), primarily because of their good health, structure, form, prominence in the landscape and SULE, although all they still may need substantial works done on them as already detailed, if they are to be retained.

Tree Protection Zone (TPZ) According to the Australian Standard AS 4970-2009 'Protection of Trees on Building Sites', the TPZ is the principal means of protecting trees on development sites. It is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.' The radius of the TPZ is calculated by multiplying the DBH by 12. The radius is measured from the centre of the stem at ground level. An area of 10% of the TPZ is deemed acceptable to violate if 10% of the ***area*** of the TPZ is made up in other directions. *Thus if encroachment is from one side only, encroachment to as close as approximately 8.3 times the DBH (slightly over 2/3 the listed TPZ radius) is permissible according to the Standard.*

Where the tree has more than one trunk, the TPZ is deduced by taking the square root of the sum of the squares of each of the DBHs, and multiplying this figure by 12

The TPZs as determined by the AS 4970-2009 approach should be construed as a rough guide. Many factors such as the type of encroachment on the TPZ, species tolerance, age, tree height, presence of spiral grain, soil type, soil depth, tree lean, the existence of onsite structures or root directional impediments, level of wind exposure, irrigation and ongoing tree care and maintenance are each highly influential on the size and success of the TPZ estimation.

City of Whittlesea Tree Protection Zone Guidelines as per Revision A Technical note dated November 2014 titled 'Retention and Protection of Existing Trees'

"Tree protection zones are defined by a circle, whose centre point is the centre point of the tree at ground level and whose radius is equal to half the height of the tree or half the crown width (whichever is the greatest) plus the tree canopy plus one metre (refer to SDL.2.01). Tree protection zones shall be determined by a consulting arborist and pegged on site by a licensed surveyor.

Council's tree protection zone guideline shall supersede AS4970 – 2009 and/or any other tree protection zone standard/calculation. In this regard, Council's guideline considers both the ongoing health of the tree and has been developed to protect people, infrastructure and property (ie the shape considers the impact of falling limbs and delineates a pedestrian exclusion zone) whereas AS4970 – 2009 only considers the impact of works on the on-going health of the tree."

Declaration:

I hereby declare that I have made all the enquiries that I believe are desirable and appropriate, and no matters of significance which I regard as relevant have to my knowledge been withheld from the respected Panel.

GALBRAITH & ASSOCIATES

Rob Galbraith

The following pages set out details of my qualifications and experience:

1. Name and Professional Address of Expert

Robert Cameron Galbraith
Arboriculturist
40 Glyndon Road
Camberwell Vic 3124
Tel: 9888 5214 Fax: 9888 5063

2. Qualifications and Experience

1977 Attained Degree in Forest Science from Melbourne University

1978-81 Forest inventory work and road locating in Gippsland, Tasmania and Northern Territory

1982 Foreman of a contract re-vegetation crew at various MMBW parks

1982-83 Attained the National Certificate of Horticulture in Arboriculture at Merrist Wood College, England, with Distinctions

1983-85 Foreman of a large Melbourne tree surgery company

1986-88 Tree surgery sub-contractor

1988-90 Manager of the Arboricultural Services Division of Rivett Enterprises. Arboricultural Consultant for Rivett Enterprises.

1991- Principal, Galbraith & Associates - Arboricultural Consultants and Contractors.

Consultants to Royal Botanic Gardens Sydney, Major Projects Victoria, St Kilda Botanic Gardens, Melbourne Parks & Waterways, Vic Urban, Office of Housing Department of Human Services, legal firms, insurance companies, developers, town planning consultants, architects, landscape architects, local government (Cities of Albury, Bayside, Boroondara, Manningham, Moreland, Stonnington, Whitehorse). Contracting in arboricultural services for private, government and commercial clients.

VOLUNTARY ARBORICULTURAL INDUSTRY WORKS

Arboricultural Association of Australia (President, 1994, 95, 96)
Major contributor to the Australian Standard AS4373-1996 Pruning of Amenity Trees.

3. Area of Expertise

My area of expertise is in amenity tree management.

4. Expertise to Prepare this Report

My expertise is based on substantial experience in forestry and arboriculture, with many years directly working with thousands of different trees in differing situations. The tasks of climbing, dismantling, pruning and excavating near trees, particularly in Melbourne, has been virtually a daily routine over many

years. I keep well abreast of important and relevant research in arboriculture, reading widely and conferring regularly with colleagues in the arboricultural field.

5. Instructions Received in Relation to this Matter

I have received instructions from Best Hooper Lawyers. They have asked me to provide a statement of evidence for Panels Victoria discussing two mature native trees within the property of 1150 Donnybrook Road, Wollert. These trees are numbered 162 and 23 on the Shenstone Park PSP. They are regarded as being of high and medium retention value in the PSP however it is proposed to have them removed in the Amendment.

6. Facts/Matters/Assumptions/Reference Documents used to prepare this Report

The City of Whittlesea`s Revision A Technical note issued 3 November 2014 titled 'Retention and Protection of Existing Trees'

The Australian Standard 4970:2009 – 'Protection of Trees on Building Sites'

Shenstone Park Precinct Structure Plan, including the Arborist Report by Treetec dated February 2017

The Arborist Report for 1150 Donnybrook Road by Treelogic dated April 2017

Brooker & Kleinig – *A Field Guide to Eucalypts of South eastern Australia* Inkata Press 1983

7. Other Persons Relied Upon

Nil

8 Summary

Tree 162 (PSP Treetec), or 17 (Treelogic), is an over mature extensively decayed and hollowed out structurally poor Swamp Gum. Tree 23 (PSP Treetec) or Tree 25 (Treelogic) is an over mature Yellow Box hybrid in very poor health with extensive die-back and prominent branch shed history. Both have low worth for retention in any re-development of the site due to the high risks they pose of major branch shed or total collapse.