



ARBORICULTURAL IMPACT ASSESSMENT

Land at Bird in Eye Farm,
Uckfield

July 2024



Barton Hyett Associates
Arboricultural Consultants

Summary table		
Site Name:	Land at Bird in Eye Farm	
Project reference:	C.3574	
Site Address:	South of Bird in Eye Hill, Uckfield (Framfield Parish)	
Nearest Postcode:	TN22 5HA	
Central Grid reference:	TQ 48289 20730	
Local Planning Authority:	Wealden District Council	
Relevant planning policies:	WDC adopted Core Strategy 2013: <i>WCS12 Biodiversity, WCS13 Green Infrastructure.</i> WDC Local Plan (1998): <i>Saved policies: EN8, EN12, EN13, EN14</i>	
Statutory Controls:	Tree Preservation Order	Conservation Area
	No	No
Soil Type: (Source: BGS online soils map © NERC 2024)	Superficial/Drift	Bedrock
	None recorded	Lower Tunbridge Wells Sand - Sandstone, Siltstone And Mudstone.
Topographical Survey:	Yes - DRWG ref: 6JJ2-Bird in Eye Farm (PS)	
Notes:	Designated ASNW adjacent to the site.	
Report author:	Richard Hyett, MSc, BSc (Hons), MArborA, MICFor	
Date of issue:	31st July 2024	

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1. INSTRUCTION

- 1.1. Barton Hyett Associates Ltd. have been instructed by the applicants Croudace Homes, to survey trees located on land at Bird in Eye Farm, Uckfield ('the site') in accordance with BS5837:2012 '*Trees in relation to design, demolition and construction - recommendations*'.
- 1.2. The scope of the instruction was to inspect trees relevant to an outline planning application at the site and provide written advice on how they inform feasibility and design options for the site. The instruction also required an outline assessment of the potential impact (the arboricultural impact assessment) of the proposed development on the site's arboricultural resource to be undertaken. The most recent survey of the site was undertaken in the summer of 2024.

2. SITE DESCRIPTION

- 2.1. The site is approximately 20ha in size and is located to the east of the settlement of Uckfield and south of the B2102 (Bird in Eye Hill). The main site (the primary area of proposed built development) surrounds Bird in Eye Farm. The farm complex currently contains a number of barns and buildings that are utilised by local businesses. Beyond the farm complex is a series of equestrian paddocks (primarily to the south and west). To the east and south east of the farm complex is a field and an area of young establishing woodland. A track leads from the main farm complex to a series of barns located to the far east of the site.
- 2.2. Beyond the southern boundary of the site is an east/west orientated belt of woodland. The woodland is designated Ancient Semi Natural Woodland (ASNW) and is known locally as Bird in Eye Shaw. Further ASNW is located beyond the western boundary of the site (including Nightingale Shaw).
- 2.3. None of the surveyed trees are protected by Tree Preservation Order, and the site is not located within a designated Conservation Area.

3. TREE SURVEY FINDINGS

- 3.1. A total of 6 individual trees, 17 groups of trees, 8 hedgerows and 2 woodlands were identified as relevant to this application and surveyed. (**NB** tree groups that formed part of a previous wider site, G11, G12, G13, G14 and woodlands W3, W4, and W5, are not relevant to this current application). The findings are summarised in terms of their quality in accordance with the recommendations of BS5837 below, and shown in more detail on the Tree Survey and Constraints Plan (**Section 2**) and within the Tree Survey Schedule (**Section 4**).

	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	6	1	4	1	-
Groups	17	2	5	10	-
Hedgerows	8	-	-	8	-
Woodland	2	2	-	-	-
Total	33	5	9	19	0

Table 1: Summary of arboricultural features of each BS5837 quality category relevant to the current application

- 3.2. The majority of surveyed features were assessed as being of moderate quality (quality category B). Nine features were assessed as being of high quality (quality category A). These are, T6 common ash, G9 (English oak), and G4 (mixed species) and W1, W2 (both of mixed species).
- 3.3. Some large areas of young woodland type planting were also identified (e.g. G8) and whilst these are establishing well, they require some management and due to the relatively small size of the trees within them have been assessed as being of moderate quality (quality category B).
- 3.4. The trees located to the south of the B2102 and east of the proposed access were included in the original 2020 tree survey within a larger woodland block referenced as G4. The relevant trees within G4 (those that could be influenced by the proposed access) have been identified on the Tree Survey and Constraints Plan (**Section 2**) as T1(A) to T6(A) (the suffix A refers to 'access' as has been included to distinguish them from T1 to T6 located within main site).
- 3.5. It is important to note that not all individual trees within a larger group or woodland that is considered to be high quality (Category A) are themselves high quality. In this case G4 was assigned to category 'A2', with the suffix '2' indicating that the trees are of high value but mainly due to their landscape qualities and not necessarily the individual quality of the trees.
- 3.6. No trees were assessed as being unsuitable for retention (quality category U).
- 3.7. Tree T6 and both the large oak trees within G9 have been categorised as 'veteran' trees by virtue of their large stem girth and the presence of additional features, e.g. the presence of decay fungi, cavities and retrenching crowns. As such, they are of significance as heritage and ecologically valuable trees and particular importance is placed upon them in national planning policy terms.

- 3.8. A desktop search of DEFRA's MAGIC online mapping database has revealed a number of areas of ASNW to be present around the periphery of the site (W1 and W2). A full ASNW survey was not undertaken but in general, all the designated areas of ASNW have the appearance and some of the characteristics one would expect to observe in Ancient Woodland.
- 3.9. The National Planning Policy Framework 2023 (NPPF paragraph 186(c)) states that:

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.'
- 3.10. The Forestry Commission and Natural England standing advice 'Ancient woodland, ancient trees and veteran trees: protecting them from development' 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 veteran tree buffer zone with a radius of 15 times the diameter of T6 and G9 has been shown on the Tree Survey and Constraints Plan. In addition, in accordance with the Standing Advice an ancient woodland buffer of 15m from the 'boundary of the woodland' has been applied to avoid root damage and is shown on the Tree Survey and Constraints Plan in **Section 2**. A further 50m buffer provided to the built form (roads and dwellings) of the proposed development.
- 3.11. The standing advice also states that the inclusion of gardens within a veteran tree or ancient woodland buffer zones should be avoided but the inclusion of sustainable drainage schemes may be permissible if they don't affect root protection areas or hydrology. Buffers 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. Please refer to the further guidance in **Section 5**.
- 3.12. In this case the proposed development will be able to respect the required buffer zones as well as deliver enhancements through suitable woodland margin planting within the buffer closest to the development (e.g. the north side of W1).

4. PROPOSED DEVELOPMENT

- 4.1. Outline planning consent is sought for residential development at the site. The application description is as follows:

"Outline planning application for the erection of up to 190 dwellings, with associated works, parking, landscaping, publicly accessible open space and SANG provision, with access from the B2102."
- 4.2. Matters relating to appearance, landscaping, layout and scale are all reserved.

5. IMPACT ASSESSMENT (AIA)

- 5.1. The AIA considers the effects of any tree loss required to implement the indicative layout design as well as any reasonably foreseeable potentially damaging activities proposed in the vicinity of retained trees. This is undertaken with reference to BS5837:2012 and considering the outline nature of the proposals. This can include tree removal to facilitate design, demolition of buildings and removal of existing hard surfacing, soil compaction in close proximity to trees and direct impact damage to canopy and roots of retained trees from construction activities. A summary of anticipated impacts resulting from the proposed development is provided below.
- 5.2. An Illustrative Parameter Land Use Plan (Drawing reference: PRB-BIE-204D Illustrative Parameter Land Use Plan_A1L) has been prepared. This plans has been prepared to respond to the key arboricultural constraints identified. It is these plans for which outline planning consent is sought.
- 5.3. To assist in the assessment of the proposed development an Illustrative Site Layout drawing has also been produced (Drawing reference: PRB-BiE-202G Illustrative Site Layout Colour). The Illustrative Site Layout demonstrates one way the site could be developed within the parameters set out on the Parameter Plan. The following impact assessment provides a preliminary assessment of the anticipated arboricultural impacts and is based on the current site conditions and the layout details shown on the Illustrative Site Layout that has been prepared.

Tree losses

- 5.4. The table below provides a summary of the anticipated tree and hedgerow losses that will occur as a result of the proposed development.

	Total (survey items)	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.
Trees	6	0	0	0
Groups	17	0	0	3 (G3, G17 and G18)
Hedgerows	8	0	0	H5 (Partial circa 11m) H2 (Partial circa 13m)
Woodland	2	0	0	0

Table 2: Summary of anticipated arboricultural losses within each BS5837 quality category

- 5.5. No individual trees are expected to be removed order for the proposed development to be implemented.
- 5.6. Three low quality (Category C) tree groups, G3, G17 and G18 will likely require removal to allow the proposed development to be implemented. G3 requires would require removal to allow the internal access road to be constructed. G17 would require removal for the construction of a drainage basin and a pedestrian path. G18 would require removal for the connection of the proposed pedestrian path to the existing footway in the north west of the site.
- 5.7. In addition, circa 11m of hedgerow H5 and 13m of H2 (both low quality; Category C) will also likely require removal for an internal access road.
- 5.8. All of the trees, and tree groups, that are likely to be removed are of low-quality with a short estimated useful life expectancy. With this mind, their loss can be readily mitigated through the provision of high quality new tree planting within the area of proposed built development. In addition, the anticipated hedgerow removal can be readily mitigated through the provision new hedgerow planting.
- 5.9. In summary, the anticipated arboricultural losses will be minimal and have, in my opinion, negligible wider impact. The anticipated losses can be appropriately mitigated. Due to the quality of the vegetation likely to be removed, an overall enhancement in the arboricultural resource at the site could be easily provided.

Anticipated impacts to retained trees

- 5.10. *Demolition and site clearance* - No significant demolition or site clearance, that will impact upon retained trees, will be required in order to allow the proposed development to be implemented.
- 5.11. *Facilitation pruning* - It is anticipated that only minor facilitation pruning of retained trees adjacent the proposed pedestrian link (trees within G19 and G20) will be required in order to allow the proposed development to be implemented. This work will take the form of pruning branches back to ownership boundaries inline with common laws rights (only where appropriate for tree health to do this) and crown

lifting. The ultimate aim is to achieve suitable clearance above and adjacent to the proposed pedestrian link. Given the species present within G19 and G20 the pruning required will not have any impact on the long term health and longevity of these trees.

- 5.12. *Ground level changes* - Due to the size of the buffers provided to retained trees and woodland, and the location of the of the proposed built development, no ground level changes are required within the RPAs (or buffers) of retained trees and woodland. The proposed pedestrian link as shown on the Illustrative Site Layout marginally encroaches in to the default RPA of T9. Tree T9 is located down a steep bank and at a much lower in level than proposed path. As such, the regrading of a small part of the RPA (on a higher ground level) is unlikely to effect roots from T9. However, the detailed design of the path can be prepared in order to reduce or avoid any further encroachment through construction of the path. If the path is constructed carefully in line with a detailed AMS then any significant impacts to T9, that would affect its longterm health can be avoided.
- 5.13. *Foundations* - The Illustrative Site Layout demonstrates that the site can accommodate 190 dwellings without the need for any foundations to be constructed within, or close to, the RPAs or buffers of retained trees and woodland.
- 5.14. *Proposed access* - The proposed access arrangement will not require the removal of any trees or hedgerows. Adjacent the third party trees (G4) to the east of the proposed access the carriageway width and level will remain as existing. As such, no impact to the trees within G4 are anticipated.
- 5.15. *Hard surfacing* - No extensive areas of hard surfacing are required within the RPAs of retained trees. However the proposed access road as shown on the Illustrative Site Layout marginally encroaches in to the default RPAs associated with G4 (high quality tree group) and T2 (moderate quality individual tree). The majority of this encroachment already exists due to an area of hardstanding storage area with shipping containers. The detailed design of the access road can be prepared in order to reduce or avoid any further encroachment and if the construction of the access road is carefully implemented in line with a detailed AMS then significant impacts to the adjacent trees can be avoided.
- 5.16. *Services* - The details of the locations of required services are not available at this stage in the planning and design process, however, the site contains extensive space out side of the RPAs of retained trees within which all services could be located without any arboricultural impacts.
- 5.17. *Surface water drainage and outfall* - the installation of a drainage outfall with a piped connection from the detention basin to an adjacent water course to the west of the site is required. The Standing Advice states that Suds should only be approved in buffers if 'they do not affect root protection areas'. To confirm all the proposed Suds features and the outfall point are located outside of root protection areas of trees within Ancient woodland. The Standing Advice also states that Suds should only be approved if 'any change to the water table does not negatively affect ancient woodland or ancient and veteran trees'.

- 5.18. As set out in the submitted Flood Risk and Drainage Strategy Report (Reference: 2401070-ACE-XX-XX-RP-C-0301_A) it is confirmed that the built form development forms ‘approximately 7.5% of the ordinary watercourse catchment’.
- 5.19. In the post development scenario, the drainage report states ‘Following development, the hydrological processes from most of the site, and in particular the SANG and areas of public open space between the residential development and woodland, would remain in-principle unchanged’ and that ‘the volume of water reaching the woodland and ordinary watercourse from this area will be comparative to the existing situation. However, unlike the existing situation, most of the water will reach through slower interflow, with a much reduced proportion by surface runoff’.
- 5.20. On the basis of the hydrological assessment there is no material change in the hydrology as a result of the proposed development. In addition, as a result of the proposed development, there will be no change in the flow input of the existing water course where it enters the ancient woodland from the east.
- 5.21. The location of the proposed outfall pipe is outside of ancient woodland and circa 18m outside of the 15m ancient woodland buffer (so circa 33m away from the nearest ancient woodland). The pipe route between detention basins is also outside of the 15m buffer and the finalised alignment will allow for a suitable wayleave, (within which any future maintenance, if required, will need to take place), to be provided outside of the ancient woodland buffer. However, appropriate controls through the reserved matters process and implementation stage will still need to be adopted. These controls will ensure that the buffer and the ancient woodland beyond remain intact and are safeguarded throughout construction. The controls will include:
- the use of robust tree protection barriers
 - box trench supports to achieve the required trench depth whilst restricting the excavation to the width of the trench;
 - the use of a bagged headwall (as opposed to concrete) at the outfall point;
 - backfilling the trench with site won material, reinstated to match the existing soil bulk densities on site, and;
 - a requirement that the works are undertaken in accordance with an appropriately detailed construction management plan and arboricultural method statement.
- 5.22. The headwall adjacent the water course will be lightweight in construction and formed from vegetated bag work and there will be very limited excavation (carried out by hand) into the bank of the existing water course.
- 5.23. In summary, the proposed drainage strategy is acceptable in arboricultural terms.

Enhancements

- 5.24. A series of enhancements to the arboricultural resource of the site can be provided through the delivery of the development. These are summarised in the non-exhaustive list below:
- Extensive woodland margin planting within the ASNW buffer zone to the north of W1 and east of W2. Using appropriate, ecologically valuable tree and shrub species. Including the provision of varied vertical and lateral structure allowing a sinuous margin to be created
 - Adapting the management regime of central hedgerow H5 to be less intense and allow the hedgerow to develop a larger and fuller form
 - Provision of a significant amount of standard tree planting with the main part of the site. Including the planting of specimen street trees and tree planting within pocket parks and GI connections
 - Extensive tree and shrub planting across the proposed SANG land
 - Proactive management of the young establishing woodlands (G8 where within the redline) to promote a more diverse species mix and varied structure. Work may include thinning compartments to improve light penetration to the shrub/herb layer and localised restocking.

6. TREE PROTECTION MEASURES

- 6.1. Tree protection fencing will be utilised to protect adjacent retained trees and woodland during the construction phase. At the very minimum the fencing should be positioned in locations that will protect the defined RPAs of retained trees, but where possible the fencing should maximise the protection area around trees and woodland (including buffers) forming the Construction Exclusion Zone. The fencing must be to an appropriate standard (e.g to the specification set out in Figure 3 of BS5837:2012). The fencing must also be installed prior to the commencement of any construction work (including enabling works) on site and maintained throughout the entire build period. A Tree Protection Plan has not been produced at the current, outline, stage as any meaningful tree protection measures must be based on an approved, detailed layout. However, based on the Illustrative Site Layout the appropriate protection of retained trees on the site is feasible.

7. HEADS OF TERMS FOR AN ARBORICULTURAL METHOD STATEMENT (AMS)

- 7.1. BS5837:2012 (Figure 1) recommends that detailed/technical design of tree protection and arboricultural methodologies should be resolved and finalised following on from the approval of the feasibility of a scheme by the Local Planning Authority.
- 7.2. Annex B and Table B.1 of BS5837:2012, an informative, advises that arboricultural method statement heads of terms are a sufficient level of information in order to deliver tree-related information into the planning system. The table also advises that, in the case of an outline application, a detailed arboricultural method statement might reasonably be required at the reserved matters planning stage.
- 7.3. A brief summary of the principles of tree protection on development sites is included in section 7. A draft, 'heads of terms' for an arboricultural method statement is set out below:
- Project arboriculturist – schedule of monitoring and supervision (as required)
 - Pre-commencement site meeting (to be attended by all relevant parties including, project arboriculturist, site manager, LPA tree officer, contractors etc)
 - Tree and hedge removals as per a final, approved Tree Retention/Removal Plan
 - Erection of tree protection barriers (and temporary ground protection) as per a final, approved Tree Protection Plan
 - Main construction phase
 - Removal of tree protection barriers - following approval of site conditions
 - Final landscaping including tree planting.

8. SUMMARY AND CONCLUSION

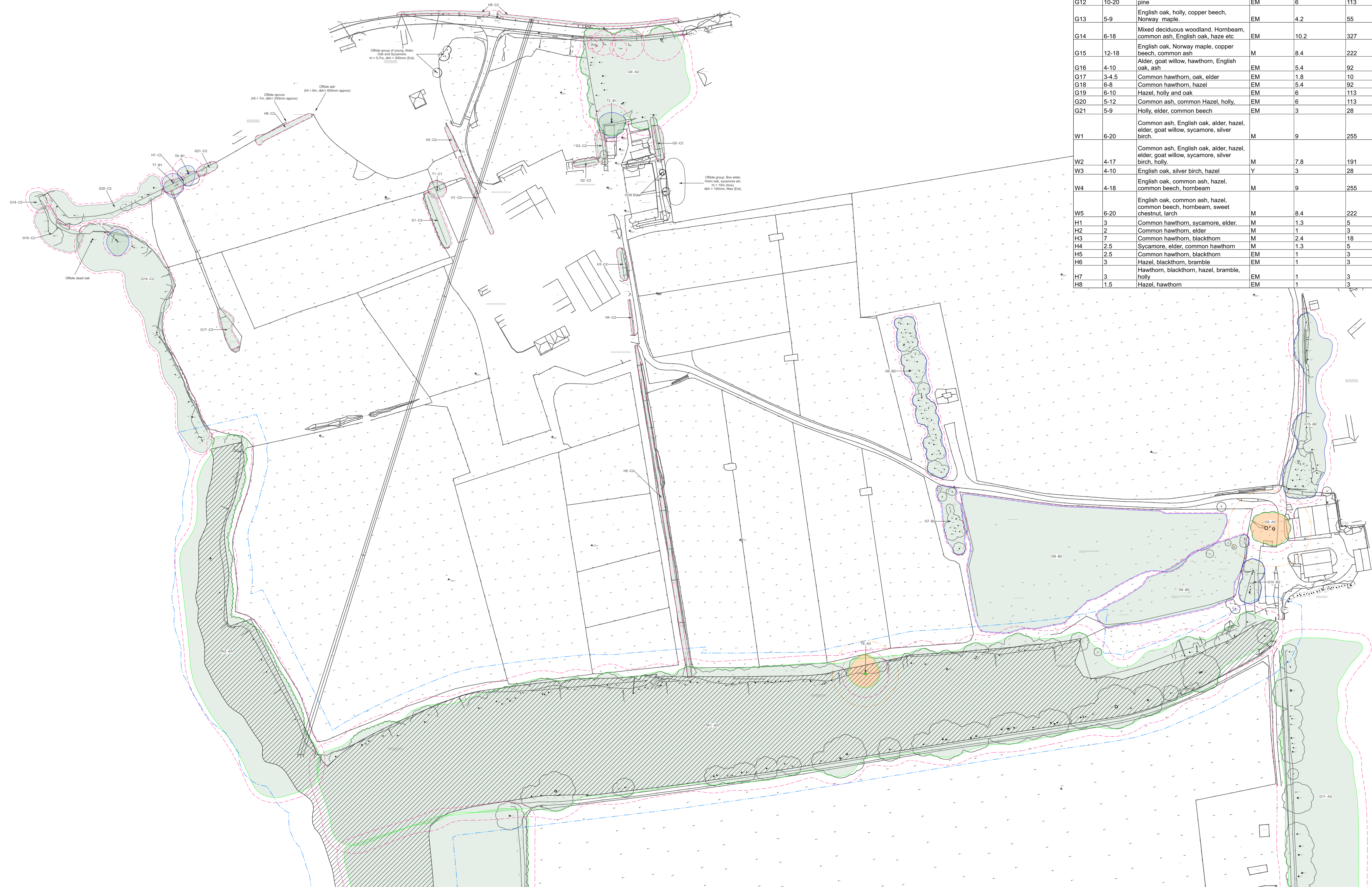
- 8.1. The proposed development is acceptable from an arboricultural perspective. All trees of value can be retained and adequately protected during construction activities to sustain their health and longevity.
- 8.2. The required buffers to veteran trees and ASNW have been provided and respected by the proposed development. The proposed margin planting to the ASNW and treatments within the buffers provided will ensure they are effective.
- 8.3. All tree losses will be mitigated through diverse tree/shrub planting which is proposed throughout the main site and the SANG area. New trees are likely to have an extended useful life expectancy compared to those which will likely be removed. In addition, significant enhancement planting beyond that required to mitigate the losses will be provided.

- 8.4. A further arboricultural impact assessment (detailed) as well as an arboricultural method statement and finalised tree protection plan will need to be produced. Once the feasibility of a scheme has been agreed by the Local Planning Authority at the outline planning stage, this detail can be secured through the reserved matters process.
- 8.5. On the basis that the recommendations and advice contained within this report are adhered to, the proposed development is acceptable from an arboricultural perspective.



Richard Hyett MSc, BSc (Hons.), MArborA, MICFor
Chartered Arboriculturist

TS - 'Section 2'



Tree No	Ht (m)	Species	Life Stage	RPA Radius (m)	RPA Area (m2)
T1	10	Goat willow	M	5.8	104
T2	15	English oak	M	10.9	375
T3	-	Felled	-	-	-
T4	-	Felled	-	-	-
T5	-	Felled	M	-	-
T6	18.5	Common ash	M	15	707
T7	16	English oak	M	7.8	191
T8	17	English oak	M	10.2	327
T9	16	English oak	M	9	255
G1	6	Leyland cypress	M	3.3	34
G2	6-8	Leyland cypress	SM	2.1	14
G3	6-8	Common hawthorn, sycamore	Y	1.8	10
G4	8-20	English oak, sycamore	M	11.4	408
G5	4-6	Sycamore, elder, common hawthorn	SM	1.8	10
G6	4-10	Hornbeam, Scots pine, English oak, silver birch, cherry, common beech	Y	5	80
G7	4-12	Silver birch, English oak, hazel, goat willow	Y	4.2	55
G8	4-9	English oak	Y	2.4	18
G9	18-21	English oak	M	15	707
G10	11-14	Hornbeam	EM	6.6	137
G11	10-20	Mixed deciduous woodland, English oak, common beech, sycamore, poplar etc	M	11.4	408
G12	10-20	Mixed woodland, hawthorn, Norway maple, English oak, Scots pine, black pine	EM	6	113
G13	5-9	English oak, holly, copper beech, Norway maple	EM	4.2	55
G14	6-18	Mixed deciduous woodland, Hornbeam, common ash, English oak, haze etc	EM	10.2	327
G15	12-18	English oak, Norway maple, copper beech, common ash	M	8.4	222
G16	4-10	Alder, goat willow, hawthorn, English oak, ash	EM	5.4	92
G17	3-4.5	Common hawthorn, oak, elder	EM	1.8	10
G18	6-8	Common hawthorn, hazel	EM	5.4	92
G19	6-10	Hazel, holly and oak	EM	6	113
G20	5-12	Common ash, common Hazel, holly	EM	6	113
G21	5-9	Holly, elder, common beech	EM	3	28
W1	6-20	Common ash, English oak, alder, hazel, elder, goat willow, sycamore, silver birch	M	9	255
W2	4-17	Common ash, English oak, alder, hazel, elder, goat willow, sycamore, silver birch, holly	M	7.8	191
W3	4-10	English oak, silver birch, hazel	Y	3	28
W4	4-18	English oak, common ash, hazel, common beech, hornbeam	M	9	255
W5	6-20	English oak, common ash, hazel, common beech, hornbeam, sweet chestnut, larch	M	8.4	222
H1	3	Common hawthorn, sycamore, elder	M	1.3	5
H2	2	Common hawthorn, elder	M	1	3
H3	7	Common hawthorn, blackthorn	M	2.4	18
H4	2.5	Sycamore, elder, common hawthorn	M	1.3	5
H5	2.5	Common hawthorn, blackthorn	EM	1	3
H6	3	Hazel, blackthorn, bramble	EM	1	3
H7	3	Hawthorn, blackthorn, hazel, bramble, holly	EM	1	3
H8	1.5	Hazel, hawthorn	EM	1	3

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/offset treeloot of scope (DOS)
- Veteran Trees**
 - Veteran tree: Important trees that require special consideration
 - Veteran tree buffer: As per published Standing Advice from Natural England and the Forestry Commission
- Ancient Woodland**
 - Ancient woodland: Important woodland that requires special consideration
 - Ancient woodland buffer: 15m minimum buffer for the protection of roots - 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

PROJECT TITLE
Land at Bird in Eye Farm

DRAWING TITLE
Tree Survey & Constraints Plan

SCALE
1:1250 @ A0

DRAWN BY
SD

APPROVED BY
RH

REVISION
C

SHEET
-

DATE
16/07/2024

LAYOUT USED WITHIN DRAWING
N/A

CLIENT
Croudace Home

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

Drawn by: SD
Checked by: RH
Drawn by: SD
Checked by: RH
Drawn by: SD
Checked by: RH

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G18	6-8	Common hawthorn, hazel	EM	5.4	92
G19	6-10	Hazel, holly and oak	EM	6	113
G20	5-12	Common ash, common Hazel, holly	EM	6	113
G21	5-9	Holly, elder, common beech	EM	3	28
W1	6-20	Common ash, English oak, alder, hazel, elder, goat willow, sycamore, silver birch	M	9	255
W2	4-17	Common ash, English oak, alder, hazel, elder, goat willow, sycamore, silver birch, holly	M	7.8	191
W3	4-10	English oak, silver birch, hazel	Y	3	28
W4	4-18	English oak, common ash, hazel, common beech, hornbeam	M	9	255
W5	6-20	English oak, common ash, hazel, common beech, hornbeam, sweet chestnut, larch	M	8.4	222
H1	3	Common hawthorn, sycamore, elder	M	1.3	5
H2	2	Common hawthorn, elder	M	1	3
H3	7	Common hawthorn, blackthorn	M	2.4	18
H4	2.5	Sycamore, elder, common hawthorn	M	1.3	5
H5	2.5	Common hawthorn, blackthorn	EM	1	3
H6	3	Hazel, blackthorn, bramble	EM	1	3
H7	3	Hawthorn, blackthorn, hazel, bramble, holly	EM	1	3
H8	1.5	Hazel, hawthorn	EM	1	3

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/offset treelint of scope (DOS)

Arboricultural Impacts

- Tree / Hedgerow / Group to be removed

Veteran Trees

- Veteran tree: Important trees that require special consideration
- Veteran tree buffer: As per published Standing Advice from Natural England and the Forestry Commission

Ancient Woodland

- Ancient woodland: Important woodland that requires special consideration
- Ancient woodland buffer: 15m minimum buffer for the protection of roots - As per published Standing Advice from Natural England and the Forestry Commission
- 50m Ancient woodland buffer - free from built form e.g. dwellings and roads

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

GRID NORTH

PROJECT TITLE
Land at Bird in Eye Farm

DRAWING TITLE
Indicative Tree Retention/Removal Plan

SCALE
1:1250 @ A0

DRAWN BY
SD

APPROVED BY
RH

REVISION
A

SHEET
-

DATE
17/07/2024

LAYOUT USED WITHIN DRAWING
PRB/BIE/202G - June 2024

CLIENT
Croudace Home

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

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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 m ²	Veteran Tree/ ASNW Buffer radius (m)	TPO?
T1	Goat willow	On	10	1	#	480	5.0-6.0-5.0-6.0	2.5	1.5	W	M	None	Adjacent ménage. Pollarded at 4m in past. Typical for species and age.	Good	Fair	20+	C1	5.8	104	-	No
T2	English oak	On	15	1	-	910	6.0-9.0-10.0-8.0	6.0	3	E	M	None	On woodland edge. Adjacent container storage area and hard standing. Crown lifted on south side in recent past.	Good	Fair	40+	B1	10.9	375	-	No
T3	Sycamore	-	-	-	-	-	-	-	-	-	-	-	Gone	-	-	-	-	-	-	-	-
T4	Goat willow	-	-	-	-	-	-	-	-	-	-	-	Gone	-	-	-	-	-	-	-	-
T5	English oak	-	-	-	-	-	-	-	-	-	-	-	Gone	-	-	-	-	-	-	-	-
T6	Common ash	On	18.5	1	#	1550	14.0-10.0-8.0-12.0	8.0	5	SE	M	Veteran	Very large tree. Split out lower limb at base. Hollowing stem, deadwood, branch tear wounds, decay fungi (innonotus hispidus). Apply veteran tree buffer. No sign of ash die back despite presence in surrounding trees. Barn owl living in stem. Large limb lost on southern side.	Good	Fair	40+	A3	15.0	707	21	No
T7	English oak	Off	16.0	1	#	650	5.0-4.0-8.0-7.0	6.0	6	SW	M	None	Garden tree. No access to stem. Crown lifted in last 2-3 years.	Good	Fair	20+	B1	7.8	191	-	No
T8	English oak	Off	17.0	1	#	850	6.0-6.5-9.5-7.0	8.0	6	S	M	None	Garden tree. No access to stem. Dense Ivy on stem severed in recent past. Heavily crown lifted in last 2 -3years. Lower than expected leaf density.	Good	Fair	20+	B1	10.2	327	-	No

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	Veteran Tree/ ASNW Buffer radius (m)	TPO?
T9	English oak	Off	16.0	1	#	750	8.0-7.0-9.0-7.0	6.0	5	S	M	None	In woodland area. Stem on steep slope, base of which is 3m down from ground level in site.	Good	Fair	20+	B2	9.0	255		

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)	Veteran Tree/ ASNW Buffer radius (m)	TPO?
G1	Leyland cypress	On	6	25	#	275	3	0.2	M	None	Topped screen/shelter belt to ménage	Good	Fair	20+	C2	3.3	-	No
G2	Leyland cypress	On	6-8	15	#	175	2.5	0.5	SM	None	Linear tree belt. Typical for species and age.	Good	Fair	40+	C2	2.1	-	No
G3	Common hawthorn, sycamore	On	6-8	15 approx	#	150	3	1.2	Y	None	Unmaintained hedge group. Ivy dominates in parts. Bramble throughout.	Fair	Fair	20+	C2	1.8	-	No
G4	English oak, sycamore	Off	8-20	50	#	950	7	3.0	M	None	Established woodland group. Prominent from adjacent highway and in surrounding landscape. Hawthorn and elder understorey. Bluebells present. Low crown over site. No access into woodland.	Good	Good	40+	A2	11.4	-	No
G5	Sycamore, elder, common hawthorn	On	4-6	10 Approx	#	150	2.5	1.5	SM	None	Dense boundary group. Adjacent soil bund. No access to stems. Partially removed since original survey.	Fair	Fair	20+	C2	1.8	-	No
G6	Hornbeam, Scots pine, English oak, silver birch, cherry, common beech	On	4-10	50	#	420	3.5	1.5	Y	None	Establishing linear tree belt. Some poor and drawn up specimens within group. Pines establishing well. Store area to east. Crowns side flailed on lower side to west.	Good	Fair	40+	B	5.0	-	No

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)	Veteran Tree/ ASNW Buffer radius (m)	TPO?
G7	Hornbeam, Scots pine, English oak, silver birch	On	4-12	25	#	350	3.5	1.5	Y	None	Establishing linear tree belt. Some poor and drawn up specimens within group. Pines establishing well. Larger oak at southern end. Single dead tree in middle.	Good	Fair	40+	B2	4.2	-	No
G8	Silver birch, English oak, hazel, goat willow	On	4-9	100	#	200	1.75	0.5	Y	None	Establishing block planted young woodland. Requires some management. Squirrel damage on some trees.	Good	Fair	40+	B2	2.4	-	No
G9	English oak	Off	18-21	3	-	1590	10	5.0	M	Veteran	Two oaks are of veteran status. Large stem diameter, deadwood, cavities, decay pockets, Ivy on stem, branch tear out scars. Ash between the two oaks is not veteran. Apply veteran tree buffer to oaks. Crown lifted and laterally reduced in recent past. Easternmost tree has had an old over reduction.	Good	Fair	40+	A3	15.0	24	No
G10	Hornbeam	On	11-14	5	#	550	5	2.5	EM	None	Linear group of trees. Ivy dominates some stems. To rear of small barn. Hardcore tipped close to base in past.	Good	Fair	20+	B2	6.6	-	No
G11	Mixed deciduous woodland. English oak, common beech, sycamore, poplar etc	-	-	-	-	-	-	-	-	-	Not relevant to this application	-	-	-	-	-	-	-
G12	Mixed woodland, hawthorn, Norway maple, English oak, Scots pine, black pine	-	-	-	-	-	-	-	-	-	Not relevant to this application	-	-	-	-	-	-	-
G13	English oak, holly, copper beech, Norway maple.	-	-	-	-	-	-	-	-	-	Not relevant to this application	-	-	-	-	-	-	-

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)	Veteran Tree/ ASNW Buffer radius (m)	TPO?
G14	Mixed deciduous woodland. Hornbeam, common ash, English oak, haze etc	-	-	-	-	-	-	-	-	-	Not relevant to this application	-	-	-	-	-	-	-
G15	English oak, Norway maple, copper beech, common ash	Off	12-18	50 Approx	-	700	5	4.0	M	None	Linear tree belt with residential properties beyond. No access to stems.	Good	Fair	40+	B2	8.4	-	No
G16	Alder, goat willow, hawthorn, English oak, ash	Off	4-10	75	-	450	4	3.5	EM	None	Linear woodland along water course. Some ash, hollies and alder in decline. Wild garlic present.	Fair	Fair	20+	C2	5.4	-	No
G17	Common hawthorn, oak, elder	On	3-4.5	6	#	150	2.5	0.2	EM	None	Small isolated group in centre of paddock, bramble at base.	Good	Fair	20+	C2	1.8	-	No
G18	Common hawthorn, hazel	Off	6-8	2	#	450	3.5	1.5	EM	None	No access to stems. Dbh equivalent estimated. Coppice form. Adjacent existing gate and trackway. Low crown over track.	Fair	Fair	20+	C2	5.4	-	No
G19	Hazel, holly and oak	Off	6-10	25 approx	#	500	4.5	1.8	EM	None	No access to stems. Dbh equivalent estimated. Coppice form.	Fair	Fair	20+	C2	6.0	-	No
G20	Common ash, common Hazel, holly,	Off	5-12	25 Approx	#	500	4.5	4.0	EM	None	No access to stems. Dbh equivalent estimated. Coppice form. Some trees may be in adjacent garden. Recent pruning work undertaken. Ash has significant bacterial canker elisions.	Fair	Fair	20+	C2	6.0	-	No
G21	Holly, elder, common beech	Off	5-9	5	#	250	3	4.0	EM	None	Within dense bramble, no access to stems.	Fair	Fair	20+	C2	3.0	-	No

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	Common hawthorn, sycamore, elder.	On	3	3.0	100	0.2	M	Box cut with flail. Ivy dominates. On slight bank.	Good	Fair	20+	C2	1.3
H2	Common hawthorn, elder	On	2	2.0	75	0.0	M	Box cut with flail. Ivy dominates. On slight bank.	Fair	Fair	20+	C2	1.0
H3	Common hawthorn, blackthorn	On	7.0	6.0	200	0.2	M	Adjacent track and storage area. Side flailed on track side.	Good	Fair	20+	C2	2.4
H4	Sycamore, elder, common hawthorn	On	2.5	3.0	100	0.2	M	Maintained with flail. Ivy dominates in parts.	Good	Fair	20+	C2	1.3
H5	Common hawthorn, blackthorn	On	2.5	1.5	75	0.0	EM	Box cut with flail. Slight ditch on east side.	Good	Fair	20+	C2	1.0
H6	Hazel, blackthorn, bramble	Off	3.0	3.0	80	0.0	EM	Box cut. Boundary hedge to garden. Bramble dominates in parts. Western end left to grow higher.	Fair	Fair	20+	C2	1.0
H7	Hazel, blackthorn, bramble, holly, hornbeam, elder	On	3.0	4.0	75	0.0	EM	Boundary vegetation now forming hedge. Boundary not visible.	Fair	Fair	20+	C2	1.0
H8	Hazel, hawthorn,	Off	1.5	2.0	75	0.0	EM	Intensively flailed field boundary hedge. Limited woody vegetation. Dominated by bracken and bramble.	Fair	Fair	20+	C2	1.0

WOODLAND

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)	Veteran Tree/ASNW Buffer radius (m)	TPO?
W1	Common ash, English oak, alder, hazel, elder, goat willow, sycamore, silver birch.	Off	6-20	50	#	750	4	7.0	M	ASNW	Linear woodland along water course. Predominantly ash at eastern and ash die back well established throughout the woodland. Most ash in central section now stage 3and 4. Predominantly alder at western end. Small lake in centre. Ash on south side appear younger and have drawn up form. Bluebells present. Mature hazel coppice on northern edge.	Good	Fair	40+	A3	9.0	15	No
W2	Common ash, English oak, alder, hazel, elder, goat willow, sycamore, silver birch, holly.	Off	4-17	500	#	650	4.5	2.0	M	ASNW	Mixed deciduous woodland. water course at centre. Blue bells and wild garlic present. Evidence of historic coppicing.	Good	Fair	40+	A3	7.8	15	No
W3	English oak, silver birch, hazel	-	-	-	-	-	-	-	-	-	Not relevant to this application	-	-	-	-	-	-	-
W4	English oak, common ash, hazel, common beech, hornbeam	-	-	-	-	-	-	-	-	-	Not relevant to this application	-	-	-	-	-	-	-
W5	English oak, common ash, hazel, common beech, hornbeam, sweet chestnut, larch	-	-	-	-	-	-	-	-	-	Not relevant to this application	-	-	-	-	-	-	-



PHOTO 1: Looking north-east towards high quality tree group (G4). This group is located adjacent to the site and Bird in Eye Hill.



PHOTO 2: Looking north towards T2 (moderate-quality) showing the existing hard standing and container storage area.



PHOTO 3: Looking north-east towards T7 and T9 (moderate-quality). Both trees have been recently crown lifted.



PHOTO 4: Looking north east into the site between G16 and G20 along the line of the proposed footpath link. G1 (cypress) can be seen in the distance.



PHOTO 5: Looking south at oak trees in G9 (offsite). Both trees have been recently crown lifted and the tree on the right crown reduced.



PHOTO 6: A view within G8. This group is an establishing young woodland that is predominantly formed from English oak. The area would benefit from some woodland management e.g. thinning.

- 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

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 186) states that, when determining planning applications, local planning authorities should apply the following principle:

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.'

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

'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.'

Note: Further information from the National Planning Policy Guidance Suite and Standing Advice is provided in the design guidance section.

Other paragraphs of the NPPF 2023 of relevance to this report are:

Paragraph 136: *'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 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.'*

Paragraph 180: *'Planning policies and decisions should contribute to and enhance the natural and local environment by:*

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.'

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 if 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 the relevant Statutory Nature Conservation Organisation (SNCO): Natural England, Scottish Natural Heritage or Natural Resources Wales.

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.

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