Tree Survey and Arboricultural Integration Report for

Land adj. to 1 Russet Close Brunel Uxbridge UB10 0NL

23 September 2019

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TREE SURVEY AND ARBORICULTURAL INTEGRATION REPORT

LOCATION	Land adj. to 1 Russet Close, Brunel, Uxbridge, UB10 0NL	**REF: AR-3931-TSAIR-190923**
PROPOSAL	Erection of a detached 3 x 2 bed block of flats.	**DATE OF INSPECTION** 18 September 2019
CLIENT	Akaal Architecture Ltd 42 Parsons Road, Langley, Berkshire SL3 7GU	**DATE OF REPORT** 23 September 2019
SURVEY AND REPORT BY	Ben Oates TechArborA	**SHEET No. 1 of 6**

LOCAL AUTHORITY	HILLINGDON LONDON
CONTACT	Arboricultural Officer

INSTRUCTIONS
Issued by – Kamal Panesar of Akaal Architecture Ltd.

TERMS OF REFERENCE
To survey the subject trees to assess their general condition and to provide a planning integration statement for the proposed development that safeguards the long-term wellbeing of the retained trees in a sustainable manner.

Summary

The proposal is to erect a detached 3 x 2 bed block of flats with associated car parking and external soft landscaped amenity space.

The only trees on the site is a linear group of low arboricultural quality, unmanaged, category 'C' hazels and the proposal comprises their removal.

The normal management of hazel trees is to coppice, which is to periodically cut them down close to ground level. Such management means that the contribution the on-site hazels make to the character of the immediate area is only transitory and so their removal to facilitate the development would not be intrinsically out of character with the appearance of the site during the course of their normal maintenance. As such the removal of the hazels will not have a significant detrimental impact on the character and appearance of the area.

In the proposed amenity space surrounding the block of flats attractive soft landscaping will be planted to complement the site, improve the overall quality, and enhance amenity and the character and appearance of the area for the long-term.

There are four off-site trees growing within the neighbouring gardens that adjoin the site. All but one of the root protection areas of the off-site trees are outside the site boundary. The exception being a self-seeded, multi-stemmed, category 'C' sycamore sapling to the south. The root protection area of the sapling extends into a narrow corner of the far southern corner of the site and so it is sufficiently clear of construction related activity so as not to be harmed by the proposal. As the sycamore is young, any disturbance within its root protection area during the proposed landscape works are likely to be tolerated without detriment to its health.

One off-site, category 'C' hazel is to be pruned back to the boundary. The pruning is minor and will not have a detrimental impact on the health or appearance of the tree.

As the trees surrounding the site are sufficiently clear of potential disturbance or soil contamination during construction and landscaping operations no specific tree protection measures are required.

In arboricultural terms, the proposal will enhance the character and appearance of the area without detriment to surrounding trees. Therefore, there are no arboricultural reasons to refuse planning permission.

1. Supplied plans

- Icelabz Solutions Ltd. – Topographical Survey, drawing no. MB-SURV_RC_TS_001, revision 01, dated 21/08/2017

- Akaal Architecture Ltd. – Ground Floor Plan, drawing no. AA.2017.010, revision A, dated 26/07/2018

2. Scope of report

2.1 The purpose of my report is to provide the London Borough of Hillingdon with the arboricultural information necessary to approve the planning application to which this report and appendices relate.

2.2 My report summarises the data I gathered during my tree survey and with the appendices, my report demonstrates that the arboricultural implications of the proposal have been taken into full account.

2.3 Compliance with my recommendations in this report will ensure the trees outside of the site are adequately safe-guarded during construction to preserve the character and appearance of the area.

3. Survey method

3.1 My tree survey was undertaken in accordance with British Standard BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* (BS 5837). The details of the trees can be found in Appendix A.

3.2 I inspected the trees on the basis of the visual tree assessment method expounded by Mattheck and Breloer *(The body language of trees, DoE booklet Research for Amenity Trees* No. 4, 1994).

3.3 The stem diameters of trees were measured in millimetres at 1.5 metres above ground level with a rounded down diameter tape or estimated visually where access was restricted or otherwise in accordance with Annex C of BS 5837.

3.4 The height of each tree was estimated with a laser hypsometer where line of sight was attainable or estimated visually where observation was restricted and rounded up to the nearest metre.

3.5 A single crown spread radii were measured in the direction of the widest radius, either with a laser rangefinder or estimated by pacing or visually where access was restricted and rounded up to the nearest half metre.

3.6 I categorised the trees according to their size, age, physiological and structural condition, their relationship with the surrounding landscape and built form, their overall arboricultural quality, their landscape value and future potential in accordance with the cascade chart for tree quality assessment (Table 1) of BS 5837. The details of the trees I surveyed are in Appendix A.

3.7 The appendices to my report set out the root protection areas (RPA) of the trees, described by their RPA radius derived from section 4.6 of BS 5837.

3.8 In Appendix B, I show the crowns and trunks of the trees in colours similar to those as proscribed by BS 5837.

3.9 In Appendix C, I show the proposed layout and the necessary tree works.

3.10 I conducted my tree survey from ground level with the aid of a monocular.

3.11 I did not take any tissue samples and nor did I carry out an internal investigation of the subject trees.

3.12 I did not take any soil samples.

3.13 The positions of the subject trees are shown in Appendix B and C. The locations of which were derived from the supplied plans and from my own measurements taken during my survey. Please note that the plans are for indicative purposes only.

4. Ecology informative

4.1 Bats are protected under the Wildlife & Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended) and it is an offence to deliberately or recklessly disturb them or damage their roosts. Trees should be inspected before any works commence and if the presence of bats is suspected advice will need to be sought from the Natural England Bat Line on 0845 1300228. Further advice on bats is available from The Bat Conservation Trust (020 7627 2629).

4.2 Tree work should as far as is possible avoid the bird nesting season, which officially (natural England) is from February until August, although the busiest time is from 1st March until 31st July.

4.3 Please also be aware that ecology is governed principally by;

- the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000);
- the Conservation of Habitats and Species Regulations 2017 (as amended);
- the Wild Mammals (Protection) Act 1996, and;
- the Natural Environment and Rural Communities (NERC) Act 2006.

5. The site

5.1 The site comprises a triangular plot of land to the east of 1 Russet Close. The land is disused with a dilapidated shed near the eastern boundary. At the time of my survey the ground had been recently cleared of surface weeds and brambles which revealed the surface level to be undulating.

5.2 The only trees on-site comprise a row of coppice hazels (G1) adjacent to the eastern elevation of 1 Russet Close. All other trees are off-site.

5.3 With reference to the British Geological Survey Geology of Britain viewer, the indicated soil parent material is London Clay Formation - clay and silt. Clay is shrinkable and susceptible to compaction which is harmful to tree roots. The qualities of clay present a potential for tree-related subsidence damage to buildings constructed on it. Where clay becomes compacted, it compromises the soil's structure to the detriment of tree roots. I could see no features about the growth characteristics of the existing trees that suggests that the soil type has caused them an impediment to natural growth. Generally, this soil type is a good medium for tree root growth and one would expect a normal root distribution where not impeded by the soil characteristics and subterranean obstructions.

6. The trees

6.1 I surveyed four individual off-site trees (T1 magnolia, T2 sycamore, T3 hazel and T4 ash) and one on-site group of hazels (G1). The details of the trees are listed in the tree survey schedule at Appendix A.

7. Arboricultural integration

7.1 The proposal is to construct a three-storey block of 2-bed flats with associated car parking and soft landscaped amenity space.

7.2 The proposal will require the removal of a category 'C' group of hazel trees (G1). The group of hazels to be removed have no obvious sign of past management and are multi-stemmed from ground level, which is typical for the species. Hazels tend to grow dense clusters of stems that if unmanaged, dominant stems tend to outcompete subordinate stems. The increasing thickness of the tightly packed stems leads to compressing stems. The compressing stems can rub against each other in the wind causing wounding and prevention of normal thickening. The rubbing of the constricted stems can cause the bark to die, which exposes the underlying wood to decay organisms. As a species, hazel is susceptible to basal decay if left unmanaged. The most common form of managing hazels is to cut them down to ground level, known as coppicing. If these on-site hazels were to be managed accordingly the screening they provide would be periodically removed. Therefore, the landscape value of the hazels is only transitory.

7.3 As the landscape value of the hazels (G1) is only short-lived they are not a perpetual feature of the character of the immediate area, and as ordinarily they would be cut down on a regular basis, the removal of the trees from the landscape is not out of the ordinary in visual terms.

Therefore, the hazels are not a perpetual feature in the landscape and as such they are not a constraint on the site's potential.

7.4 One off-site hazel (T3) growing close to the eastern boundary will require pruning back to the boundary line, partly for general tree maintenance reasons but also to provide working space during construction. The proposed pruning is something that would ordinarily be carried out in the interests of general maintenance and so the proposed pruning is not solely necessary for construction purposes. The pruning will involve cutting back branches with diameters of no greater than 75 millimetres. As hazel trees generally endure regular coppicing, they are also tolerant of pruning. The minor pruning will not negatively impact the tree's health or appearance. Furthermore, as discussed in paragraph 7.2 above, to appropriately manage the hazel it should be cut down periodically which would, of course, render the proposed pruning obsolete.

7.5 None of the other trees require pruning works to implement the proposal.

7.6 All but one of the RPA of the four off-site trees growing within the neighbouring gardens that adjoin extend into the site. The exception being a self-seeded, multi-stemmed, category 'C' sycamore sapling to the south. The root protection area of the sapling extends into a narrow corner of the far southern corner of the site and so it is sufficiently clear of construction related activity so as not to be harmed by the proposal. As the sycamore is young, any disturbance within its root protection area during the proposed landscape works are likely to be tolerated without detriment to its health.

7.7 As the trees surrounding the site are sufficiently clear of potential disturbance or soil contamination during construction and landscaping operations no specific tree protection measures are required.

7.8 Based on the above, the integration of the proposal is sustainable in arboricultural terms.

8. Conclusions

8.1 The removal of the category 'C' hazel trees (G1) will not have a significant impact on the character and appearance of the area.

8.2 The proposed landscaping will enhance the quality and amenity of the site for the long-term

8.3 The proposed pruning of one hazel (T3) is minor and will not negatively impact the health of appearance of the tree

8.4 The off-site trees are sufficiently clear of the proposal so as not be harmed during construction or landscaping.

8.5 The proposal is, therefore, sustainable in arboricultural terms.

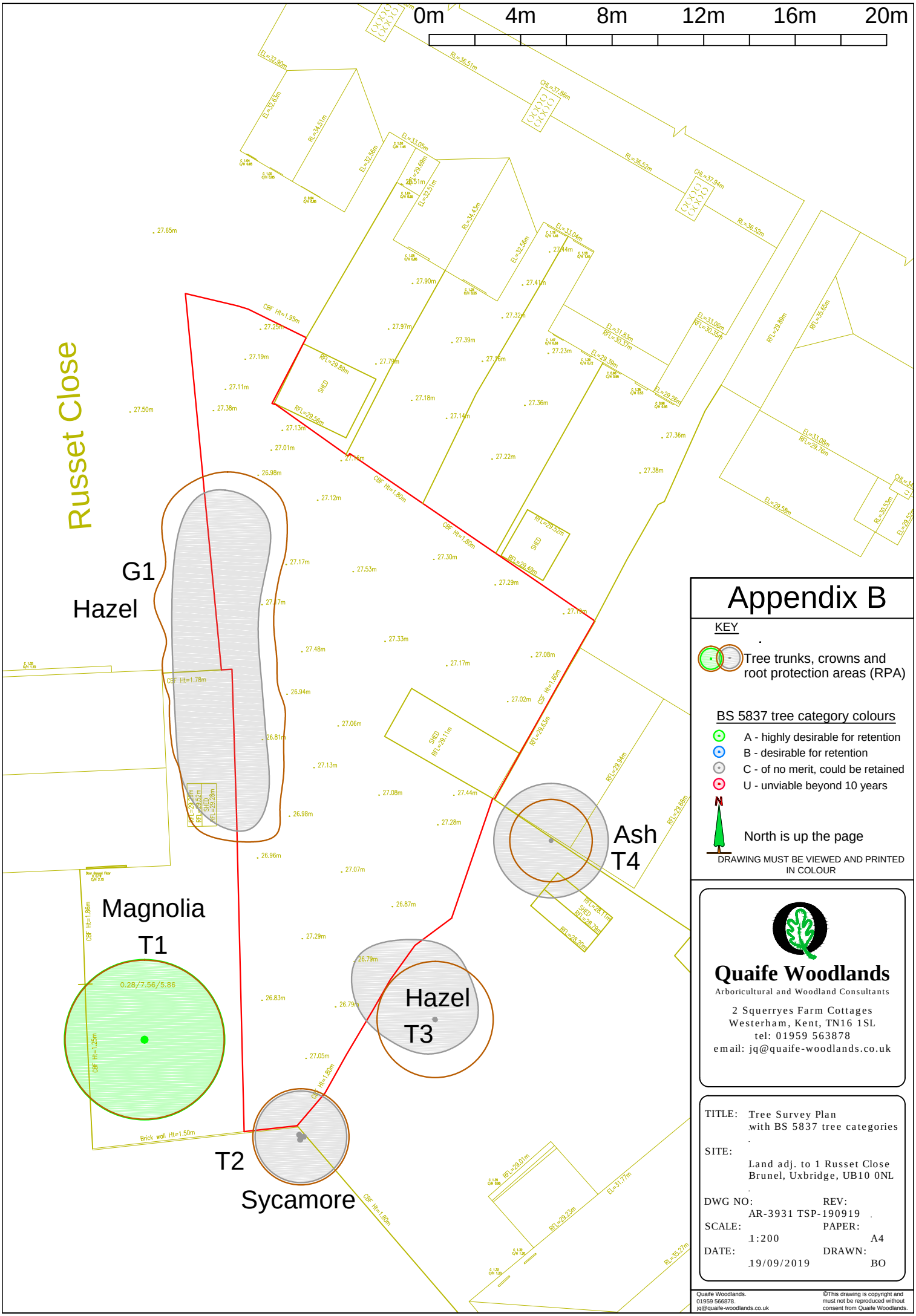
9. Recommendation

9.1 Grant planning permission.

TREE SURVEY SCHEDULE KEY

Tree No.	Tree reference number with a prefix of **G for** Group, H for Hedge and **W for** Woodland				
Species	Common name.				
Height	Estimated tree height from ground level to highest foliage/buds measured with a laser hypsometer where line of sight was attainable or estimated visually where laser observation was restricted and rounded up to the nearest metre.				
Stem diameter	Measured in millimetres at 1.5 metres above ground level or estimated visually where access was restricted or otherwise in accordance with Annex C of BS 5837:2012 *Trees in relation to design demolition and construction - Recommendations.*				
Radial crown spread	Branch spread measured in the direction of the cardinal compass points, either with a laser rangefinder or estimated by pacing or visually where access was restricted and rounded up to the nearest half metre .				
Crown clearance	Height of lowest foliage/buds measured above ground level and rounded up to the nearest half metre.				
Lowest branch	Height of lowest significant branch measured above ground level and rounded up to the nearest half metre.				
Age class	Sapling/newly planted	Young	Semi-mature	Mature	Ancient
Physiological condition	Normal	Below average	Low	Dying/dead	
Structural condition	Good	Remediable	Irremediable	Hazardous	
Arb. quality	A combination of physiological and structural condition and graded as either high, moderate or low.				
Landscape value	A combination of a visual assessment of a tree's prominence and its harmonious relationship with the immediate landscape within which it stands and graded as either high, moderate or low. It is not an assessment of public visual amenity value.				
Potential	Estimated life expectancy and stated as follows: Less than 10 years, no more than 20 years, no more than 40 years or greater than 40 years.				
Observations	Tree specific comments made by the surveyor at the time the survey was being undertaken.				
Category	British Standard BS 5837:2012 categorisation system: **A** – High quality and value (Greater than 40 years). 1) Mainly arboricultural values 2) Mainly landscape values 3) Mainly cultural values including conservation. **B** - Moderate quality and value (Greater than 20 years). 1) Mainly arboricultural values 2) Mainly landscape values 3) Mainly cultural values including conservation. **C** – Low quality and value (Greater than 10 years). Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation. **U** – Existing condition is such that any existing value would be lost within 10 years and should therefore be removed for reasons of sound arboricultural management.				
RPA	Root protection areain metres squared and radius in metres.				
Recommendations	Proposed tree work if recommended.				

Tree No.	Species	Height (m)	Stem diameter (mm)	Radial crown spread (m)	Crown clearance (m)	Lowest branch (m)	Age class	Physio-logical condition	Structural condition	Arb. Quality	Land-scape value	Potential	Observations	Cate-gory	RPA (radius m and m sq.)	Recommendations
T1	Saucer magnolia *(Magnolia x soulangeana)*	7	290 estimate	3.5	2	1.2	Semi-mature	Normal	Good	High	High	Greater than 40 years	Off-site tree. Ornamental specimen occupying much of the rear garden of the nieghbouring property within which it stands.	A (1,2)	3.48 38	None.
T2	Sycamore *(Acer pseudoplatanus)*	8	100 x 3 stems, estimate	2	2	1.5	Sapling	Normal	Irremediable	Low	Low	No more than 20 years	Off-site self-seeded tree. Tight compression forks between stems.	C (1,2,3)	2.1 13.6	None.
T3	Hazel *(Corylus avellana)*	6	75 x 21 stems, estimate	3	1.8	2	Semi-mature	Normal	Remediable	Moderate	Moderate	Greater than 40 years	Off-site coppice. Multi-stemmed from base.	B (1,2,3)	4.1 53.4	Prune back to boundary line.
T4	Ash *Fraxinus excelsior)*	6	150 estimate	2.5	3.5	3	Sapling	Normal	Irremediable	Low	Low	No more than 20 years	Off-site self-seeded tree. Growing too close to a neighbouring building. Likely to be removed in the foreseeable future due to unsustainable growing location.	C (1,2,3)	1.8 10.2	None.
G1	Hazel *(Corylus avellana)*	5.5	75 x 10 estimate	2	0	1	Semi-mature	Normal	Remediable	Low	Moderate	Greater than 40 years	On-site coppice row. Unmanaged hedge.	C (1,2,3)	2.8 25.4	Fell and remove stumps.



Appendix B

KEY

Tree trunks, crowns and root protection areas (RPA)

BS 5837 tree category colours

- A - highly desirable for retention
- B - desirable for retention
- C - of no merit, could be retained
- U - unviable beyond 10 years

N

North is up the page

DRAWING MUST BE VIEWED AND PRINTED IN COLOUR

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TITLE: Tree Survey Plan with BS 5837 tree categories

SITE: Land adj. to 1 Russet Close Brunel, Uxbridge, UB10 0NL

DWG NO: AR-3931 TSP-190919

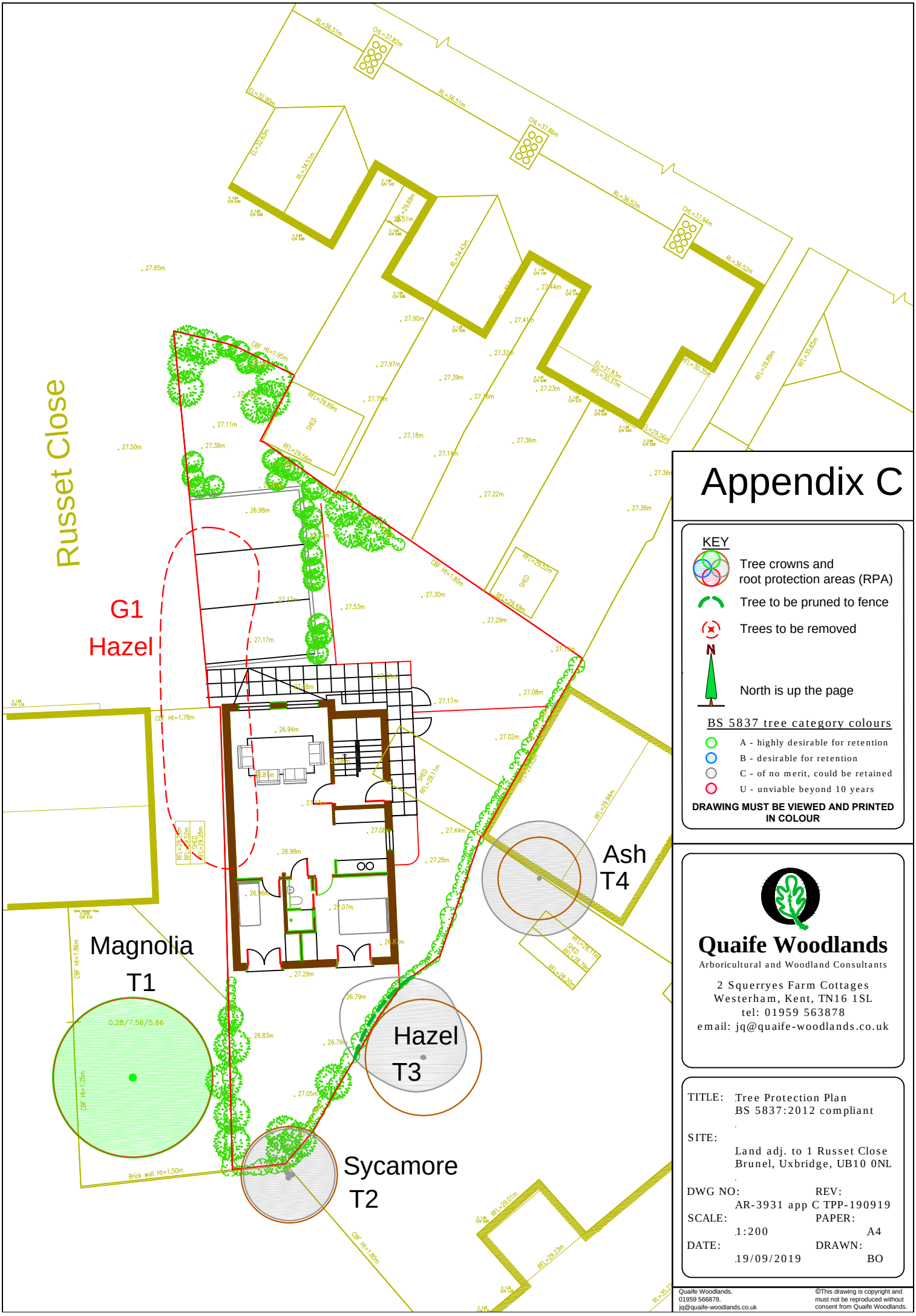
REV:

SCALE: 1:200

PAPER: A4

DATE: 19/09/2019

DRAWN: BO



Appendix C

KEY

Tree crowns and root protection areas (RPA)

Tree to be pruned to fence

Trees to be removed

N

North is up the page

BS 5837 tree category colours

- A - highly desirable for retention
- B - desirable for retention
- C - of no merit, could be retained
- U - unviable beyond 10 years

DRAWING MUST BE VIEWED AND PRINTED IN COLOUR

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TITLE: Tree Protection Plan
BS 5837:2012 compliant

SITE: Land adj. to 1 Russet Close
Brunel, Uxbridge, UB10 0NL

DWG NO: AR-3931 app C TPP-190919 REV:

SCALE: 1:200 PAPER: A4

DATE: 19/09/2019 DRAWN: BO