



Arboricultural Assessment

Oxford Street, Levin

Date: 7 June 2022

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Brief: Carry out a site visit and inspection of the London Plane trees (*Platanus x acerfolia*) on Oxford Street, Levin. Assess the condition of the trees, carry out a tree risk assessment, provide recommendations for their management and assess any proposed removals against the relevant District Plan criteria. The recommendations should mitigate any risk appropriately and be part of tree management best practice.



Table of Contents

1. Introduction	3
2. Site Details	3
3. Scope and Limitations	4
4. Previous Reports	4
5. Tree Protection Status	4
6. Duty of Care	5
7. Trees and Risk	6
8. Quantified Tree Risk Assessment.....	6
9. Standard Tree Evaluation Method.....	8
10. Tree Morphology	9
11. Safe Useful Life Expectancy (SULE)	9
12. Main Findings.....	10
13. Age of the Trees	14
14. STEM Notable Assessment.....	17
15. Arboricultural Assessment.....	17
16. Assessment against the District Plan Criteria	18
17. Conclusion	20
18. Recommendations	20
19. Appendices.....	21
19.1. Appendix 1 – Arboricultural Drawing.....	21
19.2. Appendix 2 – Full STEM Scores	21

1. Introduction

- 1.1. Tend Trees Limited has been engaged by Arthur Nelson of Horowhenua District Council to carry out a full arboricultural survey of the London Plane trees on Oxford Street, Levin between Devon Street and Queen Street West.
- 1.2. The assessment is inclusive of a Quantified Tree Risk Assessment (QTRA), an assessment of tree health and condition and will make long term management recommendations based on those findings.
- 1.3. In addition, a Standard Tree Evaluation Method (STEM) assessment has been made for each individual tree and an assessment of any removals has been made using the relevant District Plan (DP) criteria.

2. Site Details

- 2.1. The subject trees are located in the road corridor along Oxford Street, Levin between Devon Street and Queen Street West.
- 2.2. The below aerial image shows the location of the trees, which are within the dashed red line.



Figure 1: The location of the trees



3. Scope and Limitations

- 3.1. The trees were inspected using the Visual Tree Assessment (VTA) method from ground level only and from within the site itself.
- 3.2. Tree height measurements were taken using a Nikon Forestry Pro laser range finder and canopy spread measurements were estimated using the surveyor's experience.
- 3.3. Were required the base of the trees has been struck with a nylon hammer to aurally detect any changes in internal wood quality. This 'sounding' of the tree is used when the presence of internal decay is suspected. Anomalies using this method can be caused by loose bark or if the tree has grown around structures such as fence post or waratahs.
- 3.4. Unless there's an obvious tree risk feature, climbing plants, undergrowth, basal epicormic growth, hedgerows etc have not been removed or cut to get a closer look and carry out a Detailed Assessment. It's only when we find a tree with an obvious risk feature that the costs of removing vegetation, and losing habitat benefits, are justified

4. Previous Reports

- 4.1. The following reports have been provided and reviewed as part of this assessment.
 - Treescape assessment on Oxford Street Plane Trees Aug 2015 – Erika Commers
 - Oxford Street, between Bath and Queen Streets - Notable trees assessment - Recreational Services Treescape - 28 August 2017 – Jeremy Brown
 - Oxford Street Plane Trees - Arborlab Tree Arboricultural Assessment - 33759 - May 2020 – Chris Loughborough

5. Tree Protection Status

- 5.1. Horowhenua District Council identified the Oxford Street trees as 'notable trees' under Plan Change 7 to the Horowhenua District Plan which became operational in 2000. The trees are identified in Horowhenua Operative District Plan 2015, Part F, Schedule 3 and planning maps. Notable tree reference numbers NT23 to NT61 are for the entire group.
- 5.2. The trees are in an area of Oxford Street which is designated as Commercial Zone in the Horowhenua District Plan, and the District Plan Rules 17.6.23 Notable Trees apply.
 - (a) Any removal or partial removal of a tree listed in Schedule 3 - Notable Trees shall comply with the following conditions:
 - (i) Council has confirmed the tree is dead.
 - (ii) Removal or partial removal is required as an emergency work to safeguard life or habitable buildings from immediate danger (as confirmed by a qualified arborist).
 - (b) Within the drip line of any tree listed in Schedule 3 - Notable Trees, any activities shall not involve the following works:



- (i) The construction of any building or structure.
- (ii) The laying of overhead or underground services.
- (iii) Any sealing, paving, soil compaction, or any other impervious surfaces.
- (iv) The alteration of existing ground levels by excavation or deposition of soil including thrust boring and directional drilling.
- (v) The discharge of any toxic hazardous substance.

(c) Any trimming and maintenance of a tree listed in Schedule 3 - Notable Trees shall be limited to:

- (i) Minor trimming necessary to maintain the health of the tree where the work is carried out by, or under the supervision of, a qualified arborist who has advised the Council in advance of the work to be carried out.
- (ii) The removal of branches interfering with buildings, structures, overhead wires or utility networks, but only to the extent that they are touching those buildings, or structures, or likely to compromise the effective operation of those overhead wires or utility networks and only where the work is carried out by, or under the supervision of a qualified arborist who has advised the Council in advance of the work to be carried out.
- (iii) The removal of broken branches, dead wood or diseased vegetation (as confirmed by a qualified arborist).
- (iv) Required as an emergency work.

5.3. Any tree removal should be assessed as a Discretionary Activity as it would not comply with the above Permitted Activity Standards.

6. Duty of Care

6.1. When managing trees or being responsible for trees on a site there is a duty of care placed on the tree owner to ensure that:

- insofar as is reasonably practical, people and property are not exposed to unreasonable levels of risk from tree failure.
- reasonable care is taken to avoid acts or omissions that cause a reasonably foreseeable risk of injury/harm to persons or property.

6.2. 'A reasonably foreseeable risk of harm' reflects the potential for healthy and structurally sound trees to occasionally fail and the practical limitations encountered when identifying any asymptomatic defects that may cause the failure of a tree or its constituent parts.

6.3. The duty placed on a landowner generally varies depending on their resources. The owner of a small private property may only be expected to seek expert advice when they notice some obvious issues with their tree or trees, whereas a land manager with a significant tree population and resources would be expected to carry out regular risk assessments and take appropriate action.



7. Trees and Risk

- 7.1. Every day we encounter risks in all our activities, and the way we manage those risks is to make choices. We weigh up the costs and benefits of the risk to determine whether it is acceptable, unacceptable, or tolerable.
- 7.2. The risk posed by trees is inherently low when compared to many other daily tasks, for example driving a car, drinking alcohol, or playing sport.

8. Quantified Tree Risk Assessment

- 8.1. The Quantified Tree Risk Assessment (QTRA) method enables a range of approaches from the broad assessment of large collections of trees to, where necessary, the detailed assessment of an individual tree.
- 8.2. The QTRA output is termed the Risk of Harm and is a combined measure of the likelihood and consequences of tree failure considered against the baseline the possibility of a lost human life within the coming year.
- 8.3. To determine the Risk of Harm the following is carried out:
 - An analysis of the land use within the failure footprint of the tree in terms of its vulnerability to an impact and its likely occupation
 - The likely consequences of an impact based on the size of the tree or branch and the vulnerability of the target i.e., what the tree or branch will fall on
 - An estimate of the probability or likelihood that the tree or branch will fail within the coming 12 months (based on prevailing weather conditions for the geographical location). This produces the Probability of Failure or PoF.
- 8.4. The PoF ranges from 7, a healthy normal tree with no features that may cause an elevated likelihood of failure to range 1 or PoF 1, a tree that is expected to fail within the next 12 months.

Tolerability of Risk Framework

- 8.5. The Tolerability of Risk framework (ToR) (HSE 2001) is a widely accepted approach to reaching decisions on whether risks are broadly acceptable, unacceptable, or tolerable.

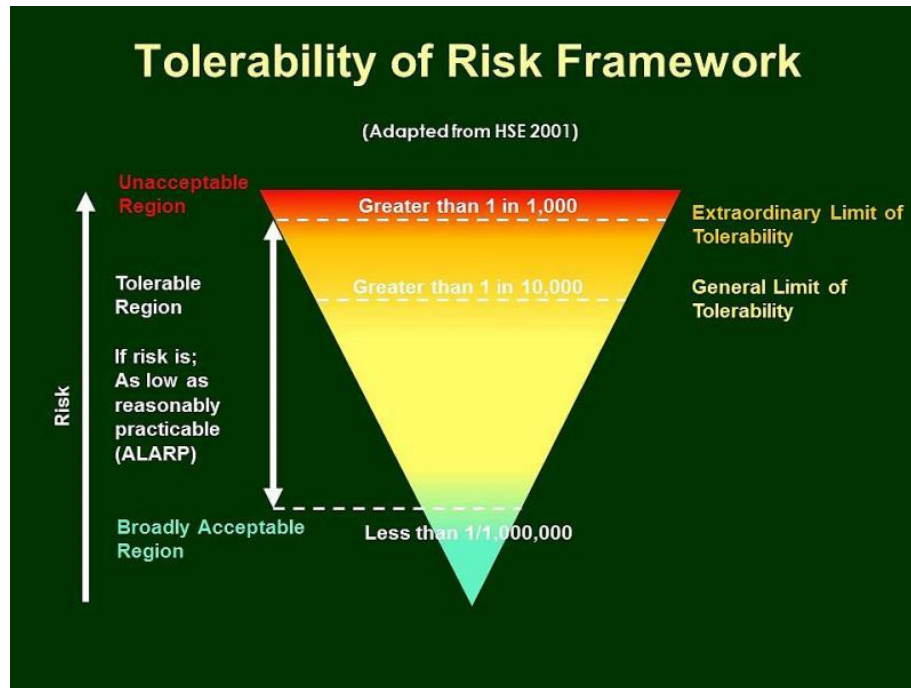


Figure 2: The Tolerability of Risk Framework taken from the QTRA Practice Note V5.

- 8.6. Some risks are simply unacceptable to society regardless of the benefits provided. However, other risks are so insignificant they are regarded as being broadly acceptable in the context of daily life.
- 8.7. In between these boundaries are risks that will generally be tolerated by society if the risk is managed in a way that makes it as low as reasonably practical (ALARP).
- 8.8. When considering tolerable risk, a risk/benefit analysis should be carried out i.e., are the benefits of controlling any risk sufficient to outweigh the costs of any control measures. Some risks from the Broadly Acceptable region cross into the tolerable region. These risks may not require any action, because any risk reduction work would be disproportionate to the cost. These costs can be both financial and environmental. This concept is referred to as being As Low As Reasonably Practicable (ALARP).
- 8.9. To help with decision making the QTRA method provides some advisory risk thresholds. These are shown in the following Figure 3.

Thresholds	Description	Action
1/1 000	Unacceptable Risks will not ordinarily be tolerated	<ul style="list-style-type: none"> Control the risk
	Unacceptable (where imposed on others) Risks will not ordinarily be tolerated	<ul style="list-style-type: none"> Control the risk Review the risk
	Tolerable (by agreement) Risks may be tolerated if those exposed to the risk accept it, or the tree has exceptional value	<ul style="list-style-type: none"> Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value Review the risk
1/10 000	Tolerable (where imposed on others) Risks are tolerable if ALARP	<ul style="list-style-type: none"> Assess costs and benefits of risk control Control the risk only where a significant benefit might be achieved at reasonable cost Review the risk
1/1 000 000	Broadly Acceptable Risk is already ALARP	<ul style="list-style-type: none"> No action currently required Review the risk

Figure 3: QTRA Advisory Risk Thresholds

9. Standard Tree Evaluation Method

9.1. STEM was first published in 1996 and was developed to provide a readily understood, easy to use, field-based tree evaluation tool. STEM evaluates the tree and the value it provides to the local community through the following attributes.

- Condition
- Amenity
- Notability¹
- Value

9.2. Using the evaluation results and considering the cost of planting and maintenance STEM can provide a monetary valuation for the tree.

9.3. The full STEM scores are provided as Appendix 2

¹ The notability component is only required when the tree is known to meet one of the criterium within the evaluation method.

10. Tree Morphology

10.1. The following Figure 4 shows the morphological phases of trees.

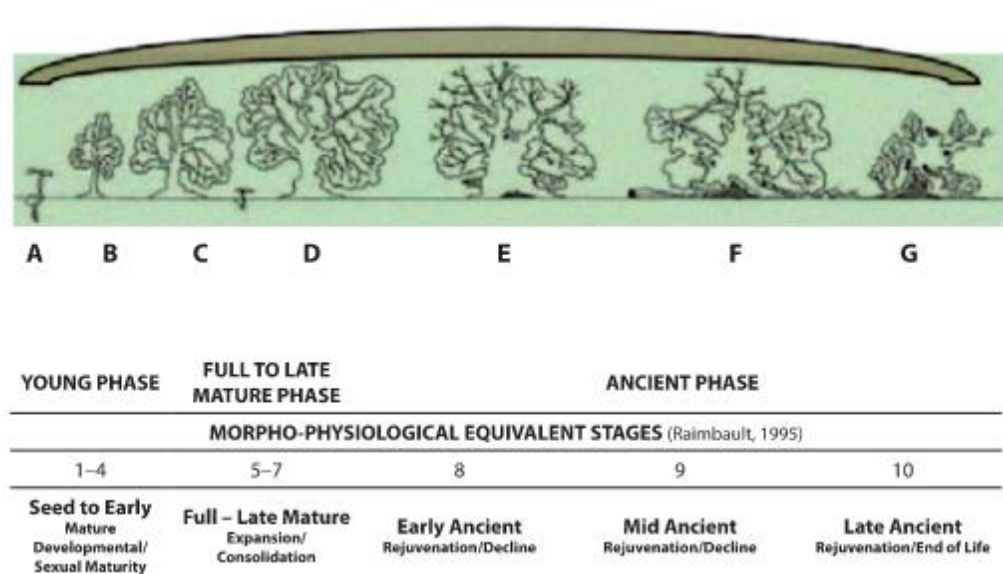


Figure 4: Morpho-physiological stages of trees.

- 10.2. When managing trees, it is important to understand what stage in their life cycle they have reached. Great care needs to be taken to ensure their longevity is maintained while managing any risk posed.
- 10.3. Each tree at the site has been assessed and its morpho-physiological life stage determined.
- 10.4. With the exclusion of the human interventions, historically 'defects' in trees have been seen as a cause for concern. It is now understood that these are just part of a tree's natural morphological cycle.
- 10.5. Pollarded trees contain many of these morpho-physiological features as a result of pruning interventions.

11. Safe Useful Life Expectancy (SULE)

- 11.1. SULE is the length of time that an individual tree can be retained with an acceptable level of risk based on the information available at the time of inspection. It is a snapshot in time of the potential an individual tree has for survival. It is closely related to tree health and the surrounding conditions. Alterations in these variables may result in changes to the assessment. Consequently, the reliability of all SULE assessments will decrease as time passes from the initial assessment and the potential for changes in variables increases.
- 11.2. It is a useful guide to help when considering the long-term management of individual trees that form part of a group. When a SULE assessment gives a shortened life expectancy, then these trees can be seen as an opportunity for renewal within the overall tree asset.



12. Main Findings

- 12.1. An arboricultural survey was conducted in May at which time the trees were partially in leaf coming into Winter and the dormant season.
- 12.2. The main findings are shown in the following Tables 1:



Table 1: Tree Inventory

Tree Number	DP Reference	Species	Height (m)	CSR (m)	Morpho Physiological Life Stage	SULE	Annual Risk of Harm	STEM Score	Comments
7	NT47	Platanus X acerifolia	7	3	Mature Phase 7	40+ years	Broadly acceptable	147	In raised planter. Not sure of age of planter, so soil level could have been raised historically.
8	NT29	Platanus X acerifolia	8	4	Mature Phase 7	40+ years	Broadly acceptable	147	In raised planter. Not sure of age of planter, so soil level could have been raised historically.
9	NT48	Platanus X acerifolia	8.5	3	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit.
10	NT49	Platanus X acerifolia	8.5	3	Mature Phase 7	40+ years	Broadly acceptable	159	No planter bed. Could retrospectively install proper tree pit.
11	NT50	Platanus X acerifolia	8	4	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit.
12	NT28	Platanus X acerifolia	9.5	4.5	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit.
13	NT51	Platanus X acerifolia	8	2.5	Mature Phase 7	40+ years	Broadly acceptable	141	No planter bed. Could retrospectively install proper tree pit. Possible anthracnose.
14	NT52	Platanus X acerifolia	9.5	4	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit. Responding very well to pruning.
15	NT27	Platanus X acerifolia	8.5	4	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit.
16	NT26	Platanus X acerifolia	7.5	3.5	Mature Phase 7	40+ years	Broadly acceptable	147	No planter bed. Could retrospectively install proper tree pit.
17	NT25	Platanus X acerifolia	7.5	4	Mature Phase 7	40+ years	Broadly acceptable	147	No planter bed. Could retrospectively install proper tree pit.
18	NT24	Platanus X acerifolia	8.5	4	Mature Phase 7	40+ years	Broadly acceptable	159	No planter bed. Could retrospectively install proper tree pit. Responding very well to pruning.



Tree Number	DP Reference	Species	Height (m)	CSR (m)	Morpho Physiological Life Stage	SULE	Annual Risk of Harm	STEM Score	Comments
19	NT23	Platanus X acerifolia	7	3	Mature Phase 7	40+ years	Broadly acceptable	147	No planter bed. Could retrospectively install proper tree pit. Flat top.
20	NT53	Platanus X acerifolia	9	3.5	Mature Phase 7	40+ years	Broadly acceptable	159	No planter bed. Could retrospectively install proper tree pit. Responding very well to pruning.
21	NT54	Platanus X acerifolia	9.5	4	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit. Responding very well to pruning. Kerb and channel deflection to be repaired. Consider roots as part of repairs.
22	NT34	Platanus X acerifolia	8	3.5	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit. Kerb and channel deflection to be repaired. Consider roots as part of repairs.
23	NT33	Platanus X acerifolia	8	3.5	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit.
24	NT32	Platanus X acerifolia	7.5	3.5	Mature Phase 7	40+ years	Broadly acceptable	147	No planter bed. Could retrospectively install proper tree pit. Kerb and channel and footpath damage to repair. Consider tree roots as part of repairs.
25	NT55	Platanus X acerifolia	7	3.5	Mature Phase 7	40+ years	Broadly acceptable	147	No planter bed. Could retrospectively install proper tree pit.
26	NT31	Platanus X acerifolia	7	3.5	Mature Phase 7	40+ years	Broadly acceptable	147	No planter bed. Could retrospectively install proper tree pit.
27	NT56	Platanus X acerifolia	7	3.5	Mature Phase 7	40+ years	Broadly acceptable	147	No planter bed. Could retrospectively install proper tree pit.
28	NT58	Platanus X acerifolia	8.5	4	Mature Phase 7	40+ years	Broadly acceptable	153	No planter bed. Could retrospectively install proper tree pit.
29	NT59	Platanus X acerifolia	8.5	4	Mature Phase 7	40+ years	Broadly acceptable	159	No planter bed. Could retrospectively install proper tree pit. Responding well to pruning. Kerb and channel and footpath damage to repair. Consider roots during repairs.



Tree Number	DP Reference	Species	Height (m)	CSR (m)	Morpho Physiological Life Stage	SULE	Annual Risk of Harm	STEM Score	Comments
30	NT60	Platanus X acerifolia	7.5	4	Mature Phase 7	40+ years	Broadly acceptable	159	No planter bed. Could retrospectively install proper tree pit. Responding well to pruning.
31	NT61	Platanus X acerifolia	9	4.5	Mature Phase 7	40+ years	Broadly acceptable	159	No planter bed. Could retrospectively install proper tree pit. Responding well to pruning.
32	NT30	Platanus X acerifolia	8	3.5	Mature Phase 7	40+ years	Broadly acceptable	153	In planter with seating area. Great use of space, so tree can coexist with other elements of urban space.

Crown Spread Radius (CSR) – The CSR is the greatest distal branch spread from one side of the canopy to the other.

SULE – Safe Useful Life Expectancy

13. Age of the Trees

- 13.1. A series of aerial images from the Archives Central website have been examined for the presence of the trees, dating back to January 1957. Each of the following images is dated and some of the trees circled to show they have been in existence since 1949.



Figure 5: Oxford Street 4 April 1949



Figure 6: Oxford Street 15 January 1957



Figure 7: Oxford Street 21 November 1969



Figure 8: Oxford Street 22 April 1970



Figure 9: Oxford Street 29 October 1981 (No leaves in winter)



Figure 10: Oxford Street 31 March 1989



- 13.2. A further examination of the images suggests the trees have been present on Oxford Street, since at least 1949. There are changes in tree size that can be attributed to canopy pruning or canopy growth, but based on the timeframe between images, no changes to tree size to such an extent that the trees have been removed and replaced during this time.

14. STEM Notable Assessment

- 14.1. The trees are left over from an Avenue planting that occurred in 1897 to commemorate the Diamond Jubilee of Queen Victoria.
- 14.2. This therefore affords the trees additional points under the Commemoration criteria of the STEM assessment methodology. Each tree has therefore been assigned an additional 21 points for being Nationally significant.

15. Arboricultural Assessment

- 15.1. On occasion trees can fail and cause injury and/or property damage. Tree owners and managers have a duty of care to ensure that the trees under their care are appropriately assessed for risk and subsequently managed.
- 15.2. The target value using the QTRA methodology has been calculated to be within range 2 for property damage and range 1 for occupancy i.e., people using the footpath and State Highway 1.
- 15.3. No trees at the site pose a risk that is elevated to the point where they require intervention.
- 15.4. Various pruning techniques have been carried out over the lifetime of the trees to varying degrees of success. The latest crown reduction and restoration work recommended by Mr Loughborough in 2020 has been carried out to a high standard and in general the trees are responding well.
- 15.5. London Planes are a species known for their tolerance to harsh urban environments, such as Oxford Street. These trees were likely planted because of this and are doing well considering the level of pruning that has occurred throughout their lifetime and the restricted rooting environment.
- 15.6. Tree 13 (NT51) is the only tree suspected to be suffering from anthracnose of plane (*Apiognomonia veneta*), this is likely because the regular pruning has removed infected leaves and twigs, thus not allowing the disease to take hold.
- 15.7. Four of the trees (Tree's 21, 22, 24 and 29) were noted to be the likely cause of some footpath and kerb and channel deflection. This generally occurs as the tree's root system search for hospitable rooting environments i.e., where moisture and gaseous exchange can occur and where there are nutrients.



- 15.8. A possible long-term solution to minimise infrastructure damage is through the provision of adequate soil volume within a specially created or engineered tree pit. This can be retrospectively installed around existing trees and has already occurred under Tree 30 (NT32).
- 15.9. In some instances, root pruning may be carried out to facilitate the installation of an engineered tree pit or to repair adjacent infrastructure. This should only occur with specialist arboricultural input to ensure the root pruning does not have a long-term detrimental effect to the tree's health or stability.
- 15.10. A series of complaints have been provided to evidence the above issue. There have been seven (7) of these types of complaints from March 2017 to February 2020. The most serious of which occurred on 4 June 2019 and resulted in flooding because of a blocked storm water grate.
- 15.11. Leaf fall is often a cause for complaint as they can cause issues with blocked guttering, sumps, and storm water grates. Regular maintenance of both gutters, grates and sumps combined with proactive tree maintenance can alleviate these issues. Timing of gutter and sump clearance should occur during leaf all to maximise its effectiveness.

16. Assessment against the District Plan Criteria

- 16.1. An assessment of the trees using the Horowhenua District Plan (DP) Criteria for Notable Trees (25.7.15 Notable Trees) has been carried out and is described in the following section. Each of the DP criteria will be inserted into this report and discussed in turn.

(a) The existing condition of the Notable Tree.

- 16.2. Overall, the condition of the trees can be considered good. There are no defects or anomalies that warrant pruning interventions (outside of the continued maintenance recommended by Mr Loughborough) and their health is good, with most displaying a good response to the latest round of pruning.

(b) The value of the tree(s) including their ecological, cultural or historic significance.

- 16.3. A STEM assessment has been carried out on each of the trees and their scores shown in Table 1 and appended to this report.

(c) Whether a qualified arborist has confirmed the tree to be dead or diseased.

- 16.4. None of the trees are dead. Tree 13 has anthracnose, but this is manageable as part of the pruning regime recommended by both Mr Loughborough and Ms Commers.

(d) The likely threat to nearby residents, including potential for falling branches, the possibility of high winds destabilising the tree, or actual or potential damage to residential buildings done to root growth.

- 16.5. The risk posed by the trees to people and property has been assessed and is considered Broadly Acceptable using the QTRA methodology.



- 16.6. The trees require regular maintenance, which can be carried out every three years. An aerial inspection has been suggested to be carried out at the same time. It is not expected this aerial inspection would be a large additional cost, just something the pruning/climbing arborist would do as part of their normal maintenance work.
- 16.7. If during this normal maintenance work any anomalies or defects warranting further investigation are noted by the arborist then further inspection costs may result, but it could simply be the case of photographing and measuring any defect for assessment by a more qualified and experienced arborist.
- (e) **The extent to which work on or near a Notable Tree is necessary to preserve or maintain the efficiency or safety of any public work, network utility or road or railway.**
- 16.8. It is not unusual for trees in urban environments to require maintenance pruning.
- (f) **The extent to which the tree has grown to the point of causing nuisance including significant loss of sunlight or daylight to nearby residences.**
- 16.9. The regular pruning and maintenance that has been carried out to the trees, has resulted in a reduced canopy, which should not be consider a nuisance when considering loss of sunlight or daylight. In addition, they are a deciduous species, so drop their leaves during the times of year with lower light levels.
- (g) **Whether the Notable Tree inhibits the growth of a more desirable specimen nearby.**
- 16.10. There are no other specimen trees nearby.
- (h) **The need for the removal and the practicality of alternatives to its removal or damage including possible relocation.**
- 16.11. It would be impractical to relocate the trees given their location in an urban environment surround by hard infrastructure and likely underground services below. Alternatives has been suggested to reduce conflict with the footpath and kerb and channel. These should be investigated.
- (i) **The extent of adverse affects on the values of the Notable Tree (or group of trees) as a result of activities with the dripline, confirmed by a qualified arborist.**
- 16.12. No activities are currently proposed within the dripline.
- (j) **The extent of adverse effects on the health of a Notable Tree (or group of trees) as the result of activities involving trimming and maintenance of the tree(s), confirmed by a qualified arborist.**



16.13. The current pruning regime as recommended by Mr Loughborough has had a positive effect on the trees and they are responding well. It has also resulted in only one of the trees having anthracnose, and the continuation of this pruning regime will further control the anthracnose.

(k) **The impact to the integrity of a group trees that by removing one or more specimens.**

16.14. Continued removal of individual trees from the group without replacement will have a detrimental effect on the visual integrity of the group.

(l) **The ability to carry out the activity using methods and management that would result in the works not adversely affecting the health of the tree, and these methods and management being confirmed by a qualified arborist.**

16.15. Any removals would detrimentally affect the health of the trees.

(m) **Whether a replacement tree, of appropriate size and suitability, can be established and maintained on the site.**

16.16. Replacement trees of a similar size and that are suitable can be established at the site, however more consideration should be given to their rooting environment to minimise current conflicts with hard infrastructure.

17. Conclusion

17.1. The trees have been inspected using the QTRA method. This information has been used to calculate the resulting annual risk of harm. The annual risk of harm for the trees at the site is Broadly Acceptable (less than 1 in a million) using the QTRA method.

17.2. A STEM score has been attributed to each tree and these range from 147 to 159.

17.3. Any tree removal has been assessed against the District Plan criteria from an arboricultural perspective.

17.4. Alternative options to reduce nuisance, manage risk and ensure the integrity of the avenue have been proposed.

18. Recommendations

18.1. The trees should be re-assessed in three years for the risk they pose to people or property. This risk assessment should be carried out by someone trained and competent to do so using a recognised tree risk assessment methodology. They should also be given a copy of this report, so they can compare with their findings and note any significant changes.

18.2. The pruning work recommended by Mr Loughborough in 2020 should be continued to the same high standard.



18.3. All physical tree work should be carried out by an NZARB approved contractor. A list of these contractors can be found here.

<https://www.nzarb.org.nz/find-an-approved-contractor>

18.4. All physical tree work should be carried out by an arboricultural contractor that meets the tree owner's requirements, inclusive of health and safety, insurance and pruning standards.

18.5. Pruning should be in line with current industry best practice and the Minimum Industry Standards (MIS). The following non exhaustive list of MIS documents should be followed:

- MIS300 - Safe Tree Work
- MIS308 Tree Pruning
- MIS313 - Tree Health & Maintenance

18.6. When carrying out tree pruning or removal, the arboricultural contractor shall take the necessary precautions to prevent injury to people and damage to property.

19. Appendices

19.1. Appendix 1 – Arboricultural Drawing

19.2. Appendix 2 – Full STEM Scores



LEGEND

- CSR
- Tree Plots

Oxford Street, Levin

Tree Inventory

Plotted date: 13/06/22

Reviewed by: Client

Plotted by: DS

Aerial images may not accurately reflect the actual vegetation cover. Vegetation is plotted as accurately as possible. Unless otherwise stated, project specific vegetation only has been plotted and captured.
Vegetation alteration/removal may be subject to resource consent requirements/conditions. It shall be the clients responsibility to determine whether or not this is the case.
Works within the rootzone of trees should be supervised by an appointed arborist.

