

Land East of Warwick Road, Banbury

# Arboricultural Impact Assessment

(Incorporating Tree Protection Measures)

Prepared by: The Environmental Dimension Partnership Ltd

On behalf of: Vistry Homes Ltd

October 2022 Report Reference edp3253\_r009b

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# Plan

 
 Plan EDP 1
 Tree Protection Plan (Overview) (edp3253\_d040b 29 September DJo/DGa)

This version is intended for electronic viewing only

	Report Ref: e	dp3253_r009		
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009_DRAFT	DG	CL	LS	-
009a	DG	-	-	MW 210722
009b	DG	-	-	CR 031022

# Section 1 Introduction

- 1.1 This Arboricultural Impact Assessment (AIA) has been prepared by the Environmental Dimension Partnership Ltd (EDP) on behalf of Vistry Homes Ltd (the Applicant) in relation to the proposed development of Land East of Warwick Road, Banbury (hereafter referred to as 'the Site').
- 1.2 It sets out the nature and extent of tree losses and provides mitigation and protection measures to ensure the viable long-term retention of retained trees in the context of the development proposals.

## Site Context

- **1.3** The Site is located to the north-west of Banbury and comprises agricultural land separated into two field parcels.
- 1.4 The Site lies within the administrative boundary of Cherwell District Council (CDC).

## **Development Proposals**

- 1.5 An Outline planning application is to be submitted to CDC for up to 170 dwellings (Use Class C3) with associated open space and vehicular access off Warwick Road, Banbury. All matters reserved except for access.
- **1.6** This AIA has been prepared using EDP's arboricultural constraints information contained within the Arboricultural Baseline Note as **Appendix EDP 1**.
- 1.7 The baseline survey data was originally collected by EDP in May 2022. The survey data is provided within **Appendix EDP 1**, with the Tree Constraints Plan included.

### Aims and Objectives

1.8 The purpose of this AIA is to assess the impacts upon the tree stock from the proposed development and demonstrate which trees can be retained and which will require removal. In addition, it will provide mitigation measures, such as protective fencing, to ensure the safe, long-term retention of any retained tree, should the development be permitted.

## **Relevant Baseline Documents**

- **1.9** EDP's Arboricultural Baseline Note is relevant to the provisions of this AIA and this AIA should be read in conjunction with it where applicable.
- 1.10 The following best practice guidance and informative standards are relevant to the provisions of the AIA and should be read in conjunction with the AIA where applicable:
  - BS 5837:2012 'Trees in Relation to Design, Demolition and Construction Recommendations' BSI 2012; and
  - BS 3998:2010 Tree Work Recommendations. BSI 2010.

## Section 2 Arboricultural Impact Assessment

- 2.1 This AIA has been prepared following site-based observations, a desktop study of the baseline survey data and consideration of the Concept Masterplan (Appendix EDP 2). In particular, it relates to the Tree Constraints Plan (contained within Appendix EDP 1), which is overlaid onto the Concept Masterplan. The resulting drawing, a Tree Protection Plan (Plan EDP 1).
- 2.2 This AIA recognises that construction activities pose a threat to subject trees if treated inappropriately and assesses the likely impacts of the proposals on the tree stock and where appropriate, provides mitigation with the view of achieving a harmonious relationship between the trees and the built form.
- 2.3 Assessment of the impact of the proposals has been determined following consideration of the constraints each surveyed item poses by virtue of its position, branch spread and designated root protection area (RPA).
- 2.4 Consideration should be given to retaining all trees where possible. However, ultimately the removal of any tree is dependent on its proximity to the footprint of any proposal and associated landscaping.

## Tree Removals for Reasons of Sound Arboricultural Management

- 2.5 The BS 5837:2012 compliant survey identified a total of six category U items, the condition of which was considered to be impaired to such an extent that they should be removed irrespective of any development proposals and are therefore not included in the calculations that follow. These are summarised in **Table EDP 2.1** and detailed in the Tree Survey Schedule contained within **Appendix EDP 1**.
- 2.6 Off-site items remain outside of control of the development and require the landowners' consent prior to any works or removals.
- 2.7 Due to their condition, category U items often have ecological value and therefore any work to or removal of category U items require cross-referencing with the ecological assessment prior to any work or felling taking place.
- 2.8 If category U items are to be retained as an ecological asset, arboricultural advice should be sought to ensure this can be achieved.

Tree Number	Tree Species	Tree Grade
T4	Common hawthorn (Crataegus monogyna)	U
Т6	Common ash (Fraxinus excelsior)	U
T11	Common ash	U
T22	Stump	U
Т33	Common ash	U
Т34	Common ash	U

 Table EDP 2.1: Tree Removal for Reasons of Sound Arboricultural Management

## **Items Impacted by Development Proposals**

2.9 Assessment of the Proposed Site Plan (**Appendix EDP 2**) determines that one item is impacted by the development proposals; this is detailed within **Table EDP 2.2**. The item is category C, of low quality.

 Table EDP 2.2: Items Impacted by Development Proposals

Ref. Number	Species	Impact	Category Grading
H2	Common hawthorn	Partial Removal	С
	Sycamore (Acer pseudoplatanus)		
	Elder (Sambucus nigra)		

## **Summary of Tree Losses and Retention**

2.10 A summary of the tree losses and retention based upon the Concept Masterplan (**Appendix EDP 2**) is provided within **Table EDP 2.3**. In this context, the term 'affected' means partial loss of a retained item.

Table EDP 2.3: Summary of Tree Losses and Retention

	Existing	Trees, Groups and Hedgerows Lost Due to Proposals	Trees, Groups and Hedgerows Affected by Proposals	Trees, Groups and Hedgerows Unaffected by Proposals
Category A	1	0	0	1
Category B	29	0	0	29
Category C	10	0	1	9
Totals	40	0	1	39

## **Damage to Rooting Environment during Construction Activities**

2.11 The required RPA for each item is described in the Tree Survey Schedule and depicted on the Tree Constraints Plan both found within **Appendix EDP 1**. To ensure appropriate protection is afforded to the roots, the extent of the RPA shall be defined by means of the

installation of protective barriers in accordance with the recommendations given in Section 6.2 of BS 5837:2012, the specification for which is enclosed as **Appendix EDP 3**.

## Mitigation

- 2.12 Existing trees identified for retention on the appended Tree Protection Plan (Plan EDP 1) will continue to be managed in accordance with BS 5837:2012. Critically, this requires arboricultural review of any future emerging detailed design and the implementation of physical protection measures to safeguard the retained trees, including robust protection in the form of a barrier to BS 5837:2012 (Appendix EDP 3), during the construction phases. The importance of such matters cannot be overlooked if a successful outcome is to be ensured.
- 2.13 Should any trees be affected by the proposed development at the detailed design stage, these will be sensitively worked around to minimise any adverse effects. This can be achieved with the use of ground protection, no-dig technologies, hand digging and access facilitation pruning, where applicable. This level of detail will be assessed during the detailed design stage.

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# Section 3 Conclusions

- 3.1 Masterplanning of the development has been informed by arboricultural recommendations throughout. To ensure succession to the existing tree stock, new planting is recommended. The new planting has potential for longevity within the landscape and will enhance the species diversity for the Site, whilst also contributing to the Green Infrastructure for the area.
- 3.2 Existing trees identified for retention on the appended Tree Protection Plan (**Plan EDP 1**) will continue to be managed in accordance with BS 5837:2012. Critically, this requires arboricultural review of any alteration to the development layout and the implementation of physical protection measures to safeguard the retained trees, including robust protection in the form of a barrier to BS 5837:2012, during the demolition and construction phases. The importance of such matters cannot be overlooked if a successful outcome is to be ensured.
- 3.3 A suitably worded condition can secure any mitigation measures, which would be required to minimise harm and ensure safe, long-term retention to trees.

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# Appendix EDP 1 Arboricultural Baseline Note (edp3253\_r008a)

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# Land East of Warwick Road, Banbury Arboriculture Baseline Note edp3253\_r008a

## 1. Introduction

- 1.1 The Environmental Dimension Partnership Ltd (EDP) has been commissioned by Vistry Homes Ltd ('the Applicant') to undertake a *BS* 5837:2012 *Trees in Relation to Design, Demolition and Construction* compliant survey of trees in relation to the proposed development of Land East of Warwick Road, Banbury (hereafter referred to as 'the Study Area').
- 1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website www.edpuk.co.uk.
- **1.3** The Study Area is located to the northwest of Banbury, which is located within the Local Planning Authority (LPA) of Cherwell District Council (CDC). It currently comprises agricultural land separated into 3 field parcels.

### 2. Methodology and Limitations

- 2.1 The methodology adopted for this survey is based on guidelines set out in BS 5837:2012 Trees in Relation to Design, Demolition and Construction, especially Section 4.4, 'Tree Survey'. Site trees and other significant vegetation are as noted on the Tree Constraints Plan (Annex EDP 1) and this data has been derived from Topographical survey data. All surveyed items are detailed in Annex EDP 2. No other trees are covered by this survey.
- 2.2 All trees have been visually inspected from ground level unless otherwise stated, with no climbing or further detailed investigative tests being undertaken. The comments on their condition are based on observable factors present at the time of inspection. All measurements are metric and have been recorded in accordance with the measurement conventions set out in Section 4.4.2.6 of BS 5837:2012.
- 2.3 Any recommendations given regarding longer-term management are made on the basis of optimising the life expectancy of site trees, given their current situation and any effects that may result from the development proposals.



2.4 The schedule in **Annex EDP 1** provides information about the following factors in accordance with Section 4.4.2.5 of BS 5837:2012:

2

- Sequential reference number (recorded on **Plan EDP 1**);
- Species;
- Height;
- Stem diameter;
- Branch spread;
- Canopy clearance above ground level;
- Life stage;
- Physiological condition;
- Structural condition;
- Comments/notes;
- Recommendations (and tree work priority);
- Estimated remaining contribution;
- Category grading; and
- Root protection radius.
- 2.5 Due to the changing nature of trees and other site circumstances, this report and any recommendations made are limited to a 24-month period from the survey date. Any alterations to the Study Area could change the current circumstances and may invalidate this report and any recommendations made.
- 2.6 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.
- 2.7 A lack of recommended work does not imply that a tree is safe and likewise, it should not be implied that a tree will be made safe following the completion of any recommended work.
- 2.8 The subject trees have not been tagged for identification purposes.



#### 3. Aims and Objectives

- 3.1 The purpose of this Baseline Note is to:
  - Identify principal trees suitable for retention; and
  - Identify the constraints associated with retained trees to inform the design and layout of any forthcoming proposals and, in turn, inform an Arboricultural Impact Assessment.

3

### 4. Summary of Tree Stock

- 4.1 The survey has identified 30 individual trees, 13 groups of trees, two hedgerows and one woodland, totalling 46 items. Of these 46 items, one has been categorised as A, of high quality; 29 have been categorised as B, of moderate quality; and 10 have been categorised as C and are of low quality. In addition, six items have been categorised as U and are considered unsuitable for retention.
- 4.2 All surveyed items are as noted on **Annex EDP 1** and detailed in the schedule at **Annex EDP 2**.
- 4.3 An illustrative summary of the species diversity, age distribution and grading categorisation for the Study Area is provided in **Annex EDP 3**.
- 4.4 Overall, the items identified across the Study Area are primarily of high or moderate value, with the exception of 10 category C items. The category A and B items are located either outside of the Study Area or around the periphery of it, and therefore do not adversely constrain the main body of the Study Area; however, the boundary between the field parcels may be constrained by trees, dependent on forthcoming proposals

### 5. National and Local Planning Policy

### Cherwell District Council LPA Local Planning Policy

The Cherwell Local Plan 2011- (Part 1 Adopted July 2015)

"Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment Protection and enhancement of biodiversity and the natural environment will be achieved by the following: In considering proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources The protection of trees will be encouraged, with an aim to increase the number of trees in the District.



Policy ESD 13: Local Landscape Protection and Enhancement Opportunities will be sought to secure the enhancement of the character and appearance of the landscape, particularly in urban fringe locations, through the restoration, management or enhancement of existing landscapes, features or habitats and where appropriate the creation of new ones, including the planting of woodlands, trees and hedgerows.

Policy ESD 15: The Character of the Built and Historic Environment Successful design is founded upon an understanding and respect for an area's unique built, natural and cultural context. New development will be expected to complement and enhance the character of its context through sensitive siting, layout and high quality design. All new development will be required to meet high design standards. Where development is in the vicinity of any of the District's distinctive natural or historic assets, delivering high quality design that complements the asset will be essential. New development proposals should:

 Contribute positively to an area's character and identity by creating or reinforcing local distinctiveness and respecting local topography and landscape features, including skylines, valley floors, significant trees, historic boundaries, landmarks, features or views, in particular within designated landscapes, within the Cherwell Valley and within conservation areas and their setting."

## National Planning Policy Framework

"Paragraph 131 of the NPPF 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, 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."

## 6. Statutory Protection

## **Tree Preservation Orders and Conservation Areas**

- 6.1 Consultation with the LPA's interactive mapping system has identified that no trees are protected under Tree Preservation Orders.
- 6.2 The Study Area is not within a designated conservation area, however, the Hanwell conservation area is situated to the north of the Study Area.



### 7. Protected Wildlife and Trees

#### Bats

7.1 All species of British bat comprise European Protected Species (EPS) and are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended). Further information is provided in **Annex EDP 4**.

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### **Nesting Birds**

7.2 All wild birds, their nests and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Harm to wild birds can mostly be avoided by timing works to avoid the main bird breeding season, considered to run between March and August inclusive. Further information on their protection is provided in **Annex EDP 4**.

### 8. Site Specific Constraints

- 8.1 As shown by **Annex EDP 1**, the surveyed items located across the Study Area are primarily moderate no arboricultural value.
- 8.2 A number of items are located outside, but adjacent to the Study Area, and therefore these items are not under the control of the Applicant. Items outside of the applicant's control require consideration when designing forthcoming proposals as to avoid interference with the trees canopy or root protection area (RPA).
- 8.3 Further information on above and below ground arboricultural constraints is provided in **Annex EDP 5**.

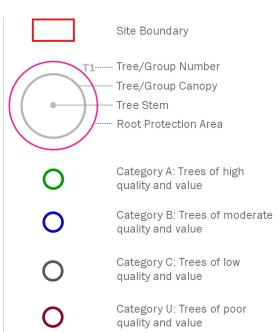
### 9. Conclusion

- 9.1 Of the items surveyed, one has been categorised as A of high quality and 30 have been categorised as B, of moderate quality. These items should be prioritised for retention, where practicable. These items are primarily outside or around the perimeter of the Study Area and therefore do not adversely constrain development.
- 9.2 The default position when designing any forthcoming scheme should be the retention of all items, as so far as is practicable, regardless of category grading. All trees provide positive environmental and ecological contributions, irrespective of current condition.
- 9.3 The arboricultural constraints information provided within this Baseline Note will feed into the detailed design and layout of the scheme and, in turn, will be used to undertake an Arboricultural Impact Assessment, to be submitted as part of the planning application.



Annex EDP 1 Tree Constraints Plan (Overview) (edp3253\_d037a 21 July 2022 GY/DG)





#### client

#### Vistry Homes Ltd

project title

#### Land east of Warwick Road, Banbury

drawing title

### Tree Constraints Plan (Overview)

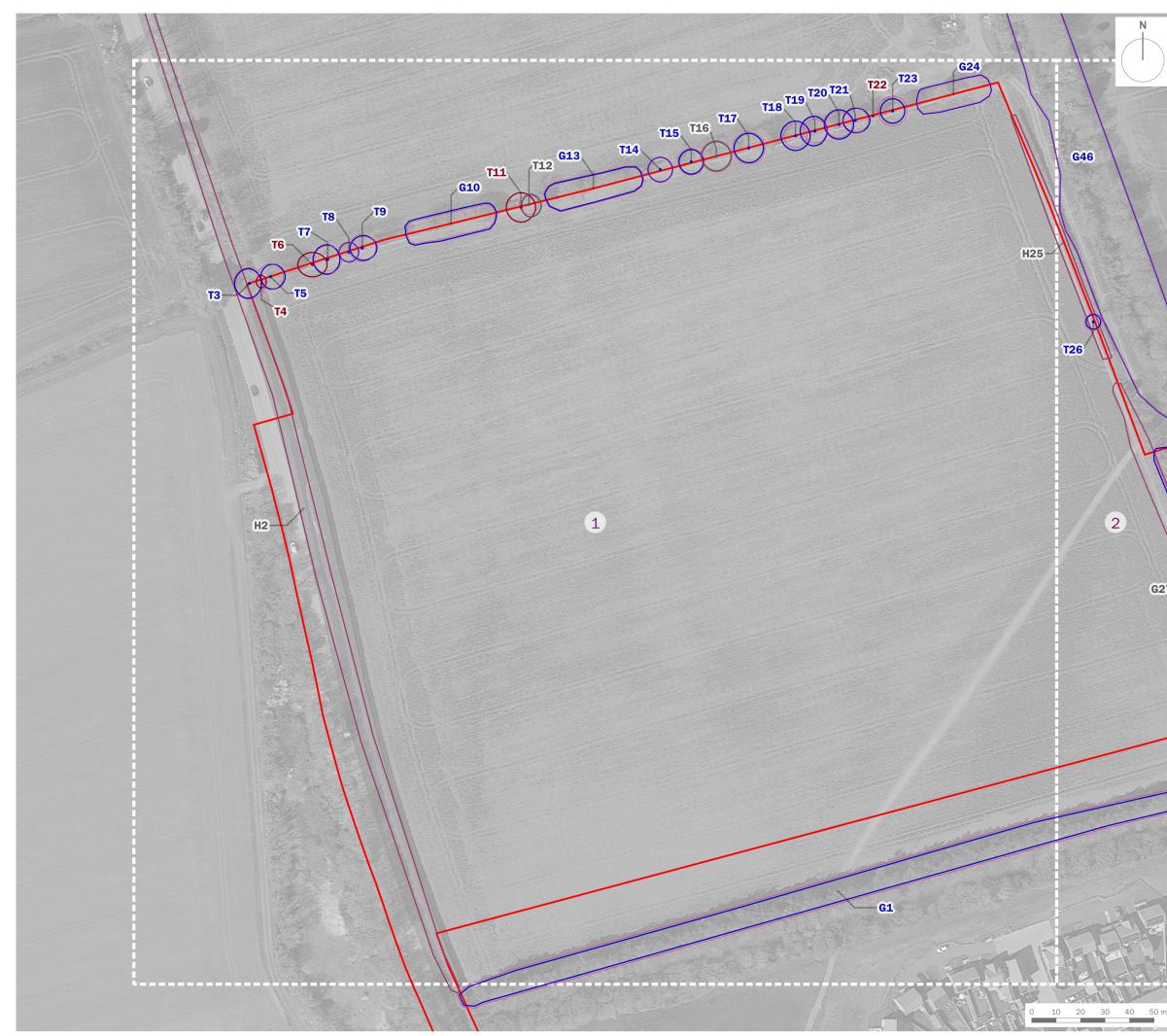
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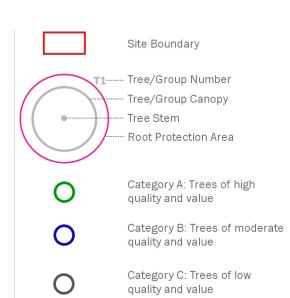
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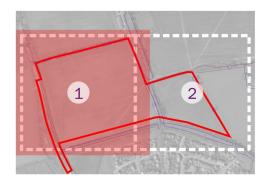
the environmental dimension partnership





Ο

Category U: Trees of poor quality and value



#### client

G27

#### Vistry Homes Ltd

project title

#### Land east of Warwick Road, Banbury

drawing title

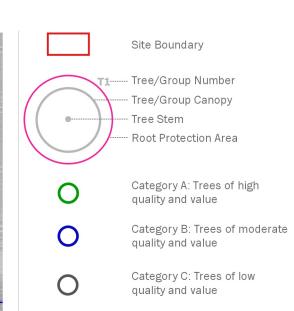
## Tree Constraints Plan (Sheet 1 of 2)

date	21 JULY 2022	drawn by	GY
drawing number	edp3253_d037a	checked	DG
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the environmental dimension partnership

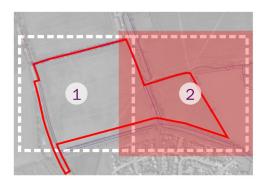


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Ο

Category U: Trees of poor quality and value



#### client

#### Vistry Homes Ltd

project title

#### Land east of Warwick Road, Banbury

drawing title

## Tree Constraints Plan (Sheet 2 of 2)

date	21 JULY 2022	drawn by	GY
drawing number	edp3253_d037a	checked	DG
scale	1:1,500 @ A3	QA	JTF

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## Annex EDP 2 Schedule EDP 1 Tree Survey Key and Schedule

Convertial Deference	
Sequential Reference Number	T - Individual specimen;
	G - Group of trees that form cohesive arboricultural features either
	aerodynamically, visually or culturally;
	H - Linear group of specimens that form a hedge or boundary; and
	W - A larger group or area of trees that should be regarded as a single woodland unit.
Species	Scientific names and common English names provide, the latter are used wherever
	possible for simplicity.
Height	An approximation of height (in metres) is provided for the highest point of the tree.
Stem Diameter	This is the measurement of stem diameter in millimetres taken in accordance with
	Annex C of BS 5837:2012 (# is used if estimated).
Branch Spread	This is taken at four cardinal points, with a stated value in metres to enable an
	accurate representation of the crown, as shown on Plan EDP 1.
Canopy Clearance	An approximation of height (in metres) of crown clearance above adjacent ground
Above Ground Level	level.
Life Stage	There are five classes to which trees are assigned:
	Young;
	Early Mature;
	Mature;
	Over Mature; and
	Veteran.
Physiological	An indication of the tree's physiological condition is represented and classed as
Condition	good, fair, poor or dead, this is informed by the following:
	Canopy density: It should be taken that, unless otherwise stated with each
	individual entry, the canopy density of the trees is typical of the species; and
	Leaf size and colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.
	cut introduct endy, teal size and colouration is typical of the species.



Structural Condition	An indication of the tree's structural condition is represented and classed as good,
	fair, poor or dead.
	This is informed by "the presence of any decay and physical defect <sup>12</sup> ".
Comments/Notes	Observations on structural or physiological condition, historic pruning, any Site-
	specific constraints etc. noted at the time the survey is undertaken.
Recommendations	These are made on the basis of optimising the life expectancy of site trees, given
(and Tree Work	their current situation and that which may result from the development proposals.
Priority)	The survey process pays particular attention to implications for life and/or
	property; defects recorded under the structural condition have the necessary
	mitigation measures proposed within this section of the schedule.
	Priority codes from 1 to 3 have been given for trees requiring work. The definition of
	the codes used is as follows:
	Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard;
	Priority 2: Work that should be undertaken prior to any demolition or construction works commencing on Site; and
	Priority 3: Work that should be undertaken following the completion of the development.
Estimated Remaining Contribution	The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity:
	Less than 10;
	10+;
	20+; and
	40+.
Category Grading	Trees have been assigned either U or category grading A to C in accordance with the cascade chart given in BS 5837:2012.
Root Protection	Measurement (in m) based on the stem diameter and calculated in accordance

<sup>&</sup>lt;sup>12</sup> BS 5837:2012 Section 4.4.2.5

Client:	Vistry Group									Site:	Land East of Warw	ck Road Banbury				
Date of Survey:	20/05/2022									Consultant	David Garrick					
Tagged	N/A									Weather	Cloudy					
Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	North	Branch S East	Spread (m) South	West	Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
G1	Blackthorn (Prunus spinosa) Common ash (Fraxinus excelsior) Beech (Fagus sylvatica) Elder (Sambucus nigra) Scots pine (Pinus sylvestris)	12	# 400	4	4	4	4	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	4.8
H2	Common hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Elder (Sambucus nigra)	3	# 70	1	1	1	1	N/A	Early Mature	Fair	Fair	Hedgerow - Maintained	No Work Recommended	10+	C2	0.84
ТЗ	Common ash (Fraxinus excelsior)	13	540	6	5	6	6	2	Mature	Fair	Fair	Deadwood - Minor Condition considered typical of species and age	No Work Recommended	20+	B1;2	6.48
T4	Common hawthorn (Crataegus monogyna)	6	100 100 100 100	2	2	3	2	1	Mature	Poor	Poor	Ivy or climbing plant Deadwood - Minor Suppressed crown Decline - Evident / observed	No Work Recommended	<10	U	2.4
T5	English oak (Quercus robur)	10	440	5	6	5	4	2	Early Mature	Good	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	5.28
Т6	Common ash (Fraxinus excelsior)	10	450	5	6	5	6	2	Early Mature	Poor	Poor	Ash Dieback Suspected Die-back - significant	No Work Recommended	<10	U	5.4
Т7	Common ash (Fraxinus excelsior)	10	# 470	6	5	6	6	2	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	5.64
Т8	Common ash (Fraxinus excelsior)	10	# 330	4	4	4	4	2	Early Mature	Good	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1	3.96
Т9	Common ash (Fraxinus excelsior)	12	# 350 300	5	6	5	5	2	Early Mature	Good	Fair	Fused stems Condition considered typical of species and age	No Work Recommended	20+	B1	5.53
GIU	Common ash (Fraxinus excelsior) English oak (Quercus robur) Field maple (Acer campestre) Norway maple (Acer platanoides)	11	# 450	6	6	6	6	2	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	5.4
T11	Common ash (Fraxinus excelsior)	12	# 450	6	6	6	6	2	Mature	Fair	Poor	Decay - Open cavity / cavities Deadwood - Minor Die-back - Mid crown Cavity at base of stem	No Work Recommended	<10	U	5.4
T12	Norway maple (Acer platanoides)	8	# 330	4	5	5	3	2	Early Mature	Poor	Fair	Die-back - Upper crown Competition - Adjacent trees	No Work Recommended	10+	C1	3.96
	Common ash (Fraxinus excelsior) English oak (Quercus robur) Field maple (Acer campestre)	11	# 450	5	5	5	5	2	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	5.4
T14	Common ash (Fraxinus excelsior)	11	# 400	5	5	5	5	2	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1	4.8

Sequential Reference Number -T - Individual specimen; G - Group, Trees that form cohesive arboricultural features either aerodynamically, visually or culturally. H - Linear group of specimens that form a hedge or boundary; W - A larger group or area of trees that should be regarded as a single woodland unit. Species -Common English names are used wherever possible for simplicity.

Height -An approximation of height (in metres) is provided for the highest point of the tree Stem Diameter -This is the measurement of stem diameter in millimetres taken in accordance with

Annex C of BS5837'2012 Branch Spread This is taken at four cardinal points, with a stated value in metres to enable an

accurate representation of the crown, as shown on Plan EDP 1. Canopy Clearance -An approximation of height (in metres) of crown clearance above adjacent

Galaxy of a series and approximation of neight (in metals) of a series assesses a series assesses a series and a series an

Mature; Ancient; Dead.

Physiological Condition -An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following. Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leat Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.

Structural Condition -Additional notes are provided giving details of the tree's structural condition This is informed by "the presence of any decay and physical defect". Management Recommendations -These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development

proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

Tree Works Priority Codes -Priority codes from  $1\ {\rm to}\ 3$  have been given for trees requiring work. The definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity Less than 10; 10+; 20+; and 40+ Category Grading Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012.

Root Protection Radius-The root protection radius from the stem of the tree calculated in line with the recommendations set out in BS5837:2012.

					Branch S	ipread (m)								Estimated		
Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	North	East	South	West	Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
T15	Norway maple (Acer platanoides)	10	# 450	5	5	5	5	2	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	5.4
T16	Common ash (Fraxinus excelsior)	11	# 6x220	6	6	6	6	2	Mature	Fair	Fair	lvy or climbing plant Die-back - Lower crown	No Work Recommended	10+	C1	6.47
T17	Norway maple (Acer platanoides)	11	# 550	6	6	6	6	2	Mature	Good	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	6.6
T18	Norway maple (Acer platanoides)	11	# 400	6	6	6	6	2	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	4.8
T19	Common ash (Fraxinus excelsior)	11	# 400	6	5	6	6	2	Early Mature	Good	Fair	lvy or climbing plant Deadwood - Minor	No Work Recommended	20+	B1	4.8
T20	Common ash (Fraxinus excelsior)	11	# 450	6	6	6	6	2	Early Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	5.4
T21	Field maple (Acer campestre)	9	# 250 250 250	5	6	5	5	N/A	Early Mature	Good	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	5.2
T22	Stump	6	# 600	0	0	0	0	N/A	Dead	Dead	Dead	Ivy or climbing plant	No Work Recommended	<10	U	7.2
T23	Norway maple (Acer platanoides)	10	# 500	5	5	5	5	2	Mature	Good	Fair	Ivy or climbing plant	No Work Recommended	20+	B1;2	6
G24	Common ash (Fraxinus excelsior) Field maple (Acer campestre) Norway maple (Acer platanoides)	10	# 400	5	5	5	5	2	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	4.8
H25	Common hawthorn (Crataegus monogyna) Wych elm (Ulmus glabra) Elder (Sambucus nigra)	2	# 70	1	1	1	1	N/A	Early Mature	Fair	Fair	Hedgerow - Maintained	No Work Recommended	10+	C2	0.84
T26	Common ash (Fraxinus excelsior)	8	# 300	3	3	3	3	2	Early Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1;2	3.6
G27	Common ash (Fraxinus excelsior) Common hawthorn (Crataegus monogyna) Field maple (Acer campestre) Wych elm (Ulmus glabra) Elder (Sambucus nigra)	7	# 250	3	3	3	3	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	10+	C2	3
T28	Sycamore (Acer pseudoplatanus)	12	# 430	6	3	6	6	N/A	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	5.16
G29	Common ash (Fraxinus excelsior) Common hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus)	12	# 350	5	5	5	4	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	4.2
G30	Common ash (Fraxinus excelsior) Common hawthorn (Crataegus monogyna) Scots pine (Pinus sylvestris)	10	# 300	4	4	4	4	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	3.6
T31	English oak (Quercus robur)	8	# 500 350	6	5	6	5	2	Mature	Fair	Fair	Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	20+	B1;2	7.32
G32	Mixed Broadleaf	10	# 330	4	4	4	4	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	3.96
T33	Common ash (Fraxinus excelsior)	9	# 370	4	5	2	4	3	Early Mature	Fair	Poor	Ash Dieback Suspected Last remaining stem	No Work Recommended	<10	U	4.44
T34	Common ash (Fraxinus excelsior)	7	# 650	3	4	1	1	1	Over Mature	Poor	Poor	Hollow trunk - Open cavity Monolith	No Work Recommended	<10	U	7.8

Sequential Reference Number -T - Individual specimen; G - Group, Trees that form cohesive arboricultural features either aerodynamically, visually or culturally. H - Linear group of specimens that form a hedge or boundary; W - A larger group or area of trees that should be regarded as a single woodland unit. Species -Common English names are used wherever possible for simplicity.

Height -An approximation of height (in metres) is provided for the highest point of the tree Stem Diameter -This is the measurement of stem diameter in millimetres taken in accordance with

Annex C of BS5837'2012 Branch Spread This is taken at four cardinal points, with a stated value in metres to enable an

accurate representation of the crown, as shown on Plan EDP 1. Canopy Clearance -An approximation of height (in metres) of crown clearance above adjacent

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Mature; Ancient; Dead.

Physiological Condition -An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following. Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leat Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.

Structural Condition -Additional notes are provided giving details of the tree's structural condition This is informed by "the presence of any decay and physical defect". Management Recommendations -These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development

proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

Tree Works Priority Codes -Priority codes from  $1\ {\rm to}\ 3$  have been given for trees requiring work. The definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity Less than 10; 10+; 20+; and 40+ Category Grading Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012.

Root Protection Radius-The root protection radius from the stem of the tree calculated in line with the recommendations set out in BS5837:2012.

Sequential Reference No.	Species	Height (m)			Branch S	pread (m)		Canopy Clearance (m)			I Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated		
			Stem Diameter (mm)	North	East	South	West			Physiological Condition				Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
T35	Sycamore (Acer pseudoplatanus)	13	# 350	3	3	3	3	4	Early Mature	Good	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	4.2
Т36	Common ash (Fraxinus excelsior)	12	# 350	4	4	4	5	2	Early Mature	Poor	Fair	Sparse Crown	No Work Recommended	10+	C1;2	4.2
W37	Common ash (Fraxinus excelsior) English oak (Quercus robur) Sycamore (Acer pseudoplatanus)	15	# 550	6	6	6	6	2	Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	6.6
T38	English oak (Quercus robur)	16	# 1100	10	10	10	10	2	Mature	Good	Fair	Shedding limb / limbs - Recent	No Work Recommended	40+	A1;2;3	13.2
Т39	Walnut sp. (Juglans sp.)	12	# 750	7	7	7	7	2	Mature	Good	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	9
G40	Common hawthorn (Crataegus monogyna) Common hazel (Corylus avellana) Field maple (Acer campestre) Wych elm (Ulmus glabra) Elder (Sambucus nigra)	6	# 200	3	3	3	3	N/A	Young	Fair	Fair	Condition considered typical of species and age	No Work Recommended	10+	C2	2.4
G41	Field maple (Acer campestre)	9	# 250	5	5	5	5	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	3
T42	Common alder (Alnus glutinosa)	7	# 180	2	2	2	2	1	Young	Good	Fair	Condition considered typical of species and age	No Work Recommended	10+	C1	2.16
T43	Common alder (Alnus glutinosa)	7	# 170	2	2	2	2	1	Young	Good	Fair	Condition considered typical of species and age	No Work Recommended	10+	C1	2.04
G44	Field maple (Acer campestre)	9	# 250	5	5	5	5	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	20+	B2	3
G45	Common ash (Fraxinus excelsior) Common hawthorn (Crataegus monogyna) Elder (Sambucus nigra)	8	# 250	2	2	2	2	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	10+	C2	3
G46	Common ash (Fraxinus excelsior) English oak (Quercus robur) Field maple (Acer campestre) Common lime (Tilia x europaea) Horse chestnut (Aesculus hippocastanum)	12	# 500	6	6	6	6	1	Mature	Good	Fair	Condition considered typical of species and age	No Work Recommended	20+	B1;2	6

Sequential Reference Number -T - Individual specimen; G - Group, Trees that form cohesive arboricultural features either aerodynamically, visually or culturally. H - Linear group of specimens that form a hedge or boundary; W - A larger group or area of trees that should be regarded as a single woodland unit. Species -Common English names are used wherever possible for simplicity.

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## Annex EDP 3 Illustrative Summary of Survey Data

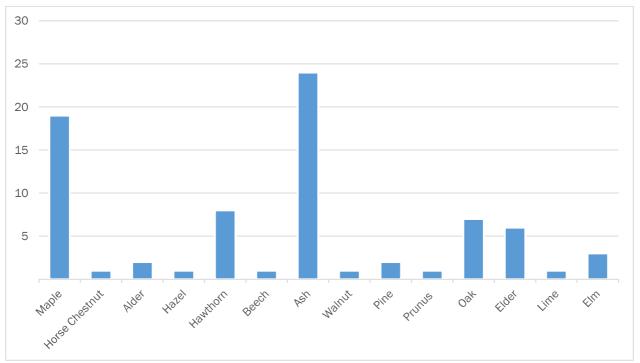


Figure EDP 3.1: Species Diversity.

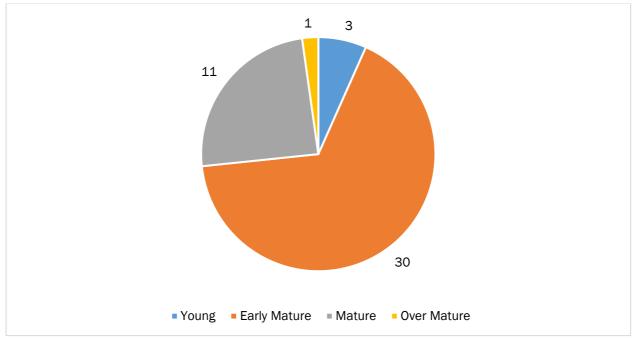


Figure EDP 3.2: Age Distribution of live trees.

Land East of Warwick Road, Banbury Arboriculture Baseline Note edp3253\_r008a



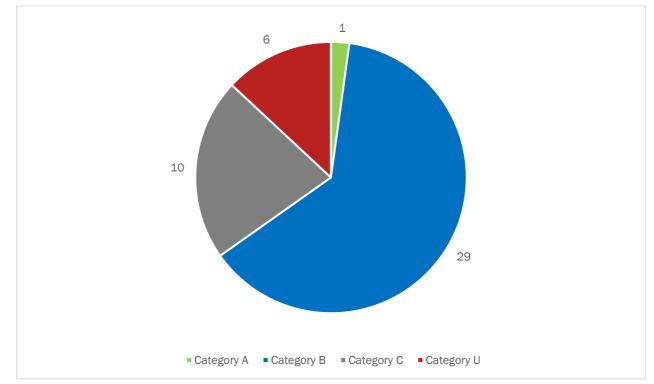


Figure EDP 3.3: Category Grading.



Annex EDP 4 Protected Species

#### Bats

- A4.1 All species of British bat comprise European Protected Species (EPS) and are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence to:
  - Deliberately capture, injure or kill a wild individual of an EPS;
  - Deliberately disturb wild animals of an EPS wherever they are occurring, in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to affect significantly the local distribution or abundance of the species to which they belong, or in the case of hibernating or migratory species, to hibernate or migrate; or
  - Damage or destroy a breeding site or resting place of a wild individual of an EPS;
- A4.2 Additional protection for bats is also afforded under the Wildlife and Countryside Act 1981 (as amended), making it an offence to intentionally or recklessly disturb bats whilst they are occupying a structure or place that is used for shelter or protection, or to obstruct access to this structure or place. As bats tend to re-use the same roosts, legal opinion is that roosts are protected whether or not bats are currently occupying these resting places/places of shelter.
- A4.3 Prior to undertaking any tree works or tree removal further advice should be sought from a suitably qualified ecologist.

### **Nesting Birds**

- A4.4 All wild birds, their nests and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:
  - (i) intentionally kill, injure or take any wild bird;
  - (ii) take, damage or destroy the nest of any wild bird while it is in use or being built;
  - (iii) take, damage or destroy the egg of any wild bird; or
  - (iv) to have in one's possession or control any wild bird (dead or alive), or egg, or any part of a wild bird or egg.



A4.5 In addition, further protection is afforded to those wild bird species listed on Schedule 1 of the Act, prohibiting any intentional or reckless disturbance to these species while it is nest building, or at a nest containing eggs or young, or to recklessly disturb the dependent young of such a bird.



## Annex EDP 5 Consideration of Trees within the Design Process

A5.1 Construction activities pose a threat to the successful retention of trees if handled inappropriately. It is important to consider the relationship between development and trees during the design process.

### **Below-ground Constraints – Root Protection Area**

- A5.2 The below-ground constraints are defined as the likely spread and distribution of the root system and are depicted on **Plan EDP 1** with pink outlined areas, representing root protection area (RPA) around each surveyed item.
- A5.3 The RPA is defined as the minimum area (in m<sup>2</sup>) around the tree that is deemed to contain sufficient roots and rooting volume to maintain the tree's viability.
- A5.4 Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, the shape of the RPA may be modified, but not reduced in area, and its shape should reflect a soundly based assessment of the likely root distribution.
- A5.5 Any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection for the root system:
  - The morphology and disposition of the roots, when known to be influenced by past or existing site conditions (e.g. the presence of roads, structures and underground services);
  - Topography and drainage;
  - The soil type and structure; and
  - The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age and condition and presence of other trees.

#### **Above-ground Constraints – Proximity of Trees to Structures**

A5.6 The above-ground parts of a tree, whilst being more visible and easily protected, are a potential constraint to development and consideration should be given to the current and ultimate height and spread of the trees.



- A5.7 Where the current and/or ultimate height of a category A, B or C trees will cause an unreasonable obstruction to the proposed development, this must be considered as a constraint. This is usually considered in terms of issues relating to shade and light.
- A5.8 The above ground constraints can be a combination of factors such as:
  - Shading of buildings and open space a detailed daylight study may be necessary if any proposed buildings are in the immediate vicinity of retained trees;
  - Direct damage to structures;
  - Future pressure for removal;
  - Seasonal nuisance (e.g. leaf fall blocking gutters, fruit fall creating slippery patches and honey dew dripping on vehicles and surfaces);
  - Whether the tree is deciduous or evergreen; and
  - Density of foliage.

# Appendix EDP 2 Concept Masterplan (edp3253\_d038d 06 October 2022 NBo/RAI)

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Site Boundary (12.63ha)



1

2

- Attenuation Pond
- 3 Wildflower Meadow and Oak Parkland
- 4 Woodland Planting
- Public Right of Way Integrated withinGreen Corridor
- 6 Vehicular Access Point
- Main Street With Green Verge, Including Rain Gardens
- 8 Neighbourhood Green with Swale
- 9 Natural Play Space
- 10 Informal Kick-about Space
- Mown Grass Trails

#### client Vistry Homes Ltd

project title Land to the East of Warwick Road, Banbury

#### drawing title Concept Masterplan

 date
 06 0CTOBER 2022
 drawn by
 NBo

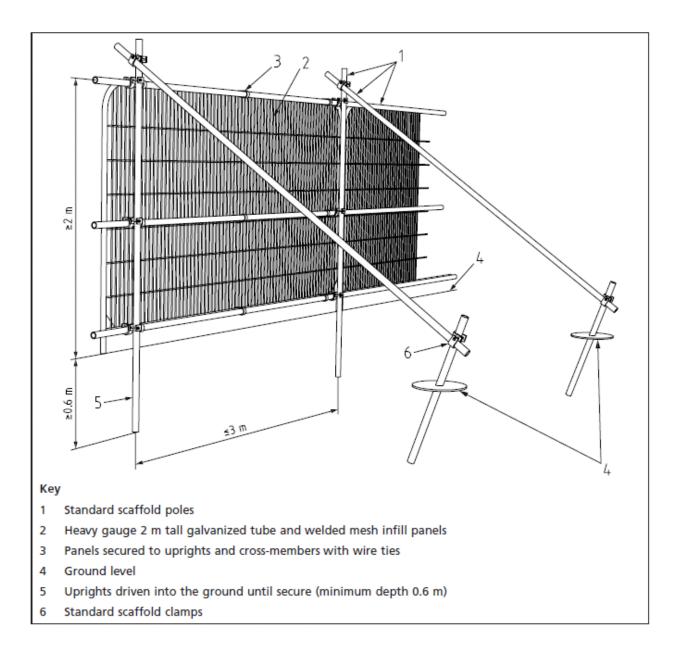
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# Appendix EDP 3 Tree Protection Barrier on Scaffold 2.0m High (Extract from BS 5837:2012, Figure 2 'Protective Barrier')



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# Plan

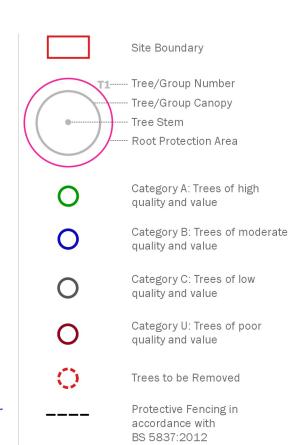
 Plan EDP 1
 Tree Protection Plan (Overview)

 (edp3253\_d040b 29 September DJo/DGa)

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#### client

#### Vistry Homes Ltd

project title

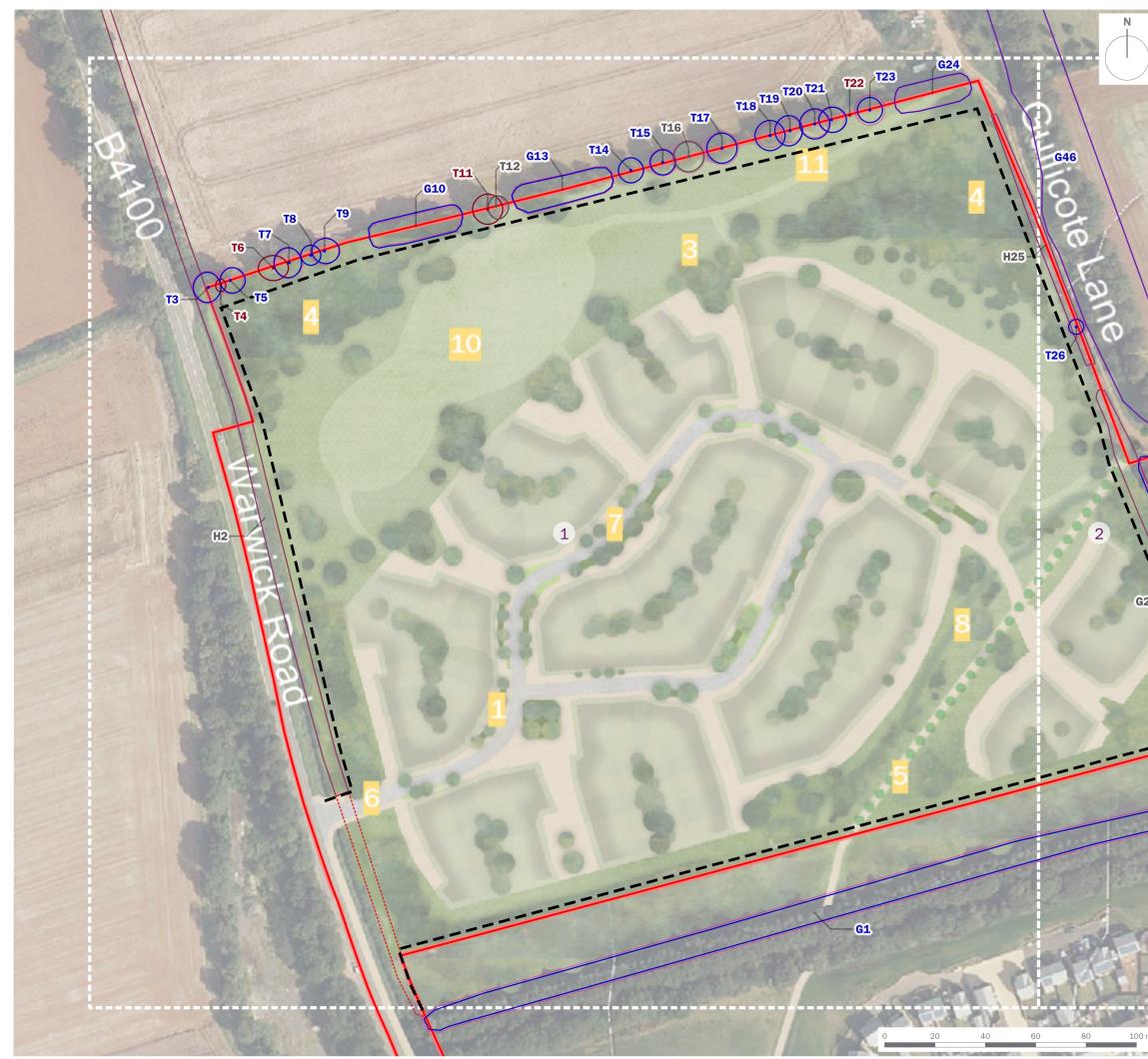
#### Land east of Warwick Road, Banbury

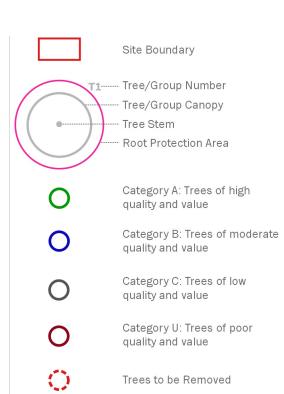
drawing title

## Tree Protection Plan (Overview)

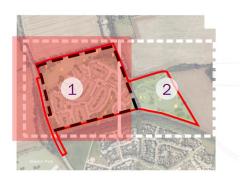
date 29 SEPTEMBER 2022 drawn by DJo drawing number edp3253\_d040b scale 1:2,500 @ A3 checked DGa QA JFr

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Protective Fencing in accordance with BS 5837:2012



#### client

#### Vistry Homes Ltd

project title

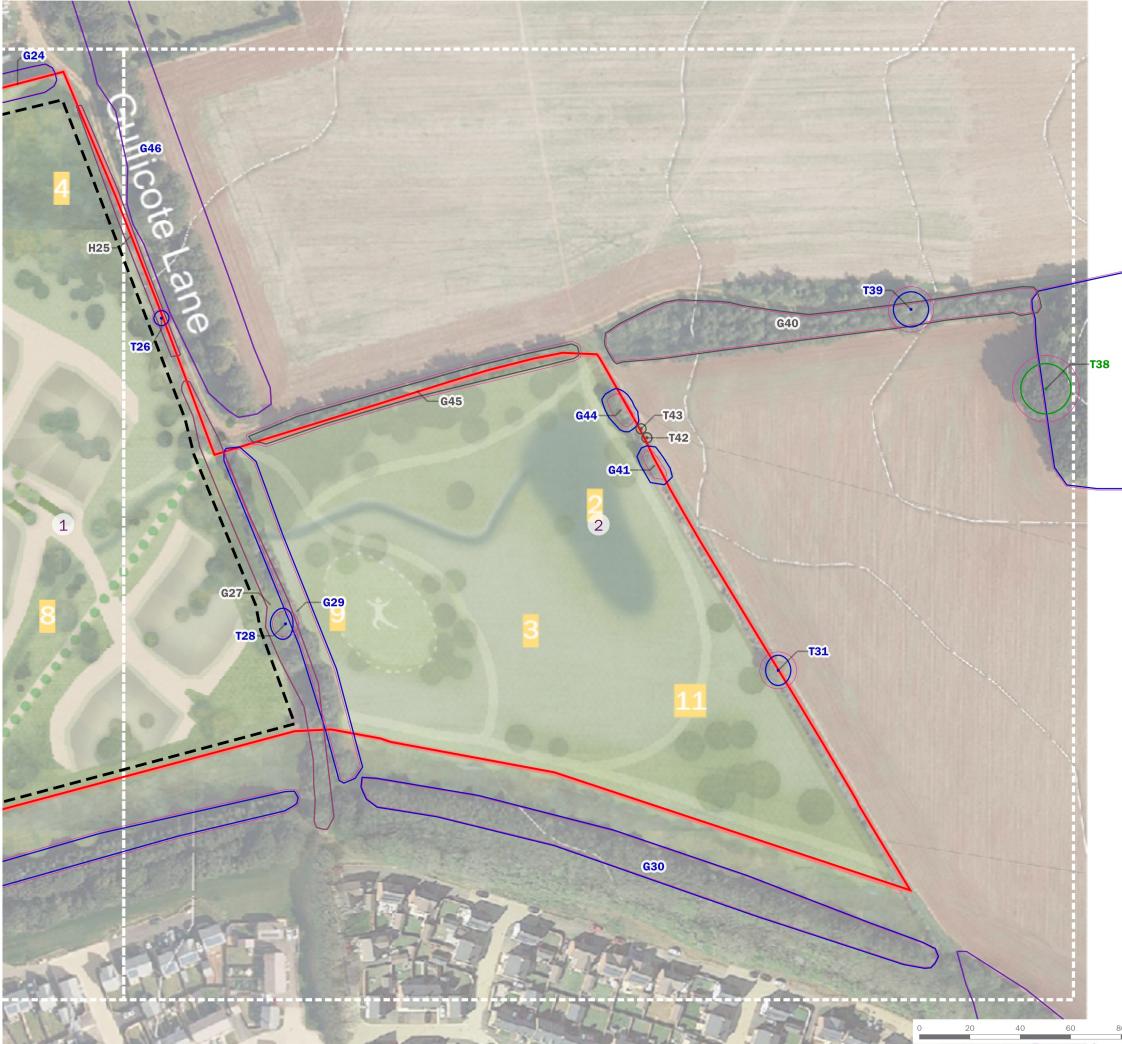
#### Land east of Warwick Road, Banbury

drawing title

#### Tree Protection Plan (Sheet 1 of 2)

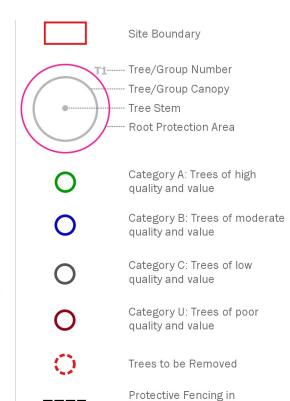
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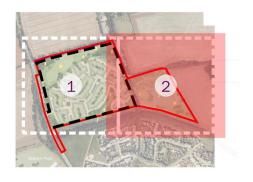


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accordance with BS 5837:2012



#### client

#### Vistry Homes Ltd

project title

#### Land east of Warwick Road, Banbury

drawing title

#### Tree Protection Plan (Sheet 2 of 2)

date	29 SEPTEMBER 2022	drawn by	DJo
drawing number	edp3253_d040b	checked	DGa
scale	1:1,500 @ A3	QA	JFr



the environmental dimension partnership



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