



ARBORICULTURAL REPORT

to BS 5837:2012 at:

***North Wales Police,
Bodhyfryd,
Wrexham,
Wrexham
LL12 7BW***

Prepared for:
FDA Landscape Ltd.
*Westleigh House,
Wakefield Road,
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West Yorkshire
HD8 8QJ*

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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We were instructed by Sue Farmer of FDA Landscape Ltd, to visit the site and prepare our findings in a report.
- 1.1.2 The report is required in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Survey Details

- 1.2.1 The survey took place during October 2017.
- 1.2.2 The trees were surveyed visually from the ground using “Visual Tree Assessment” techniques and in accordance with the guiding principles of British Standard 5837:2012.
- 1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 1.2.4 The author’s qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5**.

2. The Site

2.1 Location & Description

- 2.1.1 The site is located in Wrexham town centre. It consists of a police station with car parks and surrounding grounds. Wrexham County Court and Wrexham Memorial Hall are situated to the south of the site with residential properties to the west. A road runs along the site's northern and eastern boundaries with a busy roundabout situated at the site's north eastern corner.

3. The Trees

3.1 Legal

- 3.1.1 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a check should be made with the Local Planning Authority to see if the trees are covered by a Tree Preservation Order or if they are within a Conservation Area. If either applies, then statutory permission is required before any works can take place.
- 3.1.2 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance. All tree work should be carried out according to British Standard 3998: 2010 *Tree Work - Recommendations*.

3.2 Tree Survey Results

- 3.2.1 The tree survey revealed 37 items of woody vegetation, comprised of 36 individual trees and 1 tree group.
- 3.2.2 Of the surveyed trees: 2 trees are retention category 'U'; 2 trees are retention category 'A', 22 trees are retention category 'B'; and the remaining 11 trees are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.3 Species diversity at the site is relatively good with a mix of several Sycamore, Ash, Lime, Horse Chestnut and Cherry, and occasional Beech, Oak, Rowan, Birch, Hornbeam, Laburnum, Cypress and Whitebeam. Most of the trees are mature or early mature with occasional semi mature trees.
- 3.2.4 The site's most significant trees are the Sycamore (T15) and Horse Chestnut (T18) situated to the south east of the site. Both are large mature trees in good overall condition, with good arboricultural value, and provide high visual amenity value.
- 3.2.5 A row of mature Cherry trees are situated on raised grass banking at the site's north western corner (T1, T2, T3, T4 and T7). All the trees have shallow exposed primary roots with mower damage and numerous cankers to their main stems, yet they are in a fair or good condition. The trees are situated in prominent roadside positions and provide moderate amenity value to the site and the surrounding area.
- 3.2.6 The Horse Chestnut T8 is a established tree situated in a prominent roadside position to the north of the site; however, it has minor symptoms of Bleeding Canker of Horse Chestnut which is likely limit its long term value.
- 3.2.7 The Lime (T16) has a serious decay fungi *Kretzschmaria deusta* at the base of the main stem. Due to the brittle decay associated with the fungus and the high value target underneath the tree, it is considered the tree poses an unacceptable risk to people or property and as such it is recommended to remove the tree regardless of future development at the site.
- 3.2.8 The Lime (T19) is in relatively poor condition with numerous decayed cavities to its main stem and moderate dieback and deadwood in its crown. It has limited long term value.

- 3.2.9 To the south of the site, the row of mature Ash, Maple and Horse Chestnut (T24 to T32) are generally of moderate value. Trees T24, T25 and T29 appear to have had their crowns previously reduced away from the building to the north.
- 3.2.10 The Sycamore (T27) is in poor structural condition with a large decayed cavity at its base and numerous smaller decayed cavities to its main stems. It is recommended to remove T27 regardless of future development at the site.
- 3.2.11 A linear group of Sycamore, Ash and Cypress trees are situated in adjacent land to the west of the site (G36 and T37). The trees were only given a cursory inspection due to their adjacent location and the dense Ivy covering many of their main stems. The trees provide good screening of the site from the neighbouring residential properties.
- 3.2.12 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4) in such cases measurements were estimated and the condition values are indicative only.
- 3.2.13 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 3.2.14 The RPA for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.

3.3 Arboricultural Development Advice

- 3.3.1 The higher value retention category 'A' and 'B' trees and groups should be retained, where possible, and incorporated into any new development design.
- 3.3.2 Where suitable, those category 'C' trees and groups with reasonable future prospects (as detailed in Appendix 4) should be retained as part of any new development. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can

result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

- 3.3.3 If required by the development proposals, occasional lower value, retention category 'C' trees and groups could be removed, and replacement planting would largely mitigate their losses.
- 3.3.4 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, should be used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 3.3.5 If construction of new buildings is required within the trees RPA it may be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation.
- 3.3.6 Construction of hard surfaces, for drives and paths, within the RPA, can have negative impacts on tree roots. However, the potential negative impacts can often be overcome or minimised by employing a 'no-dig' type construction methods with a porous final surface.
- 3.3.7 The design of the new development should consider the trees crown position in relation to any new dwellings. The dappled shade of a tree is more pleasant than the deep shadow of a building, and some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. Whilst either shade or sunlight might be desirable, depending on the potential use of the area affected, the design should avoid unreasonable obstruction of light and should give adequate provision for future tree growth.

3.4 Protection of the Retained Trees

- 3.4.1 The retained trees may require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 3.4.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

4. Signature

I trust this report provides all the required information.

Signed



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Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.

8th November 2017

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Appendices

Appendix 1: Authors Qualifications and Experience

Appendix 2: Survey Methodology and Limitations

Appendix 3: Explanation of Tree Descriptions

Appendix 4: Tree Data

Appendix 5: Tree Constraints Plan

Appendix 1: Authors Qualifications & Experience

Mr Adam Winson *Chartered Arboriculturist, MSc, BSc (Hons), ND, MICFor, MArborA, ACIEEM, QTRA Registered.*

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years, and was awarded an MSc in Arboriculture and Urban Forestry, with distinction and the ICF top student award. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the Crown Court.

Mr Dave Farmer *FdSc (Arb). PTI (Lantra). TechArborA.*

Dave joined AWA Tree Consultants early in 2016, after many years of experience within the tree care profession, including managing teams of Arborists and lecturing in arboriculture at one of the leading land-based colleges in the UK. He has a Foundation Degree in Arboriculture (with Distinction). He is an Associate Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters, working towards becoming a Chartered Arboriculturist. His work focuses on tree risk assessments and undertaking BS5837:2012 tree surveys for development projects; this involves tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and Tree Protection Schemes to BS 5837:2012.

Mr James Brown *BSc (Hons) Arboriculture. TechArborA.*

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. James joined AWA after working in Europe's largest tree nursery and Local Authority tree officer work, for Tameside Metropolitan Borough Council. He is a Technician Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters, working towards becoming a Chartered Arboriculturist. His main work consists of tree surveys for development projects, involving tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and Tree Protection Schemes to BS 5837:2012.

Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837 (2012) *Trees in relation to design, demolition and construction –Recommendations*. The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using ‘Visual Tree Assessment’ (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837 (2012). Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS5837 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998: 2010 - ‘*Tree Work: Recommendations*’.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees for removal. These trees are in such a condition that any existing value would be lost within 10 years.

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T1	Cherry	<i>Prunus sp.</i>	Mature	12	1	410	No	2	4.5	6.5	6.5	6.5	Exposed shallow primary roots with mower damage. Girdled root.	Single stemmed. Vertical. Stubs. Old pruning wounds. Tight union.	Minor deadwood	Cankers to main stem and in crown.	Fair	Fair	>40 yrs	Moderate	B	No works required
T2	Cherry	<i>Prunus sp.</i>	Mature	12	1	350	No	2	3.5	6	3.5	6	Exposed shallow primary roots with mower damage.	Single stemmed. Vertical. Stubs. Old pruning wounds.	Minor deadwood	Cankers to main stem and in crown.	Fair	Good	>40 yrs	Moderate	B	No works required
T3	Cherry	<i>Prunus sp.</i>	Mature	12	1	430	No	2	6.5	7	4	7.5	Exposed shallow primary roots with mower damage.	Single stemmed. Vertical. Stubs. Old pruning wounds.	Minor deadwood	Cankers to main stem and in crown.	Fair	Good	>40 yrs	Moderate	B	No works required
T4	Cherry	<i>Prunus sp.</i>	Mature	11	1	470	No	2	4.5	5.5	5.5	5	Exposed shallow primary roots with mower damage.	Single stemmed. Multiple stemmed at 1.5m. Vertical. Stubs. Old pruning wounds. Tight union. Partially included bark.	Minor deadwood	Cankers to main stem and in crown. Partially included bark union at 1.5m. Monitor union.	Fair	Fair	>40 yrs	Moderate	B	No works required
T5	Rowan	<i>Sorbus aucuparia</i>	Semi-mature	6	1	160	No	2	2.5	3	2.5	2.5	No visual defects	Single stemmed. Slight lean. Stubs. Old pruning wounds.	Minor deadwood		Good	Good	>40 yrs	Moderate	C	No works required

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T6	Rowan	<i>Sorbus aucuparia</i>	Semi-mature	6	1	130	No	2	1.5	2.5	2.5	2	No visual defects	Single stemmed. Slight lean. Old pruning wounds.	Minor deadwood		Good	Good	>40 yrs	Moderate	C	No works required
T7	Cherry	<i>Prunus sp.</i>	Mature	13	1	420	No	3	7.5	4.5	5.5	7.5	Exposed shallow primary roots with mower damage.	Single stemmed. Vertical. Stubs. Old pruning wounds.	Minor deadwood	Crown previously reduced.	Fair	Good	>40 yrs	High	B	No works required
T8	Horse Chestnut	<i>Aesculus x carnea</i>	Early-mature	11	1	590	No	2	7	8	7	7	No visual defects	Single stemmed. Vertical. Stubs. Old pruning wounds. Minor cavities. Minor decay.	Minor deadwood	Early symptoms of Bleeding Canker of Horse Chestnut. Cement structure at base to south.	Fair	Fair	20 to 40 yrs	High	B	No works required
T9	Lime	<i>Tilia x europaea</i>	Early-mature	11	1	390	No	2	5	5.5	5.5	4.5	No visual defects	Single stemmed. Twin stemmed. at 2.5m. Vertical.	Minor deadwood. Old pruning wounds.	Crown previously reduced	Good	Fair	20 to 40 yrs	Moderate	C	No works required
T10	Lime	<i>Tilia x europaea</i>	Semi-mature	9	1	290	No	2	4	4.5	5	3	No visual defects	Single stemmed. Multiple stemmed at 1.5m. Vertical. Epicormic growths.	Minor deadwood. Old pruning wounds.	Crown previously reduced	Good	Fair	20 to 40 yrs	Moderate	C	No works required

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T11	Cherry	<i>Prunus padus</i>	Semi-mature	4	1	100	No	1	2.5	3	3	3	No visual defects	Single stemmed. Slight lean.	Normal	Stake embedded at base	Good	Good	20 to 40 yrs	Moderate	C	No works required
T12	Laburnum	<i>Laburnum anagyroides</i>	Mature	7	1	340	No	1.5	4.5	4.5	3	3.5	No visual defects	Single stemmed. Multiple stemmed at 2m. Vertical. Bark damage.	Minor deadwood	One moderate damaged decayed branch in crown	Fair	Good	20 to 40 yrs	High	C	No works required
T13	Birch	<i>Betula pendula</i>	Early-mature	12	1	280	No	1.5	2.5	2.5	2	2.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Epicormic growths.	Normal		Good	Good	>40 yrs	Moderate	B	No works required
T14	Cherry	<i>Prunus padus</i>	Semi-mature	7.5	8	100	No	1	3.5	3.5	3.5	3	No visual defects	Multiple stemmed at base. Vertical. Old pruning wounds. Tight union.	Normal	Stake embedded at base	Good	Fair	>40 yrs	Moderate	C	No works required
T15	Sycamore	<i>Acer pseudoplatanus</i>	Mature	22	1	1040	No	3	9	10	7.5	7	Exposed roots	Single stemmed. Vertical.	Minor deadwood	Significant tree	Good	Good	>40 yrs	High	A	No works required

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T16	Lime	<i>Tilia x europaea</i>	Mature	21	1	840	No	2	6	5	5	6	Decay	Fungi at base. Single stemmed. Twin stemmed at 1.5m. Vertical. Epicormic growths. Old pruning wounds. Stubs.	Minor deadwood	<i>Kretzschmaria deusta</i> fungus at base of main stem	Fair	Poor	<10	High	U	Removal recommended regardless of development
T17	Sycamore	<i>Acer pseudoplatanus</i>	Mature	18	1	590	No	9	6	6	1	3	Ground level at base appears to have been raised.	Single stemmed. Slight lean. Ivy covered.	Minor deadwood. Unbalanced.	Leaning and unbalanced to north toward building. Dense Ivy prevented detailed inspection and accurate stem measurement.	Fair	Fair	20 to 40 yrs	Moderate	B	No works required
T18	Horse Chestnut	<i>Aesculus hippocastanum</i>	Mature	22	1	1110	No	2	6	9	8.5	8.5	No visual defects	Single stemmed. Multiple stemmed at 2m. Vertical. Epicormic growths. Ivy covered.	Minor deadwood		Good	Good	>40 yrs	Moderate	A	No works required
T19	Lime	<i>Tilia x europaea</i>	Early-mature	19	1	600	No	4	5	3.5	3.5	3.5	No visual defects	Single stemmed. Vertical. Epicormic growths. Stubs. Old pruning wounds. Minor cavities. Minor decay. Numerous cavities to main stem likely to coalesce.	Moderate deadwood. Minor dieback. Small/ sparse.	Dense epicormic growths at base prevented detailed inspection and accurate stem measurement. Limited long term value. Consider crown reduce/pollard.	Fair	Poor	10 to 20 yrs	Moderate	C	No works required

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T20	Hornbeam	<i>Carpinus betulus</i>	Early-mature	12	1	320	No	2	5.5	4	6	5.5	No visual defects	Single stemmed. Vertical. Old pruning wounds.	Normal		Good	Good	>40 yrs	Moderate	C	No works required
T21	Maple	<i>Acer platanoides</i>	Early-mature	14	1	370	No	3	4	4.5	3.5	4.5	Soil compaction. Exposed roots.	Single stemmed. Vertical.	Normal	Situated in adjacent land on opposite side of access drive	Good	Good	>40 yrs	Moderate	B	No works required
T22	Beech	<i>Fagus sylvatica</i>	Early-mature	12	1	380	No	2.5	3	5.5	4.5	4	Soil compaction. Exposed roots.	Single stemmed. Vertical. Old pruning wounds.	Normal	Situated in adjacent land on opposite side of access drive	Good	Good	>40 yrs	Moderate	B	No works required
T23	Hornbeam	<i>Carpinus betulus</i>	Early-mature	11	1	350	No	2	2.5	5.5	4	4	No visual defects	Single stemmed. Multiple stemmed at 1.5m. Vertical. Old pruning wounds.	Normal	Situated in adjacent land on opposite side of access drive	Good	Good	>40 yrs	Moderate	B	No works required
T24	Sycamore	<i>Acer pseudoplatanus</i>	Mature	18	1	670	No	8	7.5	8	4	3.5	No visual defects	Single stemmed. Slight lean. Old pruning wounds. Minor cavities.	Minor deadwood	Slight lean to north towards building. Crown previously reduced from building.	Good	Good	>40 yrs	Moderate	B	No works required

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T25	Sycamore	<i>Acer pseudoplatanus</i>	Mature	19	1	630	No	7	7	4.5	5.5	5.5	No visual defects	Single stemmed. Slight lean.	Minor deadwood	Slight lean to north. Light fixtures nailed to main stem at base and approx 3m. Crown previously reduced from building.	Good	Good	>40 yrs	Moderate	B	No works required
T26	Maple	<i>Acer platanoides</i>	Mature	16	1	510	No	4	4.5	3.5	5	3	No visual defects	Single stemmed. Multiple stemmed at 2.5m. Vertical.	Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required
T27	Sycamore	<i>Acer pseudoplatanus</i>	Mature	16	1	650	No	7	4.5	6	6	4	No visual defects	Single stemmed. Vertical. Old pruning wounds. Major base cavity with central decay	Minor deadwood and minor dieback	Ivy prevented detailed inspection and accurate stem measurement. Large decayed cavity at base and numerous decayed cavities to main stems likely to coalesce.	Fair	Poor	<10	Moderate	U	Removal recommended regardless of development
T28	Ash	<i>Fraxinus excelsior</i>	Mature	18	1	570	No	4	5	4.5	6.5	3.5	No visual defects	Single stemmed. Vertical.	Minor dieback. Moderate deadwood.		Fair	Fair	20 to 40 yrs	Moderate	B	No works required

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T29	Sycamore	<i>Acer pseudoplatanus</i>	Mature	18	1	670	No	3	6	6	6	5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Minor cavities. Minor decay.	Minor deadwood	Previously crown lifted and crown reduced from building	Good	Good	>40 yrs	Moderate	B	No works required
T30	Sycamore	<i>Acer pseudoplatanus</i>	Mature	18	1	500	No	6	5.5	4.5	6	3	No visual defects	Single stemmed. Vertical. Old pruning wounds. One moderate cavity with minor decay on north side of main stem at 3m.	Minor deadwood. Minor dieback.	Crown has minor dieback with minor deadwood overhanging access drive	Fair	Fair	20 to 40 yrs	Moderate	B	No works required
T31	Horse Chestnut	<i>Aesculus hippocastanum</i>	Mature	18	1	940	No	3	6.5	8.5	8.5	6.5	Girdled roots at base	Single stemmed. Multiple stemmed at 2.5m. Vertical. Stubs. Old pruning wounds. Bark damage. Occasional minor cavities with decay	Minor deadwood	Car strike on large northern limb which overhangs access road.	Fair	Fair	20 to 40 yrs	Moderate	B	No works required
T32	Sycamore	<i>Acer pseudoplatanus</i>	Mature	17	1	640	No	4	7.5	4.5	5.5	9	No visual defects	Single stemmed. Vertical. Old pruning wounds. Minor decay.	Minor dieback. Moderate deadwood.		Fair	Fair	>40 yrs	Moderate	B	No works required
T33	Horse Chestnut	<i>Aesculus hippocastanum</i>	Semi-mature	10	1	290	No	2.5	4	3.5	3	3.5	No visual defects	Single stemmed. Vertical.	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	C	No works required

	Tree Species		Measurements					Crown (m)				Tree Condition							Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T34	Oak	Quercus rubra	Early-mature	16	1	470	No	4	5.5	6	6.5	6	No visual defects	Single stemmed. Vertical.	Normal		Good	Good	>40 yrs	Moderate	B	No works required
T35	Whitebeam	Sorbus aria	Mature	9	1	460	No	2.5	5	4.5	5	5	No visual defects	Single stemmed. Multiple stemmed at 2m. Vertical. Old pruning wounds. Stubbs. Minor cavities. Minor decay.	Minor deadwood		Fair	Fair	>40 yrs	Moderate	C	No works required
G36	Sycamore. Ash. Cypress.	Acer sp. Fraxinus sp. Cupressus sp.	Early-mature	14	10+	250	Yes	1	See plan				Adjacent linear group of semi to early mature Sycamore and Ash with occasional Cypress. Partly in adjacent land. Foot and cycle path situated between site and group. Ivy covered. Minor deadwood throughout.				Fair	Fair	>40 yrs	Moderate	B	No works required
T37	Sycamore	Acer pseudoplatanus	Mature	20	1	600	Yes	2	9	7.5	9	7.5	No visual defects	Single stemmed. Multiple stemmed at 1.5m. Vertical. Ivy covered. Old pruning wounds.	Minor deadwood	Situated in adjacent land. Ivy prevented detailed inspection and accurate stem measurement.	Fair	Fair	>40 yrs	Moderate	B	No works required



Appendix 5:
Tree Constraints Plan
North Wales Police, Bodhyfryd, Wrexham
Ref: AWA2022

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be
found in Appendix 2 of the report.

SCALE: 1:500		PAPER: A2	
	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE		CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED		CATEGORY U: FOR REMOVAL
	RPA: ROOT PROTECTION AREA		
	TREE STEM		