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Arboricultural Implications Report
Proposed re-development at
Parcel S
Arborfield
Berkshire

and

Compliance with Conditions nos. 15 and 17 of
Outline Permission O/2014/2280

July 2025

Ref. SJA air 25216-01b

SUMMARY

S1. On the basis of our assessment, we conclude that the arboricultural impact of this scheme is of low magnitude, as defined according to the categories set out in **Table 1** of this report.

S2. Our assessment of the impacts of the proposals on the existing trees concludes that no veteran or notable trees, no category 'A' trees, and no trees of high landscape or biodiversity value are to be removed. None of the main arboricultural features of the site are to be removed. The proposed removal of individuals and groups of trees are little different from those approved at outline, will represent only a minor alteration to the main arboricultural features of the site, only a minor alteration to the overall arboricultural character of the site and will not have an adverse impact on the arboricultural character and appearance of the local landscape.

S3. The proposed pruning is minor in extent, will not detract from the health or appearance of these trees, and complies with current British Standards.

S4. The incursions into the Root Protection Areas of trees to be retained are minor, and subject to implementation of the measures recommended on the Tree Protection Plan and set out at **Appendix 1**, no significant or long-term damage to their root systems or rooting environments will occur.

S5. None of the proposed dwellings or private gardens are likely to be shaded by retained trees to the extent that this will interfere with their reasonable use or enjoyment by incoming occupiers, which might otherwise lead to pressure on the Local Planning Authority to permit felling or severe pruning that it could not reasonably resist.

S6. As the proposed development will not result in the removal of trees which form landscape features, it complies with Policy CP7 of the Wokingham Borough Council Core Strategy, and Policies CC03 and TB21 of the Managing Development Delivery Plan.

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1. INTRODUCTION AND BACKGROUND INFORMATION

1.1. Instructions

1.1.1. SJAtrees has been instructed by Hicks Developments Ltd. to visit Parcel S, Arborfield and to survey the trees growing on or immediately adjacent to this site.

1.1.2. We are asked to identify which trees are worthy of retention within a proposed re-development of the site; to assess the implications of the development proposals on these specimens, and to advise how they should be protected from unacceptable damage during demolition and construction.

1.1.3. We are further asked to assess the arboricultural impacts of the reserved matters application and compare these with the implications of the outline planning permission (Ref: O/2014/2280). Having compared the reserved matters scheme with the outline permission we are instructed to assess the impacts of the development proposals on the specimens that are to be retained, and to advise how they should be protected from unacceptable damage during construction.

1.2. Scope of report

1.2.1. This report and its appendices reflect the scope of our instructions, as set out above. Its principal purpose is to accompany a reserved matters application for Parcel S, relating to the outline planning permission (Ref: O/2014/2208) to be submitted to Wokingham Borough Council (the LPA). It is also intended that this report will comply with Conditions 15 and 17 of the outline planning permission, thus enabling their simultaneous discharge with the reserved matters decision (as it is a pre-commencement condition, the discharge of Condition 16 will be dealt with in a separate and subsequent application). This report also complies with local validation requirements.

1.2.2. It complies also with the recommendations of British Standard BS 5837:2012, *Trees in relation to design, demolition and construction – Recommendations* ('BS 5837'). However, the British Standard is not a Code of Practice that consists of written rules outlining how actions or decision must be taken and it "should not be quoted as

if it were a specification¹”; it is a set of recommendations intended to “assist decision-making with regard to existing and proposed trees in the context of design, demolition and construction²”. It doesn’t form part of planning policy; and it is neither mentioned nor referenced in Policy CP7 of the **Error! Reference source not found.**Core Strategy (2010) or the accompanying text, but it is a material consideration to which weight is likely to be given.

1.2.3. The proposed development comprises the construction of 4 dwellings with associated parking and access road.

1.2.4. This report summarises and sets out the main conclusions of the baseline data collected during the tree survey and identifies those trees or groups of trees whose removal could result in a significant adverse impact on the character or appearance of the local area (Section 3). It then details and assesses the impacts of the proposed development on individual trees and groups of trees, including those to be removed (Section 4), those to be pruned (Section 5), those which might incur root damage that might threaten their viability (Section 6) and those that might become under pressure for removal after occupation because of shading or apprehension (Section 7). A summary and conclusions, with regard to local planning policy, are presented in Section 8.

1.3. Site inspection

1.3.1. A site visit and tree inspection were undertaken by Tom Hovell of SJAtrees on Thursday the 1st May 2025. Weather conditions at the time were clear, dry and bright. Deciduous trees were in full leaf.

1.4. Site description

1.4.1. The site is 0.68ha in size and is located on land between Biggs Lane and Buttenshaw Avenue as shown at **Figure 1** below. The south and east boundaries adjoin residential properties on Biggs Lane and Buttenshaw Avenue. The north

¹ British Standard BS 5837:2012. Trees in relation to design, demolition and construction – Recommendations; Foreword. The British Standards Institution.

² Ibid., p.1, Introduction.

boundary adjoins public park land surrounding the historical site 'The Moat', and the west boundary adjoins undeveloped land surrounding the 'Moat House'.



Figure 1: Site location shown on Google aerial image

1.4.2. The site is on relatively level ground, with the central area comprising unkept grassy areas and large concrete foundations remaining from previous development, with associated tarmac access road.

1.4.3. Historical maps indicate that the site was undeveloped agricultural land until the mid-twentieth century, when it was developed as Ministry of Defence land as part of Arborfield Garrison.

1.4.4. The earliest Ordnance Survey map, dated 1876, shows several trees growing within the site; the large oaks (nos. 181 and 184) close to the south-western boundary are in the same locations as two shown on that map; and are of sufficient size and age that we consider they may be the same trees.



Figure 2: Extract from OS map of 1872, showing some of the trees present at that time

1.5. Soil type

1.5.1. The British Geological Survey Solid and Drift Geology map of the area indicates the site overlies a bedrock of London clay.

1.5.2. The class of soil in this area is recorded on the Soilscape (England) maps on the Department for Environment, Food & Rural Affairs ('Defra') Magic website as a slowly permeable seasonally wet acid loamy and clayey soil.

1.5.3. The class of soil and the indications of the British Geological Survey map suggest that trees may be shallow-rooted and that the soil is likely to be somewhat susceptible to compaction.

1.6. Statutory controls

1.6.1. Nineteen of the trees on this site are covered by a tree preservation order (TPO). This is TPO no. 1445 of 2012, made by **Error! Reference source not found.** that protects 10 individual trees and two areas of trees on and immediately adjoining the site. The map in the TPO is reproduced at **Figure 3** below and the trees protected by it are identified within the tree survey schedule at **Appendix 3** and on the

accompanying tree protection plan.

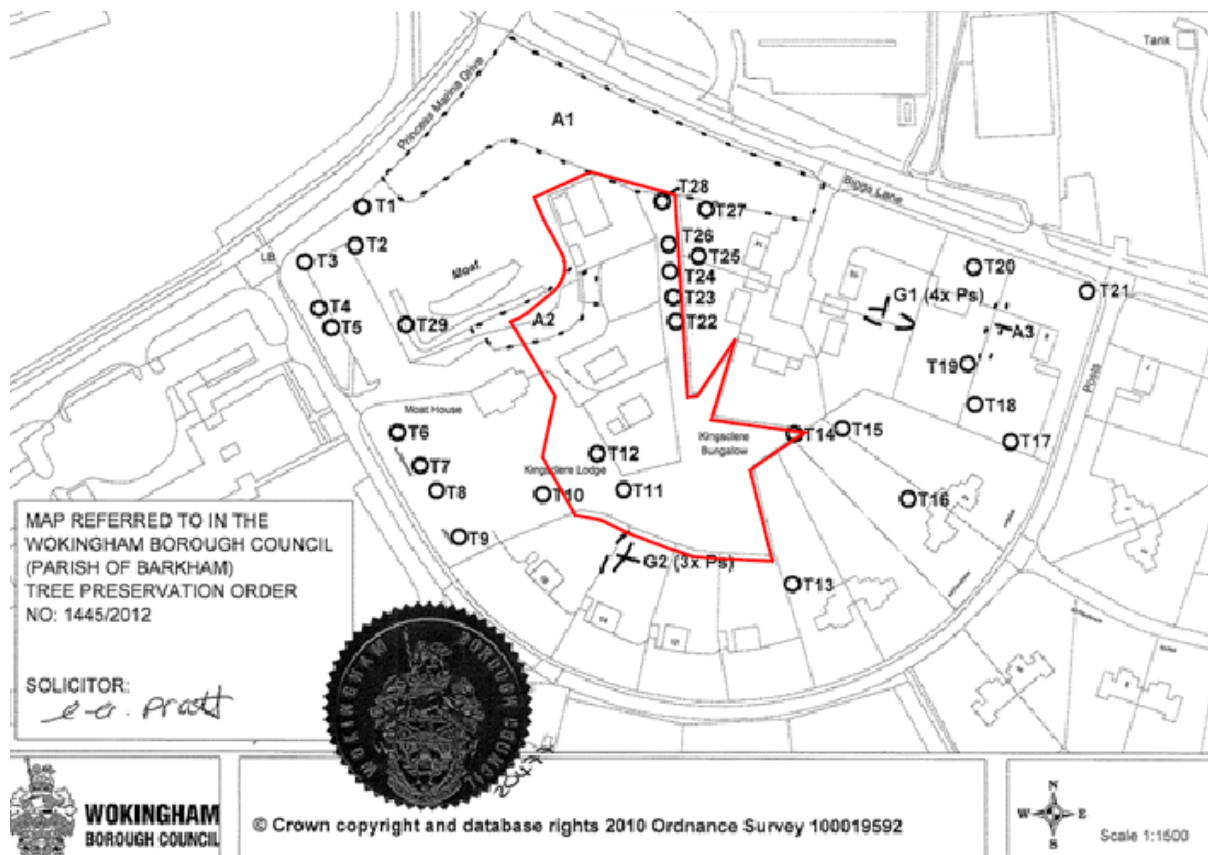


Figure 3: Extract from the TPO map, showing area of trees covered by the Order

1.6.2. The site is not within a conservation area, and therefore there are no constraints relating to existing trees in this regard.

1.7. Non-statutory designations

1.7.1. There are no woodlands within or abutting the site that are classified as 'Ancient'. Ancient woodland is defined as "any area that's been wooded continuously since at least 1600 AD" and is considered an important and irreplaceable habitat.

1.7.2. There is one off-site oak tree adjacent to the south-west boundary (no. 185 in the tree survey schedule) that is included in the Woodland Trust Ancient Tree Inventory³ and displays attributes consistent with it being 'Veteran'. Ancient and veteran trees are also considered to be irreplaceable habitats, and contribute to a

³ <https://ati.woodlandtrust.org.uk/>

site's biodiversity, cultural and heritage value, and the National Planning Policy Framework (see below) states that development resulting in the loss or deterioration of ancient or veteran trees should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists. Current government guidance states that ancient or veteran trees should be protected from root damage by inclusion of a buffer zone at least 15 times larger than the diameter of the trunk, or 5m from the edge of the tree's canopy if that area is larger.

2. PLANNING CONTEXT

2.1. Planning history

2.1.1. The outline planning application (Ref: O/2014/2280) for Arborfield Garrison was granted approval by the LPA in April 2015. The decision notice for the outline planning permission contains a comprehensive set of conditions. This report and its appendices have been written with a view to complying with and discharging condition numbers 15 and 17. All other pre-commencement conditions and those conditions that must be discharged prior to submission of the first RM application have been dealt with by the Applicants. We have been involved throughout that process.

2.1.2. Condition No. 15 states:

“The reserved matters for each phase of the development shall include an updated Arboricultural Implications Assessment for that area. The Assessment will inform the Arboricultural Method Statement for Works and the landscaping scheme for that area.”

2.1.3. Condition No. 16 states:

“i. No development or other operation shall commence within each phase until a scheme which provides for the retention and protection of trees, shrubs and hedges growing on or adjacent that phase in accordance with BS5837: 2012 has been submitted to and approved in writing by the local planning authority (the Approved Scheme); the tree protection measures approved shall be implemented in complete accordance with the Approved Scheme for the duration of the development of that phase including, (unless otherwise provided by the Approved Scheme) demolition, all site preparation work, tree felling, tree pruning, demolition works, soil moving, temporary access construction and or widening or any other operation involving use of motorised vehicles or construction machinery.

ii. No development in any phase (including any tree felling, tree pruning, demolition works, soil moving, temporary access construction and or widening or any other operation involving use of motorised vehicles or construction machinery) shall commence until the local planning authority has been provided (by way of a written notice) with a period of no less than 7 working days to inspect the implementation of the measures identified in the Approved Scheme on-site.

iii. No excavations for services, storage of material or machinery, parking of vehicles, deposit or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within an area designated as being fenced off or otherwise protected in the approved scheme.

iv. The fencing or other works which are part of the approved scheme shall not be moved or removed, temporarily or otherwise, until all works including external works in the phase have been completed and all equipment, machinery and surplus materials removed from the phase, unless the prior approval of the Local Planning Authority has first been sought and obtained.”

2.1.4. Condition No. 17 States:

“The reserved matters applications for each phase of the development shall include a detailed veteran and aged tree mitigation strategy. Each detailed veteran and aged tree mitigation strategy shall include the following:

a. Veteran and aged tree buffer zone of sufficient size to allow for the long-term retention of the trees. These buffer zones should have a radius of not less than 15 x the DBH and should not include formal POS or areas of private garden other than in exceptional circumstances.

b. Individual veteran and aged tree management plans including details of all the tree works that are required to maintain the trees ecological value.

The management plans should cover a period of 10 years from the commencement of development of that phase. The mitigation strategy shall be implemented in accordance with the approved plan unless otherwise approved in writing by the local planning authority.”

2.2. Planning policy - national

2.2.1. Under Section 197 of the Town and Country Planning Act 1990, local authorities have a statutory duty to consider the protection and planting of trees when considering planning applications. The effects of proposed development on trees are therefore a material consideration, and this is normally reflected in local planning policies.

2.2.2. The National Planning Policy Framework ('NPPF')⁴ sets out the Government's planning policies for England and how these should be applied in both plan and decision-making. Paragraph 2 makes it clear that the NPPF is itself a material consideration in the determination of planning application. Paragraph 11 states that **"Plans and decisions should apply a presumption in favour of sustainable development."**

2.2.3. In paragraph 135, within Section 12 "Achieving well-designed places" the NPPF states: **"Planning policies and decisions should ensure that developments:**

a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;

b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;

c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);

d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;

e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience."

2.2.4. Paragraph 136 in this section states: **"Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are**

⁴ The National Planning Policy Framework (NPPF) (December 2024). Department for Levelling Up, Housing & Communities

tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.”

2.2.5. The section titled “**Meeting the challenge of climate change, flooding and coastal change**” states at paragraph 162: “**Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating and drought from rising temperatures . Policies should support appropriate measures to ensure the future health and resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.**”

2.2.6. In paragraph 187, within Section 15 “**Conserving and enhancing the natural environment**” the NPPF states: “**Planning policies and decisions should contribute to and enhance the natural and local environment by:**

a) **protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);**

b) **recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;**

[...] d) **minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;**

e) **preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible,**

help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; [...]

2.2.7. In paragraph 193, under the ‘Habitats and biodiversity’ section, the NPPF states: **“When determining planning applications, local planning authorities should apply the following principles:**

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists....”

2.3. Local planning policy

2.3.1. Local planning policies are contained in the adopted Wokingham Borough Core Strategy (2010) and the Managing Development Delivery Plan (2014).

2.3.2. **Core Strategy Policy CP7 – Biodiversity** states:

“Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be appropriate to the status of the site in terms of its international or national importance.

Development:

A) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or

B) Which may harm habitats or, species of principle importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly, or

C) That compromises the implementation of the national, regional, county and local biodiversity action plans will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and:

i) Mitigation measures can be put in place to prevent damaging impacts; or

ii) **Appropriate compensation measures to offset the scale and kind of losses are provided.”**

2.3.3. Policy CC03 – Green Infrastructure, Trees and Landscaping of the Managing Development Delivery Plan includes the following section that is relevant to existing trees:

“2. Development proposals should demonstrate how they have considered and achieved the following criteria within scheme proposals:

a) Provide new or protect and enhance the Borough’s Green Infrastructure networks, including the need to mitigate potential impacts of new development

b) Promote accessibility, linkages and permeability between and within existing green corridors including public rights of way such as footpaths, cycleways and bridleways

c) Promote the integration of the scheme with any adjoining public open space or countryside

d) Protect and retain existing trees, hedges and other landscape features

e) Incorporate high quality, ideally, native planting and landscaping as an integral part of the scheme.

3. Development proposals which would result in the loss, fragmentation or isolation of areas of green infrastructure will not be acceptable.”

2.3.4. Policy TB21 - Landscape Character of the Managing Development Delivery Plan, which is relevant to trees and woodlands that contribute to the landscape, states:

“1. Proposals must demonstrate how they have addressed the requirements of the Council’s Landscape Character Assessment, including the landscape quality; landscape strategy; landscape sensitivity and key issues.

2. Proposals shall retain or enhance the condition, character and features that contribute to the landscape.”

2.3.5. The LPA’s emerging Local Plan, which has yet to be adopted, states, *inter alia*:

“3. The design and layout of new development should:

a) Provide sufficient space to enable existing trees to thrive by maintaining adequate root protection areas and space for the trunk and branches to grow”

2.4. Neighbourhood planning policy

2.4.1. At the time of writing there is no relevant policy pertaining to trees within the Neighbourhood Plan covering the area within which the site is found.

3. THE TREES

3.1. Survey findings

3.1.1. We surveyed 47 individual trees, five groups of trees, two hedges and one area of woodland growing within or immediately adjacent to the site. Their details can be found in the tree survey schedule at **Appendix 2**.

3.1.2. The arboricultural character of the site is comprised mainly of native and naturalised broad-leaved specimens such as English oak and beech, with some non-native species such as flowering cherry and Western red cedar. Trees are concentrated around boundary areas, with the interior of the site being mostly open ground with some isolated areas of self-seeded scrub.

3.1.3. There is a relatively even distribution of species across the site, with the most commonly-found species being English oak, most of have reached maturity and form the majority of the main arboricultural features of the site (most notably the English oak no. 181 and veteran English oak no. 185), both of which are situated close to the south-west boundary. Sycamore is also prevalent on the site, being notable in terms of both size and numbers; these specimens are mainly concentrated towards the southern boundary.

3.2. Assessment of suitability for retention

3.2.1. As noted above in Section 2.3, local planning policies require the retention of “existing trees, hedges and other landscape features”. The individuals within or adjacent to the site, whose attributes we consider meet these criteria, are as follows:

- the two English oaks and one copper beech (nos. 181, 183 and 185) growing in the south-west corner of the site;
- the row of English oaks (nos. 78 - 79, 186 - 187, and 1755 - 1756) growing on the eastern boundary with the adjacent residential properties; and
- the group of mixed species (nos. 58 – 60 and 64 - 75) growing along the northern boundary with the adjacent ancient monument and providing screening from Biggs Lane and Princess Marina Drive.

3.2.2. There is another group of trees within the site that is visible in views from internal views only, this is the row of Leyland cypress close to the eastern boundary. These trees are out of character with the predominantly native and deciduous trees growing elsewhere on the site, and therefore, unlike the trees listed above, their removal would not have an adverse impact on the character of the local landscape.

3.2.3. Four individual trees (nos. 57, 61, 197 and 1754) are unsuitable for retention, irrespective of the proposals, in that they are 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. However, as can be seen below, these trees are not necessarily shown to be removed as part of the proposals; some may be outside the development footprint or may be outside the red line boundary and in third-party ownership. These trees have been assessed as category 'U' and are indicated on the accompanying tree protection plan by **bracketed red** numbers.

3.2.4. There are two category 'A' trees (the English oaks nos. 79 and 185) and 14 category 'B' specimens. The remaining 27 trees are assessed as category 'C' trees, being either of low quality, very limited merit, only low landscape benefits, no material cultural or conservation value, or only limited or short-term potential; or a combination of these.

3.2.5. Of the groups of trees, and hedges, none have been assessed as category 'A', two as category 'B', and the remaining five as category 'C'.

3.3. Assessment of arboricultural impacts

3.3.1. The arboricultural impacts of the proposed site layout by Ascot Design, drawing no. 24-J4649-01-002 have been assessed by overlaying this onto the TCP and are discussed in the following sections of this report and are shown on the tree protection plan (TPP) presented at **Appendix 4**.

3.3.2. The TPP identifies the trees to be removed to accommodate the proposed development, either because they are situated within the footprints of proposed structures or surfaces, or because in our judgment they are too close to these structures or surfaces to enable them to be retained. These are shown by means of **red crosses** on the TPP.

3.3.3. The TPP also shows how trees to be retained will be protected from damage during demolition and construction, and the measures identified are set out and described in the outline arboricultural method statement at **Appendix 2** of this report. The implementation of, and adherence to, these measures can readily be secured by the imposition of appropriate planning conditions.

3.3.4. Details of the impacts identified within these categories, and our assessment of their respective significance, are analysed in Sections 4 to 7 below.

3.3.5. Based on these findings, we have assessed the magnitude of the overall arboricultural impact of the proposals according to the categories defined in **Table 1** below.

Impact	Description
High	Total loss of or major alteration to main elements/ features/ characteristics of the baseline, post-development situation fundamentally different
Medium	Partial loss of or alteration to main elements/ features/ characteristics of the baseline, post-development situation will be partially changed
Low	Minor loss of or alteration to main elements/ features/ characteristics of the baseline, post-development changes will be discernible but the underlying situation will remain similar to the baseline
Negligible	Very minor loss of or alteration to main elements/ features/ characteristics of the baseline, post-development changes will be barely discernible, approximating to the 'no change' situation

Table 1: Magnitude of impacts⁵

⁵ Determination of magnitude based on DETR (2000) Guidance on the Methodology for Multi-Modal Studies, as modified and extended.

4. TREES TO BE REMOVED

4.1. Details

4.1.1. The veteran tree adjacent to the site is not to be removed to facilitate the proposed development.

4.1.2. To accommodate the proposed development, as shown on the proposed layout plan, 12 individual trees (nos. 61 - 63, 193 – 200 and 1752) are to be removed, either because they are situated within the footprints of proposed structures or surfaces, or because they are too close to these to enable them to be retained.

4.1.3. Details of the mature trees to be removed, including their dimensions, age class and British Standard categorisation, are shown and listed on the TPP and at **Table 2** below.

Tree no.	TPO No.	Species	Height	Trunk diameter	Age class	BS category
61	A2	Ash	20m	570mm 555mm	Mature	U
62	A2	Horse chestnut	19m	8 stems 400mm est.	Mature	C (2)
193		Wild cherry	15m	395mm	Mature	C (1)
194		Wild cherry	15m	390mm	Mature	C (1)
195		Wild cherry	15m	410mm	Mature	C (1)
196		Wild cherry	15m	375mm	Mature	C (1)

Table 2: Mature trees to be removed

4.1.4. Two groups of trees (G74 and G77) and one hedge (H8) are to be removed as part of the proposals.

4.2. Assessment

4.2.1. Two trees found within one of the main arboricultural features of the site will be removed; these are discussed below.

4.2.2. The ash tree no. 61 shows signs suggestive of advanced 'ash die-back

disease'. This being the case, its location adjacent to the proposed turning head would be inappropriate in the context of the development given the increased likelihood of dead limbs falling. Furthermore, the significantly reduced foliage density reduces its contribution to boundary screening as part of the surrounding group.



Photographs 1 and 2: View showing crown of ash tree (no. 61). Note extensive die-back at branch tips, suggestive of the presence of 'ash die-back disease'

4.2.3. The horse chestnut no. 62 is multi-stemmed from 1m above the base, with multiple acute unions showing external evidence of included bark. The drawn-up nature of these stems will lead to increasing stresses on these unions as the stems continue to grow in diameter and may lead to one or more failures. Aside from its location within the proposed turning head, it is advisable that this specimen be removed due to its structure rendering it inappropriate to be situated within a residential development.



Photographs 3 and 4: Showing acute unions between codominant stems on horse chestnut no. 62

4.2.4. Six of the trees to be removed are mature specimens of species of large ultimate size: all the other trees to be cleared are young, semi-mature or of small ultimate size. The significance of this is threefold. Firstly, for obvious reasons mature trees tend to be larger in size and therefore are likely to be more visible and to make a greater contribution to the landscape. Secondly, mature trees are more likely to have formed associations with wildlife and to support other flora or fauna (for example, young trees infrequently contain splits, cracks or cavities that might provide roosting sites for bats); and thirdly, mature trees have a significantly greater capacity than smaller trees to actively sequesterate and store carbon⁶.

4.2.5. Two of the individual trees to be removed are covered by a TPO (see 1.6.1 above); these are shown on the TPP and identified in **Table 2** above.

4.2.6. However, it should be noted that the presence of a TPO on a tree does not

⁶ Stephenson N. L., Das A. J., Zavala M. A. (2014) Rate of tree carbon accumulation increases continuously with tree size. *Nature*, volume 507.

mean that that specimen necessarily meets the criteria for a TPO: the tree may not have fully met the criteria for a TPO at the time it was made, the tree might have deteriorated since the time the TPO was made (this explains why one of these TPO trees is a category 'U' specimen), or its visibility or impact on the local landscape may have decreased since the time the Order was made. Furthermore, a tree that has been made the subject of a TPO is not, for this reason alone, worthy of protection⁷. A tree should be protected by a TPO if it is of amenity value; it does not acquire value or additional value merely because it has been protected.

4.2.7. Current Planning Practice Guidance states (paragraph 007) that TPOs should be used to protect selected trees and woodlands if their removal would have “a significant negative impact on the local environment and its enjoyment by the public.” In this case, the small number of TPO trees to be removed in comparison with the number of mature trees, groups and woodlands to be retained will not result in a significant negative impact on the local environment, and that the fact they are covered by a TPO should not be given any additional weight in considering the magnitude of the arboricultural impacts of this scheme.

4.2.8. The categorisation method in the British Standard Recommendations 5837:2012 is designed to provide an easy to understand way of classifying the quality and landscape and cultural value of trees, to allow informed decisions to be made concerning which might be retained or be removed in a development context⁸. However, whatever category is accorded to trees, this does not mean that those trees must, on that basis alone, be retained or removed. The Standard does not recommend that all category 'A' or 'B' trees must be retained; nor does it state that the acceptability in planning terms of proposed tree removals should be considered on the basis of category. More properly, such considerations should be based on planning policy.

4.2.9. The wild cherry trees nos. 193 – 196 are situated either in the footprint of, or in close proximity to, a proposed dwelling. These mature trees form a closely-packed

⁷ *Robinson v East Riding of Yorkshire Council* [2003]

⁸ British Standard BS 5837:2012. Trees in relation to design, demolition and construction – Recommendations; para. 4.5.2.

group within the interior of the site, resulting in the specimens presenting a drawn-up character due to mutual suppression. Their location means that they are obscured in the majority of views from the public realm, most notably from Buttenshaw Avenue to the west by the large English oaks nos. 181 and 185, and the copper beech no. 184. Furthermore, this species is known to have a short life expectancy (seldom exceeding more than approximately 50 years), and therefore the contribution of these specimens to the arboricultural character of the site can be considered short-term when compared to that of the main arboricultural features.

4.2.10. Nine of the twenty-seven category 'C' trees on site are to be removed: these are either of low quality, low value, or short-term potential. For these reasons, their removal will have no significant impact on the character or appearance of the area.

4.2.11. The two category 'U' trees to be removed are unsuitable for retention, irrespective of the proposed development, in that they cannot realistically be retained for longer than 10 years.

4.2.12. Furthermore, the proposals incorporate considerable replacement tree planting. This will mitigate the proposed removals, improve the age class balance of the trees on site, enhance the local landscape, and re-establish a framework for the ongoing and long-term character of the site.

4.2.13. In the light of these considerations, and taking account of the numbers, sizes and locations of the trees to be retained, including those that are off-site, the felling of the trees and groups identified for removal will represent only a minor alteration to the main arboricultural features of the site.

5. TREES TO BE PRUNED

5.1. Details

5.1.1. Two trees to be retained are to be pruned to facilitate implementation of the proposals. These are shown at **Table 3** below.

Tree no.	Species	Age class	Proposed works
64	Western red cedar	Mature	Cut back eastern canopy extent by up to 1.5m, cutting no closer than 4.5m from trunk and leaving wounds no greater than 100mm
187	English oak	Mature	Cut back western canopy extent by up to 2m, cutting no closer than 9.5m from trunk and leaving wounds no greater than 100mm

Table 3: Trees to be pruned to facilitate development

5.2. Assessment

5.2.1. None of the trees to which pruning is required are of species that are intolerant of this because they are poor at compartmentalising wounds or because their wood decays quickly, so pruning is unlikely to lead to significant dieback or the formation of columns of decay.

5.2.2. Whilst the two the trees to be pruned are mature, they are both of average physiological condition. Accordingly, they should be able to tolerate the number and sizes of the proposed pruning wounds, and to compartmentalise these effectively.

5.2.3. The extent of pruning proposed to the trees listed in **Table 3** is minor. In no cases will the diameter of the final cut need to exceed one-third of that of the parent stem or branch; and in no cases will the total cross-sectional area of all the cuts that need to be made exceed one-third of that of the main trunk, measured at 1.5m above ground. Branches to be removed from each tree are mostly small in size and will result in a maximum wound size no greater than 100mm in diameter; this will have an insignificant effect on the health and physiological condition of these trees and complies with the recommendations at paragraph 7.2.4 and at Table 1 of British Standard BS 3998:2010, *Tree work – Recommendations*.

5.2.4. The pruning back of trees nos. 64 and 187 is consistent with the Common Law legal right to cut un-protected off-site trees back to one's boundary. Consequently, these works are not required just because of the proposed development: subject to

LPA consent they could legally be undertaken irrespective of this scheme and could be repeated whatever the future use of the site. Indeed, there is clear evidence that tree no. 64 has already been cut back in the past.

5.2.5. In terms of impact upon the landscape, the proposed pruning is minor in extent and will be largely screened in views by either the remainder of the trees' canopies, or by other trees growing within or adjacent to the site. It will have a negligible effect on the appearance of the trees when viewed from outside the site itself and accordingly will not detract from the character or appearance of the local area.

5.2.6. Following the pruning specified, none of the proposed dwellings will lie within 2.5m of the extents of the canopies of trees to be retained, thereby providing adequate working space for construction, and a reasonable margin of clearance for future growth.

6. ROOT PROTECTION AREA INCURSIONS

6.1. Details

6.1.1. To ascertain whether the proposals will cause any significant harm to the roots or the rooting environments of the trees to be retained, we have calculated the root protection areas ('RPAs') of these specimens, in accordance with the criteria set out in section 6 of the British Standard BS5837:2012. The RPA is defined in this document as a **"layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability; and where the protection of the roots and soil structure is treated as a priority"**.⁹

6.1.2. Consequently, a tree within the RPA of which no disturbance will occur can be regarded as one that will not suffer any significant or long-lasting harm because of the proposals and will therefore remain 'viable'. However, as the Standard makes clear¹⁰, some disturbance within its RPA does not mean that a tree will necessarily suffer significant harm or cease to be viable; this will depend on several factors, including the extent and nature of the disturbance; the age, species and physiological condition of the tree; the morphology, disposition and depth of the roots; the type and structure of the soil; and the extent of mitigation measures undertaken. Accordingly, an assessment of these criteria may mean that an RPA incursion can be justified.

6.1.3. Parts of the proposed dwellings and hard surfacing will encroach within the RPAs of three of the trees to be retained. These are shown in **Table 4** below.

⁹ British Standard BS 5837:2012. Trees in relation to design, demolition and construction – Recommendations; para. 3.7.

¹⁰ Ibid., para 5.3.1.

Tree no.	Species	Incursion by:	Total RPA	Extent of incursion into RPA	% of RPA
58	Sycamore	Proposed turning head Footing for proposed brick wall	619.6m ²	12.9m ²	2.1%
59	Sycamore	Footing for proposed brick wall	57.0m ²	2.2m ²	3.8%
60	Sweet chestnut	Proposed turning head Footing for proposed brick wall	264.7m ²	42.9m ²	16.2%
64	Western red cedar	Proposed turning head Footing for proposed brick wall	363.2 m ²	44.9 m ²	12.4%
181	English oak	Proposed bin collection point Footing for proposed brick wall	706.9m ²	18.4m ²	2.6%
184	Copper beech	Proposed driveway	416.9m ²	0.7m ²	0.2%
187	English oak	Proposed dwelling foundation	494.0m ²	3.5m ²	0.7%

Table 4: Proposed incursions within RPAs

6.2. Assessment

6.2.1. There will be no development within the RPAs (or 'buffer zone') of the veteran tree no. 185.

6.2.2. The incursions by parts of the proposed dwellings or other structures into the RPAs of the six trees listed at **Table 4** equates to no more than 16.2% of individual RPAs. Any potential adverse impacts can be satisfactorily mitigated as set out below and shown at **Table 5**.

Tree no.	Species	Incursion	Proposed mitigation
58	Sycamore	Proposed turning head Footing for proposed brick wall	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant
59	Sycamore	Footing for proposed brick wall	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant
60	Sweet chestnut	Proposed turning head Footing for proposed brick wall	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant
64	Western red cedar	Proposed turning head Footing for proposed brick wall	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant
181	English oak	Proposed bin collection point Footing for proposed brick wall	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant
184	Copper beech	Proposed driveway	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant
187	English oak	Proposed dwelling foundation	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant

Table 5: Proposed mitigation of RPA incursions

6.2.3. The majority of tree species impacted by incursions into their RPAs have been identified as good to moderate at tolerating root pruning and disturbance¹¹, as shown in **Table 6**. As these specimens are of average physiological condition, there is no reason to suggest that they will not be able to tolerate the cutting of roots within these small sections of their RPAs.

6.2.4. The western red cedar no. 64, which belongs to a species identified as poor to moderate at tolerating disturbance, is of average physiological condition. The open area of soft landscaping to the west also provides ample space conducive to new root growth and therefore there will be no net loss in suitable rooting area for the tree. As this tree can remain viable by being able to root in other areas, contiguous to its RPA, and the soil environment on the site-side of the boundary in which it is rooting can be improved, these incursions comply with paragraph 5.3.1 of BS5837.

6.2.5. The one specimen belonging to a species identified as displaying poor tolerance (the copper beech no. 184) is also of average physiological condition. Furthermore, the proposed incursion of 0.7% represents a sufficiently small portion of its RPA as to be considered incapable of causing significant harm to the tree.

Species	Tolerance
Sweet chestnut	Good
Sycamore	Moderate
Oak	Moderate
Western red cedar	Poor to moderate
Beech	Poor

Table 6: Species tolerance to root pruning and disturbance

6.2.6. The areas lost to encroachment within the RPAs of the trees nos. 58, 59, 60 and 64 can be compensated for in the areas to the north-west of the trees, where there is an extensive area of soft landscaping suitable for root growth, contiguous to the RPAs. At present, there is likely to be significant rooting within this area, and as it is to remain as soft landscape, root growth can continue in the future. Therefore, there will

¹¹ MATHENY, N. P. and CLARK, J. R. (1998). Trees and Development. International Society of Arboriculture.

be no net loss of suitable rooting area, and no foreseeable risk of future cumulative impacts, so there is no reason to suggest that they will not be able to tolerate the cutting of roots within these small sections of their RPAs or that they will not remain viable.

6.2.7. Furthermore, within the site boundary the opportunity exists for the soil used by these trees for root growth to be improved. Subject to proposed landscaping, the soil and rooting environments within the RPAs of these specimens could be enhanced to promote improved root growth by de-compaction, aeration fertilisation or mulching, as appropriate, and this can be ensured by condition. Specifically, within this site there remain a number of concrete foundations from previous development which currently present rooting barriers to many of the trees both inside and outside the site boundary. By the proposed removal of these, under appropriate arboricultural supervision, the development provides an opportunity to improve the rooting environments for many of the trees constituting the main arboricultural features of the area.

6.2.8. Any excavations for proposed boundary treatments which cross into the RPAs of trees shall be carried out under arboricultural supervision. Brick walls shall be erected upon a pile and pre-cast concrete plinth foundation, or equivalent system to be determined, and posts for panel fencing shall be dug by hand.

6.2.9. Implementation of measures to prevent other incursions into the RPAs of retained trees and to protect them during demolition and construction can be assured by the erection of appropriate protective fencing and the installation of ground protection, as shown on the TPP at **Appendix 4**.

6.2.10. Accordingly, subject to implementation of the above measures, and considering the ages, current physiological condition and tolerance of disturbance of these retained trees, no significant or long-term damage to their root systems or environments will occur as a result of the proposed development.

7. RELATIONSHIP OF RETAINED TREES TO NEW DWELLINGS

7.1. Shading and apprehension

7.1.1. The fenestration of the main habitable rooms (living rooms, kitchens) of two of the proposed dwellings directly face trees within whose shadow patterns they would be situated. That is, they are sited in an arc between the north-west and the east of these trees and are closer to them than the current heights of these specimens.

- the dwelling in Plot 1 is located within the shadow pattern of tree no. 64
- The dwelling and garden in Plot 4 are located within the shadow pattern of the trees in group G76

7.1.2. The question of whether trees should be included in calculations of daylighting is addressed in the Building Research Establishment guide¹², which states that normally, **“trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building.”**

7.1.3. The outline application (ref: O/2014/2280) was granted for approval by the LPA in April 2015. This included provision for dwellings within the bounds of Parcel S. The arboricultural character of the parcel itself and the surrounding area would have been a material consideration in this decision, and as such potential shading and apprehension caused by any proposed dwellings on the site should reasonably be considered with the same approach. Nevertheless, these plots have been located so as to minimise any impact. They have been designed to be open-plan where practicable, with the largest window sizes possible. As the dwellings are located close to extensive areas of public open space, new residents will not be restricted in finding sunlight and shade as desired.

7.2. Future requests for consent to fell

¹² Littlefair, P. J., *op. cit.*

7.2.1. Former government advice, contained in the DETR “Blue Book”¹³, stated at paragraph 5.11 (1) (ii) that “incoming occupiers of properties will want trees to be in harmony with their surroundings without casting excessive shade or otherwise unreasonably interfering with their prospects of reasonably enjoying their property. Layouts may require careful adjustment to prevent trees from causing unreasonable inconvenience, leading inevitably to requests for consents to fell.”¹⁴

7.2.2. Whilst this document was superseded in March 2014 by online government guidance on ‘Tree Preservation Orders and trees in conservation areas’ (www.gov.uk), this is sound advice. This suggests that for there to be requests for removal, all the following elements should be capable of being demonstrated:

- That the proximity of retained trees to the proposed development is unreasonable, taking account of their size, species, orientation, growth and other relevant factors;
- That requests for consent to fell or unacceptably or repeatedly prune retained trees will inevitably be forthcoming from future occupiers, rather than merely being possible;
- That such future pressure will be for the felling or heavy pruning of the trees concerned, rather than for minor pruning or tree surgery work; and finally
- That such requests to fell or prune could not reasonably be refused by the LPA.

7.2.3. Given the above factors, the LPA could make a TPO prior to occupation so that any intention to prune would require a Regulation 14 tree work application¹⁵ to be submitted, giving the LPA control over the extent of pruning.

¹³ (2000) Department of the Environment, Transport and the Regions (2000). Tree Preservation Orders – A guide to the Law and Good Practice. *Building Research Establishment*

¹⁴ British Standard BS 8206: Part 2 (1992). *British Standards Institute*.

¹⁵ The Town and Country Planning (Tree Preservation)(England) Regulations 2012. Statutory Instrument 2012 No. 605.

8. CONCLUSIONS

8.1. Summary

8.1.1. Our assessment of the impacts of the proposals on the existing trees concludes that no veteran or notable trees, no category 'A' trees, and no trees of high landscape or biodiversity value are to be removed. None of the main arboricultural features of the site are to be removed. The proposed removal of individuals and groups of trees are little different from those approved at outline, will represent only a minor alteration to the main arboricultural features of the site, only a minor alteration to the overall arboricultural character of the site and will not have an adverse impact on the arboricultural character and appearance of the local landscape.

8.1.2. The proposed pruning is minor in extent, will not detract from the health or appearance of these trees, and complies with current British Standards.

8.1.3. The incursions into the Root Protection Areas of trees to be retained are minor, and subject to implementation of the measures recommended on the Tree Protection Plan and set out at **Appendix 1**, no significant or long-term damage to their root systems or rooting environments will occur.

8.1.4. None of the proposed dwellings or private gardens are likely to be shaded by retained trees to the extent that this will interfere with their reasonable use or enjoyment by incoming occupiers, which might otherwise lead to pressure on the Local Planning Authority to permit felling or severe pruning that it could not reasonably resist.

8.2. Compliance with national planning policy

8.2.1. As the proposals will retain all of the main arboricultural features of the site, its arboricultural attractiveness, history and landscape character and setting will be maintained, thereby complying with Paragraph 135 of the National Planning Policy Framework.

8.2.2. Whilst some trees are to be removed, there is no duty in planning policy to retain all existing trees in all circumstances. Paragraph 136 of the NPPF states (*italics*

added for emphasis): “**Planning policies and decisions should ensure... that existing trees are retained wherever possible**”; and thereby recognises circumstances in which it might not be possible to retain every tree. Accordingly, the proposed removal of trees does not mean that this application must thereby be refused; and does not mean it conflicts with this paragraph of the NPPF.

8.2.3. As the proposals will not result in the loss or deterioration of any ancient woodland or any ancient or veteran trees, they comply with paragraph 193 (c) of the NPPF.

8.3. Compliance with local planning policy

8.3.1. As the proposed development will not result in the removal of trees which form landscape features, it complies with Policy CP7 of the Wokingham Borough Council Core Strategy, and Policies CC03 and TB21 of the Managing Development Delivery Plan.

8.3.2. This report is to be read in conjunction with the survey schedule and tree protection plan (**Appendices 3 and 4**). Together these documents form a detailed arboricultural assessment of the Parcel S site and set out the impacts of the scheme in terms of tree removal, pruning, RPA incursions and shading impacts. This report sets out how retained trees will be protected from harm during the development and the outline AMS at **Appendix 1** adds further detail and specifications to these protection measures. Therefore, this report and accompanying TPP comply with Condition 15 of the outline planning permission (Ref: O/2014/2280).

8.3.3. Discharge of Condition 16 is not currently sought as further detail is needed regarding exact location of various elements of infrastructure. Application for discharge of Condition 16 will be sought separately once this detail is known.

8.3.4. There is one veteran tree present near the site (the off-site English oak no. 185). Due consideration has been given to the circular buffer zone with a radius of 15 times the trunk diameter (equating to 27.45m), with the closest proposed construction to take place 31m from the centre of the trunk. As this tree is located within the bounds of a separate parcel, a detailed tree management plan for this specimen shall be provided for any application concerning that parcel. There are no

proposed formal public open spaces or gardens within the allocated buffer zone. In view of this, this report and its appendices are sufficient to comply with Condition 17 of the outline planning permission.

8.4. Conclusion

8.4.1. On the basis of our assessment, we conclude that the arboricultural impact of this scheme is of low magnitude, as defined according to the categories set out in **Table 1** of this report.

APPENDIX 1

Methodology

A1.1. Tree survey and baseline information

A1.1.1. We surveyed individual trees with trunk diameters of 75mm and above¹⁶, growing within or immediately adjacent to the site; and recorded their locations, species, dimensions, ages, condition, and visual importance in accordance with BS 5837 recommendations.

A1.1.2. The baseline information collected during the site survey was recorded on site using a hand-held digital device. This information was then imported into an Excel spreadsheet and used to produce the tree survey schedule at **Appendix 3**. The numbers assigned to the trees in the tree survey schedule correspond with those shown on the appended tree protection plan.

A1.1.3. We surveyed trees as groups where they have grown together to form cohesive arboricultural features, either aerodynamically (trees that provide companion shelter), visually (e.g., avenues or screens) or culturally¹⁷. However, where it might be necessary to differentiate between specific trees within these groups, we also surveyed these individually.

A1.1.4. We inspected the trees from the ground only, aided by binoculars as appropriate, but did not climb them. We took no samples of wood, roots or fungi. We did not undertake a full hazard or risk assessment of the trees, and therefore can give no guarantee, either expressed or implied, of their safety or stability.

A1.1.5. Whilst we categorised the trees in accordance with BS 5837 (details of the criteria used for this process can be found in the notes that accompany the tree survey schedule), we assessed the trees' suitability for retention against national, regional and local planning policies. We applied this methodology in line with the NPPF's presumption in favour of sustainable development, giving greater weighting to the contribution of a tree to the character and appearance of the local landscape, to amenity, or to biodiversity, where its removal might have a significant adverse impact on these factors.

A1.2. Tree constraints

A1.2.1. In line with the NPPF's presumption in favour of sustainable development, we assessed whether any trees should be retained in the context of the proposed development / re-development. Our assessment of which trees might have to be retained, and which can be removed, is based on:

A1.2.2. whether any trees are classed as 'ancient' or 'veteran', and thereby are designated as 'irreplaceable habitats';¹⁸

¹⁶ BS 5837, paragraph 4.2.4 b), recommends that all trees over 75mm stem diameter should be included in a pre-planning land and tree survey.

¹⁷ Ibid., 4.4.2.3

¹⁸ The National Planning Policy Framework (NPPF) (December 2024). Paragraph 193 (c).

A1.2.3. which trees contribute to local character and history, including to the surrounding landscape setting; which trees contribute to biodiversity; and which trees help mitigate and adapt to climate change; and whose removal would thereby be unlikely to comply with national planning policy guidance;

A1.2.4. which trees are important to the local landscape, such that their removal would be contrary to local planning policies: specifically, Policy CC03 of the **Error! Reference source not found.**Core Strategy, as set out above; and

A1.2.5. our assessment of the trees' quality, value and remaining life expectancy, in accordance with BS5837:2012, as summarised in the notes that accompany the tree survey schedule.

A1.2.6. As trees growing outside the boundaries of the site are in the control of others, we have assumed they will be retained, irrespective of their size, age or condition.

A1.2.7. Whilst we have categorised trees in accordance with BS 5837, we have not used these categorisations as the main criterion of whether specimens might be removed or should be retained. Trees in categories 'A', 'B' and 'C' are all a material consideration in the development process; but the retention of category 'C' trees, being of low quality or of only limited or short-term potential, will not normally be considered necessary should they impose a significant constraint on development.

A1.2.8. Furthermore, BS 5837 makes it clear that young trees, even those of good form and vitality, which have the potential to develop into quality specimens when mature **"need not necessarily be a significant constraint on the site's potential"**¹⁹.

A1.2.9. Moreover, BS 5837 states that **".... care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal"**²⁰.

A1.2.10. The 'Root Protection Areas' (RPAs)²¹ of the trees identified for retention were calculated in accordance with Section 4.6 of BS 5837; and were assessed taking account of factors such as the likely tolerance of a tree to root disturbance or damage, the morphology and disposition of roots as influenced by existing site conditions (including the presence of existing roads or structures), as well as soil type, topography and drainage. Where considered appropriate, the shapes of the RPAs (although not their areas) were modified based on these considerations, so that they reflect more accurately the likely root distribution of the relevant trees.

A1.2.11. The British Standard BS 5837 calculates RPAs based on a standard 12 times trunk diameter. However, in our experience the response of trees to root

19 BS 5837, 4.5.10.

20 Ibid., 5.1.1.

21 Ibid., paragraph 3.7. "The minimum area around a retained tree "deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority."

severance or damage is not standard and tends to be less effective in the case of large mature specimens of species with a known intolerance of disturbance. Accordingly, where considered appropriate, we have increased the RPAs of such specimens by calculating them based on an increased factor of trunk diameter.

A1.2.12. To assess whether the trees identified for retention would be in a sustainable relationship with the proposed development (without casting excessive shade or otherwise unreasonably interfering with incoming residents' prospects of enjoying their properties, and thereby leading inevitably to requests for consents to fell), we plotted a segment or "shading arc" from each trunk, with a radius equal to the current height of the tree concerned, from due north-west to due east. This gave an indication of potential direct obstruction of sunlight and the shadow pattern cast through the main part of the day²².

A1.2.13. Based on these principles and recommendations, the tree survey and assessment of suitability for retention informed the production of a tree constraints plan (TCP) which indicates the most suitable trees for retention, and their associated below-ground and above-ground constraints.

A1.2.14. As a design tool, the TCP also indicates how close to those trees selected for retention the proposed development could be positioned, in terms of three key criteria:

- a). avoidance of unacceptable root damage;
- b). avoidance of the necessity for unacceptable pruning works; and
- c). avoidance of future felling or pruning works to prevent unacceptable shading or apprehension on behalf of the occupants.

A1.2.15. The TCP was then used to inform the siting of the proposed dwellings and areas of hard surfacing, about both of which we were consulted on several occasions during the design process. In this way, it has been ensured that the existing trees have made a significant contribution to the design of the proposed development, rather than the design having dictated which trees are to be removed.

²² Ibid., paragraph 5.2.2 Note 1.

APPENDIX 2

Outline Arboricultural Method Statement

A2.1. Tree Protection Plan

A2.1.1. The TPP at Appendix 4 shows the general and specific provisions to be taken during construction of the proposed development, to ensure that no unacceptable damage is caused to the root systems, trunks or crowns of the trees identified for retention. These measures are indicated by coloured notations in areas where construction activities are to occur either within, or in proximity to, retained trees, as described in the relevant panels on the drawing.

A2.2. Pre-start meeting

A2.2.1. Prior to the commencement of any site clearance, ground preparation, demolition or construction works the developer will convene a pre-start site meeting. This shall be attended by the developer's contract manager or site manager, the demolition contractor, the fencing/boarding contractor, the groundwork contractor(s) and the arboricultural consultant. The LPA tree officer will be invited to attend. If appropriate, the tree felling/surgery contractor should also attend. At that meeting contact numbers will be exchanged, and the methods of tree protection shall be fully discussed, so that all aspects of their implementation and sequencing are made clear to all parties. Any clarifications or modifications to the TPP required as a result of the meeting shall be circulated to all attendees.

A2.3. Site clearance

A2.3.1. No clearance of trees or other vegetation shall be undertaken until after the pre-start meeting and after the erection of the tree protection fencing (see below). If any vegetation clearance is required behind the line of the protection fencing this will be made clear at the pre-start meeting and arrangements will be made to do this prior to the fencing's erection, under the supervision of the arboricultural consultant, who will ensure it doesn't cause any soil compaction or damage to the roots of trees to be retained.

A2.3.2. Except where within the RPAs of trees to be retained, all trees and other vegetation to be removed may be cut down or grubbed out as appropriate; but within the RPAs of trees to be retained, trees and vegetation will be cut by hand to ground level and stumps will be either left in place or ground out with a lightweight self-powered stump grinding machine. No excavators, tractors or other vehicles will enter the RPAs.

A2.4. Ground preparation and demolition

A2.4.1. No ground preparation or excavation of any kind, including topsoil stripping or ground levelling, shall be undertaken until after the pre-start meeting and after the erection of the tree protection fencing (see below).

A2.4.2. Demolition of existing buildings and removal of existing areas of hard surfacing that abut or overlie RPAs will be undertaken with care, under the control and supervision of an appointed arboricultural consultant, to ensure that the adjacent soil is not unacceptably excavated, disturbed or compacted.

A2.5. Tree protection fencing

A2.5.1. Construction exclusion zones (CEZs) will be formed by erecting protective fencing around the RPAs of all on-site trees to the specification recommended in BS 5837, Section 6.2, prior to the commencement of construction. This will be at least 2.1m in height, comprising welded mesh panels; every other one braced with a 45° strut that is pinned to the ground; and seated in concrete or plastic bases pinned to the ground by scaffold uprights sunk to a minimum depth of 600mm, as shown in **Figure 3** of that document. Individual panels will be fixed to each other with at least two clamps, one of which will be a security clamp. "**TREE PROTECTION ZONE - KEEP OUT**" or similar notices will be attached with cable ties to every third panel.

A2.5.2. The RPAs of the off-site trees will also be enforced by the erection of protective fencing to the same specification, prior to the commencement of construction, thereby safeguarding them from incursions by plant or machinery, storage and mixing of materials, or other construction-related activities which could have a detrimental effect on their root systems.

A2.5.3. The recommended positions of the protective fencing are shown by **bold blue lines** on the TPP. The precise positioning of the fencing around the trees will be considered in conjunction with any other protective hoarding/fencing which may be required around the site boundary.

A2.5.4. Within the CEZs safeguarded by the protective fencing, there will be no changes in ground levels, **no soil stripping**, and no plant, equipment, or materials will be stored. Oil, bitumen, diesel, and cement will not be stored or discharged within 10m of any trees. Areas for the storage or mixing of such materials will be agreed in advance and be clearly marked. No notice boards, or power or telephone cables, will be attached to any of the trees. No fires will be lit within 10m of any part of any tree.

A2.6. Ground protection

A2.6.1. To allow space for construction and protection from soil compaction where proposed structures are in close proximity to RPAs of trees to be retained, the ground between the protective fencing and the footprints of the proposed structures will be covered by appropriate ground boarding, in accordance with the guidelines of Section 6.2.3.3 of BS 5837. The locations where these measures will be required are marked by **pink hatching** on the TPP.

A2.6.2. For purely pedestrian traffic, scaffold boards (or similar) will be used. Scaffold boards will comply with British Standard BS 2482: 2009 *Specification for timber scaffold boards* and be at least 225mm in width and 38mm thickness; they will be butted up and attached to each other with wooden battens or metal tie straps, and laid either on an above-ground scaffold framework, or secured to the ground with steel pins above a compressible material (a 75mm deep layer of woodchips may be appropriate) laid on top of a geotextile membrane of an appropriate specification.

A2.6.3. For wheeled or tracked traffic, ground boarding will be designed by a structural engineer, to take account of the type of soil and the likely loadings. Temporary aluminium roadway ('Trakway' or similar), interlocking plastic tread boards ('Ground-Guards' or similar), or reinforced concrete slabs may be appropriate. These will also be laid on top of a compressible material above a geotextile membrane.

A2.7. Manual excavation within RPAs

A2.7.1. The first 750mm depth of excavations required within the RPAs of the trees to be retained (as shown by **bold orange lines** on the TPP) will be dug by hand, using a compressed air soil pick if appropriate, and under on-site arboricultural supervision, to safeguard against the possibility of unacceptable root damage being caused to these specimens. Any roots encountered of over 25mm diameter will be cut back cleanly to the face of the dig nearest to the tree, using a sharp hand saw or secateurs, and their cut ends covered with hessian to prevent desiccation.

A2.8. Proposed hard surfaces within RPAs

A2.8.1. Unacceptable damage to the roots and rooting environments of the trees to be retained during the construction of proposed hard surfaces that encroach within RPAs will be avoided by building them above existing soil level, to avoid digging and thus severing of roots; and an appropriate ground covering will be used beneath the sub-base, to prevent or minimise compaction of the soil. This will be done in accordance with Section 7.4 of BS 5837. The locations where these measures will be required are marked by red **cross-hatching** on the TPP.

APPENDIX 3

Tree Survey Schedule



ARBORICULTURAL PLANNING CONSULTANTS

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(Operations)

Tree Survey Schedule

Parcel S, Arborfield, Berkshire

May 2025

SJA tss 25216-01

Tree Survey Schedule: Explanatory Notes

Parcel S, Arborfield, Berkshire

This schedule is based on a tree inspection undertaken by Tom Hovell of SJA trees (the trading name of Simon Jones Associates Ltd.), on Thursday the 1st May 2025. Weather conditions at the time were clear, dry and bright. Deciduous trees were in full leaf.

The information contained in this schedule covers only those trees that were examined, and reflects the condition of these specimens at the time of inspection. We did not have access to the trees from any adjacent properties; observations are thus confined to what was visible from within the site and from surrounding public areas.

The trees were inspected from the ground only and were not climbed, and no samples of wood, roots or fungi were taken. A full hazard or risk assessment of the trees was not undertaken, and therefore no guarantee, either expressed or implied, of their safety or stability can be given.

Trees are dynamic organisms and are subject to continual growth and change; therefore the dimensions and assessments presented in this schedule should not be relied upon in relation to any development of the site for more than twelve months from the survey date.

1. Tree no.

Given in sequential order, commencing at "56". Numbers correspond with previous survey work 21369-01 undertaken in April 2014.

2. TPO no.

Number assigned to tree in the Wokingham Borough Council Tree Preservation Order no. 1445/2012, as shown in the TPO schedule and plan.

3. Species.

'Common names' are given, taken from MITCHELL, A. (1978) A Field Guide to the Trees of Britain and Northern Europe.

4. Height.

Estimated with the aid of a hypsometer, given in metres.

5. Trunk diameter.

Trunk diameter measured at approx. 1.5m above ground level; or where the trunk forks into separate stems between ground level and 1.5m, measured at the narrowest point beneath the fork. Given in millimetres.

6. Radial crown spread.

The linear extent of branches from the base of the trunk to the main cardinal points, rounded up to the closest half metre, unless shown otherwise. For small trees with reasonably symmetrical crowns, a single averaged figure is quoted.

7. Crown break.

Height above ground and direction of growth of first significant live branch.

8. Crown clearance.

Distance from adjacent ground level to lowest part of lowest branch, in metres.

9. Age class.

Young: Seedling, sapling or recently planted tree; not yet producing flowers or seeds; strong apical dominance.

Semi-mature: Trunk often still smooth-barked; producing flowers and/or seeds; strong apical dominance, not yet achieved ultimate height.

Mature: Apical dominance lost, tree close to ultimate height.

Over-mature: Mature, but in decline, no crown retrenchment

Veteran: Mature, with a large trunk diameter for species; but showing signs of veteranisation, irrespective of actual age, with decay or hollowing, a crown showing retrenchment and a structure characteristic of the latter stages of life.

Ancient: Beyond typical age range and with a very large trunk diameter for species; with extensive decay or hollowing, a crown that has undergone retrenchment and a structure characteristic of the latter stages of life.

10. Physiology.

Health, condition and function of the tree, in comparison to a normal specimen of its species and age.

11. Structure.

Structural condition of the tree – based on both the structure of its roots, trunk and major stems and branches, and on the presence of any structural defects or decay.

Good: No significant morphological or structural defects, and an upright and reasonably symmetrical structure.

Moderate: No significant pathological defects, but a slightly impaired morphological structure; however, not to the extent that the tree is at immediate or early risk of collapse.

Indifferent: Significant morphological or pathological defects; but these are either remediable or do not put the tree at immediate or early risk of collapse.

Poor: Significant and irremediable morphological or pathological defects, such that there may be a risk of failure or collapse.

Hazardous: Significant and irremediable morphological or pathological defects, with a risk of imminent collapse.

12. Comments.

Where appropriate comments have been made relating to:

- Health and condition
- Safety, particularly close to areas of public access
- Structure and form
- Estimated life expectancy or potential
- Visibility and impact in the local landscape

13. Category.

Based on the British Standard "Trees in relation to design, demolition and construction - Recommendations", BS 5837: 2012; adjusted to give a greater weighting to trees that contribute to the character and appearance of the local landscape, to amenity, or to arboricultural biodiversity.

Category U: 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.

- (1) Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category 'U' trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).
- (2) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.
- (3) Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality.

Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years.

- (1) Trees that are particularly good examples of their species, especially if rare or unusual.
- (2) Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.
- (3) Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

Category B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

- (1) Trees that might be included in category 'A', but are downgraded because of impaired condition (e.g. presence of significant though remediable defects including unsympathetic past management and minor storm damage) such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category 'A' designation.
- (2) Trees present in numbers, usually growing as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals; or trees present in numbers but situated so as to make little visual contribution to the wider locality.
- (3) Trees with material conservation or other cultural value.

Category C: Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

- (1) Unremarkable trees of very limited merit or of such impaired condition that they do not qualify in higher categories.
- (2) Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary landscape benefits.
- (3) Trees with no material limited conservation or other cultural value.

TREE SURVEY SCHEDULE

Parcel S, Arborfield, Berkshire

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
56	1445/2012 A2	Sweet chestnut	19m	770mm 700mm	N 2.5m E 7m S 9m W 9m	E 4.5m	N 15m E 2m S 1.5m W 5m	Mature	Below average	Moderate	Off-site tree; twin stemmed from 1.3m with tensile union; epicormic growth on stems up to a height of 15m and throughout structure; wound on W side of trunk at 0.5m, L200mm x W20mm, almost fully occluded; above average dead wood in crown; readily visible from internal views but not visible from the public realm.	B (1)
57	A2 1445/2012	Sycamore	8m	370mm	N 5m E 1.5m S 2m W 5m	W 3m	W 3m	Semi-mature	Below average	Poor	Off-site tree; specimen has lost its top at 8m above ground level with significant die back and wood degradation; crown heavily suppressed by adjacent tree; should be removed for sound arboricultural management reasons; of low quality, of low landscape value, and of little potential.	U
58	1445/2012 A2	Sycamore	19.5m	1170mm ivy	N 8.5m E 6.5m S 9m W 6m	S 6.5m	N 8m E 6m S 6m W 11m	Mature	Average	Poor	Off-site tree; prominent buttress roots; cavity on NW side L500mm x W150mm, partially occluded, with heartwood exposed and showing moderate decay; trunk divides into 3 stems at 2.5m with acute unions and external evidence of included bark; heavily ivy-covered; slightly sparsely foliated; partially visible from Princess Marina Drive but mostly obscured by roadside specimens.	C (1)
59	A2 1445/2012	Sycamore	19m	355mm	N 4.5m E 4.5m S 2.5m W 2m	W 2.5m	3m	Semi-mature	Average	Poor	Drawn-up specimen with height/diameter ratio greater than 50: at risk of failure if companion shelter removed; suppressed crown as overtopped by adjacent specimens; of low quality; of moderate landscape value; of medium-term potential.	C (2)
60	1445/2012 A2	Sweet chestnut	19m	765mm	N 5m E 6.5m S 6.5m W 5.5m	W 2.5m	N 2m E 3m S 1.5m W 2.5m	Mature	Below average	Moderate	Single trunk specimen with established epicormic growth forming lower crown; above average dead wood throughout structure, with top 3m of crown being entirely dead; epicormic growth throughout structure; readily visible from internal views but obscured from public view by adjacent specimens.	C (1)
61	1445/2012 A2	Ash	20m	570mm 555mm	N 9.5m E 6m S 3.5m W 5m	N 10m	N 13m E 13m S 17m W 10m	Mature	Low	Indifferent	Twin-stemmed from 1m with acute union; above average deadwood in crown; die-back at branch tips consistent with "ash die-back disease".	U

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clear- ance	Age class	Physio - logy	Structure	Comments	Category
62	A2 1445/ 2012	Horse chestnut	19m	x8 stems 400mm	N 7.5m E 9m S 8m W 6m	N 3m	S 2m	Mature	Average	Poor	Multi-stemmed from 1m above ground level consistent with being a former pollard; stems mutually drawn up with tight compression forks and evidence of included bark; all liable to failure as stems increase in girth and size; all mutually drawn up; open and spreading crown; slightly suppressed on W by adjacent trees; of low quality; of moderate landscape value; of medium-term potential.	C (2)
63		Flowering cherry	8m	240mm	N 3m E 3m S 5m W 3m	W 4m	S 2.5m	Semi-mature	Average	Moderate	Single trunk; ornamental tree; of moderate quality and of medium-term potential; but of low landscape value.	C (1)
64		Western red cedar	15m	715mm 540mm	N 7.5m E 6.5m S 5m W 7.5m	E 3m	N 4m E 6m S 0.5m W 6m	Mature	Average	Indifferent	Off-site tree; no significant defects observed at base; twin-stemmed from 1m with acute union and external evidence of included bark; multiple historic pruning wounds of up to 80mmø on E side; visible from internal views and from Princess Marina Road and adjacent parkland to the N.	B (12)
65		Crack willow	13m	415mm 420mm	N 7m E 6m S 5m W 8.5m	W 2.5m	W 2m	Semi-mature	Average	Poor	Off-site tree; twin-stemmed from base; tight compression fork with evidence of included bark; asymmetrical crown as suppressed by adjacent specimens; of low quality; of moderate landscape value; of medium-term potential.	C (2)
66-67		Flowering cherry	5m 7m	150mm 245mm	N 3m E 4m S 4m W 6m from #67	N 3m	W 2m	Young	Average	Moderate	Off-site tree; single trunks; small ornamental trees; asymmetrical crowns as suppressed by adjacent specimens; of moderate quality and of medium-term potential; but of low landscape value.	C (1)
68		Western red cedar	13m	690mm	N 6m E 5.5m SE 7.5m S 4.5m W 7m	SE 2m	N 0.5m E 2m SE 2.5m S 1.5m W 0m	Mature	Average	Moderate	Off-site tree; no significant defects observed at base; large low limb extending SE; surrounded and suppressed by adjacent specimens; significant component of group in which it stands; glimpsed from Biggs Lane and Princess Marina Drive but mostly obscured by adjacent specimens.	B (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
69		Wild cherry	14m	360mm	N 5m E 4m S 5m W 5m	W 3m	2m	Semi-mature	Average	Moderate	Off-site tree; single trunk; many non-occluded pruning wounds on trunk; of moderate quality and of medium-term potential; but of low landscape value.	C (1)
70		Holly	10m	190mm 250mm	3m	E 2.5m	1.5m	Semi-mature	Average	Poor	Off-site tree; twin stemmed from base; tight compression fork with evidence of included bark; of low quality, of low landscape value, but of medium-term potential.	C (12)
71		Common lime	12.5m	295mm	N 4m E 3.5m S 4m W 3m	E 3m	2m	Semi-mature	Average	Moderate	Single trunk; of moderate quality and of long-term potential; but of low landscape value.	C (12)
72		Flowering cherry	8m	200mm	N 4m E 3m S 4m W 4.5m	E 2m	3m	Young	Average	Moderate	Off-site tree; single trunk; bud density appears normal; shoot extension growth appears normal; of moderate quality, but currently of low value due to small size; of moderate quality and of medium-term potential; but of low landscape value.	C (1)
73	1445/2012 A1	Beech	19.5m	630mm 380mm	N 6.5m E 4.5m S 9m W 8m	N 4m	N 4m E 8m S 5.5m W 2.5m	Mature	Average	Indifferent	Off-site tree; large surface root visible 1m SE from base; prominent buttress roots; twin stemmed from base with union not visible for inspection; hollow measuring L120mm x W60mm x D50mm at N side of base on dominant stem, heartwood exposed and lichen-covered but appears solid when investigated with probe; part of aerodynamic group with meshing crowns providing companion shelter with adjacent beech #74; readily visible from internal views and from Biggs Lane and Princess Marina Drive.	B (12)
74	1445/2012 A1	Beech	19.5m	565mm	N 6.5m E 6.5m S 9m W 4.5m	S 6m	N 5m E 4.5m S 8m W 10m	Mature	Average	Moderate	Off-site tree; prominent buttress roots; large amount of basal epicormic growth on E side, recently pruned; multiple historic pruning wounds on lower trunk consistent with crown raising, fully occluded; of form and habit typical of age and species; aerodynamic group with meshing crowns providing companion shelter with adjacent beech #73; readily visible from internal views and from Biggs Lane and Princess Marina Drive.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clear- ance	Age class	Physio - logy	Structure	Comments	Category
75	1445/ 2012 A1	English oak	15m	1395mm ivy	N 0m E 0m S 6.5m W 7.5m	S 5m	S 2m W 4.5m	Mature	Below average	Poor	Burrow hole on SE side at base; majority of crown historically removed, with remaining crown being on S and W sides and formed by established epicormic growth; woodpecker hole at 5m on S side; readily visible from internal views and Biggs Lane	C (12)
76		Ash	23m	455mm	N 4.5m E 5m S 4m W 4.5m	E 6m	6m	Semi- mature	Average	Poor	Drawn-up specimen with height/diameter ratio greater than 50: at risk of failure if companion shelter removed; single trunk; high crown; inessential component of group in which it stands; of low quality; of moderate landscape value; of long-term potential.	C (12)
77		Hawthorn	6m	230mm	N 2.5m E 2.5m S 2.5m W 2.5m	N 2.5m	2.5m	Semi- mature	Average	Indifferent	Off-site tree; decay at base; should be removed for sound arboricultural management reasons; inessential component of group in which it stands; of moderate quality but of low landscape value, and of short-term potential only.	C (1)
78	1445/ 2012 T28	English oak	9m	545mm ivy	N 7m E 5m S 5.5m W 7.5m	NW 3.5m	N 4m E 1m S 5m W 5m	Mature	Average	Moderate	No significant defects observed at base; heavily ivy-covered; tensile unions throughout crown, where visible; overtopped and suppressed by adjacent dominant oaks #79 & #187; visible from internal views but obscured from the majority of public views by adjacent specimens.	B (1)
79	1445/ 2012 T27	English oak	20m	900mm est.	N 8.5m E 10m S 12m SW 11.5m W 10m	N 7m	N 10m E 9m S 9m SW 13m W 8m	Mature	Average	Moderate	Off-site tree in adjacent private garden; large single trunk specimen; of form and habit typical of age and species; essential component of the group in which it stands; readily visible from Biggs Lane.	A (12)
177		Sycamore	17m	700mm est.	N 6.5m E 5.5m S 6m W 6.5m	W 3m	W 4m	Mature	Average	Indifferent	Off-site tree; twin-stemmed from 2m; bud density appears normal; readily visible in views from surrounding public places; of moderate quality and landscape value; of long-term potential.	B (12)
178- 179		Sycamore	16m	250mm est. 300mm est.	N 4m E 3m S 3m W 7m	W 4m	W 3m	Semi- mature	Average	Indifferent	Off-site trees; group of drawn-up, mutually suppressed specimens; inessential components of landscape; of moderate quality and of medium-term potential; but of low landscape value.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
180		Sycamore	7m	110mm 170mm 105mm	N 3m E 3m S 2m W 3m	N 1.5m	N 2m	Young	Average	Poor	Small self-seeded specimen; multi-stemmed from base; specimen of poor form; inessential component of landscape; of low quality, of low landscape value, but of medium-term potential.	C (12)
181	1445/ 2012 T11	English oak	22m	1375mm ivy	N 11m E 12m S 13m W 10.5m	S 4.5m	N 8.5m E 6.5m S 7m W 7m	Mature	Average	Moderate	Prominent buttress roots; historically ivy covered, now severed but dead creepers remaining; minor epicormic growth on lower trunk; tensile unions throughout crown, where visible; foliage of average size, density and colour; of form and habit typical of age and species; essential component of the group in which it stands; prominent from internal views and glimpsed from Buttenshaw Avenue.	B (1)
182		Hawthorn	7m	165mm 200mm	N 3m E 3m S 3m W 2.5m	E 2.5m	N 2m	Semi-mature	Average	Indifferent	Tight compression forks with evidence of included bark; inessential component of landscape; of moderate quality and of medium-term potential; but of low landscape value.	C (1)
183		Flowering cherry	3.5m	120mm	N 3m E 3m S 3m W 2.5m	N 3m	2m	Young	Average	Indifferent	Storm damage in crown; inessential component of landscape; of moderate quality and of medium-term potential; but of low landscape value.	C (1)
184	1445/ 2012 T12	Copper beech	23m	960mm	N 7m E 8m S 7.5m W 10.5m	W 8m	N 10m E 10m S 8m W 7m	Mature	Average	Indifferent	No significant defects observed at base; twin-stemmed from 4.5m with acute union and external evidence of included bark; rest of structure comprises tensile unions where visible; of form and habit typical of age and species; foliage of average size, density and colour; essential component of the group in which it stands; prominent from internal views and glimpsed from Buttenshaw Avenue.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
185	T10 1445/ 2012	English oak	25m	1830mm	N 11.5m NE 12m E 11m SE 11.5m S 9.5m SW 12m W 9.5m NW 11.5m	N 6m	N 6m E 5m	Veteran	Average	Indifferent	Off-site tree; prominent buttressing with cavity noted at buttress cleft on SE side, possible animal burrow heartwood internally exposed however of no major significance to structure of tree; single trunk covered in ivy from ground level to mid crown obscuring a view of the upper trunk and scaffolding branches; epicormic growth on lower and mid trunk; some dieback in upper crown possible signs of retrenchment, storm damage and crown reduction works noted throughout; a significant arboricultural feature in this section of the site being readily visible from the surrounding public places and residential properties that lie to SW and N; of moderate quality and cultural value; of high landscape value and of long-term potential.	A (2)
186	1445/ 2012 T24	English oak	13m	700mm est.	N 7m E 7m S 6m W 9m	E 3.5m	W 8.5m	Mature	Average	Moderate	Full basal inspection prevented by boundary fence; of form and habit typical of age and species; suppressed on W side by lower quality specimens in G77; significant component of group in which it stands; readily visible from internal views but not visible from the public realm.	B (12)
187	1445/ 2012 T26	English oak	19m	1045mm ivy	N 9m E 10.5m S 8m W 12.5m	NE 5m	N 13m E 9m S 13m W 5m	Mature	Average	Moderate	Good quality single trunk specimen; no significant defects observed at base; ivy-covered near ground; tensile unions throughout crown, where visible; foliage of average size, density and colour; essential component of the group in which it stands; crown glimpsed from Biggs Lane but mostly obscured by adjacent and roadside specimens.	B (1)
193- 196		Wild cherry	15m	395mm 390mm 410mm 375mm	N 6m E 7.5m S 7.5m W 5m	2m	2m	Mature	Average	Indifferent	Aerodynamic group with meshing crowns providing companion shelter; group of drawn-up, mutually suppressed specimens; visible from rear gardens of residential properties to the N and S; of moderate quality and of long-term potential; but of low landscape value.	C (1)
197		Wild cherry	16m	440mm	N 5m E 5m S 5m W 5m	2.5m	1.5m	Semi- mature	Below average	Poor	Fungal fruiting bodies on base of trunk consistent with <i>Ganoderma</i> sp. located to the S and E, measuring 180mm by 100mm and 160mm by 90mm respectively; another fungal fruiting body consistent with <i>Ganoderma</i> species located on E side at 1.5m measuring 100mm by 90mm; trunk sounded with acoustic mallet and varying tones noted indicating extensive decay in trunk; of low quality, of low landscape value, and of little potential.	U

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
198		English oak	18.5m	445mm	N 5m E 5m S 6.5m W 6.5m	3m	3m	Semi-mature	Average	Moderate	Single trunk, ivy covered trunk to 4m; visible from rear gardens of residential properties to N and S; of moderate quality and landscape value; of long-term potential.	B (12)
199		Common lime	15m	390mm	N 4.5m E 4m S 5m W 5m	2m	1m	Semi-mature	Average	Indifferent	Twin stemmed at 2m with tight compression fork with included bark; visible from rear gardens of residential properties to N and S; of moderate quality and of long-term potential; but of low landscape value.	C (1)
200		Common lime	12m	340mm	N 5m E 5m S 4m W 5m	2m	2m	Semi-mature	Average	Moderate	Single trunk; visible from rear gardens of residential properties to N and S; prominent buttress roots, with mechanical wounding; of moderate quality and of long-term potential; but of low landscape value.	C (1)
1752		Wild cherry	14m	355mm	N 5m E 4m S 5.5m W 5.5m	2m	1.5m	Semi-mature	Average	Moderate	Single trunk; above average dead wood in crown; visible from rear gardens of residential properties to N and S; of moderate quality and of long-term potential; but of low landscape value.	C (1)
1754		Ash	10m	450mm est.	N 3m E 3m S 7m W 8.5m	S 2.5m	N 8m E 8m S 6m W 5m	Semi-mature	Low	Indifferent	Full basal inspection prevented by boundary fence; die-back at branch tips consistent with "ash die-back disease".	U
1755	1445/2012 T22	English oak	16m	450mm est.	N 4.5m E 6m S 5.5m W 5m	N 5.5m	N 6m E 4m S 11m W 11m	Semi-mature	Average	Moderate	Full basal inspection prevented by boundary fence; heavily ivy-covered; drawn-up and mutually suppressed; essential component of the group in which it stands; prominent from internal views but not visible from the public realm.	B (1)
1756	1445/2012 T23	English oak	15.5m	1000mm est.	N 6m E 9m S 10.5m W 9.5m	NW 4m	N 11m E 7m S 5m W 5.5m	Mature	Average	Moderate	Off-site tree; full basal inspection prevented by dense vegetation and boundary fence; tensile unions throughout crown; single trunk specimen; of form and habit typical of age and species; essential component of the group in which it stands; prominent from internal views; crown glimpsed from Biggs Lane but mostly obscured by adjacent and roadside specimens.	B (1)
G74		Various	Max. 14m	Up to x6 stems 400mm	N 7m E 6.5m S 7m W 6m	N 1m	1m	Semi-mature	Average	Indifferent	Species comprise goat willow and sycamore; multi-stemmed from base; inessential component of landscape; of moderate quality and of medium-term potential, but of low landscape value.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
G75		Sycamore	Max. 8m	Max. 195mm	N 2m E 3m S 2m W 3m	E 1m	1m	Young	Average	Indifferent	Off-site group of trees; group of small self-seeded specimens; drawn-up and mutually suppressed; of moderate quality and of medium-term potential; but of low landscape value.	C (1)
G76		Various	Up to 21m	Up to est. 500mm	6m	2m N	3m N	Semi-mature	Average	Moderate	Off-site group of trees; species comprise beech and Scots pine; collection of trees aerodynamically forming a group with intermeshing crowns providing screening at this location between the residential properties that lie to the S; of moderate quality and landscape value; of long-term potential.	B (12)
G77		Leyland cypress	Avg. 11m	Max. 320mm Avg. 250mm	3.5m	0.5m	0.5m	Semi-mature	Average	Indifferent	Row of closely planted specimens, designed to form a hedge or screen; some specimens show acute unions; of limited landscape value and suppressing higher quality specimens to the east; readily visible from internal views but not visible from the public realm.	C (1)
G245		Various	Max. 15m Avg. 10m	Max. 425mm Avg. 200mm	4m	0.5m	0.5m	Mature	Average	Indifferent	Off-site group of trees in N section of site, on boundary with adjacent park land; species comprise Western red cedar, common lime, wild cherry and holly; densely packed, with interlocking crowns; provides boundary screening between site and adjacent park land; readily visible from Princess Marina Drive.	B (2)
H7		Beech	Max. 4m	Max. 95mm	1m	N 0.25m	0.25m	Young	Average	Indifferent	Row of closely growing specimens, forming a hedge or screen; of moderate quality and of medium-term potential, but of low landscape value.	C (1)
H8		Hawthorn	Max. 7m	Max. 100mm	3m	N 1m	0.5m	Young	Average	Indifferent	Row of closely growing specimens, forming a hedge or screen; of moderate quality and of medium-term potential, but of low landscape value.	C (1)

Root Protection Areas (RPAs)

Root Protection Areas have been calculated in accordance with paragraph 4.6.1 of the British Standard 'Trees in relation to design, demolition and construction – Recommendations', BS 5837:2012. This is the minimum area which should be left undisturbed around each retained tree. RPAs are portrayed initially as a circle of a fixed radius from the centre of the trunk; but where there appear to be restrictions to root growth the circle is modified to reflect more accurately the likely distribution of roots.

Tree No.	Species	RPA	RPA Radius
56	Sweet chestnut	489.9m ²	12.5m
57	Sycamore	61.9m ²	4.44m
58	Sycamore	619.3m ²	14.0m
59	Sycamore	57.0m ²	4.26m
60	Sweet chestnut	264.7m ²	9.2m
61	Ash	286.3m ²	9.5m
62	Horse chestnut	579.1m ²	13.58m
63	Flowering cherry	26.1m ²	2.88m
64	Western red cedar	363.2m ²	10.8m
65	Crack willow	157.7m ²	7.09m
66-67	Flowering cherry	10.2m ²	1.8m
		27.2m ²	2.94m
68	Western red cedar	215.4m ²	8.3m
69	Wild cherry	58.6m ²	4.32m
70	Holly	44.6m ²	3.77m
71	Common lime	39.4m ²	3.54m
72	Flowering cherry	18.1m ²	2.4m
73	Beech	244.9m ²	8.8m
74	Beech	144.4m ²	6.8m
75	English oak	706.9m ²	15.0m
76	Ash	93.7m ²	5.46m
77	Hawthorn	23.9m ²	2.76m
78	English oak	134.4m ²	6.5m
79	English oak	366.4m ²	10.8m
177	Sycamore	221.7m ²	8.4m
178-179	Sycamore	28.3m ²	3.0m
		40.7m ²	3.6m
180	Sycamore	23.5m ²	2.74m
181	English oak	706.9m ²	15.0m
182	Hawthorn	30.4m ²	3.11m
183	Flowering cherry	7.1m ²	1.5m
184	Copper beech	416.9m ²	11.5m
185	English oak	706.9m ²	15.0m
186	English oak	221.7m ²	8.4m
187	English oak	494.0m ²	12.5m
193-196	Wild cherry	70.6m ²	4.74m
		68.8m ²	4.68m
		76.0m ²	4.92m
		63.6m ²	4.5m
197	Wild cherry	87.6m ²	5.28m
198	English oak	89.6m ²	5.34m
199	Common lime	68.8m ²	4.68m
200	Common lime	52.3m ²	4.08m
1752	Wild cherry	57.0m ²	4.26m

1754	Ash	91.6m ²	5.4m
1755	English oak	91.6m ²	5.4m
1756	English oak	452.4m ²	12.0m
G74	Various	72.4m ²	4.8m
G75	Sycamore	17.2m ²	2.34m
G76	Various	113.1m ²	6.0m
G77	Leyland cypress	46.3m ²	3.84m
G245	Various	81.7m ²	5.1m
H7	Beech	7.1m ²	1.5m
H8	Hawthorn	7.1m ²	1.5m

APPENDIX 4

Tree Protection Plan

Arboricultural Impacts: Summary
(For details, see below)

Impact	No. of Trees
Trees to be removed	12
Groups of trees / hedgerows to be removed	3
TPO trees to be removed	1
Trees to be pruned	2
Trees where supervised demolition needed within RPAs	8
Trees where manual excavation needed within RPAs	8
Trees where above soil surfacing needed within RPAs	0
Trees with proposed underground services within RPAs	0

Trees to be Removed

No	Species	Category
61	Ash	U
62	Horse chestnut	C
63	Flowering cherry	C
193	Wild cherry	C
194	Wild cherry	C
195	Wild cherry	C
196	Wild cherry	C
197	Wild cherry	U
198	English oak	B
199	Common lime	C
200	Common lime	C
1752	Wild cherry	C
G74	Various	C
G77	Leyland cypress	C
H8	Hawthorn	C

Total numbers of trees to be removed

Category	No. of trees	Category	No. of trees
A	0	B	1
C	11	U	2

Trees to be pruned

No.	Species	Works (Outline only)
64	Western red cedar	Cut back E canopy extent by up to 1.5m, leaving no closer than 4.5m from trunk and leaving wounds no greater than 100mm diameter
187	English oak	Cut back W canopy extent by up to 2m, cutting no closer than 9.5m from trunk and leaving wounds no greater than 200mm diameter

Pruning is to be undertaken in accordance with the British Standard Recommendations for Tree work, BS3998: 2010. Climbing irons or spikes are not to be used whilst pruning trees.

Trees that require manual excavation within RPAs

No.	Species	Type of structure
58	Sycamore	Proposed turning head
59	Sycamore	Proposed brick wall
60	Sweet chestnut	Proposed turning head
64	Western red cedar	Proposed turning head
181	English oak	Proposed bin collection point
184	Copper beech	Proposed driveway
187	English oak	Proposed dwelling foundation
G76	Various	Proposed dwelling foundation

Trees that require supervised demolition within RPAs

No.	Species	Type of structure / surface
64	Western red cedar	Foundation
66	Western red cedar	Foundation
73	Beech	Foundation
74	Beech	Foundation
75	English oak	Foundation
181	English oak	Foundation
184	Copper beech	Foundation

SJA Trees to be pruned to specification in inset panel

Excavation for proposed hard surfacing to be undertaken manually, under arboricultural supervision; see inset panel

Demolition of any extant hard surfacing from previously installed portakabins to be undertaken manually and under arboricultural supervision

Erection of wall to take place at the end of construction, after protective fencing has been removed

Excavation for proposed foundations to be undertaken manually, under arboricultural supervision; see inset panel

