

## Arboricultural Assessment and Report

Alexandra Parade Median  
Carpark,  
Fitzroy

22 December 2023 (revised)

Tree Logic Ref. 011874

Prepared for Stephanie Fakhry – Development Victoria

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## 1 Objectives

Tree Logic was engaged to undertake an arboricultural assessment of trees located within the median strip on Alexandra Parade, Fitzroy. This report describes the current status, condition and arboricultural value of the assessed trees, and presents permit requirements, possible impacts from proposed construction works, and recommendations with regard to tree management.

## 2 Method

A site inspection was carried out on Friday, 29 October 2021. The trees were inspected from the ground and observations were made of the growing environment and surrounding area. The trees were not climbed, and no samples of the tree or soil were taken.

Observations were made of the assessed trees to determine the species, age category, and condition with measurements taken to establish tree crown height (measured with a height meter) and crown width (paced) and trunk dimensions (measured 1.4 metres above ground level with a diameter tape unless otherwise stated). Descriptors used in the assessment can be seen in Appendix 3.

Assessment details of individual trees are listed in Appendix 1 and a copy of the tree location plan can be seen in Appendix 2.

Some photographs of the trees and the environs were taken for further reference and inclusion in the report.

Only trees were assessed, and data collected. A tree is generally a plant with a height greater than 5 metres on a single trunk with a single trunk (stem) diameter (DBH) being greater than 150 mm at a height of 1.4 metres above ground level.

Each of the assessed trees was attributed an 'Arboricultural Rating'. The arboricultural rating correlates the combination of tree condition factors (health and structure) with tree amenity value. It should be noted that the arboricultural rating is different to the conservation/ecological values placed on trees by other professions. Definitions of arboricultural ratings can be seen in Appendix 3.

The assessed trees have been allocated tree protection zones (TPZ). The Australian Standard, AS 4970-2009, has been used as a guide in the allocation of TPZs for the assessed trees. This method provides a TPZ that addresses both the stability and growing requirements of a tree. TPZ distances are measured as a radius, from the centre of the trunk at (or near) ground level. All TPZ measurements for are provided in Appendix 1.

## Documents viewed;

- Planning Property Report, Fitzroy Gasworks – Department of Environment, Land, Water and Planning, dated 2021-Nov-04
- Preliminary Alexandra Parade Median Carpark Layout, Development Victoria Fitzroy Gasworks – GHD, rev. B dated 03-Jun-21
- Alexandra Parade, Clifton Hill Option 2 (Central Access) – Site Layout – Traffix Group, Issue H-exit adjusted to avoid pole, dated 10-Feb-2023
- Alexandra Parade, Clifton Hill Option 4 – Site Layout – Traffix Group, Issue C – Updated Issue, dated 27-Nov-2023
- Boundary Re-establishment, Feature and Level Survey, Fitzroy Gasworks, 433 Smith Street, Fitzroy North – Veris, dated 2021-Aug-20
- City of Yarra General Local Law (consolidated), General Local Law (2016)
- City of Yarra Significant Tree Register
- City of Yarra Street Tree Policy
- City of Yarra Tree Removal Guidelines



**Figure 1:** An aerial image showing the subject site (outline in red).

### 3 Observations

The nominated tree study area was a grassed, open median strip in Alexandra Parade, Fitzroy. It was bounded to the east by Smith Street and to the west by George Street. The trees were located at the edges of the median strip, leaving the centre of the area open. Mulch had been applied around the bases of the trees, at varying depths. Trees were observed in mid-spring and the deciduous species on site were in varying stages of leaf development. See Figure 1 for an indication of the study area.

Thirty-two (32) individual trees were formally assessed in relation to proposed works within the nominated study area.

- Individual tree details are provided in Appendix 1;
- Refer to Appendix 2 for tree numbers and locations.

All of the assessed trees were considered to be introduced specimens planted for garden, screening and amenity purposes.

**Tree health** was assessed based on foliage colour, size and density as well as shoot initiation and elongation.

- The majority of assessed trees (31 trees) were displaying characteristics considered to be typical or better of the species growing in this environment under current conditions;
- One tree (1) tree was considered to be in Fair to Poor health

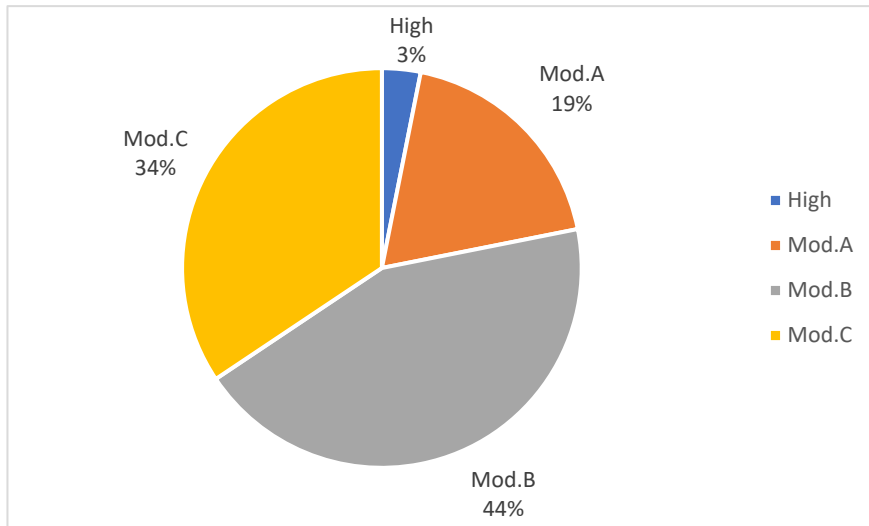
**Tree structure** was assessed for structural defects and deficiencies, likelihood of failures and risk to potential targets.

- Twenty-three (23) trees displayed Fair structure in terms of primary branching arrangement and architecture;
- Nine (9) had Fair to Poor structure with defects such as previous failures and acute forks;

#### **Arboricultural Rating**

The assessed trees were attributed with an arboricultural rating. This rating relates to the combination of tree condition factors, including health and structure (arboricultural merit), and also conveys an amenity value. Amenity relates to the tree's biological, functional and aesthetic characteristics within an urban landscape context.

Definitions of arboricultural ratings can be seen in Appendix 3.



**Figure 2:** Breakdown of arboricultural ratings.

Trees with a **High** rating are generally exemplary specimens due to multiple factors including condition, vitality, size, and prominence in the landscape.

- One (1) tree was rated High

Trees with a **Moderate A** rating were generally prominent trees in fair or better condition with medium to long-term components of the landscape if managed appropriately.

- Six (6) trees were rated Moderate A;

Trees with a **Moderate B** rating were generally in fair or better condition and have the potential to be medium to long-term components of the landscape if managed appropriately.

- Fourteen (14) trees were rated Moderate B;

Trees with a **Moderate C** rating were trending towards a Low arboricultural rating, however, represent an established tree resource and may be considered for retention.

- Eleven (11) trees were rated Moderate C.

## 4 Tree Permit Requirements

The subject site is located within the City of Yarra and is covered by the Road Zone Category 1 (RDZ1). No specific tree controls apply to the site under any planning overlays.

The *City of Yarra Local Law* requires a permit to remove, damage, destroy or lop a significant tree located on either private or public land. A significant tree is a tree which meets one or more of the following criteria:

- The tree is single trunked with a trunk diameter of 400 mm or greater measured at 1500 mm (1.5 m) above the ground; or
- The tree is multi-trunked with a combined trunk diameter of 400 mm or greater measured at 1500 mm (1.5 m) above the ground; or
- The tree is individually listed on the significant tree register
- The tree is one of a group of trees listed on the significant tree register;
- The tree is single trunked with a trunk diameter of 400 mm or greater measured at ground level; or
- The tree is multi-trunked with a combined trunk diameter of 400 mm or greater measured at ground level;

No trees on the site appear on the City of Yarra *Significant Tree Register*.

For Council managed trees The City of Yarra specifies that all decisions regarding removal will be made in accordance with the provisions of the *Tree Removal Guidelines* and authority for removal will rest with Council's Director City Strategy and Services. Requests to remove Council managed trees will be assessed on the tree's condition, suitability, landscape value and significance. Further information should be sought from The City of Yarra Council.

The site is larger than 4000 m<sup>2</sup> and therefore subject to Clause 52.17 'Native Vegetation' of the Victorian Planning Scheme. In our consideration, all trees are planted for amenity purposes and are therefore exempt from any permit requirements under Clause 52.17 'Native Vegetation'.

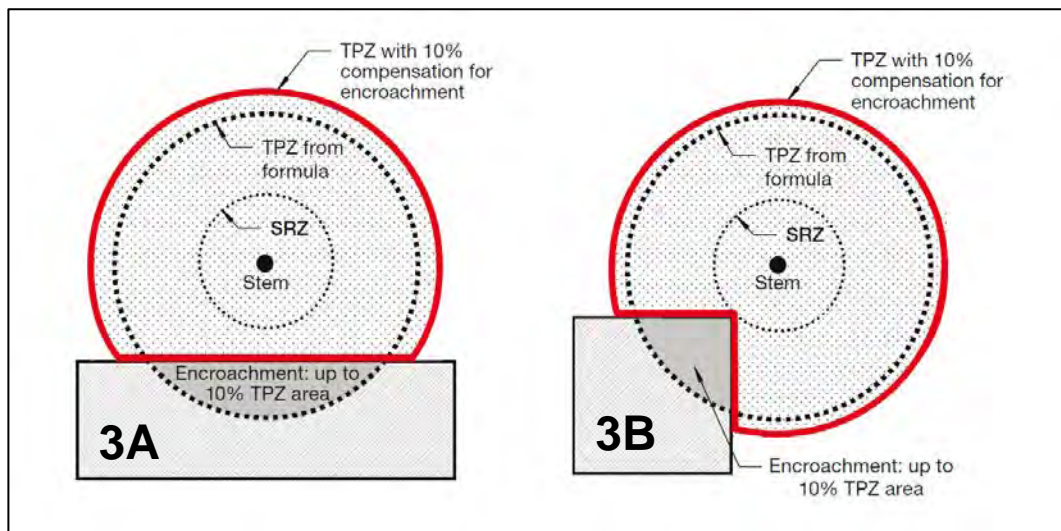
## 5 Tree Protection Zones

An arboricultural assessment provides planners and designers with information on the measures required to protect trees suitable for retention. To successfully retain trees in conjunction with alterations to the site, suitable tree protection zones (TPZ) must be established and maintained prior to commencing, and for the duration of any works in proximity to retained trees.

The Australian Standard for Protection of Trees on Development Sites (AS4970-2009) has been used as a method for calculating a TPZ. The TPZ defines an area in which construction activity is either avoided, or at least controlled, in order to successfully sustain a tree.

Minor encroachment, up to 10% of the TPZ area, is generally permissible provided encroachment is compensated for by recruitment of an equal area contiguous with the TPZ. Encroachment greater than 10% is considered major encroachment under AS4970 and is only permissible if it can be demonstrated that after such encroachment the tree would remain viable.

See Figure 3 below for examples of minor encroachment.



**Figure 3:** 3A & 3B – Examples of minor encroachment into a TPZ.

Extract from: AS4970-2009, Appendix D, pg. 30 of 32.

The Structural Root Zone (SRZ) represents the minimum area required to maintain tree stability, without consideration of tree health. No works should be undertaken within the SRZ unless based on non-destructive root investigation and root-sensitive design and construction methods.

- All TPZ and SRZ measurements are provided in the tree assessment data which can be found in Appendix 1.

## 6 Tree impact considerations

The pre-development arboricultural assessment report provides planners and designers with information on the measures required to protect trees suitable for retention, minimise impacts and avoid, where possible, the requirement to remove trees.

Trees grow in a delicate balance with their environment and any changes to that balance must be minimised if the tree is to remain in a healthy state and fulfil its potential. It is rarely possible to repair stressed and injured trees, so damage needs to be avoided during all stages of development and construction. Tree protection cannot be achieved without a proactive approach. The hierarchy of principles for tree protection are:

- Avoid damage to the subject trees
- Minimise damage to the subject trees
- Replace the subject trees and improve the landscape (as a last resort)

Proposed works for the site include the construction of 78 carparking spaces. 37 in the western section and 41 in the eastern section, along with accompanying landscaping and paving to provide access to vehicles and pedestrians.



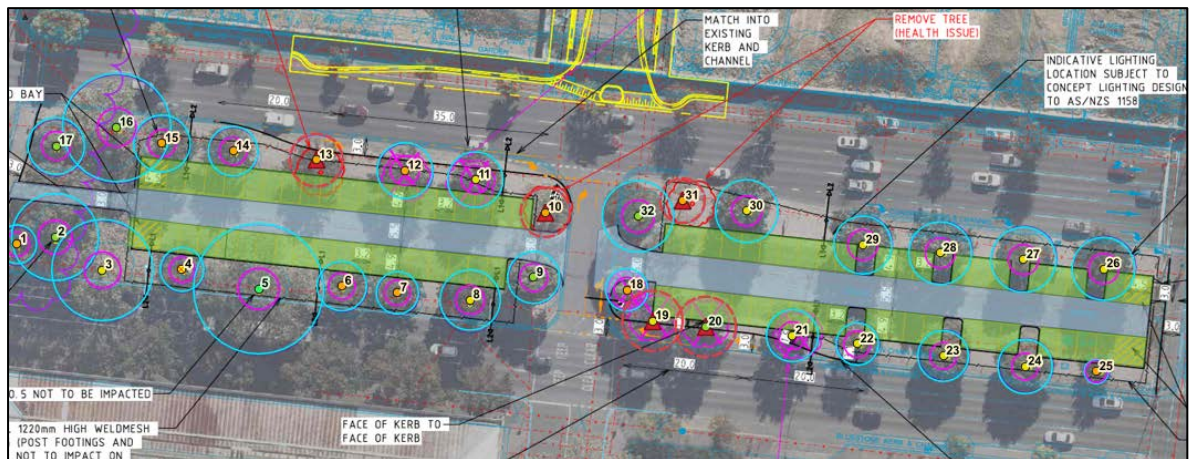
The alignment of the proposed construction footprint was reviewed to assess the potential impacts to trees based on the TPZ and SRZ distances formulated by the method in the Australian Standard AS4970-2009 *Protection of trees on development sites*. The following impacts to trees are perceived:

### General

- Trees 1, 17, and 31 experience no encroachment from the proposed design.
- Trees 2, 3, 7, 16, 25 and 30 would have their TPZ's encroached by less than 10% by the proposed design. According to AS4970 such encroachment is considered minor encroachment and should be compensated elsewhere, contiguous with the TPZ. All of these trees have adequate contiguous open ground to compensate for the encroachments.
- Tree 25 appears to have an SRZ encroachment. In our consideration the SRZ in this size tree (small) is likely overstated by the formula. The contiguous open, undisturbed ground around this tree is expected to adequately compensate for the encroachment.
- Trees 4, 5, 6, 8, 9, 10, 14, 15, 24, and 32 would have their TPZ's encroached by greater than 10% by the proposed design. According to AS4970 such encroachment is considered major encroachment and is only permissible if it can be demonstrated that after such encroachment the tree would remain viable.
- Trees 11, 12, 13, 18, 19, 20, 21, 22, 23, 26, 27, 28, and 29 would have their TPZ's encroached by greater than 10% and also their SRZs encroached by the proposed design. According to AS4970 such encroachment is considered major encroachment and is only permissible if it can be demonstrated that after such encroachment the tree would remain viable.
- As per AS4970, to determine the likelihood of a tree tolerating a major encroachment the project arborist must consider relevant mitigating factors, such as;
  - Tree species and tolerance to root disturbance
  - Age, vigour and size of the tree
  - Soil characteristics and volume, topography and drainage
  - Design factors

## Construction methods and surface treatments

- The design concessions to increase the likelihood of trees tolerating the proposed design include construction above existing grade, reduced compaction of the base layers and permeable surfacing.
- Two surface treatments are specified, each for different areas. Concrete paving and a grass grid system. In Figure 4 below, the concrete paving areas are shown in blue and the grass grid systems are in green.



**Figure 4:** Showing proposed construction methods for different areas. Blue indicates a concrete surface, green indicates a grass grid system.

- The grass grid system has been proposed in response to the need to allow water and oxygen movement into the soil, especially in the TPZ. Levels of compaction are also critical in this zone, and after discussion with the engineer it was understood that the grid surface could be installed on a base layer compacted using a 2.6T flat drum roller with no vibration. Also, using a no fines aggregate, such as 20mm washed aggregate, would allow the retention of voids after compaction. Voids in growing media are critical for tree root growth as the voids allow root access, water movement and storage, and the diffusion of oxygen to the roots.
- The reduced weight of the roller and the lower levels of compaction have also been specified to reduce the likelihood of damage to roots in the Structural Root Zone. This zone is critical to the stability of the tree and while sympathetic construction methods can allow surface modification within the SRZ, it must be ensured that roots in this zone are not severed or crushed.
- No roots within the SRZ are to be damaged or cut. The carpark surface (grass grid section) must be installed at or above existing soil levels. Works within the SRZ of retained trees should be supervised by the project arborist.
- Open space allocations into the carparking spaces have been given to trees 22, 23, 24, 26, 27, 28, and 29. While these trees will experience encroachment of their SRZs, if the works are conducted according to the recommendations above, in our opinion they are likely to tolerate the proposed design.

## Protection of undisturbed, open ground

- Maintenance of an exclusion zone over the open ground around the perimeter of the carpark will be critical to realizing the retention of the trees in question. This open ground represents the new ground space where trees will be able to regrow roots that may be lost to changes in conditions. Strict tree protection exclusion fencing should be installed before works commence and maintained for the duration of the works.
- No storage of machinery or materials should be allowed in this protected space.

## Higher rated trees

- Tree 2 is a **Moderate A** rated Yellow Box (*Eucalyptus melliodora*). The encroachment of its TPZ under the proposed design is 7%. This will be from the concrete pedestrian footpath link into the carpark. Under AS4970 8.5% encroachment is considered minor and we can observe that there is adequate contiguous open ground to allow new root recruitment for compensation. In our opinion Tree 2 would likely tolerate the encroachment.
- Tree 5 is a large London Plane (*Platanus xacerifolia*) in Good health with Fair structure. It is a **High** rated tree on the site and has a high retention value. Under the proposed design it would experience a 25% encroachment of its TPZ. While this is considered major encroachment under AS4970, there are two mitigating factors. London Planes are considered to be tolerant of root disturbance and are well known in the urban environment for enduring in highly disturbed landscapes. Also, the construction methods discussed above mean that only approximately 4% of the TPZ will be under the concrete surface, with the majority of the encroachment from the grass grid carpark. In our opinion, given the species and construction approach, it is highly likely that the tree could tolerate this level of encroachment.
- Tree 9 is Moderate A rated Semi-mature Dutch Elm (*Ulmus xhollandica*). Under the proposed design it would experience a 15% encroachment of its TPZ. While this is considered major encroachment under AS4970, given the youth and vigour of the tree and the presence of contiguous open ground to allow root recruitment we believe Tree 9 should be able to tolerate the encroachment of its TPZ.

## Trees lost to construction

- Trees 10, 13 and 31 are recommended for removal due to wounds, the presence of borers and generally poor structure.
- Trees 11 and 12 are impacted from two sides of their TPZ, to the north from the new sliplane and from the south from the carpark surface. These trees are unable to be retained under the proposed design.
- Trees 19, 20, and 21 are lost to the construction of a new sliplane allowing cars to enter the central access road between the two carparks. These trees are unable to be retained under the proposed design.

- Tree 18 is impacted by the sweep of the access into the eastern carpark. This tree is unable to be retained under the proposed design.

### General tree protection considerations

As well as reducing encroachment, the preserved portion of any TPZs on the subject site need to be managed before, during and after construction to avoid impacts to trunks, branches and soil. This is most readily achieved by installing tree protection fencing and/or ground buffering. Refer to Appendix 4 for TPZ establishment and management guidelines.

No form of excavation or trenching for installation of underground services is permitted within the TPZ areas of any retained tree. All underground services must be designed to avoid encroaching any TPZ or must be installed via directional boring at a minimum depth of 750mm to the top of the bore head with all entry and exit points located outside of the TPZ radius.

The design must consider the trees' canopies during the course of the proposed works and also in planning the required storage areas. Impacts to trunks, stems and branches must be avoided as it is almost impossible to rectify damage to trees once it has occurred.

- Refer to Appendix 3 for arboricultural descriptors and Appendix 4 for TPZ establishment and management guidelines.



**Figure 4:** Tree 2, a Moderate A rated Yellow Box. Viewed from the east.



**Figure 5:** Tree 5, a High rated London Plane. Viewed from the north.



**Figure 6:** Tree 3, a Moderate B rated London Plane. Viewed from the north-east.



**Figure 7:** Tree 17, a Moderate A rated Yellow Box. Viewed from the south-east.

## 7 Conclusion

The nominated tree study area was located in the median strip of Alexandra Parade, Fitzroy, between Smith Street and George Street. Thirty-two (32) individual trees were formally assessed in relation to proposed works within the nominated study area.

- Individual tree details are provided in Appendix 1;
- Refer to Appendix 2 for tree numbers and locations.

Proposed works for the site include the construction of 78 carparking spaces. 37 in the western section and 41 in the eastern section, along with accompanying landscaping, paving and roadworks to provide access to vehicles and pedestrians. The alignment of the proposed construction footprint was reviewed to assess the potential impacts to trees based on the TPZ and SRZ distances formulated by the method in the Australian Standard AS4970-2009 *Protection of trees on development sites*. See Section 6.

In the City of Yarra permits are required for removal of significant trees whether they are on private or public land. Council managed trees are only able to be removed under the authority of Council's Director City Strategy and Services. See Section 4 for details.

Impacts to the trees under the proposed design include;

- Trees 10, 13 and 31 are recommended for removal due to wounds, the presence of borers and generally poor structure.
- Six trees are lost due to impacts from the proposed design. Trees 11, 12, 18, 19, 20, 21.
- The SRZs of Trees 22, 23, 25, 26, 27, 28, and 29 are encroached by the footprint of the proposed carpark and **can only be retained if construction methods preserve the integrity of the roots in this zone**. See Section 6 for more details.
- Trees 4, 5, 6, 8, 9, 10, 14, 15, 24 and 32 would have their TPZ's encroached by greater than 10% by the proposed design. According to AS4970 such encroachment is considered major encroachment and is only permissible if it can be demonstrated that after such encroachment the tree would remain viable. See Section 6 for more details.
- Tree 5 is a High-rated maturing London Plane whose TPZ is encroached by 25%. Under the construction methods and surface treatments specified, in our opinion Tree 5 is highly likely to tolerate the proposed design. See Section 6 for more details.
- Tree 2 is Moderate A-rated maturing Yellow Box whose TPZ is encroached by 7% by the proposed footpath and pram ramp. Given the contiguous open ground to on other sides of the tree's TPZ, in our opinion Tree 2 is highly likely to tolerate the proposed design.
- Maintenance of an exclusion zone taking in the open ground around the perimeter of the carpark will be critical to realizing the retention of the trees in question. This open ground represents the new ground space where trees will be able to regrow roots that may be lost to changes in conditions. Strict tree protection exclusion fencing should be installed before works commence and maintained for the duration of the works.
- Appendix 1 shows the details of trees considered significant under City of Yarra General Local Law, and the percentage of encroachment of their TPZs.

Refer to Section 6 for a detailed impact assessment and recommended tree protection measures.

I am available to answer any questions arising from this report.

No part of this report is to be reproduced unless in full.

Signed



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## Appendix 1: Tree Assessment Data: Alexandra Parade, Fitzroy

Key: DBH = Diameter at breast height (1.4m up trunk) unless otherwise indicated. Basal dimensions is trunk diameter at base immediately above root buttress. Arb. Rating = arboricultural rating. TPZ = Tree protection zone in radial metres. SRZ = Structural root zone in radial metres. ULE = Useful Life Expectancy. Definitions of the descriptor categories used in the assessment can be seen in Appendix 3.

Refer to the following three (3) pages.

Tree No.	Species	Age Class	DBH Ø (cm)	Basal Ø (cm)	H x W (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Recommended Works	TPZ radius (m)	SRZ radius (m)	Encroachm't (%)	Impact	Permit trigger*	Outcome
1	<i>Eucalyptus melliodora</i> (Yellow Box)	Semi-mature	27	29	11 x 5	Fair to Poor	Fair	Mod.C	21-40 y	Minor dieback;Reduced foliage density		3.2	2	0			Retain
2	<i>Eucalyptus melliodora</i> (Yellow Box)	Maturing	60	70	22 x 11	Fair	Fair	Mod.A	21-40 y	trunk on lean to north-east; over-extended branches to north; tear-out wound on west of main leader at approx. 7 m	Weight reduction of north-heading branches	7.2	2.8	7	Minor encroachment as per AS4975	City of Yarra Significant Tree (DBH)	Retain
3	<i>Platanus Xacerifolia</i> (London Plane)	Maturing	70	80	17 x 16	Fair	Fair	Mod.B	21-40 y			8.4	3	3	Minor encroachment as per AS4976	City of Yarra Significant Tree (DBH)	Retain
4	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	30	33	10 x 9	Fair	Fair to Poor	Mod.B	21-40 y	decay in bark, possible borers in ascending branch to east		3.6	2.1	11	Major encroachment as per AS4970	Council managed tree	Retain
5	<i>Platanus Xacerifolia</i> (London Plane)	Maturing	90	104	21 x 20	Good	Fair	High	21-40 y	<i>Coprosma repens</i> seedling growing in primary union	Remove seedling growing in primary union	10.8	3.4	25	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
6	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	34	37	10 x 8	Fair	Fair	Mod.C	21-40 y	foliage less developed than others on site		4.1	2.2	15	Major encroachment as per AS4970		Retain
7	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	29	35	10 x 9	Fair	Fair	Mod.C	21-40 y	decay in ascending limb to south (over west-bound lanes of Alexandra Parade)	Aerial inspection	3.5	2.1	8	Minor encroachment as per AS4978		Retain
8	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	35,22	45	10 x 10	Fair	Fair	Mod.B	21-40 y	over-extended limb to north with small dead wood	Deadwood; Reduce over-extended branch	5	2.4	20	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
9	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	36	40	10 x 10	Good	Fair	Mod.A	21-40 y			4.3	2.3	15	Major encroachment as per AS4970	City of Yarra Significant Tree (basal)	Retain
10	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	34	43	12 x 9	Fair	Fair to Poor	Mod.C	11-20 y	Congested primary union;Included bark forks; flaking bark, appearance of decay or borers below, occurs frequently through upper crown at branch joints		4.1	2.3	22	Major encroachment as per AS4970	City of Yarra Significant Tree (basal)	Remove - permit required
11	<i>Ulmus Xhollandica</i> (Dutch Elm)	Early-mature	38	44	11 x 10	Fair	Fair	Mod.B	21-40 y			4.6	2.3	45	Major encroachment as per AS4970	City of Yarra Significant Tree (basal)	Remove - permit required
12	<i>Ulmus Xhollandica</i> (Dutch Elm)	Early-mature	38	45	10 x 10	Fair	Fair to Poor	Mod.C	11-20 y	flaking bark, borer holes beneath; lopsided crown from past pruning		4.6	2.4	46	Major encroachment as per AS4970	City of Yarra Significant Tree (basal)	Remove - permit required
13	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	37	38	10 x 10	Fair	Fair to Poor	Mod.C	11-20 y	flaking bark, appearance of borer damage throughout main leader		4.4	2.2	40	Major encroachment as per AS4970	Council managed tree	Remove - permit required
14	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	34	40	10 x 10	Fair	Fair to Poor	Mod.C	11-20 y	as per previous tree; pruning wound showing incipient decay		4.1	2.3	12	Major encroachment as per AS4970		Retain
15	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	39	41	10 x 10	Fair	Fair to Poor	Mod.C	11-20 y	Partly suppressed - crown bias		4.7	2.3	15	Major encroachment as per AS4970	City of Yarra Significant Tree (basal)	Retain

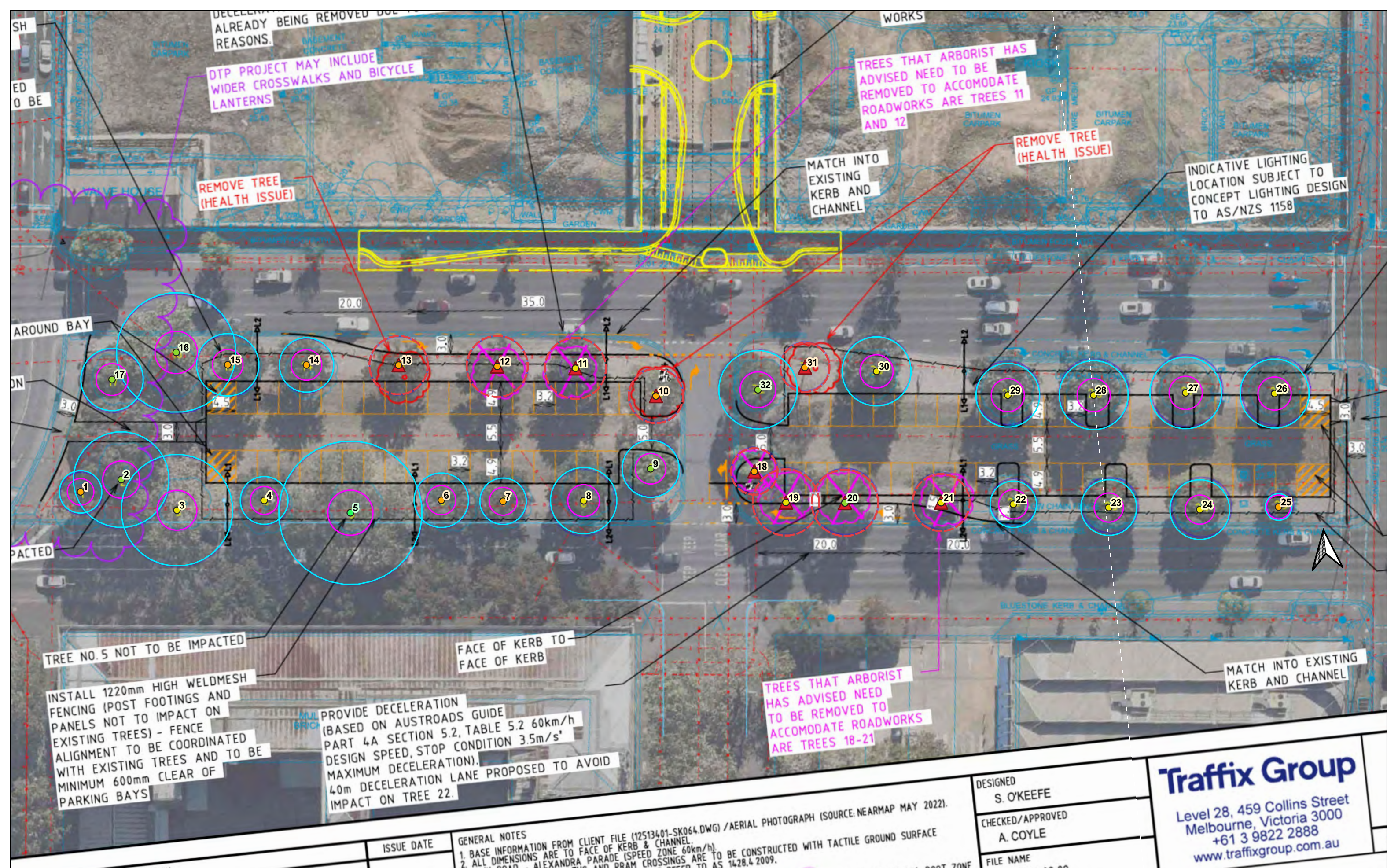


Tree No.	Species	Age Class	DBH Ø (cm)	Basal Ø (cm)	H x W (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Recommended Works	TPZ radius (m)	SRZ radius (m)	Encroachm't (%)	Impact	Permit trigger*	Outcome
16	<i>Platanus Xacerifolia</i> (London Plane)	Maturing	75	90	18 x 14	Fair	Fair	Mod.A	21-40 y	decaying stub occluding slowly		9	3.2	2	Minor encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
17	<i>Eucalyptus melliodora</i> (Yellow Box)	Semi-mature	39	47	12 x 8	Fair	Fair	Mod.A	21-40 y	some deadwood through crown	Deadwood	4.7	2.4	0		City of Yarra Significant Tree (basal)	Retain
18	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	29	33	9 x 7	Fair	Fair to Poor	Mod.C	11-20 y	bark decay with borers		3.5	2.1	31	Major encroachment as per AS4970	Council managed tree	Remove - permit required
19	<i>Ulmus procera</i> (English Elm)	Early-mature	42	47	12 x 10	Fair	Fair	Mod.B	21-40 y			5	2.4	66	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Remove - permit required
20	<i>Ulmus Xhollandica</i> (Dutch Elm)	Early-mature	42	48	12 x 10	Fair	Fair	Mod.A	21-40 y			5	2.4	85	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Remove - permit required
21	<i>Ulmus procera</i> (English Elm)	Early-mature	36	44	12 x 10	Fair	Fair	Mod.B	21-40 y			4.3	2.3	67	Major encroachment as per AS4970	City of Yarra Significant Tree (basal)	Remove - permit required
22	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	29	36	10 x 9	Fair	Fair	Mod.B	21-40 y			3.5	2.2	14	Major encroachment as per AS4970		Retain
23	<i>Ulmus Xhollandica</i> (Dutch Elm)	Semi-mature	35	36	9 x 9	Fair	Fair	Mod.B	21-40 y	flaking bark, borers/decay beneath		4.2	2.2	13	Major encroachment as per AS4970		Retain
24	<i>Ulmus Xhollandica</i> (Dutch Elm)	Early-mature	32,20	38	10 x 10	Fair	Fair	Mod.B	21-40 y	flaking bark, decay above and below pruning wound on south side of ascending stem		4.5	2.2	12	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
25	<i>Ulmus procera</i> (English Elm)	Semi-mature	11,9,8,8,7	23	7 x 6	Fair	Fair	Mod.C	21-40 y			2	1.8	7	Minor encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
26	<i>Ulmus procera</i> (English Elm)	Early-mature	43	53	13 x 10	Fair	Fair	Mod.B	21-40 y			5.2	2.5	29	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
27	<i>Ulmus Xhollandica</i> (Dutch Elm)	Early-mature	45	53	11 x 10	Fair	Fair	Mod.B	21-40 y	congested union with included bark fork on west;		5.4	2.5	30	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
28	<i>Ulmus procera</i> (English Elm)	Early-mature	43	53	14 x 12	Fair	Fair	Mod.B	21-40 y	over-extended branch to west	Reduce over-extended branch	5.2	2.5	32	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
29	<i>Ulmus procera</i> (English Elm)	Early-mature	40	51	13 x 9	Fair	Fair	Mod.B	21-40 y			4.8	2.5	30	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
30	<i>Ulmus procera</i> (English Elm)	Early-mature	43	51	12 x 11	Fair	Fair	Mod.B	21-40 y			5.2	2.5	10	Minor encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
31	<i>Ulmus Xhollandica</i> (Dutch Elm)	Early-mature	31	36	10 x 17	Fair	Fair to Poor	Mod.C	21-40 y	large wound on south-west of trunk, some occlusion beginning; borer damage rising up main leader		3.7	2.2	0		Council managed tree	Remove - permit required

Tree No.	Species	Age Class	DBH Ø (cm)	Basal Ø (cm)	H x W (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Recommended Works	TPZ radius (m)	SRZ radius (m)	Encroachm't (%)	Impact	Permit trigger*	Outcome
32	<i>Ulmus Xhollandica</i> (Dutch Elm)	Early-mature	49	64	14 x 10	Fair	Fair to Poor	Mod.A	21-40 y	2 x 50 mm branches lost in recent storm		5.9	2.7	25	Major encroachment as per AS4970	City of Yarra Significant Tree (DBH)	Retain
* for all Council managed trees, authority for removal rests with Council's Director City Strategy and Services.																	

## Appendix 2: Tree Location Plan: Alexandra Parade, Fitzroy

Refer to the following 2 pages.



**APPENDIX 2A — TREE LOCATIONS AND PROTECTION ZONES**

**PROJECT**  
Alexandra Parade Median Carpark, Fitzroy

**TL REF.** 011874    **MAP NO.** 1/1    **DATE** 2023-12-18

**CLIENT**  
Stephanie Fakhry Development

**DATA SOURCES**  
Nearmap Imagery 2021-09-01  
Boundary Re-establishment, Feature and Level Survey, Fitzroy Gasworks, 433 Smith Street, Fitzroy North - Veris, 2021-08-20

Alexandra Parade, Clifton Hill Option 4 – Site Layout – Traffix Group, Issue C - updated issue, dated 27-Nov-2023

**LEGEND**

- Arboricultural Rating**
- High
  - Mod-A
  - Mod-B
  - Mod-C
- Tree Protection Zones and Trees for Removal**
- TPZ
  - SRZ
  - ▲ Remove
  - TPZ remove

**NOTES**  
West of Tree 21 the preliminary design is based on aerial imagery - tree locations on the preliminary design overlay are not accurate.

**TREE LOCATION DISCLAIMER**  
Tree locations are approximate

**COORDINATE REFERENCE SYSTEM**  
EPSG: 28355 | GDA 94 MGA Zone 55

**DESIGNED**  
S. O'KEEFE

**CHECKED/APPROVED**  
A. COYLE

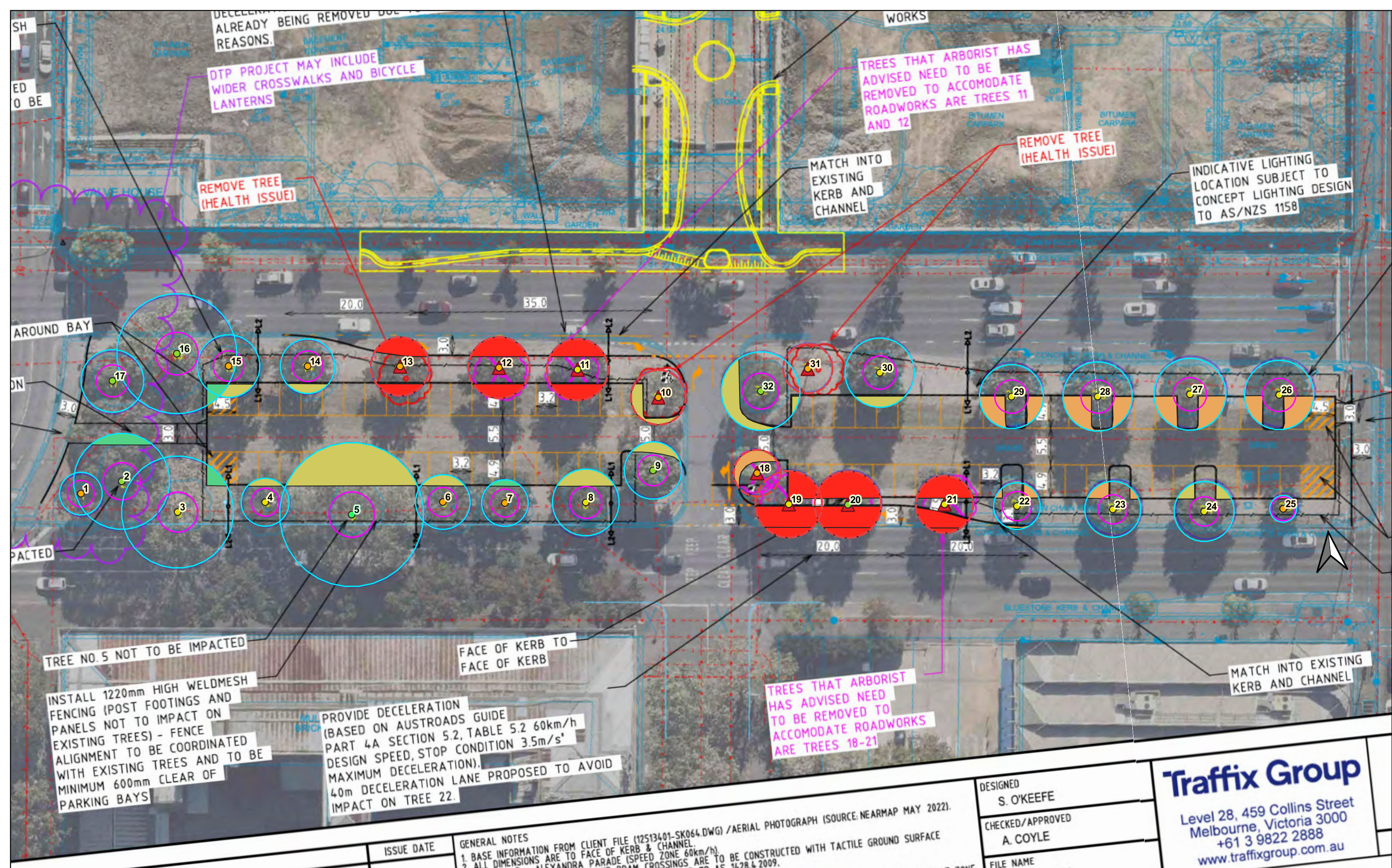
**FILE NAME**

**Traffix Group**

Level 28, 459 Collins Street  
Melbourne, Victoria 3000  
+61 3 9822 2888  
www.traffixgroup.com.au

ABN: 95 080 021 610    **TREELOGIC PTY LTD**  
TEL: 1300 656 926    4/21 Eugene Toe  
Ringwood, VIC  
Australia 3134

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**ENCROACHMENTS — TREE LOCATIONS AND PROTECTION ZONES**

**PROJECT**  
Alexandra Parade Median Carpark, Fitzroy

TL REF. 011874  
MAP NO. 1/1  
DATE 2023-12-18  
CLIENT Stephanie Fakhry Development

**DATA SOURCES**  
Nearmap Imagery 2021-09-01  
Boundary Re-establishment, Feature and Level Survey, Fitzroy Gasworks, 433 Smith Street, Fitzroy North - Veris, 2021-08-20  
Alexandra Parade, Clifton Hill Option 4 – Site Layout, drawing No. G31311-02-04, Issue C – Traffix Group, dated 27-Nov-2023

**LEGEND**

<b>Arboricultural Rating</b>	<b>Tree Protection Zones and Trees for Removal</b>
● High	○ TPZ
● Mod-A	○ SRZ
● Mod-B	▲ Remove
● Mod-C	○ TPZ remove

**NOTES**  
Construction within SRZs and TPZs (specified) must be as per Consultant's Advice  
Notice: 15, issued by Creo Consultants, dated 15-Feb-2023

**TREE LOCATION DISCLAIMER**  
Tree locations are approximate

**COORDINATE REFERENCE SYSTEM**  
EPSG: 28355 | GDA 94 MGA Zone 55

ABN: 95 080 021 610  
TEL: 1300 656 926

**TREELOGIC PTY LTD**  
4/21 Eugene Toe Ringwood, VIC Australia 3134

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DESIGNED  
S. O'KEEFE

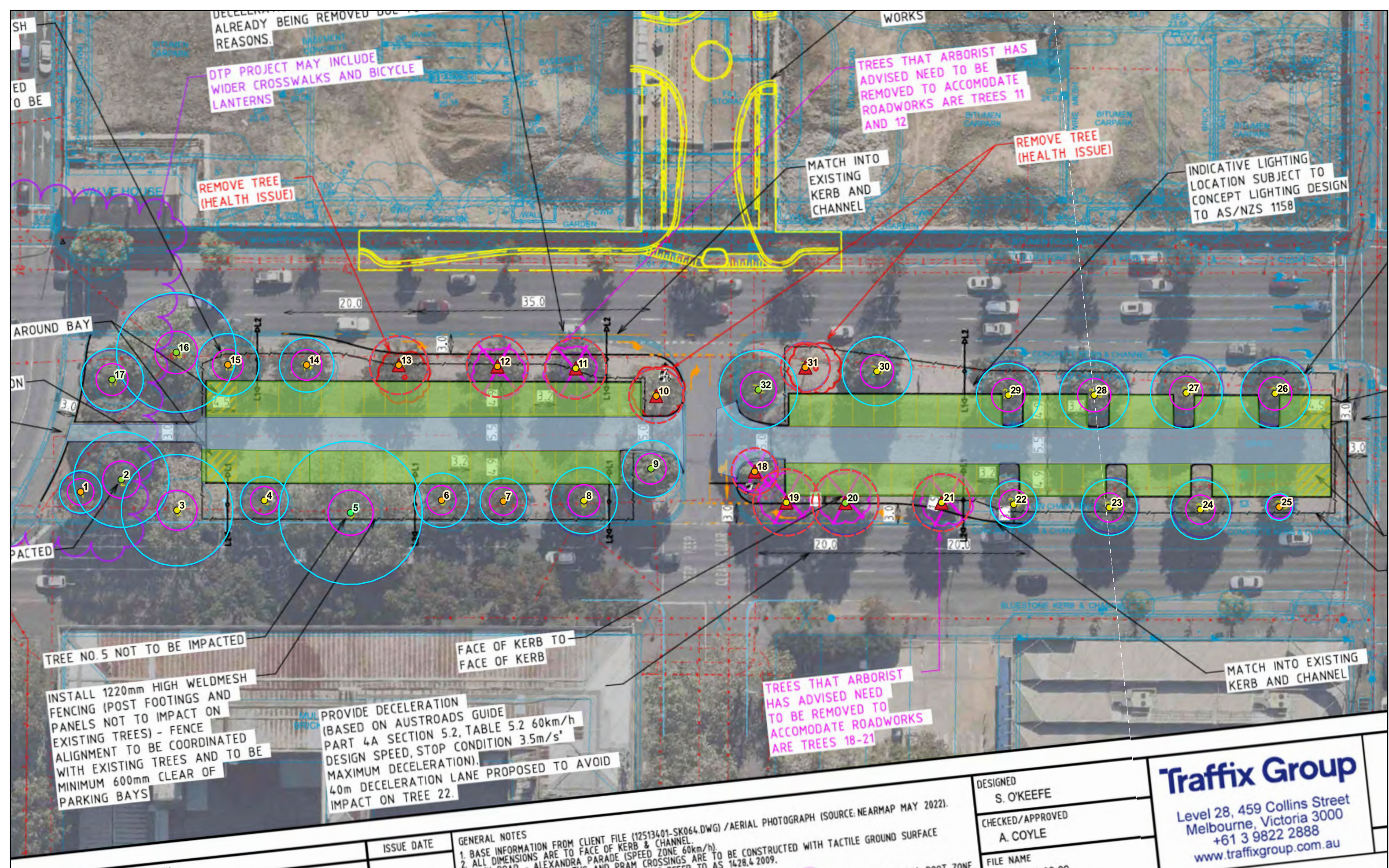
CHECKED/APPROVED  
A. COYLE

FILE NAME

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+61 3 9822 2888  
www.traffixgroup.com.au

**GENERAL NOTES**  
1. BASE INFORMATION FROM CLIENT FILE (12513401-SK064.DWG) / AERIAL PHOTOGRAPH (SOURCE: NEARMAP MAY 2022).  
2. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL.  
3. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
4. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
5. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
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18. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
19. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
20. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
21. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
22. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
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30. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
31. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).  
32. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL (SPEED ZONE 60km/h).



**APPENDIX 2B — TREE LOCATIONS AND CONSTRUCTION METHODS**

**PROJECT**  
Alexandra Parade Median Carpark, Fitzroy

**TL REF.**  
011874

**MAP NO.**  
1 / 1

**DATE**  
2023-12-18

**CLIENT**  
Stephanie Fakhry  
Development Victoria

**DATA SOURCES**  
Nearmap Imagery 2021-09-01  
Boundary Re-establishment, Feature and Level Survey, Fitzroy Gasworks, 433 Smith Street, Fitzroy North - Veris, 2021-08-20

Alexandra Parade, Clifton Hill Option 4 – Site Layout, drawing No. G31311-02-04, Issue C – Traffix Group, dated 27-Nov-2023

**GENERAL NOTES**  
1. BASE INFORMATION FROM CLIENT FILE (12513401-SK064.DWG) / AERIAL PHOTOGRAPH (SOURCE: NEARMAP MAY 2022).  
2. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL.  
3. ALEXANDRA PARADE (SPEED ZONE 60km/h).  
4. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL.  
5. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL.

**DESIGNED**  
S. O'KEEFE

**CHECKED/APPROVED**  
A. COYLE

**FILE NAME**

**Traffix Group**

Level 28, 459 Collins Street  
Melbourne, Victoria 3000  
+61 3 9822 2888  
www.traffixgroup.com.au

**LEGEND**

**Arboricultural Rating**

- High
- Mod-A
- Mod-B
- Mod-C

**Surface Treatment**

- grass grid
- concrete

**NOTES**  
West of Tree 21 the preliminary design is based on aerial imagery - tree locations on the preliminary design overlay are not accurate.

**TREE LOCATION DISCLAIMER**  
Tree locations are approximate

**COORDINATE REFERENCE SYSTEM**  
EPSG: 28355 | GDA 94 MGA Zone 55

ABN: 95 080 021 610 **TREELOGIC PTY LTD**  
TEL: 1300 656 926  
4 / 21 Eugene Toe  
Ringwood, VIC  
Australia 3134

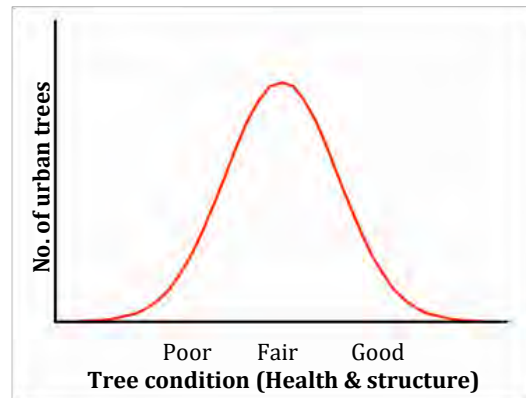
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# Appendix 3: Arboricultural Descriptors (February 2019)

Note that not all of the described tree descriptors may be used in a tree assessment and report. The assessment is undertaken with regard to contemporary arboricultural practices and consists of a visual inspection of external and above-ground tree parts.

## 1. Tree Condition

The assessment of tree condition evaluates factors of health and structure. The descriptors of health and structure attributed to a tree evaluate the individual specimen to what could be considered typical for that species growing in its location under current climatic conditions. For example, some species can display inherently poor branching architecture, such as multiple acute branch attachments with included bark. Whilst these structural defects may technically be considered arboriculturally poor, they are typical for the species and may not constitute an increased risk of failure. These trees may be assigned a structural rating of fair- poor (rather than poor) at the discretion of the assessor.



**Diagram 1:** Indicative normal distribution curve for tree condition

Diagram 1 provides an indicative distribution curve for tree condition to illustrate that within a normal tree population the majority of specimens are centrally located within the condition range (normal distribution curve). Furthermore, that those individual trees with an assessed condition approaching the outer ends of the spectrum occur less often.

## 2. Tree Name

Provides botanical name, (genus, species, variety and cultivar) according to accepted international code of taxonomic classification, and common name.

## 3. Tree Type

Describes the general geographic origin of the species and its type e.g. deciduous or evergreen.

Category	Description
Indigenous	Occurs naturally in the area or region of the subject site. Remnant.
Victorian native	Occurs naturally within some part of the State of Victoria (not exclusively) but is not indigenous (component of EVC benchmark). Could be planted indigenous trees.
Australian native	Occurs naturally within Australia but is not a Victorian native or indigenous
Exotic deciduous	Occurs outside of Australia and typically sheds its leaves during winter
Exotic evergreen	Occurs outside of Australia and typically holds its leaves all year round
Exotic conifer	Occurs outside of Australia and is classified as a gymnosperm
Native conifer	Occurs naturally within Australia and is classified as a gymnosperm
Native Palm	Occurs naturally within Australia. Woody monocotyledon
Exotic Palm	Occurs outside of Australia. Woody monocotyledon

#### 4. Height and Width

Indicates height and width of the individual tree; dimensions are expressed in metres. Crown heights are measured with a height meter where possible. Due to the topography of some sites and/or the density of vegetation it may not be possible to do this for every tree. Tree heights may be estimated in line with previous height meter readings in conjunction with assessor's experience. Crown widths are generally paced (estimated) at the widest axis or can be measured on two axes and averaged. In some instances the crown width can be measured on the four cardinal direction points (North, South, East and West).

Crown height, crown spread are generally recorded to the nearest half metre (crown spread would be rounded up) for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m.

Estimated dimensions (e.g. for off-site or otherwise inaccessible trees where accurate data cannot be recovered) shall be clearly identified in the assessment data.

#### 5. Trunk diameters

The position where trunk diameters are captured may vary dependent on the requirements of the specific assessment and an individual trees specific characteristics. DBH is the typical trunk diameter captured as it relates to the allocation of tree protection distances. The basal trunk diameter assists in the allocation of a structural root zone. Some municipalities require trunk diameters be captured at different heights, with 1.0 m above grade being a common requirement. The specific planning schemes will be checked to ascertain requirements.

Stem diameters shall be recorded in centimetres, rounded to the nearest 1 cm (0.01 m).

##### **Diameter at Breast Height (DBH)**

Indicates the trunk diameter (expressed in centimetres) of an individual tree measured at 1.4m above the existing ground level or where otherwise indicated, multiple leaders are measured individually. Plants with multiple leader habit may be measured at the base. The range of methods to suit particular trunk shapes, configurations and site conditions can be seen in Appendix A of Australian Standard AS 4970-2009 *Protection of trees on development sites*. Measurements undertaken using foresters tape or builders tape.

##### **Basal trunk diameter**

The basal dimension is the trunk diameter measured at the base of the trunk or main stem(s) immediately above the root buttress. Used to ascertain the Structural Root Zone (SRZ) as outlined in AS4970.

#### Health

Assesses various attributes to describe the overall health and vigour of the tree.

Health Category	Vigour, Extension growth	Decline symptoms, Deadwood, Dieback	Foliage density, colour, size, intactness	Pests and or disease
<b>Good</b>	Above typical. Excellent. Full canopy density	Negligible	Better than typical	Negligible
<b>Fair</b>	Typical vigour. >80% canopy density	Minor or expected. Little or no dead wood	Typical. Minor deficiencies or defects could be present.	Minor, within damage thresholds
<b>Fair to Poor</b>	Below typical - low vigour	More than typical. Small sub-branch dieback	Exhibiting deficiencies. Could be thinning, or smaller	Exceeds damage thresholds
<b>Poor</b>	Minimal - declining	Excessive, large and/or prominent amount & size of dead wood	Exhibiting severe deficiencies. Thinning foliage, generally smaller or deformed	Extreme and contributing to decline



Dead	N/A	N/A	N/A	N/A
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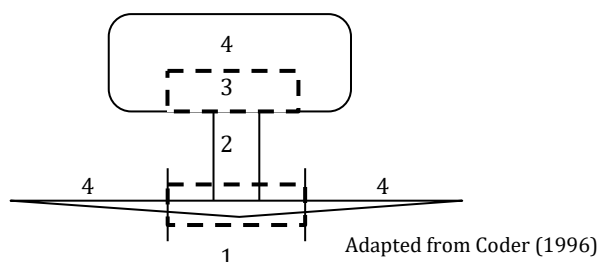
## 6. Structure

Assesses principal components of tree structure (Diagram 2).

Descriptor	Zone 1 - Root plate & lower stem	Zone 2 - Trunk	Zone 3 - Primary branch support	Zone 4 - Outer crown and roots
<b>Good</b>	No obvious damage, disease or decay; obvious basal flare / stable in ground	No obvious damage, disease or decay; well tapered	Well formed, attached, spaced and tapered. No history of failure.	No obvious damage, disease, decay or structural defect. No history of failure.
<b>Fair</b>	Minor damage or decay. Basal flare present.	Minor damage or decay	Generally, well attached, spaced and tapered branches. Minor structural deficiencies may be present or developing. No history of branch failure.	Minor damage, disease or decay; minor branch end-weight or over-extension. No history of branch failure.
<b>Fair to Poor</b>	Moderate damage or decay; minimal basal flare.	Moderate damage or decay; approaching recognised thresholds	Weak, decayed or with acute branch attachments; previous branch failure evidence.	Moderate damage, disease or decay; moderate branch end-weight or over-extension. Minor branch failure evident.
<b>Poor</b>	Major damage, disease or decay; fungal fruiting bodies present. Excessive lean placing pressure on root plate	Major damage, disease or decay; exceeds recognised thresholds; fungal fruiting bodies present. Acute lean. Stump re-sprout	Decayed, cavities or has acute branch attachments with included bark; excessive compression flaring; failure likely. Evidence of major branch failure.	Major damage, disease or decay; fungal fruiting bodies present; major branch end-weight or over-extension. Branch failure evident.
<b>Very Poor</b>	Excessive damage, disease or decay; unstable / loose in ground; altered exposure; failure probable	Excessive damage, disease or decay; cavities. Excessive lean. Stump re-sprout	Decayed, cavities or branch attachments with active split; failure imminent. History of major branch failure.	Excessive damage, disease or decay; excessive branch end-weight or over-extension. History of branch failure.

**Diagram 2:** Tree structure zones

1. Root plate & lower stem
2. Trunk
3. Primary branch support
4. Outer crown & roots



Structure ratings will also take into account general branching architecture, stem taper, live crown ratio, crown symmetry (bias or lean) and crown position such as tree being suppressed amongst more dominant trees.

The lowest or worst descriptor assigned to the tree in any column could generally be the overall rating assigned to the tree. The assessment for structure is limited to observations of external and above ground tree parts. It does not include any exploratory assessment of underground or internal tree parts unless this is requested as part of the investigation. Trees are assessed and then given a rating for a point in time. Generally, trees with a poor or very poor structure are beyond the benefit of practical arboricultural treatments.

The management of trees in the urban environment requires appropriate arboricultural input and consideration of risk. Risk potential will consider the combination of likelihood of failure and impact, including the perceived importance of the target(s).

## 7. Age class

Relates to the physiological stage of the tree's life cycle.

Category	Description
Young	Sapling tree and/or recently planted. Approximately 5 or less years in location.
Semi-mature	Tree increasing in size and yet to achieve expected size in situation. Primary developmental stage.
Early-mature	Tree established, generally growing vigorously. > 50% of attainable age/size.
Mature	Specimen approaching expected size in situation, with reduced incremental growth.

Over-mature	Mature full-size with a retrenching crown. Tree is senescent and in decline. Significant decay generally present.
-------------	---

## 8. Useful life expectancy

Assessment of useful life expectancy provides an indication of health and tree appropriateness and involves an estimate of how long a tree is likely to remain in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk to the community. It would enable tree managers to develop long-term plans for the eventual removal and replacement of existing trees in the public realm. It is not a measure of the biological life of the tree within the natural range of the species. It is more a measure of the health status and the trees positive contribution to the urban landscape.

Within an urban landscape context, particularly in relation to street trees, it could be considered a point where the costs to maintain the asset (tree) outweigh the benefits the tree is returning.

The assessment is based on the site conditions not being significantly altered and that any prescribed maintenance works are carried out (site conditions are presumed to remain relatively constant and the tree would be maintained under scheduled maintenance programs).

Useful Life Expectancy	Typical characteristics
<1 year (No remaining ULE)	Tree may be dead or mostly dead. Tree may exhibit major structural faults. Tree may be an imminent failure hazard.  Excessive infrastructure damage with high risk potential that cannot be remedied.
1-5 years (Transitory, Brief)	Tree is exhibiting severe chronic decline. Crown is likely to be less than 50% typical density. Crown may be mostly epicormic growth. Dieback of large limbs is common (large deadwood may have been pruned out). Major structural defects that cannot be remedied. Tree may be over-mature and senescing.  Infrastructure conflicts with heightened risk potential. Tree has outgrown site constraints.
6-10 years (Short)	Tree is exhibiting chronic decline. Crown density will be less than typical and epicormic growth is likely to present. The crown may still be mostly entire, but some dieback is likely to be evident. Dieback may include large limbs. Structural defects present that influence the tree's risk rating, amenity or vitality.  Over-mature and senescing or early decline symptoms in short-lived species.  Early infrastructure conflicts with potential to increase regardless of management inputs.
11-20 years (Moderate)	Tree not showing symptoms of chronic decline, but growth characteristics are likely to be reduced (bud development, extension growth etc.). Developing structural defects that reduce viability with limited scope for management.  Tree may be over-mature and beginning to senesce.  Potential for infrastructure conflicts regardless of management inputs.
21-40 years (Moderately long)	Trees displaying normal growth characteristics, but vitality is likely to be reduced (bud development, extension growth etc.). Structural issues relatively minor and manageable with arboricultural input. Tree may be growing in restricted environment (e.g. streetscapes) or may be in late maturity. Semi-mature and mature trees exhibiting normal growth characteristics. Juvenile trees in streetscapes.
>40 years (Long)	Generally juvenile and semi-mature trees exhibiting normal growth characteristics within adequate spaces to sustain growth, such as in parks or open space. Could also pertain to maturing, long-lived trees. No observable major structural defects.  Tree well suited to the site with negligible potential for infrastructure conflicts.

Note that ULE may change for a tree dependent on the prevailing climatic conditions, sudden changes to a tree's growing environment creating an acute stress or impact by pathogens.

The ULE may not be applicable for trees that are manipulated, such as topiary, or grown for specific horticultural purposes, such as fruit trees.

There may be instances where remedial tree maintenance could extend a tree's ULE.

## 9. Arboricultural Rating

Relates to the combination of assigned tree condition factors, including health and structure (arboricultural merit) and ULE, and conveys an amenity value (An amenity tree can occupy a site that complements its surroundings in a useful manner which culminates in the aid, protection, comfort and emotional response of humans. Adapted from Coder, 2004). Amenity relates to the trees biological, functional and aesthetic characteristics (Hitchmough, 1994) within an urban landscape context. The presence of any serious disease or tree-related hazards that would impact risk potential are considered.

The arboricultural rating can be used by applying only the main category high, moderate, low or very low without using the sub categories. The sub-categories can assist in differentiating a trees value and/or characteristic in more detail within the specific tree assessment context, such as a development site.

Arboricultural rating			
Category	Description		
High (colour coded – See QGIS Layer Styles Quick Guide v1.1 (14 Jan 2018))	<p>Exemplary specimen due to multiple factors which could include; good condition and vitality, large size/canopy and prominence in the landscape. Likely to be a very long-term component in the landscape with a long ULE.</p> <p>Other factors that could contribute to a high rating:</p> <ul style="list-style-type: none"> <li>• Particularly good example of the species; rare or uncommon.</li> <li>• Tree has visual importance as a landscape feature; provides substantial contribution to landscape character.</li> <li>• Tree may have significant ecological or conservation value.</li> <li>• *Tree has historical, commemorative or other distinct social/cultural significance.</li> </ul> <p>Trees in this category must be considered for retention and/or incorporated within design proposals.</p>		
Category	Description	Sub category	Description
Moderate (colour coded – See QGIS Layer Styles Quick Guide v1.1 (14 Jan 2018))	<p>Tree of moderate quality, in fair or typical condition. Tree may have a condition, and or structural problem that will respond to arboricultural treatment.</p> <p>These trees have the potential to be moderate- to long-term components of the landscape (moderate to long ULE) if managed appropriately.</p> <p>The sub-categories relate predominately to age, size and amenity.</p> <p>Trees in this category should be considered for retention and/or incorporated within design proposals.</p>	A	Moderate to large, maturing tree. Suited to the site & contributes to the landscape character. Tree may have conservation or other cultural/social value.
		B	Moderate sized, established tree, > 50% of attainable age/size. Suited to the site & contributes to the landscape character (other attributes covered under 'Moderate' description)
		C	<ul style="list-style-type: none"> <li>• Young to semi-mature, generally a smaller tree, established, &gt;15 cm DBH, &gt;5 years in the location. Not a dominant canopy. No significant qualities currently but has the potential to become a higher value tree &amp; long-term component of the landscape. Replacement of tree is likely to take up to 6 - 10 years to attain similar attributes.</li> <li>• Semi- to mature tree with accumulating deficiencies and reducing ULE, trending towards Low arboricultural value.</li> </ul>
Category	Description		

<p>Low (colour coded – See QGIS Layer Styles Quick Guide v1.1 (14 Jan 2018))</p>	<p>Unremarkable tree of low quality or little amenity value. Tree in either poor health and/or with poor structure. Short to transitory useful life expectancy (&lt;10 years).</p> <ul style="list-style-type: none"> <li>• Tree is not prominent in the landscape due to its size or age, such as young trees with a stem diameter below 15 cm. Tree &lt; 5 years in location. These trees are easily replaceable or capable of being transplanted.</li> <li>• Tree (species) is functionally inappropriate to the specific location. Is causing excessive damage/nuisance to adjacent infrastructure or would be expected to be problematic if retained (i.e. palm tree under power lines).</li> <li>• Unremarkable tree of no material landscape, conservation or other cultural value. Not visible from surrounding landscapes.</li> <li>• Tree infected with pathogens that could lead to its decline.</li> <li>• Tree has potential to be an environmental woody weed (may be dependent on location of tree in an urban landscape).</li> <li>• Tree impacting or suppressing trees of better quality.</li> </ul> <p>Retention of such trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location.</p>
<p><i>Category</i></p>	<p><i>Description</i></p>
<p>Very low (colour coded – See QGIS Layer Styles Quick Guide v1.1 (14 Jan 2018))</p>	<p>Trees of low quality with a brief to no remaining ULE (&lt;5 years).</p> <ul style="list-style-type: none"> <li>• Tree has either a severe structural defect or health problem or combination that cannot be sustained with practical arboricultural techniques and the loss of the tree or tree part would be expected in the short term.</li> <li>• Tree whose retention would not be viable after the removal of adjacent trees, such as trees that have developed in close spaced groups and would not be expected to adapt to severe and sudden alterations to environmental &amp; site conditions, e.g. removal of adjacent shelter trees.</li> <li>• Small or young tree, &lt;5m in height, &lt;10cm DBH. Easily replaced in short-term or capable of being transplanted.</li> <li>• Acknowledged environmental woody weed species. Tree has a detrimental effect on the environment, for example, the tree has weed potential and is likely to spread into waterways or natural areas if nearby.</li> <li>• Tree infected with pathogens that will lead to decline and has potential to spread to adjacent trees.</li> <li>• Tree is dead (dead tree may offer habitat values) or is showing signs of significant, immediate, and irreversible overall decline.</li> </ul> <p>Tree cannot realistically be retained and should be considered for removal.</p>

Other considerations - Even though a tree may be declining or dead, a tree could be retained for other purposes such as habitat or soil stabilisation. These trees would still need to be managed appropriately to reduce risk.

\*A tree may have (attract) a high value by the community for historical, commemorative or other distinct social/cultural significance factors, albeit the tree may not be in good condition. In the context of an assessment, for multiple reasons, but more so for development, if it is a noted 'significant' tree it should receive higher consideration during the planning process.

Trees have many values, not all of which are considered when an arboricultural assessment is undertaken. However, individual trees or tree group features may be considered important community resources because of unique or noteworthy characteristics or values other than their age, dimensions, health or structural condition. Recognition of one or more of the following criteria is designed to highlight other considerations that may influence the future management of such trees.

Significance	Description
Horticultural Value/ Rarity	Outstanding horticultural or genetic value; could be an important source of propagating stock, including specimens that are particularly resistant to disease or exposure. Any tree of a species or variety that is rare.
Historic, Aboriginal Cultural or Heritage Value	<p>Tree could have value as a remnant of a particular important historical period or a remnant of a site or activity no longer in action. Tree has a recognised association with historic aboriginal activities, including scar trees.</p> <p>Tree commemorates a particular occasion, including plantings by notable people, or having associations with an important event in local history.</p>

Ecological Value	Tree could have value as habitat for indigenous wildlife, including providing breeding, foraging or roosting habitat, or is a component of a wildlife reserve.  Remnant Indigenous vegetation that contribute to biological diversity
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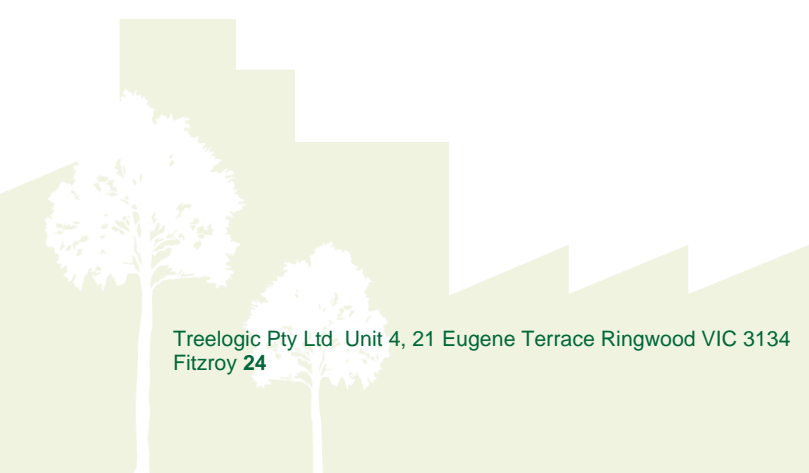
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There can be no guarantees provided for on-going tree safety. It should be noted that not all of the potential structural concerns associated with trees can be eliminated and that there will always be a residual risk following any mitigation works. Also, not all tree defects are observable and extreme weather events are unpredictable. Since trees are complex, living organisms, it is difficult to quantify and precisely measure all variables when inspecting a standing tree for hazard.

Trees should be reassessed on a regular basis; the scheduled period of reassessment will be dependent on the characteristics of the tree, the landscape context and perceived targets, and resources available to maintain them.