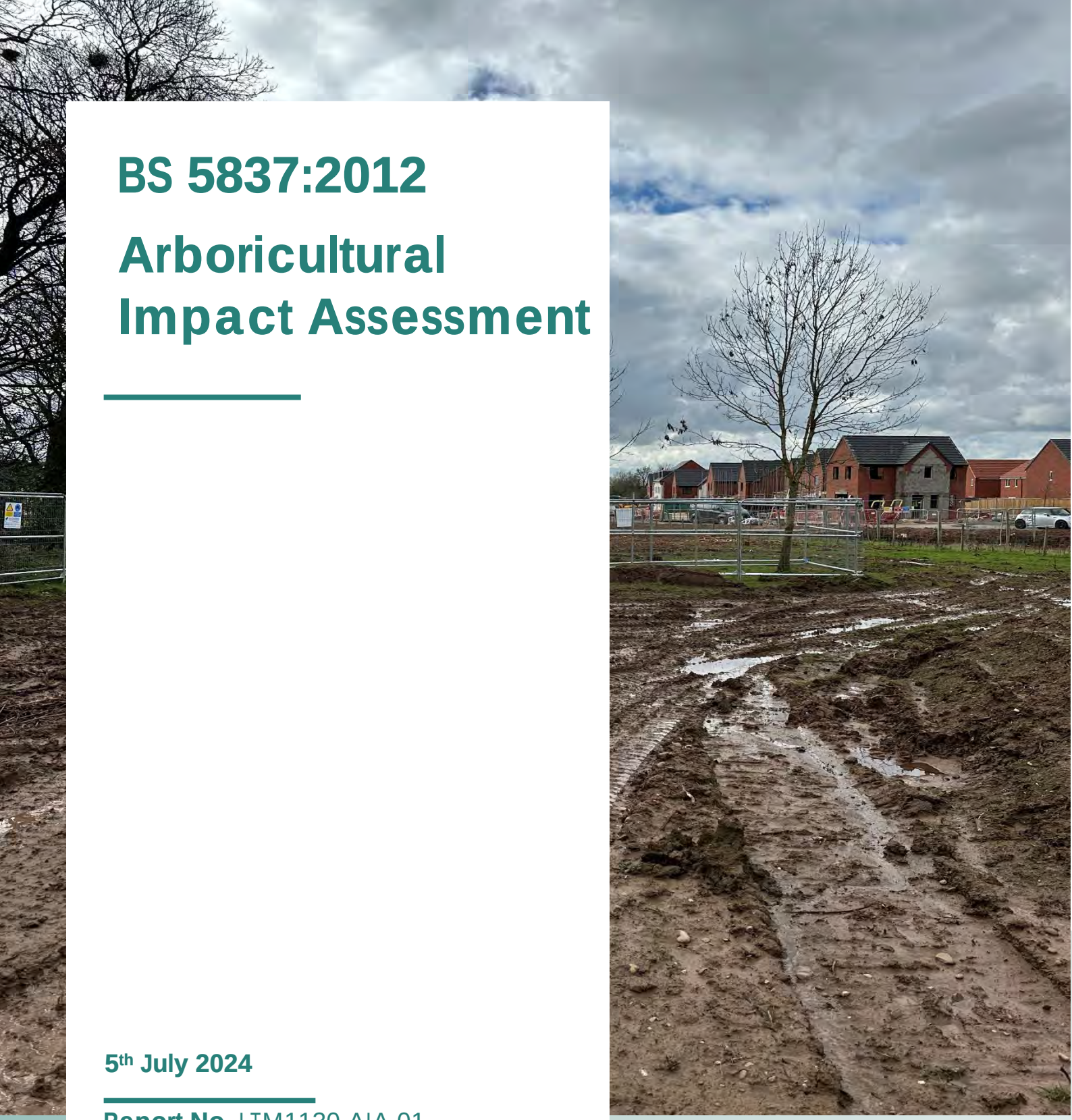

BS 5837:2012

Arboricultural Impact Assessment

5th July 2024

Report No. LTM1130.AIA.01
Project: Land south of Coniston Avenue
Authored by: Matthew Lally

Lally TREE MANAGEMENT

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ARBORICULTURAL IMPACT ASSESSMENT

PROJECT

Land south of Coniston Avenue

Darton

S75

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13.06.2024	Matthew Lally. FdSc MArborA	01	05/07/2024	Matthew Lally. FdSc MArborA

CONTENTS

EXECUTIVE SUMMARY

The proposed development site is located within a residential suburb of Darton in the Metropolitan Borough of Barnsley. The site currently comprises of two fields to the south of Coniston Avenue.

Trees present that could be potentially affected by the development are as follows:

Category A	Category B	Category C	Category U
0	12 Trees 1 Hedge	4 Trees 3 Groups 14 Hedges	2 Trees

It is proposed to construct 39 dwellings along with associated parking, hardstanding areas and soft landscaping. An area to the west of the site will be used for surface water attenuation. To facilitate this development, trees requiring removal or other works are as follows:

	Tree Category. Trees Requiring Works			
Tree Work Type	**Category A**	**Category B**	**Category C**	**Category U**
Tree Removal	0	4 Trees	2 Trees 1 Hedge 1 Section from 2 hedges	0
Supervised Root Pruning & Excavation	0	3 Trees	0	0

1. INTRODUCTION

1.1. Author Information

1.1.1. My name is Matthew Lally and I have been working with trees for over 18 years. I have experience in both practical elements of arboriculture and in consulting. I so far hold the following Arboricultural qualifications and technical memberships:

- FdSc Arboriculture
- LANTRA Professional Tree Inspection Certificate
- VALID – Validator
- QTRA Registered User
- Professional Member of the Consulting Arborist Society
- Professional member of the Arboricultural Association
- Associate Member of the Institute of Chartered Foresters.

1.1.2. I am the author of this report and as a Professional Member of the Arboricultural Association, the Consulting Arborist Society and an Associate Member of the Institute of Chartered Foresters, I am required to uphold ethical standards laid out by these institutions and therefore I have written this report in good faith and as objectively as possible.

1.2. Scope and Purpose of the Reports

1.2.1. An Arboricultural Impact Assessment is used to detail reasonably foreseeable conflicts that a development may have with regards to trees on a given site and is intended to assist the Local Planning Authority (LPA), in this case Barnsley Metropolitan Borough Council, in their assessment of the proposed development. I therefore recommend that this report along with the associated Method Statement is supplied to LPA in support of the planning application to which it pertains.

1.2.2. I have aspired in this report to provide an analysis of the impacts that the proposed development is projected to have on trees located within the site based on the information that I have available to me at the time of writing. Where practicable I have included trees on land immediately adjacent to the site that may also be impacted. I also offer guidance on suitable retained tree management and mitigation recommendations for losses or other foreseen issues.

1.3. Instructions & Brief

1.3.1. I was commissioned to write this Arboricultural Impact Assessment in relation to the proposed development at land south of Coniston Avenue, Darton, S75.

1.3.2. I attach below an outline overhead photograph of the area that I assessed on the 13/06/2024. (This is not necessarily the site boundary but includes trees that I deem could be impacted by the development regardless of ownership)

Figure 1. Assessment boundary plan.

2. SITE VISIT & SURVEY METHODOLOGY

2.1. Survey Details

2.1.1. I visited the site and surveyed the trees in accordance with Chapter 4 of BS5837:2012. I have recorded all the recommended tree metrics in the tree schedule which can be found in appendix I.

2.1.2. British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' includes guidance for considering the relationship between existing trees and how to integrate their needs into a successful development. A harmonious and sustainable relationship between any retained trees and new structure and/or hard surfaces is at the heart of the guidance.

2.1.3. When recording the trees as individual trees, groups of trees, woodlands or hedge groups I have included a prefix on the tree number. Explained as follows: Individual trees (T), groups of trees (G), hedgerows (H) or woodland groups (W).

2.1.4. I have used the term 'group' where trees form cohesive arboricultural features either aerodynamically, visually or culturally.

2.1.5. I have used the term 'hedgerow' for lines of trees or shrubs less than 5m wide at the base and which are managed or have been managed under an obvious regular pruning regime.

2.1.6. I have used the term 'woodland' where there are at least 10 trees and the individual tree canopies generally overlap and interlink, often forming a more or less continuous canopy and trees are the dominant plant form in this area.

2.1.7. I carried out the survey on Thursday 13th June 2024 by means of inspection from ground level. If the inspection was restricted for any reason such as lack of access or dense climbing plants etc, then I have noted this in the site notes in appendix I. I have included pictures of the significant trees in appendix V.

2.1.8. The weather conditions during the survey were dry and still meaning that the weather conditions did not adversely affect the quality of the survey.

2.1.9. In some cases, I may decide to group trees that share very similar characteristics. This method is in line with point 4.2.4 of BS 5837:2012 and I quote 'Trees forming groups should be identified and considered as groups where the arboriculturist determines that this is appropriate. It may be appropriate to assess the quality and value of trees as a whole, rather than individuals.'

2.1.10. I assessed all the trees using: a grading A to C (A being of high quality and C being of the lowest quality) and U (trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years). I attach in appendix III the British Standard 5837:2012 cascade chart for further details.

2.1.11. I have where appropriate recorded the canopy spread for each tree at four cardinal points in order to reproduce an accurate representation of the crown shape of the tree, this was generally not possible for tree groups, woodlands and hedges and therefore these were averaged and are represented by simplified representations on the plans. These representations can be seen in the plans that I have attached in appendix IV.

2.2. Creation of Existing Site Plans

2.2.1. I have shown the Root Protection Area (RPA) on the plans in appendix IV for each tree as a circle centred on the base of the stem which is based on the recommendation of the British Standard. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, I have avoided any detailed modifications to the shape of the RPA as this would largely be based on conjecture.

2.2.2. British Standard 5837:2012 recommends the assessment of trees is made as objectively as possible, but I note that although I do my utmost to be as objective as possible, the findings and recommendations in this report will always be my opinion. The tree categorisation method identified in the British Standard is a tool I use on every Arboricultural Impact Assessment as this guidance helps to make an objective judgment of the tree quality and value of the existing tree stock and keep the judgment as consistent and fair as possible.

2.2.3. Table 1 provides a summary of the documents that have been made available by the client to myself for use in this report:

Table 1 Documents made available by client.

Document Type	Reference No.	Author	Date
Topographical Survey	S9946	Haycock + Todd	June 2021
Proposal	E24/8080/01	Haigh Huddleston & Associates	June 2024

2.2.4. I note that the supplied existing site plans did include tree positions, however, some trees were not located on the plan. I have plotted additional trees myself on the plans using overhead photography. I note that the positions plotted on the plan by myself are estimated and therefore any dimensions regarding tree positions in relation to the development and or protective fencing / ground protection must be checked on site. I do not accept any liability for inaccurately plotted trees.

2.2.5. Assessing the potential influence of trees upon load bearing soils and the potential impact to existing and proposed structures was not included in the contract brief and I have therefore not considered this in the report. I cannot be held responsible for damage arising from such action.

2.2.6. During the site visits I have inspected the trees in line with the British Standard recommendations for potentially hazardous trees and I have made appropriate recommendations where required. I note, however, that this report is not a substitute for a full tree risk assessment or management plan which are specifically designed to minimise risk and liability associated with responsibility for trees.

3. PLANNING POLICY

3.1. National Planning Policy Framework (NPPF)

3.1.1. It is my understanding that when determining planning applications, Local Planning Authority's (LPA) should apply the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternate site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.
- 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.
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity. (paragraph 186)

3.1.2. Consideration should also be taken of paragraph 136 of the NPPF which states:

Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined[50], 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 136)

4. LEGISLATION

4.1. Statutory Considerations

4.1.1. The Town and Country Planning Act (1990) (the Act) and associated Regulations empower Local Planning Authorities (LPAs) to protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). The Act also affords protection for trees with a diameter at breast height over 75 mm diameter that stand within the curtilage of a Conservation Area. An application must be made to the LPA in question to carry out works upon or to remove trees that are subject to a TPO, whilst six weeks' notice of intention must be given to carry out works upon or to remove trees within a Conservation Area that are not protected by a TPO.

4.1.2. A Tree Preservation Order (TPO) is an order made by a local planning authority to protect specific trees, groups of trees or woodlands in the interests of amenity. A TPO prohibits the:

- cutting down
- topping
- lopping
- uprooting
- willful damage
- willful destruction

of trees without the LPA's written consent. If consent is given, it can be subject to conditions which have to be followed. In the Secretary of State's view, cutting roots is also a prohibited activity and requires the authority's consent. Anyone found guilty of such an offence is liable and in serious cases, may result in prosecution and incur an unlimited fine.

4.1.3. I have not directly contacted the Local Planning Authority, however, I have used the online search facility on the website for the Local Planning Authority, Barnsley Metropolitan Borough Council. I have confirmed through this online service that there are no Tree Preservation Orders and Conservation Areas that would apply to any trees present on, or in close proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees. I recommend that before any tree works are undertaken confirmation of the online information should be sought from the Local Authority.

Figure 2. *A screenshot of the Barnsley Metropolitan Borough Council interactive map showing the location of any TPO's or Conservation Areas in relation to the site. (Accessed 17.06.2024, https://www.barnsley.gov.uk/barnsley-maps/tree-preservation-orders-map/)*

4.2. Felling Licence

4.2.1. Tree felling is also restricted under the Forestry Act 1967. Felling licences are Under this act, there is an exemption from the need for a felling licence for "Felling trees immediately required for the purpose of carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) ..."

4.2.2. If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

4.3. Protected Species

4.3.1. Nesting birds are afforded statutory protection under the Wildlife & Countryside Act (1981) (as amended) and their potential presence should therefore be considered when clipping hedges, removing climbing plants and pruning and removing trees. The breeding period for woodlands runs from March to August inclusive. Hedges provide valuable nesting sites for many birds and clipping should therefore be avoided during March to July. Trees, hedges and ivy should be inspected for nests prior to pruning or removal and any work likely to destroy or disturb active nests should be avoided until the young have fledged.

4.3.2. All bat species and their roosts are protected under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and under Schedule 2 of the Conservation of Habitats & Species Regulations 2010 (as amended). In this respect it should be noted that it is possible that unidentified bat habitat features may be located high up in tree crowns and all personnel carrying out tree works at the site should therefore be vigilant and mindful of the possibility that roosting bats may be present in trees with such features. If any bat roosts are subsequently identified, then it is essential that works are halted immediately and that a suitably qualified and experienced ecologist investigates and advises on appropriate action prior to works continuing.

4.3.3. In turn, any subsequent works carried out in relation to any protected species must be carried out under guidance from a suitably qualified and experienced ecologist and in strict accordance with the guidance provided in BS42020:2013 - Biodiversity – Code of Practice for Planning and Development and, with regard to bats, in strict accordance with BS8596:2015 - Surveying for Bats in Trees and Woodlands.

5. THE SITE, ITS SURROUNDINGS & THE TREE POPULATION

5.1. Site & Surroundings

5.1.1. The site under consideration is located within a residential suburb of Darton in the Metropolitan Borough of Barnsley. The site currently comprises of two fields to the south of Coniston Avenue.

5.1.2. It is bordered to the north, east and south by residential properties and gardens, and to the west by agricultural fields.

5.2. Tree Population

5.2.1. As noted previously, a total of eighteen individual trees, three groups of trees, and fifteen hedges were surveyed for the purpose of this appraisal. They range from young to over mature in age, with heights up to approximately 15 metres, maximum diametrical crown spreads up to approximately 19 metres, and stem diameters up to approximately 960 millimetres. Detailed tree dimensions and other pertinent information, such as structural defects and physiological deficiencies, are included in the Tree Schedule in Appendix I.

5.2.2. In respect of the survey it should be noted that tree quality is categorised within the existing context without taking any site development proposals into account.

5.2.3. Under the UK's planning system trees are a material consideration in the planning and development process. Nonetheless, only trees of a suitable quality and value should be considered a material constraint to development. In this respect the Tree Schedule includes a column ('Cat. Grade') listing the trees' respective retention values, where they are rated either 'A', 'B', 'C' or 'U', as per BS5837:2012 Table 1 (appendix III). 'A' category trees are those considered to be of 'high quality' and, accordingly, the most suitable for retention, whilst 'B' category trees are those considered to be of 'moderate quality', and 'C' category trees are those considered to be of 'low quality' with a correlated low retention value. In turn, 'U' category trees are those that are considered to be 'unsuitable for retention'.

5.2.4. As detailed in the Tree Schedule in appendix I, twelve trees and one hedge were categorised as moderate quality (i.e. 'B' category), four trees, three groups, and fourteen hedges were categorised as low quality (i.e. 'C'

category), and two trees were classed as unsuitable for retention (i.e. ‘U’ category) regardless of the development proposals.

6. ARBORICULTURAL IMPACT ASSESSMENT

6.1. Proposed Development

6.1.1. It is proposed to construct 39 dwellings along with associated parking, hardstanding areas and soft landscaping. An area to the west of the site will be used for surface water attenuation. These proposals are encapsulated in the proposed site plan titled E24/8080/01.

6.2. Impacts

6.2.1. I have overlayed the proposed site plan titled E24/8080/01 onto the existing site plan using computer aided design software and found locations in which there are conflicts with existing trees. I have made this plan available in appendix IV titled Arboricultural Implications Plan.

6.2.2. In order to fully assess the impact of the proposals, I have created an Impact Table below (Table 2) in which I detail each tree, indicate which tree/s can be retained and which need to be removed, outline any mitigation needed and give a justification for any actions outlined.

6.2.3. I used the aforementioned Impact Table and Arboricultural Implications Plan in my analysis to determine whether the development will have an impact on the health of each tree. Where I have determined there is an impact, I have then decided upon any mitigation measures that could be implemented to reduce the impact the proposals will have on the treescape.

Table 2. Impact Table

Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
T1#	C1	**No**	**This tree is to be removed to allow for the construction of the new road.**
T2	B2	Yes, with mitigation	The proposed services will be installed within the RPA of this tree, but it can be retained as outlined in section 7.3.
T3	B2	Yes, with mitigation	The proposed services will be installed with the RPA of this tree, but it can be retained as outlined in section 7.2 & 7.3.
H4	B3	Yes	-
T5	B1	**No**	**This tree will need to be removed to allow for the installation of the foul drains**

Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
H6	C2	**No**	**This hedge is to be removed to allow for the construction of unit 3 and a new retaining wall.**
T7	B1	**No**	**This tree is to be removed to allow for the construction of unit 3 and a new retaining wall.**
H8	C1	Yes	-
T9	U	Yes	-
H10	C1	Yes	-
T11#	C1	Yes	-
T12	C1	**No**	**This tree is to be removed to allow for the construction of a new retaining wall.**
T13	B1	Yes, with mitigation	The construction of the new retaining wall encroaches into the RPA of this tree but can be retained as outlined in section 7.2.
G14#	C2	Yes	-
H15	C2	Yes	-
G16#	C2	Yes	-
T17#	B1	Yes	-
H18	C2	**1 x section to be removed**	**1 x section to be removed to facilitate the construction of a new retaining wall.** Remaining parts can be retained.
T19	B1	Yes, with mitigation	The construction of unit 30 and its drive encroaches into the RPA of this tree but can be retained as outlined in section 7.2.
T20#	C1	Yes	-
T21	B1	**No**	**This tree is to be removed as the construction of the new retaining wall and change in ground levels will not allow for its successful retention.**
H22	C1	Yes	-
H23	C2	Yes	-
T24	B1	**No**	**This tree is to be removed to allow for the installation of new services.**
H25	C2	Yes	-
T26	B1	Yes	-
H27	C2	Yes	-
H28	C2	Yes	-

Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
G29#	C2	Yes	-
T30	B1	Yes	-
H31	C1	Yes	-
H32	C1	Yes	-
H33	C1	**1 x section to be removed**	**1 x section is to be removed to allow for the installation of utilities, access for sewers and installation of new fences.** Remaining parts can be retained.
T34	U	Yes	-
T35	B1	Yes	-
H36	C1	Yes	-

6.2.4. I have created an Assessment Table (Table 3) to help visualise the number of trees that will or will not be impacted by the proposed development. To assess the implications of the Impact Table each tree can be categorised in the following way: -

Table 3. Assessment Table

	Trees to be Retained		Trees to be Removed	
	With No Impact	**With detailed construction**	**Due to Condition**	**Due to Development**
Category A	-	-	-	-
Category B	H4, T17#, T26, T30, T35	T2, T3, T13, T19	-	T5, T7, T21, T24,
Category C	H8, H10, T11#,G14#, H15, G16#, H18#, T20#, H22, H23, H25, H27, H28, G29#, H31, H32, H33, H36	-	-	T1#, H6, T12, H18# (1x Section), H33 (1x Section),
Category U	T9, T34,	-	-	-

6.2.5. As can be seen in table 3, 4 category B Trees, 2 category C trees, 1 category C hedge and 1 section of 2 category C hedgerows require removal to facilitate this proposal. This can be mitigated as outlined in section 7.1.

7. MITIGATION PROPOSALS

7.1. Compensatory Planting

7.1.1. I have noted 6 tree removals, 1 hedge removal and 2 sections of hedge removal required to facilitate this development and I therefore recommend that the loss of the trees identified in table 3 is mitigated by replacement tree planting.

7.1.2. This will have a number of benefits for the development and the character of the area. These being: -

- Give a greater diversity of age class on the site, increasing sustainability.
- Give a greater diversity of species and therefore wildlife habitat.

7.1.3. I propose a list of suitable replacement trees in the schedule below: -

Table 4. Replacement Tree Schedule

Tree Species	Tree Size
Acer campestre	*6 - 8 cm girth*
Betula pubescens	*6 - 8 cm girth*
Betula pendula	*6 - 8 cm girth*
Pyrus cordata	*6 - 8 cm girth*
Sorbus aucuparia	*6 - 8 cm girth*
Alnus glutinoa	*6 - 8 cm girth*
Fagus sylvatica	*6 - 8 cm girth*
Prunus padus	*6 - 8 cm girth*
Purnus avium	*6 - 8 cm girth*
Taxus baccata	*6 - 8 cm girth*
Sorbus aria	*6 - 8 cm girth*
Carpinus betulus	*6 - 8 cm girth*
Malus sylvestris	*6 - 8 cm girth*
Crataegus monogyna	*6 - 8 cm girth*
Tilia cordata	*6 - 8 cm girth*
Euonymus europaeus	-

7.1.4. The extent of mitigation planting required will need to be confirmed in agreement with the Local Planning Authority once the development proposal is finalised.

7.2. Root Pruning

7.2.1. The proposed construction of the new parking areas encroach into the RPA of T3 by approximately 8.5%.

7.2.2. The construction of the new retaining wall encroaches into the RPA of T13 by approximately 8%.

7.2.3. The construction of unit 30 along with its proposed drive encroaches into the RPA of T19 by approximately 9%.

7.2.4. I would recommend that to facilitate the development and prevent damage to any tree roots within the RPAs of these trees, all excavation should be supervised by an Arboricultural Consultant and any root pruning that is required should be undertaken by the Arboricultural Consultant.

7.2.5. It is my opinion that if the following points are adhered to then the long-term health and retention of T3, T13 & T19 will not be adversely affected.

- Excavation must be carried out using hand tools to avoid direct damage to the bark of the roots. It may be possible in some instances to use specialised equipment such as high air pressure machinery to excavate the soil with minimal disturbance to roots.

- Exposed roots will be wrapped in moist, clean hessian to prevent the roots from drying out in hot or dry weather. The hessian must be removed before backfilling.

- Roots less than 25mm diameter may be pruned back, preferably to a growing point. A sharp cutting tool such as bypass secateurs or a handsaw should be used to leave the smallest wound possible. Roots greater than 25mm in diameter should be retained wherever possible, however it is my opinion that larger roots can be pruned in this circumstance due to the distance of the proposed works relative to the main stem and the large areas of unsurfaced ground around these trees for the roots to exploit.

- Root pruning should be carried out under the supervision of the Arboricultural Consultant.

- Backfilling of any excavation must be carried out by hand to avoid direct root damage or compaction, where possible. Builder sand must not be used in the backfill material.

7.3. Installation of Utilities

7.3.1. I note that the installation of new utilities will occur within the RPAs of T2 & T3.

7.3.2. It is my opinion that if the excavation for the installation of the utilities is undertaken in line with NJUG Volume 4. 'Guidelines for the planning, installation, and maintenance of utility apparatus in proximity to trees' the safe useful life expectancy of these trees will not be adversely affected.

8. CAVEATS AND LIMITATIONS

8.1.1. The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by myself (Matthew Lally).

8.1.2. This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, soils ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.

8.1.3. This is not a Tree Risk Assessment. As such this report should not be taken to mean or imply that any of the inspected trees should be considered safe. A Tree Risk Assessment can be provided but would be subject to additional survey requirement and further fees.

8.1.4. Trees are growing dynamic structures. Whilst all reasonable effort has been made to identify defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever absolutely safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.

8.1.5. For the purposes of this survey all dimensions of trees and their associated parts are based on estimation unless otherwise stated.

8.1.6. Trees are living organisms whose health, condition and structure can change quickly and without warning. Therefore, the contents of this report are valid for a period of one year from the date of this survey.

Appendix I

Tree Survey Data & Site Notes

***The recommendations in this section are based on the site survey only and are NOT recommendations to facilitate the development plans. See the Arboricultural METHOD STATEMENT for tree works required to facilitate the development.**

BS5837:2012
TREE SCHEDULE

DATE OF SURVEY: 13/06/2024 **JOB REFERENCE:** LTM1130.AIA.01 **SITE ADDRESS:** Land south of Coniston Avenue, Darton, S75

Tree No.	Species	Stem Dia (mm)	RPA (m^2)	RPA Radius (m)	Height (m)	Age Class	Crown Spread (m) N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
T1#	Willow	220	22	2.64	4	Y	2	2	2.5	2.5	1S	A	A self-set multi-stemmed tree growing in close proximity to boundary wall. Low arboricultural value.	**No action**	40+	**C1**
T2	Cherry	300	41	3.6	9	SM	3	5	5	3	1S	A	Located on site boundary. No access to base due to dense vegetation, estimated measurements. Vitality is within normal range. Stem lean biased to east. Tree appears stable.	**No action**	40+	**B2**
T3	Cherry	500	113	6	9	EM	4	5	5	4	1S	A	Located on site boundary. No access to base due to dense vegetation, estimated measurements. Ivy clad. Vitality is within normal range. Stem lean biased to east. Tree appears stable.	**No action**	40+	**B2**
H4	Hawthorn with occasional Cherry sapling	100	5	1.2	3	EM	1.5	1.5	1.5	1.5	0N	A	A field boundary hedgerow with self-set cherry sapling within group. Group is undamaged.	**No action**	40+	**B3**
T5	Laburnum	660	197	7.92	6	M	5	3	5	5	1S	B	DBH estimated at 9 stems with average DBH of 220. A multi-stemmed tree on edge of field. Acute and included basal unions. Missing sections of bark. Ivy clad stems meaning a limited inspection. Vitality is within normal range. Tree appears stable.	**No action**	20+	**B1**
H6	Privet	120	7	1.44	3	EM	1.5	1.5	1.5	1.5	0N	B	An unmanaged boundary hedgerow. Vitality appears normal. Hedge appears stable. Low quality.	**No action**	20+	**C2**
T7	Birch	320	46	3.84	8	SM	5	5.5	4	4	1N	A	Good form and vitality. Located on field boundary. No significant risk features observed.	**No action**	40+	**B1**
H8	Hawthorn	100	5	1.2	2	EM	1	1	1	1	0N	A	A well maintained field boundary hedgerow. Mainly hawthorn with some rambling rose, honey suckle and bramble growing through crown. Nettles growing under crown.	**No action**	40+	**C1**

= Position estimated on site

BS5837:2012
TREE SCHEDULE

DATE OF SURVEY: 13/06/2024 **JOB REFERENCE:** LTM1130.AIA.01 **SITE ADDRESS:** Land south of Coniston Avenue, Darton, S75

Tree No.	Species	Stem Dia (mm)	RPA (m^2)	RPA Radius (m)	Height (m)	Age Class	Crown Spread (m) N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
T9	Birch	240	26	2.88	4	EM	1	1	1	1	1N	C	A topped third party owned tree. No access to inspect. Estimated measurements.	**No action**	Less than 10	**U**
H10	Hawthorn	100	5	1.2	1.5	SM	1	1	1	1	0N	B	A boundary hedgerow swamped in bramble.	**No action**	20+	**C1**
T11#	Hawthorn	150	10	1.8	3	SM	2	2	2	2	0N	A	A third party owned hawthorn on site boundary. No access to inspect. Estimated measurements.	**No action**	40+	**C1**
T12	Hawthorn	300	41	3.6	5	M	2	2	1.5	1.5	0.5N	A	A multi-stemmed tree on site boundary. Very dense vegetation at base prevented an accurate DBH measurement. Vitality appears normal and tree appears stable.	**No action**	40+	**C1**
T13	Stone Pine	600	163	7.2	8	SM	5	5	6	5	3S	A	A third party owned tree. No access to inspect. Vitality is within normal range. Poor pruning cuts. Estimated measurements.	**No action**	40+	**B1**
G14#	Cypress x 4	180	15	2.16	6	SM	2.5	2.5	2.5	2.5	0S	A	A third party group on site boundary. Providing screen to adjacent house.	**No action**	20+	**C2**
H15	Cypress	100	5	1.2	2	SM	1	1	1	1	0N	B	A field boundary hedgerow. Likely to be third party owned.	**No action**	20+	**C2**
G16#	Cypress x 3	180	15	2.16	6	SM	2.5	2.5	2.5	2.5	0S	A	A third party group on site boundary. Providing screen to adjacent house.	**No action**	20+	**C2**
T17#	Horse Chestnut	500	113	6	14	EM	5	5	5	5	3N	A	A third party owned tree. Not inspected. Estimated measurements and position.	**No action**	40+	**B1**
H18	Hawthorn with occasional Hazel, Berberis and Bramble permeating in places.	100	5	1.2	3	EM	1.8	1.75	1.75	1.8	0N	A	An unmanaged field boundary hedgerow. Likely to be third party owned. Vitality is within normal range. No significant risk features observed. Providing screen to adjacent properties.	**No action**	40+	**C2**

= Position estimated on site

BS5837:2012
TREE SCHEDULE

DATE OF SURVEY: 13/06/2024 **JOB REFERENCE:** LTM1130.AIA.01 **SITE ADDRESS:** Land south of Coniston Avenue, Darton, S75

Tree No.	Species	Stem Dia (mm)	RPA (m^2)	RPA Radius (m)	Height (m)	Age Class	Crown Spread (m) N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
T19	Oak	800	290	9.6	14	EM	7	8	8	7	3N	A	An ivy clad third party owned tree. Estimated measurements. No access to inspect.	**No action**	40+	**B1**
T20#	Wild Cherry	200	18	2.4	7	SM	2	1	1.5	2	2N	A	An ivy clad specimen located on site boundary. No significant risk features observed.	**No action**	40+	**C1**
T21	Oak	650	191	7.8	14	EM	7.5	8	8	6	3N	A	A boundary tree of good vitality. Heavily pruned over neighbours side. Tree appears stable.	**No action**	40+	**B1**
H22	Hawthorn. Snowberry. Hazel. Berberis.	80	3	0.96	1.5	EM	1	1	1	1	0N	A	A well maintained field boundary hedge.	**No action**	40+	**C1**
H23	Holly. Hawthorn.	80	3	0.96	3	SM	1.5	1.5	1.5	1.5	0N	A	An unmanaged field boundary hedge. Estimated measurements due to no access to stems. Vitality appears normal. Hedge appears stable.	**No action**	40+	**C2**
T24	Sycamore	300	41	3.6	7	SM	3	3	3.5	3.5	4N	A	Good form and vitality. No significant risk features observed. No access to inspect base. Estimated DBH.	**No action**	40+	**B1**
H25	Hawthorn. Willow. Elderly. Cypress	200	18	2.4	5	EM to M	2.5	2.5	2.5	2.5	0N	A	An unmanaged hedgerow on site boundary. Questionable ownership. Providing good level of screening to adjacent property and private garden.	**No action**	40+	**C2**
T26	Oak	960	417	11.52	15	M	10	8	8	10	1N	A	A large and mature oak on site boundary. Vitality is within normal range. No significant risk features observed.	**No action**	40+	**B1**
H27	Hawthorn. Holly	100	5	1.2	1.5	EM	1	1	1	1	0N	A	A field boundary hedgerow.	**No action**	40+	**C2**
H28	Hawthorn. Hazel. Cotoneaster. Wild Cherry	100	5	1.2	3	SM	2	2	2	2	0N	A	An unmanaged hedgerow section with trees growing within crown.	**No action**	40+	**C2**

= Position estimated on site

BS5837:2012
TREE SCHEDULE

DATE OF SURVEY: 13/06/2024 **JOB REFERENCE:** LTM1130.AIA.01 **SITE ADDRESS:** Land south of Coniston Avenue, Darton, S75

Tree No.	Species	Stem Dia (mm)	RPA (m^2)	RPA Radius (m)	Height (m)	Age Class	Crown Spread (m) N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
G29#	Ash x 3. Wild Cherry x 1	160	12	1.92	6	Y to SM	3	3	3	3	1N	A to B	A linear group of trees growing within an unmanaged hedgerow. Ash dieback disease affecting ash trees but of little concern at this time.	**No action**	20+	**C2**
T30	Oak	850	327	10.2	15	M	9	10	10	9	3S	B	Vitality is slightly reduced. Some evidence of basal stem swelling, likely reaction from internal decay. Sounding hammer found good levels of sound wood in stem. Acceptable condition.	**No action**	40+	**B1**
H31	Hawthorn with occasional Elderberry, Rambling Rose and Honeysuckle	80	3	0.96	1.5	EM	1	1	1	1	0N	A	A well maintained field boundary hedge. Vitality is within normal range. Nettles under crown of hedge.	**No action**	40+	**C1**
H32	Hawthorn with occasional Elderberry, Rambling Rose and Honeysuckle	80	3	0.96	1.5	EM	1	1	1	1	0N	A	A well maintained field boundary hedge. Vitality is within normal range. Nettles under crown of hedge.	**No action**	40+	**C1**
H33	Hawthorn with occasional Elderberry, Rambling Rose and Honeysuckle	80	3	0.96	1.5	EM	1	1	1	1	0N	A	A well maintained field boundary hedge. Vitality is within normal range. Nettles under crown of hedge.	**No action**	40+	**C1**
T34	Ash	600	163	7.2	8	OM	5	5	6	4	4E	C	An old field boundary ash tree. Double stemmed (but it is likely that the stems originally formed one stem). Decay evident at base and there are some veteran tree characteristics, however, this tree is in significant decline due to ash dieback disease. I do not expect this tree to live beyond 5 years.	**No action**	Less than 10	**U**
T35	Birch	360	59	4.32	7	EM	3.5	3.5	4.5	3	2S	A	A double stemmed tree located in field boundary hedgerow. No significant risk features observed.	**No action**	40+	**B1**

= Position estimated on site

BS5837:2012
TREE SCHEDULE

DATE OF SURVEY: 13/06/2024 **JOB REFERENCE:** LTM1130.AIA.01 **SITE ADDRESS:** Land south of Coniston Avenue, Darton, S75

Tree No.	Species	Stem Dia (mm)	RPA (m^2)	RPA Radius (m)	Height (m)	Age Class	Crown Spread (m) N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
H36	Hawthorn with occasional Elderberry, Rambling Rose and Honeysuckle	80	3	0.96	1.5	EM	1	1	1	1	0N	A	A well maintained field boundary hedge. Vitality is within normal range. Nettles under crown of hedge.	**No action**	40+	**C1**

= Position estimated on site

Appendix II

Glossary of Terms

The following terms are concurrent with best Arboricultural practice and within the guidelines set by the International Society of Arboriculture (ISA), the Arboricultural Association (AA) and the British Standards Institute (BSI).

Age Range:

Age is site specific and categorised:

Young (Y)	Out-planted trees that have not yet established.
Semi-Mature (SM)	Established trees up to 1/3 of expected height and crown.
Early Mature (EM)	Between 1/3 and 2/3 of expected height and crown.
Mature (M)	Between 2/3 and full expected height and crown.
Fully Mature (FM)	Full expected height and crown.
Over Mature (OM)	Crown beginning to break-up and decrease in size.
Senescent (S)	Crown in advanced stage of break-up.

Height: Height is estimated and recorded in metres.

DBH: Diameter at Breast Height is measured at 1.5m and recorded in metres. Where a tree becomes multi-stemmed below 1.5m the highest possible diameter is measured and indicated. Alternatively, above 1.5m the diameter of each stem or an average diameter is measured and indicated.

Condition: Assessment of current physiological condition and structural morphology incorporating vigour and vitality and categorised:

A - Tree needing little, if any attention

B - Tree with minor, but rectifiable defects, or in the early stages of physiological stress

C - Tree with significant structural and physiological flaws and/or extremely stressed

D - Tree that is dead, biologically/physically moribund or dangerous.

Desirability to Retain – As Outlined in Table 1 of BS 5837:2005 (Trees in Relation to Construction - Recommendations)

Definition of Physiological & Morphological Terms

Adaptive Growth - The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone.

Bifurcation – Forked or divided union.

Brown Rot - Form of decay where cellulose is degraded, while lignin is only modified.

Cankers- A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by wound wood development on the periphery. This may be annual or perennial.

Cavity - An open wound, characterised by the presence of extensive decay and resulting in a hollow.

Chlorotic Leaf - Lacking in chlorophyll, typically yellow in colour.

Compartmentalisation - The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.

Crack - Longitudinal spilt in stem or branch, involving bark and/or underlying wood. These may be vertically and horizontally orientated.

Decay - Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.

Deadwood - Deadwood is often present within the crown or on the stems of trees. In some instances, is may be an indication of ill health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).

End Weight - The concentration of foliage at the distal ends of stems and deficient in secondary branches.

Girdling Root - Root which circles and constricts the stem or roots causing death of phloem and/or cambial tissue.

Hazard Beam - An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).

Included Bark Union - Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.

Ivy Growth - Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.

Live Crown Ratio - The relative proportion of photosynthetic mass (leaf area) to overall tree height.

Reaction Wood - Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.

Root Plate Lift - The physical movement of the rooting plate causing soils to shift and crack. May occur during adverse weather conditions. Trees may become unstable.

Root Protection Area - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. This area should be considered a no go area for development unless very careful mitigation measures are implemented and agreed with the LPA.

Structural Defect - Internal or external points of weakness, which reduce the stability of the tree.

Suppressed - Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.

Topping - A highly disfiguring practice, likely to cause severe xylem dysfunction and decay in major structural parts of the wood.

White Rot - Form of decay where both cellulose and lignin are degraded.

Wound - Any injury, which induces a compartmentalisation response.

Wound wood - Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term "callus."

Woodland Structure - The vertical and horizontal arrangement of trees within a group or woodland i.e. Dominant - trees with a crown above the upper layer of the canopy, Co-dominant - trees that define the general upper edge of the canopy, Intermediate - trees that have been largely overgrown by others, Suppressed - trees that have been

overgrown and occupy an understory position and grow slowly, often severely asymmetrical.

Note: The definitions described above, may not necessarily be included within the Arboricultural Survey Data.

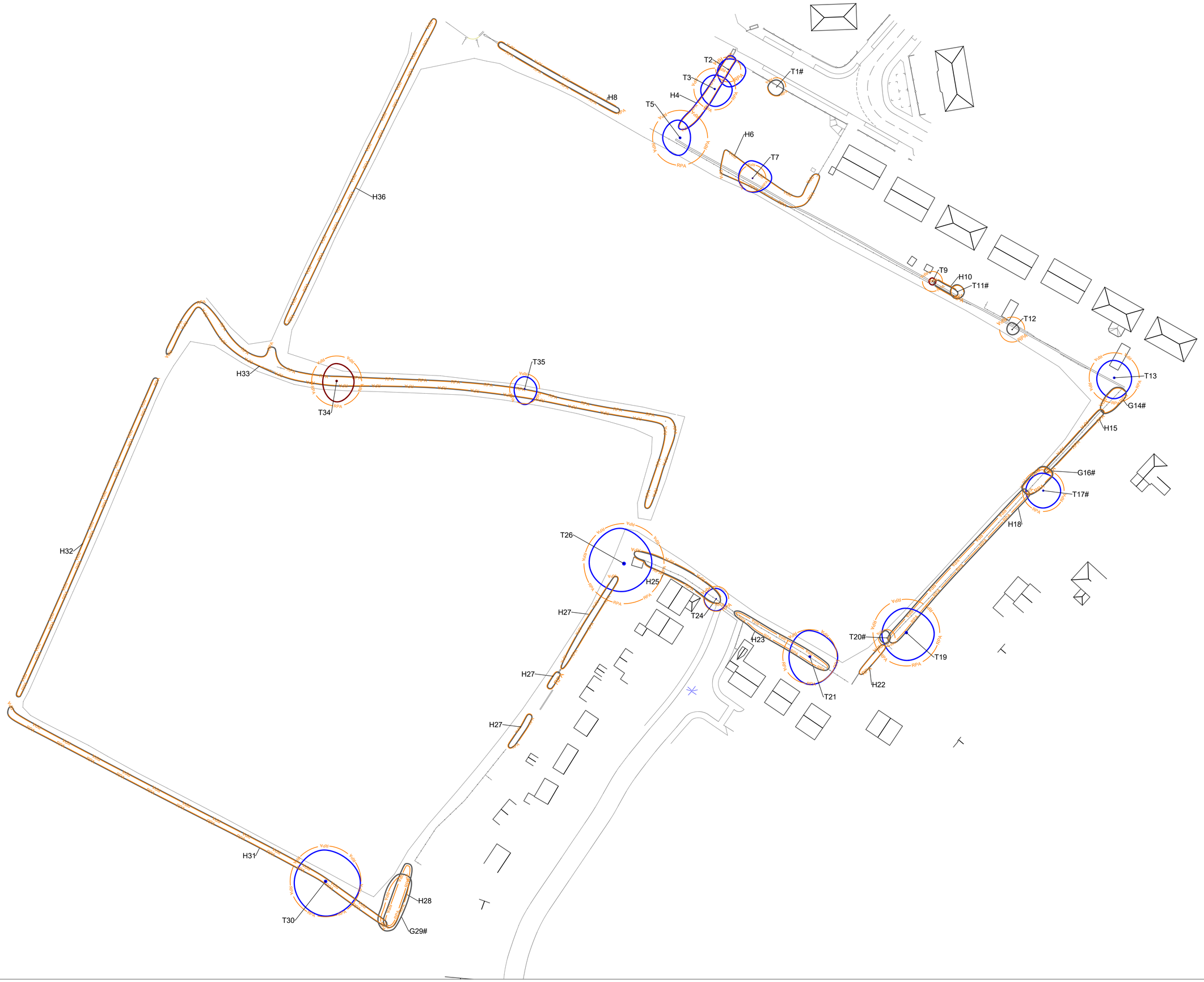
Appendix III

Cascade Chart

Trees for removal			
Category and definition	**Criteria**		
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	o 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 U Category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) o Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. o Trees infected with pathogens of significance to the health and/or safety of other trees nearby) e.g. Dutch elm disease), or very low-quality trees suppressing adjacent trees of better quality. NOTE: *Category U trees can have existing or potential conservation value which might be desirable to preserve; see section 4.7.5*		
Trees to be considered for retention			
Category and definition	**Criteria and sub-categories**		
	1) Mainly arboricultural values	**2) Mainly landscape values**	**3) Mainly cultural values (including conservation)**
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 essential components of groups, or of 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-pastures)
Category B **Those 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 area	Trees with clearly identifiable conservation or other cultural benefits
Category C **Those of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in the higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with no material conservation or other cultural value

Appendix IV

Tree Constraints Plan & Arboricultural Implications Plan



Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is for use on this site only and should be used in conjunction with all relevant consultants drawings..

LEGEND

N

- Category A
- Category B
- Category C
- Category U
- Root Protection Area (RPA)
- # Position estimated on site

Lally TREE MANAGEMENT

Scale: 1:500 @ A1	Date: 18/06/2024
Job: LTM1130.AIA.01	
Address: Land south of Coniston Avenue, Darton, S75	
Client: Conroy Brook Group of Companies	
Drawing Number: LTM1130.TCP.01	
Drawn by: Matthew Lally	

TREE CONSTRAINTS PLAN

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is for use on this site only and should be used in conjunction with all relevant consultants drawings..

LEGEND

- Category A
- Category B
- Category C
- Category U
- Root Protection Area (RPA)
- # Position estimated on site

Lally TREE MANAGEMENT

Scale: 1:500 @ A1	Date: 05/07/2024
Job: LTM1130.AIA.01	
Address: Land south of Coniston Avenue, Darton, S75	
Client: Conroy Brook Group of Companies	
Drawing Number: LTM1130.AIP.01	
Drawn by: Matthew Lally	

ARBORICULTURAL IMPLICATIONS PLAN

Appendix V

Pictorial Evidence

Picture 1. T1#

Picture 2. T2 & T3

Picture 3. H4

Picture 4. T5

Picture 5. H6 & T7

Picture 6. H8

Picture 7. T9

Picture 8. H10 & T11#

Picture 9. T12

Picture 10. T13

Picture 11. G14#

Picture 12. H15

Picture 13. G16# & T17#

Picture 14. H18

Picture 15. T19

Picture 16. T20#

Picture 17. T21

Picture 18. H22

Picture 19. H23

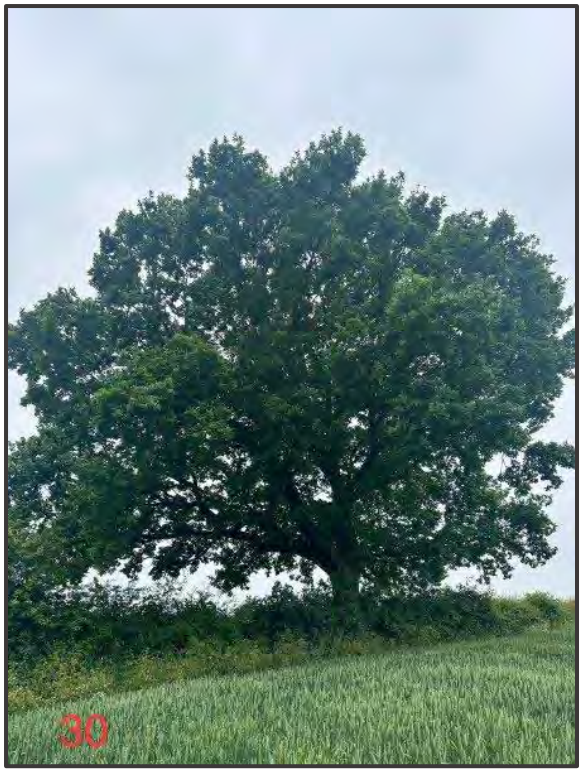
Picture 20. T24

Picture 21. H25

Picture 22. T26

Picture 23. H27

Picture 24. H28 & G29#



Picture 25. T30

Picture 26. H31

Picture 27. H31

Picture 28. H32

Picture 29. T34

Picture 30. T34

Picture 31. T35