
Arboricultural
Constraints Report

**Medieval Quarter
Victoria Street
Manchester**

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1. Introduction

1.1. Project outline

- 1.1.1. This report has been produced in accordance with *British Standard BS5837: 2012 Trees in relation to design, demolition and construction* to achieve a harmonious and sustainable relationship where tree retention or planting is proposed in conjunction with nearby construction (site-based operations with the potential to affect existing trees).

1.2. Scope of this report

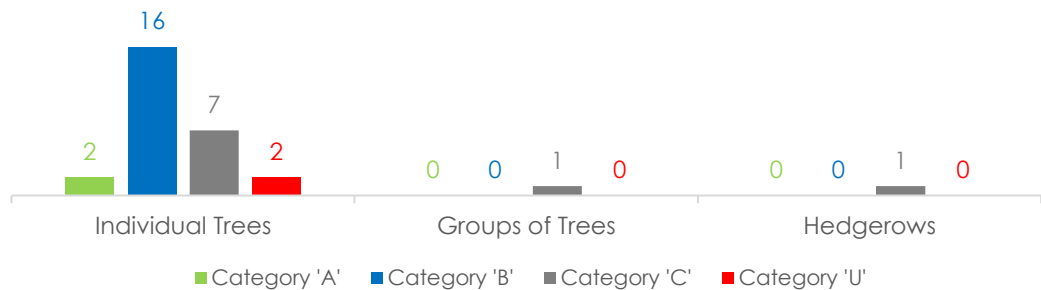
- 1.2.1. This report has been produced to comply with planning requirements where trees are to be considered as part of a proposed development. To achieve this, arboricultural constraints have been identified and a detailed plan (*Tree Constraints Plan*) has been produced showing the location, root protection areas and retention category of trees within the site.
- 1.2.2. This report does not form part of a tree safety inspection. To manage the safety and risk from trees it is advised that trees are inspected in detail for this purpose by an arboriculturist using a suitable risk management strategy.

1.3. Data collection

- 1.3.1. A ground level inspection was undertaken by Godwins Arboricultural Limited on 27th June 2018. As recommended by *BS5837*, the position of all trees within the site with a stem diameter of 75 mm or more, measured at 1.5 m above highest adjacent ground level are recorded. The position of trees with an estimated stem diameter of 75 mm or more that overhang the site or are located beyond the site boundaries within a distance of up to 12 times their estimated stem diameter were also recorded. For individual trees the crown spread taken at four cardinal points; for woodlands or substantial tree groups the overall extent of the canopy was recorded.
- 1.3.2. Tree positions were plotted using a topographical plan supplied by the client, and were also plotted using a site location plan, aerial photography and on-site measurements, which is the basis for which the *Tree Constraints Plan* has been prepared.

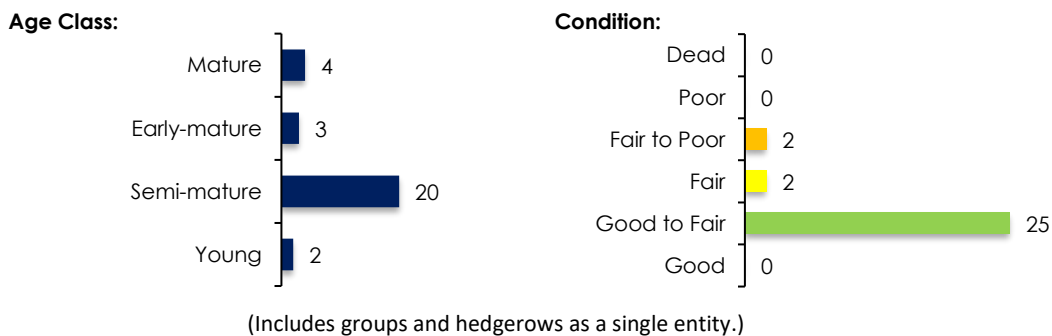
2. Arboricultural Constraints

2.1. Tree retention categories



2.1.1. Twenty-seven individual trees, one group of trees and one hedge were recorded. In accordance with *BS5837:2012 Trees in relation to design, demolition and construction* two individual tree were recorded as retention category 'A'; sixteen individual trees were recorded as retention category 'B'; and a mixture of seven individual trees, one group of trees and one hedge were recorded as retention category 'C'.

2.2. Tree age class and condition



- 2.2.1. The trees were generally found to be in a good to fair condition, however, two individual trees (**T23** and **T24**) were classified as retention category 'U' (unsuitable for retention).
- 2.2.2. Please see *Appendix 1* for the detailed list on existing species, age class, dimensions and condition of trees within the site, and *Appendix 2* for an explanation of retention category criteria. Tree locations can be seen on the *Tree Constraints Plan* at the rear of this report (*Drawing 1*).

2.3. Root Protection Areas

2.3.1. The tree Root Protection Area (RPA) is a layout design tool indicating the area around a tree that, along with the tree stem and branches, must be considered during development. The protection of the roots and soil structure within the RPA should be treated as a priority. The RPA of each tree or group is marked on the *Tree Constraints Plan* at the rear of this report.

2.4. Tree protection status

- 2.4.1. A statutory tree protection enquiry was made with Manchester City Council on 28th June 2018. We have been informed that the trees within the site are located within a Conservation Area.
- 2.4.2. **It is essential that no works are undertaken to any trees within the site, including works to category 'U' trees, prior to consideration and consent of the proposed works under full planning approval by the local planning authority regardless of whether the trees are currently protected or not.**

Client: GUN Limited
Project No: ACR.12850
Issue: 01

Date Issued: 28th June 2018
Status: FINAL

Signed for on behalf of Godwins Arboricultural Limited:

R Godwin

Robert Godwin MSc MArborA.
Arboriculturist

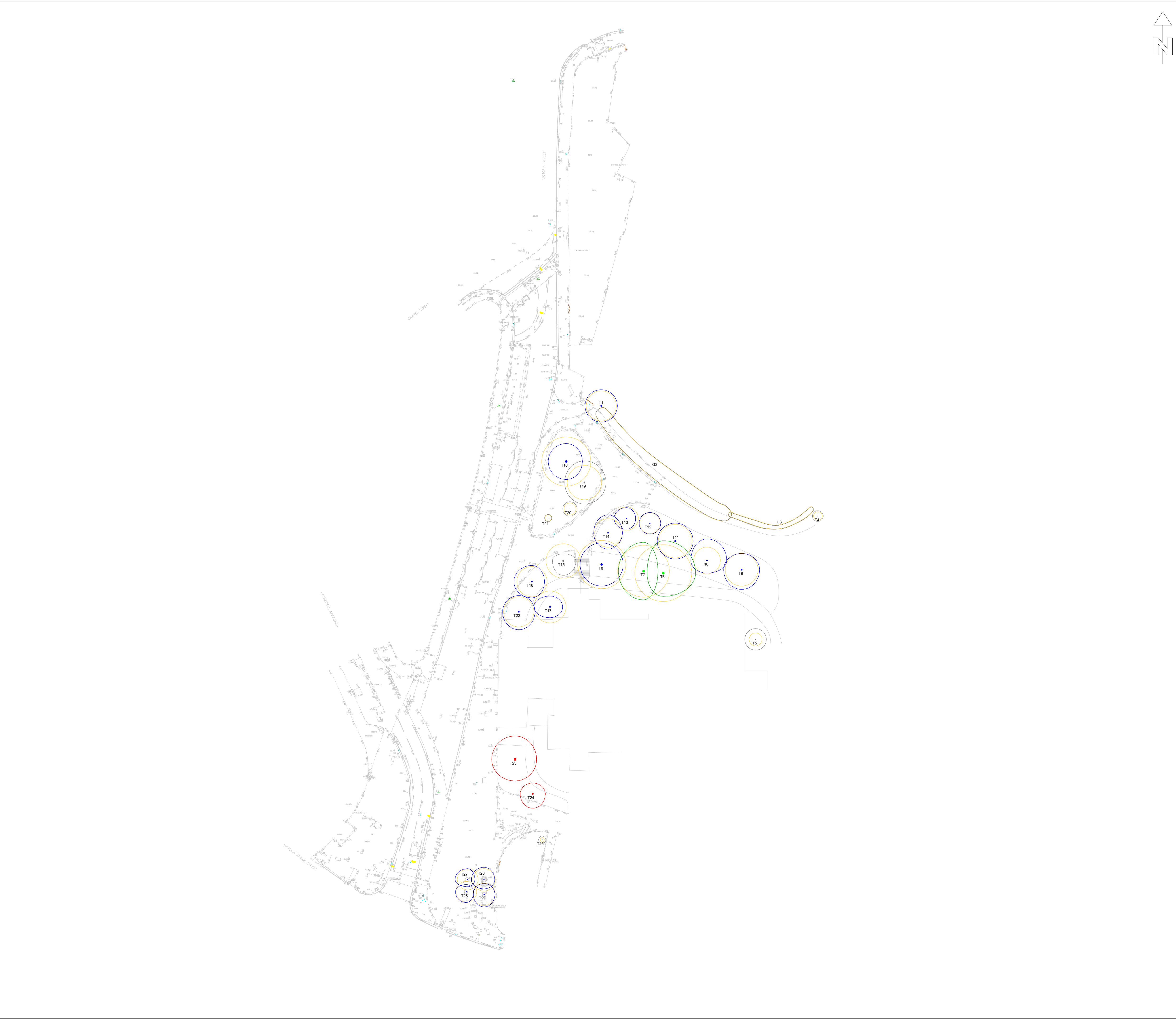
Contact Details:

Godwins Arboricultural Limited

Digital World Centre
1 Lowry Plaza, The Quays
Salford
Manchester
M50 3UB

www.godwins.co.uk
info@godwins.co.uk
0800 030 4045

Drawing 1. Tree Constraints Plan



T	G	H	W	S
INDIVIDUAL TREE	GROUP OF TREES	HEDGEROW	WOODLAND GROUP	SHRUB

	EXISTING LAYOUT
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TREE QUALITY ASSESSMENT CATEGORY

	CATEGORY 'A' HIGH QUALITY
	CATEGORY 'B' MODERATE QUALITY
	CATEGORY 'C' LOW QUALITY
	CATEGORY 'U' UNSUITABLE FOR RETENTION

Based on British Standard 5837:2012 Table 1.
Please refer to Appendix 2 of the arboricultural report for more detailed category definitions.

	ROOT PROTECTION AREA (RPA)
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The Root Protection Area (RPA) is a layout design tool highlighting the underground tree constraints. Along with the tree stem and branches the RPA must be considered prior to and during development.

Written consent must be obtained from Godwins Arboricultural Limited before copying or using the data within this drawing other than for the purpose it was originally supplied.
Do not scale from this drawing.

GODWINS ARBORICULTURAL LIMITED

www.godwins.co.uk Tel: 0800 030 4045 info@godwins.co.uk
Digital World Centre, 1 Lowry Plaza, The Quays, Salford, M50 3UB.

PROJECT TITLE: Medieval Quarter, Manchester		
DRAWING TITLE: TREE CONSTRAINTS PLAN	SCALE: 1:500 @ A1	ISSUE DATE: 27/06/18
DRAWING NUMBER: TCP.12850	REVISION: .01	DRAWN BY: RG

Appendix 1. Tree Schedule

Tree No.	Species	Age	Stems at 1.5m	Stem Dia (mm)	Height (Crown Hgt) (m)	FSB (D) (m)	Branch Spread (m)				Observations	Cond	Life Exp	Tree Work Recommendations	Root Protection Area (RPA)		Retention Category
							N	E	S	W					Radius (m)	Area (m²)	
T 1	Acer pseudoplatanus (Sycamore)	Semi-mature	1	350	10(4)	4(W)	4.5	4.5	4.5	4.5	Balanced crown. Limited inspection - situated on adjacent land. Tree RPA located within ground level change & hard surface area.	Good to Fair	40+	No action required.	4.2	55.4	B
G 2	Prunus laurocerasus (Cherry Laurel),Ligustrum ovalifolium (Privet)	Semi-mature	1	150	7(1.5)	1.5(W)	2.5	2.5	2.5	2.5	Situated on adjacent land. Linear boundary group. Tree RPA located within ground level change & hard surface area. Crown overhangs site boundary.	Good to Fair	40+	No action required.	1.8	10.2	C
H 3	Prunus laurocerasus (Cherry Laurel),Sambucus nigra (Elder)	Semi-mature	1	75	2.5(0)	0(W)	0.5	0.5	0.5	0.5	Situated on adjacent land. Linear boundary hedge. Maintained. Tree RPA located within ground level change & hard surface area.	Good to Fair	40+	No action required.	0.9	2.6	C
T 4	Pyrus calleryana (Callery Pear)	Semi-mature	1	100	5.5(2)	2(W)	1.5	1.5	1.5	1.5	Balanced crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	1.2	4.5	C
T 5	Castanea sativa (Sweet Chestnut)	Semi-mature	1	150	6.5(1.5)	1.5(N)	3	3	3	3	Balanced crown.	Good to Fair	40+	No action required.	1.8	10.2	C
T 6	Acer platanoides (Norway Maple)	Mature	1	660	18(7.5)	8(N)	9	9	6.5	4.5	Asymmetrical crown. Occasional pruning wounds. Situated on adjacent land. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	7.9	197.1	A
T 7	Acer platanoides (Norway Maple)	Mature	1	600	18(8)	7(N)	8	4	8	7	Asymmetrical crown. Occasional pruning wounds. Situated on adjacent land. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	7.2	162.9	A
T 8	Prunus sp. (Cherry)	Mature	1	560	8(2.5)	3(N)	6	6	6	6	Balanced crown. Occasional pruning wounds. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	6.7	141.9	B
T 9	Quercus cerris (Turkey Oak)	Semi-mature	1	380	12(5)	5(N)	4.5	5	5.5	5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	4.6	65.3	B
T 10	Quercus robur (Common Oak)	Semi-mature	1	310	9.5(3)	3(N)	6	5.5	3.5	4.5	Asymmetrical crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	3.7	43.5	B

Tree No.	Species	Age	Stems at 1.5m	Stem Dia	Height (Crown Hgt)	FSB (D)	Branch Spread (m)				Observations	Cond	Life Exp	Tree Work Recommendations	Root Protection Area (RPA)		Retention Category
				(mm)	(m)	(m)	N	E	S	W					Radius (m)	Area (m ²)	
T 11	Taxodium distichum (Swamp Cypress)	Semi-mature	1	390	11.5(2.5)	2.5(N)	5	5	5	5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	4.7	68.8	B
T 12	Liquidambar styraciflua (Sweet Gum)	Semi-mature	1	240	9(3)	3(N)	3	3	3	3	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	2.9	26.1	B
T 13	Liriodendron tulipifera (Tulip Tree)	Semi-mature	1	270	9(3)	3(N)	3	2.5	3	3.5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	3.2	33.0	B
T 14	Castanea sativa (Sweet Chestnut)	Semi-mature	1	330	8(2.5)	2.5(N)	5	4	4.5	4	Asymmetrical crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	4.0	49.3	B
T 15	Prunus sp. (Cherry)	Early-mature	1	400	7(3)	3(N)	2	3.5	4	3	Asymmetrical crown. Multiple pruning wounds. Limited inspection - restricted access. Tree RPA located within ground level change.	Fair	10+	No action required.	4.8	72.4	C
T 16	Fraxinus excelsior (Ash)	Semi-mature	1	350	9(2)	2(N)	4.5	3.5	4.5	5	Asymmetrical crown. Occasional pruning wounds. Limited inspection - restricted access. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	4.2	55.4	B
T 17	Prunus sp. (Cherry)	Early-mature	1	370	7(3)	3(N)	3	3.5	3	4.5	Asymmetrical crown. Occasional pruning wounds. Limited inspection - restricted access. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	4.4	61.9	B
T 18	Pinus nigra 'maritima' (Corsican Pine)	Semi-mature	1	570	10(2)	2(W)	5	4.5	5	5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	6.8	147.0	B
T 19	Aesculus hippocastanum (Horse Chestnut)	Semi-mature	1	400	10(2)	2(W)	6	6	6	5.5	Balanced crown. Exudates noted on stem - possible bacteria canker.	Fair	10+	No action required.	4.8	72.4	C
T 20	Rhus typhina (Stags Horn)	Semi-mature	4	70	5(2.5)	2.5(W)	2	2	2	2	Multi-stemmed from ground level.	Good to Fair	20+	No action required.	1.7	8.9	C

Tree No.	Species	Age	Stems at 1.5m	Stem Dia	Height (Crown Hgt)	FSB (D)	Branch Spread (m)				Observations	Cond	Life Exp	Tree Work Recommendations	Root Protection Area (RPA)		Retention Category
				(mm)	(m)	(m)	N	E	S	W					Radius (m)	Area (m²)	
T 21	Sequoiadendron giganteum (Wellingtonia)	Young	1	75	2.5(0)	0(N)	1	1	1	1	Balanced crown.	Good to Fair	40+	No action required.	0.9	2.6	C
T 22	Fraxinus excelsior (Ash)	Early-mature	1	350	10(5)	5(W)	4.5	4.5	5	4.5	Asymmetrical crown. Limited inspection - restricted access. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	4.2	55.4	B
T 23	Prunus sp. (Cherry)	Mature	1	660	11(5)	5(W)	6.5	6	6	6.5	Balanced crown. Occasional pruning wounds. Tree RPA located within ground level change. Decay fungus at base. Unsuitable for retention.	Fair to Poor	<10	Removal recommended, but under third party ownership.	7.9	197.1	U
T 24	Prunus sp. (Cherry)	Semi-mature	1	400	7(3.5)	3.5(W)	3	3.5	4	3.5	Occasional pruning wounds. Stem - bark wound. Tree RPA located within ground level change. Stem has crack/split. Unsuitable for retention.	Fair to Poor	<10	Removal recommended, but under third party ownership.	4.8	72.4	U
T 25	Malus sylvestris (Crab Apple)	Young	1	50	3(1.5)	1.5(N)	1	1	1	1	Balanced crown. Limited inspection - restricted access.	Good to Fair	40+	No action required.	0.6	1.1	C
T 26	Betula pendula Youngii (Silver Birch)	Semi-mature	1	260	11(2.5)	2.5(N)	3.5	3	2.5	3.5	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	3.1	30.6	B
T 27	Betula pendula Youngii (Silver Birch)	Semi-mature	1	240	10(3.5)	3.5(W)	3	2	2	3.5	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	2.9	26.1	B
T 28	Betula pendula Youngii (Silver Birch)	Semi-mature	1	240	10(2)	2(W)	2	2	3	3	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	2.9	26.1	B
T 29	Betula pendula Youngii (Silver Birch)	Semi-mature	1	260	11(3)	3(W)	3	3	3.5	3	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	3.1	30.6	B

Appendix 2. Explanatory Notes

A2.1. Tree statistics and measurements

Survey record	Description
<i>Tree No.</i>	Unique tree reference number. (T) = Individual tree, (G) = Group of trees or woodland that form cohesive arboricultural features, (H) = Hedgerows and substantial internal or boundary hedges.
<i>Species</i>	Species listed by scientific name, with (common name).
<i>Age</i>	Life stage – Young, Semi-mature, Early-mature, Mature, Over-mature and Veteran.
<i>Stem Count</i>	Number of stems recorded at 1.5m above ground level.
<i>Stem Diameter</i>	Stem diameter recorded in millimetres at 1.5 meters above ground. Where the tree is multiple stemmed, each stem has been recorded.
<i>Height (Crown Height)</i>	Height of the tree in metres – to the closest 0.5m. Average canopy height in brackets, e.g. 10(3).
<i>First Significant Branch</i>	Existing height above ground level of first significant branch and direction of growth, e.g. 3(N)
<i>Branch Spread</i>	Branch spread, taken as a minimum at the four cardinal points – North, East, South and West.
<i>Observations</i>	General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay, physical defect or historic pruning).
<i>Cond</i>	Condition of the tree recorded as Good, Good to Fair, Fair, Fair to Poor, Poor or Dead.
<i>Life Exp</i>	Life Expectancy - classed as less than 10 years, 10 plus years, 20 plus years, or more than 40 years.
<i>Tree Work Recommendations</i>	Recommended tree works – including those made to enable the proposed development.
<i>RPA Radius</i>	Radius of the root protection area, when plotted as a circle centred on the base of the stem.
<i>RPA Area</i>	Total area of RPA in metres squared, e.g. 100m ² .
<i>Retention Category</i>	See below – A2.2.

A2.2. Tree retention categories

Retention category and definition	Criteria
<i>U (marked in red on the Tree Constraints Plan) = trees for removal.</i>	Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
<i>A (marked green on the Tree Constraints Plan) = Trees of high quality</i>	Trees of high quality with an estimated remaining life expectancy of at least 40 years.
<i>B (marked in blue on the Tree Constraints Plan) = Trees of moderate quality</i>	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
<i>C (marked in grey on the Tree Constraints Plan) = Trees of low quality</i>	Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Appendix 3. Report Limitations & General Guidelines

- A3.1 Where the inspection of trees was limited (*see Appendix 1*), the 'Tree statistics and measurements' (*Appendix 2.1*) are estimated, and observations, condition and life expectancy are based on an inspection from the available vantage point.
- A3.2 It is recommended that qualified and experienced companies are sought when appointing tree work contractors and they should be approved under the Arboricultural Association Approved Contractors scheme. It is essential that all appointed tree work contractors have adequate Public Liability, Products Liability and Employers Liability Insurance. All tree works must conform to the current BS 3998 "*Recommendations for Tree Work*".
- A3.3 Godwin's Arboricultural Ltd will not accept liability for works undertaken by third party companies. All necessary checks must be made by the appointed tree work contractor prior to undertaking any works to ensure that no statutory tree protection measures or relevant laws are contravened.
- A3.4 The validity, accuracy and findings of this report are directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. Godwin's Arboricultural Ltd will not be responsible for the recommendations within this report where essential data are not made available, or are inaccurate.
- A3.5 The assessment and works recommendations relate to conditions found at the time of our inspection. Any significant alteration to the site post our site inspection but pre-submission for planning that may affect the trees present or have a bearing on the planning implications (including level changes, hydrological changes, storms, extreme climatic events or site works) will necessitate a re-assessment of the trees and the site.
- A3.6 This report has been carried out in order to inform the planning process, and not to assess the potential hazards and risks posed by trees. Where clear and obvious hazards have been observed to accessible trees, these have been addressed in the works recommendations. Where inspections were limited by restrictions such as stem ivy, understory vegetation, limited access, epicormic growth or being located on adjacent land, any form of tree condition assessment was restricted. A full assessment of the levels of risk posed by trees can only be informed by considering site use together with assessing any hazards present within a tree.
- A3.7 Trees are dynamic structures that continue to develop and decline; in addition, changes in site use are likely to occur during and as a result from the proposed development. On this basis, regular tree risk assessments are advised.
- A3.8 Godwin's Arboricultural Ltd plans are to scale whenever possible but care should be taken when measuring from a plan without first checking the original data.

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info@godwins.co.uk | www.godwins.co.uk