Arboricultural Impact Assessment Report

June 2024

Land south of Ashford Road

Prepared by
CSA Environmental

On behalf of:
Gladman Developments Ltd

Report No: CSA/4509/14

CSA environmental

urban design | ecology | landscape | heritage

Summary table		
Site Name:	Land south of Ashford Road	
CSA Project reference:	4509	
Site Address:	Land south of Ashford Road, Sellindge	
Nearest Postcode:	TN25 6JX	
Central Grid Reference:	TR 09921 38232	
Local Planning Authority:	Folkestone and Hythe District Council	
Relevant planning policies:	Core Strategy Review 2022: CSD4 Green infrastructure of natural networks, open space and recreation; CSD9 Sellindge Strategy.	
Statutory Controls:	**Tree Preservation Order**	**Conservation Area**
	Folkestone and Hythe District Council Tree Preservation Orders TPO 03/1975 (Sellindge) and TPO 14/2018 (Land adjoining Grove House, Main Road, Sellindge).	No.
Soil Type: (Source: BGS online soils map © NERC 2019)	**Superficial/Drift**	**Bedrock**
	Deep to intermediate, moderately alkaline silt to silty loam and sandy loam to loam over Head – clay and silt.	Sandgate Formation sandstone, siltstone and mudstone.
Topographical Survey:	2019-070 Topo_01_2D (Sept 2019)	
Site Layout:	Development Framework Plan 4509_112_E	
Notes:	-	

Barton Hyett Associates
Arboricultural Consultants

Arboricultural Association
Professional Member
PR:179

Institute of Chartered Foresters
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REPORT CONTENTS:

Report reference	Date	Revision	Prepared by	Approved by	Comments
CSA/4509/14	26/09/2023	-	IM, Barton Hyett Associates Ltd	RC	First issue
CSA/4509/14	27/11/2023	A	IM, Barton Hyett Associates Ltd	RC	Update layout to Rev C
CSA/4509/14	17/06/2024	B	IM, Barton Hyett Associates Ltd	RC	Update layout to Rev E

1. Instruction

1.1. CSA Environmental was instructed by Gladman Developments Limited to survey trees located at Land south of Ashford Road ('the Site') in accordance with BS5837:2012 '*Trees in relation to design, demolition and construction - recommendations*'. This report has been prepared for CSA Environmental by Barton Hyett Associates Limited.

1.2. The Site occupies an area of c. 3 ha and is located around central grid reference TR 09921 38232, near the centre of the village of Sellindge and approximately 9.7 kilometres to the southeast of the town of Ashford in Kent.

1.3. Residential development is proposed at the Site, for which outline planning permission will be sought. Policy CSD9 Sellindge Strategy of the Core Strategy Review 2022 identifies the Site as 'Site A' for landscape-led development to create an improved village centre with a mix of uses.

1.4. The objective of this report is to assess the condition of the significant trees and woody vegetation and to provide sufficient information to inform the planning decision. A preliminary Arboricultural Impact Assessment (AIA) based on the development framework plan and the detailed access plan is provided.

2. Site description

2.1. The Site is located on the south side of Ashford Road (A20) in Sellindge, Kent and to the immediate west of Bulls Lane.

2.2. The Site is an agricultural field to the west of Grove House and a smaller paddock to the east. At the time of the survey, both were being used for grazing sheep. Grove House and its grounds are not within the Site but are located between the east and west portions of it.

2.3. A shared access drive from Ashford Road serves two low wooden gates into the Site - one on each side of the drive – as well as the entrance to Grove House. Bulls Lane is a narrow lane to the east which provides access to the south of the Site through a lift-off gate. Vehicular access further into the Site through this south entrance is obstructed by trees.

2.4. The northern Site boundary is demarcated by post-and-wire stock fencing and a low-quality hedgerow. Post-and-rail and post-and-wire stock fencing demarcate the boundaries of the east paddock and its boundary with Grove House and the Site's boundaries with the property Woodlands to the southeast. The southern Site boundary with adjoining fields is largely open where fencing has collapsed or is missing. The western boundary is of remnant hedgerow sections and post and wire stock fencing, and the boundary with the dwelling Fieldhead in the northeast is of a tightly clipped beech hedge within the neighbouring land.

2.5. Beyond the Site and Bulls Lane to the east is the recent residential development of St Katherine's Crescent. To the southeast is the dwelling of Woodlands and Rotherwood Farm, with open grazing and arable farmland to the southeast, south and west. The M20 motorway passes about 260 metres to the south of the Site.

2.6. The land is fairly level except for a slight land terrace in the north of the Site, and dry ditches along some field boundaries in the south. The highest point is in the southwestern corner, dropping very gently towards the north. A dry pond feature sits partially in the Site to the southwest of Grove House. It is marked on maps as a pond, but the stonewalling next to it suggests its possible historic use as a cart wash.

3. Statutory protection

3.1. A check was made using the Local Planning Authority's online web map facility on 26/09/2023. Many of the trees on Site are protected by Folkestone and Hythe District Council Tree Preservation Orders (TPOs): references, TPO 03/1975 (Sellindge) and TPO 14/2018 (Land adjoining Grove House, Main Road, Sellindge). The Site is not within a Conservation Area.

3.2. TPO 03/1975 protects one group (G1) of four ashes, one sycamore and two elms. As only two ashes and one sycamore are present today, the other two ashes and the elm have died or have been removed.

3.3. TPO 14/2018 protects 19 individual trees and eight groups of trees. The TPO plan was amended for accuracy before the TPO was confirmed, with those amended tree locations shown as red on the TPO plan.

3.4. A copy of each TPO is included in **Section 9** for reference, and the subject trees are referenced accordingly within the tree survey schedule in **Section 5**.

4. Tree survey findings

4.1. This survey is not a tree safety inspection. It has been undertaken to inform the planning process. However, where clear and obvious hazards have been observed, these have been identified in the tree survey schedule in **Section 5** and appropriate recommendations made.

4.2. The Site was originally surveyed in 2019 and the survey was updated in 2023. Five trees (T10, T16, T17, T40 & T54) have been felled since since the initial survey. Trees T16 and T17 were already dead in 2019. Sycamore T11 has been coppiced and a replacement tree (T11a) planted).

4.3. A total of 71 trees, 20 groups of trees and 10 hedgerows were surveyed in 2023. These are summarised in terms of their quality in accordance with the recommendations of BS5837 below. The survey data are shown in more detail on the tree survey and constraints plan BHA_636_01A (**Section 2**) provided at 1:1000 scale when printed at A2 size, and within the tree survey schedule (**Section 5**). Explanatory notes about the survey and categorisation process within BS 5837 are set out in **Section 6**.

Table 1. Summary of arboricultural categories present.

	Total	A - High quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	**71**	7	48	13	3
Groups	**20**	1	15	3	1
Hedgerows	**10**	-	6	4	-
Total	**101**	**8**	**69**	**20**	**4**

5. Arboricultural Considerations

5.1. There are 7 trees which have been assigned Category A due to their high arboricultural, landscape or historical value. Horse Chestnut trees T35 and T36 are two of the largest trees at the Site. They are protected and referenced as T13 and T14 within TPO 14/2018. Despite both trees exhibiting signs of their age, such as branch tear wounds, they have high visual and landscape value and have therefore been assigned to Category A2.

5.2. Common ash trees T49 and T51 have good form and high landscape value. They are two of the tallest trees surveyed at the Site, and T49 has a large stem size. They are protected and referenced as T12 and T11 within TPO 14/2018. Importantly, neither tree currently exhibits symptoms of abnormal twig or branch dieback which might be due to fungal decay or Ash Dieback Disease (discussed below) which would otherwise indicate a reduced safe useful life expectancy (SULE). Both are Category A1 trees.

5.3. Copper beech tree T53 was noted in 2019 as being a commemorative tree planted to mark the Queen's Silver Jubilee in 1977. It is protected as part of G8 within TPO 14/2018. The tree is of very good form and is a Category A1 tree. The commemorative plaque was no longer present in 2023.

5.4. Sweet chestnut T55 is protected and referenced as T10 within TPO 14/2018. The tree has been assessed as an ancient tree by virtue of its 6.3 metre stem girth (as per Fig. 1.3 in Lonsdale, 2013). It has also been assessed as being a veteran tree using the characteristic features found on veteran trees (in para. 2.1.1 in Read, 2000); which in this case include major trunk cavities/progressive hollowing, decay holes, physical damage to the trunk, bark loss/loose bark, crevices in the bark, pollarded form and an 'old look'. It has been assigned Category A3 and therefore of high arboricultural and historical value.

5.5. A significant element of the remaining tree cover is Category B, and the majority of these are protected by the two TPOs which apply to the Site. Along the entrance driveway to Grove House and the east Site frontage with Ashford Road are large sycamore, crack willow, Scots pine, Italian alder and common ash trees. Alders T3 and T75 and Scots pines T73 and T74 are protected within G7 of TPO 14/2018. Sycamore and common ash trees T4 to T8 are within G8 of the TPO.

5.6. A belt of common ash, with occasional black poplar, sycamore, wych elm and English oak, T9 to T15 and G1 to G6, grows along the eastern Site boundary with Bulls Lane. They are protected and referenced as T2 to T8 and G1 to G4 within TPO 14/2018.

5.7. Many of the ash trees within the Site exhibit twig dieback. Examples are T63 and T71. The symptoms are almost certainly a result of the chronic fungal disease Ash Dieback caused by the fungus *Hymenoscyphus fraxineus*. First identified in the UK in 2012, it is estimated that the disease will kill up to 99% of the 90 million ash trees in the UK, and it is the subject of a UK Government strategy. Although Forest Research advise a general presumption against felling living ash trees, whether infected or not (with the exception of felling for public safety), for the purposes of development design it can be reasonably presumed that ash trees at the Site exhibiting twig dieback have a significantly reduced SULE.

5.8. Four of the Site's common ash trees, T59 (B3), T60 (B3), T63 (C1) and T71 (C1), are lapsed pollard trees with decayed and hollowed stems, open cavities, exposed surface roots, dry crevices and other characteristic features found on veteran trees. However, none of the trees have been assessed as ancient/veteran by virtue of their small stem girths (as per Fig. 1.3 in Lonsdale, 2013). Three of the trees, T59, T60 and T71, are 'locally notable' because of their stem size. The structural condition and the presence of some dieback in T59, T60 and T63 suggest a reduced SULE, meaning that they achieve only a B3 quality category. Ash T71 has advanced/extensive crown dieback and a much-reduced SULE, meaning it only achieves quality category C1.

5.9. To the west of Grove House is a more recent group planting of common beech and Swedish whitebeam (T41, T43, T45 & T53) and hazel (T46 & T48), although the hazel appears to be of an older age. The majority of these are Category B. Beech tree T45 achieves only Category C because of basal cambial dysfunction, canker lesions and a thinning crown with branch dieback.

5.10. Within the east paddock and west field, and predominantly along boundaries, are a range of predominantly Category B trees. Aside from the lapsed pollard common ash trees discussed above, the English oak, common ash, wild cherry, common beech, common lime and balsam poplar trees are of good vitality and structural condition. The following trees are protected by TPO 14/2018 (with the TPO tree reference in brackets): T18 English oak (T9), T22 balsam poplar (T1), T39 common ash (T16), T58 common ash (T15), T69 common beech (T18) and T70 wild cherry (T19). Category B Sycamore T67 is protected as part of a linear group (G1) within TPO 03/1975.

5.11. All Category A and B trees (high and moderate quality) should be retained under normal circumstance when on or adjacent to development sites. In addition, they should influence the conceptual design, site layout and possibly construction methods.

5.12. The remaining tree cover is Category C and Category U. These are generally of low value, unsuitable retention due to young age, small size or impaired condition or life expectancy. It may not always be possible or desirable to retain low-quality trees unless they are located where they do not pose a significant constraint to the design. Category U trees have been recorded due to the

presence of defects or reduced life expectancy and should generally be removed unless they provide particular conservation value to the Site.

5.13. Scots pine T72 grows on the highway verge to the north of the Site and is downgraded to Category C because of storm damage which has resulted in fractured, hanging branches. Its leader appears also to be cracking away from the stem at 12 metres from the ground over the highway. It appears to be an off-site tree. Removal of these defects is likely to leave a disfigured and structurally compromised tree which is exposed to further storm damage in the future.

5.14. The hedgerows which run along the north boundary with Ashford Road, H1 and H10, and the east boundary with Bulls Lane, H2, consist of a mix of hawthorn, blackthorn, elder and elm with common ash, English oak and sycamore. They are Category C because of frequent gaps, as well as most plants within them being semi-mature trees which have been topped at about 1 metre.

5.15. Three trees and one group of trees are Category U, which are unsuitable for retention. Protected ash tree T12 is in poor and declining condition. Two trees within G5 are moribund, with only scant epicormic shoots showing signs of life. Ash trees T66 and T68 grow along the north Site boundary with Ashford Road and are protected as part of a group of trees G1 within TPO 03/1975. Both trees have advanced crown dieback and are generally weighted over the highway, so are unsuitable for retention even in the current context of the Site. In April 2020 a Highway Tree Felling Notice was attached to the trees by Kent County Council advising that they will be felled because of poor condition, but this had not been done at the time of my visit in 2023.

5.16. Confirmed constraints to development at the Site have been identified as the presence of [on/ adjacent to Site]:

- Ancient/veteran sweet chestnut tree T55 (Category A3).
- Tree Preservation Orders, references TPO 03/1975 and TPO 14/2018.

5.17. The National Planning Policy Framework 2023 (NPPF) states that: '*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*'.

5.18. Detrimental impacts on the ancient and veteran sweet chestnut tree T55 from development might include but are not limited to, damage to roots and understorey, damage to or compaction of soil around the tree roots, changes to the water table or drainage within the tree's soil and increased pollution (such as from de-icing salt).

5.19. The Forestry Commission and Natural England Standing Advice 'Ancient woodland, ancient trees and veteran trees: advice for making planning decisions' (the 'Standing Advice') is a material planning consideration which is taken into account when making decisions on planning applications. In reaching a planning decision, the LPA should assess the potential impacts, and avoid, mitigate or compensate for identified impacts. A key method of mitigation is the use of a 'buffer zone'. So, in accordance with the standing advice an additional ancient/veteran tree buffer zone with a radius of 15 times the diameter of T55 has been shown in the Tree Survey and Constraints Plan in **Section 2**.

5.20. The Standing Advice also states that the inclusion of gardens within an ancient/veteran tree buffer zone should be avoided, and instead should consist of semi-natural habitats such as woodland or a mix of scrub, grassland, heathland and wetland planting. The area within the buffer zone should be part of the green infrastructure of the area and contribute to wider ecological networks, and only be planted with local and appropriate native species. Access within a buffer should be appropriate and can be allowed if the habitat is not harmed by trampling. Sustainable drainage schemes should be avoided unless they respect the Root Protection Area (RPA) and any change to the water table does not adversely affect the ancient tree.

6. Impact Assessment

6.1. This assessment considers the effect of the proposed access to the Site (i.e. the non-reserved matters). It also considers the potential impacts of the Development Framework Plan (the reserved matters). However, a further assessment of the reserved matters details will be required at the detailed planning stage. An indicative tree retention and removal plan is included in **Section 4**.

6.2. The application is an outline planning application for the erection of up to 52 dwellings with public open space, landscaping, sustainable drainage system (SUDS), a vehicular access point from Ashford Road. All matters are reserved except for access.

6.3. The new vehicle access from Ashford Road will require the removal of protected trees common beech T69 and wild cherry T70 (B1) for the new carriageway and footway. Their removal would have a moderate but localised visual impact on the street scene of Ashford Road. However, new tree planting along the primary street will mitigate the visual impacts of these removals in the medium term.

6.4. Although Folkestone and Hythe District Council do not have an adopted tree replacement policy, my assessment in line with typical LPA policies is that the provision of 10 additional new trees would provide adequate compensation for the additional removal of T69 and T70. Potential locations for additional tree planting are along the Site frontage and to the north of T59 to T63 in the southwest of the Site.

6.5. The revised layout would successfully retain trees T65 (B2) and T67 (B1). The removal of off-site Category U common ash tree T68 (and probably of T66) has already been planned by Kent County Council because of its declining condition, but had not been carried out at the time of my visit.

6.6. Three sections of Category C hedgerow H10, totalling 75 metres, would be removed for the access carriageway and to provide an open frontage so that the Site is visually linked with the village centre. The amenity impact of the hedgerow removal would be low and offset by the visual benefit.

6.7. With regard to the reserved matters it is anticipated that only one low-quality tree, T71, will need to be removed to implement the proposal. The tree has a hollowed stem and extensive twig dieback throughout the crown due to Ash Dieback disease. The amenity impact of this removal would be low and compensated for by new tree planting within the Site.

6.8. The RPAs of retained trees have been respected within green buffers and open space in the residential area. In particular, the proposed layout accords with the Standing Advice by retaining the ancient/veteran tree buffer zone of sweet chestnut T55 as semi-natural habitat which is part of the Site's green infrastructure. This buffer will be free of gardens or formal access routes and maintained as semi-natural grassland.

6.9. The SuDS basin in the north of the Site has been designed so that it is located outside of the ancient tree buffer of sweet chestnut T55. The area within the ancient tree buffer will be retained and enhanced as semi-natural habitat. Additional drainage scheme elements can be designed so that they are outside of the buffer. This means that there would be no loss or deterioration of the tree's irreplaceable habitat. The physical protection of the buffer and soft landscaping treatment within it will be detailed within an Arboricultural Method Statement (AMS) to ensure that direct and indirect impacts are avoided throughout construction.

6.10. The primary street and pedestrian linkages to development to the south have been accommodated within existing gaps between trees and hedgerows. The primary street will be tree-lined and the maturing trees will provide enhanced future connectivity.

6.11. It will be a straightforward matter for the detailed design to include recreational routes that are sensitive to the RPAs of trees, either by avoiding them or using lightweight construction (e.g. hoggin) or mown paths so that there is a negligible impact. The final routes will depend on local ground levels and conditions. The use of no-dig construction can also be considered and would provide a flexible approach to working around and close to trees to minimise the need for tree removals and avoid negative impacts on them.

6.12. The Development Framework Plan indicates a potential to provide an increase in tree cover. This includes the tree-lined primary street and strengthening of the northwest boundary with the adjacent dwelling Fieldhead, providing visual and acoustic screening and protecting the rural character.

6.13. In summary, the Development Framework Plan demonstrates that a sustainable relationship between the proposed development parcels and retained trees and hedges can be achieved. There would be no loss or deterioration of the ancient sweet chestnut tree and an overall net gain in the arboricultural resource at the Site can be delivered.

7. Further recommendations and conclusions

7.1. The information contained within this report should be used in the preparation of design proposals for the Site, in order to minimise negative arboricultural impacts. At detailed planning and design stages, it will be necessary to produce a detailed Arboricultural Impact Assessment (AIA) which will evaluate the direct and indirect effects of the proposals and detail tree protection measures.

7.2. The following is recommended to inform the next stages of the design/planning process of the proposed development, such that suitable arboricultural impact avoidance, mitigation and compensation measures may be adopted:

- Reserved matters detailed Arboricultural Impact Assessment in line with BS 5837:2012

Together with:

- A suitable Tree Protection Plan and Arboricultural Method Statement once the design is fixed at the advanced planning stage

7.3. The Development Framework Plan is acceptable from an arboricultural perspective, and demonstrates that a sustainable relationship between the proposed development parcels and retained trees and hedgerows can be achieved. There would be no loss or deterioration of the ancient sweet chestnut tree and an overall net gain in the arboricultural resource at the Site can be delivered.

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Senior arboriculturist

SELECT IMAGES FROM THE TREE SURVEY

LAND SOUTH OF ASHFORD ROAD

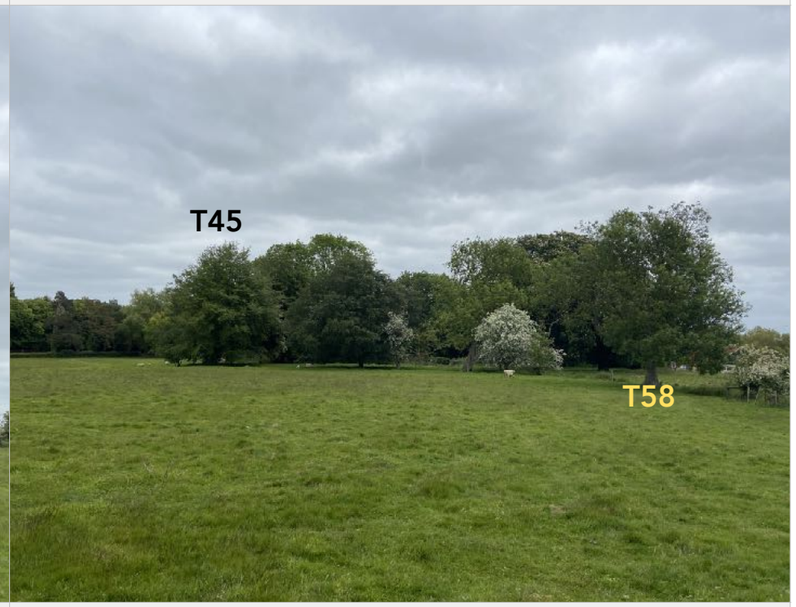
PROJECT NO: 4509

SURVEYOR: IAN MONGER

CLIENT: GLADMAN DEVELOPMENTS LTD

SURVEY DATE: 02/06/2023

Barton Hyett
Arboricultural Consultants

		
PHOTO 1: View in the eastern paddock, looking north towards Ashford Road.	PHOTO 2: View in the eastern paddock, looking southeast towards the boundary with Bulls Lane.	PHOTO 3: View of the southern boundary and two large horse chestnuts, looking southeast.
		
PHOTO 4: View of the central group of protected trees, looking north.	PHOTO 5: View from the central group of protected trees, looking south.	PHOTO 6: View from the west of the Site, looking east towards the central group of protected trees.

SELECT IMAGES FROM THE TREE SURVEY

LAND SOUTH OF ASHFORD ROAD

PROJECT NO: 4509

SURVEYOR: IAN MONGER

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PHOTO 7: View across the western field, looking north towards Ashford Road and the neighbouring dwelling.

PHOTO 8: Detail of lapsed pollard common ash T59, looking southeast.

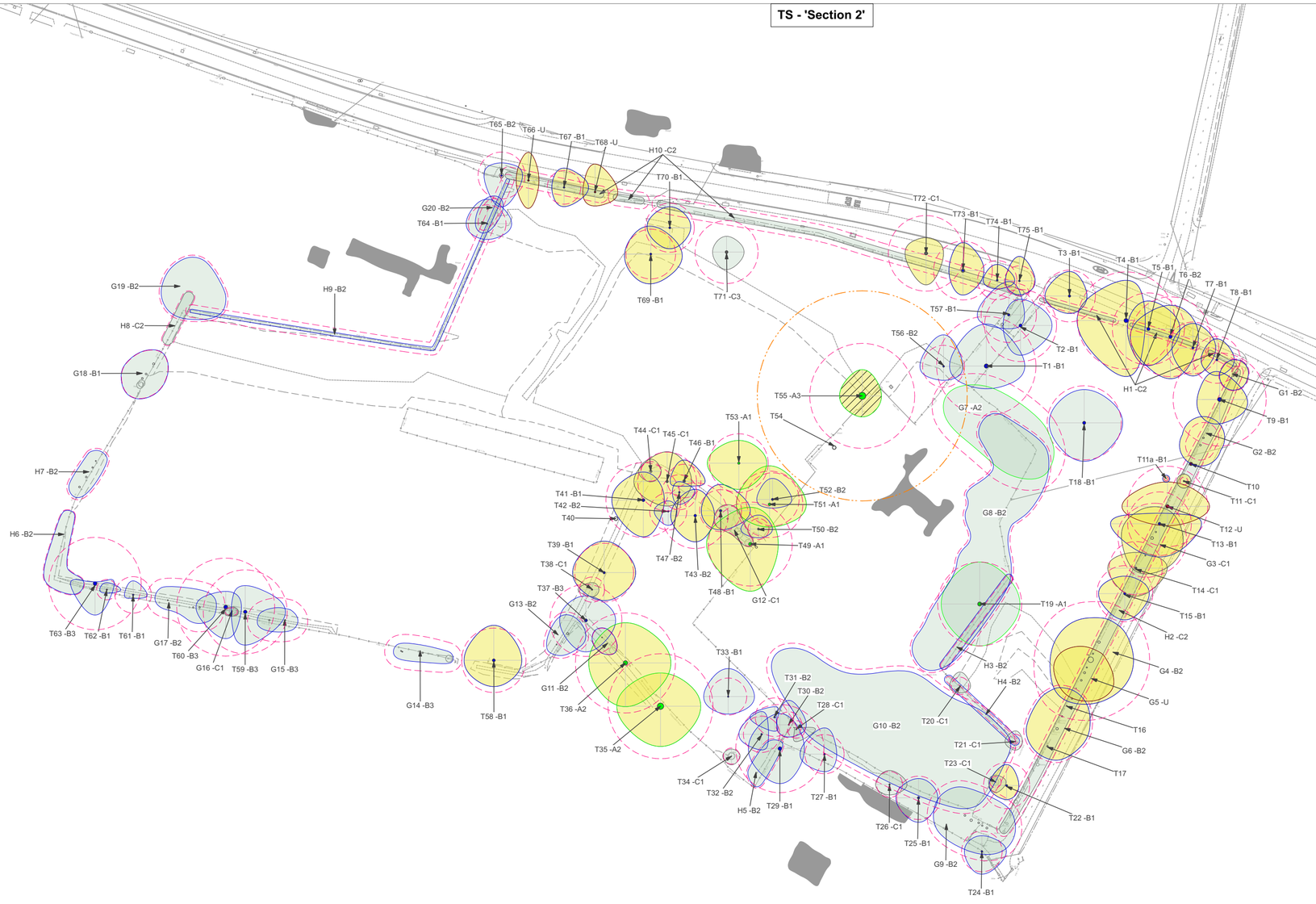
PHOTO 9: Detail of lapsed pollard common ash T60, looking south.

PHOTO 10: Detail of lapsed pollard common ash T63, looking southwest.

PHOTO 11: Detail of ancient/veteran sweet chestnut T55, looking south.

PHOTO 12: Lapsed pollard ash T71, looking northeast towards Ashford Road.

TS - 'Section 2'



Tree No	Ht (m)	Species	Life Stage	RPA Radius (m)	RPA Area (m2)
T1	17	Sycamore	M	14.2	630
T2	24	Crack willow	M	10.3	335
T3	18	Italian alder	M	7.4	174
T4	20	Sycamore	M	13.9	609
T5	19	Sycamore	M	10.3	335
T6	24	Common ash	M	11.4	408
T7	13	Sycamore	M	7.4	174
T8	13	Sycamore	M	6.7	142
T9	19	Black poplar	M	13.3	557
T10	0	Common ash	M	9.6	290
T11	4	Sycamore	SM	1.1	4
T11a	4	Field maple	Y	0.6	1
T12	22	Common ash	M	11.5	417
T13	20	English oak	M	9.1	261
T14	20	Common ash	M	7.6	180
T15	16	Sycamore	M	8	203
T16	0	Common ash	SM	3	28
T17	3	Common ash	M	5.3	88
T18	16	English oak	M	10.6	350
T19	18	English oak	M	12	452
T20	8	Common ash	SM	2.5	20
T21	5	Chestnut-leaved oak	Y	2	12
T22	25	Balsam poplar	EM	6.6	137
T23	7	Sycamore	Y	1.6	8
T24	12	Sycamore	M	5.8	104
T25	14	Sycamore	EM	6.2	122
T26	11	Silver birch	EM	3.7	43
T27	18	Common ash	M	5.6	100
T28	6	Zelkova	EM	2.5	20
T29	19	English oak	M	12.6	499
T30	14	Wild cherry	M	3.7	43
T31	15	Wild cherry	M	5.5	96
T32	14	Wild cherry	M	5.2	84
T33	10	Hornbeam	SM	5.3	88
T34	5	English oak	Y	2.3	16
T35	16	Horse chestnut	M	15	707
T36	19	Horse chestnut	M	14.3	641
T37	16	Common ash	M	10.3	335
T38	8	Hawthorn	M	3.6	41
T39	12	Common beech	M	8.4	222
T40	0	Common ash	M	13.7	588
T41	15	Common beech	M	10.7	358
T42	9.5	Swedish whitebeam	M	5.3	88
T43	16.5	Common beech	M	9.4	275
T44	4.5	Hazel	M	2.8	24
T45	15	Common beech	M	8.4	222
T46	6	Hazel	M	4.8	72
T47	12	Swedish whitebeam	M	5	80
T48	8	Hazel	M	6	113
T49	26	Common ash	M	12	452
T50	6.5	Hazel	M	3	28
T51	26	Common ash	M	9.5	282
T52	8.5	Common ash	M	7.6	180
T53	14	Copper beech	EM	8.4	222
T54	0	Common ash	M	10.8	366
T55	10	Sweet chestnut	M	15	707
T56	12.5	Crack willow	EM	6	113
T57	21	Crack willow	M	7.9	197
T58	15	Common ash	M	9.2	268
T59	15	Common ash	M	12	452
T60	17	Common ash	M	14	619
T61	5.5	Hawthorn	M	5.2	84
T62	5	Hawthorn	M	2.9	26
T63	13	Common ash	M	13.2	547
T64	14	Common beech	EM	5.4	92
T65	14	Sycamore	M	6.7	142
T66	14	Common ash	M	6	113
T67	10	Sycamore	EM	4.8	72
T68	10	Common ash	M	6.6	137
T69	11	Common beech	EM	7.1	157
T70	11	Wild cherry	M	7	152
T71	11	Common ash	M	9	255
T72	16.5	Scots pine	M	10.8	366
T73	14	Scots pine	M	8.4	222
T74	15	Scots pine	M	5.6	100
T75	10	Italian alder	M	4.3	59
G1	6-10	Common ash, sycamore	EM	6.7	142
G2	16	Sycamore	EM	4.3	59
G3	8-17	Common ash, sycamore	M	8	203
G4	12-20	Common ash, wych elm	M	10.6	350
G5	9-20	Common ash	EM	6	113
G6	17-19	Common ash	M	7.7	185
G7	14-20	Common lime	M	13.2	547
G8	3-8	Holly, hawthorn, sweet chestnut, hazel, cherry laurel, elder, common ash, hornbeam, sycamore, rowan, holy oak.	EM	3.6	41
G9	22	Common ash, sycamore	M	8.3	215
G10	6-18	Wild cherry, crack willow, balsam poplar, common beech, silver birch, elm spp., sycamore, elder	M	6.4	127
G11	3.5-4.5	Hawthorn	EM	2.9	26
G12	4	Hawthorn, hazel	M	2.3	16
G13	4-6.5	Hawthorn	M	4.8	72
G14	3-5	Hawthorn	M	4.5	65
G15	3-5	Hawthorn	M	4.8	72
G16	3-4.5	Hawthorn, blackthorn	EM	1.7	9
G17	3-5	Hawthorn, blackthorn	M	4.4	62
G18	6-8.5	Field maple, hawthorn	M	5.4	92
G19	12	Common ash	M	6.6	137
G20	5-7.5	Sweet chestnut, common holly, snowy mespil	SM	2.2	15
H1	2.0	Hawthorn, English oak, wych elm, elder		1.3	5
H2	2.5	Wych elm, hazel, common ash, elder, hawthorn, sycamore, blackthorn		1.8	10
H3	4.0	Hornbeam, sycamore		1	3
H4	3.0	Hawthorn, willow spp.		0.6	1
H5	4.0	Common holly		2.4	18
H6	4.0	Hawthorn, blackthorn, elder		2.2	15
H7	5.0	Hawthorn, elder		3.6	41
H8	3.0	Elder		1.8	10
H9	2.0	Common beech		1.8	10
H10	2.5	Hawthorn, common ash, wych elm, sycamore		2.4	18

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)

Statutory Protection

Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

Ancient Tree

- Ancient tree: Important trees that require special consideration
- Ancient tree buffer: As per published standing advice from Natural England and the Forestry Commission

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 10 20 30 40 50
Meters

PROJECT TITLE
Land south of Ashford Road

DRAWING TITLE
Tree Survey & Constraints Plan

SCALE		DRAWING NUMBER			
1:1000	@ A2	BHA_636_01			
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
IM	RH	A	1/2	09/06/2023	

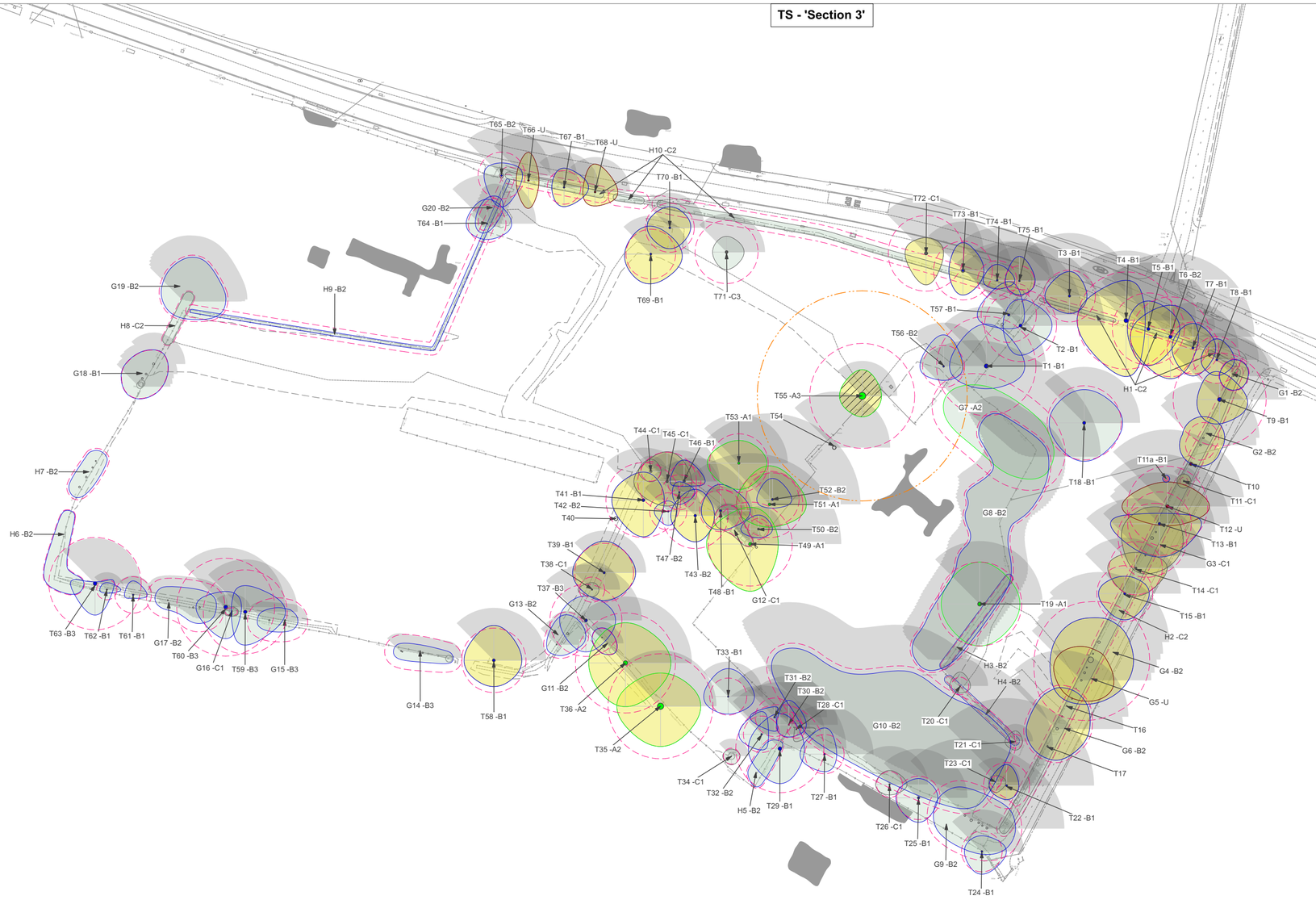
TOPOGRAPHICAL SURVEY **2019-070_Topo_01_2d 1**

CLIENT **Gladman Developments Ltd**

COORDINATE SYSTEM / DATUM **British National Grid / Newlyn Datum (AOD)**

CSA environmental
Barton Hyett Associates Arboricultural Consultants
Tel: 01386 576161 Website: www.barton-hyett.co.uk
Address: Barn 2,Oxpens Farm,Yanworth, Cheltenham,Gloucestershire,GL54 3QE

TS - 'Section 3'



Tree No	Ht (m)	Species	Life Stage	RPA Radius (m)	RPA Area (m2)
T1	17	Sycamore	M	14.2	630
T2	24	Crack willow	M	10.3	335
T3	18	Italian alder	M	7.4	174
T4	20	Sycamore	M	13.9	609
T5	19	Sycamore	M	10.3	335
T6	24	Common ash	M	11.4	408
T7	13	Sycamore	M	7.4	174
T8	13	Sycamore	M	6.7	142
T9	19	Black poplar	M	13.3	557
T10	0	Common ash	M	9.6	290
T11	4	Sycamore	SM	1.1	4
T11a	4	Field maple	Y	0.6	1
T12	22	Common ash	M	11.5	417
T13	20	English oak	M	9.1	261
T14	20	Common ash	M	7.6	180
T15	16	Sycamore	M	8	203
T16	0	Common ash	SM	3	28
T17	3	Common ash	M	5.3	88
T18	16	English oak	M	10.6	350
T19	18	English oak	M	12	452
T20	8	Common ash	SM	2.5	20
T21	5	Chestnut-leaved oak	Y	2	12
T22	25	Balsam poplar	EM	6.6	137
T23	7	Sycamore	Y	1.6	8
T24	12	Sycamore	M	5.8	104
T25	14	Sycamore	EM	6.2	122
T26	11	Silver birch	EM	3.7	43
T27	18	Common ash	M	5.6	100
T28	6	Zelkova	EM	2.5	20
T29	19	English oak	M	12.6	499
T30	14	Wild cherry	M	3.7	43
T31	15	Wild cherry	M	5.5	96
T32	14	Wild cherry	M	5.2	84
T33	10	Hornbeam	SM	5.3	88
T34	5	English oak	Y	2.3	16
T35	16	Horse chestnut	M	15	707
T36	19	Horse chestnut	M	14.3	641
T37	16	Common ash	M	10.3	335
T38	8	Hawthorn	M	3.6	41
T39	12	Common beech	M	8.4	222
T40	0	Common ash	M	13.7	588
T41	15	Common beech	M	10.7	358
T42	9.5	Swedish whitebeam	M	5.3	88
T43	16.5	Common beech	M	9.4	275
T44	4.5	Hazel	M	2.8	24
T45	15	Common beech	M	8.4	222
T46	6	Hazel	M	4.8	72
T47	12	Swedish whitebeam	M	5	80
T48	8	Hazel	M	6	113
T49	28	Common ash	M	12	452
T50	6.5	Hazel	M	3	28
T51	26	Common ash	M	9.5	282
T52	8.5	Common ash	M	7.6	180
T53	14	Copper beech	EM	8.4	222
T54	0	Common ash	M	10.8	366
T55	10	Sweet chestnut	M	15	707
T56	12.5	Crack willow	EM	6	113
T57	21	Crack willow	M	7.9	197
T58	15	Common ash	M	9.2	268
T59	15	Common ash	M	12	452
T60	17	Common ash	M	14	619
T61	5.5	Hawthorn	M	5.2	84
T62	5	Hawthorn	M	2.9	26
T63	13	Common ash	M	13.2	547
T64	14	Common beech	EM	5.4	92
T65	14	Sycamore	M	6.7	142
T66	14	Common ash	M	6	113
T67	10	Sycamore	EM	4.8	72
T68	10	Common ash	M	6.6	137
T69	11	Common beech	EM	7.1	157
T70	11	Wild cherry	M	7	152
T71	11	Common ash	M	9	255
T72	16.5	Scots pine	M	10.8	366
T73	14	Scots pine	M	8.4	222
T74	15	Scots pine	M	5.6	100
T75	10	Italian alder	M	4.3	59
G1	6-10	Common ash, sycamore	EM	6.7	142
G2	16	Sycamore	EM	4.3	59
G3	8-17	Common ash, sycamore	M	8	203
G4	12-20	Common ash, wych elm	M	10.6	350
G5	9-20	Common ash	EM	6	113
G6	17-19	Common ash	M	7.7	185
G7	14-20	Common lime	M	13.2	547
G8	3-8	Holly, hawthorn, sweet chestnut, hazel, cherry laurel, elder, common ash, hornbeam, sycamore, rowan, holy oak	EM	3.6	41
G9	22	Common ash, sycamore	M	8.3	215
G10	6-18	Wild cherry, crack willow, balsam poplar, common beech, silver birch, elm spp., sycamore, elder	M	6.4	127
G11	3.5-4.5	Hawthorn	EM	2.9	26
G12	4	Hawthorn, hazel	M	2.3	16
G13	4-6.5	Hawthorn	M	4.8	72
G14	3-5	Hawthorn	M	4.5	65
G15	3-5	Hawthorn	M	4.8	72
G16	3-4.5	Hawthorn, blackthorn	EM	1.7	9
G17	3-5	Hawthorn, blackthorn	M	4.4	62
G18	6-8.5	Field maple, hawthorn	M	5.4	92
G19	12	Common ash	M	6.6	137
G20	5-7.5	Sweet chestnut, common holly, snowy mespil	SM	2.2	15
H1	2.0	Hawthorn, English oak, wych elm, elder		1.3	5
H2	2.5	Wych elm, hazel, common ash, elder, hawthorn, sycamore, blackthorn		1.8	10
H3	4.0	Hornbeam, sycamore		1	3
H4	3.0	Hawthorn, willow spp.		0.6	1
H5	4.0	Common holly		2.4	18
H6	4.0	Hawthorn, blackthorn, elder		2.2	15
H7	5.0	Hawthorn, elder		3.6	41
H8	3.0	Elder		1.8	10
H9	2.0	Common beech		1.8	10
H10	2.5	Hawthorn, common ash, wych elm, sycamore		2.4	18

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
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- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)

Statutory Protection

- Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

Ancient Tree

- Ancient tree: Important trees that require special consideration
- Ancient tree buffer: As per published standing advice from Natural England and the Forestry Commission
- Indicates tree shading at current tree height

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 10 20 30 40 50
Meters

PROJECT TITLE
Land at Grove House, Sellindge

DRAWING TITLE
Tree Survey & Constraints Plan with Indicative Tree Shading

SCALE		DRAWING NUMBER		
1:1000 @ A2		BHA_636_01		
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
IM	RH	A	2/2	09/06/2023

TOPOGRAPHICAL SURVEY **2019-070_Topo_01_2d 1**

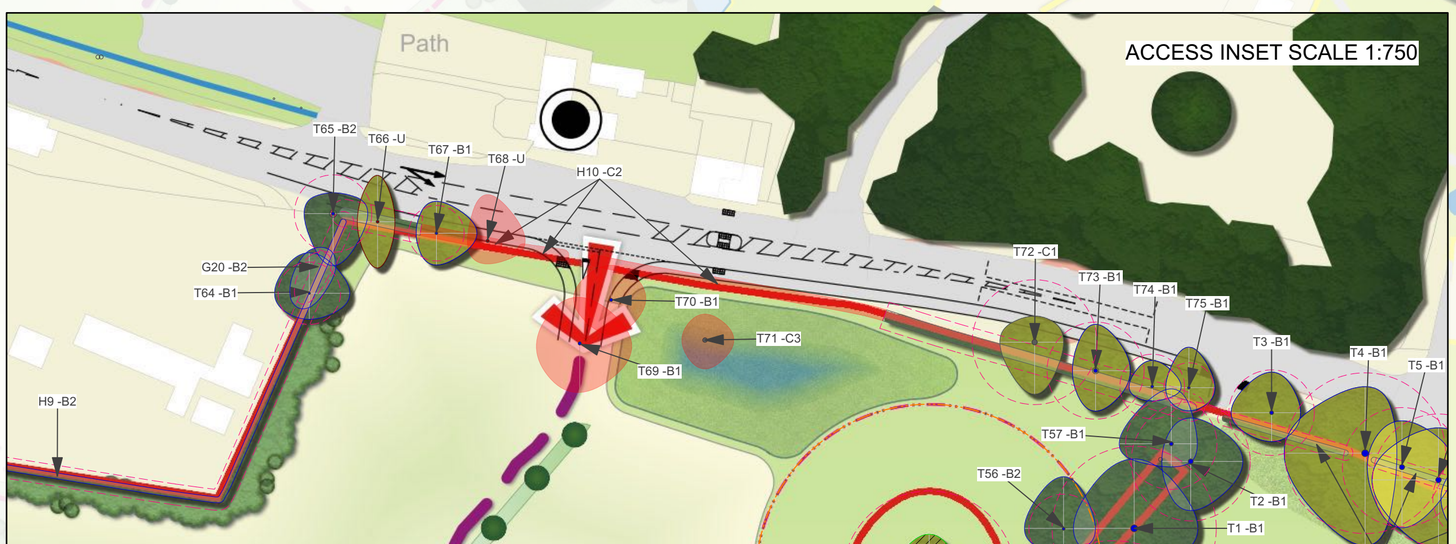
CLIENT **Gladman Developments Ltd**

COORDINATE SYSTEM / DATUM **British National Grid / Newlyn Datum (AOD)**

CSA environmental
tel: 01386 576161 Website: www.barton-hyett.co.uk
Address: Barn 2,Oxpens Farm,Yanworth, Cheltenham,Gloucestershire,GL54 3QE
Barton Hyett Associates
Arboricultural Consultants

TRR - 'Section 4'

ACCESS INSET SCALE 1:750



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
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Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

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Ancient Tree

- Ancient tree: Important trees that require special consideration
- Ancient tree buffer: As per published standing advice from Natural England and the Forestry Commission
- Tree / Hedgerow / Group to be removed

Tree No	Ht (m)	Species	Life Stage	RPA Radius (m)	RPA Area (m2)
T1	17	Sycamore	M	14.2	630
T2	24	Crack willow	M	10.3	335
T3	18	Italian alder	M	7.4	174
T4	20	Sycamore	M	13.9	609
T5	19	Sycamore	M	10.3	335
T6	24	Common ash	M	11.4	408
T7	13	Sycamore	M	7.4	174
T8	13	Sycamore	M	6.7	142
T9	19	Black poplar	M	13.3	557
T10	0	Common ash	M	9.6	290
T11	4	Sycamore	SM	1.1	4
T11a	4	Field maple	Y	0.6	1
T12	22	Common ash	M	11.5	417
T13	20	English oak	M	9.1	261
T14	20	Common ash	M	7.6	180
T15	16	Sycamore	M	8	203
T16	0	Common ash	SM	3	28
T17	3	Common ash	M	5.3	88
T18	16	English oak	M	10.6	350
T19	18	English oak	M	12	452
T20	8	Common ash	SM	2.5	20
T21	5	Chestnut-leaved oak	Y	2	12
T22	25	Balsam poplar	EM	6.6	137
T23	7	Sycamore	Y	1.6	8
T24	12	Sycamore	M	5.8	104
T25	14	Sycamore	EM	8.2	122
T26	11	Silver birch	EM	3.7	43
T27	18	Common ash	M	5.6	100
T28	6	Zelkova	M	2.5	20
T29	19	English oak	M	12.6	499
T30	14	Wild cherry	M	3.7	43
T31	15	Wild cherry	M	5.5	96
T32	14	Wild cherry	M	5.2	84
T33	10	Hornbeam	SM	5.3	88
T34	5	English oak	Y	2.3	16
T35	16	Horse chestnut	M	15	707
T36	19	Horse chestnut	M	14.3	641
T37	16	Common ash	M	10.3	335
T38	8	Hawthorn	M	3.6	41
T39	12	Common beech	M	8.4	222
T40	0	Common ash	M	13.7	588
T41	15	Common beech	M	10.7	358
T42	9.5	Swedish whitebeam	M	5.3	88
T43	16.5	Common beech	M	9.4	275
T44	4.5	Hazel	M	2.8	24
T45	15	Common beech	M	8.4	222
T46	6	Hazel	M	4.8	72
T47	12	Swedish whitebeam	M	5	80
T48	8	Hazel	M	6	113
T49	28	Common ash	M	12	452
T50	6.5	Hazel	M	3	28
T51	26	Common ash	M	9.5	282
T52	8.5	Common ash	M	7.6	180
T53	14	Copper beech	EM	8.4	222
T54	0	Common ash	M	10.8	366
T55	10	Sweet chestnut	M	15	707
T56	12.5	Crack willow	EM	6	113
T57	21	Crack willow	M	7.9	197
T58	15	Common ash	M	9.2	268
T59	15	Common ash	M	12	452
T60	17	Common ash	M	14	619
T61	5.5	Hawthorn	M	5.2	84
T62	5	Hawthorn	M	2.9	26
T63	13	Common ash	M	13.2	547
T64	14	Common beech	EM	5.4	92
T65	14	Sycamore	M	6.7	142
T66	14	Common ash	M	6	113
T67	10	Sycamore	EM	4.8	72
T68	10	Common ash	M	6.6	137
T69	11	Common beech	EM	7.1	157
T70	11	Wild cherry	M	7	152
T71	11	Common ash	M	9	255
T72	16.5	Scots pine	M	10.8	366
T73	14	Scots pine	M	8.4	222
T74	15	Scots pine	M	5.6	100
T75	10	Italian alder	M	4.3	59
G1	6-10	Common ash, sycamore	EM	6.7	142
G2	16	Sycamore	EM	4.3	59
G3	8-17	Common ash, sycamore	M	8	203
G4	12-20	Common ash, wych elm	M	10.6	350
G5	9-20	Common ash	EM	6	113
G6	17-19	Common ash	M	7.7	185
G7	14-20	Common lime	M	13.2	547
G8	3-8	Holly, hawthorn, sweet chestnut, hazel, cherry laurel, elder, common ash, hornbeam, sycamore, rowan, holy oak	EM	3.6	41
G9	22	Common ash, sycamore	M	8.3	215
G10	6-18	Wild cherry, crack willow, balsam poplar, common beech, silver birch, elm spp., sycamore, elder	M	6.4	127
G11	3.5-4.5	Hawthorn	EM	2.9	26
G12	4	Hawthorn, hazel	M	2.3	16
G13	4-6.5	Hawthorn	M	4.8	72
G14	3-5	Hawthorn	M	4.5	65
G15	3-5	Hawthorn	M	4.8	72
G16	3-4.5	Hawthorn, blackthorn	EM	1.7	9
G17	3-5	Hawthorn, blackthorn	M	4.4	62
G18	6-8.5	Field maple, hawthorn	M	5.4	92
G19	12	Common ash	M	6.6	137
G20	5-7.5	Sweet chestnut, common holly, snowy mespil	SM	2.2	15
H1	2.0	Hawthorn, English oak, wych elm, elder		1.3	5
H2	2.5	Wych elm, hazel, common ash, elder, hawthorn, sycamore, blackthorn		1.8	10
H3	4.0	Hornbeam, sycamore		1	3
H4	3.0	Hawthorn, willow spp.		0.6	1
H5	4.0	Common holly		2.4	18
H6	4.0	Hawthorn, blackthorn, elder		2.2	15
H7	5.0	Hawthorn, elder		3.6	41
H8	3.0	Elder		1.8	10
H9	2.0	Common beech		1.8	10
H10	2.5	Hawthorn, common ash, wych elm, sycamore		2.4	18

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N GRID NORTH

0 10 20 30 40 50 Meters

PROJECT TITLE

Land south of Ashford Road

DRAWING TITLE

Tree Retention & Removal Plan

SCALE			DRAWING NUMBER
1:1000	@ A2		BHA_636_02
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
IM	RH	B	-	17/06/2024

LAYOUT USED WITHIN DRAWING **4509_122_E_DFP Development Framework Plan**

CLIENT **Gladman Developments Ltd**

COORDINATE SYSTEM / DATUM **British National Grid / Newlyn Datum (AOD)**

CSA environmental
tel: 01386 576161 Website: www.barton-hyett.co.uk
Address: Barn 2,Oxpens Farm,Yanworth, Cheltenham,Gloucestershire,GL54 3QE
Barton Hyett Associates
Arboricultural Consultants

TREE SURVEY SCHEDULE

LAND SOUTH OF ASHFORD ROAD

PROJECT NO: 4509

SURVEYOR: IAN MONGER

CLIENT: GLADMAN DEVELOPMENTS LTD

DATE OF SURVEY UPDATE: 02/06/2023

Barton Hyett Arboricultural Consultants

INDIVIDUAL TREES

Ref	Species	On / off site	Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. Canopy Height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	TPO?
T1	Sycamore	Off	17.0	1	-	1180	12-11-6.5-10.5	3.0	6	E	M	None	Crown lift wounds. Large decayed tear-out wound from 3.5 to 6.5 metres south.	Good	Fair	20	**B1**	14.2	630	-
T2	Crack willow	On	23.5	2	-	860	7.5-9-8.5-5	4.0	7	E	M	None	Branch removal wounds. Dead branch stubs. Dead branch hangers.	Good	Good	20	**B1**	10.3	335	-
T3	Italian alder	On	18.0	1	-	620	7-5-5-7	3.5	5.5	n/a	M	None	Two stems from 2m.	Good	Good	40	**B1**	7.4	174	TPO 14/2018 G6
T4	Sycamore	On	20.0	1	-	1160	11.5-5.5-16-14	5.0	3	S	M	None	Un-occluded crown lift wounds. Minor deadwood.	Good	Good	40	**B1**	13.9	609	TPO 14/2018 G6
T5	Sycamore	On	19.0	1	-	860	8-9-10.5-6	4.0	4	N	M	None	Decayed crown lift wound at 2m south with P. squamosus brackets emerged.	Good	Good	40	**B1**	10.3	335	TPO 14/2018 G6
T6	Common ash	On	24.0	1	#	950	9-8-12-11.5	4.0	3.5	S	M	None	Decayed basal wound to south where cut to install fence post. Crown lift wounds. Fissuring on bark and deformation of annual thickening consistent with I. hispidus decay. Lions-tailed branch at 11m over road.	Good	Good	20	**B2**	11.4	408	TPO 14/2018 G6
T7	Sycamore	On	13.0	1	-	620	7-6.5-8-6	4.0	4	N	M	None	No significant observable defects.	Good	Good	40	**B1**	7.4	174	TPO 14/2018 G6
T8	Sycamore	On	13.0	1	-	560	6-5-4.5-4.5	4.5	4	S	M	None	Epicormic shoots on bole at points of past crown lift wounds. Decayed branch loss wounds.	Good	Good	40	**B1**	6.7	142	TPO 14/2018 G6
T9	Hybrid Black poplar	On	18.5	1	-	1110	8-8-7-6.5	3.0	7	E	M	None	Pollarded tree with epicormic shoots on bole. Decay associated with large pollard wounds. Poplar rust.	Good	Fair	20	**B1**	13.3	557	TPO 14/2018 T8
T10	Common ash	On	0.0	-	-	-	-	-	-	-	-	-	Tree felled with permission since first survey.	-	-	-	-	-	-	-
T11	Sycamore	On	4.0	20	-	90	2-2-2-2	0.5	0	-	SM	None	Tree has been felled since first survey, with coppice regrowth.	Good	Fair	20	**C1**	1.1	4	TPO 14/2018 T6
T11a	Field maple	On	4.0	1	-	50	1-1-1.5-1	1.0	0.5	-	Y	None	Tree probably planted as replacement for felled T10 and is protected by TPO.	Good	Good	40	**B1**	0.6	1	TPO 14/2018 T6

TREE SURVEY SCHEDULE

LAND SOUTH OF ASHFORD ROAD

PROJECT NO: 4509

SURVEYOR: IAN MONGER

CLIENT: GLADMAN DEVELOPMENTS LTD

DATE OF SURVEY UPDATE: 02/06/2023

Barton Hyett Arboricultural Consultants

Ref	Species	On / off site	Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. Canopy Height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	TPO?
T12	Common ash	On	22.0	2	-	960	7-12-5.5-13	4.0	8	NW	M	None	Large 55cm diam. stem removal wound on bole at 1m. Western stem and crown almost entirely dead. Dieback in crown of eastern stem.	Poor	Poor	<10	U	11.5	417	TPO 14/2018 G3
T13	English oak	On	20.0	1	-	760	3-12-9.5-14	6.0	7	W	M	None	Good upright form. Deadwood. Small lower branch crack at 11m west and 10m from stem. Occasional branch fracture stubs.	Good	Good	40	B1	9.1	261	TPO 14/2018 G3
T14	Common ash	On	20.0	1	-	630	4.5-9-8-8	5.0	7	W	M	None	Basal stem removal wound. Crown dieback. Deadwood.	Poor	Fair	10	C1	7.6	180	TPO 14/2018 T5
T15	Sycamore	On	16.0	1	-	670	5-7-7.5-7.5	4.5	6.5	S	M	None	Un-occluded crown lift wounds.	Good	Good	40	B1	8.0	203	TPO 14/2018 T4
T16	Common ash	On	0.0	-	-	-	-	-	-	-	-	-	Dead standing tree has been felled since first survey.	-	-	-	-	-	-	-
T17	Common ash	On	3.0	1	-	440	-	-	-	-	-	-	Tree has been felled to 3m stump since first survey.	-	-	-	-	-	-	-
T18	English oak	On	16.0	1	-	880	9.5-11-11-10	5.0	3	NE	M	None	Basal decay cavity to south. Crown decline and dieback with lower retrenchment crown forming. Small leaves for typical species. Branch wounds and deadwood. Bird nesting holes.	Fair	Fair	40	B1	10.6	350	-
T19	English oak	On	18.0	1	#	1000	12-11.5-12-11	2.5	4.5	NE	M	None	Stem base not accessible. Decay visible stem base NE with strip of dysfunctional cambium to 1.5m above. Good form. Occluding crown lift wounds.	Good	Good	40	A1	12	452	-
T20	Common ash	On	8.0	1	-	210	4-3-2-3	3.0	2.5	NE	SM	None	Fence wire occluding into stem base. Twig dieback.	Fair	Good	20	C1	2.5	20	-
T21	Chestnut-leaved oak	On	5.0	1	-	160	3-2-2.5-3	2.0	1.5	S	Y	None	Fire damage wounding on east of stem and branches.	Good	Poor	10	C1	2.0	12	-
T22	Balsam poplar	On	25.0	1	-	550	6-3.5-4-5	2.0	2	NE	EM	None	Feathered tree.	Good	Good	40	B1	6.6	137	TPO 14/2018 T1
T23	Sycamore	On	7.0	1	-	130	2-3-3-2	1.0	1.5	n/a	Y	None	Browsing stem wounds. Leader dieback.	Fair	Poor	10	C1	1.6	8	-

TREE SURVEY SCHEDULE

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T24	Sycamore	Off	12.0	1	#	480	4.5-7-6.5-5	5.5	4	N	M	None	Ivy on stem. Upper crown dieback.	Fair	Good	40	B1	5.8	104	-
T25	Sycamore	On	14.0	2	-	520	5.5-5.5-7-6.5	4.0	3.5	W	EM	None	Two stems from ground. Crown lift wounds.	Good	Good	40	B1	6.2	122	-
T26	Silver birch	On	11.0	1	-	310	4-5-3-4	4.0	4	SW	EM	None	Buttress bark wounding from passing vehicles.	Good	Good	10	C1	3.7	43	-
T27	Common ash	On	18.0	1	-	470	7.5-3.5-5-7	9.0	6	SW	M	None	Minor crown dieback. Deadwood.	Fair	Good	20	B1	5.6	100	-
T28	Zelkova	On	6.0	2	-	210	0.5-5.5-3.5-0.5	2.5	3	SE	Y	None	Basal wound. Suppressed form.	Good	Fair	10	C1	2.5	20	-
T29	English oak	Off	19.0	1	#	1050	10-7-10-9	4.0	4.5	W	M	None	Good form. Ongoing construction including excavation within RPA on neighbouring land. Branch loss wounds and deadwood stubs. Split branch.	Good	Good	40	B1	12.6	499	-
T30	Wild cherry	On	14.0	1	-	310	7-5-3.5-3.5	4.0	4.5	SE	M	None	Canker lesions on bole.	Good	Fair	20	B2	3.7	43	-
T31	Wild cherry	On	15.0	1	-	460	3-0.5-4-7	3.0	5	W	M	None	Included bark union at 2m. Crown lift wounds.	Good	Good	40	B2	5.5	96	-
T32	Wild cherry	On	14.0	1	-	430	6.5-2-4.5-6.5	2.0	3.5	W	M	None	Crown lift branch stubs. Canker lesions at 3m on bole.	Good	Fair	20	B2	5.2	84	-
T33	Hornbeam	On	10.0	1	-	440	8-7.5-5-7	1.5	2	N	SM	None	Girdling root. Leader previously topped at 3.5m. Spreading form.	Good	Fair	40	B1	5.3	88	-
T34	English oak	On	5.0	1	-	190	2-2.5-2.5-2.5	1.0	0.5	E	Y	None	Established young tree.	Good	Good	40	C1	2.3	16	-
T35	Horse chestnut	Off	16.0	2	-	1780	9.5-11.5-11.5-12.5	3.0	2.5	E	M	None	Previously pollarded. Stem loss wound and cavity in bole to NE. Un-occluded stem and branch removal wounds.	Good	Fair	40	A2	15.0	707	TPO 14/2018 T13
T36	Horse chestnut	Off	19.0	1	-	1190	11.5-13-12.5-10.5	2.0	3	W	M	None	Large un-occluded branch removal and tear wounds.	Good	Good	40	A2	14.3	641	TPO 14/2018 T14
T37	Common ash	Off	16.0	1	-	860	7-8.5-9-7.5	2.5	4	N	M	None	Basal decay cavity through stem base leaving tree on buttress stilts. Column of decay in stem. Branch loss wounds. Extensive twig dieback and epicormic shoots on branches.	Poor	Fair	20	B3	10.3	335	-

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T38	Hawthorn	On	8.0	2	#	300	2-2-2-4	3.5	3	S	M	None	Decayed column within stem. Crown dieback and branch tip losses.	Poor	Fair	10	C1	3.6	41	-
T39	Common beech	On	12.0	1	-	700	9-9-8-9	1.0	2	N	M	None	No significant defects.	Good	Good	40	B1	8.4	222	TPO 14/2018 T16
T40	Common ash	On	0.0	-	-	-	-	-	-	-	-	-	Tree felled to stump since first survey.	-	-	-	-	-	-	-
T41	Common beech	On	15.0	1	-	890	8-6-10.5-9	1.5	1.5	NW	M	None	Included bark stem unions. Four primary stems from 2.5m.	Good	Fair	40	B1	10.7	358	TPO 14/2018 G8
T42	Swedish whitebeam	On	9.5	1	-	440	3-2.5-4-4	1.5	1.5	N	M	None	Compartmentalised decay cavity at 1m in bole.	Good	Fair	20	B2	5.3	88	-
T43	Common beech	On	16.5	1	-	780	7.5-5.5-7.5-7	1.5	2	W	M	None	Included bark stem union at 4m.	Good	Fair	20	B2	9.4	275	TPO 14/2018 G8
T44	Hazel	On	4.5	5	-	230	3.5-3-3-3.5	1.5	0.5	n/a	M	None	Old decayed stool with remnant growth.	Good	Fair	20	C1	2.8	24	-
T45	Common beech	On	15.0	1	-	700	8.5-7-7-9.5	3.0	2.5	N	M	None	No buttress formation in SW stem base quadrant. Cambium dysfunction at stem base. Canker-like bark lesions on stem. Thinning crown and branch dieback.	Poor	Good	10	C1	8.4	222	TPO 14/2018 G8
T46	Hazel	On	6.0	1	#	400	6-6-1.5-4	1.5	0.5	n/a	M	None	Multi-stemmed with exposed roots from soil erosion.	Good	Good	20	B1	4.8	72	TPO 14/2018 G8
T47	Swedish whitebeam	On	12.0	1	-	420	3-4.5-3.5-2	3.0	2	E	M	None	Compartmentalised wound at 0.5m on bole. Deadwood.	Good	Good	40	B2	5.0	80	-
T48	Hazel	On	8.0	1	#	500	7.5-8.5-5.5-5.5	2.0	0.5	n/a	M	None	Mature stool with stem removal and loss wounds.	Good	Good	40	B1	6.0	113	TPO 14/2018 G8
T49	Common ash	On	26.0	1	-	1000	10.5-8-13.5-12.5	3.0	5.5	S	M	None	Large tree growing on bank of historic feature with exposed roots. Deadwood.	Good	Good	40	A1	12	452	TPO 14/2018 T12
T50	Hazel	On	6.5	1	#	250	4-4-2.5-5	1.0	1	n/a	M	None	Exposed roots.	Good	Fair	20	B2	3.0	28	-
T51	Common ash	On	26.0	1	-	790	11-10.5-6.5-9.5	2.0	7	W	M	None	Pruning wound shoots on bole. Minor deadwood.	Good	Good	40	A1	9.5	282	TPO 14/2018 T11
T52	Common ash	On	8.5	1	-	630	6-5.5-2.5-4.5	1.5	2.5	n/a	M	None	Modern 3m pollard. Basal decay cavity with extensive decay to south.	Good	Fair	20	B2	7.6	180	-

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T53	Copper beech	On	14.0	1	#	700	6.5-8-7.5-9	1.5	2	W	EM	None	Commemorative tree with plaque seen in first survey but now gone, planted 1977. Very good form.	Good	Good	40	**A1**	8.4	222	TPO 14/2018 G8
T54	Common ash	Off	0.0	-	-	-	-	-	-	-	-	-	Felled to stump since first survey.	-	-	-	-	-	-	-
T55	Sweet chestnut	On	10.0	1	-	2000	7.5-5.5-6-6.5	1.0	3	N	M	Ancient & veteran	Basal decay cavities and bark loss on buttresses. Pollarded tree with large natural stem fractures showing hollowed stems. Branch bark loss. 'Old look'. Tree girth qualifies tree as ancient according to Fig.1.3 of Lonsdale (2103). Tree has sufficient veteran characteristics to be assessed as a Veteran tree (in para. 2.1.1 in Read, 2000).	Good	Good	40	**A3**	15.0	707	TPO 14/2018 T10
T56	Crack willow	On	12.5	1	-	500	9-5.5-4-7	1.5	3	NE	EM	None	Stem leans at 20 degrees to north. Deadwood.	Good	Good	20	**B2**	6	113	-
T57	Crack willow	On	21.0	1	-	660	9.5-4.5-4-9	3.0	5	NW	M	None	No significant defects.	Good	Good	20	**B1**	7.9	197	-
T58	Common ash	On	15.0	1	-	770	10-8-7.5-8.5	2.5	3.5	NE	M	None	Eroded soil around root flare. Branch removal wound. Branch tear wound with dieback on branch above. Deadwood.	Good	Good	20	**B1**	9.2	268	TPO 14/2018 T15
T59	Common ash	On	15.0	1	-	1000	7.5-11.5-9.5-4	2.5	3	S	M	None	Old 3m pollard with old stem failure wound cavity in pollard head. Strong reaction growth. Stems weighted to south. Dry crevices. Twig dieback. ADB 1	Good	Fair	20	**B3**	12	452	-
T60	Common ash	On	17.0	1	-	1170	4.5-4.5-9-8.5	2.0	2.5	SE	M	None	Old 3m pollard with hollowed bole and open cavity from included bark stem failure. Strong reaction growth. Dry crevices. Woodpecker holes at 5m north. ADB 1	Good	Fair	20	**B3**	14	619	-
T61	Hawthorn	On	5.5	1	#	430	4-4-1-2.5	1.0	1	E	M	None	No significant defects.	Good	Good	40	**B1**	5.2	84	-
T62	Hawthorn	On	5.0	1	#	240	2-4-1-2	1.0	1	SW	M	None	No significant defects.	Good	Good	40	**B1**	2.9	26	-

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T63	Common ash	On	13.0	1	-	1100	0.5-6-9-7	4.0	3	W	LM	None	Old 3m pollard with hollowed bole to ground and decayed buttresses. Modern stem collapse at pollard head leaving one main stem weighted over field to south and which is cracking away to ground. Poorly attached lower branch to west. Advanced crown dieback with epicormic shoots.	Poor	Poor	10	**B3**	13.2	547	-
T64	Common beech	Off	14.0	1	#	450	7-7-4.5-6	3.0	5.5	E	EM	None	Growing in hedge line.	Good	Good	40	**B1**	5.4	92	-
T65	Sycamore	Off	14.0	6	#	560	3.6-6-9-5	3.0	2	E	M	None	Off-site coppice origin tree. Ash and hawthorn also growing within canopy but within sycamore RPA.	Good	Good	40	**B2**	6.7	142	-
T66	Common ash	On	14.0	1	-	500	8-3-8-3.5	5	4	S	M	None	Crown decline. Deadwood.	Poor	Fair	10	**U**	6.0	113	TPO 03/1974 G1
T67	Sycamore	On	10.0	1	#	400	5.5-7-5.5-3.5	3.5	3	E	EM	None	Ivy on stem	Good	Good	40	**B1**	4.8	72	TPO 03/1974 G1
T68	Common ash	On	10.0	1	-	550	8-6.5-4-3.5	4.0	4	S	M	None	Crown decline. Deadwood.	Poor	Poor	<10	**U**	6.6	137	TPO 03/1974 G1
T69	Common beech	On	11.0	1	-	590	8-9-8.5-7.5	1.0	1.5	N	EM	None	No significant defects.	Good	Good	40	**B1**	7.1	157	TPO 14/2018 T18
T70	Wild cherry	On	11.0	1	-	580	6-6-6-6.5	1.0	2	NW	M	None	No significant defects.	Good	Good	40	**B1**	7.0	152	TPO 14/2018 T19
T71	Common ash	On	11.0	1	-	750	4.5-5-5-4	3.0	3	n/a	M	None	Lapsed 3m pollard. Hollow stem to ground with open cavity to north. Extensive twig dieback with inner epicormic shoots. ADB 3.	Poor	Fair	10	**C3**	9.0	255	-
T72	Scots pine	Off	16.5	1	-	900	4.5-5-9-6	3.0	5.5	SW	M	None	Highway verge tree. Snapped hanging branches. Leader appears to be cracking away from stem at 12m.	Good	Poor	20	**C1**	10.8	366	TPO 14/2018 G7
T73	Scots pine	Off	14.0	3	#	700	8-6-7-4	4.0	5.5	S	M	None	Three stems from 1.5m.	Good	Good	40	**B1**	8.4	222	TPO 14/2018 G7

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T74	Scots pine	Off	15.0	1	-	470	4.5-5-2.5-4	4.0	3.5	SW	M	None	Good form.	Good	Good	40	**B1**	5.6	100	TPO 14/2018 G7
T75	Italian alder	Off	10.0	1	-	360	7-4.5-4-4	2.5	4.5	n/a	M	None	No significant defects.	Good	Good	40	**B1**	4.3	59	TPO 14/2018 G7

GROUPS OF TREES

Ref	Species	On / off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G1	Common ash, sycamore	On	6-10	3	-	560	6.5	5.0	EM	None	Ash grows phototrophically over both road carriageways. Vehicle strike wounds to underside of ash stem on Bulls Lane.	Good	Fair	20	**B2**	6.7	TPO 14/2018 G5
G2	Sycamore	On	16	2	-	360	6	7.0	EM	None	Both tree have two stems from 1m or below. Crown lift wounds. Attenuated form where neighbouring trees felled.	Good	Good	20	**B2**	4.3	TPO 14/2018 G4
G3	Common ash, sycamore	On	8-17	3	-	670	7	5.0	M	None	Twig dieback and epicormic stem and branch shoots in ash. Large 40cm diam. branch removal wound at 2.5m on middle ash tree.	Fair	Good	10	**C1**	8.0	TPO 14/2018 G3
G4	Common ash, wych elm	On	12-24	6	-	880	6	3.0	M	None	Twig dieback in ash, minor deadwood.	Fair	Good	20	**B2**	10.6	TPO 14/2018 T3/ G2
G5	Common ash	On	14	1	-	500	4	6.0	EM	None	One dead standing tree remains of group since first survey. Weighted into site.	Poor	Poor	<10	**U**	0.0	TPO 14/2018 G2/T2
G6	Common ash	On	17-19	3	-	640	7	4.5	M	None	Crowns lifted. Deadwood.	Fair	Good	20	**B2**	7.7	TPO 14/2018 G1
G7	Common lime	Off	14-24	4	-	1100	10	3.0	M	None	Line of tree including fifth felled stump with sucker regrowth. Basal shoots. Branch and stem loss wounds. Second tree from SE has decayed branch fracture wound at 6m.	Good	Fair	40	**A2**	13.2	-

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G8	Holly, hawthorn, sweet chestnut, hazel, cherry laurel, elder, common ash, hornbeam, sycamore, rowan, holly oak	Off	3-8	15	-	300	3	1.5	EM	None	Range of planted garden trees and shrubs and natural regeneration forming dense screen.	Good	Good	20	**B2**	3.6	-
G9	Common ash, sycamore	On	26	5	-	690	6.5	6.0	M	None	Large crown lift wound on east ash. Two large branch fracture stubs over site. Crown dieback in ash. I. hispidus fungal brackets on middle tree. Largest ash has epicormic shoots on stem.	Fair	Fair	20	**B2**	8.3	-
G10	Wild cherry, crack willow, balsam poplar, common beech, silver birch, elm spp., sycamore, elder	Off	6-18	24	-	530	5	1.5	M	None	Semi-mature to mature trees growing around pond and planted within lawn.	Good	Good	40	**B2**	6.4	-
G11	Hawthorn	Off	3.5-4.5	2	-	240	3	1.0	EM	None	Sparse canopies for species. Remnant hedge trees.	Fair	Good	20	**B2**	2.9	-
G12	Hawthorn, hazel		4	4	-	190	2.5	1.0	M	None	Remnant hedge group with stem decay and eroded root plates.	Good	Fair	20	**C1**	2.3	-
G13	Hawthorn	Off	4-6.5	2	-	400	4	1.0	M	None	Presumable remnant hedge trees. Larger tree of good form.	Good	Good	20	**B2**	4.8	-
G14	Hawthorn	On	3-5	3	#	380	2	1.0	M	None	Remnant hedge trees. Crown dieback in west tree. Stem decay cavities.	Fair	Fair	20	**B3**	4.5	-
G15	Hawthorn	On	3-5	2	-	400	2	1.0	M	None	Remnant hedge trees.	Good	Good	20	**B3**	4.8	-
G16	Hawthorn, blackthorn	On	3-4.5	3	-	140	2	1.0	EM	None	Remnant hedge trees with browsing damage.	Good	Fair	10	**C1**	1.7	-
G17	Hawthorn, blackthorn	On	3-5	4	-	370	2	1.0	M	None	Remnant hedge trees.	Good	Good	20	**B2**	4.4	-
G18	Field maple, hawthorn	Off	6-8.5	5	-	450	5.5	1.5	M	None	Two larger mature field maples. Decayed and compartmentalised branch loss wounds.	Good	Good	40	**B1**	5.4	-
G19	Common ash	Off	15	2	-	550	6	2.0	M	None	Two off-site trees. South tree is early-mature. Mature tree to north has bacterial cankers.	Good	Good	20	**B2**	6.6	-
G20	Sweet chestnut, common holly, snowy mespil	Off	5-7.5	3	#	180	3	2.5	SM	None	Off-site group.	Good	Good	40	**B2**	2.2	-

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LAND SOUTH OF ASHFORD ROAD

PROJECT NO: 4509

SURVEYOR: IAN MONGER

CLIENT: GLADMAN DEVELOPMENTS LTD

DATE OF SURVEY UPDATE: 02/06/2023

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HEDGEROWS

Ref	Species	On / off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. Canopy Height (m)	Life Stage	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H1	Hawthorn, English oak, wych elm, elder	On	2.0	1	100	0	SM	Gappy hedge.	Good	Fair	20	C2	1.3
H2	Wych elm, hazel, common ash, elder, hawthorn, sycamore, blackthorn	On	2.5	2	150	0	SM	Gappy hedge composed predominantly of trees and shrubs topped at 1m with regrowth.	Good	Fair	20	C2	1.8
H3	Hornbeam, sycamore	Off	4.0	3	80	1	SM	Unmaintained hedge browsed on paddock side.	Good	Good	40	B2	1.0
H4	Hawthorn, willow spp.	Off	3.0	3	50	1	SM	Browsed on paddock side.	Good	Good	20	B2	0.6
H5	Common holly	On	4.0	4	200	1	EM	Planted within site 1m from boundary. Nine trees browsed clear to 1m with browsing wounds on stems. Multi-stemmed.	Good	Fair	20	B2	2.4
H6	Hawthorn, blackthorn, elder	On	4.0	4	180	1	M	Unmaintained mature hedge browsed at base.	Good	Fair	20	B2	2.2
H7	Hawthorn, elder	On	5.0	6	300	1	M	Unmaintained mature hedge browsed at base.	Good	Fair	20	B2	3.6
H8	Elder	On	3.0	3.0	150	1.5	EM	Infested with bramble.	Good	Fair	20	C2	1.8
H9	Common beech	Off	2.0	1.0	150	0.0	EM	Tightly clipped hedge.	Good	Good	40	B2	1.8
H10	Hawthorn, common ash, wych elm, sycamore	On	2.5	2.0	200	1.5	SM	Gappy hedge of predominantly hawthorn more recently topped down to 1m.	Good	Fair	40	C2	2.4

- The tree survey was carried out with reference to the methodology set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (eg avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups/woodlands were also surveyed as individuals
- The full tree survey findings are recorded in the following tree survey schedule.
- Within the tree survey schedule, each surveyed TREE (T), GROUP (G), HEDGEROW (H), WOODLAND (W) or SHRUB MASS on or adjacent to the Site is given a reference number which refers to its position on the tree survey and constraints plan.
- TREE SPECIES are listed by common name.

The DIMENSIONS taken are:

- STEM-No. Indicates the number of main stems (i.e. whether the trunk divides at or below 1.5m; (Used in the calculation of RPA.) "m-s" = Multi-stemmed.
- STEM DIAMETER (in millimetres), obtained from the girth measured at approx.1.5m. For trees with 2 to 5 sub-stems, a notional figure is derived from the sum of their cross-sectional areas. For multi-stemmed trees the notional diameter may be estimated on the basis of the average stem size x the number of stems. (A notional diameter may be estimated where measurement is not possible.)
- HEIGHT, are measured in metres. They are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- The CROWN SPREAD are taken at the four cardinal points to derive an accurate representation of the tree crown. They are recorded up to the nearest half metre for dimensions up to 10m and to up the nearest whole metre for dimensions over 10m.
- CROWN CLEARANCES are expressed both as existing height above ground level of first significant branch along with its direction of growth (eg 2.5m-N), and also in terms of the overall canopy. Measurements are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- ESTIMATES. Where any measurement has had to be estimated, due to inaccessibility for example, this is indicated by a "#" suffix to the measurement as shown in the tree survey schedule.

LIFE STAGE is defined as follows:

Y Young: normally stake dependent, establishing trees. Should be growing fast, usually primarily increasing in height more than spread, but as yet making limited impact upon the landscape.

SM Semi-mature: Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment. Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature).

EM Early-mature: Not yet having reached 75% of expected mature size. Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment.

M Mature: Well-established trees, still growing with some vigour, but tending to fill out and increase spread. Bark may be beginning to crack & fissure. In the middle half of their safe, useful life expectancies.

LM Late-Mature: In full maturity but possibly beyond mature and in a state of natural decline). Still retaining some vigour but any growth is slowing.

A Ancient: A tree that has passed beyond maturity and is old./aged compared with other trees of the same species. Typically having a very wide trunk and a small canopy.

PHYSIOLOGICAL CONDITION (HEALTH & VITALITY):
Essentially a snapshot of the general health of the tree based upon its general appearance, its apparent vigour and the presence or absence of symptoms associated with poor health, physiological stress etc. (Fungal infections may be recorded here but decay giving rise to structural weakness would be recorded under 'Structural Condition' – see next parameter):

Good: No significant health issues.
Fair: indications of slight stress or minor disease (e.g. the presence of minor dieback/deadwood or of epicormic shoot growth)
Poor: Significant stress or disease noted; larger areas of dieback than above
Dead: (or Moribund)

STRUCTURAL CONDITION:
Defects affecting the structural stability of the tree, including decay, significant dead wood, root-plate instability or significant damage to structural roots, weak forks (e.g. those where bark is included between the members) etc. Classified as:

Good: No obvious structural defects: basically sound
Fair: Minor, potential or incipient defects
Poor: Significant defect(s) likely to lead to actual failure in the medium to long-term
Dead: (or Moribund)

REMAINING USEFUL LIFE EXPECTANCY:
An estimate of the length of time in years that a tree might be expected to continue to make a useful contribution to the locality at an acceptable level of risk (based on an assumption of continued routine maintenance)

- less than 10 years
- 10+ years
- 20+ years
- 40+ years

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SPECIAL IMPORTANCE:
Trees that are particularly notable as high value trees such as ancient trees/woodland, or veteran trees. Such trees may be regarded as the principal arboricultural features of a Site, and pose a significant constraint to potential development.

An ancient tree is one that has passed beyond maturity and is very old compared with other trees of the same species. Very few trees reach the ancient life-stage. Veteran trees are often very old, but not necessarily so; they may be regarded as 'survivors' that have developed some of the characteristic features of an ancient tree but have not necessarily lived as long. All ancient trees are veterans but not all veteran trees are ancient.

QUALITY CATEGORY:
Trees are classed as category U, A, B or C, based on criteria given in BS5837:2012; summary definitions as follows (see BS5837 for further details). Categories A, B and C are further characterised by the use of sub-categories, which attempt to identify what aspect of the tree is the main source of its perceived value:
(1) arboricultural qualities
(2) landscape qualities, and
(3) cultural, historic or ecological/conservation qualities.
Examples of these qualities for each of the three categories are given below, although these are indicative only.
Note: This is NOT a health and safety classification; the classification does not take into account any requirement for remedial tree care or ongoing maintenance apart from that which may affect the trees' general suitability for retention.

CATEGORY U: UNSUITABLE:
Trees likely to prove to be unsuitable for retention for longer than 10 years should any significant increase in Site usage arise as a result of development.
E.g. dead or moribund trees; those at risk of collapse or in terminal decline; trees that will be left unstable by other essential works such as the removal of nearby category U trees; trees infected by pathogens that could materially affect other trees; low quality trees that are suppressing better specimens .
(Category U trees may have conservation values that it might be desirable to preserve. It may also include trees that should be removed irrespective of any development proposals.)

CATEGORY A: HIGH QUALITY:
Trees or groups whose retention should be given a particularly high priority within the design process. Normally with an expected useful life expectancy of at least 40 years.
A1: Notably fine specimens; rare or unusual specimens; essential component trees within groups, semi-formal or formal plantings (e.g. dominant trees within an avenue etc.).
A2: Trees, groups or woodlands of particular visual importance as landscape features.
A3: Trees, groups or woodlands of particular significance by virtue of their conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture).

CATEGORY B: MODERATE QUALITY:
Trees or groups of some importance with a likely useful life expectancy in excess of 20 years. Their retention would be highly desirable; selective removal of certain individuals may be acceptable, but only after full consideration of all alternative courses of action.
B1: Fair quality but not exceptional; good specimens showing some impairment (e.g. remediable defects, minor storm damage or poor past management).
B2: Acceptable trees situated such as to have little visual impact within the wider locality. Also numbers of trees, perhaps in groups or woodlands, whose value as landscape features is greater collectively than would warrant as individuals (such that the selective removal of an individual would not impact greatly upon the trees' overall, collective value).
B3: Trees, groups or woodlands with clearly identifiable conservation or other cultural benefits.

CATEGORY C: MINOR VALUE:
Trees or groups of rather low quality, although potentially capable of retention for at least approx. 10 years. Also small trees with stems below 15cm diameter.
Potentially retainable, but not of sufficient value to be regarded as a significant planning constraint.
C1: Unremarkable trees of very limited merit or of significantly impaired condition.
C2: Trees offering only low or short-term landscape benefits; also secondary specimens within groups or woodlands whose loss would not significantly diminish their landscape value.
C3: Trees with extremely limited conservation or other cultural benefit.

ROOT PROTECTION AREA (RPA):
These are normally represented as a circle centred on the base of each tree stem with a radius of 12 times stem diameter measured at 1.5m above ground level, but the shape of the RPA may be altered where Site conditions dictate that there are sound reasons to do so.

THE IMPORTANCE OF TREES

Wider benefits:

There is a growing body of evidence that trees bring a wide range of benefits to the places people live.

Some *Economic* benefits of trees include:

- Trees can increase property values
- As trees grow larger, the lift they give to property values grows proportionately
- They can improve the environmental performance of buildings by reducing heating and cooling costs, thereby cutting bills
- Mature landscapes with trees can be worth more as development sites
- Trees create a positive perception of a place for potential property buyers
- Urban trees improve the health of local populations, reducing healthcare costs

Some *Social* benefits of trees include:

- Trees help create a sense of place and local identity
- They benefit communities by increasing pride in the local area
- They can create focal points and landmarks
- They have a positive impact on people's physical and mental health
- They can have a positive impact on crime reduction

Some *Environmental* benefits of trees include:

- Urban trees reduce the 'urban heat island effect' of localised temperature extremes
- They provide shade, making streets and buildings cooler in summer
- They help remove dust and particulates from the air
- They help to reduce traffic noise by absorbing and deflecting sound
- They help to reduce wind speeds
- By providing food and shelter for wildlife they help increase biodiversity
- They can reduce the effects of flash flooding by slowing the rate at which rainfall reaches the ground
- They can help remediate contaminated soil

On new development sites:

Trees bring many benefits to new development. Where retained successfully they can form important and sustainable elements of green infrastructure, contribute to urban cooling and reduce energy demands in buildings. Their importance is acknowledged in relation to adaptation to the effects of climate change. Other benefits brought by trees include:

- increasing property values;
- visual amenity
- softening, complementing and adding maturity to built form
- displaying seasonal change
- increasing wildlife opportunities in built-up areas
- contributing to screening and shade
- reducing wind speed and turbulence

NATIONAL PLANNING POLICY

The National Planning Policy Framework 2023 (NPPF paragraph 180) states that:

'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'.

In this respect the following definitions apply:

'Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)', and an
'Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.'

STATUTORY CONTROLS

Statutory tree protection

Works to trees which are covered by Tree Preservation Orders (TPOs) or are within a Conservation Area (CA) require permission or consent from the Local Planning Authority. Where information is available on any Statutory designations such as this they are identified within the summary table in Section 1 and on the Tree Survey and Constraints Plan at Section 2.

Notwithstanding specific exceptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of protected trees or woodlands without the prior written consent of the LPA.

Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine is the matter is determined by the Crown Court.

Similarly, and again notwithstanding specific exceptions, it is an offence to carry out any works to a tree in a Conservation Area with a trunk diameter greater than 75mm diameter at 1.5 height without having first provided the LPA with 6 weeks written notification of intent to carry out the works.

On many non-residential sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined.

Statutory Wildlife Protection

Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside of the scope for this report.

Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for protected species such as bats in addition to birds and small mammals. It is advised that in some instances specialist ecological advice may be required. This may result in tree works being carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the site manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by the appointed Ecologist or Natural England.

It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. This time period only provides an indication of likely nesting times and as such diligence is required when undertaking tree works at all times.

Irrespective of the time of year, and other than any actions approved under General Licence, it is an offence to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest or eggs of any wild bird. Ideally, tree operations should be avoided during the likely bird nesting period. However, any tree works should always only be carried out following a preliminary visual check of the vegetation.

For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in England and Wales. A different legislative framework applies in Scotland and Northern Ireland.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with any relevant statutory controls, outlined above.

REFERENCES

Ancient Tree Forum, 2007. Ancient Tree Guides No.3: Trees and development, Grantham, Lincolnshire: The Ancient Tree Forum and the Woodland Trust. http://www.ancienttreeforum.co.uk/resources/ancient-tree-guides/trees-and-development/

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Ministry of Housing, Communities and Local Government, 2019 National Planning Policy Framework. London: Ministry of Housing, Communities and Local Government.

TDAG (Trees and Design Action Group), 2012. Trees in the Townscape, Issue 3: November 2012. http://www.tdag.org.uk/trees-in-the-townscape.html/

PRINCIPLES FOR TREE PROTECTION ON DEVELOPMENT SITES

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HOW TREE DAMAGE CAN OCCUR

Above the ground

Damage can occur as a result of knocks and scuffs, breakages of branches and/or tree trunks. This is often but not always associated with machine operations, groundworks excavations, teleporters, high sided vehicles and crane use. Other forms of above ground damage include fixings to trunk and unauthorised cutting back of branches. Wounds will harm a tree's health and shorten its life by letting in disease-causing organisms.

Below the ground

It is often not appreciated that the majority of most tree roots are generally located within the top 600mm of the ground. On this basis it needs to be understood that damage to roots can occur in three ways:

- Root severance can occur as a result of, for example, soil stripping during site clearance or excavations.

- Root dieback and death can result from compaction of the soil. Compaction can occur as a result of vehicle weight, weight of stored materials or increased pedestrian access. Compaction crushes out soil pore space and prevents tree respiration from occurring (respiration requires gas exchange between the ground and the atmosphere). Compacted soil is denser and therefore inhibits/prevents any further new root growth.

- Pollution of the soil with chemicals such as oil or cement washings can destroy the soil environment, making it inhospitable for the tree cause causing it stress.

The effects of these impacts can be disfiguring to a tree's appearance and also weaken a tree making it more liable to attack by pest and diseases. In addition, root damage or death results in corresponding decline above the ground with dieback occurring within the tree crown.

The effects of damage to trees generally take some time to become fully apparent. In many cases, damaged trees decline slowly after the completion of a new development, until they eventually need to be removed due to ill health.

Tree protection barriers and load distributing 'no-dig' paths are specified in order to prevent soil compaction from taking place.

GENERAL SITE RULES FOR TREE PROTECTION

Do not independently carry out any activity that is at odds with the site scheme of tree protection. This is contained within an approved Arboricultural Method Statement (AMS) and accompanying Tree Protection Plan.

In simple terms: do not carry out any work within any Construction Exclusion Zone (CEZ) without prior liaison with the Project Arboriculturist and written authorisation from the Local Planning Authority.

Within the CEZ:

- No mixing of cement

- No soil/turf stripping, raising/lowering of ground levels (unless advised), deposit or excavation of soil or rubble

- No excavations for services or installation of services

- No storage of materials, machinery fuel, chemicals or other materials of any other description

- No parking/use of tracked or wheeled machinery

- No siting of temporary structures including hard standing areas, portaloos, site huts

- No lighting of fires or disposal of liquids

- Fires on site should be avoided if possible. Where they are unavoidable, they must not be lit in a position where heat could damage foliage or branches. Fires must be a minimum of 20m from the trunk of any retained tree or the centre line of any hedgerow to be retained

- No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained tree.

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