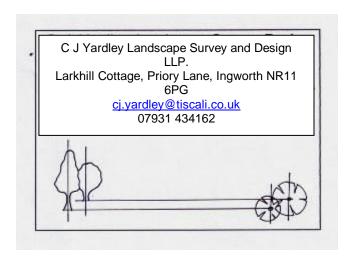
# <u>Tree Survey for Tree Health and Safety</u> at 27, Grammar School Road, North Walsham



January 2024

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# 1. Introduction

1.1. This report is intended to assess the condition (structural and physiological) of trees located within the garden of 27, Grammar School Road, North Walsham for health and safety purposes.

The survey has been undertaken on a target lead approach where assessment of the potential target/s and duration / exposure of persons and property to risk from trees has guided the degree of tolerance of faults within trees and the respective proposed tree works responses to address these faults

Location plan showing the area of the site which was surveyed (as described to us on site by the Client) are shown in the maps to the Appendix to this document.

- 1.2. This report is based upon a detailed ground level inspection of all the trees on the site. This report is not a full climbed inspection report and does not include any form of invasive or non-invasive decay detection using sonic type or similar equipment.
- 1.3. The report will indicate where visually identified problems exist, suggest suitable remedies and will make informed judgements on the future development of the trees (where relevant) in relation to existing structures or uses of the site.
- 1.4. If works identified in the report are not carried out, no liability for future failure of the tree/s due to faults which have been identified but not rectified / ameliorated can be accepted. Similarly, this report is valid for the period stated FOR EACH TREE. However trees are living organisms which have the ability to change their condition very quickly as a result of damage sustained by wind / other forces and or disease and decay. If there is any noticeable change or concern which could affect the health and safety of any tree, it is strongly recommended that a further survey is carried out to identify any problems. If such a survey was not carried out, the results of this survey could be invalid for indemnity purposes.

**Time of survey** (26<sup>th</sup> January 2024). The survey was carried out by Chris Yardley for the Health Authority, and is a consideration of the trees at that time

**Tree Species** (as annotated on table)

**Area of Survey**. The instructions communicated to C. J. Yardley were to carry out a survey of those trees which were discussed on site with the client and confirmed by ourselves by email and in our costing letter of 19<sup>th</sup> December 2023. The survey was carried out for health and safety reasons together with some action for amenity works. No other trees were included in the survey.

## **Tree Numbering**

The tree numbers used in the survey relate to the tree plan shown in the appendix at the end of this report and in the table of trees in this report. NOTE the trees in the report have been RENUMBERED from those shown on the previous Planning Application (AIA report) for the site in order to pick up additional trees and remove some shrubs). NOTE ALSO that THOSE TREES WHERE WORKS ARE PROPOSED on site have been tagged where indicated with a silver aluminium round tag. The numbers of the tags DO NOT CORRESPOND TO THE TREE NUMBERS IN THIS REPORT BUT ARE ALSO REPORTED SEPARATELY for clarity. This is to enable identification of the correct trees on the site for specific works

### **Tabulated survey of Trees**

#### **Key**

#### Abbreviations in the text

c/b = Crown Bias

epi = epicormic

g/l = ground level

N = North

S = South

E = East

W = West

T = Trunk

Obs = Obscured

#### Age Class

NP = newly planted

Y = Young - a tree in the first  $1/3^{rd}$  of its lifespan

SM = Semi Mature - a tree within its second  $1/3^{rd}$  of lifespan

M = Mature - a tree within the last  $1/3^{rd}$  of its lifespan and usually also considered to be at full size

OM = Over mature – a tree beyond its normal lifespan and in decline

V = Veteran - a tree of exceptional age for its species and with a number of clearly identifiable 'veteran' features such as hollow trunk, reduced canopy, cavities and dead wood

Risk Rating (of tree in current condition without proposed remedial works – if any)

Priority / Risk Rating (of tree in current condition without proposed remedial works – if any)

- $1-Very\ High\ Risk;$  a tree with a high probability of failure in relation to a very significant target of people or property. shown RED in list
- 2 High Risk; A tree with a high probability of failure in relation to a significant target of people or property, or a very high probability of failure in relation to a modest target. Shown YELLOW in list
- 3 Moderate Risk; a tree with a possibility of failure in relation to a modest target of people or property, or a high probability of failure in relation to a low

target potential. - Shown BLUE in list

- $4-Low\ Risk$ ; a tree which is unlikely to fail and or which has a very low probability of hitting a target of persons or property. Shown WHITE (uncoloured) in list
- 5 Low Risk trees with advisory works to alleviate nuisance issues or for good arboricultural management. Shown GREEN

Table 1 - Tree Condition and Recommended works -

Tree Number / aluminium tag number	Species	Height / DBH	Age Class	Description of tree with any Identified faults	Recommended Work with timescales / resurvey in 12 months unless otherwise stated	Work undertaken by whom	Risk Rating
T1	Holly	5/70	SM	Small youngish tree – no significant faults	None		4
T2 Tag not able to be attached due to low growth around trunk	Lime	15/400	M	Mature previously pollarded tree (from 3m) which would not now be 're-pollardable' due to size of regrowth. Epicormic growth obscures the lower trunk.  Single lower bough extends over driveway entrance limiting access height to 3.5m  No other identified issues what can be seen due to vegetation	Remove the lower southern bough over the driveway back to the trunk Remove epicormic growth and re-inspect – 2 months		4
T3 0154	Lime	15/500	М	Mature previously pollarded tree (from 3m) which would not now be 're-pollardable' due to size of regrowth. Brash around base of trunk obscures trunk No other identified issues what can be seen due to vegetation	Remove brash from around base of trunk and re-inspect – 2 months		4
T4 0155	Holly	6/200	Dead	Dead	Fell to ground level – within 2 months		3
T5 0156	Lime	8/150	Y	Suppressed young tree approx. 1.2m from adjacent building. Remove tree as not able to come to full size in this proximity	Fell – within 6 months		4
T6 0157	Portugues Laurel	6/300	М	The dense canopy of this large bush / small tree extends over the roof and front wall of the adjacent property. The canopy clearance is less than 2m over the footway	Lift the canopy over the footway to max 2.2m Reduce the canopy back from the roof and wall area of the adjacent building to give a separation of around 0.7m		4

Т7	Yew	5/50	Y	This small tree is behind T6 and with the removal of G8 would make a nicely formed bush if reshaped	Reshape to form	5
G8	4 x Portugues Laurel	5/100	SM	A group of somewhat straggly Portuguese laurel behind T8 which are proposed to be removed for amenity	Remove for amenity	4
Т9	Portuguese Laurel	4 / 150	EM	A single round headed laurel bush which would benefit from some compacting and reshaping	Reduce the canopy from 5m dia to 3m dia by reshaping to form a domed canopy and lift the canopy to 1.5m – all for amenity	5
T10 159	Common Beech	17 / 800	M	A single stemmed tree which rises to 4m before developing a complex branching structure including tight compression forks. The canopy then develops as a series of rising / upright branches from this union area to form a typical 'wineglass' canopy form.  Several of the lower areas of rising branches from and around the union area demonstrate minor cankering. The branching structure and cankering suggest that some weight / windage reduction would be advisable	Reduce the canopy by thinning the outer canopy to remove secondary boughs up to 60mm dia. Reduction should be confined to Reducing spread from 8m to 6m on west side 7m to 5m on east side 6m to 5m on south side None on North side Lift the canopy to no more than 4m (except where already higher) all round by removal of secondary boughs only All works to remove secondary boughs back to branch unions (not growth points) only	3
T11 160	Oak	15 / 700	OM	This is a tree with a long history of gradual dieback – presumably due to a pathogen which is not manifestly visible externally. The degree of dieback is now at approx. 70% of the canopy and the tree poses a hazard	Fell as soon as practicable Within 1 month	1
T12	Holly	9 / 300	M	A typical holly form as part of a larger holly hedge on this boundary	None	4

T13	Holly	9 / 350	M	As above but the canopy clearance is too little over the footway	Lift canopy over the footway to 2.m	4
T14	Portuguese laurel	6 / multistemmed	M	A large clump of stems from a large probably coppiced bush	Fell for amenity	5
T15	Norway Spruce	16/400	EM	Reasonable condition – fairly well formed but not overly dense canopy	None	4
T16	Magnolia	2/5 / 3x40	EM	Fair condition - suppressed	None	4
T17	Plum	5 / 4x100	M	Ivy obscures the lower trunk and canopy area. The tree has a grown lean and canopy bias to the south west	None	4
T18 161	Holly	7/300	Dead		Fell within 1 month	3
T19 162	Yew	7 / 6x150	M	A mature tree of some stature but where the canopy structure has tended to allow the stems to open up and cause the canopy to 'hollow' in the centre as they hinge outwards under their own weight. The canopy is especially biased to the east	Reshape the canopy on the eastern and southern sides to try to rebalance the outward weighting of the main stems and compact the canopy. Reduce the eastern canopy from 8m to 5m and southern canopy from 7m to 5m by removal of stems as required back to growth points	5
G20 163	2 x Holly	6/300	Dead	Two dead trees near the entrance to the site	Fell within 1 month	3

T21 No tag due to access	Lime	16/500	M	Epicormic growth obscures the lower trunk area.  The tree was pollarded as for the other limes a longish while ago and has developed a substantial upright canopy of large boughs since then (probably at least 50 years) – the boughs are now too large to accept repllarding without significant wound formation/ reduction in tree lifespan The canopy clearance over the trackway is 3 – 4m	Remove the epicormic growth to allow inspection and lift the canopy over the track (west) to 4.5m for access	4
T22 164	Horse Chestnut	17/ 1100	M	A massively formed lower trunk area which divides into a mass of upright stems (combination of union types including tight compression forks) at 2 – 3m. At 4m these stems were pollarded in the distant past and have reformed with significant large growth to form a large spreading canopy. The bough development is now too mature to stand re-pollarding to this point but the structure of the tree is such that the canopy weight and windage appear excessive for some of the bough unions An old compost heap / pile of tiles is piled against the northern side of the trunk which prevents inspection and may harbour decay	Thin the outer south western, south eastern and southern canopy of the tree to reduce the mass and windage therein by removing approx. 25% of secondary boughs up to 60mm dia back to branch unions (not growth points) Dig out compost to natural ground level and inspect trunk Within 2 months	4
T23	Lime	17 / 350	М	Another lime which has been pollarded about 50 years ago. No issues	None	4
T24 165	Common Beech	19/800	M	A large upright canopy structure which has grown within and part of a group of trees forming a typical 'woodland' canopy structure (high canopy). The lower trunk area on the eastern side demonstrates an area of decay around the buttress and up the fluted stem to approx. 0.7m. The appearance of the decay visible on	Reduce the upper canopy of the tree by 4m by thinning out the top canopy structure to remove 33% of secondary boughs back to branch unions where possible and growth points where not.	2

				the cambium suggests that approx.  20 – 25% of the lower outer trunk area (and probably some of the central area of the tree) is decayed.  To compensate for this we would recommend a fairly significant canopy reduction to reduce weight and windage. The canopy is not particularly amenable to this but is well sheltered within the tree group and is not in an exposed position – factors which mitigate for retention and monitoring after the work		
T25	Lime	12 / 450	M	Comments as for the other limes – an old pollard which would not accept re-pollarding. Cannot see lower eastern side of trunk due to fencing	Remove the fencing and inspect the lower trunk Within 2 months	4
T26 166	Sweet Chestnut	18/ 2x500+300	M	The branching structure is a typically tension fork types – usual for the species. The tree has clearly grown up with T25 adjacent (and the other trees in the group) and this has developed the canopy bias seen on this tree with a bias to the east and north	As far as practicable some effort to rebalance the canopy would be valuable by Reducing the eastern and north eastern canopy from 7 – 8m to 5 – 6m radius thinning to remove secondary boughs of dia no greater than 70mm back to branch unions (not growth points) Within 3 months	4
T27	Lime	12 / 420	М	Comments as for other limes – an old pollard. Brash around the base of the tree prevents inspection of the lower trunk	Remove the brash around the lower trunk and re-inspect Within 2 months	4
T28	Ash	10 / 200	Y	Fair condition what can be seen due to vegetation. Strong canopy bias developing due to suppression from adjacent trees	Monitor for ash dieback by checking canopy density in June or July 2024	4
T29	Cherry	9 / 2 x 150	SM	Fair condition. The tree has a tight compression fork between the two main upright stems at their union at 500mm with included bark but the tree is relatively small and likely to remain so and poses no significant	None	4

				risk factor		
T30	Walnut	8/350	SM	Fair condition what can be seen due to vegetation around base of trunk. Strong canopy bias to the north due to suppression by T31. The tree is relatively small and poses no significant risk factor at present. As it develops and matures, some canopy rebalancing will be likely to be required	None	4
T31	Cherry	10 / 400	M	Fair condition what can be seen due to vegetation around the lower trunk area and up into the canopy. There is a minor dead stub just below one of the main emerging stems at 1.4m but this is assessed to have no significant structural impact on the union feature above.  The trunk divide at 1.6m with compression forks but the canopy of the tree is not large enough to warrant action	None	4
T32	Holly	7/4x100	M	Fair condition what can be seen due to dense foliage from the tree /bush around the trunks The tree/shrub is relatively small and poses no significant risk	None	4
T33	Hazel	6 / multi stemmed coppice	M	Fair condition what can be seen due to dense foliage from the bush formed shrub around the trunks The shrub is relatively small and poses no significant risk	None	4
T34 167	Lawsons cypress	12 / 400	EM	A secondary trunk appears to have split out from the main canopy at approx. 1.6m from ground level leaving a large wound and impacting into the form and structure of the remaining stem. The wound is callousing but the remaining trunk is compromised in its structural	Reduce the tree to no more than 7m and allow to regrow to 8m before repeating or fell entirely Within 2 months	3

				integrity and the tree should not be allowed to come to a larger mature size		
T35	Cordyline	4 / 150	М	Fair condition	None	4
T36	Silver birch	12 / 2x250	SM	Fair condition. The trunk divides into two at 200mm with a tight compression fork. The canopy is formed as two separate entities on each trunk and there will be a tendency for the trunks to pull apart when fully mature and hinge down but in this sheltered position and with the lightness of the canopies at present this would seem a limited potential hazard and there is no obvious remedial pruning which would improve the situation without damaging the appearance of the tree significantly	None	4
T37	Holly	5/?	M	A well formed dense canopy on a variegated plant. Cannot see the condition of the stem because the canopy density is too great. The canopy is formed in a 'mushroom' type format	None	4
Т38	Yew	6/?	M	A well formed dense canopy on a variegated plant. Cannot see the condition of the stem because the canopy density is too great. The canopy is formed in a 'mushroom' type format	None	4
T39 168	Cherry	4 / 300	EM	Poor condition with significant dieback /	Fell for amenity reasons	5

T40	Lawsons	9 / 200	EM	Fair condition. Slightly sparse	None	4
	cypress			canopy in places		

#### **Summary**

## **Proposed Works**

- The survey has revealed a number of works to trees within the survey area.
- The most significant issue is the large Oak T11 which needs to be felled as soon as practicable as it is largely dead and close to the main road
- Other important works (yellow) relate to T18 dead holly near the main road, T24 large Beech which needs to be reduced to compensate for some decay forming in the lower trunk and T34 moderately sized Lawsons Cypress which needs to be reduced to compensate for damage to the main trunk (remaining one), or felled entirely.
- There are a number of smaller trees which are dead and near to the boundaries of the site (mainly hollies) which need to be felled and some works to reduce the canopies of trees where there are some minor concerns over the structural integrity of the trees
- The remaining works are primarily concerned with good arboricultural management / amenity management as well as addressing minor safety issues

## A Target Lead survey approach

The survey was carried out on a target lead basis - i.e. the trees were assessed both in relation to how likely they were to fail but also in relation to how likely they were to injure someone (i.e. the likely presence of people / how many, how often and for how long) and proximity to property.

This means that in some areas where there are trees which present similar faults to those in other areas, they are not deemed sufficiently accessible or likely to be able to pose a sufficient risk to make the works of sufficient importance to do (there are some dense / clearly not accessed areas of various parts of the zones adjacent to or near to the paths) because the likelihood of a person being in the area of the tree at the time it fails is very low. This system of assessing tree risk based on the combination of features above is a standard approach taken by many / most survey systems commonly in use.

## Accessibility and visibility issues which have limited the effectiveness of the survey

The time of year gave a reasonably good visibility of tree faults. The weather was good and clear and the early leafing helped to identify dead wood but may have concealed some other faults.

## **Next Inspection**

Overall we recommend re-inspection all trees on the trees in 12 months. This is intended to enable views of the trees in late autumn / early winter when fungal fruiting bodies will be visible and the structure of trees is visible.

This should be accompanied by (preferably) a periodic inspection – simple walk through – by any person with a reasonable degree of competency to identify obvious faults or problems. This is particularly important after a high wind event and / or if we have a significant storm with amounts of tree damage which would effectively invalidate parts or all of this survey as all sorts of damage issues may have occurred – after such an event staff should always inspect the trees and it may then be considered relevant to resurvey the trees professionally too.

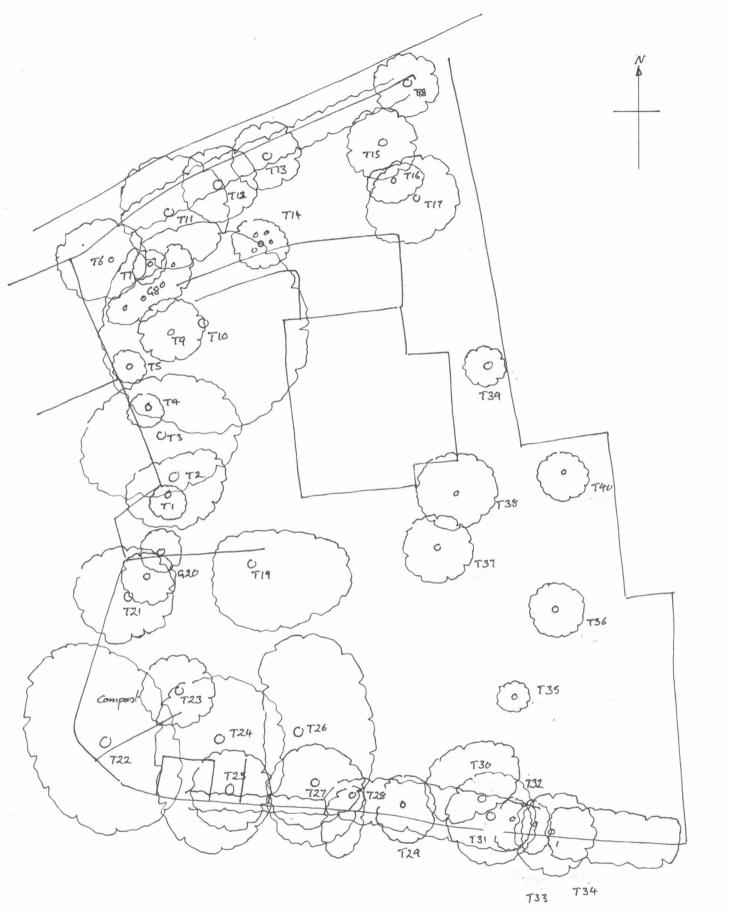
### **General Considerations**

The works set out above seek to alleviate the identified risks as far as can be reasonably foreseen. This does not mean that the trees are 'safe' or that they do not present a risk of failure. All trees have the potential to fail, and therefore present some degree of risk. Trees are living organisms and as such (given that they are complex structures) can be un-predictable. However, the degree of risk presented by trees is relatively low compared with other structures, and indeed with other risks to which persons and property are exposed. This risk is significantly reduced by regular inspections and by suitable works to remove or remedy (as far as practicable) any faults identified.

It is important to be aware of trees in your care, and to take reasonable steps if you see alterations in their condition, or if damage occurs. The survey above remains effective for the period within which the works and re-inspection times stated operate. However, as living organisms, if a noticeable change occurs to the tree/s, or a strong wind event/lighting etc damages the trees, re-inspection is strongly advised, and in all probability, the survey will cease to be fully valid.

Appendix -

tree location plan



27 Grammar Sch Road North Walsham Tree Locations Not to scale.