ARBORICULTURAL REPORT
to BS 5837:2012
at
The Cliffe
62 High Street
Clayton West
Huddersfield
West Yorkshire
HD8 9NS

Client:
Mr Robert Bowett

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JCA Limited
Arboricultural & Ecological Consultants

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1. Introduction

1.1 Purpose of the Report

1.1.1 This report is required at **The Cliffe, 62 High Street**, **Clayton West**, **Huddrsfield**, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.1.2 The purpose of this report is to summarise the findings of an arboricultural assessment of the existing vegetation at the above site; conducted in accordance with the guidelines contained within BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations'.

1.1.3 Where necessary, this report will outline any tree works which are required within the current context of the site. It will also grade the trees in accordance with the British Standard; which will guide the design in terms of which trees should be retained and which trees could be removed.

1.2 Terms of Reference

1.2.1 JCA Ltd has been instructed by **Mr Robert Bowett** to survey the site and prepare the findings in a report.

1.2.2 For this purpose a topographical survey has been supplied (**Drawing No. HD59-S-1**), which forms the basis for the Tree Constraints Plan at **Appendix 6**. The topographical survey, along with all other documents supplied to JCA, is assumed to be correct. No checking of such documents will be undertaken and JCA cannot be held responsible for incorrect data supplied by other parties.

1.3 Scope of the Report

1.3.1 This report is compiled in accordance with *BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'* and is based on an independent and objective assessment of the existing vegetation.

1.3.2 Preliminary recommendations are given with a view to the long-term management of sustainable tree cover and to uphold the interests of health and safety.

1.3.3 All trees within the site boundary with a stem diameter above 75mm are included.

1.3.4 Where applicable trees outside the site boundary, but close enough to be affected by the proposed development, are included.

1.3.5 The specific designs of the proposed development are not generally taken into account at this stage or detailed within this report. This is to be detailed in an Arboricultural Impact Assessment.

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1.4 Survey Details

1.4.1 The survey took place during the month of November 2021 and was conducted by **Andrew Bussey** *LANTRA Accredited PTI.*

1.4.2 During this survey, all trees were inspected from ground level. Further investigations, such as a climbed inspection or a decay detection survey, have not been undertaken.

1.4.3 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible, measurements were estimated to the best ability of the surveyor. JCA endeavour to provide accurate information and will always take measurements unless inhibited by restricted access or other mitigating circumstances. Where measurements have been estimated, they are clearly highlighted at **Appendix 1**.

2. Site Description

2.1 Land Use & Topography

2.1.1 The site, which slopes gently from the south down towards the northern boundary, is currently occupied by a detached, two storey residential dwelling and its associated grounds.

2.2 Treescape & Visual Amenity Value

2.2.1 Collectively, the trees on this site provide a good addition to the local treescape and amenity value of the area.

2.3 Age Class Mix

2.3.1 The trees surveyed ranged in age from young to over-mature.

2.4 Species Diversity

2.4.1 Species surveyed include Beech, Leyland Cypress, Sycamore, Common Lime, Horse Chestnut, Laburnum, Norway Maple, Privet, Cherry Laurel, Cotoneaster, Yew, Rhododendron, Plum, Whitebeam, Silver Birch, Broom, Lilac, Holly, Hawthorn, Apple, Red Horse Chestnut, Magnolia and Weeping Willow.

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3. Status of the Trees

3.1 An online check was made on 4th November 2021 on the **Kirklees Metropolitan Council** website.

3.2 We are informed that there are Tree Preservation Orders in force on this site.

3.3 These orders appear to afford protective status to trees detailed as **T1**, **T3, T4, T5, T6, T7, T9, T10, T11, T12, T15, T16, T17, T21, T22, T23, T24, T25, T26, T27, T28, T30, T31, T32, T33, T34, T35, T36, T37, T38, T39, T40, T41,** a tree within **G43, T53, T54, G55, T56, T57** and **T58** within this report; however, we recommend that this should be confirmed by the Local Planning Authority.

3.4 Before any work is organised for protected trees, an application form must be submitted to the Local Authority, outlining all the proposed works along with suitable justification. A waiting period of eight weeks is then required, after which time the council will either give consent to the works, refuse the works or grant a conditional consent.

3.5 ***No work must be done to protected trees until permission has been granted.***

3.6 The presence of a TPO represents the Local Authority's desire to retain trees within the landscape. As such, trees covered by a TPO are generally more likely to require retention within a proposed scheme and this should be taken into account during the design process. In some cases, the removal of TPO trees may be agreed upon, providing the benefits of the proposed development are deemed greater than the material loss of the trees. The value of existing vegetation is just one factor in the decision making process; all benefits of the proposed development will be taken into consideration in the usual manner.

4. Tree Descriptions and Recommendations

4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**. A full explanation of the tables can be found at **Appendix 2**. Please refer also to the Tree Constraints Plan at **Appendix 6** for tree locations.

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5. Discussion Relating to the Existing Treescape

5.1 Tree Condition & Recommended Works

5.1.1 The tree survey revealed a total of **58** items of vegetation (**46** individual trees, **7** groups of trees and **5** hedges). Of these, **26** trees and **1** group were identified as retention category 'B', **16** trees, **6** groups and **5** hedges as retention category 'C' and **4** trees as category 'U'. Please refer to **Appendix 2** for retention category and definition criteria.

5.1.2 Within the survey, tree works have been identified for reasons of public safety, to ensure the long-term health of the trees or for general maintenance purposes. Such recommendations have been made without regard to any projected layout and should be undertaken irrespective of development. These are summarised in the following sections. For full details on all recommendations, please refer to **Appendix 1**. For an explanation of the priority ratings, see **Appendix 2 (A2.2.5)**.

5.2 Tree Removals for Arboricultural Purposes

5.2.1 **T21, T22, T23** and **T38** were identified as retention category 'U'. These trees require removal as a matter of **moderate** or **high priority** because they pose a health and safety risk due to the defects detailed in **Appendix 1**.

5.3 Remedial Tree Works

5.3.1 **Moderate** or **low priority** remedial tree works have been recommended for **T6, T11, T17, T25, T26, T28, T32, T34** and **T44**, in order to manage foreseeable risks or for general maintenance purposes, as detailed in **Appendix 1**.

5.3.2 Those trees which overhang public footpaths or public highways shall require future maintenance in order to maintain clearance heights for vehicular or pedestrian traffic. These heights should be 5.6m above a road and 2.5m above a footpath.

5.4 Monitoring / Further Investigation

5.4.1 **T4, T6, T9, T15, T16, T17, T25, T26, T27, T28, T31, T32, T33, T35, T36, T39, T41, G42, T44, T45, T46, T50, T51** and **T58** were noted to have structural or physiological defects, as detailed at **Appendix 1**. Although these trees were considered to be in an acceptable condition at the time of the inspection, the defects observed may lead to their early demise or render them unsafe in the future. As such, it is recommended that these trees be monitored (re-inspected and assessed) on an annual or biennial basis to assess if their condition is still acceptable (as advised at **Appendix 1**).

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5.4.2 In addition, to the above, all trees which are to be retained within the proposed development should be inspected on a regular basis in the interests of risk management.

5.4.3 A full detailed inspection of **T17, T34, T35, G43** and **T56** was inhibited by the presence of vegetation, Ivy and/or epicormic growth. For these trees, it is advised that they are re-inspected for any possible defects once the vegetation and Ivy and/or epicormic growth has been removed.

5.5 General Design Advice

5.5.1 The following is an overview of general design considerations relating to a tree cover.

5.5.2 The specific implications of a proposed design should be assessed within an Arboricultural Implications Assessment (AIA).

5.5.3 The retention categories of the trees surveyed are an indication of their overall values. The category of each item is listed at **Appendix 1** and an explanation of the retention categories is included at **Appendix 2**. As a general rule, those trees listed as retention category 'A' or 'B' are the most valuable items and as such the removal of these is likely to be met with resistance by the Local Planning Authority (LPA). Those items listed as retention category 'C' are of lesser value and the removal of these is less likely to be met with resistance by the LPA. Items listed as retention category 'U' are recommended for removal regardless of any proposals and should not present a constraint to construction. The above information should guide the design in terms of which trees are to be removed and which are to be retained. However, it should be noted that the retention of trees is just one consideration in the design process and each development will be taken for its merits.

5.5.4 The location of each tree is plotted on the associated Tree Constraints Plan at **Appendix 6**. This plan identifies the retention category of each tree (Retention A: green canopy, Retention B: blue canopy, Retention C: grey canopy, Retention U: red canopy), the crown spread, and also the associated rooting zone (Root Protection Area or RPA shown in gold). In order to enable the survival of trees shown to be retained within any proposals, both the canopy of the tree and its RPA must be completely avoided wherever possible. This relates to not just the location of new buildings, but also to the location of new areas of hard standing, proposed utility routes and any ground level changes (both excavations and soil piling). Where this is not possible, specialist construction methods and materials will need to be used.

5.5.5 Where information is available, the water demand of each tree is provided at **Appendix 1**, in accordance with NHBC Standards 2014 chapter 4.2. 'Building near trees'. The water demand of trees can affect adjacent structures and this is therefore included to inform foundation design, depth and the proximity of proposed structures to trees.

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5.5.6 Retained trees will require adequate protective measures during development. Such measures typically entail temporary protective fencing, installed to the full extent of the RPA. Where this is not entirely possible, ground protection may also comprise part of the protective measures. This includes a compaction reducing construction detail which enables a degree of construction traffic over/within the RPA.

5.5.7 As the RPAs of the trees will require fencing off as a protection measure, this should be brought into consideration when planning such things as access routes and material storage during development. It is accepted that in some cases it is not entirely possible to completely avoid the RPA or canopy lines within a new development. The consulting arboriculturalist should therefore be made aware of any such incursions to make comment and, where possible, advise on mitigation actions. Such details should be contained within an Arboricultural Implications Assessment (AIA).

5.5.8 No material storage is permitted within the RPA of retained trees unless confirmed to be acceptable by the consulting arboriculturalist. The exact details and location of protective measures should be included within an Arboricultural Method Statement (AMS).

5.5.9 The position of the site compound is a major consideration. It is recommended that this, which typically includes the site office, facilities, toilets, storage of materials and parking, is located away from trees and outside the RPA.

5.5.10 Any shade that may be cast by the retained trees must also be considered. Where buildings are to be positioned within the shade cast area of trees, these should be designed in order to maximise light levels. If required, JCA can provide a shade cast prediction plan.

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6. Conclusions

6.1 There are Tree Preservation Orders in force on this site.

6.2 **T21, T22, T23** and **T38** have been recommended for removal for arboricultural reasons, as summarised in **Section 5.2** are detailed at **Appendix 1**.

6.3 **T6, T11, T17, T25, T26, T28, T32, T34** and **T44** have been recommended for remedial works, as summarised in **Section 5.3** and detailed at **Appendix 1**.

6.4 **T4, T6, T9, T15, T16, T17, T25, T26, T27, T28, T31, T32, T33, T35, T36, T39, T41, T42, T44, T45, T46, T50, T51** and **T58** have been recommended for ongoing monitoring due to the presence of physiological or structural defects, as summarised **Section 5.4** and detailed at **Appendix 1**.

6.5 General design advice has been provided in **Section 5.5**.

6.6 Upon provision of specific proposals, site-specific advice can be given with regards to the impact on trees. In accordance with **Section 5.4** of **BS 5837: 2012**, the next stage on this site should be the preparation of an **Arboricultural Implications Assessment (AIA)**, which will illustrate and discuss the impact of the proposals on the trees and vice versa, to help to inform good design.

6.7 The data gained during the survey provides an indication of the health of the trees. However, it does not enable a comprehensive assessment of their condition over time. Trees are living organisms which are affected by many factors including weather conditions, diseases/disorders, light levels and human activities. Because of this, this report is only valid for a period of 1 year from the date of issuing. Should an update or revision of this report be required outside of this time period, JCA may require a further site visit to ensure that the condition of the trees has not significantly changed. It is advised that the trees are inspected regularly, in the interests of risk management.

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Appendices

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 1	Mature Copper Beech *Fagus sylvatica* 'Purpurea'	16	1.5	1.5 n/a	78	8.4 8.7 8.4 13.4	Multi-stemmed at 4m with a balanced crown. Occasional pruning wounds. The crossing and fused branches noted are typical of this species. Minor decay on past pruning wounds. No major visible defects.	No action required. n/a	GOOD	GOOD	MOD	MOD	40+	1 B 2
H 2	Semi-mature Leyland Cypress *Cupressus × leylandii*	To 2.5	0	0 n/a	To 10	See plan	Maintained boundary hedge. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	HIGH	20-40	C 2
T 3	Early-mature Leopold Sycamore *Acer pseudoplatanus* 'Leopoldii'	14	5	2 N	66#	6.5# 5.5 4.5 5.5	Overhanging the footpath. Multi-stemmed at 1m with a balanced crown. Occasional pruning wounds. No major visible defects. Not fully inspected due to understory vegetation.	No action required. n/a	GOOD	GOOD	MOD	MOD	40+	B 2
T 4	Mature Sycamore *Acer pseudoplatanus*	15	4	4 n/a	82	6.5# 7# 5 7.8	Overhanging the footpath. Twin-stemmed at 2.5m with a slightly unbalanced crown. Occasional pruning wounds due to crown lifting. Decay noted on past pruning wounds as well as deadwood stubs at 7m. Decay cavisties present at 5 and 8m. Not fully inspected due to understory vegetation.	Monitor biennially. Low	GOOD	FAIR	MOD	MOD	20-40	B 2
T 5	Early-mature Sycamore *Acer pseudoplatanus*	15.5	8	5 N	54#	6.9# 4# 2.5 5.3	Overhanging the footpath. Twin-stemmed at 3.5m with an unbalanced crown. Occasional pruning wounds. No major visible defects. Not fully inspected due to understory vegetation.	No action required. n/a	GOOD	GOOD	MOD	MOD	20-40	B 2
T 6	Mature Sycamore *Acer pseudoplatanus*	17	4	4 SE	81#	7.5# 5 6.5 10.5	Overhanging the footpath. Twin-stemmed at 6m with an unbalanced crown. Occasional pruning wounds. Decay noted on past pruning wounds as well as modertate deadwood.	Crown clean to remove the deadwood. Monitor biennially. Low	GOOD	FAIR	MOD	MOD	20-40	B 2
T 7	Early-mature Sycamore *Acer pseudoplatanus*	17	6	4 N	50	5.5# 4.5 2 3.2	Overhanging the footpath. Single-stemmed and leaning with a slightly unbalanced crown. No evidence of significant pruning. No major visible defects.	No action required. n/a	GOOD	GOOD	MOD	MOD	20-40	B 2
T 8	Semi-mature Laburnum *Laburnum anagyroides*	3	0	0 n/a	10x 5 Avg.	3 3 3 2.8	Multi-stemmed at ground level with a balanced crown. No evidence of significant pruning. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	LOW	20-40	C 2
T 9	Mature Sycamore *Acer pseudoplatanus*	17	5	5 S	60	6.5 5 2 6.5	Overhanging the footpath. Single-stemmed and leaning with a slightly unbalanced crown. Minor decay on past pruning wounds.	Monitor annually. Low	GOOD	FAIR	MOD	MOD	20-40	B 2
T 10	Mature Sycamore *Acer pseudoplatanus*	17	10	3.5 N	63	6.8# 3.5 3.2 4.8	Overhanging the footpath. Single-stemmed and leaning with a slightly unbalanced crown. No evidence of significant pruning. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	MOD	40+	B 2

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 11	Mature Sycamore *Acer pseudoplatanus*	18	5.2	5.2 SE	79	9# 4.6 8 5.4	Overhanging the footpath and the road. Single-stemmed and vertical with a slightly unbalanced crown. Occasional pruning wounds. Deadwood noted to past pruning wounds. Deadwood noted over the highway.	Crown clean to remove the deadwood. Low	GOOD	GOOD	MOD	MOD	20-40	B 2
T 12	Young Norway Maple *Acer platanoides*	4.6	0	0 SE	14	1.5 2.3 3.2 3	Overhanging the footpath. Single-stemmed and vertical with an unbalanced crown due to suppression by T12. Poor form with a limited long term future. Minor bark wounds noted.	No action required. n/a	GOOD	FAIR	LOW	MOD	10-20	C 2
G 13	Early-mature Mixed species *Details in observations.*	To 8	0+	0+ n/a	To 20	See plan	A Cherry Laurel and a Cypress of little significance.	No action required. n/a	GOOD	GOOD	LOW	MOD TO HIGH	20-40	C 2
H 14	Semi-mature Privet *Ligustrum ovalifolium*	To 2	0	0 n/a	To 3	See plan	Maintained boundary hedge. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	NO DATA	20-40	C 2
T 15	Early-mature Sycamore *Acer pseudoplatanus*	15	2.8	2.8 W	45	3 7 4.2 3	Overhanging the footpath. Single-stemmed and leaning with a very unbalanced crown following the removal of an adjacent tree. No evidence of significant pruning. The bark has grown around a wire attached to the main stem at 3.5m. Poor overall form with a slightly sparse crown. Anapped out branch stub is present in the mid crown.	Monitor annually. Moderate	FAIR	FAIR	MOD	MOD	10-20	C 2
T 16	Early-mature Leopold Sycamore *Acer pseudoplatanus* 'Leopoldii'	15	2	2 W	46	4 6 1.5 3	Single-stemmed and leaning with an unbalanced crown. No evidence of significant pruning. Poor overall form with a slightly sparse crown. Not fully inspected due to vegetation.	Monitor annually. Moderate	FAIR	FAIR	MOD	MOD	10-20	C 2
T 17	Early-mature Sycamore *Acer pseudoplatanus*	15	2.5	2.5 W	44	3 5 6 2.3	Overhanging the footpath and the road. Single-stemmed and leaning with a very unbalanced crown following the removal of an adjacent tree. No evidence of significant pruning. Poor form with a slightly sparse crown which contains moderate deadwood and small snapped branches. Not fully inspected due to vegetation at the base.	Crown clean to remove the deadwood and snapped branches. Monitor annually. Low	FAIR	FAIR	MOD	MOD	10-20	C 2
H 18	Semi-mature Leyland Cypress *Cupressus × leylandii*	To 2	0	0 n/a	To 6	See plan	Maintained hedge. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	HIGH	20-40	C 2

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
G 19	Semi-mature Mixed *Details in observations.*	To 7	0	0 n/a	To 12	See plan	Dense group of maintained small trees and shrubs. Cherry Laurel, Yew, Leyland Cypress, Rhododendron, Laburnum, Cotoneaster, Lilac and Broom were the main species noted. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	LOW TO HIGH	20-40	C 2
H 20	Semi-mature Leyland Cypress *Cupressus × leylandii*	To 2.3	0	0 n/a	To 5	See plan	Maintained hedge. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	HIGH	20-40	C 2
T 21	Early-mature Sycamore *Acer pseudoplatanus*	13	5	5 n/a	38	3 4.5 5 0	Overhanging the footpath and the road. Single-stemmed and vertical with a very unbalanced crown following the removal of an adjacent tree. Occasional pruning wounds due to crown lifting. Decay on past pruning wounds. Sparse crown with moderate deadwood and heavy dieback. Poor form with a limited safe long term future. Open to the effects of wind-throw due to elevated and exposed location.	Remove. Moderate	POOR	POOR	MOD	MOD	<10	U
T 22	Early-mature Sycamore *Acer pseudoplatanus*	13	5	5 n/a	48	3 9.2 6 1	Overhanging the footpath and the road. Single-stemmed and vertical with a very unbalanced crown following the removal of an adjacent tree. Occasional pruning wounds. Poor form with a sparse crown with moderate dieback noted. Open to the effects of wind-throw due to elevated and exposed location. This tree has a limited safe long term future.	Remove. Moderate	POOR	POOR	MOD	MOD	<10	U
T 23	Early-mature Sycamore *Acer pseudoplatanus*	14	5	5 E	23	0.5 5.1 3 3	Single-stemmed and vertical with a very unbalanced crown following the removal of an adjacent tree. Multiple pruning wounds due to crown lifting. Sparse crown with moderate deadwood and dieback. Poor form with a limited safe long term future. Open to the effects of wind-throw due to elevated and exposed location.	Remove. Moderate	POOR	POOR	MOD	MOD	<10	U
T 24	Early-mature Common Lime *Tilia x europaea*	13	1	1 n/a	35	3 6 5 3.6	Overhanging the footpath. Single-stemmed and vertical with a balanced yet slender crown. No evidence of significant pruning. No major visible defects.	No action required. n/a	GOOD	GOOD	MOD	MOD	20-40	B 2
T 25	Mature Sycamore *Acer pseudoplatanus*	15	6	5 E	67	4 6.4 7 4	Overhanging the footpath and the road. Twin-stemmed at 3m with a slightly unbalanced crown. Occasional pruning wounds. Significant deadwood and slightly sparse crown, likely due to die back.	Crown clean to remove the deadwood. Monitor biennially. Low	FAIR	FAIR	MOD	MOD	10-20	C 2

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 26	Early-mature Horse Chestnut *Aesculus hippocastanum*	15	2	2 E	63	3 5 8.9 4.7	Overhanging the footpath and the road. Twin-stemmed at 2m with an unbalanced crown. Occasional pruning wounds. Minor decay on past pruning wounds. The lowest branch to the southeast is long and heavy over the road. Minor deadwood noted as well as a bark wound at 3m on the main stem.	Crown clean to remove the deadwood. Remove the lowest branch to the southeast. Monitor annually. Moderate	GOOD	FAIR	MOD	MOD	20-40	B 2
T 27	Mature Horse Chestnut *Aesculus hippocastanum*	15	6	3 SE	55	3.5 4 6.5 6	Overhanging the footpath and the road. Single-stemmed and vertical with a slightly unbalanced crown. Occasional pruning wounds. A bark wound noted at 0.6m on the main stem has bacterial wetwood noted (this feature indicates that the tree is trying to flush out infection using its tannins as a defence mechanism). A brown lesion at the base may indicate the onset of Bleeding Canker of Horse Chestnut.	Monitor biennially. Low	FAIR	GOOD	MOD	MOD	20-40	B 2
T 28	Early-mature Horse Chestnut *Aesculus hippocastanum*	15	3	3 NW	40	5 3.1 1 1	Single-stemmed and vertical with an unbalanced crown. Occasional pruning wounds. Decay noted on past pruning wounds as well as minor deadwood within the crown. Tip dieback noted in the upper crown. Poor overall form.	Crown clean to remove the deadwood. Monitor biennially. Low	FAIR	FAIR	MOD	MOD	10-20	C 2
H 29	Semi-mature Leyland Cypress *Cupressus × leylandii*	To 3.2	0	0 n/a	To 10	See plan	Maintained hedge. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	HIGH	20-40	C 2
T 30	Mature Horse Chestnut *Aesculus hippocastanum*	15	6	3 S	47	3.7 2 4 6.5#	Single-stemmed and vertical with an unbalanced crown. Occasional pruning wounds. No major visible defects. Minor decay to past pruning wounds as well as minor deadwood.	No action required. n/a	GOOD	GOOD	MOD	MOD	20-40	B 2
T 31	Mature Horse Chestnut *Aesculus hippocastanum*	16	9	6 S	60	4.8 4 4 7#	Overhanging the roof of an adjacent property. Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. Tip dieback noted in the upper crown. Minor bark wound noted at 0.1m on the main stem. Minor decay on past pruning wounds.	Monitor annually. Low	GOOD	FAIR	MOD	MOD	20-40	B 2
T 32	Mature Beech *Fagus sylvatica*	18	1.5	1.5 NW	113	7.2 7.5 8.2 5	Multi-stemmed at 3m with a slightly unbalanced crown. Deadwood and slight dieback noted to the branch tips throughout the entire canopy of the tree with gnarled re-growth noted overall. This indicates that the tree has/has been infected by fungal, pathogenic or bacterial attack. As Honey Fungus *(Armillaria sp.)* was noted on the lawn in close proximity to the tree on an old stump, this fungi may lead to the demise of the tree over time and is the likely cause of the deadwood and dieback noted.	Crown clean to remove the deadwood. Monitor annually. Moderate	FAIR	GOOD	MOD	MOD	20-40	B 1 2

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 33	Mature Beech *Fagus sylvatica*	18	3.5	3.5 NW	82	8.2 6.9 4.8 4.9	Multi-stemmed at 3m with a slightly unbalanced crown with tip die back. Occasional pruning wounds. The crossing and fused branches noted are typical of this species. Honey Fungus *(Armillaria sp.)* was noted on the lawn in close proximity to this tree.	Monitor biennially. Low	FAIR	GOOD	MOD	MOD	40+	1 B 2
T 34	Mature Common Lime *Tilia x europaea*	19	6	6 n/a	76#	7 6 7 9#	Telecom cables present through the canopy. Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects, however, epicormic growths at the base prevented a detailed inspection.	Remove the epicormic growths and Ivy and re-inspect. Low	GOOD	GOOD	MOD	MOD	40+	B 2
T 35	Mature Sycamore *Acer pseudoplatanus*	16	10	6 S	68#	1 6# 4# 8#	Telecom cables present through the canopy. Twin-stemmed at 2m with an unbalanced crown. Occasional pruning wounds. Past pruning wounds with decay as well as a large decay cavity noted on the lowest large limb to the north. Ivy prevented a detailed inspection.	Remove the Ivy then re-inspect. Monitor annually. Moderate	GOOD	FAIR	MOD	MOD	10-20	C 2
T 36	Early-mature Copper Beech *Fagus sylvatica* 'Purpurea'	18	9	6 S	49	3 4 4 6#	Telecom cables present through the canopy. Single-stemmed and vertical with an unbalanced crown. Occasional pruning wounds due to crown lifting. Large past pruning wound with the onset of decay noted at 1.5m on the main stem.	Monitor annually. Moderate	GOOD	FAIR	MOD	MOD	20-40	B 2
T 37	Early-mature Copper Beech *Fagus sylvatica* 'Purpurea'	18	3	3 N	54	6.2 3.2 4.5 4.3	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds due to crown lifting. Minor decay noted on past pruning wounds. A brown lesion present during a previous survey at 1.3m on the main stem was not visible during the latest survey.	No action required. n/a	GOOD	GOOD	MOD	MOD	20-40	B 2
T 38	Early-mature Beech *Fagus sylvatica*	17	8	3 S	55	5.2 4.8 4.5 5#	Twin-stemmed at 6m with a balanced crown. No evidence of significant pruning. The co-dominant stem to the north has a long vertical decay cavity. Bacterial wetwood was noted at 0.5 and 0.7m on the main stem (this feature indicates that the tree is trying to flush out infection using its tannins as a defence mechanism). Bark wounds were present to 3m on the main stem. The decay fungi, *Kretzschmaria deusta* , was found present from the base to 1.8m, as such, the structural integrity of the roots of this tree are brought into question.	Remove. High	FAIR	POOR	MOD	MOD	<10	U
T 39	Over-mature Beech *Fagus sylvatica*	19	1	1 NW	137	10.2 5 10.3 5	Telecom cables present through the canopy. Multi-stemmed at 1.5m with a balanced crown with minor deadwood present. Occasional pruning wounds. Past pruning wounds with decay noted as well as a weak union at the stem junction.	Monitor biennially. Low	GOOD	FAIR	MOD	MOD	20-40	1 B 2

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 40	Early-mature Copper Beech *Fagus sylvatica* 'Purpurea'	18	9	9 S	48	2.7 5.2 8 4.4	Single-stemmed and leaning with an unbalanced crown. No evidence of significant pruning. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	MOD	20-40	B 2
T 41	Mature Beech *Fagus sylvatica*	18	2	2 W	71	6.9 5.5 4.7 4.4	Twin-stemmed at 4.5m with a balanced crown. Occasional pruning wounds. Large past pruning wounds with decay noted, fungal growths were noted below one of these from the stem base to its height at 1.3m.	Monitor biennially. Low	FAIR	GOOD	MOD	MOD	20-40	B 2
G 42	Semi to early-mature Sycamore *Acer pseudoplatanus*	To 12	0	0 n/a	To 30#	See plan	Six trees of poor overall form. Major deadwood, included bark and decay cavities noted.	Monitor biennially. Low	POOR	POOR	LOW	MOD	10-20	C 2
G 43	Semi to early-mature Mixed *Details in observations.*	To 10	0	0 n/a	To 25#	See plan	Dense group of Sycamore, Common Lime, Holly and Hawthorn of reasonable form. No major visible defects, however, not fully inspected due to dense vegetation.	No action required. n/a	GOOD	GOOD	LOW	LOW TO HIGH	20-40	C 2
T 44	Early-mature Common Lime *Tilia x europaea*	9.5	4	2.5 W	53	5 5 2.5 3.5	Twin-stemmed at 2m with a balanced crown. Major crown dieback with overall branch tip deadwood noted throughout the canopy.	Crown clean to remove the deadwood. Monitor biennially. Low	POOR	FAIR	LOW	MOD	10-20	C 2
T 45	Mature Common Lime *Tilia x europaea*	13	1	1 n/a	64	4.6 5.2 4 5.4	Twin-stemmed at 2m with a balanced crown. Possibly previously topped. A large decay cavity was noted at 3.5m.	Monitor biennially. Low	GOOD	FAIR	LOW	MOD	10-20	C 2
T 46	Mature Common Lime *Tilia x europaea*	13	1	1 n/a	69	6.3 5.9 6.3 5	Multi-stemmed at 4m with a balanced crown. Possibly previously topped at 4.5m with weak unions noted on the past topping points.	Monitor biennially. Low	GOOD	FAIR	LOW	MOD	10-20	C 2
G 47	Semi-mature Plum sp. *Prunus sp.*	To 5.5	0+	0+ n/a	To 15	See plan	Two trees of reasonable form which were not shown on the topographical plan provided.	No action required. n/a	GOOD	GOOD	LOW	MOD	20-40	C 2
T 48	Early-mature Apple *Malus sp.*	7	1	1 n/a	19	3.4 3 3.2 2.5	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	No action required n/a	GOOD	GOOD	LOW	MOD	20-40	C 2
T 49	Semi-mature Magnolia *Magnolia sp.*	6.5	0	0 n/a	18	3.5 4 4.3 3.2	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	LOW	20-40	C 2
T 50	Early-mature Weeping Willow *Salix babylonica*	11	1	1 n/a	53	7# 5 4 3.2	Single-stemmed and leaning with an unbalanced crown. Occasional pruning wounds. Fungal fruiting bodies noted below a large pruning wound at 3m. Branch tears noted in the mid crown.	Monitor biennially. Low	GOOD	FAIR	LOW	HIGH	20-40	C 2

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 51	Early-mature Red Horse Chestnut *Aesculus x carnea*	9.5	0.5	0.5 n/a	39	4 1.5 5.3 4.6	Single-stemmed and leaning with an unbalanced crown. No evidence of significant pruning. A cankerous stem was noted as well as a poor overall form due to suppression by T51.	Monitor biennially. Low	FAIR	FAIR	LOW	MOD	10-20	C 2
G 52	Semi-mature Yew *Taxus baccata*	To 4	0	0 n/a	To 19	See plan	Two balanced trees of good upright form. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	MOD	40+	C 2
T 53	Early-mature Silver Birch *Betula pendula*	15	2	2 E	30	5 6 5.5 3	Single-stemmed and leaning with an unbalanced crown. No evidence of significant pruning. No major visible defects.	No action required. n/a	GOOD	GOOD	LOW	LOW	20-40	B 2
T 54	Mature Horse Chestnut *Aesculus hippocastanum*	16	6	1 S	75#	8# 5# 6.9 9#	Single-stemmed and slightly leaning with a slightly unbalanced crown. A pruning wound with decay was noted at 7m on the main stem.	No action required. n/a	GOOD	GOOD	LOW	MOD	20-40	B 2
G 55	Early-mature to mature Mixed *Details in observations.*	To 18	0	0 n/a	To 70#	See plan	Overhanging rear gardens to the north. A copse of Sycamore and Horse Chestnut of reasonably vertical and balanced form. Many standing stems following the collapse of trees, these have good ecological potential as wildlife sticks. This group has not been fully surveyed under the remit of this report, however, it should be noted that the signs of the onset of Bleeding Canker were noted on the Horse Chestnuts (these include brown lesions to the main stems as well as cracking bark). Deadwood, decay cavities, snapped branches were also noted throughout this group.	No action required due to low land usage. The standing stems, deadwood, decay cavities and snapped branches have good ecological potential, both for vertebrates and invertebrates. n/a	GOOD	FAIR	MOD	MOD	20-40	B 1 2
T 56	Mature Sycamore *Acer pseudoplatanus*	18	5	5 N	95#	9# 9# 8# 7#	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects. Dense Ivy throughout prevented a detailed inspection.	Sever the Ivy at the base and treat the Ivy stumps to prevent regowth. Mod	GOOD	GOOD	LOW	MOD	40+	B 2
T 57	Mature Sycamore *Acer pseudoplatanus*	16	5	5 n/a	50#	5# 4.5# 6 5.2	Twin-stemmed at 2m with a balanced crown. Occasional pruning wounds. Possibly previously topped with a poor overall form. Not fully inspected due to vegetation at the base.	No action required. n/a	GOOD	FAIR	LOW	MOD	10-20	C 2
T 58	Mature Horse Chestnut *Aesculus hippocastanum*	17	1	1 n/a	79	6# 4.5 9.3 6.2	Twin-stemmed at 2m with an unbalanced crown with a slight lean to the east. Occasional pruning wounds. A brown lesion at 1m indicates the onset of Bleeding Canker of Horse Chestnut.	Monitor biennially. Low	FAIR	GOOD	MOD	MOD	20-40	B 2

Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements/ Reference Information

A2.1.1 *REF NUMBER.* All items surveyed are allocated a reference number preceded with a letter, identifying the type of vegetation surveyed: T = an individual tree, G = a group of trees or an area of vegetation, W = woodland, H = a hedgerow.

A2.1.2 *SPECIES: COMMON AND BOTANICAL NAME*. The common and botanical names of the species present are noted. If the species is not clear or identifiable, then a general common name and genus will be noted.

A2.1.3 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.

A2.1.4 *HEIGHT* of the tree is measured in metres from the stem base to the top of the crown.

A2.1.5 *CROWN HEIGHT* is an indication of the height above ground level at which the crown begins.

A2.1.6 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; diameter measurements are taken for each stem. If more than five stems are present, an average stem diameter is taken. If for whatever reason it is not practical to measure multiple-stemmed trees in this way, the diameter is measured close to ground level, just above the root buttress.

A2.1.7 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches to all four cardinal points.

A2.1.8 *HEIGHT AND DIRECTION OF LOWEST BRANCH.* The height and direction of the lowest significant branch is noted because of potential issues relating to clearances and the need for tree pruning.

A2.1.9 *NHBC WATER DEMAND.* The water demand of each tree, as listed in NHBC Standards 2010 Chapter 4.2 ‘Building near trees’. This is included to aid structural engineers, architects and other members of the design team as it determines foundation depth and other considerations with regard to trees.

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A2.2 Evaluations

A2.2.1 *PHYSIOLOGICAL CONDITION* is classed as good, fair, poor, or dead. This is an indication of the health and vitality of the tree and takes into account vigour, presence of disease and dieback.

A2.2.2 *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.

A2.2.3 *LIFE EXPECTANCY* is classed as; Dead, less than 10 years, 10+ years, 20+ years, or 40 + years. This is an indication of the minimum number of years before removal of the tree is likely to be required.

A2.2.4 *AMENITY VALUE.* A general indication is given in respect to the amenity/landscape value of the tree/group within the surrounding area.

A2.2.5 *PRIORITIES.* A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

A2.3 Retention Categories

A2.3.1 ***A (marked green on the plan) = Trees of high quality.***

These trees are of high quality and value with a good life expectancy (usually with an estimated remaining life expectancy of 40 years).

A2.3.2 ***B (marked in blue on the plan) = Trees of moderate quality.***

These trees are of moderate quality and value with a reasonable life expectancy (usually with an estimated life expectancy of at least 20 years).

A2.3.3 ***C (marked in grey on the plan) = Trees of low quality.***

These trees are of low quality and value but which are in adequate condition to remain or are young trees with a stem diameter below 15cm (usually with an estimated life expectancy of at least 10 years).

A2.3.4 Trees categorised as retention category ‘A’, ‘B’ or ‘C’ are then justified by being further divided into 3 subcategories:

1 = Mainly arboricultural qualities.

2 = Mainly landscape qualities.

3 = Mainly cultural values, including conservation value.

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A2.3.5 ***U (marked in red on the plan) = Trees usually unsuitable for retention due to poor condition.***

These trees are in such a condition that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. This may be due to any of the following:

1) Failure is likely due to serious, irredeemable, structural defects.
2) Removal of other category U trees will render them exposed and unstable.
3) They are in serious, overall decline or are dead.
4) They are of low quality and suppressing adjacent trees of better quality.
5) Diseases are present which may affect the health of adjacent trees.

These trees should be removed or treated in such a way as to make them safe where they have high ecological value, such as in a woodland setting.

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Appendix 3: General Guidelines

A3.1 All tree work should be undertaken to BS 3998: 2010 '*Recommendations for tree work'* or other recognised industry practice.

A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.

A3.3 This report is based upon a visual inspection. The consultant 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 the guidelines and the terms listed therein.

A3.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.

A3.5 No liability can be accepted by JCA in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.

A3.6 It is advisable to have trees inspected by an arboricultural consultant on a regular basis.

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Appendix 4: Glossary of Terms & Abbreviations

Arboriculture The cultivation of trees in order to produce individual specimens of the greatest ornament, for shelter or any primary purpose other than the production of timber or fruit.

Canker Disease damaged area of a tree, usually caused by fungus or bacteria affecting the bark.

Co-dominant stem A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.

Crown lift The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.

Crown reduction The reduction of a tree's height and spread while preserving its natural shape.

Crown thin The removal of some of the density of a tree's crown**,** usually 5-15% allowing more light through its canopy and reducing wind resistance.

Deadwood Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.

Dieback Where branches are beginning to show signs of death usually at the tips in the crown.

Epicormic shoots Small branches that grow in clusters around the base of the stem of a tree or within the crown. This is usually as a result of bad pruning or some other stress factor, although can be a natural growth pattern for some species of tree (eg Lime species).

Included bark Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.

Remedial pruning The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.

RPA Root Protection Area – Theoretical rooting area of a tree as defined in BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations'*.

Topping Topping is a form of pruning that removes terminal growth leaving a 'stub' cut end. Topping can cause serious health problems to a tree.

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Appendix 5: Author Qualifications

Principal Consultant and Managing Director

Jonathan Cocking *F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor.* Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years' experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Director

Toby Thwaites *BSc (Hons), HND (Arboriculture), MArborA..* Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Operations Director

Charles Cocking *FdSc (Arboriculture), MArborA.* Charles joined JCA in January 2014 having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York, and is a Professional Member of the Arboricultural Association. Charles now oversees all internal operations for the company.

Consulting Staff: Arboriculture

Andrew Bussey. Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications, is QTRA qualified and is a LANTRA Accredited Professional Tree Inspector.

Emily Wilde *FdSc (Arboriculture).* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

Mick Eltringham *ND (Forestry).* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

Dan Kemp *FdSc (Arboriculture).* Dan joined JCA with nearly 30 years' experience in arboriculture. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

Ryan Bateman *BSc (Hons), FdSc (Arboriculture), TechArborA.* Ryan joined JCA in 2020 after working as a Lecturer on the Foundation Degree in Arboriculture at Askham Bryan College in York. Ryan has both practical skills, NPTC qualifications and theoretical knowledge and owned his own contracting business prior to, and whilst working as a lecturer.

Robert Armitage *BSc (Hons) Arboriculture, MArborA.* Rob joined JCA in 2021 with over six years' experience within arboricultural consultancy, predominantly within the context of the UK planning system. Rob has recently attained professional membership of the Arboricultural Association.

Luke Wickham *FdSc (Arboriculture and Urban Forestry).* Luke joined JCA in 2021 after obtaining his Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. Having previously worked within the industry for the past 4 years, running his own small business and sub-contracting for local firms, Luke brings a sound knowledge and understanding of the practical and academic sides of the industry.

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Consulting Staff: Ecology

Adam West, Principal Ecologist *BSc (Hons) Animal and Wildlife Management*. Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Batchelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

Poppy McDermott, Seasonal Ecologist *BSc (Hons) Ecology and Conservation.* Poppy joined JCA after completing her degree for three years at Nottingham Trent University in Ecology and Conservation. She has gained practical experience in protected species surveying and report writing whilst at university and is hoping to further develop these skills and consultancy experience whilst at JCA.

Administrative Staff

Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.
Lorraine Spink Administrative Assistant.
Lisa Beedham Marketing Manager.

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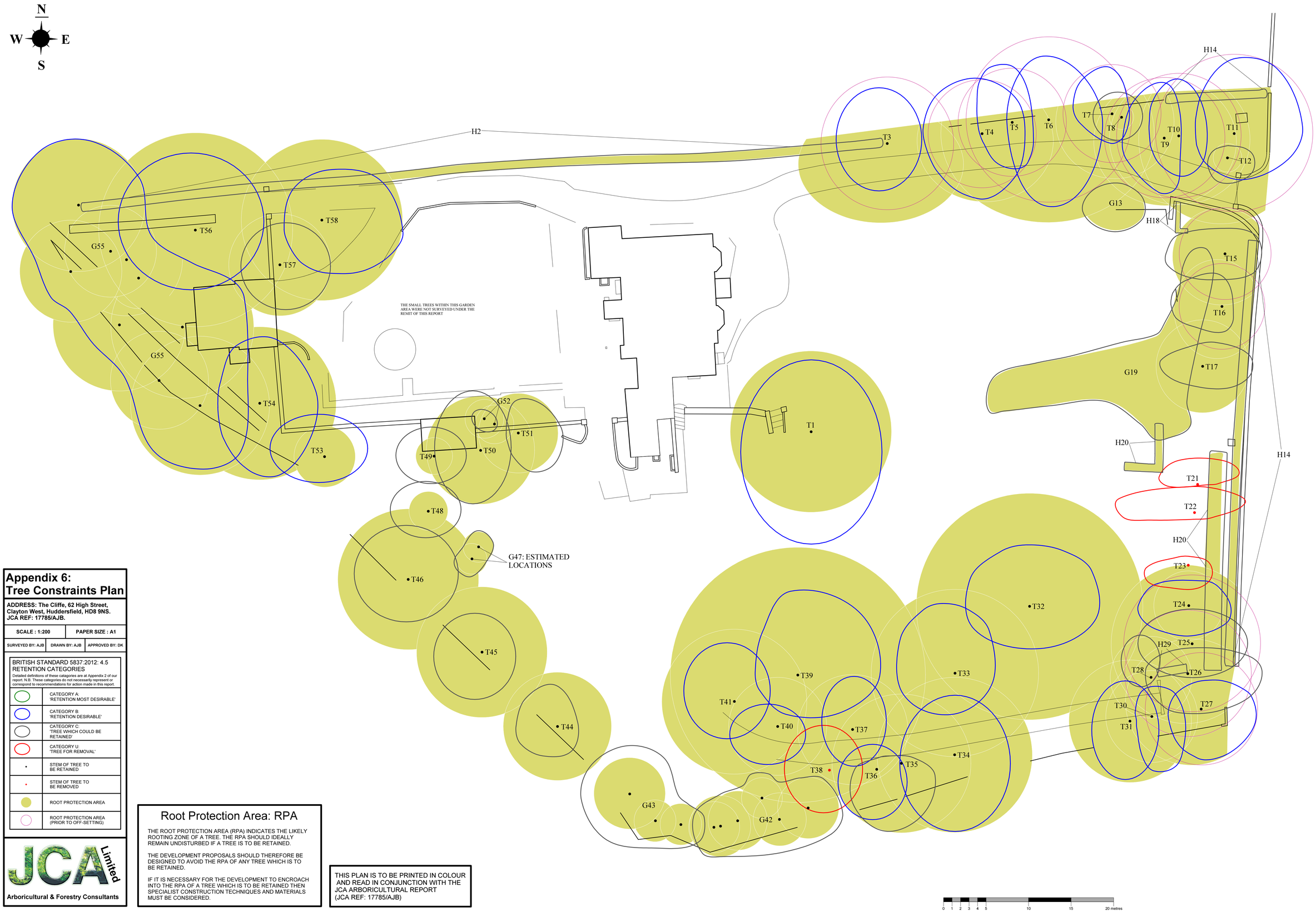

Appendix 6: Tree Constraints Plan

ADDRESS: The Cliffe, 62 High Street, Clayton West, Huddersfield, HD8 9NS. JCA REF: 17785/AJB.

SCALE : 1:200	PAPER SIZE : A1	
SURVEYED BY: AJB	DRAWN BY: AJB	APPROVED BY: DK

BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES

Detailed definitions of these catagories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.

	CATEGORY A: 'RETENTION MOST DESIRABLE'
	CATEGORY B: 'RETENTION DESIRABLE'
	CATEGORY C: 'TREE WHICH COULD BE RETAINED'
	CATEGORY U: 'TREE FOR REMOVAL'
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA
	ROOT PROTECTION AREA (PRIOR TO OFF-SETTING)

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Root Protection Area: RPA

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE. THE RPA SHOULD IDEALLY REMAIN UNDISTURBED IF A TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCROACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 17785/AJB)

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



.....

Andrew Bussey *LANTRA Accredited PTI.*

5th November 2021

For and on behalf of ***JCA Ltd***

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- British Standard 5837 Tree Surveys
- Arboricultural Implication Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

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- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)



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