

PANELS VICTORIA

STATEMENT OF EVIDENCE **ON ARBORICULTURAL ISSUES**

COMMISSIONED BY

Dandenong Views Pty Ltd

in relation to

**Amendment C230whse
490-500 Burwood Highway
VERMONT**

ROB GALBRAITH – GALBRAITH & ASSOCIATES



Tree Consultants & Contractors

19/Jan/23

Government Land Standing Advisory Committee
Planning Panels Victoria
Level 1
8 Nicholson Street
East Melbourne 3002

Re: Amendment C230whse – 490-500 Burwood Highway, Vermont

Introduction

Amendment C230whse is proposed to the Whitehorse Planning Scheme to facilitate development at 490-500 Burwood Highway, Vermont. There are many trees on the site - of the order of 240 trees and tree groups. The land and the existing buildings have been used between approx. 1972 and 2017 by the Australian Road and Research Board and prior to that as an apple orchard. The ARRB has moved to other premises with the land now in private ownership. Residential development is proposed however currently the land cannot be developed or used for a purpose that is not in accordance with the transport purpose of the public land zone. Currently there are no tree controls, despite a Heritage Overlay. Given that the site is over 0.4Ha, I am informed that clause 52.17 relating to native vegetation applies.

A new suite of planning controls is proposed by The City of Whitehorse to guide the transition of the Land to residential. Of relevance to the existing treed nature of the site, the Amendment among other things proposes to:

rezone the land from the *Transport Zone 4 - Other Transport Use (TRZ4)*; to the *Residential Growth Zone - Schedule 3 (RGZ3)*;

amend *Schedule 5 to Clause 42.02 Vegetation Protection Overlay (VPO5)* and apply it to the Land;

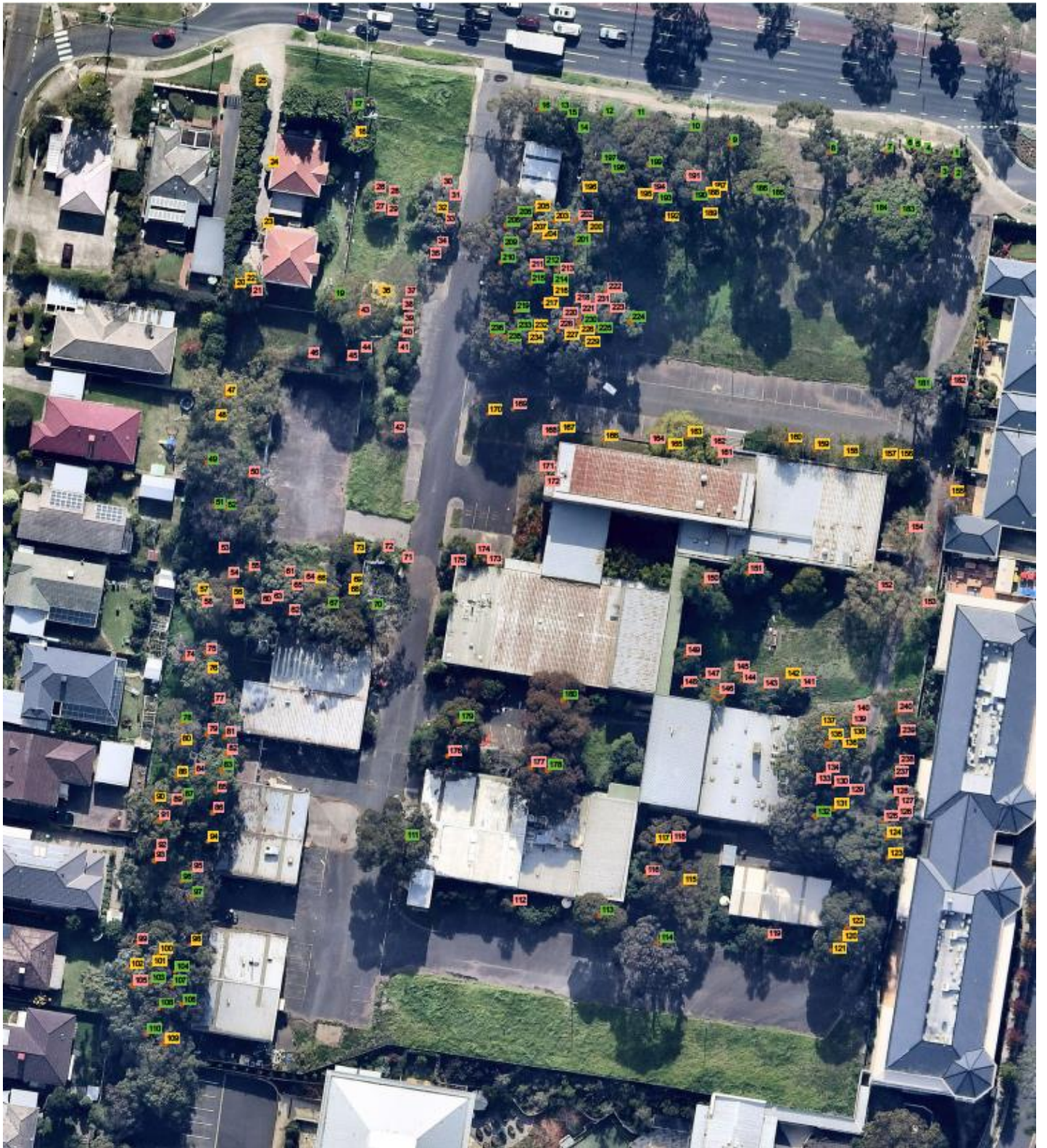
insert *Schedule 10 to Clause 42.03 Significant Landscape Overlay (SLO10)* into the Scheme and apply it to the Land;

insert *Schedule 6 to Clause 43.02 Design and Development Overlay (DDO6)* into the Scheme and apply it to the Land;

Norton Rose Fullbright has instructed me to:

- (1) Review the briefing materials provided to me in this matter;
 - (2) Consider the appropriateness of the proposed Amendment, having regard to relevant arboricultural considerations;
 - (3) Prepare an expert witness statement explaining my conclusions, and the reasoning and analysis by which I have reached such conclusions; and
 - (4) Appear before the Panel to give independent expert evidence in this matter.
- The evidence should be prepared in accordance with the requirements and duties of the *Planning Panels Victoria Practice Note 1 – Expert evidence*.

Inherent with the above, I have visited the site on several occasions, namely early in September 2022 and on the 8/Jan and 12/Jan 2023. I have assessed the trees/tree groups within the subject site for species type, condition and retention value. The same numbering system as that of the 'Blue Gum' Arborist Report dated Aug 2021 has been used. The sizes of the more significant trees, in terms of their trunk diameters at breast height and heights and spreads have been checked and found in general to be close to the size data provided in the Blue Gum report. The overall treed nature of the site is discussed. Each tree or tree group is described in the accompanying excel table of data. Their approx. locations are shown in the marked up aerial image by Blue Gum on page of 4 of this statement.



The Trees – General

There are basically four groups of trees present. These are located along the front (northern), eastern and western boundaries and overwhelmingly consist of species of Victorian and Australian origin. Interspersed with these are some older trees, particularly along the east and west boundaries. Close to the main building, particularly near the front of the building and around the two residences near the north-west corner, are plantings of smaller trees, predominantly of exotic origin.

The species encountered are commonly occurring in the metro area, with the exception of the Rough Barked Apple (*Corymbia floribunda*) and the Red Mexican Hawthorn. The former, represented on site by trees 224 and 231, is not a commonly planted tree, probably due to the fact that it usually does not thrive in Melbourne, although tree 224 is a quite a large example of it. The Red Mexican Hawthorn, represented by and tree 163, is more common in Canberra where the variety was developed. Tree 163 is in good condition with a long safe useful life expectancy (SULE), however is only 6m tall.

Self-sown Indigenous Trees There are a number of individuals within the site of species which occur naturally in the vicinity and which are likely to be self-sown. These include trees 125 & 126 – suppressed mature Long leaved Box (*Eucalyptus gonicalyx*); tree 135 – a large mature – over mature Yellow Box; tree 136 – a suppressed small Yellow Box probably derived from tree 135; and trees 239 & 240 – mature Long leaved Box. All these self-sown trees are some half to two thirds into the site near the eastern boundary opposite research wing 2. All will require a permit to remove under clause 52.17 of the planning scheme.

In addition to the above, it is possible that the following are also self-sown indigenous trees: tree 12 – a 7m tall young vigorous Yellow Box (*Eucalyptus melliodora*) along the Burwood Highway frontage; tree 50 – an 11m high Candlebark (*Eucalyptus rubida*) in fair-poor condition; and tree 119, a Swamp Gum (*Eucalyptus ovata*) consisting of young sprouts up to 7m high arising from a stump.

Planted Indigenous Trees Other indigenous trees which occur on the site but which do not appear to be of local provenance and hence are likely to be planted include five Manna Gum (*Eucalyptus viminalis*) and a Yellow Box. These trees include trees 6, 7, 79, 109 and 222 – all Manna Gum and tree 87 – a Yellow Box. It is unlikely these will require a permit under clause 52.17. Trees native to Victoria which have been planted are exempt from requiring a permit to remove unless:

“planted or managed with public funding for the purpose of land protection or enhancing biodiversity unless the removal, destruction or lopping of the native vegetation is in accordance with written permission of the agency (or its successor) that provided the funding.”

There are a number of River Red Gums within the site. These are quoted as being indigenous in the arborist report by Blue Gum however it is my experience that although the species occurs naturally in many parts of Melbourne, it does not occur naturally in this vicinity. Furthermore there is no sign of it along the nearby Dandenong Creek where one would expect to find such a species if it was present in the area. Old trees of Yellow Box, Swamp Gum and Manna Gum are found there. The publication Flora of Melbourne does not show River Red Gum to occur in the

vicinity. However the Blue Gum report says that they are unlikely to be self-sown but rather planted, an observation with which I concur.

Trees Native to Victoria The majority of the trees on the site are planted Australian natives whose natural distribution includes parts of Victoria but not near the subject site. Very common examples of these are Red Iron barks (*Eucalyptus sideroxylon*) and Spotted Gum (*Corymbia maculata*), the two most common species on the site. Most are in moderate condition. Other relatively common examples in this category are the Yellow Gum (*Eucalyptus leucoxylon*), Brittle Gum (*Eucalyptus mannifera* ssp *maculosa*) and Southern Mahogany (*Eucalyptus botryoides*). The common Sweet Pittosporum tree is an example of a weed found on the site but which occurs naturally elsewhere within Victoria.

The trees in this category are in variable condition however the most significant and highest worth for retention in my opinion is the stand of Red Iron bark dominated trees near the north west corner – south and west of the electrical substation - trees 193-236. The trees form a large copse of predominantly well formed healthy individuals with a long safe useful life expectancy (SULE). This stand is readily visible from the Burwood Highway.

Trees Native to Australia but not Victoria Species in this category which are relatively common on the site include Dwarf Sugar Gum (*Eucalyptus cladocalyx* ‘Nana’), Lemon Scented Gum (*Corymbia citriodora*), Tuart (*Eucalyptus gomphocephala*), Norfolk Island Hibiscus (*Lagunaria patersonia*) and Swamp Mallet (*Eucalyptus spathulata*). Angophora and assorted smaller trees such as Cup Gum (*Eucalyptus cosmophylla*), Hakea, Melaleuca, Callistemon and Acacia are also present.

Exotic Trees Non native trees are in the minority at the site. Around the buildings are where most occur. Generally they are smaller than average. Examples are a Honey Locust (*Gleditsia tricanthos* cultivar), Leyland Cypress (*x Cuprocyparis leylandii*), apple (*Malus domestica*), Callery Pear (*Pyrus calleryana* cv), Jacaranda (*Jacaranda mimosifolia*), Evergreen Alder (*Alnus acuminate*) and Photinia. All are commonly occurring in the metro area.

There are a number of exotic weed trees such as Desert Ash (*Fraxinus angustifolia*), Privet (*Ligustrum lucidum*), Cotoneaster (*Cotoneaster glaucophyllus*) and Mirror Bush (*Coprosma repens*).

Age of the Trees

It is apparent from the 1975 dated aerial image (figure 12 of the Heritage Citation) that there was very little canopy cover on the site when the photo was taken. The great majority of the trees appear as small dark dots, indicative of recent planting.

The majority of trees appear to be slightly less than 50 years of age. Those still present along the west boundary which are considerably older would include several of the Southern Mahoganies, namely trees 47, 93 and possibly 105. These could be of the order of 60-70 years of age. The small stand of apples (trees 26-29) near the front of the site look to be a remnant patch from the apple orchard days prior to the ARRB use. There are several trees along the Burwood Highway frontage which would have pre-dated the ARRB use. The Red Iron bark dominated stand referred to earlier appears to have been recently planted and hence highly likely to be part of the Beryl Mann design. Around the buildings some of the trees, particularly the exotic species, are likely to be younger than the buildings, eg the Honey Locusts, Leyland Cypresses and others near the north-east corner, and some of the assorted trees within the courtyards between wings. For example, the trees 176-180 between the truck bay and research wing 1 are post 1981 plantings as is evident from the Landata aerial photo dated Jan 1981. The ornamental pears along the front of the building probably date back to the early 1970s.

Tree 135, the large self-sown indigenous Yellow Box close to the edge of the research wing 2 near the east side of the site, is clearly the oldest and most well established tree on the site, likely to be of the order of a hundred years of age. It appears that at least one of the self-sown indigenous Long leaved Boxes in the vicinity, namely tree 240, also pre-dates the buildings.

Condition of the Trees

The condition of the trees is widely variable, as would be expected for a population of 240+. In general the health is moderate however as would be expected from Australian native dominated species, structure and branch shed history is an issue, particularly for any medium density or higher re-development of the site. In any re-development, the retention of clumps of trees in reasonable condition rather than any one individual is preferable.

High Worth Trees or Tree Clumps

The cluster of trees comprised by numbers 193-236 near the front of the site is impressive. It consists predominantly of Red Iron bark with a dominant height of 18m. Although there are a few individuals within of relatively low worth, as a whole the clump has a long useful life expectancy.

Another stand of relatively high worth for retention includes trees 97-110 near the south-east corner of the site. In general this clump has a long SULE, is healthy and has large dominant trees such as Spotted Gum and Red Iron bark in good condition.

A third clump of moderate to high worth includes those trees along the Burwood Highway frontage, including the pair of Spotted Gums 185 and 186. Again, a number of trees within this clump are of low-moderate or low worth which should be

seriously considered for removal and re-planting. The better trees along the Burwood Highway frontage, include trees 2, 3, 7, 9, 12, 16, 185 and 186.

A fourth group of moderate to high worth is that to the east of research wing 2. This includes the large remnant Yellow Box, 3 Long leaved Boxes, a large Yellow Gum in good condition and a Victorian Blue Gum and a Swamp Mallet in moderate condition. Most of these should be seriously considered for retention in any re-development. The remaining trees in the group are of low or low-moderate worth.

With respect to individual trees, I believe that, subject to detailed investigation of the extent of decay at the base, there is only one on the site of high worth – namely Tree 135 the remnant Yellow Box. It is a veteran large healthy tree indicative of the once dominant species of the area. However its SULE is under a cloud as it has significant basal trunk decay – one can put one's arm through a cavity at the base of the tree. This does not necessarily mean the tree is severely compromised – it has prominent trunk flares and root buttressing indicative of a strengthening reaction by the tree to any weakening at the base. The decay is probably related to a combination of root damage inflicted when the ARRB building was constructed, along with the lopping probably 50+ years back of several large branches to gain clearance for the building construction. The other observation of concern is the presence of what appears to be a 1.5m length vertical crack in the trunk leading up from the base. It is possible this is the beginnings of a canker, rather than a crack, however I recommend that detailed probing of the lower trunk be undertaken before any planning decision is made as to whether to retain the tree. If the base of the tree is not found to be significantly compromised, some hazard reduction pruning may be necessary.

Trees of moderate to high worth include what I believe to be some of the self-sown indigenous trees i.e. trees 125, 126 and 240 (Long leaved Box) as well as Nos 12, 49, 87, 97, 106, 107, 132, 179, 180, 181, 185, 186, 190, 193, 197, 198, 199, 200, 201, 206, 208, 209, 210, 212, 214, 215, 224, 230, 233, 235 and 236. Note that the majority of these trees occur within the higher worth for retention stands of trees already discussed. To leave these trees as isolated specimens in most cases would not be a good management option, as they are often misshapen due to surrounding competition and there would be a heightened risk of storm damage as a result of increased exposure.

There are many of moderate worth – I have suggested that approx. 86 are in this category. The remaining are of low-moderate worth or low worth due to issues such as small size and lack of significance, weed status, poor condition, safety concerns.

Consideration of the Appropriateness of Amendment C230whse

In considering the appropriateness of Amendment C230whse, I have confined my response to the three proposed amendments or insertions which are of obvious relevance to trees. These are the:

- Amendment to *Schedule 5 to Clause 42.02 Vegetation Protection Overlay (VPO5)*
- Insertion of *Schedule 10 to Clause 42.03 Significant Landscape Overlay (SLO10)*
- Insertion of *Schedule 6 to Clause 43.02 Design and Development Overlay (DDO6)*

Schedule 5 to Clause 42.02 Vegetation Protection Overlay (VPO5)

Under the amended VPO5, three trees on the site, as per the Whitehorse Planning Scheme Incorporated Document 'Statement of Tree Significance' dated Sep 2021, will require a permit to be lopped, damaged or removed. These are a Brittle Gum (Tree 111), a Yellow Box (Tree 135) and a Sydney Blue Gum (Tree 183) – Trees 1, 2, 3 respectively as per the Whitehorse statement of significance.

Brittle Gum (Tree 111) This is an isolated tree located only a metre from the western edge of the research wing 3. It is not present in the Landata aerial photo dated Jan 1981, so it cannot be older than 43 years. As is typical of the species it has grown very quickly to reach a height of 16m and a spread north-south of 20m. It has been cut back heavily on its east side which overhangs the building, rendering it lopsided to the west. The bifurcation in the trunk at 3m height is a pressure fork which is not structurally sound. The tree is responding to a weakness caused by the presence of included bark at the fork by thickening the annual wood increments at the edges of the included bark near the bases of the co-dominant stems. The risk of splitting here is currently not imminent however given the rapid growth rate of the tree, it will be in 5 years or so. In addition, as is apparent from the photo on page 26, the tree has recently shed a branch on the road adjacent. It will be difficult to manage this tree safely in the future, as it would have been if there was no change in the ARRB usage. Also there is a high risk if nothing is done that any expanding lateral roots beneath the building slab will crack it. I was unable to ascertain whether this was already occurring due to the lino covering of the slab.

The species, whose natural distribution is within the central and southern tablelands of NSW and adjacent parts of NE Victoria, has been commonly planted in the metro area. The tree has only a medium worth for retention at best. It is not outstanding in any particular way. Furthermore I believe it may be difficult to responsibly retain the tree after demolition of the building. I cannot see the purpose of devoting an amendment to the VPO5 to its protection.

Yellow Box (Tree 135) I have already gone into detail regarding Tree 135. Its retention in any re-development of the site must be based on the outcome of a thorough investigation of the extent of basal decay and potential cracking. Assuming the tree is not found to be significantly structurally compromised, then I would suggest this tree is of high worth for retention and I would consider any planning overlay seeking to protect this tree as being reasonable.

Sydney Blue Gum (Tree 183) This is present as a small dot in the 1975 aerial photo hence less than 50 years of age. The species occurs naturally along the coastal ranges of NSW and into southern Queensland. It is of moderate size for a tree of this species and age, i.e. approx. 18m in height and 14m in spread. It has been commonly planted in the metro area in the past but much less commonly these days, due to the massive sizes it can attain and its branch shed propensity.

The condition of this tree is poor to moderate. It has several prominent canker rots in the lower - mid trunk, one of which has a couple of *Phellinus* fruiting bodies (see photos on pages 31 and 32). The decay associated will be significant and there will be nothing that can be done to prevent its rapid spread. Furthermore it has a prominent branch shed history. I counted at least 6 wounds of > 130mm diameter left by branches which have recently collapsed. The incidence and size of branch shed will continue to increase.

The tree's health is not good as is evident by the substantial foliar thinning of a major co-dominant stem in the upper crown. This upper crown thinning and the presence of the canker rots in the trunk are probably related.

I do not understand how this tree can be realistically nominated as one of only three to be covered by an amended VPO5.

In summary, subject to more investigations, I can understand why the remnant Yellow Box is considered as being of high worth for retention and inclusion within a VPO, however the same cannot be said for the other two trees. As I have outlined above, and which was also stressed in the Blue Gum report, it is certain clumps of trees which are important to retain, as opposed to any individual tree (with the possible exception of Tree 135 and the better self-sown indigenous individuals). In fact given the proposed SLO10 and DDO6, one wonders if there is any purpose for it at all.

Schedule 10 to Clause 42.03 Significant Landscape Overlay (SLO10)

In relation to the proposed Schedule 10 to the Significant Landscape Overlay (SLO10), a permit will be required to:

- Remove, destroy or lop a tree. This does not apply to:
- A tree that has both:-A height less than 5 metres; and-A single trunk circumference of less than 1.0 metres at a height of 1.0 metre above ground level.
- Any species listed as exempt from a permit requirement in the Table to this schedule.
- The pruning of a tree for regeneration or ornamental shaping.
- A tree which is dead or dying or has become dangerous to the satisfaction of the responsible authority.

TABLE TO SCHEDULE 10: Species exempt from permit requirements

Cootamundra wattle	<i>Acacia baileyana</i>	Australian Native Tree
Cape Wattle	<i>Paraserianthes lophantha</i>	Australian Native Tree
Sweet pittosporum	<i>Pittosporum undulatum</i>	Victorian Native Vegetation
Desert Ash	<i>Fraxinus angustifolia</i>	Exotic
Cotoneaster	<i>Cotoneaster</i> sp.	Exotic
Box Elder	<i>Acer negundo</i>	Exotic
Cherry Plum	<i>Prunus cerasifera</i>	Exotic
Hawthorn	<i>Crataegus monogyna</i>	Exotic
Mirror Bush	<i>Coprosma repens</i>	Exotic
Privet	<i>Ligustrum</i> spp.	Exotic
Radiata or Monterey Pine	<i>Pinus radiata</i>	Exotic
Sallow Wattle	<i>Acacia longifolia</i>	Exotic
Willow	<i>Salix</i> spp.	Exotic

It would appear that the purpose of this proposed overlay is to reflect the legacy of the Beryl Mann designed landscape. According to a reference provided in the Allom Lovell 1999 Heritage Citation, as stated in Appendix A of the Bryce Rayworth 2021 Conservation Management Plan, Beryl Mann noted that the proposed landscaping “provided the opportunity for testing and display of plants suitable for roadside or road median planting”. Therefore her selection of species would have been somewhat experimental with the knowledge that some were likely to fail whilst others thrived. We don’t know how many trees and of what species have died since establishment. It is likely she expected that a feature of her design was to demonstrate the trees better able to cope with the vicissitudes of the environment and the pressures of time. Furthermore as noted on page 42 of the Conservation Management Plan by Bryce Rayworth, the original landscape concept of the site has been disrupted by subsequent subdivision and reduction of curtilage provided to the buildings. The CMP also states that the planting of native trees in open lawns was not remarkable for the period.

I agree that there are attractive stands of trees at the site which I have already discussed that are of environmental and aesthetic benefit. Thus in principle I don’t have a problem with some sort of overlay which seeks to protect these and the higher worth trees within. However I don’t see the necessity to apply this overlay to the whole site.

Schedule 6 to Clause 43.02 Design and Development Overlay (DDO6)

A design objective is “To retain the spacious and landscaped setting of the Burwood Highway frontage and enhance the existing landscape character of the site by retaining significant trees and stands of trees, and providing new landscaping that reflects the original landscaping themes.

The DDO6 states “No buildings are to be constructed between Burwood Highway and the north façade of the former Administration building. A planning permit cannot be granted to vary this requirement.”

It says “Retain existing significant trees and stands of trees, being those of high and medium value.” And “No buildings are to be constructed between Burwood Highway and the north façade of the former Administration building. A planning permit cannot be granted to vary this requirement”.

Application Requirements:

In tree related matters, a recommended application requirement is:

A report from a suitably qualified arborist that:

- assesses the health of the trees and justifies any tree removal;
- outlines the measures to be taken, particularly during construction phase, to ensure that long-term preservation of trees on, or adjoining, the development site.

A decision guideline is “How the landscape design responds to the existing landscape character and Beryl Mann’s themes for the site, including the retention of significant vegetation.”

My response in relation to the above is as follows:

I agree with the design objective as stated above, with the emphasis on retention of certain stands of trees (allowing for the removal of certain individuals such as those of poorer status within the stands without jeopardising the impact and longevity of the stand as a whole). These include the stands of trees roughly defined by numbers 193-236, trees 97-110, the better trees in the stand east of research wing 2 including trees 122, 125, 126, 131, 132, 135, & 240 and the better trees along the Burwood Highway frontage, including trees 2, 3, 7, 9, 12, 16, 185 and 186.

I don’t have a problem with the requirement for an arborist report being provided as part of an application, although it cannot be expected that the report can ‘justify’ any tree removal.

Comments on the Blue Gum Arborist Report

I agree with the bulk of the Blue Gum report and particularly with the following statement which is important in considering the appropriateness of Amendment C230whse:

“the existing stands of trees were an original design feature of the site and provide significant amenity and environmental benefits to the sites their retention should be prioritized. This will mean that higher priority should be given to retaining trees within the existing stands based on their contribution to the group of trees and not necessarily their individual characteristics.”

I also agree with the assertion in that report that the eastern and western group of trees does not warrant being retained as a larger groups.

Sizes

As a result of checking the DBHs of at least 25% of the trees, with a bias to the larger ones, it is apparent that the DBHs and hence the derived TPZs and SRZs from the Blue Gum report are reliable. A prominent exception is tree 105 where the DBH is half that listed.

In terms of estimated heights and spreads there are a few differences to the actual case, eg trees 8, 106, 107, 111, 131, 130, 135, 193. In most of these cases the sizes were a little under estimated.

Species

There are a number of incorrect species labelling in the Blue Gum report. In most cases this is unlikely to have much influence on the outcome in terms of tree significance, however there are some notable exceptions, such as where remnant type indigenous trees have been called something else, and conversely, a Western Australian species (Tuart) which occurs on site on a number of occasions has been incorrectly labelled as one of either two indigenous (Yellow Box and Long leaved Box) on seven different occasions. On another occasion it was labelled something else again. Below is a list containing the differences.

Tree No.	Actual Species	Species Listed by Blue Gum
8	Sugar Gum	River Red Gum
9	Victorian Blue Gum	Southern Blue Gum
17-20, 22	Leyland Cypress	Monterey Cypress
50	Candlebark	Red Spotted Gum
52, 191	Tuart	Yellow Box
54, 56, 64, 81	Tuart	Long leaved Box
84	Dwarf Sugar Gum	Long leaved Box
90	Tuart	Southern Mahogany
122	Victorian Blue Gum	Southern Blue Gum
125	Long leaved Box	Yellow Box
132	Yellow Gum	River Red Gum
150, 151	Evergreen Alder	Common Alder
163	Red Mexican Hawthorn	Cherry
202	Southern Mahogany	River Red Gum

The Blue Gum report suggests there is only one self-sown indigenous tree on the site, however I believe there are four Long leaved Box opposite the research wing 2 in this category and the possibility of several other self-sown indigenous trees elsewhere.

River Red Gum is stated in the Blue Gum report as being indigenous however my experience is that this species does not occur naturally in the local area, hence I would suggest that individuals of this species have been planted.

Worthiness of Retention Ratings

I found there to be one high worth for retention tree (subject to further analysis), 33 of moderate to high worth and 86 medium worth trees on the site. The Blue Gum report suggests 49 of high worth and 81 of moderate worth.

Summary

The tree canopy on the site is overwhelmingly provided by Victorian and Australian native trees, virtually all of which are commonly found within the metro area. The few self-sown indigenous trees appear to be confined to the zone between research wing 2 and the east boundary. There are several stands of trees which are of high worth, given their overall substantial size, overall good condition attractive nature and environmental benefit. However in terms of individual trees I would suggest there are none to be considered of high worth for retention, with the exception, subject to further investigation, of tree 135 opposite Research Wing 2.

In relation to the appropriateness of Amendment C230whse, I would suggest that the amendment to the VPO5 in its current form is not appropriate, however I do not have a problem with modifications to the proposed SLO10 and DDO6 overlays which seek to protect the following groups of trees (allowing for trees within to be removed such as those of low worth, as long as the stands themselves are not compromised): Trees 193-236, trees 97-110, the stand east of research wing 2 including the large remnant high worth Yellow Box (135), the Long leaved Boxes 125, 126 & 240, a large Yellow Gum in good condition (132) and a Victorian Blue Gum (122) and a Swamp Mallet (131) in moderate condition, and the better trees along the Burwood Highway frontage, including trees 7, 9, 12, 16, 185 and 186.

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 Tribunal.

GALBRAITH & ASSOCIATES



Rob Galbraith

Notes on Terminology

In order to understand the column headings of the tables of data, I have provided the following explanations:

Tree Origin Categories

Each tree has been classified as to whether it is indigenous (**I**), native to Victoria (**V**), native to Australia (**A**), exotic (**E**) or an environmental weed (**W**).

An indigenous species (**I**) is one that is known to grow naturally in the local area, even if the individual tree has been planted and is from a seed source or provenance foreign to the area.

A species classified **V** is one which has a part or all, even if very small, of its natural range within Victoria, although it may occur outside the state as well. It does not however occur naturally in the local area.

A species classified **A** is native elsewhere in Australia than Victoria. It does not occur naturally in the local area.

A species classified **E** has its natural range occurring outside Australia.

A species classified **W** is a seriously invasive environmental weed.

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.

Retention Value:

The worth for retention of a tree within the subject site 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

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 (~ 69% 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.

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, is or 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 been briefed by Norton Rose Fulbright Australia to undertake the following:

- (1) review of the preliminary brief dated the 21/July/22 along with the relevant background materials provided me by Norton Rose Fulbright;
- (2) view the site and assess the trees;
- (3) consider of the appropriateness of the Amendment, having regard to arboricultural considerations, within the limits of my expertise;
- (4) prepare an expert witness statement; and
- (5) attend at any expert witness conclave and appear before the Panel to provide independent expert evidence in this matter.

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

The Arborist Report dated 16 Aug 2021 by Bluegum

The Heritage Statement of Significance dated 22/June/20

The Conservation Management Plan dated Feb/21 by Bryce Rayworth Pty. Ltd.

The Heritage Citation Report by Coleman Architects

The Landata Aerial Photo dated Jan 1981

The Schedule 10 to the Significant Landscape Overlay (SLO10)

The Schedule 5 to the Vegetation Protection Overlay (VPO5)

The Statement of Tree Significance dated September 2021 – Whitehorse Planning Scheme Incorporated Document

The Schedule 6 to the Design and Development Overlay (DDO3)

The Field Guide to Eucalypts, Vol 1, by Brooker and Kleinig Inkata Press.

Flora of Melbourne Edition 3 – Australian Plants Society Maroondah, Hyland House 2006

7. Other Persons Relied Upon

Nil

8. Summary of my Opinions

The tree canopy on the site is overwhelmingly provided by Victorian and Australian native trees, virtually all of which are commonly found within the metro area. The few self-sown indigenous trees appear to be confined to the zone between research wing 2 and the east boundary. There are several stands of trees which are of high worth, given their overall substantial size, overall good condition, attractive nature and environmental benefit. However in terms of individual trees I would suggest there are none to be considered of high worth for retention, with the exception, subject to further investigation, of tree 135 opposite Research Wing 2.

In relation to the appropriateness of Amendment C230whse, I would suggest that the amendment to the VPO5 in its current form is not appropriate, however I do not have a problem with modifications to the proposed SLO10 and DDO6 overlays if they seek to protect the following groups of trees (allowing for the odd tree such as those of low worth trees within to be removed, so long as the stand as a whole is not compromised):

Trees 193-236, trees 97-110, the stand east of research wing 2 including the large remnant high worth Yellow Box (135), the Long leaved Boxes 125, 126 & 240, a large Yellow Gum in good condition (132) and a Victorian Blue Gum (122) and a Swamp Mallet (131) in moderate condition, and the better trees along the Burwood Highway frontage, including trees 7, 9, 12, 16, 185 and 186.

9. Relationship with Permit Applicant

I have no relationship with the permit applicant other than a financial agreement to prepare this evidence statement.

The following four photos are of the Red Iron bark dominated stand near the front of the site



The Honey Locusts in the foreground are likely later plantings.





224



186

185

183



181

155

182



240



135

132

124



122

124



240

125

126



119

122



View of the moderate to high worth group trees 97-110.



110

97



Tree 111 - recently fractured branch lying on the road.



Tree 110



The dominant tree in the photo is tree 135



135



Tree 135 has been lopped in several places many years ago.



Base of tree 135 – substantial hollowing and potential crack



Base of 135



Tree 109



180

178

179



184

183 The thinning upper crown is arrowed



The above 2 photos show the canker rots and stubs left by fractured branches



View of the east side of the trunk of tree 183 with another canker rot. The associated fruiting bodies are arrowed.