

Visual Tree Assessment

Land at
St Mary's Church
Overton-on-Dee
Wrexham

Ref:
VTA/SMC/02/22

Date:
7th February 2022

Commissioned by:
Mr P. Whittaker

Prepared by
S. Shields

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Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr P. Whittaker, to undertake a tree condition assessment and provide management advice for the yew tree in St Mary's Church. The purpose of the survey was to provide an assessment of the condition of the trees on the property and provide advice regarding any works required to the trees to ensure that they are maintained in as safe a condition as is reasonably practicable.

Introduction

- 2.1 It is recommended that all tree owners should have their trees inspected for safety purposes on a periodic basis. The frequency of these inspections will depend on the location of the tree in relation to roads, footpaths and buildings or structures. This is confirmed by HSE guidance relating to managing the risk of falling trees which states that *'there is the duty to do all that is reasonably practicable to ensure that people are not exposed to risk to their health and safety. Doing all that is reasonably practicable does **not** mean that all trees have to be individually examined on a regular basis. A decision has to be taken on what is reasonable in the circumstances and this will include consideration of the risks to which people may be exposed.'*

Scope and Limitations of the Survey

- 3.1 The survey was undertaken on 5th February 2022 by Stephen Shields, principal consultant with Shields Arboricultural Consultancy.
- 3.2 The survey was carried out from the ground in accordance with the principals of tree inspection and assessment described in Lonsdale 1999 and using Visual Tree Assessment (VTA) techniques as described in Mattheck & Breloer 1994. This term describes an approach to tree surveying using visual observation which allows the surveyor to evaluate the stability and structural condition of a tree. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to, for example, a weakness in its structure, or as a result of external stress factors e.g. drought.
- 3.3 The trees were inspected from the ground level using field glasses and basic equipment such as a soft faced hammer and steel probe. Where required a F-400 Resi-drill was used to examine the internal quality of the wood. The inspection followed a set procedure; firstly, the site conditions are assessed to establish if any environmental factors are present that could affect the stability of the trees. This includes an evaluation of the soil conditions to establish if there are any aspects that could inhibit root growth, such as water logging or shallow soils. The exposure and elevation of the site are considered along with any changes to the tree's environment that could affect the tree. Next the root plate and area around the tree are visually inspected for signs of instability or decay, followed by a visual examination of the trunk and branch structure to identify structural defects or decay. Finally, the vitality of the tree is assessed, and any significant pest and diseases identified. Where defects or health issues were identified, these are noted in the report and any required remedial measures recommended. Where no comment is made, it can be assumed that no defects were identified.

- 3.4 The findings of the survey are limited to the date of inspection. The seasonal nature of fungal and decay organisms and other symptoms of stress such as late or early leaf emergence or fall means that indicators of disease and decay may not have been present on the date of inspection.
- 3.5 The risk assessment evaluates the risk of failure in all weather conditions up to and including Beaufort Scale Gale Force 8. All trees are at risk of failure through exceptional weather conditions.

Statutory Controls & Obligations

- 4.1 Forestry Act; the felling of trees is controlled under Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry Commission has the responsibility for enforcing the Forestry Act.
- 4.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence to (subject to any exemptions for which provision may be made by the order) undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.
- 4.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

Tree Work Recommendations

- 5.1 Full details of the tree inspections are provided in the Arboricultural Inspection Record, along with work recommendations.
- 5.2 Ensuring that the trees within the site remain in a reasonably safe condition, can normally be achieved through periodic inspections and monitoring of trees that may have progressive defects. In addition to inspections by the owner it is recommended that a professional inspection is undertaken in after any storm where wind speeds exceeded gale force 8 or where damage is noted.
- 5.3 The management of any aerial deadwood should also be given careful consideration as it provides an important habitat. Deadwood should only be removed where there is a high value target, such as over buildings, seating areas or highways and access roads and it is large and unstable.
- 5.4 The trees within St Mary's Churchyard are hugely significant in that they are not just ancient veteran trees, but also listed as one of the seven wonders of Wales. If these were buildings they would fall into the same category as Caernarfon Castle or Pont Menai, or the tower of St Giles Church in Wrexham, that is to say substantial and irreplaceable assets.

5.5 Given the significance of the trees great care needs to be taken in considering what work is appropriate. Guidance provided in Ancient and other veteran trees: further guidance on management (Lonsdale. D. (ed) (2013). Gives three situations where intervention pruning should be considered:

- To prevent major mechanical failure which would destroy the tree.
- The tree poses an unacceptable level of risk to people or property.
- Tree work has previously been done and there is need for further management to maintain structural integrity.

In the case of the Overton Churchyard Yews, the main criterion for specifying work is to prevent the trees from failing in a way that causes extensive damage or destroys them.

5.6 The majority of trees have mechanical issues caused by internal decay and although at this time the risk of catastrophic failure is moderate to low, this will worsen over time. In order to reduce the possibility of failure it is recommended that all the veteran trees are given a staged crown reduction, known as retrenchment pruning. This technique mimics the natural process of crown retrenchment and relieves that mechanical stress on the tree in a way that is progressive, so as to reduce shock to the tree. The majority of trees are in good health and showing reasonable vitality, so it is proposed to use the gradual method of pruning (Table 4.1 Ancient and other veteran trees: further guidance on management (Lonsdale. D. (ed) (2013). In this case this will see a reduction of around 10% of the crown of each tree or around 1 metre reduction in branch length, followed by a second reduction of similar proportions in 3 – 5 years. All pruning cuts should be limited in their size to a maximum of 100mm and follow the guidance provided in BS 3998: 2010.

5.7 It is recommended that all the veteran trees at the site are managed in this way, although the work can be phased as funding allows, with the most vulnerable trees prioritised. The work should be undertaken in the winter months during the trees dormant phase. Ground protection should be used to prevent compaction of the soil within the root zone of the tree during arboricultural operations.

5.8 It is understood that the trees are protected by Tree Preservation Orders and therefore any work must be applied for to the Local Planning Authority.

Arboricultural Operations

Permission to work on any tree must be obtained from the Local Planning Authority and must not be undertaken until formal approval has been granted.

6.1 It is recommended that the work should be undertaken by a suitably qualified person, holding public liability insurance for the sum of £5,000 000. All operators must hold relevant NPTC certificates. A site-specific risk assessment must be prepared and operators must work to a health and safety method statement. The use of Arboricultural Association Approved Contractors www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons is recommended.

- 6.2 The contractor undertaking the work is responsible for any loss or damage arising as a result of the operations and agrees to indemnify the owner against such occurrences.

S.J.A. Shields

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7th February 2022

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Arboricultural Inspection and Recommendations Update**Location:** St Mary's Church, Wrexham Road, Overton.**Weather:** Overcast, Fresh Breeze**Date:** 5th February 2022**Surveyor:** Stephen Shields

Tree (Tag #)	Species	Size Class*	Age Class*	Structural. Condition	Health & Vitality	Notes from Inspection	W3W Loc.	Haz Rat
Site inspection commenced from the east pedestrian gate and proceeded in a counter clockwise direction around the churchyard. All trees were numbered with a metal tag.								
T446	Taxus baccata (Yew)	L	Ancient Vet	Fair	Good	Large veteran tree located by east gate into the Churchyard. Footpaths to the southeast and north of the tree. Significant column of decay in main stem on east side extending from ground level to around 8m, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low to moderate risk of failure. Recommendation: Consider retrenchment pruning see main text for details.	///udder.glaze.bookings	500K Low

T447	Taxus baccata (Yew)	M	Ancient Vet	Fair	Good	Significant column of decay in main stem on south east side extending from ground level to around 4m and affecting around 30% - 50% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Tree is sheltered with a relatively small crown owing to group pressure and the size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	//hardening.geese.corals	<1M V. Low
T448	Taxus baccata (Yew)	M	Ancient Vet	Fair	Good	Stem divides at around 0.6m. Cavity on stem with some decay. Tree is sheltered and the size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details. Recommendation: Monitor tree	m //again.shapeless.real	<1M V. Low

T449	Taxus baccata (Yew)	VL	Ancient Vet	Poor	Fair	Tree divides into two stems from ground level. Significant column of decay in north stem side extending from ground level to around 6m and affecting around 50% - 70% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a moderate risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	///lost,judge:deflated	50K Low
T450	Taxus baccata (Yew)	M	Ancient Vet	Fair	Good	Significant decay in main stem side affecting around 50% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low to moderate risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	///stirs:strapped,gladiators	500K Low

T451	Taxus baccata (Yew)	M	Ancient Vet	Fair	Good	Decay in main stem, cubical brown rot degrading and embrittling heartwood, number of cavities and dead branch stubs. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a moderate to low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	//leamed,moderated,perch	500K Low
T452	Taxus baccata (Yew)	M	Ancient Vet	Poor	Fair	Tree has recently suffered major limb / stem failure during a storm. Significant levels of decay, cubical brown rot degrading and embrittling heartwood, within the remaining tree. Recommendation: Undertake retrenchment pruning and crown restoration to reduced exposed limbs of trees. See main text for details.	//Investors,interests,renting	500K Low
T453	Taxus baccata (Yew)	M	Ancient Vet	Fair	Good	Decay in main stem, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	//grass,tippling,shorthand	<1M V. Low

T454	Taxus baccata (Yew)	M	Ancient Vet	Good	Good	Column of decay in main stem with large cavity on the southeast side, affecting around 30% - 50% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Tree is sheltered with a relatively small crown owing to group pressure and the size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	//zealous.messy.volunteered	<1M V. Low
T455	Taxus baccata (Yew)	M	M	Good	Fair	Mature tree divides into four secondary stems at around 1.2m. No evidence of significant decay. Some exudations on lower stem between root flares. Reduced canopy density. Recommendation: Monitor health of tree.	//invoices .debater.c hucks	<1M V. Low
T456	Taxus baccata (Yew)	L	Ancient Vet	Fair	Fair	Column of decay in main stem with large cavities on the west and east side, affecting around 70% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. Tree is sheltered with a relatively small crown owing to group pressure and the size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a moderate risk of failure. Reduced crown density. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	//rotation.lighdens.ghosts	50K Low

T457	Taxus baccata (Yew)	M	M	Good	Good	No significant decay or defects Recommendation:	leathers .lamplight .project	<1M V. Low
T458	Taxus baccata (Yew)	M	Ancient Vet	Poor	Fair	Very significant tree in terms of age and condition. There is extensive decay in the main stem, which has split at some point in the past. Past work has seen the eastern portion of the stem propped with wooden supports and a metal chain fixed between the two parts of the stem. There are very significant levels of decay in the tree, however the majority of the canopy is comprised small diameter secondary branches as the tree appears to have been crown reduced or pollarded in the past. Given the level of decay in the parent stems there is now a moderate to high probability of branch failure Recommendation: Undertake retrenchment pruning as part of long-term management of tree. See main text for details.	braked.flamenco.clubbing	5K Mod/ High
T459	Taxus baccata (Yew)	L	Ancient Vet	Fair	Good	Column of decay in main stem with cavities on the north and east side, affecting around 50% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. The size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a moderate low risk of failure. Reduced crown density. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	premiums.robots.moderated	100K Low

T460	Taxus baccata (Yew)	M	M	Good	Good	Slight reduction in crown density. Recommendation: Monitor tree health.	//handle.r ingers.ord eals	<1M V. Low
T461	Taxus baccata (Yew)	S	SM	Good	Good	Small tree with open, pendulous crown possibly an example of the variant known as the Doveston Yew that originated in West Felton, Shropshire circa 1777. Recommendation: Monitor tree	//webcam s.helper.a nchorman	<1M V. Low
T462	Taxus baccata (Yew)	M	M	Good	Good	Multi-stem from 1.5 metres, cavity on northwest of stem, some decay. Recommendation: Crown raise over adjacent footpath to south.	er fairy.tend	<1M V. Low
T463	Taxus baccata (Yew)	S	SM	Good	Good	No significant defects.	elless ular.shap	<1M V. Low
T464	Taxus baccata (Yew)	M	Ancient Vet	Fair	Good	Tree divides into three secondary stems at 1.5m. Very significant column of decay in one stem, open on west side, extending to 3 metres, affecting around 50% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. The size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	//cheerily.gains.bliss	<1M V. Low

T465	Taxus baccata (Yew)	L	Ancient Vet	Fair	Good	Tree divides into multi secondary stems at 2.5m. Dead central column with decay affecting around 30% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. The size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	///aquatics.soaps.section	<1M V. Low
T466	Taxus baccata (Yew)	L	Ancient Vet	Fair	Good	Extensive column of decay in main stem with number of old pruning wounds, affecting around 50% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. The size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a moderate risk of failure. Broken branches and deadwood in the crown. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	///trickster.camped.tasks	50K Low

T467	Taxus baccata (Yew)	L	Ancient Vet	Fair	Fair	Central column with significant decay affecting around 70% of stem volume, open on north side and large cavity on east side, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. The size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a moderate to high risk of failure. Deadwood and broken branch in crown. Reduced crown density. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	///sobs.coach.flickers	50K Low
T468	Taxus baccata (Yew)	M	Ancient Vet	Fair	Fair	Tree divides into multi secondary stems at 3.5m. South stem has large column of decay affecting around 30% of stem volume, cubical brown rot degrading and embrittling heartwood. Reasonable response wood and new wood growth maintained, and tree displays good vitality. The size and spread of upper crown and location of decay relative to branch and secondary stem attachments are such that tree has a low risk of failure. Recommendation: Consider retrenchment pruning as part of long-term management of trees. See main text for details.	///stuffng.stump.twiching	<1M V. Low

KEY

Size Class

Stem

- S Less than 5m height and / or 150mm trunk diameter
- M 5m– 15m height and /or 150mm – 500mm trunk diameter
- L 16m – 25m height and / or 501mm -1000mm trunk diameter
- VL Over 26m height and or over 1001mm trunk diameter

Age Class:

- NP - New Planting less than 5 yrs
- Y - Young Trees less than 1/3 life expectancy
- EM - Early Mature 1/3 – 2/3 life expectancy
- M - Mature over 2/3 life expectancy
- LM - Late Mature exceeds normal life expectancy for species
- VET - Veteran Tree has characteristics of veteran tree, see Read (2000)

Health & Vitality:

- Good - No significant health problems
- Fair - Some health problems that will reduce vitality
- Poor - Significant health problems that are affecting the tree's ability to survive
- Dead - Dead

Structural Conditions:

- Good - No significant faults
- Fair - Some faults that can be rectified through surgery
- Poor - Major faults that cannot be rectified through surgery
- Env - Environment in which the tree stands.

Hazard Rating:

- Green - Very Low
- Yellow - Low
- Orange - Moderate
- Red - High
- Red*- V. High

W3W:

What 3 Word Location

Numeric rating refers to QTRA score E.g. 100K= 1 in 100,000.