

ORIGIN ENVIRONMENTAL

ARBORICULTURE

ARBORICULTURAL IMPACT ASSESSMENT

SITE LOCATION

44 Ratby Lane, Markfield,
LE67 9RJ

CLIENT

Corporate Architecture Ltd.

REFERENCE

240508 23080 AIA V1

ISSUE DATE

9th May 2024



Arboricultural Impact Assessment

REF NO: 240508 23080 AIA V1

DATE: May 2024

Document Quality Assurance

Revision	Date	Author	Signature	Reviewed
V1	9 th May 2024	Jack Barnard BSc (Hons) MArborA MICFor (Chartered Arboriculturist)		CB

Copyright

This report, all plans, illustrations, and other associated materials remain the property of Origin Environmental Arboriculture Ltd. until paid for in full. Copyright and intellectual property rights remain with Origin Environmental Arboriculture Ltd.

Limitations

The contents of this report are valid at the time of writing. Origin Environmental Arboriculture Ltd. shall not be liable for any use of this report other than for the purposes for which it was produced. Due to the dynamic nature of trees, this report is valid for 12 months.

Any alteration to the application site or development proposals could change the current circumstances and invalidate this report and any recommendations.

The tree survey was a preliminary assessment from ground level and observations were made solely from visual inspection for the purposes of an assessment relevant to planning and development. This report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a tree risk assessment.

This is not an ecological report. Where protected species may be present, prior to any works commencing ecological advice must be sought. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Species and Habitat Regulations 2017 provide statutory protection for birds, bats and other species that can inhabit trees. Great care is required to avoid disturbance to those species and consideration should be given to the timing of tree works to avoid an offence under the above legislation. Where such species are suspected, the project ecologist or Natural England should be contacted for advice.



Arboricultural Impact Assessment

REF NO: 240508 23080 AIA V1

DATE: May 2024

Table of Contents

1.	Introduction	1
1.1	Principal Author	1
1.2	Purpose.....	1
1.3	Origin's Instruction.....	1
1.4	Site Description	1
2.	Proposed Development	2
2.1	Description.....	2
2.2	Reference Documents	2
3.	Statutory and Non-statutory Legislation	2
3.1	National Planning Policy Framework (NPPF) (December 2023)	2
3.2	Tree Preservation Orders and Conservation Areas	3
3.3	Felling Licence.....	3
4.	Baseline Tree Survey	3
4.1	Site Visit.....	3
4.2	Method of Data Collection	3
4.3	Summary of Data	4
5.	Impact Assessment	4
5.1	Relationship between Site Layout and Trees	4
6.	Above Ground Constraints	5
6.1	Tree Canopies.....	5
6.2	Shading	5
6.3	Future Growth.....	6
6.4	Leaves, Fruit, and Honeydew	6
7.	Below Ground Constraints.....	6
7.1	Root Protection Area (RPA)	6
7.2	RPA Incursions	6
7.3	Infrastructure.....	6
8.	Recommendations	7
9.	Conclusions.....	7
10.	References.....	8

Appendix 1: Aerial Photograph/Site Location Plan

Appendix 2: Survey Methodology

Appendix 3: Schedules

Appendix 4: Plans

Appendix 5: Tree Protection



1. Introduction

1.1 Principal Author

1.1.1 The report's Principal Author is Jack Barnard *BSc (Hons), MArborA, MICFor (Chartered Arboriculturist)* Director at Origin Environmental Arboriculture Ltd. known here in as 'Origin'. Jack has over eight years of professional experience in arboricultural consultancy and has worked on projects ranging from large master planning proposals to commercial and residential sites throughout the UK. Jack is a Professional Member of the Arboricultural Association (AA) and Institute of Chartered Foresters (ICF) and is therefore required to uphold the professional and ethical standards within their code of conduct. Jack is also LANTRA certified to undertake Professional Tree Inspections.

1.1.2 The information stated within this report is a true and accurate reflection of both the Site conditions at the time of the survey, as well as the professional opinion of the Principal Author.

1.2 Purpose

1.2.1 This Arboricultural Impact Assessment (AIA) has been commissioned by Corporate Architecture Ltd. ('the Client'). This AIA is prepared in relation to the Proposed Development at 44 Ratby Lane, Markfield, Leicestershire, LE67 9RJ ('the Site') (see the site location plan and red line boundary at Appendix 1).

1.2.2 Origin is instructed to fulfil the initial requirements of BS5837:2012 and Hinckley and Bosworth Borough Council ('the Council'). The Council require an AIA to make an informed decision on our client's full planning application.

1.2.3 This AIA is also a reference point for all site operatives; a copy will remain with the Site Manager for the duration of the Proposed Development. This may be required if there were to be a dispute over compliance with related planning decisions. However, should the Council be minded to grant planning permission, an Arboricultural Method Statement (AMS) should be conditioned to ensure sufficient protection of retained trees through the construction process.

1.3 Origin's Instruction

1.3.1 The extent of instruction for this project is threefold:

- i. A BS5837:2012 tree survey - this is an assessment of all trees on or within influencing distance of the Site, capturing data relating to each tree's size and condition, as well as quantifying each tree or group's amenity value and life expectancy.
- ii. A Tree Constraints Plan and Tree Schedule - delineating the findings of the BS5837:2012 tree survey. Trees are superimposed onto a topographical survey or OS Map to show their reference number (e.g. T1), canopy spread, retention categorisation and Root Protection Area (RPA).
- iii. An Arboricultural Impact Assessment (AIA) – this is a report that assesses the trees and the potential impacts associated with the Proposed Development and its construction requirements.

1.4 Site Description

1.4.1 44 Ratby Lane is located towards the southern extent of Markfield, approximately centred at grid reference: SK 49083 08963. The Site comprises the existing residential property with its associated driveway and garden.

1.4.2 The Site is framed by Ratby Lane to the east and Thornton Lane to the north. There are further residential properties surrounding the north, western and southern boundaries of the Site. To the



east of the Site is green open space.

2. Proposed Development

2.1 Description

2.1.1 The Proposed Development is for the construction of a new dwelling with its associated garage, new access, and garden.

2.2 Reference Documents

2.2.1 The following documentation has been referenced as part of this impact assessment:

Table 1 Documents and Plans Provided

Document Description	Reference No.	Prepared By	Date
OS Map	5633 - 001 - OS Plan	-	September 2023
Proposed Site Layout	240508 5633 - New Dwelling	Corporate Architecture	May 2024

3. Statutory and Non-statutory Legislation

3.1 National Planning Policy Framework (NPPF) (December 2023)

Tree Policies

3.1.1 When determining planning applications, the Local Planning Authority (LPA) should apply the following principles from the NPPF:

- Paragraph 131

“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.”

- Paragraph 174 (B & D)

“Planning policies and decisions should contribute to and enhance the natural and local environment by:

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

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.”

- Paragraph 186 (A, C & D)

“When determining planning applications, local planning authorities should apply the following principles:



a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

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

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

3.2 Tree Preservation Orders and Conservation Areas

3.2.1 The Council has been contacted to establish whether any trees contained within the survey are protected by either a Tree Preservation Order (TPO) or are within a Conservation Area.

3.2.2 It has been confirmed by the Council's online interactive map on the 8th of May 2024 that there are no TPOs associated with the Site, nor is the Site located within a local Conservation Area.

3.3 Felling Licence

3.3.1 Tree felling is restricted under the Forestry Act 1967. 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) ...*"

3.3.2 If full planning permission is granted, any trees which have been identified for removal as part of the planning application (in this instance, included within this AIA), are exempt from this statutory protection. However, outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

4. Baseline Tree Survey

4.1 Site Visit

4.1.1 The Principal Author completed the tree survey on the 6th of September 2023. All tree inspections were undertaken from ground level, and no climbing or further assessments were undertaken. Weather conditions during the survey were clear and bright and did not form a constraint to the assessment.

4.2 Method of Data Collection

4.2.1 The tree survey was completed without reference to the Proposed Development, as detailed in paragraph 4.4.1.1 of BS5837:2012. However, the Proposed Development has been assessed as part of this report.

4.2.2 The survey recorded trees either as individual specimens or as groups, where these trees were aerodynamically, culturally, or visually important as groups.

4.2.3 The tree numbers associated with each tree are cross-referenced within the Tree Schedule and with the associated plans at Appendix 3 and 4, respectively. The complete methodology for data collection is provided at Appendix 2 and was carried out in accordance with BS5837:2012.

4.2.4 It should be noted that *Table 1* of BS5837:2012 only gives recommendations in relation to the remaining years. A tree may be considered to have a long remaining life, however, still be of a lower category given its maturity, condition, or overall impact on the Site.

4.2.5 The location of each tree and their associated constraints including canopy spread and Root



Protection Areas (RPAs) with and without the Proposed Development are illustrated on plan numbers OE-001 and OE-002 both at Appendix 4.

- 4.2.6 Category A and B trees are considered to provide a substantial contribution to a site and should be retained and incorporated into the Proposed Development where possible and feasible. Category C and U trees are of low quality or are young specimens, which can be readily replaced. These trees should not be considered a constraint to the Proposed Development. However, it is considered desirable, wherever possible, that trees be retained as this ensures a continuity of canopy cover and helps contribute to a mature landscape.

4.3 Summary of Data

- 4.3.1 A total of 20no. individual trees, 3no. groups of trees and 2no. hedgerows have been surveyed. These include 1no. category A, 4no. category B, 19no. category C and 1no. category U retention value. All trees at the Site and within influencing distance of the Site have been surveyed.
- 4.3.2 The trees within the survey are typical rear garden specimens, ranging from young to semi-mature specimens primarily including ornamental species such as apple, cypress, common ash, magnolia, and common hawthorn. The trees on site are of limited arboricultural merit, considered to be of a size and value that is readily replaceable within the short-term.

5. Impact Assessment

5.1 Relationship between Site Layout and Trees

- 5.1.1 To implement the Proposed Development there will be a requirement to remove 7no. individual trees and 1no. hedgerow. There will also be a requirement to partially remove 1no. group of trees and 1no. hedgerow. All of the proposed removals are of retention category C.
- 5.1.2 A breakdown of the proposed tree removal are outlined in the table below. Full specification of tree removal is provided within the complete Tree Schedule at Appendix 3. All trees which are directly or indirectly impacted by the Proposed Development, are illustrated on plan OE-002 at Appendix 4.

Table 2 Trees to be removed for proposed works.

Reason for removal		Tree retention category				Total
		A	B	C	U	
Fell due to a direct conflict with the proposed dwelling	Fell to ground level	-	-	T1, T2, T3, T4, T5, T8, T9 & H4	-	8
	Partial removal	-	-	H2 & G1	-	2
Total		0	0	10	0	10

- 5.1.3 Section 5.1.1 of BS5837:2012 recognises that the competing needs of development mean that trees are only one factor requiring consideration. It also states that misplaced tree retention can be detrimental on a site where it will cause excessive pressure on those retained trees and could necessitate their removal in the future.
- 5.1.4 The trees proposed for removal within this report are neither considered aged nor veteran and



therefore the principles for refusal within the NPPF would not be considered applicable.

- 5.1.5 The Proposed Development is in line with the Local Plan as it retains trees identified as important within the Site. Additionally, all trees proposed for removal have limited value and are not visible from the public realm.
- 5.1.6 All of the proposed removals are small ornamental plantings that are still establishing. The proposed removals are of limited arboricultural merit and their removal should not be considered a constraint to the Proposed Development.
- 5.1.7 The proposed tree loss is of no visibility from beyond the Site boundaries due to the surrounding vegetation. The proposed tree loss is of negligible impact on public amenity.

6. Above Ground Constraints

6.1 Tree Canopies

- 6.1.1 The distribution of tree canopy cover on and within influencing distance of the Site is illustrated on the Tree Constraints Plan (OE-001) at Appendix 4.
- 6.1.2 The Tree Schedule lists the vertical clearance from ground level to the first significant branching of individual trees. This measurement informs the level of accessibility and potential for development beneath tree canopies.
- 6.1.3 Factors such as the mature height, size, form, shading and species-specific nuisances must be considered. The proximity of retained trees to structures must also take into consideration amenity factors. This AIA has considered the area surrounding each tree to enable a satisfactory relationship between the Proposed Development and the tree.
- 6.1.4 Additional factors for consideration include how comfortable future inhabitants of the properties will feel about trees in close proximity to their homes. This serves to protect retained trees from pressure to be felled or undergo surgery once the houses are occupied.
- 6.1.5 To ensure the successful retention of trees, a Construction Exclusion Zone (CEZ) must be established. The CEZ must take into consideration the factors outlined above and ensure that retained trees are not harmed during the construction process.
- 6.1.6 It is critical that all protective fencing is installed and erected, and the CEZ enforced prior to the commencement of any works on-site. Following the installation of tree protection, a site meeting will be undertaken with the Tree Officer to ensure the satisfaction of all parties prior to any on-site works commencing.

6.2 Shading

- 6.2.1 Where shading is unavoidable, the potential adverse impacts should be balanced with the positive aspects of retaining a degree of canopy shade. BS5837:2012 (para. 5.3.4, a) NOTE 1) states that *“shading can be desirable to reduce glare or excessive solar heating, or to provide comfort during hot weather. The combination of shading, wind speed/turbulence reduction and evapotranspiration effects of trees can be utilised in conjunction with the design of buildings and spaces to provide local microclimatic benefits”*.
- 6.2.2 The impact of shade on the Proposed Development is not considered to be significant or negative. Retained specimens to the south of the dwelling are small ornamental specimens that are unlikely to cause significant shade in the future.



6.3 Future Growth

- 6.3.1 The future growth of trees at the Site is not considered to be a significant constraint to the Proposed Development. Boundary trees may require minor future pruning. This can be addressed with the pruning of lateral growth and secondary branches which encroach towards the built structures.

6.4 Leaves, Fruit, and Honeydew

- 6.4.1 Leaves and fruit do not pose a significant constraint to the Proposed Development as an adequate offset has been provided between retained trees and the proposed built structures.
- 6.4.2 Given the proximity of so many trees on and off-site, leaf fall will be a problem across the whole of the Site in autumn, where leaf fall will be a problem to the gutters, this can be managed through regular clearance and incorporating grates into the gutters so avoiding regular blockages.

7. Below Ground Constraints

7.1 Root Protection Area (RPA)

- 7.1.1 The RPA of trees has been calculated as prescribed by BS5837:2012 and these are illustrated on the Tree Constraints Plan at Appendix 4. In addition to this, each tree's numerical RPA value is provided within the Tree Schedule at Appendix 3. The Tree Schedule provides both the RPA radius in metres from the centre of the stem and the total area for the RPA in square metres.
- 7.1.2 In general, the RPA is a circular area with a radius 12 times the diameter of a tree measured at 1.5 metres for single-stemmed trees. For trees with more than one stem, one of two calculation methods should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided by Annex D of BS5837:2012.
- 7.1.3 The shape of the RPA and its exact location will depend upon arboricultural considerations and ground conditions. The RPA may be altered and/or offset from a centred circle if there are existing RPA incursions. The total area of the RPA will not be altered from that prescribed by BS5837:2012.
- 7.1.4 The RPA is an area in which no groundwork should be undertaken without due care taken in relation to the retained tree(s). This is to avoid soil compaction, changes in levels or soil contamination, which could alter the tree's condition and/or stability.

7.2 RPA Incursions

- 7.2.1 There are no significant new RPA incursions as a result of the Proposed Development.

7.3 Infrastructure

- 7.3.1 No information relating to infrastructure has been provided as part of this assessment. However, there is sufficient space outside of the RPA for infrastructure to be located. All services and infrastructure MUST NOT enter the CEZ.



8. Recommendations

- 8.1.1 As detailed in BS5837:2012, should the Council be minded to grant planning permission, an Arboricultural Method Statement (AMS) should be conditioned to ensure sufficient protection of retained trees through the construction process.
- 8.1.2 The successful retention of those trees that will remain on the Site will be dependent upon the quality and maintenance of any protection system that is put in place. A Tree Protection Plan (OE-004) has been provided at Appendix 4.
- 8.1.3 It is critical that all protective fencing is installed and erected, and that the Construction Exclusion Zone (see Section 6.1 of this report for further information) is enforced prior to the commencement of any work on-site. Following the installation of tree protection, a pre-commencement site meeting will be undertaken by a suitably competent Arboricultural Consultant to ensure the satisfaction of all parties prior to any on-site works commencing. A copy of the file note will also be provided to the Tree Officer.
- 8.1.4 For tree and root protection measures to work effectively all personnel associated with the construction process must be familiar with the Tree Protection Plan.
- 8.1.5 Given the proximity of so many trees at the Site, leaf fall will be a problem across the entire Site in autumn. It is therefore recommended that grates be incorporated into the gutters of the Proposed Development to avoid regular blockages.
- 8.1.6 No information relating to infrastructure has been provided as part of this assessment. However, there is sufficient space outside of the RPA, towards the southeastern extent of the Proposed Development for infrastructure to be located. All services and infrastructure MUST NOT enter the Construction Exclusion Zone (CEZ). See Section 6.1 Error! Reference source not found. within this report for further information on the CEZ.

9. Conclusions

- 9.1.1 A total of 20no. individual trees, 3no. groups of trees and 2no. hedgerows have been surveyed. These include 1no. category A, 4no. category B, 19no. category C and 1no. category U retention value. All trees at the Site and within influencing distance have been surveyed.
- 9.1.2 It has been considered desirable wherever possible that trees and groups of trees should be retained, although care has been exercised over misplaced tree preservation. In terms of the current site layout plan, due to the size and scale of the building requirement, there is a conflict with some trees that cannot be avoided and therefore mitigation proposals are considered.
- 9.1.3 To implement the Proposed Development there will be a requirement to remove 7no. individual trees and 1no. hedgerow. There will also be a requirement to partially remove 1no. group of trees and 1no. hedgerow. All of the proposed removals are of category C retention value. For a full breakdown of the proposed tree loss, see Section 5.1 of this report. The proposed tree loss is of low arboricultural merit and of no visibility from the wider environment, as such, it is not considered a constraint to the Proposed Development.
- 9.1.4 The trees proposed for removal within this report are neither considered aged nor veteran and therefore the principles for refusal within the NPPF would not be considered applicable.



10. References

British Standard 3998:2010 'Tree work – Recommendations'

British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'

British Standard 8545:2014 'Trees: from Nursery to Independence in the Landscape – Recommendations'

National Planning Policy Framework (NPPF) 2023

The Forestry Act 1967

The Town and Country Planning (Tree Preservation) (England) Regulations 2012

The Town and Country Planning Act 1990



Arboricultural Impact Assessment

REF NO: 240508 23080 AIA V1

DATE: May 2024

Appendix 1: Aerial Photographs

Google Earth Pro Aerial Image (08.05.2024)

44 Ratby Lane, Markfield, LE67 9RJ

Arboricultural Impact Assessment

REF NO: 240508 23080 AIA V1

DATE: May 2024





Appendix 2:
Survey Methodology

The tree survey was completed without reference to the Proposed Development, as detailed in paragraph 4.4.1.1 of BS5837:2012. However, the Proposed Development has been assessed as part of this report.

Whenever possible tree locations will be plotted with the use of a Topographical Survey. When a Topographical survey is not provided, tree locations will be plotted using a combination of an ordinance survey plan, aerial imagery and measurements taken onsite.

In accordance with BS5837:2012, small trees with a stem diameter of less than 75mm were not surveyed as they are considered to be readily replaceable or could be relocated with relative ease.

Each tree has been given an identification number as either an individual tree, group of trees, woodland, or hedgerow. The tree numbers associated with each tree are cross-referenced within the Tree Schedule and the associated plans at Appendix 3 and 4, respectively.

Tree species have been recorded with both common and scientific names.

All tree heights have been assessed using a clinometer. For groups of trees, woodlands, and hedgerows the lowest and highest height associated with the group has been recorded. Tree heights are given in metres.

Stem diameters were measured at 1.5 metres above ground level (unless otherwise stated) and are given in millimetres. For groups of trees, woodlands, and hedgerows the lowest and highest diameter associated has been recorded.

The canopy spread is measured at four cardinal points or is given as an average for the canopy. Average canopy spreads are typically used for groups of trees or where the crown is evenly weighted at the four cardinal points. The canopy spreads are measured in metres.

The height of the ground clearance is given in metres and is an estimate of the height of the first branch above ground level.

Age class is indicative and will vary between species. In the absence of detailed information on tree age the following classification has been used:

Age Category	Description
Young	Trees aged less than one-third of life expectancy.
Semi-mature	Established specimen approaching one-third of life expectancy.
Early-mature	Trees have reached one-third to two-thirds of life expectancy.
Mature	Trees have reached over two-thirds of life expectancy.
Over-mature	Trees that are declining or moribund trees of low vigour.
Veteran	Specimens exhibiting features of biological, cultural, or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.



The structural condition of each tree has been assessed and is summarised as:

Structural Condition	Description
Good	Few minor defects of little overall significance.
Fair	A significant defect or several small defects.
Poor	Major defects present or many small defects.

The physiological condition has been recorded to provide an indication of each tree’s general health and vitality. The trees have been described thus:

Physiological Condition	Description
Good	In good health typical of the species.
Fair	Reasonable health with few defects.
Poor	Trees that exhibit significant defects which are irremediable or moribund trees.
Dead	The tree has died.

The estimated remaining contribution has been categorised as:

- Less than 10 years
- 10-20 years
- 20-40 years
- Over 40 years

The estimated remaining contribution has been based upon an assessment of the tree’s potential safe useful life expectancy. The remaining contribution in years does not always directly correlate with the retention category of a tree, as an individual specimen may have a long remaining life but be of little significance in terms of development.



Appendix 3:
Schedules

BS5837:2012 Cascade Chart

Complete Tree Schedule

BS5837:2012 Cascade Chart for Tree Quality Assessment

Category and Definition	Criteria (including subcategories where appropriate)			ID Colour on Plan
Trees to be considered for retention (see note)				
	1 - Mainly arboricultural qualities	2 - Mainly landscape qualities	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 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).	Light Green (000-255-000)
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.	Mid Blue (000-000-255)
Category C Trees of low quality currently in adequate condition with at least 10 years life expectancy, 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 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.	Grey (091-091-091)
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; and/or • 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. <i>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			Dark Red (127-000-000)



BS5837:2012 TREE SCHEDULE

SITE
Ratby Lane, Markfield

CLIENT
Corporate Architecture

DATE
September 2023

REFERENCE
230913 23080 TS V1a

Tree No.	Common Name	Scientific Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m²)	RPA Radius (m)
					N	E	S	W									
T1	Apple	<i>Malus domestica</i>	6	260	5	5	5	5	2	Early-mature	Good	Good	Early mature specimen located towards the northern boundary of the site. Single stem. Structural canopy forms at c.1.5m. Good radial canopy. Of limited visibility externally to the site.	Fell to ground level.	C1, 2	28	3.00
T2	Apple	<i>Malus domestica</i>	6	225	4	4	4	4	2	Early-mature	Good	Good	Early mature specimen located towards the northern boundary of the site. Single stem. Structural canopy forms at c.2m. Good radial canopy. Of limited visibility externally to the site.	Fell to ground level.	C1, 2	23	2.70
T3	Apple	<i>Malus domestica</i>	5	245	3	3	3	3	2	Early-mature	Good	Fair	Early mature specimen located towards the northern boundary of the site. Single stem. Stem biased south. Structural canopy forms at c.1m. Good radial canopy. Of limited visibility externally to the site.	Fell to ground level.	C1, 2	28	3.00
T4	Blue Spruce	<i>Picea pungens</i>	7	140	3	3	3	3	2	Semi-mature	Good	Good	Semi mature specimen located on the northern boundary of the site. Single stem maintained for entire height. Good radial canopy. Adds to the wider boundary group.	Fell to ground level.	C1, 2	10	1.80
T5	Kobus magnolia	<i>Magnolia kobus</i>	5	135.28	3	3	3	3	1	Semi-mature	Good	Fair	Semi mature specimen located towards the northern boundary of the site. Forms 4no stems from ground level. Good radial canopy. Of limited visibility externally to the site.	Fell to ground level.	C1, 2	7	1.50
T6	Common ash	<i>Fraxinus excelsior</i>	10	134.63	3	3	3	3	4	Semi-mature	Fair	Poor	Semi mature specimen located in the northwest corner of the site. Forms 3no stems from ground level. Sparse leaf cover, likely to be of limited long term retention value.	No work required at the time of assessment.	C2	7	1.50



BS5837:2012 TREE SCHEDULE

SITE
Ratby Lane, Markfield

CLIENT
Corporate Architecture

DATE
September 2023

REFERENCE
230913 23080 TS V1a

Tree No.	Common Name	Scientific Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m²)	RPA Radius (m)
					N	E	S	W									
T7	Common ash	<i>Fraxinus excelsior</i>	10	134.63	3	3	3	3	4	Semi-mature	Poor	Fair	Semi mature specimen located in the northwest corner of the site. Forms 3no stems from ground level. Sparse leaf cover, likely to be of limited long term retention value.	No work required at the time of assessment.	C2	7	1.50
T8	Magnolia	<i>Magnolia grandiflora</i>	5	135.28	3	3	1	3	1	Semi-mature	Good	Fair	Semi mature specimen located towards the northern boundary of the site. Forms 4no stems from ground level. Canopy biased to the north. Of limited visibility externally to the site.	Fell to ground level.	C1, 2	7	1.50
T9	Blue Spruce	<i>Picea pungens</i>	8	235	3	3	3	3	3	Semi-mature	Good	Good	Semi mature specimen located towards the northern boundary of the site. Dense vegetation at base limiting a detailed assessment. Single stem maintained for entire height. Good radial canopy. Likely to be of limited visibility externally to the site.	Fell to ground level.	C1, 2	23	2.70
T10	Norway maple	<i>Acer platanoides</i>	7	180	3	3	3	3	2.25	Semi-mature	Fair	Good	Semi mature specimen located centrally within the site. Dense vegetation at base limiting a detailed assessment. Single stem. Good radial canopy. Pale leaf colour and minor dieback west. Likely to be of limited visibility externally to the site.	No work required at the time of assessment.	C1, 2	14	2.10
T11	Purple Norway Maple	<i>Acer platanoides</i> 'Crimson King'	7	290	4	4	4	4	1.75	Early-mature	Fair	Fair	Early mature specimen located centrally within the site. Dense vegetation at base limiting a detailed assessment. Single stem. Previously topped at c.4m, now with good regrowth. Good radial canopy.	No work required at the time of assessment.	C1, 2	41	3.60
T12	Magnolia	<i>Magnolia grandiflora</i>	3	165	3	3	3	3	1.5	Semi-mature	Good	Fair	Semi mature specimen located towards the southern boundary of the site. Ornamental planting. Forms c.9no stems from ground level. Good radial canopy. Of limited visibility externally to the site.	No work required at the time of assessment.	C1, 2	14	2.10



BS5837:2012 TREE SCHEDULE

SITE
Ratby Lane, Markfield

CLIENT
Corporate Architecture

DATE
September 2023

REFERENCE
230913 23080 TS V1a

Tree No.	Common Name	Scientific Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W									
T13	Lily magnolia	<i>Magnolia liliiflora</i>	5	130.1	4	4	4	4	2	Semi-mature	Good	Fair	Semi mature specimen located towards the southern boundary of the site. Ornamental planting. Forms 2no stems from ground level. Good radial canopy. Adds height to the boundary screen.	No work required at the time of assessment.	C1, 2	7	1.50
T14	Sweetbay Magnolia	<i>Magnolia virginiana</i>	5	130.1	3	3	3	3	1.5	Semi-mature	Good	Fair	Semi mature specimen located towards the southern boundary of the site. Ornamental planting. Forms 2no stems from ground level. Good radial canopy. Adds height to the boundary screen.	No work required at the time of assessment.	C1, 2	7	1.50
T15	Lily magnolia	<i>Magnolia liliiflora</i>	2	90	3	3	3	3	1	Young	Good	Fair	Young specimen located towards the southern boundary of the site. Ornamental planting. Single stem bifurcates at c.0.5m. Good radial canopy. Of limited arboricultural merit, readily replaceable.	No work required at the time of assessment.	C1, 2	7	1.50
T16	Wild cherry	<i>Prunus avium</i>	6	400	5	4	4	4	2.5	Early-mature	Fair	Fair	Early mature specimen located in the southeast corner of the site adjacent to the site access. DBH estimated due to dense vegetation at base, limiting a detailed assessment. Structural canopy forms at c.1.5m. Good radial canopy, slight bias north. Canopy reduced due to overhead cables likely limiting its future potential. Prominent specimen on the site access. Slightly sparse leaf cover. Likely replaceable within the short to medium term.	No work required at the time of assessment.	C1, 2	72	4.80
T17	Sweetbay Magnolia	<i>Magnolia virginiana</i>	7	245	4	4	4	3	1.75	Semi-mature	Good	Fair	Semi mature specimen located on the eastern boundary of the site. Ornamental planting. Single stem. RPA incursion from access road west. Canopy cutback from road west. Adds height to the boundary screen.	No work required at the time of assessment.	C1, 2	28	3.00



BS5837:2012 TREE SCHEDULE

SITE
Ratby Lane, Markfield

CLIENT
Corporate Architecture

DATE
September 2023

REFERENCE
230913 23080 TS V1a

Tree No.	Common Name	Scientific Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W									
T18	Leyland cypress	<i>Cupressus x leylandii</i>	3	160	1	1	1	1	0	Semi-mature	Good	Good	Semi mature specimen located towards the eastern boundary of the site. Single stem. Good radial canopy. Readily replaceable.	No work required at the time of assessment.	C2	10	1.80
T19	Common hawthorn	<i>Crataegus monogyna</i>	5	190	3	3	3	2	2	Semi-mature	Fair	Fair	Semi mature specimen located towards the eastern boundary of the site. Single stem. Slightly sparse leaf cover. Canopy reduced west away from the adjacent road. Adds height to the boundary screen.	No work required at the time of assessment.	C1, 2	18	2.40
G1	Sycamore, Lawson cypress, Common hawthorn, Common beech, Common holly, Juniper, Scots pine, Cherry laurel, Blackthorn, Common pear, Rowan	<i>Acer pseudoplatanus</i> , <i>Chamaecyparis lawsoniana</i> , <i>Crataegus monogyna</i> , <i>Fagus sylvatica</i> , <i>Ilex aquifolium</i> , <i>Juniperus communis</i> , <i>Pinus sylvestris</i> , <i>Prunus laurocerasus</i> , <i>Prunus spinosa</i> , <i>Pyrus communis</i> , <i>Sorbus aucuparia</i>	3 - 9	110 - 235	5	5	5	5	0	Semi-mature	Good	Fair	Semi mature group located on the northern boundary of the site. Single stems. Forms a dense common cohesive canopy. Forms a significant boundary screen from Thornton Lane north and Ratby Lane east.	Partial removal as shown on OE-003	C1, 2	235	2.70



BS5837:2012 TREE SCHEDULE

SITE
Ratby Lane, Markfield

CLIENT
Corporate Architecture

DATE
September 2023

REFERENCE
230913 23080 TS V1a

Tree No.	Common Name	Scientific Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W									
G2	Snowy mespilus, Silver birch, Himalayan cotoneaster, Common hawthorn, Scots pine, Common yew	<i>Amelanchier lamarkii</i> , <i>Betula pendula</i> , <i>Cotoneaster simonsii</i> , <i>Crataegus monogyna</i> , <i>Pinus sylvestris</i> , <i>Taxus baccata</i>	2.5 - 11	50 - 160	4	4	4	4	0	Semi-mature	Good	Fair	Semi mature group located on the northern boundary of the site. Single stems. Forms a dense common cohesive canopy. Majority of group comprises 7no Scots pine along the boundary. Forms a significant boundary screen from Thornton Lane north and Ratby Lane east.	No work required at the time of assessment.	C1, 2	160	1.80
G3	Silver birch, Himalayan cotoneaster, Common hawthorn, Scots pine, Cherry laurel	<i>Betula pendula</i> , <i>Cotoneaster simonsii</i> , <i>Crataegus monogyna</i> , <i>Pinus sylvestris</i> , <i>Prunus laurocerasus</i>	2.5 - 11	60 - 170	4	4	4	4	0	Semi-mature	Good	Fair	Semi mature group located on the northern boundary of the site. Single stems. Forms a dense common cohesive canopy. Majority of group comprises 7no Scots pine along the boundary. Forms a significant boundary screen from Thornton Lane north and Ratby Lane east.	No work required at the time of assessment.	C1, 2	170	2.10
H1	Common beech	<i>Fagus sylvatica</i>	3	30 - 55	3	3	3	3	0	Semi-mature	Good	Good	Semi mature hedgerow located centrally within the site. Forms a dense low level boundary screen.	No work required at the time of assessment.	C2	55	1.50
H2	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	3 - 4	50 - 75	4	4	4	4	0	Semi-mature	Good	Good	Semi mature hedgerow framing the northern boundary of the site. Forms a dense low level boundary screen from Thornton Lane north.	Partial removal as shown on OE-003	C2	75	1.50
H3	Cherry laurel	<i>Prunus laurocerasus</i>	2.5 - 3.5	40 - 80	4	4	4	4	0	Semi-mature	Good	Fair	Semi mature hedgerow framing the western boundary of the site. Of limited arboricultural merit but does form a low level boundary screen.	No work required at the time of assessment.	C2	80	1.50



BS5837:2012 TREE SCHEDULE

SITE
Ratby Lane, Markfield

CLIENT
Corporate Architecture

DATE
September 2023

REFERENCE
230913 23080 TS V1a

Tree No.	Common Name	Scientific Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W									
H4	Bramble	<i>Rubus fruticosus</i>	1 - 2	20 - 50	3	3	3	3	0	Young	Fair	Fair	Young hedgerow of limited arboricultural merit. Of limited visibility.	Fell to ground level.	C2	50	1.50
H5	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	3	30 - 55	3	3	3	3	0	Semi-mature	Poor	Fair	Semi mature hedgerow located centrally within the site. Forms a dense low level boundary screen.	No work required at the time of assessment.	C2	55	1.50
H6	Lawson cypress, Common beech, Bramble	<i>Chamaecyparis lawsoniana</i> , <i>Fagus sylvatica</i> , <i>Rubus fruticosus</i>	4	50 - 80	3	3	3	3	0	Early-mature	Good	Good	Early mature hedgerow framing the western boundary of the site. Forms a dense cohesive boundary screen.	No work required at the time of assessment.	C2	80	1.50
H7	Lawson cypress, Common hawthorn	<i>Chamaecyparis lawsoniana</i> , <i>Crataegus monogyna</i>	3	30 - 55	3	3	3	3	0	Semi-mature	Poor	Fair	Semi mature hedgerow located on the eastern boundary of the site. Forms a dense low level boundary screen from Ratby Lane east.	No work required at the time of assessment.	C2	55	1.50



Appendix 4: Plans

Tree Constraints Plan (OE-001)

Arboricultural Impact Plan (OE-002)

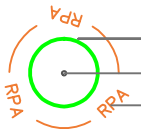
Tree Retention and Removal Plan (OE-003)

Tree Protection Plan (OE-004)

PROJECT INFORMATION

PROJECT Ratby Lane, Markfield	
PLAN TITLE Tree Constraints Plan	DATE May 2024
PLAN REFERENCE 230913 23080 TCP V1	PLAN NUMBER OE-001
PLAN SCALE 1/500 @ A3	

LEGEND



Canopy Spread

Tree Stem

Root Protection Area

Category A - High Retention Value

Category B - Moderate Retention Value

Category C - Low Retention Value

Category U - No Retention Value

PROJECT INFORMATION

PROJECT
Ratby Lane, Markfield

PLAN TITLE
Arboricultural Impact Plan

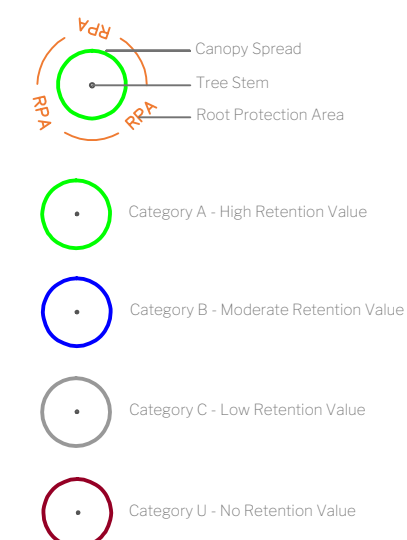
DATE
May 2024

PLAN REFERENCE
230913 23080 AIP V1

PLAN NUMBER
OE-002

PLAN SCALE
1/500 @ A3

LEGEND



North



PROJECT INFORMATION

PROJECT
Ratby Lane, Markfield

PLAN TITLE
Tree Retention & Removals Plan

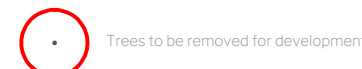
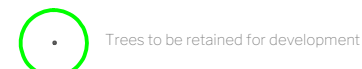
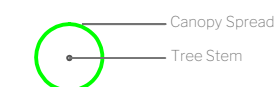
PLAN REFERENCE
230913 23080 TRRP V1

PLAN SCALE
1/500 @ A3

DATE
May 2024

PLAN NUMBER
OE-003

LEGEND



PROJECT INFORMATION

PROJECT
Ratby Lane, Markfield

PLAN TITLE
Tree Protection Plan

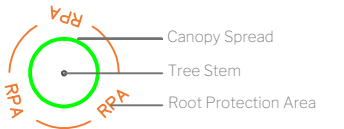
PLAN REFERENCE
230913 23080 TPP V1

PLAN SCALE
1/500 @ A3

DATE
May 2024

PLAN NUMBER
OE-004

LEGEND



Category A - High Retention Value

Category B - Moderate Retention Value

Category C - Low Retention Value

Category U - No Retention Value

TREE PROTECTION

Tree Protection Fencing

TREE PROTECTION AREA
NO ACCESS



• NO MATERIALS, MACHINERY, TEMPORARY STRUCTURES OR CHEMICALS SHALL ENTER OR BE STORED WITHIN THIS AREA.
• FENCING WILL NOT BE ALTERED OR MOVED WITHOUT PRIOR AGREEMENT FROM THE PROJECT ARBORICULTURIST.

• TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECT OF A TREE PRESERVATION ORDER.
• UNAUTHORISED DAMAGE TO PROTECTED TREES IS A CRIMINAL OFFENCE AND COULD LEAD TO ENFORCEMENT ACTION.



For any issues relating to this Tree Protection Fencing or guidance on any arboricultural matter, please contact Origin Environmental Arboriculture
www.origin-environmental.com - hello@origin-arb.com

Tree Protection Fencing

The principal protection for the retained trees (above and below ground) and associated soils within the Site is through the erection of Tree Protection Fencing (TPF) to create a Construction Exclusion Zone (CEZ).

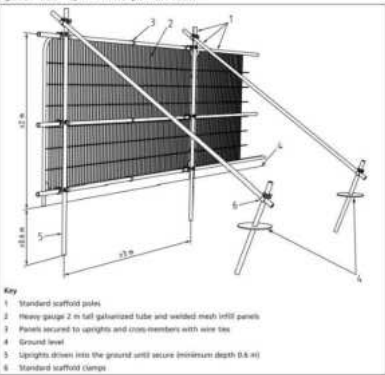
Prior to any on-site demolition or construction, tree protective measures and the CEZ must be in place. TPF Specification is shown in Figure 3 (BS5837:2012) - pictured here.

The following points are critical to the function of the CEZ:

- The protective tree fencing shall be maintained throughout the development phase.
- No materials, machinery, temporary structures, chemicals or fuel shall be stored within the CEZ.
- No excavations or increases in soil level within the CEZ are permitted without prior written approval from the LPA.
- Care should be taken to ensure that wide or tall loads or plant with booms, jibs and counterweights do not come into contact with retained trees. Any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banks person to ensure that adequate clearance from trees is maintained at all times.
- Material which will contaminate the soil such as concrete mixing, diesel oil and vehicle washing must not be discharged within 10m of the tree stems. In the event of an accident or spillage the LPA must be notified.
- Fires must not be lit in a position where their flames can extend to within 5m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.
- Any landscaping within the CEZ must avoid soil disturbance. Therefore, re-grading and rotavators are not permitted. Any agreed soil re-profiling to facilitate final agreed levels must be carried out by hand with topsoil.

BS5837:2012 Figure 3

Figure 2 Default specification for protective barrier

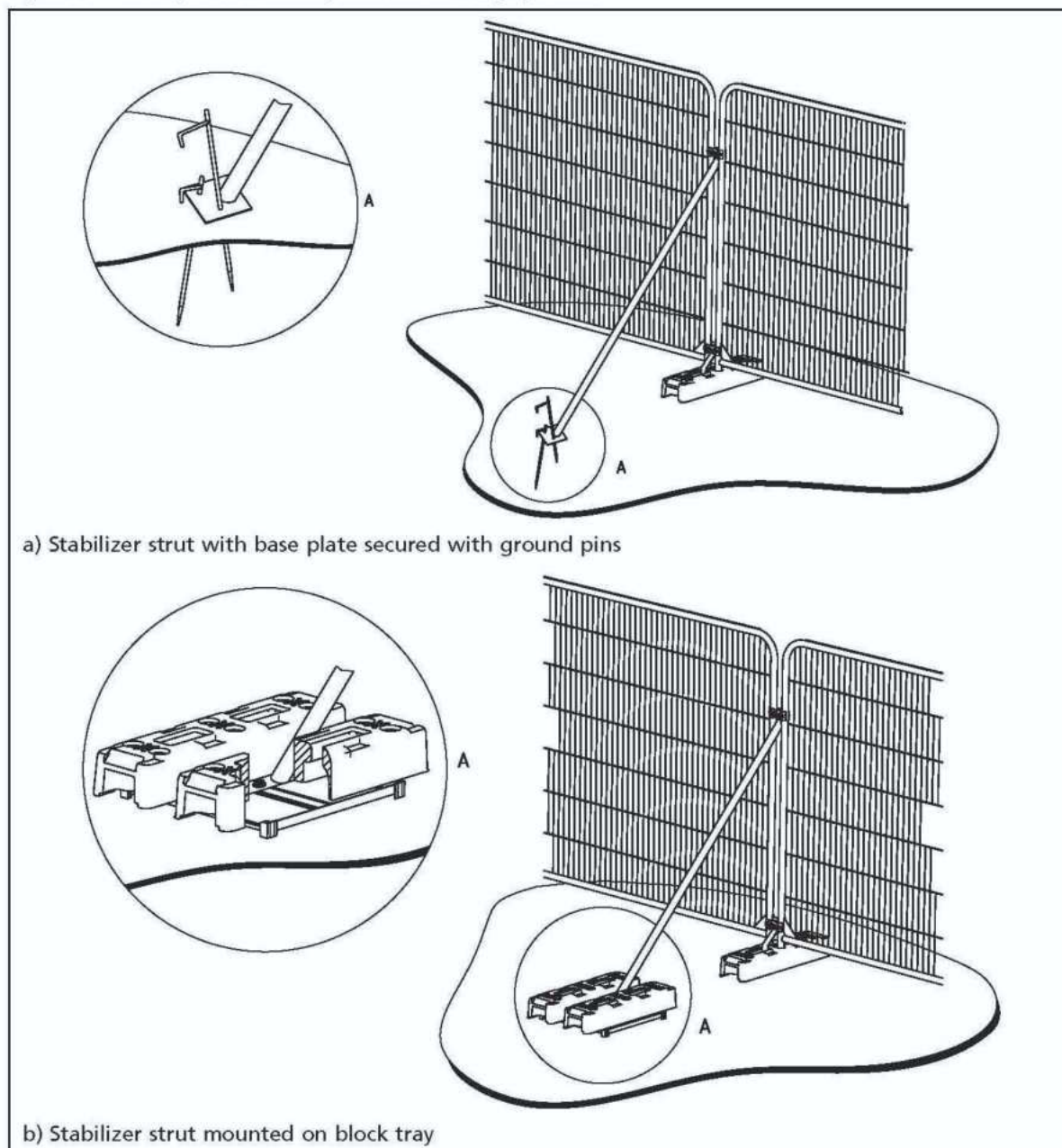




Appendix 5: Tree Protection

Fencing Specification

Figure 3 Examples of above-ground stabilizing systems





ORIGIN

ENVIRONMENTAL

Arboriculture

Tel. 07826 062623

Email. hello@origin-arb.com

GET IN TOUCH TO DISCUSS YOUR PROJECT