

# Tree Survey Report

Stocking Lane

Rathfarnham

Dublin

<b>Project No.</b>	<b>Project name</b>	<b>Date</b>	<b>Revision</b>
TSTO001	Stocking Lane	05/05/17	C

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## CONTENTS

<b>1. Client brief and Methodology</b> -----	<b>3</b>
<b>2. General description of trees</b> -----	<b>3</b>
<b>3. Limitations of survey</b> -----	<b>3</b>
<b>4. Relevant legislation</b> -----	<b>4</b>
<b>5. Terminology</b> -----	<b>6</b>
<b>6. Tree condition analysis &amp; preliminary recommendations</b> -----	<b>7</b>
<b>6.1. Measurements</b> -----	<b>22</b>
<b>7. Tree protection</b> -----	<b>27</b>
<b>8. References</b> -----	<b>28</b>

## 1. Client brief & Methodology

CMK Hort + Arb were commissioned by McCabe Durney Barnes to undertake a survey of trees on this site at Stocking Lane, Rathfarnham, Dublin. The fieldwork was undertaken between the 12th and 14th of July 2017.

The survey is designed to be an independent analysis of the trees therefore this assessment does not take into consideration any plans for the future development of the site.

The survey methodology, supporting drawings and documentation follow the recommendations contained within BS 5837 (2012). The analysis of the trees was undertaken using the VTA methodology as developed by Mattheck and Breloer (1994).

## 2. General description of trees

The site comprises lands to the east of Stocking Lane. This site was until recently under agricultural useage. All the trees are located on boundaries with grazing land forming the central core of the site. The tree cover on the site is composed of a wide range of species planted or self-seeded with age-ranges from young recently planted specimens to older mature trees which pre-date the current owners. A total of 103 trees were surveyed for this report with a breakdown of the categorisations of these trees shown in table 1.

The quality of the trees is mixed as can be seen from table 1. Over 50% of the trees are within the lower categories (C&U) with the remainder within the higher categories (A&B). The one category A tree is a large mature oak (*Quercus robur*) on the western boundary with Stocking Lane. It has all the characteristics of a mature specimen including cavities and related deadwood which all provide habitats for animals. The western boundary also contains a number of mature Monterey cypress (*Cupressus macrocarpa*) however, this species is unsuitable for this type of location due to its propensity to succumb to storm damage. Indeed one large specimen has failed at its base during a recent storm event. Screen planting has been undertaken on the site over a number of years and has included a number of poplar species and cultivars and a range of deciduous species. The poplar is in mixed condition with a number removed due to their poor condition. The deciduous species have generally developed well with minimal management inputs.

The most significant trees in terms of age, condition and their ability to screen the site are located on the northern and western boundaries. The northern boundary trees are adjacent to the lands of a large period house with those on the western boundary screening the site from the public road. The poplar and younger deciduous specimens also have screening potential

Category	Number	% of total
A	1	1
B	50	49
C	35	34
U	17	16

**Table 1.** Tree Categories



**Image 1.** Site boundary for illustrative purposes only.

however the poplar pose management liabilities due to their relatively short life expectancies, their susceptibility to pests and diseases and their invasiveness in terms of root development and self-seeding.



**Image 2.** View of shelterbelt on western boundary from inside site.



**Image 3.** View of northern boundary (left) and dogleg on southern boundary (right).



**Image 4.** Partial view of southern boundary

### 3. Limitations of Survey

This survey should be regarded as a preliminary assessment of the trees and deals with the current condition as identified during this survey only. Every attempt was made to identify hazardous trees in this report however; this survey was carried out from the ground and therefore cannot be held to have identified elements of decay which may be hidden out of sight within the crown or beneath ivy or other obstructions. To counter this limitation in the survey process it is vital that during tree works any additional defects found by the climbing arborist are communicated to the consulting arborist to allow appropriate action to be taken.

The details within this survey are based on the condition of the trees during the survey period only. The findings in this survey cannot be held to be valid after any site disturbance, man-made or natural, which may have an adverse effect on any trees present.

#### 4. Relevant legislation

There are no Tree Protection Orders (TPOs) on any of the trees on this site however under Section 37 of the Forestry Act, 1946, it is illegal to uproot any tree over ten years old or to cut down any tree of any age (including trees which form part of a hedgerow), unless a Felling Notice has been lodged at the Garda Station nearest to the trees at least 21 days before felling commences.

The requirement for a felling licence for the uprooting or cutting down of trees does not apply where:

- The tree in question is a hazel, apple, plum, damson, pear, or cherry tree grown for the value of its fruit or any other;
- The tree in question is less than 100 feet from a dwelling other than a wall or temporary structure;
- The tree in question is standing in a County or other Borough or an urban district (that is, within the boundaries of a town council, or city council area).
- The tree is considered dangerous and hazardous.

Other exceptions apply in the case of local authority road construction, road safety and electricity supply operations.

The Act is administered by the Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford (053-9160200 or 1890-200223).

If you have any queries about felling in general or are unsure whether or not the trees fall under any of the above cases, it is recommended that you seek the advice of the Felling Section or of your local [forestry development officer](#) for further information.

Trees may contain bats. Bats are protected under Schedule 5 of the Wildlife Act 1976 and Schedule 1 of the European Communities (Natural Habitats) Regulations 1997. Professional advice from a licenced surveyor should be sought prior to any works commencing on trees.

## 5. Terminology

Tree categories	
<b>A</b>	Trees of high quality and value due to their size, age, condition, historical/visual merit and/or conservation potential (a minimum of 40 years).
<b>A1</b>	Mainly arboricultural values. Particularly good examples of species, essential components of groups or of formal or semi-formal arboricultural features.
<b>A2</b>	Mainly landscape values. Trees, groups or woodlands which provide a definite screening or softening effects to the locality in relation to views into or out of site, or those of particular visual importance.
<b>A3</b>	Mainly cultural values, including conservation. Trees, groups or woodlands of significant conservation, historical, comparative or other value (e.g. veteran trees or wood-pasture).
<b>B</b>	Trees of moderate quality and value (a minimum of 20 years).
<b>B1</b>	Mainly arboricultural values. Trees that might be included in high categories but are downgraded because of impaired condition (e.g. presence of remedial defects including unsympathetic past management and minor storm damage).
<b>B2</b>	Mainly landscape values. Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal features (e.g. trees of moderate quality within an avenue that includes better A category specimens) or trees situated internally to the site, therefore individually having little visual impact on the wider locality.
<b>B3</b>	Mainly cultural values including conservation. Trees with clearly identifiable conservation or other cultural benefits.
<b>C</b>	Trees of low quality and value (a minimum of 10 years).
<b>C1</b>	Not qualifying in higher categories.
<b>C2</b>	Trees present in groups or woodlands but without conferring on them greater landscape value and/or trees offering low or only temporary screening benefit.
<b>C3</b>	Trees with very limited conservation or other cultural benefits.
<b>U</b>	Trees in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. Trees that are dead, dying or showing immediate and irreversible decline.

## Terminology (cont.)

**Comments:** Refers to the tree's condition and suitability for the site.

**Common name:** Most widely used non botanical name.

**Co-dominant:** Two branches assuming the role of leading shoots. When growing close together may form a weak attachment (included bark) at their point of contact. Trees with this defect may be in danger of splitting at this weak attachment.

**Crown Spread:** Measured in meters north, south, east and west.

**Decay fungi:** Refers to those species of fungi which degrade living wood and which may, depending on the degree of degradation, render the tree structurally unsound.

**Defects:** Refers to cracks, storm damage and any other damage mechanical or biological.

**Diameter:** Diameter of the trunk (millimetres) at 1.5m. M.S. after the measurement refers to the tree being multi-stemmed.

**Genus & Species:** Refers to the botanical names for the tree.

**Height:** Measured in meters.

**Monitor:** Refers to trees which need to be re-surveyed on a yearly basis to assess their condition. This timescale may be sooner where works or adverse weather conditions have impacted negatively on the trees.

**Overhaul:** A reference to standard tree surgery work which consists of the removal of deadwood, crossing branches and balancing where appropriate.

**Recommendations:** Indicates surgery work necessary for the retention or, where necessary, removal of the tree.

**Tree No.** Refers to numbered tag fixed to tree during survey.

## 6. Tree condition analysis & preliminary recommendations

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
435	Hybrid black poplar Populus nigra 'fastigiata'	Early-mature	Good	A tall slender specimen located within planting on boundary with Stocking Lane. A relatively short lived species though no visible defects at present. Unlikely to be suitable for retention outside current sheltered environment.	No action necessary	C2	15-20
436	Hybrid black poplar Populus nigra 'fastigiata'	Early-mature	Good	A tall slender specimen located within planting on boundary with Stocking Lane. A relatively short lived species though no visible defects at present. Unlikely to be suitable for retention outside current sheltered environment.	No action necessary	C2	15-20
437	Hybrid black poplar Populus nigra 'fastigiata'	Early-mature	Good	A tall slender specimen located within planting on boundary with Stocking Lane. A relatively short lived species though no visible defects at present. Unlikely to be suitable for retention outside current sheltered environment.	No action necessary	C2	15-20
438	Hybrid black poplar Populus nigra 'fastigiata'	Early-mature	Good	A tall slender specimen located within planting on boundary with Stocking Lane. A relatively short lived species though no visible defects at present. Unlikely to be suitable for retention outside current sheltered environment.	No action necessary	C2	15-20
439	Sycamore Acer pseudoplatanus	Mature	Good	A relatively well developed specimen located within planting on boundary with Stocking Lane. Crown restricted toward west due to competition from neighbouring trees. A sub dominant stem with a tight union with trunk present at 1.5m to west. Structurally weak but not significantly so in this sheltered environment.	No action necessary	B2	40
440	Sycamore Acer pseudoplatanus	Mature	Good	A dominant well developed specimen located within planting on boundary with Stocking Lane. Heavy ivy growth up trunk obscuring view for assessment but upper canopy relatively well developed with no visible defects.	No action necessary	B2	40



Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
441	Sycamore Acer pseudoplatanus	Early-mature	Poor	A tall slender sub dominant specimen located within planting on boundary with Stocking Lane. Crown cover confined to upper canopy only. No visible defects but suitable for retention within current sheltered environment only.	No action necessary	C2	10-15
442	Hybrid black poplar Populus nigra 'fastigiata'	Early-mature	Good	A tall slender specimen located within planting on boundary with Stocking Lane. A relatively short lived species though no visible defects at present. Unlikely to be suitable for retention outside current sheltered environment.	No action necessary	C2	15-20
443	Monterey cypress Cupressus macrocarpa	Mature	Poor	Located within planting on boundary with Stocking Lane. Upper canopy lost in the past with lateral limbs remaining only. A tree of very limited landscape or arboricultural value.	No action necessary	C2	10-15
444	Oak Quercus robur	Mature	Good	A very large dominant specimen located within planting on boundary with Stocking Lane. Deadwood scattered throughout crown but consistent with age rather than being indicative of decline. A tree of high landscape and arboricultural value particularly if lesser quality neighbouring trees removed.	Remove deadwood over-hanging road	A2	>40
445	Monterey cypress Cupressus macrocarpa	Mature	Good	Located on boundary with Stocking Lane. Slightly sub dominant to high value neighbouring oak 444. Deadwood scattered throughout crown typical of species but unlikely to be indicative of decline.	Deadwood. Could be considered for removal in favour of neighbouring oak.	B2	30

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
446	Monterey cypress Cupressus macrocarpa	Mature	Fair	Located on boundary with Stocking Lane. Crown restricted toward south due to competition from neighbouring tree. Bark damage and localised decay in a limb at 1m to south but unlikely to be significant at present. Bark loss and localised decay present in trunk at 0.5m to west. Not significant at present but reducing long-term potential of tree. Deadwood scattered throughout lower crown.	Deadwood	C2	10-15
447	Monterey cypress Cupressus macrocarpa	Mature	Poor	A sub dominant specimen located on boundary with Stocking Lane. Unsuitable for retention due to loss of shelter with necessary removal of neighbouring tree.	Fell	U	<10
448	Ash Fraxinus excelsior	Mature	Poor	Located on boundary with Stocking Lane. Extensive decay present in trunk.	Fell	U	<10
449	Tag not in use						
450	Monterey cypress Cupressus macrocarpa	Early-mature	Poor	A sub dominant specimen located on boundary with Stocking Lane. Deadwood scattered throughout lower crown. A specimen of very limited landscape or arboricultural value.	No action necessary	C2	10
451	Monterey cypress Cupressus macrocarpa	Mature	Good	A large dominant specimen located on boundary with Stocking Lane. Extensive areas of storm damage and deadwood scattered throughout crown. Remaining tree relatively well developed however this species is susceptible to storm damage therefore its suitability for retention adjacent to a busy road is questionable.	Deadwood and remove storm damage	C2	20

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
452	Horse chestnut <i>Aesculus hippocastanum</i>	Mature	Fair	Located on boundary with Stocking Lane. Trunk co-dominant from 300mm with a tight union between stems. This is a weak point in the trees structure. Remaining crown relatively well developed though restricted toward south due to competition from neighbouring tree. Unlikely to be suitable for retention outside current sheltered environment.	No action necessary	C2	10
453	Sycamore <i>Acer pseudoplatanus</i>	Early-mature	Poor	A poorly developed sub dominant specimen located on boundary with Stocking Lane. Very heavy ivy growth up trunk into crown obscuring view for assessment. Light suppressed deadwood scattered throughout lower crown. A specimen of limited landscape or	Cut ivy and deadwood	C2	20
454	Monterey cypress <i>Cupressus macrocarpa</i>	Mature	Poor	A large specimen located boundary with Stocking Lane. The trunk of this large specimen has a strong kink to north due to competition from neighbouring tree. Trunk becomes vertical after this point but the trees structure must be considered structurally weak. Unsuitable for retention particularly with failure of neighbouring tree.	Fell	U	<10
455	Beech <i>Fagus sylvatica</i>	Mature	Good	A large dominant specimen located on boundary with Stocking Lane. Crown slightly restricted toward south but no obvious reason. Crown slightly congested but not significantly so. Vigour appears sound.	No action necessary	A2	40
456	Ash <i>Fraxinus excelsior</i>	Mature	Good	A large dominant specimen located within planting on boundary with Stocking Lane. Very heavy ivy growth up trunk obscuring view for assessment. Upper canopy relatively well developed with no visible defects.	Cut ivy and re-assess.	B2	40
457	Beech <i>Fagus sylvatica</i>	Mature	Poor	Effectively a large stump with limited remaining crown. However providing some ecological benefits though habitat provision. Limbs over road could become hazardous due to decay.	Remove limbs over road.	C2	10-15

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
458	Sycamore Acer pseudoplatanus	Mature	Poor	Extensive decay present in trunk.	Fell	U	<10
459	Tag not in use						
460	Hybrid black poplar Populus nigra 'fastigiata'	Mature	Good	A well developed specimen located on southern boundary with neighbouring housing development. Very heavy ivy growth up trunk obscuring view for assessment but upper canopy relatively well developed with no visible defects.	Cut ivy and re-assess.	B2	20
461	Ash Fraxinus excelsior	Mature	Good	A relatively large specimen located on southern boundary with neighbouring housing. Very heavy ivy growth up trunk obscuring view for assessment. Upper canopy relatively well developed with no visible defects.	Cut ivy and re-assess.	B2	40
462	Sycamore Acer pseudoplatanus	Mature	Poor	Located on southern boundary with neighbouring housing development. Trunk at an acute angle to north becoming vertical at 3m. Very heavy ivy growth up trunk obscuring view for assessment but upper canopy relatively well developed with no visible defects. Suitable for retention within current environment only.	Cut ivy and re-assess.	B2	40
462A	Hazel Corylus colurna	Mature	Good	A well developed specimen. Multi-stemmed from base with potential as a good garden shrub.	Remove sub-dominant stems	B2	20
462B	Hawthorn Crataegus monogyna	Mature	Good	A relatively good specimen though very heavy ivy growth up trunk obscuring view for assessment. A sub-dominant stem to north reducing visual appeal and with potential for failure	Cut ivy and remove sub-dominant stem to north	B2	40
463	Ash Fraxinus excelsior	Early-mature	Good	A well developed specimen located on southern boundary with neighbouring housing development. No visible defects.	No action necessary	B2	40

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
464	Hawthorn <i>Crataegus monogyna</i>	Mature	Good	A well developed specimen located on southern boundary with neighbouring housing development. This is a standard tree with good form. No visible defects but a number of lower branches overhanging neighbouring property.	No action necessary	B2	40
465	Ash <i>Fraxinus excelsior</i>	Early-mature	Good	A well developed specimen located on southern boundary with neighbouring housing development. No visible defects.	No action necessary	B2	40
466	Hybrid black poplar <i>Populus nigra</i> 'fastigiata'	Mature	Poor	A poorly developed specimen located within a cluster of trees on south-eastern boundary of site. This trees form is poor due to competition from neighbouring trees. Suitable for retention within current sheltered environment only.	No action necessary	C2	10-15
467	Hybrid black poplar <i>Populus nigra</i> 'fastigiata'	Mature	Good	A well developed specimen located within a cluster of trees on south-eastern boundary of site. This trees form is good but would be suitable for retention within current sheltered environment.	No action necessary	C2	10-15
468	Hybrid black poplar <i>Populus nigra</i> 'fastigiata'	Mature	Good	A well developed specimen located within a cluster of trees on south-eastern boundary of site. Form good with no visible defects.	No action necessary	C2	10-15
469	Sycamore <i>Acer pseudoplatanus</i>	Early-mature	Poor	A sub dominant specimen with a poorly developed trunk due to competition from neighbouring trees on south-eastern boundary of site. Limited landscape or arboricultural value and unsuitable for retention outside current sheltered environment.	No action necessary	C2	10-15
470	Beech <i>Fagus sylvatica</i>	Young	Fair	A tall slender specimen located within a cluster of trees on south eastern boundary of site. Trunk co-dominant from base with a wide union between stems however long-term potential limited as growth at this point decreases union width.	No action necessary	C2	20

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
471	Black poplar hybrid Populus nigra	Mature	Good	A relatively well developed specimen located within a cluster of trees on south eastern boundary of site. Crown slightly restricted toward west due to competition from neighbouring trees. No visible defects but suitable for retention within current sheltered environment only.	No action necessary	C2	20
472	Ash Fraxinus excelsior	Young	Poor	A poorly developed sub dominant specimen located within a cluster of trees on south eastern boundary of site. Of no landscape or arboricultural value.	Fell	U	<10
473	White poplar Populus alba	Early-mature	Good	A cluster of stems on eastern boundary of site. Forming a combined canopy with minor light suppressed deadwood scattered throughout lower crown. Suitable for retention as a group only.	No action necessary	B2	20-30
474	Sycamore Acer pseudoplatanus	Mature	Fair	Located on eastern boundary of site. Very heavy ivy growth up trunk and into crown obscuring view for assessment. No visible defects.	Cut ivy and re-assess	B2	20-30
475	White poplar Populus alba	Mature	Fair	A large dominant specimen located eastern boundary of site. Very heavy ivy growth up trunk obscuring view for assessment. Large extended limbs over neighbouring garden to east. These limbs are likely to be of concern to the property owners. Suitability of tree questionable for this location.	Cut ivy and re-assess	C2	10-15
476	White poplar Populus alba	Mature	Poor	A large but sub dominant specimen located on eastern boundary of site with neighbouring housing development. Form poor with no distinct leader developed. A very large over-extended limb overhanging neighbouring property and with potential for failure.	Fell	U	<10
477	Ash Fraxinus excelsior	Early-mature	Fair	A multi stemmed specimen located on eastern boundary of site. A small area of decay present in base of one stem and tight unions between remaining stems. Of very limited long-term potential outside current environment.	No action necessary	C2	10-15

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
478	Sycamore Acer pseudoplatanus	Mature	Poor	Located on eastern boundary of site. In an advanced state of decline.	Fell	U	<10
479	Beech Fagus sylvatica	Early-mature	Good	Forming an element of shelter-belt planting on southern boundary of site. Trunk co-dominant from 1.75m with a wide union between stems. Upper canopy relatively well developed with no visible defects.	No action necessary	B2	40
480	Walnut Juglans regia	Young	Fair	Located within screen planting southern boundary. Trunk co-dominant from base with a tight union and included bark between stems. Long-term potential reduced significantly as a result.	No action necessary	C2	10
481	Red oak Quercus rubra	Early-mature	Good	A relatively well developed specimen located within screen planting on southern boundary. Minor bark damage to stem at 11m to north but unlikely to be significant at present. Upper canopy relatively well developed with no visible defects. Light suppressed deadwood scattered throughout lower crown.	Deadwood	B2	40
482	Sycamore Acer pseudoplatanus	Early-mature	Good	A relatively well developed located within screen planting on southern boundary of site. A dominant specimen with a relatively well developed crown.	No action necessary	B2	40
483	Hybrid black poplar Populus nigra 'fastigiata'	Mature	Good	A well developed specimen located within screen planting on southern boundary. No visible defects.	No action necessary	C2	15-20
484	White poplar Populus alba	Early-mature	Poor	A sub dominant specimen located within screen planting on southern boundary. Trunk co-dominant from 0.5m with a wide union between stems. Upper canopy at an acute angle toward north. Long-term potential reduced significantly as a result.	No action necessary	C2	10

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
485	Beech <i>Fagus sylvatica</i>	Early-mature	Good	A relatively large well developed specimen located within screen planting on southern boundary. There is an area of co-dominance with included bark between stems at 3m. This significantly reduces the long-term potential of this tree given the structurally weak nature of this union. However unlikely to be significant at present. Remaining crown relatively well developed.	No action necessary	C2	10-15
486	Beech <i>Fagus sylvatica</i>	Early-mature	Good	A relatively well developed specimen located within screen planting on southern boundary. Crown slightly restricted toward west due to competition from neighbouring tree but not significantly so. No visible defects.	No action necessary	B2	40
487	Ash <i>Fraxinus excelsior</i>	Mature	Good	A relatively well developed specimen located within screen planting on southern boundary. Trunk co-dominant from 400mm with a tight union between stems however unlikely to be structurally weak at present. Upper canopy relatively well developed with no visible defects. Long-term potential in close proximity to neighbouring housing development questionable in the longer term.	No action necessary	C2	20
488	White poplar <i>Populus alba</i>	Mature	Poor	A large dominant specimen located within screen planting on southern boundary. Crown restricted toward west due to competition from neighbouring tree. Resulting growth an acute angles, over-extended and with limited long-term potential. Light suppressed deadwood scattered throughout crown.	Deadwood	C2	10
489	Beech <i>Fagus sylvatica</i>	Early-mature	Good	A relatively well developed specimen forming an element of under-canopy within screen planting on southern boundary. No visible defects.	No action necessary	B2	40
490	Beech <i>Fagus sylvatica</i>	Young	Good	A relatively well developed specimen forming an element of under-canopy within screen planting on southern boundary. No visible defects.	No action necessary	B2	40



Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
491	Hybrid black poplar	Early-mature	Good	A well developed specimen located within screen planting on southern boundary. No visible defects.	No action necessary	B2	30-40
492	Ash Fraxinus excelsior	Early-mature	Good	A well developed specimen located within screen planting on southern boundary. No visible defects.	No action necessary	B2	30-40
493	Sycamore Acer pseudoplatanus	Mature	Fair	Located within screen planting on southern boundary. A sub dominant basal stem to north with a tight union with trunk. Very heavy ivy growth up trunk obscuring view for assessment and canopy appears limited in extent.	Cut ivy and re assess	C2	20
494	Hybrid black poplar	Mature	Dead		Fell	U	0
495	Birch Betula pendula	Young	Fair	A relatively well developed specimen located on eastern boundary of site. Bark damage to trunk at 0.5m to west not significant at present but long-term potential of tree reduced significantly as a result.	No action necessary	C2	10-15
496	Monterey cypress Cupressus macrocarpa	Young	Good	A well developed specimen located on eastern boundary of site. No visible defects.	No action necessary	B2	40
497	Ash Fraxinus excelsior	Young	Poor	A multi stemmed specimen located on eastern boundary of site. Decay present in a number of stems. Long-term potential reduced significantly as a result.	No action necessary	C2	10-15
498	Sycamore Acer pseudoplatanus	Early-mature	Good	A relatively well developed specimen located on eastern boundary of site. Heavy ivy growth up trunk and a hawthorn inter-twined in trunk. No visible defects.	Cut ivy	B2	40

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
499	Sycamore Acer pseudoplatanus	Early- mature	Good	A relatively well developed multi stemmed specimen located on eastern boundary of site. Fencing wire embedded in trunk. Upper canopy relatively well developed with no visible defects.	No action necessary	B2	40
500	Hawthorn Crataegus monogyna	Mature	Good	A well developed specimen located on eastern boundary of site. No visible defects.	No action necessary	B2	40
501	Sycamore Acer pseudoplatanus	Young	Good	A well developed specimen located on eastern boundary of site. No visible defects.	No action necessary	B2	40
502	Sycamore Acer pseudoplatanus	Mature	Good	A well developed specimen located on eastern boundary of site. A wide spreading specimen with a short bole. Heavy ivy growth up trunk obscuring view for assessment but upper canopy relatively well developed with no visible defects.	Cut ivy	B2	40
503	Elm Ulmus procera	Early- mature	Poor	A poorly developed sub dominant specimen located on eastern boundary of site. Extensive decay present in trunk.	Fell	U	<10
504	Ash Fraxinus excelsior	Mature	Poor	Located on eastern boundary of site. Deadwood scattered throughout crown indicative of decline.	Fell	U	<10
505	Norway maple Acer platanoides	Young	Good	A well developed specimen located on eastern boundary of site. No visible defects.	No action necessary	B2	40
506	Norway maple Acer platanoides	Young	Poor	Located on eastern boundary of site. Extensive decay present in trunk.	Fell	U	<10
507	Weeping willow Salix pendula	Mature	Fair	Located on northern boundary of site. A large section of crown has been lost in the past rendering tree of limited landscape or arboricultural value.	No action necessary	C2	10-15

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
508	Monterey cypress Cupressus macrocarpa	Young	Good	A well developed specimen located on eastern boundary of site. No visible defects.	No action necessary	B2	40
509	Hybrid black poplar	Mature	Good	A well developed specimen located on northern boundary of site. Trunk with a slight lean toward east due to competition from neighbouring trees but not significantly so. Heavy ivy growth up trunk obscuring view for assessment.	Cut ivy	C2	10-15
510	Birch Betula pendula	Mature	Good	A well developed dominant specimen located on northern boundary of site. Trunk co-dominant from 3m with a wide union between stems. Upper canopy relatively well developed with no visible defects.	No action necessary	B2	40
511	Birch Betula pendula	Early-mature	Fair	A slightly sub dominant specimen located on northern boundary of site. Crown slightly restricted toward south due to competition from neighbouring tree but not significantly so. Very heavy ivy growth up trunk.	Cut ivy	B2	40
512	Hybrid black poplar Populus nigra	Mature	Good	A dominant specimen located within a cluster of trees on northern boundary of site. Heavy ivy growth up trunk obscuring view for assessment but upper canopy relatively well developed with no visible defects.	Cut ivy	B2	20-30
513	Hybrid black poplar Populus nigra	Mature	Fair	A relatively well developed with specimen located within a cluster of trees on northern boundary of site. Very heavy ivy growth up trunk obscuring view for assessment and crown appears limited in extent.	Cut ivy	C2	10-15
514	Hybrid black poplar Populus nigra	Mature	Poor	Located within a cluster of trees on northern boundary of site. Crown sparse indicating decline.	Fell	U	<10

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
515	Hybrid black poplar Populus nigra	Mature	Good	A well developed dominant specimen located within a cluster of trees on northern boundary of site. No visible defects.	No action necessary	B2	20-30
516	Hybrid black poplar Populus nigra	Mature	Good	A well developed dominant specimen located within a cluster of trees on northern boundary of site. No visible defects. Heavy ivy growth up trunk obscuring view for assessment but upper canopy relatively well developed with no visible defects.	Cut ivy	B2	20-30
517	Beech Fagus sylvatica	Young	Good	A well developed specimen located on northern boundary of site. No visible defects.	No action necessary	B2	40
518	Ash Fraxinus excelsior	Young	Poor	Located on northern boundary of site. Trunk with a basal stem with a tight union with trunk. Further tight unions between trunk and stems in lower crown. Landscape and arboricultural value of tree limited as a result of poor form.	No action necessary	C2	15
519	Small leaved lime Tilia cordata	Early-mature	Good	A well developed specimen located on northern boundary of site. Crown slightly congested but typical of species. No visible defects.	No action necessary	B2	40
520	Ash Fraxinus excelsior	Young	Poor	Located on northern boundary of site. Crack between co-dominant stems at 300mm.	Fell	U	0
521	Ash Fraxinus excelsior	Young	Fair	A relatively well developed specimen located on northern boundary of site. Chicken wire embedded in trunk but upper canopy relatively well developed with no visible defects.	Remove chicken wire	B2	40
522	Fastigate hybrid black poplar	Early-mature	Good	A well developed specimen located on northern boundary of site. No visible defects.	No action necessary	B2	40

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
523	Small leaved lime <i>Tilia cordata</i>	Early-mature	Good	A well developed specimen located on northern boundary of site. Crown slightly congested but typical of species. No visible defects.	No action necessary	B2	40
524	Fastigate hybrid black poplar <i>Populus nigra cv</i>	Early-mature	Good	A well developed specimen located on northern boundary of site. No visible defects.	No action necessary	B2	40
525	Ash <i>Fraxinus excelsior</i>	Young	Good	A well developed specimen located on northern boundary of site. No visible defects.	No action necessary	B2	40
526	Beech <i>Fagus sylvatica</i>	Young	Good	A well developed specimen located on northern boundary of site. No visible defects.	No action necessary	B2	40
527	Tag not in use						
528	Fastigate hybrid black poplar <i>Populus nigra cv</i>	Early-mature	Good	A well developed specimen located on eastern boundary adjacent to retaining wall. No visible defects.	No action necessary	B2	20
529	Fastigate hybrid black poplar <i>Populus nigra cv</i>	Early-mature	Good	A well developed specimen located on eastern boundary adjacent to retaining wall. No visible defects.	No action necessary	B2	20
530	Fastigate hybrid black poplar <i>Populus nigra cv</i>	Early-mature	Good	A well developed specimen located on eastern boundary adjacent to retaining wall. No visible defects.	No action necessary	B2	20
531	Fastigate hybrid black poplar <i>Populus nigra cv</i>	Early-mature	Good	A well developed specimen located on eastern boundary adjacent to retaining wall. No visible defects.	No action necessary	B2	20

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
532	Ash Fraxinus excelsior	Early-mature	Poor	Located on southern boundary and in poor condition. Was most likely a sub-dominant specimen which has now been isolated due to the removal of neighbouring trees. Form poor and unsuitable for retention.	Fell	U	<10
533	Fastigate hybrid black poplar Populus nigra cv	Early-mature	Good	A well developed specimen on southern boundary. No visible defects	No action necessary	B2	20
534	Fastigate hybrid black poplar Populus nigra cv	Early-mature	Good	A well developed specimen on southern boundary. No visible defects	No action necessary	B2	20
535	Fastigate hybrid black poplar Populus nigra cv	Early-mature	Good	A well developed specimen on southern boundary. No visible defects	No action necessary	B2	20
536	Beech Fagus sylvatica	Early-mature	Dead		Fell	U	0
537	Ash Fraxinus excelsior	Early-mature	Dead		Fell	U	0
538	Ash Fraxinus excelsior	Early-mature	Poor	A poor specimen in a state of advanced decline	Fell	U	0

## 6.1. Tree measurements

Tree No.	Height m.	D.B.H. mm.	Spread m. N,S,E,W	Clear Stem 1 <sup>st</sup> Cardinal point	Root Protection Diameter m.
435	20	400	2.3.3.2	6N	4.8
436	15	300	4.4.6.6	2W	3.6
437	22	400	3.3.3.3	4.5E	4.8
438	21	340	2.2.2.2	1.5W	4
439	17	650	6.6.6.5	1N	7.8
440	17	550	5.5.6.5	0.5N	6.6
441	10	330	4.5.4.5	1N	3.9
442	21	330	1.2.1.2	6N	3.9
443	7	410	6.5.6.6	1N	4.9
444	22	1200	6.6.6.6	4E	12
445	18	900	6.5.6.5	1S	10
446	18	1250 ms	6.6.7.7.	3E	10
447	11	650	NA	NA	NA
448	17	450	NA	NA	NA
449	19	600	5.4.5.4	2.5S	7.2
450	9	230	2.3.3.2	2S	2.7
451	19	1300	5.6.6.5	1.S	12
452	10	250av x2	4.5.5.4	2E	4
453	9	600 ms	3.3.3.3	2N	6
454	17	900	NA	NA	NA
455	20	1100	6.6.5.6	4.5W	13
456	18	900	5.5.4.3	4S	10
457	11	890	4.3.4.3	2.5M	10
458	10	500	NA	NA	NA
459	16	210	3.2.3.2	2N	2.5
460	20	400	3,3,2,3	4S	4.8
461	17	459	5,4,5,4	4W	5.5
462	10	380	2,3,2,3	2.5E	4.5
462A	8	150av	2,2,2,2	0	3.5
462B	10	220	3,2,2,2	0.5N	2.6
463	14	400	4,5,5,5	2N	4.8

Tree No.	Height m.	D.B.H. mm.	Spread m. N,S,E,W	Clear Stem 1 <sup>st</sup> Cardinal point	Root Protection Diameter m.
464	8	350	3,4,3,4	1N	4.2
465	14	350	3,3,3,3	3N	4.2
466	17	480	5,4,4,3	1.8S	5.7
467	18	370	2,3,2,3	3E	4.4
468	19	600	3,3,2,2	2.2N	7.2
469	16	200	2,3,3,2	4W	7.2
470	7	110av x2	3,4 3,4	1N	3
471	18	600	5,4,5,4	2N	7.2
472	7	250 ms	NA	NA	NA
473	8	150av x4	3 3 3 3	2S	2
474	12	320	2,3,2,3	2S	3.8
475	19	550	6,5,4,6	2N	6.6
476	10	400	NA	NA	NA
477	16	200av x6	5,55,5	2N	4
478	16	700	NA	NA	NA
479	12	259	3,3,3,3	2S	3.1
480	7	355ms	1,1,1,1	0,5E	3.5
481	15	220 AV x2	3,2,3,2	2E	2.5
482	16	320	2,3,2,3	2W	3.8
483	19	340	2,2,2,2	4W	4
484	12	300 ms	4,4,4,4	2N	3
485	17	550	4,4,4,4	1.8N	6.6
486	12	370	5,5,5,4	2N	4.4
487	18	230av x3	4,5,4,5	2S	3
488	16	500	3,5,3,3	1.5N	6
489	12	330	2,2,3,2	1.6W	3.9
490	8	180	2,2,3,3	1.5W	2.1
491	18	230	2,2,2,2	2W	2.7



Tree No.	Height m.	D.B.H. mm.	Spread m. N,S,E,W	Clear Stem 1 <sup>st</sup> Cardinal point	Root Protection Diameter m.
492	17	320	2,3,2,3	2W	3.8
493	17	490 ms	2,2,2,2	0.5S	4.9
494	5	1200	NA	NA	NA
495	5	150	2,2,2,2	1.7S	1.8
496	8	250	2,2,1,2	0.3N	3
497	9	150av x6	2,2,2,2	1W	3
498	9	700 ms	3,4,3,4	1N	7
499	11	240av x3	2N	2N	3
500	7	150av x3	1,2,1,1	1N	2
501	10	240	1,1,1,1	1.5N	2.8
502	10	700	2,2,3,2	1.7N	8.4
503	7	200	NA	NA	NA
504	12	500	NA	NA	NA
505	8	170	1,2,1,2	2N	2
506	9	300	NA	NA	NA
507	5	300	3,0.5,3,3	2N	3.6
508	7	350	2,2,2,2	1E	4.2
509	11	460	4,4,4,4	2.2S	5.5
510	14	600	4,5,5,4	1.5S	7.2
511	12	259	2,2,2,2	1.5S	3.1
512	15	550	3,4,3,4	2S	6.6
513	14	540	3,3,4,4	4E	6.4
514	14	550	NA	NA	NA
515	15	740	2,2,2,2	2E	8.8
516	15	640	2,2,2,2	2S	7.6
517	19	240	2,2,2,2	1.5E	2.8
518	10	450ms	2,2,2,2	2S	4.5
519	10	350	3,3,3,3	1.5S	4.2

Tree No.	Height m.	D.B.H. mm.	Spread m. N,S,E,W	Clear Stem 1 <sup>st</sup> Cardinal point	Root Protection Diameter m.
520	10	150av x3	NA	NA	NA
521	9	180	2,3,2,2	1.7E	2.1
522	12	300	2,2,2,2	3E	3.6
523	8	400	2,3,2,3	1.8S	4.8
524	12	240	2,2,2,2	1.8S	2.8
525	8	230	3,2,3,2	2W	2.7
526	8	180	2,2,2,1	2S	2.1
527	9	240	2,2,2,2	2S	2.8
528	16	210	1,1,1,1	0,0,0,0	2.5
529	16	190	1,1,1,1	0,0,0,0	2.2
530	15	140	1,1,1,1	0,0,0,0	1.6
531	14.5	140	1,1,1,1	0,0,0,0	1.6
532	12	270	NA	NA	NA
533	16	319	1,2,1,1	1,1,1,1	3.8
534	16	200	1,1,1,1	4,4,4,4	2.4
535	16	190	1,1,1,1	4,4,4,4	2.2
536	8	290	NA	NA	NA
537	10	170	NA	NA	NA
538	7	200	NA	NA	NA

## 7. Tree protection

Tree protection fencing must be erected before construction works commence and must be in accordance with BS 5837 (2012).

- a.** Oil, bitumen, cement or other materials likely to be injurious to a tree should not be stacked or discharged within 10m of a bole, and materials generally should not be stacked or discharged within 5m of a bole. It is essential that allowance is made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.
- b.** Concrete mixing should not be carried out within 10m of a tree.
- c.** Fires should not be lit in a position where the flames could extend within 5m of foliage, branches or trunk, bearing in mind the size of the fire and the wind direction.
- d.** As the majority of tree roots occur within the top 600mm of soil changes to soil levels within the root zone can have serious consequences for tree health.

Increases in soil levels within the root zone of trees can lead to root asphyxiation and ultimately to tree decline and/or death.

A reduction in soil levels may expose roots to drying out and/or being damaged and have the same effect on the tree as described above.

### Tree root protection

The Root Protection Area should be calculated using as per Table 1 and/or Annex D (BS 5837 2012) as an area equivalent to a circle with a radius 12 times the stem diameter for single stem trees and 10 times basal diameter for trees with more than one stem arising below 1.5m above ground level.

Number of stems	Calculation
Single stem tree	$\text{RPA (m}^2\text{)} = \frac{(\text{stem diameter (mm)} @ 1.5 \text{ m} \times 12)^2 \times 3.142}{1000}$
Tree with more than one stem arising below 1.5m above ground level.	$\text{RPA (m}^2\text{)} = \frac{(\text{basal diameter (immediately above root flare (mm)} \times 10)^2 \times 3.142}{1000}$

## 8. References

BS 5837 (2012). Trees in Relation to Design Demolition and Construction

Mattheck and Breloer (1994). The body language of trees