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Land off Crow Furlong
Hitchin

Arboricultural Impact Assessment

June 2025
12547_AIA.001 Rev B

Project Details	
Client:	Hill Residential
Project:	Land off Crow Furlong, Hitchin
Report Title:	Arboricultural Impact Assessment
Project Number:	12547
File Reference:	12547_AIA.001 Rev B
Date:	30/06/2025

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Executive Summary

i) **Introduction.** Aspect Arboriculture are commissioned by Hill Residential to undertake an Arboricultural Survey and Impact Assessment relating to the proposed development of land at Crow Furlong, Hitchin.

ii) **Proposals.** The submission comprises a S73 application seeking permission for amendments to planning permission 22/03092/FP, concerning the *'residential development of 47 dwellings and associated car parking, open space, landscaping and creation of access off Grays Lane'.*

iii) **Surveys.** The site was originally surveyed by Aspect in November 2016 following the guidance contained within BS5837:2012. This information has been updated on several occasions, but most recently in May 2025 to inform this application.

iv) **Statutory Designations.** Fresh background checks confirm that the site does not occur within a Conservation Area, and that there are two trees are afforded protection by a Tree Preservation Order.

v) **Arboricultural Impact.** The arboricultural impact of the revised scheme is comparable to the approved layout, whereby tree losses total six category C trees, a single category C group of trees and the partial clearance of two category C hedgerows. The amended proposals continue to provide opportunity to mitigate for this effect by way of replacement tree planting, throughout public and private amenity spaces. A tree protection drawing is provided to demonstrate the deliverability of safeguarding measures for retained trees. Conclusions drawn against North Hertfordshire District Council's development control policies and the NPPF, conclude that the arboricultural impact of the development is acceptable.

1 Introduction

1.1 Background & Proposals

1.1.1 Aspect Arboriculture are instructed by Hill Residential to establish and report on the arboricultural impact of the proposed development of land at Crow Furlong, Hitchin.

1.1.2 The submission comprises a S73 application seeking permission for amendments to planning permission 22/03092/FP, concerning the *'residential development of 47 dwellings and associated car parking, open space, landscaping and creation of access off Grays Lane'.*

1.2 Site Overview

1.2.1 The application area comprises a parcel of land on the western fringe of Hitchin. The site is bound by Gray's Lane to the north and existing residential development and agricultural land to the west. The southern boundary abuts an area of woodland which fronts onto Pirton Road. The eastern boundary is defined by Crow Furlong. Existing residential units occupy land immediately east of Crow Furlong which currently form the developed urban edge of Hitchin.

1.2.2 The northern part of the site comprises a small agricultural field under pastoral use which is defined by lapsed native hedgerows and contains the occasional outlying broadleaved standard. The site is currently accessed through an existing agricultural access adjacent to the Crow Furlong - Gray's Lane junction.

1.3 Existing Tree Stock

1.3.1 The site's principal arboricultural feature comprises the area of deciduous woodland which abuts the southern extent of the site. The woodland has a large canopy coverage which is readily appreciable from the public realm. Accordingly, the woodland makes a positive and important contribution to visual amenity, equivalent to BS5837:2012 category A.

1.3.2 The pastoral field is defined by lapsed native field boundary hedgerows alongside the occasional group of trees and deciduous standard. The boundary hedgerows have received a minimal degree of maintenance and in most areas have been allowed to develop large canopies, which has resulted in the loss of structure and an overgrown/unmanaged appearance. Lapsed management has also facilitated the establishment of regenerative scrub growth which is intermittently encroaching from the hedged boundaries towards the site's interior.

1.3.3 Standards and groups of trees major on native species and are often represented as outgrown components of field boundary hedgerows. Other species are also present where domestic plantings have been introduced against boundaries shared with adjacent residential development (western boundary). Internally, the site features an assortment of ornamental fruit standards alongside the occasional self-seeded Ash and parcel of Hawthorn scrub.

1.3.4 Since the original survey work was carried out in 2016, a parcel of low quality scrub has been removed from the interior of the site (recorded as G1 in 2016), in conjunction with selective woodland understory management/clearance works which have been carried out around the perimeter of the woodland. This work was undertaken to prevent the scrub encroachment within the northern extent of the site and to manage growth next to highways and adjacent property. These changes are reflected within the updated survey information.

2 Statutory Designations

2.1 Conservation Area

2.1.1 Background checks have revealed that the application area does not occur within a Conservation Area (North Hertfordshire District Council, cited May 2025).

2.2 Tree Preservation Orders

2.2.1 Background checks have also confirmed that two of the site's trees (T15 Ash and T16 Lime) are afforded protection by a Tree Preservation Order ref: TPO129.

3 Policy Review

3.1 The National Planning Policy Framework

3.1.1 The NPPF (2024) provides planning policy guidance at a National level. With respect to arboriculture, four paragraphs are of particular relevance:

3.1.2 Paragraph 136 details the aspiration to secure increased tree cover within new developments, comprising both new tree planting, and the retention of existing trees where possible: *'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.'*

3.1.3 Building upon paragraph 136, the Framework also considers that *'decisions should contribute to and enhance the natural and local environment by: 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'* (para 187b).

3.1.4 In respect of Veteran Trees and Ancient Woodland, paragraph 193c requires that development proposals award particular consideration to these important features;

'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'.

3.1.5 To confirm, there are no veteran trees within influence of the application area, subsequently it is not anticipated that the tests of paragraph 193c will be applied in respect to this proposed development.

3.1.6 In addition, paragraph 193d also emphasises the benefit that can be secured through the provision of public access to, and resultant appreciation of, retained tree cover, stating: *'…opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can… enhance public access to nature where this is appropriate.'*

3.2 North Hertfordshire District Council

3.2.1 In terms of development control at a local level, North Hertfordshire District Council has a statutory obligation to ensure adequate provision is made for the preservation of trees through Section 197 of the Town and Country Planning Act (1990). The North Herts Local Plan 2011-2031 (adopted November 2022) is understood to comprise the Council's primary development control document; within which, Policies SP12, D1 and its supporting text and Site Specific Policy HT6, are relevant to trees in the context of development (reproduced below).

3.2.2 **POLICY SP12:** Green infrastructure, landscape and biodiversity

'We will accommodate significant growth during the plan period whilst ensuring the natural environment is protected and enhanced. We will:

d) Protect, enhance and manage biodiversity networks including wildlife corridors, ancient woodlands and hedgerows, wetland and riverine habitats, Local Geological Sites, protected species, priority species and habitats, and non-designated sites of ecological value and ensure measurable net gains for biodiversity;'

3.2.3 **POLICY D1:** Sustainable Design

'Planning permission will be granted provided that development proposals:

- *a) Respond positively to the site's local context;*
- *b) Take all reasonable opportunities, consistent with the nature and scale of the scheme, to:*
  - *i. create or enhance public realm;*
  - *ii. optimise the potential of the site by incorporating Sustainable Drainage Systems (SuDS);*
  - *iii. reduce energy consumption and waste;*
  - *iv. retain existing vegetation and propose appropriate new planting;*
  - *v. maximise accessibility, legibility and physical and social connectivity both internally and with neighbouring areas;*

vi. *future proof for changes in technology and lifestyle;*

vii. *design-out opportunities for crime and anti-social behaviour; and,*

viii. *minimise the visual impact of street furniture and parking provision;*

c) *Have regard to the Design SPD and any other relevant guidance; and*

d) *For residential schemes, meet or exceed the nationally described space and water efficiency standards.'*

3.2.4 **SITE SPECIFIC POLICY HT6:** Land at junction of Greys Lane and Crow Furlong

- *Consider and mitigate against any adverse impacts upon adjoining priority habitat (deciduous woodland);*

4 Arboricultural Impact

4.1 Tree Removals[1]

4.1.1 Trees are recommended for removal where:

a) it is necessary and unavoidable to site development within proximity to existing trees, such that they cannot be confidently retained in the long-term as living features, and/or,

b) where the amenity value of the tree will be significantly reduced as a result of the proposals, particularly if already of a low retention priority.

4.1.2 Tree removals required to facilitate the proposals are detailed within Table 1 (below), and total six category C trees, a single category C group of trees and the partial clearance of two category C hedgerows. There are no additional trees to be removed beyond those already approved under the extant planning permission.

4.1.3 Table 1: Tree Removals by BS5837 Category

Category A	Category B	Category C
None	None	**T6** Crab Apple **T18** Hawthorn **T17** Apple **T12**, **T13**, **T14** Ash **G4** Apple and Plum **H1** Δ + **H2** Δ +

Δ Denotes mixed species assemblage of three or more species – refer to Appendix B
+ Denoted partial clearance

4.1.4 The revised proposals focus tree removals on low quality trees, whose loss can be readily mitigated through the provision of replacement plantings. As per the approved scheme, the proposed layout accommodated the site's protected trees and retains them within areas of public open space. The sylvan character of the site's frontage with Pirton Road will also remain unchanged, along with views of the site from the public realm which is facilitated by the retention of boundary hedgerows.

4.2 Vulnerable Trees

4.2.1 As per the approved scheme, the proposals will require works within the root protection areas of retained trees, however RPA encroachment has been reduced as far as design principles have allowed and are within manageable limits. Solutions have

[1]All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

subsequently been developed to mitigate the effect on root systems where encroachment is unavoidable.

4.2.2 Appropriate safeguards are illustrated within the appended Tree Protection Plan (appendix C) and the extent and type of encroachment within retained trees RPAs is detailed within Table 2 below.

4.2.3 Table 2: RPA Incursions by Type and Extent

Tree	Supervised Excavation (m^2/%)		Above Soil Surfacing (m^2/%)	
T11	1.7	0.3%	-	-
T15	-	-	48.4	17.8%
G3	8.1	n/a	-	-

4.2.4 With reference to Table 2, CellWeb has been selected as an appropriate and robust solution for forming a shared access and footpath within the RPA of T15. CellWeb will prevent RPA compaction, excavation and the associated risk of root severance. The extent of encroachment within T15's RPA is within the recommended threshold guideline put forward at BS5837 clause 7.4.2.3 and remains comparable to the strategy approved under the extant planning permission. There also remains equivalent areas of undisturbed soft landscape conducive to the tree's RPA which are capable of supporting root recovery. It is therefore expected that T15 will have the capacity to tolerate the works and can be retained, as per the approved scheme.

4.2.5 In addition, works to accommodate a small proportion of a shared access and visitor parking bays adjacent to the western boundary will incur excavation within the peripheries of G3 and T11's RPAs. The extents of excavation required are minor and are sited on the edge of their RPAs where roots are predicted to be low diameter and where their natural turnover is anticipated to be highest. Therefore, by adopting the principles of BS5837 concerning manual excavation techniques and root pruning (with the added precaution of arboricultural auditing), it will be acceptable to permit the excavation work to occur without undue concerns for their future health or vitality.

4.2.6 Appropriate separation has been provided from all important and protected trees. This has been achieved by incorporating T15 within an area of public open space and by introducing an area of soft landscaping around the southern edge the proposals, which will serve as an effective buffer between residential units and the woodland's canopy edge. This will help the council resist potential future requests to carry out pruning works, although in any event, the TPO already confirmed on T15 and T16 is an effective mechanism for the Council to manage any future requests for tree work.

4.3 Pruning Works[2]

4.3.1 To accommodate the proposals, it will be necessary to selectively prune the western edge of H3 by approximately 0.5-1m to provide sufficient construction room to accommodate the proposed sub-station and attenuation basin. It will also be necessary to radially crown lift T15's crown to achieve c.5m vertical clearance over the adjacent road and footpath.

4.3.2 The pruning works are anticipated to amount to the shortening of secondary minor branches only and are considered to be achievable without affecting the tree cover's future potential, amenity value, or health and vitality.

4.3.3 Although not required to facilitate construction, it is recommended that dead branches are removed from the canopies of retained trees. This will help mitigate the risk of future tree related hazards emerging, particularly where trees are retained adjacent to public highways.

4.3.4 Pruning works should be undertaken in accordance with section 7.3 (for removal of deadwood), section 7.6 (for crown lifting) and section 7.8 (for selective pruning) of BS3998:2010, by a competent tree contractor, to ensure that cuts are performed correctly and positioned so as to avoid future structural defects or physiological issues, facilitate growth and maintain aesthetic value.

4.4 Protective Barriers

4.4.1 It will be important to protect retained trees' above-ground structures and underlying RPAs from damage during construction works. To achieve this, tree protection barriers should be erected prior to the commencement of development works and consist of the default barrier specification provided in BS5837:2012. The location for the default tree protection fencing is illustrated within the Tree Protection Plan (Appendix C) with a bold blue line.

4.4.2 It is also expected that protective barriers will have to relocated during construction to facilitate the introduction of new hard surfacing. Where this will be necessary, secondary barrier positions are illustrated within the Tree Protection Plan (Appendix C) with a dotted pink line.

[2] All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

4.5 Mitigation Replanting

4.5.1 The submitted landscape strategy continues to adopt the principles of *'right tree, right place',* and seeks to demonstrate the proposed approach to incorporating replacement and new planting within the site.

4.5.2 The strategy includes the introduction of ornamental and native standards, as well as lower-level structural hedge planting. Tree planting will reinforce, and compliment retained trees adjacent to the frontages and woodland edge. Overall, the proposed planting strategy is expected to provide an uplift in crown area and associated amenity benefits, soften the appearance of the proposals and help integrate the proposed development.

5 Conclusions

5.1.1 The amended development proposals have been informed by a survey of the existing tree stock, and a review of relevant policy tests.

5.1.2 There is a need to incur tree removal as part of the amended proposals, although this does not exceed what has been previously approved. Tree removal can be quantified as six category C trees, a single category C group of trees and the partial clearance of two category C hedgerows. The effect continues to be concentrated on lower quality trees and those sited within the site interior where they are not readily appreciable from the public realm.

5.1.3 The scheme provides opportunity to mitigate for the necessary tree removals and has the capacity to receive new planting which will compliment and reinforce the retained assemblage. The scheme retains the site's two protected trees and respects the woodland occupying the southern extent of the site.

5.1.4 A deliverable scheme for safeguarding retained trees has been prepared which relies on the use of standard barrier techniques, and the adoption of above soil surfacing alongside arboricultural auditing where development is sited in close proximity to RPAs.

5.1.5 The amended proposals can be supported from the arboricultural perspective, subject to mitigation replanting and the adoption of safeguards for protecting trees throughout the development. It is our subsequent judgement that the proposals do not conflict with the Framework or North Hertfordshire District Council's development control policies SP12, D1 & HT6.

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APPENDICES

APPENDIX A

TREE CONSTRAINTS PLAN (12547 TCP 01 Rev A)

1:1000 @ A3

0m 10m 20m 40m

KEY:

- Site Boundary
- Tree Numbers
- Tree Canopies
- Category 'U' Trees
- Category 'A' RPA
- Category 'B' RPA
- Category 'C' RPA
- Shading Arc

Note: Trees 5, 7, 9, 10, 11, 16, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34 & 35 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 1215_1649_1.dwg).

Note: The RPA footprint for Trees 4, 27 & 28 have been displaced to allow for the effect of the adopted highway. The surface area of the RPA has not been reduced.

REV	DATE	NOTE	Drawn	Chk'd

REVISIONS

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TITLE

Grays Lane, Hitchin
Tree Constraints Plan

CLIENT

Hill Residential

SCALE	DATE	DRAWN
1:1000 @ A3	MAY 2025	GN

DRAWING NUMBER	REVISION
12547 TCP 01 Rev A	A

Based on: 1215_1649_1.dwg

APPENDIX B

TREE SURVEY SCHEDULE (12547 TS 01)

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BS 5837:2012 Tree Schedule: Grays Lane, Hitchin

12547 TS 01

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BS5837:2012 Tree Survey: Explanation of Survey Criteria

*Area around tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of roots and soil structure is a priority. *The RPA has been manipulated to allow for various site features, i.e. roads, structures or changes in levels. Please refer to the Tree Constraints Plan for these changes.*

e.g.: young, semi-mature, early-mature or mature.

Sequential reference number cited on all aspect drawing.

Category prefix A-C denotes arboricultural quality, decreasing from A (high) to C (low); Subcategories 1, 2 and 3 highlight associated arboricultural (1), landscape (2) and ecological (3) qualities.

Height and Crown spread measured to the nearest half meter; # denotes where this is estimated.

Category U trees are those in such a condition that they cannot be realistically retained as living trees in the current context for the long term.

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	radial							

Measured to the nearest 10mm; # denotes estimated diameter where access is not possible.

e.g.: above-average, average, below average or dead

General observations, i.e. defects, preliminary management recommendation, presence of pests/disease, perceived significance.

Height of first significant branch and/or canopy

e.g.: good, indifferent, poor, or hazardous

Colour band key:

Category A
Category B
Category C
Category U

The following survey should not be interpreted as a report on tree health and safety. Aspect's opinion of tree condition and structural potential is valid for a limited period of 12 months from the date of inspection. Validity is assumed in the absence of inclement weather and no change to the trees existing setting.

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m) N	E	S	W	Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
1	Sycamore	390# oi 450# oi 280# oi 360# oi 220# oi 420# oi 180# oi 310# oi	16	6	7.5	7	7.5		1.5	1	Mature	Average	Poor	Clad and obscured by Ivy, unable to thoroughly inspect Previously managed as a coppice stool, management now lapsed Stems rub and fuse throughout at c. 1-3m Structure typical for species within the current context Prominent in views in moderate distances from the public lane to the north	C12	11.1
2	Ash	200# 130# 120# 100#	10					4.75	1	3.5	Early Mature	Average	Poor	Lower southern canopy maintained by flail Single leader with 2no. sub-dominant limbs Sparse crown for species Short annual extension growth Entering a state of terminal decline, reduced future potential	C12	3.3
3	Field Maple										Tree Removed as per re-survey on 01/05/2025					
4	Silver Birch	390 #	8					4.5	2.5	2	Early Mature	Average	Indifferent	Offsite in adjacent third party residential land Single stem forking at c.3m Previous unsympathetic reduction to the upper canopy Unremarkable example of the species	C12	4.8
5	Hazel	25*60 #	7					3.5	0	1	Early Mature	Average	Poor	Clad and obscured by Ivy, unable to thoroughly inspect Previously managed as a coppice stool, management has now lapsed Structure typical for species within the current context	C12	15
6	Crab Apple	370 260	7	4.5	7	6	5		2	2	Mature	Below Average	Poor	Stem forks at c.1.5m, union appears sound Large cavity with decay to north Previously pruned to shape Structure typical for species within the current context	C12	5.4
7	Field Maple	435# 400# 250# 225#	13	6.75	7.25	7.75	6 #		4	1	Mature	Average	Poor	Clad and obscured by Ivy, unable to thoroughly inspect Multi-stemmed from base Lower canopy maintained by flail	C12	8.1
8	Hawthorn	490	10	4.5	5	3.5	3.25		2	3	Mature	Below Average	Poor	Single Stem, forking at c.2m Dieback to the upper canopy, epicormic growth situated on the lower trunk forms a secondary canopy Considered to be of low arboricultural quality	C12	6
9	Pear	390	10	5 #	5.25	4	5.25		5	6	Mature	Average	Indifferent	Single stem, forking at c.2m Unremarkable example of species	C12	4.5
10	Apple	205 at c.1m	4	1	2.75	3	3		1	1	Semi Mature	Average	Indifferent	Established Fruit tree Unremarkable example of species	C12	2.4
11	Horse Chestnut	1150#	20	7	8.5	11	8 #		4.5	3.5	Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Slightly suppressed to north by previously failed Poplar Structure typical for species within the current context Considered to be of moderate arboricultural quality Prominent in views in moderate distances from the site to the east	B12	13.8

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m) N	E	S	W	Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
12	Ash	190 190 165 150 125 115 170 90	8	6.75	6	3.75	6.75		1.5	1	Early Mature	Average	Poor	Single bole, forking at c.0.5m Previously pollarded at c.1.5m Considered to be of Low arboricultural quality	C12	5.1
13	Ash	300# 260# 130#	13	4.75	5	6.5	7		1.5	1	Early Mature	Average	Poor	Multi stemmed from c. 0.5m Hawthorn understorey at base prevented measurements being obtained Considered to be of low arboricultural quality	C12	5.1
14	Ash	280 370 340 310	11	6	5.25	4.5	5		2.5	2	Early Mature	Average	Poor	Single bole, forking into 4 no. stems at c.0.5m Structure typical for species within the current context Considered to be of low arboricultural quality	C12	7.8
15	Ash	780	15	7	10	10.5	8.5		3	0.5	Mature	Average	Indifferent	T1 within TPO no. 129 Single bole Basal wound to north, partly occluded Short extension growth Visible within short distance external views to west Considered to be moderate arboricultural quality	B2	9.3
16	Lime	940 930 425 335	19	9	10.75	12	10		1,75	3	Mature	Average	Indifferent	T2 within TPO no. 129 Single bole, forking at c.1.5m Principal component of W1 Structure typical for species in current context Considered to be of high arboricultural quality	A12	15
17	Apple	425 335	10.5	8	7	6	5		2	1.5	Mature	Average	Poor	Single bole, forking at c.0.5m Eastern stem previously removed Extensive basal decay	C12	6.6
18	Hawthorn	210	6.5	3.5	3.5	2	2.5		2	1.5	Early Mature	Average	Indifferent	Single stem, maintains single leader Considered to be of low arboricultural quality	C12	2.4
19	English Oak	840	20	9	20	11	7.5 #		5.5	5	Mature	Average	Indifferent	Single stem, maintains single leader Principal component of woodland edge Moderate arboricultural quality	B12	10.2
20	English Oak	710	20	9	10.25	8.25	7		7	7	Early Mature	Average	Indifferent	Single stem, maintains single leader Slight lean to west Structure typical for species within the current context Considered to be of moderate arboricultural quality	B12	8.4
21	Ash	510	16.5	7.25	7.5	6.5	6.25		4	4	Mature	Average	Poor	Single stem, maintains single leader Dieback to upper crown Short annual extension growth Entering a state of terminal decline, reduced future potential	C12	6

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m) N	E	S	W	Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
22	English Oak	650	19	8.5	7.75	10.8	7.5		5.25	5.25	Early Mature	Average	Indifferent	Single stem, maintains single leader Structure typical for species within the current Average deadwood within canopy Considered to be of moderate arboricultural quality	B12	7.8
23	Ash	715	22	9.5	8	10	10		7	5	Mature	Average	Poor	Previous limb failure tear out at c.4m Sub-dominant stem to west at c.2m has failed leaving a large tear out wound, heartwood exposed Above average epicormic growth Low arboricultural quality	C12	8.7
24	Ash	465 415	17.5	7.5	8.75	10	8.75		5	3	Mature	Average	Poor	Twin stemmed from base with tight union Storm damage in canopy Slightly sparse canopy	C12	7.5
25	Ash	570 oi	17	8	7	7.25	6.75		5	1.5	Early Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Structure typical for species within the current context Unremarkable example of species	C12	6.9
26	Norway Maple	565	16.5	6	7.75	9.25	5		6.5	4	Mature	Average	Poor	Single stem with lean to south Canopy forms to south Ground around base raised to north	C12	6.9
27	Sycamore	450 390 360 315 240 220 170	15.5	8.5	6.5	6 #	7.25		5	1.75	Mature	Average	Poor	Previously managed as a coppice stool, management now lapsed Telephone wire in southern canopy Structure typical for species within the current context	B2	9.6
28	Ash	370 350 320 300 270 220 oi	16	9	10	6 #	8.25		5	3.5	Mature	Average	Poor	Clad and obscured by Ivy, unable to thoroughly inspect Previously managed as a coppice stool, management now lapsed Single bole forking into 6 no. stems at c.0.5m Telephone wire in southern canopy Structure typical for species within the current context	B2	9
29	Ash	840 440 420 340 oi	14	11	13 #	9.5	10		2	2	Mature	Below Average	Poor	Clad and obscured by Ivy, unable to thoroughly inspect Single bole forking into 3 no. stems, unions obscured by ivy Sparse canopy, with tip dieback within the upper canopy Considered to be of low arboricultural quality	C1	12.3
30	Walnut	880	18	8.5	9	11	8.25		7.5	4.25	Mature	Average	Moderate	Mature standard within woodland Dominant component of area of woodland Considered to be of moderate arboricultural quality	B12	10.5
31	Lime	850 #	19.5	7	8	8.5	7 #		4	3	Mature	Average	Moderate	Mature standard within woodland Dominant component of area of woodland Considered to be of moderate arboricultural quality	B12	10.2

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
32	Ash	450	12	5	6.75	6.5	5.75		3.75	7.5	Early Mature	Below Average	Moderate	Early mature standard within woodland Forms part of woodland upper canopy Considered to be of moderate arboricultural quality	B2	5.4
33	Cherry	550	13	6 #	5.5	6.5	7.5		4	3	Mature	Average	Poor	Mature standard within woodland form part of woodland canopy Decay within stem Considered to be of low arboricultural quality	C12	6.6
34	Hawthorn	290	9	3	4.5	5.5	4 #		1.5	2	Semi Mature	Average	Indifferent	Maintains a single leader for the majority of the height Structure typical for species within the current context Considered to be of low arboricultural quality	C12	3.6
35	Hawthorn	2*190	9	4	4	6	4 #		1.5	2	Semi Mature	Average	Indifferent	Bifurcates at c.0.25m, union appears sound Structure typical for species within the current context Considered to be of low arboricultural quality	C12	3.3
G1	Ash Holly Hawthorn Sycamore	380# 250# av	13.5 max					6 av	0.5 to 5	0.5 to 5	Early Mature	Average	Indifferent	Boundary group forming unmaintained hedge Limited access due to dense understory Components predominately clad and obscured by dense ivy, therefore unable to thoroughly inspect Considered to be of low arboricultural quality	C12	5.4
G2	Holly Hawthorn	100 av	10 av					3.5 av	0.5 av	0.5 av	Early Mature	Average	Indifferent	Unmaintained established boundary group Structures typical for species within the current context	C12	1.2
G3	Ash London Plane	1040 # max	22 max					11 max	8.5 av	2.5 av	Mature	Average	Indifferent	Components predominately clad and obscured by dense ivy, therefore unable to thoroughly inspect Structures typical for species within the current context Considered to be of moderate arboricultural quality	B12	12.6
G4	Apple Plum	130 max	7 max					3 av	1.5 av	1.5 av	Semi Mature	Average	Indifferent	Established Fruit tree group Structures typical for species within the current context Considered to be of low arboricultural quality	C12	1.5
G5	Hornbeam	2*470# 240# max	14 max					8 max	1.5 av	2 av	Mature	Average	Indifferent	Previously coppiced group, management now lapsed Components predominately clad and obscured by dense ivy, therefore unable to thoroughly inspect Structures typical for species within the current context	B2	8.4
G6	Ash Holly Horse chestnut Beech Black Poplar	900 # max	23 max					11.5 max	0.5 to 6	0.5 to 8	Semi Mature to Mature	Poor to Average	Poor to Indifferent	Offsite ornamental collection situated within third party land Structures typical for species within the current context Components predominately of moderate value	B12	10.8
H1	Hawthorn Holly Hazel Elder Privet Sycamore	200 av	5 av					1.5 av	0.5 av	0.5 av	Early Mature	Average	Indifferent	Intermittent unmaintained hedgerow Components predominately clad and obscured by ivy, therefore unable to thoroughly inspect	C12	2.4

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
H2	Hawthorn	100 av	5 av					1.5 av	0.5 av	0.5 av	Early Mature	Average	Indifferent	Lapsed maintained hedgerow Components predominately clad and obscured by ivy, therefore unable to thoroughly inspect	C12	1.2
H3	Hawthorn Elder Cherry Laurel Elm Holly	350 # max	7 max					3.75 max	0.5 av	0.5 av	Early Mature to Mature	Average	Indifferent	Unmaintained hedgerow Components predominately clad and obscured by ivy, therefore unable to thoroughly inspect	C12	4.2
H4	Hazel Hawthorn Elder Field Maple Ash	270 # max	4.5 av					2.5 av	0.5 av	0.5 av	Early Mature to Mature	Average	Indifferent	Unmaintained hedgerow Components predominately clad and obscured by ivy, therefore unable to thoroughly inspect	C12	3.3
W1	Hazel Hawthorn Elder Field Maple Ash Norway Maple English Oak Lime Hornbeam	260 av	7 to 14					4 av	0.5 to 4	0.5 to 5	Young to Mature	Average	Indifferent	Lapsed coppice with occasional standards Structures typical for species in current context Canopies mutually suppressed Partial removal and extensive understory management/clearance	A123	3

APPENDIX C

TREE PROTECTION PLAN (12547 TPP 01 Rev A)

1:1000 @ A3

0m 10m 20m 40m

KEY:

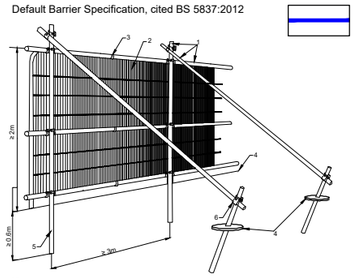
- Site Boundary
- Tree Numbers
- Tree Canopies
- Category 'U' Trees
- Category 'A' RPA
- Category 'B' RPA
- Category 'C' RPA
- Trees to be Removed
- Pruning Works
- Tree Protection Barrier
- Tree Protection Barrier (2nd Position)
- Supervised Excavation
- Above Soil Surfacing

Note: Trees 5, 7, 9, 10, 11, 16, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34 & 35 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 1215_1649_1.dwg).

Note: The RPA footprint for Trees 4, 27 & 28 have been displaced to allow for the effect of the adopted highway. The surface area of the RPA has not been reduced.

Indicative Google Earth

Default Barrier Specification, cited BS 5837:2012



Key
1 Standard scaffold poles
2 Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6m)
6 Standard scaffold clamps

REV	DATE	NOTE	Drawn	Chk'd

REVISIONS

aspect arboriculture

TITLE
Grays Lane, Hitchin
Tree Protection Plan

CLIENT
Hill Residential

SCALE	DATE	DRAWN
1:1000 @ A3	JUN 2025	GN

DRAWING NUMBER	REVISION
12547 TPP 01 Rev A	A

Based on: 2025-06-04-s73-Grays-Lane-Hitchin - EXPORT.dwg

APPENDIX D

TREE SURVEY METHODOLOGY

Tree Survey Methodology

The tree survey is a form of Visual Tree Assessment undertaken during May2025 Tree locations are identified via a topographical survey; locations of any trees excluded from the topographical survey were plotted on site. The purpose of the survey is to record information about trees on or adjacent to the site to inform design options. In keeping with clause 4.4 of BS5837: 2012 'Trees in Relation to Design, Construction and Demolition', the survey provides a record of the following parameters:

Tree Numbers: all individual trees are sequentially numbered. Groups of trees, woodlands and hedgerow are also sequentially numbered with a corresponding prefix relevant to their type e.g. G, W or H respectively; the identification of trees as woodland, groups of trees or within hedgerows is undertaken where appropriate. The identification of trees as individuals within collections has been made where it is considered sensible to make such a differentiation.

Species: listed by common name

Stem Diameter: given in millimetres and obtained by measuring single/multiple stems at 1.5m using a diameter tape in accordance with Annex C within BS5837:2012. Diameters of inaccessible trunks are estimated and provided with the suffix '#'.

Tree Heights: determined using a clinometer and measured to the nearest 500mm. Heights are estimated where specific triangulation is not achievable and by reference to measured trees nearby (provided with the suffix '#').

Crown Spreads: measured at cardinal points using a Leica Disto™ laser distance measurer. Measurements were recorded to the nearest 250mm. Inaccessible crown spreads are estimated based on measured canopies nearby and provided with the suffix '#'

Crown Clearance: The height of the first significant living branch and/or canopy (as appropriate) is recorded using a Leica Disto™ laser distance measurer to inform vertical ground clearance. Crown clearance may be higher or lower than the first significant branch. Estimated clearances are provided with the suffix '#'. Height of first significant branch will be provided where considered advantageous to make the distinction.

Life Stage – The age of trees, groups of trees, hedges and woodlands are defined as follows:

- Young (within the first 1/4th of life expectancy)
- Semi-mature (within the second 1/4th of life expectancy)
- Early Mature (within the third 1/4th of life expectancy)
- Mature (within the fourth 1/4th of life expectancy)
- Veteran (significantly exceeding normal life expectancy)

Physiological and structural condition: physiological condition defined as follows; good, above average, average, below average, poor or dead. Structural condition is defined as: good, moderate, indifferent, poor or hazardous

Comments: further observations were recorded where necessary i.e. details regarding defects, preliminary management recommendations, presence of pest/disease and perceived significance.

BS5837 Category: pursuant to BS5837:2012 section 4.5 and cascade chart for tree quality assessment (refer to reproduced Table 1 overleaf). Trees qualifying under a given category (A-C and U) and any appropriate subheading (1-3) are considered to fall within the scope of that category's definition.

Estimated Remaining Contribution. Described` as a guideline only and in terms of years: <10, 10+, 20+ and 40+ relevant to category U, C, B and A respectively. This information is not provided on the tree schedule to avoid conclusions based upon 'life expectancy'.

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7**.*		
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Trees to be considered for retention			
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

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