

**Arboricultural Survey to BS5837:2012**

**Zestec Asset Management**

**For Farmers Burston  
Mill Road  
Burston  
IP22 5TJ**

**13 February 2023**

**Dean Meadows** BSc (Hons) MArborA

Principal Arboricultural Consultant

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*This report has been released electronically and the appendices have been included at the end of this report. Plans are included as A0, A1, A2 or A3 as appropriate.*

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## 1. Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on 16 January 2023 from Tom Breislin (Urbana) to attend ForFarmers Burston, Mill Road, Burston, IP22 5TJ; grid reference, TM 13618 83792 (site) to undertake an arboricultural survey a to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of Trees, Tree Constraints Plan, Arboricultural Impact Assessment, Arboricultural Method Statement and a Tree Protection Plan.

## 2. Author

Dean Meadows is a Principal Arboricultural Consultant and is the lead consultant for this project and the author of this report. He graduated from Myerscough where he studied BSc (Hons) Arboriculture and Urban Forestry, achieving a First Class for his research project and overall degree, obtaining a Distinction in all but one module. Before this, Dean completed a National Diploma in Applied Horticulture, also at Myerscough. He is now undertaking the MSc in Arboriculture and Urban Forestry.

In 2020, Dean was named as one of Pro Landscaper’s 30 Under 30: The Next Generation, an award recognising exemplary young, aspiring, and ambitious professionals.

Dean has expertise in undertaking large to small-scale tree risk and condition surveys and collaborates with organisations, landowners and Local Authorities to ensure the application of common-sense inspection and management principles to meet their duty of care efficiently and cost-effectively.

Dean holds the industry standard LANTRA Professional Tree Inspection accreditation. He is an experienced and proficient user of THREATS (Tree hazard: Risk Evaluation and Treatment System) and is a Registered User of QTRA (Quantified Tree Risk Assessment).

The advice below and appended is underwritten by our Professional Indemnity insurance for the business practice of Arboricultural Consultancy in the sum of one million Pounds Sterling in each and every claim.

**Table 1:** Documents referred to.

Document	Reference No.
Survey base drawing	<b>File name:</b> BURSTON_UAVTOPO_Linework_OSGB36_ODN_Rev1_20230131
LPA pre-app comments	N/A
British Standard 5837:2012	“BS5837”
Tree Survey Schedule	Arbtech TS 01
Tree Constraints Plan	Arbtech TCP 01

### 3. Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Dean Meadows on 3 February 2023.

During the survey, trees were categorised using “Table 1 – Cascade chart for tree quality assessment” of the BS5837:2012 (see Appendix 1).

A total of No.7 individual trees, No.8 groups of trees (including No.2 woodland groups) and No.4 hedges were surveyed. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 2).

Multiple trees and shrubs occupy the site, none of which meet the minimum diameter or are not present on the topographical survey provided.

**Table 2:** Documents upon which this tree survey has been based.

Document	Originator	Reference Number	Title
Survey base drawing	Above Surveying Ltd.	<b>File name:</b> BURSTON_UAV-TOPO_Linework_OSGB36_ODN_Rev1_20230131	BURSTON LINEWORK ("CAD") -

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and advanced decay detection equipment were not employed, though may form part of the survey’s management recommendations. Measurements were taken using specialist tapes, laser, and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Legal Status: No statutory protection check has been performed. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order (“TPO”), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

\* For more information on the surveyed trees please see Arbtech Consulting Ltd, Tree Survey Schedule (Appendix 1), Tree Survey Report and Tree Constraints Plan.

## Site description

The site is an industrial supply unit that produces feed for conventional and organic livestock farming. The site contains a hub of buildings and a parking area/driveway on the west side of the site. On the east side of the site is a large open field with two early-mature tracts of plantation woodland planted in the 1990s and is stocked with mostly native species. There are also boundary hedges around the field



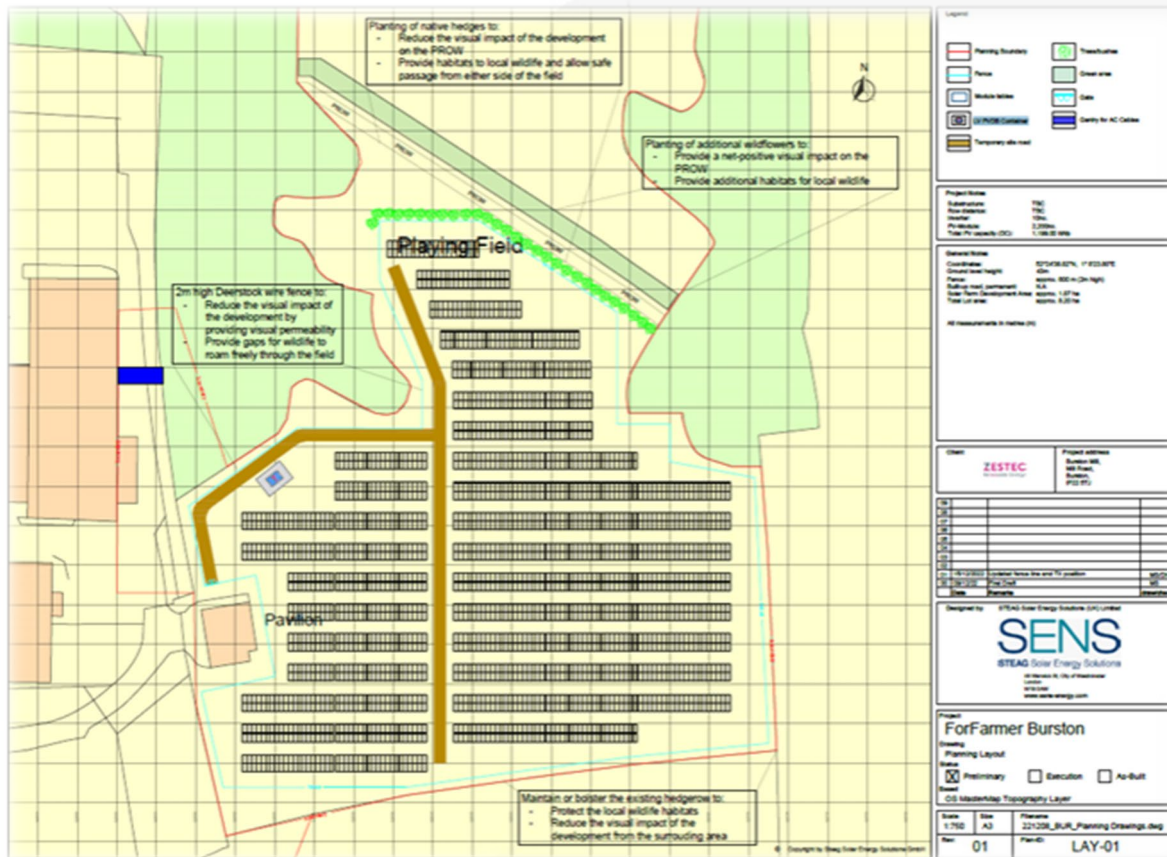
**Figure 1:** OS Map (Bing Maps)



**Figure 2:** Aerial Image of site with approximate red line boundary of survey area (as received upon topographical survey) and with blue line denoting areas of site not surveyed (Google Earth)

## Proposed scheme

The proposed scheme for the site is the installation of a solar farm within the southern area of the field on the eastern side of the site. The solar farm will be bounded by a 2 m high Deerstock wire fence. The northern end of the proposal alongside the Public Right of Way will be planted with a native hedge along with areas of wildflowers.



**Figure 3:** Proposed scheme drawing number: (File Name: 221208\_BUR\_Planning Drawings.dwg)

It is likely that arboricultural impacts can be addressed with arboricultural methodology or minor amendments to the proposal.

## 4. BS5837:2012 Scope

This standard recognises that there can be problems for development close to existing trees which are to be retained, and of planting trees close to existing structures. This standard sets out to assist those concerned with trees, in relation to construction, to form balanced judgements. It does not set out to put arguments for or against development, or for the removal or retention of trees. Where development, including demolition, is to occur, the standard provides guidance on how to decide which trees are appropriate for retention, on the means of protecting these trees during development, including demolition and construction work, and on the means of incorporating trees into the developed landscape.

## 5. Methodology

The methodology used to assess the trees was the British Standard 5837:2012 'Trees in Relation to Construction' tree survey method. The aim of the survey is to establish which trees are moderate and good quality; suitable for retention and justifying protection. And which trees are low or poor quality; either undesirable or unsuitable to retain and protect.

The tree survey includes all trees included in the land survey red line boundary plan, as well as any that may have been missed, and it should categorize trees or groups of trees, including woodlands for their quality and value within the existing context, in a transparent, understandable, and systematic way. Where the arboriculturist has deemed it appropriate, the trees have been tagged with small metal or plastic tags, placed as high as is convenient on the stem of each tree.

Whilst master plan proposals for the development of the site might be available, the trees have been surveyed without taking these into consideration. All detailed design work on site layout should take into consideration the results of the tree survey (and the TCP).

Trees forming groups and areas of woodland (including orchards, wood pasture and historic parkland) are identified and considered as groups where the arboriculturist has determined that this is appropriate, particularly where they contain a variety of species and age classes that could aid long-term management. It is often expedient to assess the quality and value of such groups of trees as a whole, rather than as individuals. However, an assessment of individuals within any group has been undertaken if they are open-grown or if there is a need to differentiate between them.

The quality and value of each tree or group of trees has been recorded by allocating it to one of the four categories: **A**, **B**, **C**, or **U** (highest to lowest quality respectively). The categories are differentiated on the tree survey plan by colour, or by suffixing the category adjacent to the tree identification number on the TCP.

The survey schedule lists all the trees or groups of trees. The following information is also provided:

- a) reference number (to be recorded on the tree survey plan);
- b) species (common or scientific names);
- c) height in meters (m);
- d) stem diameter in millimetres (mm) at 1.5m above adjacent ground level or immediately above the root flare for multi-stemmed trees;
- e) branch spread in meters taken at the four cardinal compass points;
- f) height of crown clearance above adjacent ground level in meters (m);
- g) age class (newly planted, young, semi-mature, early mature, mature, over mature);
- h) physiological condition (e.g. good, fair, poor, decline and dead);
- i) structural condition (e.g. good, fair, poor or not visible);
- j) comment about the tree, its location and preliminary management recommendations, including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat;
- k) The retention category referring to the quality and useful contribution in years; **U** = <10yrs; **A** = >40yrs; **B** = >20yrs; **C** = >10yrs. The retention subcategory referring to the type of amenity; 1 = Arboricultural; 2 = Landscape; 3 = Cultural including conservation (see Appendix 1 Cascade chart for tree quality assessment).



## 6. Definitions

### Arboriculturist

An arboriculturist (or arboricultural consultant) is a person who has, through relevant education, training, and experience, gained recognized qualifications and expertise in the field of trees in relation to construction.

### Tree Survey

A tree survey should be undertaken by an arboriculturist and should record information about the trees on a site independently of and prior to any specific design for development. As a subsequent task, and with reference to a design or potential design, the results of the survey should be included in the preparation of a tree constraints plan, which should be used to assist with site layout design.

### Tree Constraints Plan

A TCP is plan, typically delivered as an AutoCAD drawing (.DWG file format), prepared by an arboriculturist for the purposes of layout design showing the root protection area and representing the effect that the mature height and spread of retained trees will have on layouts through shade, dominance, etc.

### Root Protection Area

An RPA is a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m<sup>2</sup>.

### Construction Exclusion Zone (also termed Tree Protection Zone)

A construction exclusion or tree protection zone is an area based on the RPA (in m<sup>2</sup>), identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

### Arboricultural Impact Assessment (AIA)

This is a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

### Tree Protection Plan (TPP)

A TPP is plan, typically delivered as an AutoCAD drawing (.DWG file format), prepared by an arboriculturist showing the finalized layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement, which can be shown graphically.

## Arboricultural Method Statement (AMS)

This is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. The AMS is likely to include details of an on-site tree protection monitoring regime.

## 7. Recommendations

With the benefit of making an assessment of your planning proposals, I make the following recommendation to ensure that there are no irrevocable issues to the proposed retained trees and so that no conditions relating to arboriculture are attached to any planning consent secured; obtain an arboricultural report to include:

- a) An arboricultural impact assessment (AIA).
- b) An arboricultural method statement (AMS).
- c) A tree protection plan drawing (TPP).

## 8. Limitations

Trees were inspected from using visual observation from ground level only. Trees were not climbed or inspected below ground level. Inaccessible trees will have best estimates made about the location, physical dimensions, and characteristics. Trees have been grouped where BS5837 guides us that it is expedient to do so. Trees have been excluded from the survey if they are found by us to be sufficiently far away from the proposed developable area or if they are outside of the red line boundary plan showing the expectations of our client for the extent of the survey. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order (“TPO”), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

This report does not constitute a tree safety survey, nor does it fulfil the stewards/landowners Duty of Care in relation to tree risk.

## 9. Appendices

The following documents were released to the Client as appendices to this report:

- Survey Schedule (.PDF)
- Tree Constraints Plan drawing (.DWG & .PDF)

If you require clarification of information contained herein, please do not hesitate to contact us via 01244 661170.

Yours Sincerely,

*Dean*

**Dean Meadows** Bsc (Hons) MArborA

Principal Arboricultural Consultant

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## Appendix 1: Table 1 Cascade chart for tree quality assessment

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## BS5837:2012 Trees in relation to design, demolition and construction – Recommendations

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

Category and definition	Criteria (including subcategories when appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
<p><b>Category U</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>• Trees that have 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).</li> <li>• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.</li> <li>• 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.</li> </ul> <p><i>NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7.</i></p>			Dark red
	<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>	<b>3 Mainly cultural values, including conservation</b>	
<b>Trees to be considered for retention</b>				
<p><b>Category A</b></p> <p><b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years.</p>	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 dominate 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
<p><b>Category B</b></p> <p><b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years.</p>	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial defects, including unsympathetic management and storm damage), such that they are unlikely to be suitable for retention of 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
<p><b>Category C</b></p> <p><b>Trees of low quality</b> with an estimated remaining expectancy of at least 10 years, or young trees with a stem diameter below 150mm.</p>	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 value.	Trees with no material conservation or other cultural value.	Grey

## Appendix 2: Schedule of Trees

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Tree No.	Species	Height (m)	Trunk Diameter (mm)	Canopy Spread (m)	Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Comments	Category
1	Ash	5.5m	250mm	3m	2m	Semi-mature	Average	Typical (minor defects observed)	Recently crown lifted.	B (1)
2	Field maple	6m	250mm 300mm 160mm	5m	2m	Early-mature	Average	Typical (minor defects observed)	Recently crown lifted; multi-stemmed (low crown break ).	B (1)
3	Norway maple	10m	360mm	5m	2m	Early-mature	Average	Typical (minor defects observed)	Recently crown lifted.	B (1)
4	Hornbeam	7m	370mm# @1m	4m	1m	Early-mature	Average	Typical (minor defects observed)	Crown breaks at 1 m; epicormic growth on trunk.	B (12)
5	Field maple	7m	370mm	3.5m	1m	Early-mature	Average	Typical (minor defects observed)	Crown breaks at 1 m; epicormic growth on trunk.	B (12)
6	Norway maple	7m	270mm	5m	1.5m	Early-mature	Average	Typical (minor defects observed)	Crown breaks at 1.5 m.	B (12)

Tree No.	Species	Height (m)	Trunk Diameter (mm)	Canopy Spread (m)	Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Comments	Category
7	Hornbeam	7m	350mm 140mm	4m	1m	Early-mature	Average	Typical (minor defects observed)	Crown breaks at 1 m; epicormic growth on trunk.	B (12)
G1	Various	1.5m	Avg 20mm	0.5m	0m	Young	Average	Typical (no significant defects)	Scrub group with saplings; species include hawthorn and birch.	C (2)
G2	Various	2.5m	Avg 20mm	0.5m	0m	Young	Average	Typical (no significant defects)	Scrub group with saplings; species include hawthorn, wild cherry and birch.	C (2)
G3	Various	12m	Avg 300mm	4m	1m	Young to early-mature	Average	Typical (no significant defects)	Species include ash, oak, hawthorn, wild cherry and field maple; linear group of trees growing between fence line to the west and separated from W2 by overhead cables.	B (2)
G4	Various	11m	Max 450mm#	6m	1.5m	Mature	Average	Typical (minor defects observed)	Linear group of field maple and hawthorn growing along boundary.	B (2)



Tree No.	Species	Height (m)	Trunk Diameter (mm)	Canopy Spread (m)	Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Comments	Category
G5	Various	8m	Avg 350mm#	5m	1.5m	Mature	Average	Typical (minor defects observed)	Linear group of field maple and hawthorn growing along boundary.	B (2)
G6	Various	13m	Max 450mm	4m	2m	Mature	Average	Typical (minor defects observed)	Species include Leyland cypress, horse chestnut, whitebeam, Norway maple, apple, elder, field maple and hazel; group of mixed species alongside access route to field. Driveway consists of heavily compacted stone material and is frequently occupied by HGV's.	B (2)
G7	Various	13m	Avg 450mm	4m	2m	Mature	Average	Typical (minor defects observed)	Group of Leyland cypress alongside access route to field. Driveway consists of heavily compacted stone material and is frequently occupied by HGV's; unable to inspect closely due to inaccessibility beyond fence; dimensions estimated.	B (2)

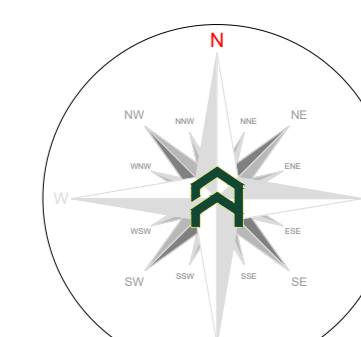
Tree No.	Species	Height (m)	Trunk Diameter (mm)	Canopy Spread (m)	Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Comments	Category
H1	Various	5m	Max 50mm	1.5m	0m	Early-mature	Average	Typical (no significant defects)	Boundary hedge of hawthorn and field maple.	C (2)
H2	Leyland cypress	9m	Max 250mm	3m	0m	Early-mature	Average	Typical (no significant defects)	Linear group/tall hedge of Leyland cypress.	B (2)
H3	Various	6m	Max 80mm#	2m	0m	Semi-mature	Average	Typical (minor defects observed)	Neglected boundary hedge; species include field maple and hawthorn.	C (2)
H4	Field maple	5m	Avg 200mm#	2m	0m	Early-mature	Average	Typical (minor defects observed)	Flailed field maple hedge alongside drainage ditch.	C (2)

Tree No.	Species	Height (m)	Trunk Diameter (mm)	Canopy Spread (m)	Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Comments	Category
W1	Various	12m	Max 400mm	5m	0.5m	Young to early-mature	Average	Typical (no significant defects observed within group)	Plantation woodland group; species predominantly consist of native flora including ash, field maple, Scots pine, hawthorn, wild cherry, birch, hazel, poplar, hornbeam and oak; overhead cables run through group unobstructed; desire line around the eastern perimeter of group along site boundary; cut-through desire lines present towards the southern edge of the group; first planted in early 1990's.	B (2)

Tree No.	Species	Height (m)	Trunk Diameter (mm)	Canopy Spread (m)	Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Comments	Category
W2	Various	12m	Avg 400mm	5m	0.5m	Young to early-mature	Average	Typical (no significant defects observed within group)	Plantation woodland group; species predominantly consist of native flora including ash, field maple, Scots pine, hawthorn, wild cherry, birch, hazel, poplar, hornbeam and oak; overhead cables run through group unobstructed; multiple desire lines run through and around group; first planted in early 1990's; drainage trench recently excavated in southern area with evidence of root severance visible to trees within close proximity to trench.	B (2)

## Appendix 3: Tree Constraints Plan

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Indicative only

**Tree Categories**

These are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.

Category 'V' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'W' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category 'Y' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

**Root Protection Area**

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Area (RPA) should be defined around each of the category 'U' and 'V' trees. This is a minimum area in m<sup>2</sup> which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

The calculated RPA is capped to 757m<sup>2</sup>, which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

**Tree Survey Report**

Please refer to Arbtech Consulting Ltd. Tree Survey Report and Tree Schedule for full details on all surveyed trees, hedgerows and major shrub groups.

All trees were surveyed and categorised in accordance with the guidance as set out in the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

We make the following recommendation to ensure that no conditions relating to arboriculture are attached to any planning consent secured, obtain an arboricultural report to include:

- a) An arboricultural impact assessment (AIA);
- b) An arboricultural method statement (AMS); and
- c) A tree protection plan (TPP).

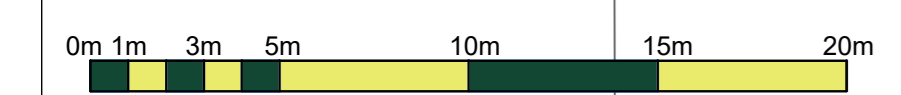
**Sheet Layout**



Overhead lines on poles 9m tall

Grassland

Grassland



Project: ForFarmers Burston  
Mill Road  
Burston  
IP22 5TJ

Client: Zestec Asset Management

Drawing: Tree Constraints Plan

Based on: File name: BURSTON\_UAV-TOPD\_Linework\_OSGESB\_ODM\_Rev1\_20230131

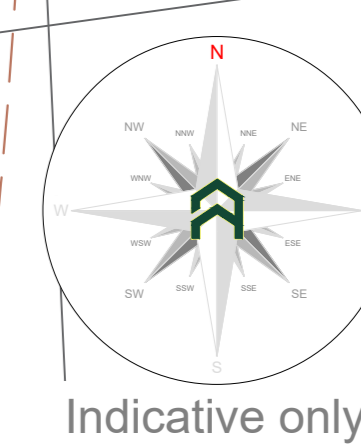
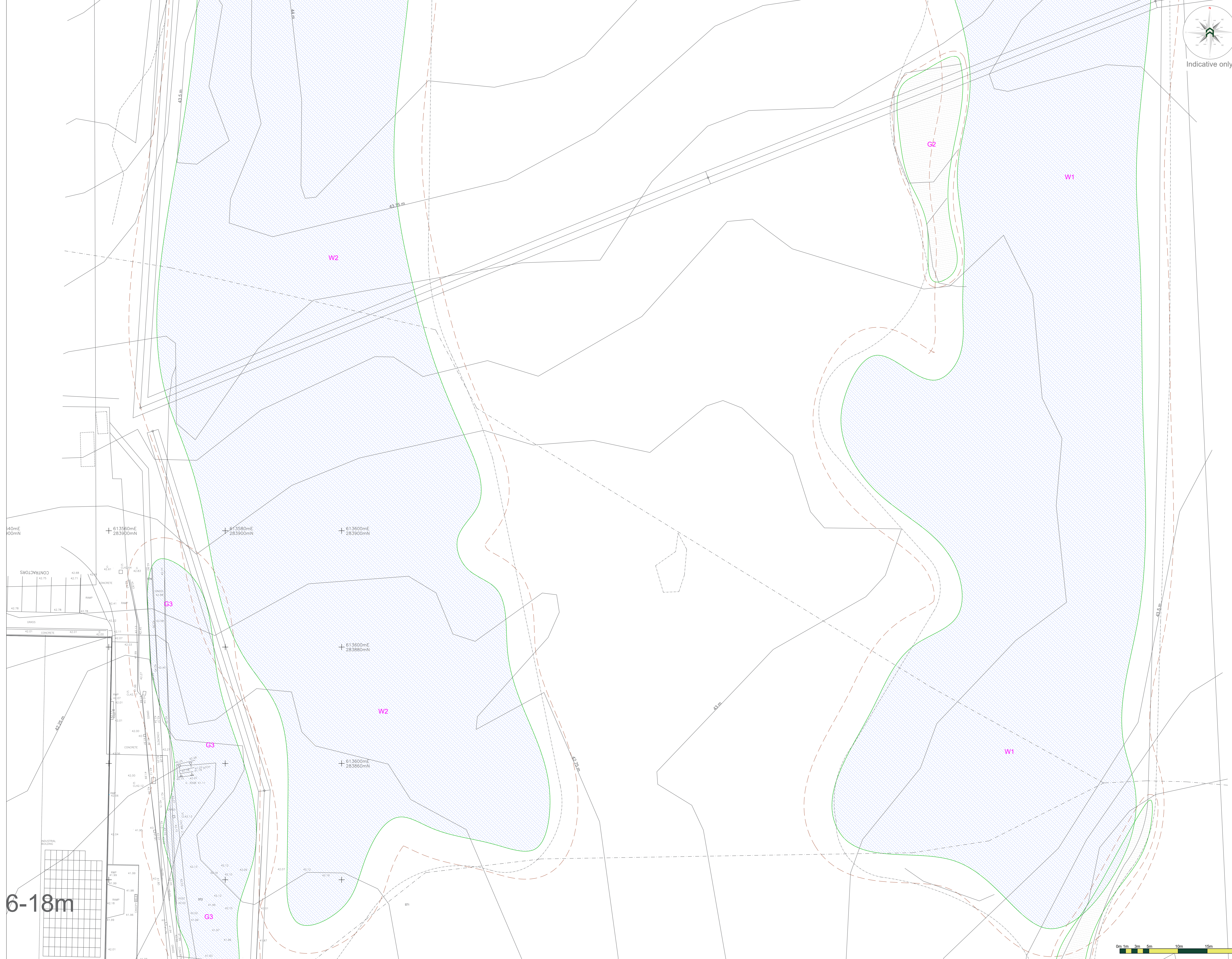
Drawing No: Arbtech TCP 01 Sheet: 1 of 4

Date: Feb 2023 Scale: 1:200 @ A0 Drawn: DM

Key:

Tree No. 1	Tree Category 'U'	Trunk	Category 'U' group
RPA	Category 'W' tree	Category 'W' group	
Category 'U' group			

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Indicative only

**Tree Categories**

These are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.

Category 'V' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'W' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category 'X' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter factor <math>D\_{100}</math> of 50mm.

**Root Protection Area**

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Area (RPA) should be plotted around each of the category 'U' and 'V' trees. This is a minimum area in which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'. The calculated RPA is capped to 75%<sup>2</sup>, which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

**Tree Survey Report**

Please refer to Arbtech Consulting Ltd. Tree Survey Report and Tree Schedule for full details on all surveyed trees, hedgerows and major shrub groups.

All trees were surveyed and categorised in accordance with the guidance as set out in the British Standard BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

We make the following recommendation to ensure that no conditions relating to arboriculture are attached to any planning consent secured, obtain an arboricultural report to include:

- An arboricultural impact assessment (AIA);
- An arboricultural method statement (AMS); and
- A tree protection plan (TPP).



Unit 3, Well House Barris, Chester, CH4 0DH  
<https://arbtech.co.uk>, 01244 661170

Project: **ForFarmers Burston  
 Mill Road  
 Burston  
 IP22 5TJ**

Client: **Zestec Asset Management**

Drawing: **Tree Constraints Plan**

Based on:  
 File name: BURSTON\_UAV-TOPD\_Linework\_OSGE36\_CDM\_Rev1\_20230131

Drawing No: **Arbtech TCP 01** Sheet: **2 of 4**

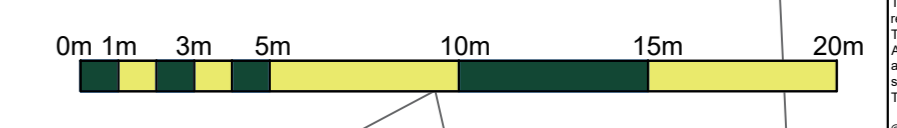
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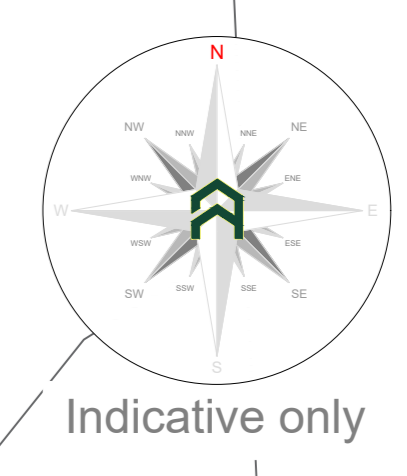
Key:

Tree No.	1	Tree Category	Tree	Trunk	○
RPA	○	Category 'U' tree	○	Category 'V' group	○
Category 'C' group	○				

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6-18m

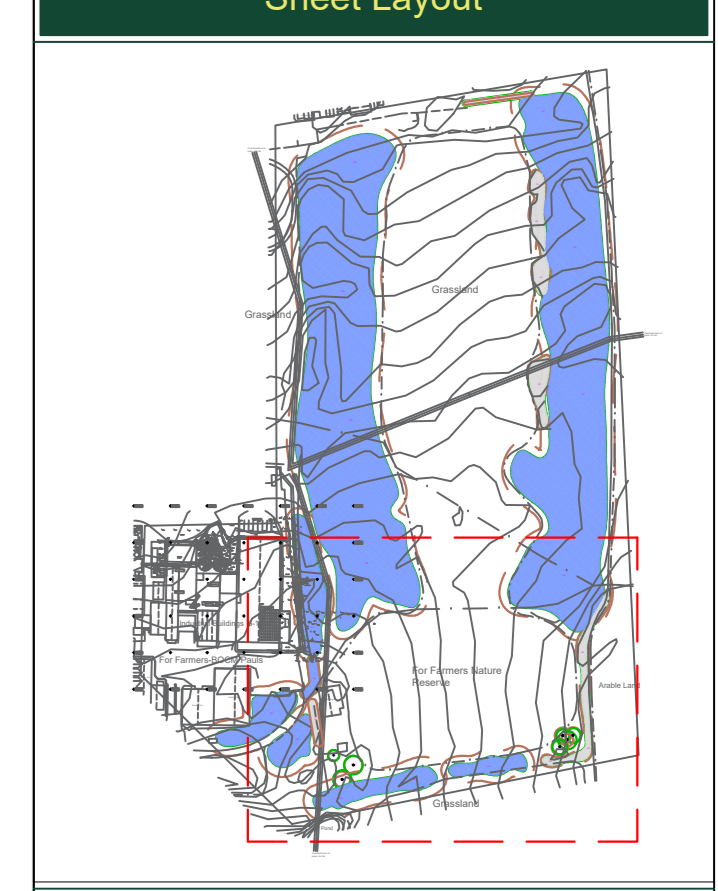




**Tree Categories**  
 These are categorised in accordance with the standards chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.  
 Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.  
 Category 'V' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.  
 Category 'W' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.  
 Category 'X' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

**Root Protection Area**  
 In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Area (RPA) should be plotted around each of the category 'U' and 'V' trees. This is a minimum area in m<sup>2</sup> which should be left undisturbed around each retained tree.  
 The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.  
 The calculated RPA is capped to 757m<sup>2</sup>, which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

**Tree Survey Report**  
 Please refer to Arbtch Consulting Ltd. Tree Survey Report and Tree Schedule for full details on all surveyed trees, hedgerows and major shrub groups.  
 All trees were surveyed and categorised in accordance with the guidance as set out in the British Standard BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.  
 We make the following recommendation to ensure that no conditions relating to arboriculture are attached to any planning consent secured:  
 a) An arboricultural impact assessment (AIA);  
 b) An arboricultural method statement (AMS); and  
 c) A tree protection plan (TPP).



**Sheet Layout**

**arbtch**  
 Unit 3, Well House Barrs, Chester, CH4 0DH  
<https://arbtch.co.uk>, 01244 661170

Project: **ForFarmers Burston**  
 Mill Road  
 Burston  
 IP22 5TJ

Client: **Zestec Asset Management**

Drawing: **Tree Constraints Plan**

Based on: **File name: BURSTON\_UAV-TOPD\_linework\_OSGESW\_CDM\_Rev1\_20230131**

Drawing No: **Arbtch TCP 01** Sheet: **3 of 4**

Date: **Feb 2023** Scale: **1:200 @ A0** Drawn: **DM**

Key:

Tree No. 1	Tree Category 'U'	Tree Category 'V'	Tree Category 'W'	Tree Category 'X'
RPA: Category 'U' tree	RPA: Category 'V' tree	RPA: Category 'W' tree	RPA: Category 'X' tree	
Category 'U' groups	Category 'V' groups	Category 'W' groups	Category 'X' groups	

Arbtch Consulting Ltd. 2018

6-18m

auls

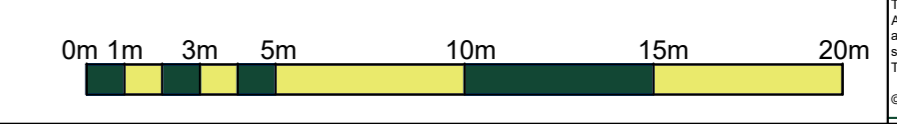
For Farmers Nature Reserve

Arable Land

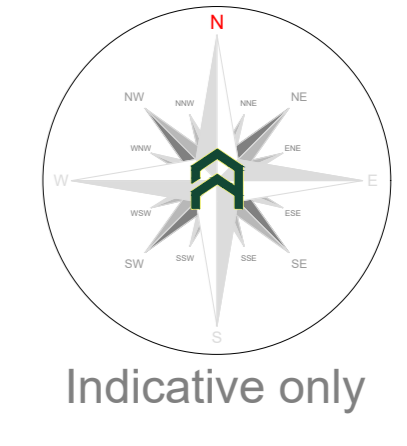
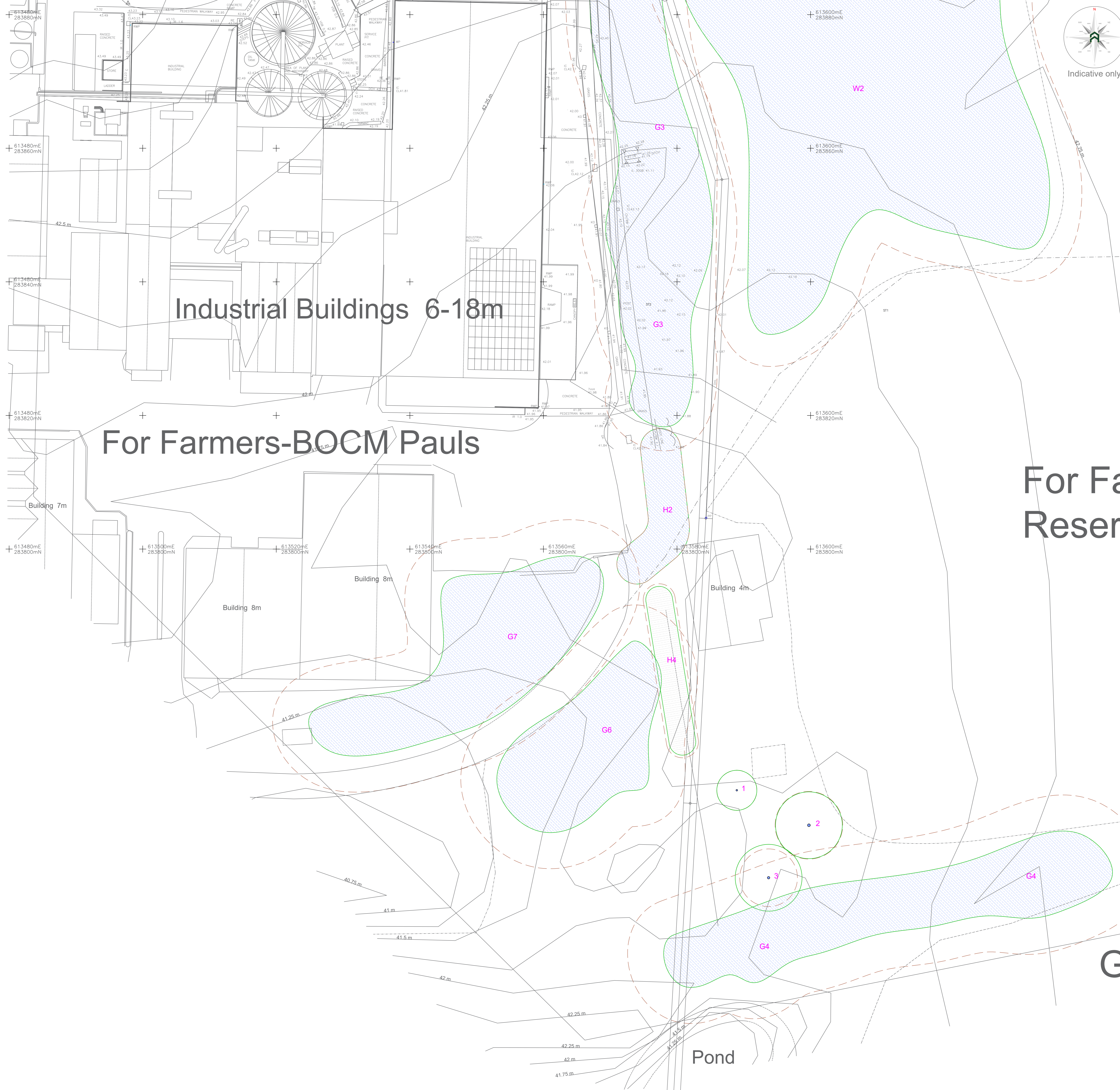
Grassland

Pond

Building 4m







**Tree Categories**

These are categorised in accordance with the guidance chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.

Category 'V' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'W' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category 'Y' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

**Root Protection Area**

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Area (RPA) should be defined around each of the category 'U' and 'V' trees. This is a minimum area in which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

The calculated RPA is capped to 757m<sup>2</sup>, which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

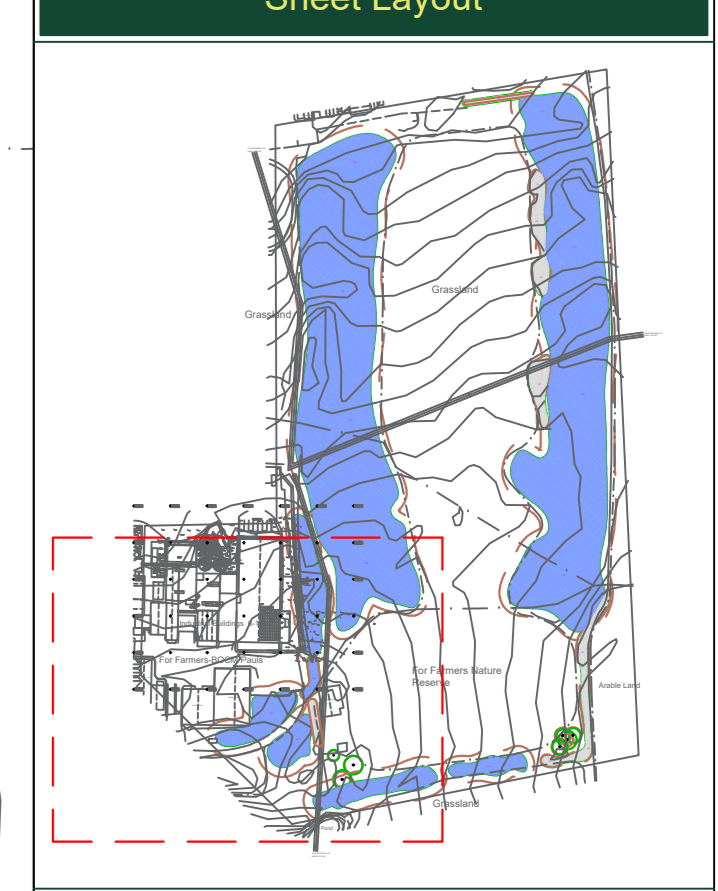
**Tree Survey Report**

Please refer to Arbtech Consulting Ltd. Tree Survey Report and Tree Schedule for full details on all surveyed trees, hedgerows and major shrub groups.

All trees were surveyed and categorised in accordance with the guidance as set out in the British Standard BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

We make the following recommendation to ensure that no conditions relating to arboriculture are attached to any planning consent secured, obtain an arboricultural report to include:

- a) An arboricultural impact assessment (AIA);
- b) An arboricultural method statement (AMS); and
- c) A tree protection plan (TPP).



**Sheet Layout**



Project: ForFarmers Burston Mill Road Burston IP22 5TJ

Client: Zestec Asset Management

Drawing: Tree Constraints Plan

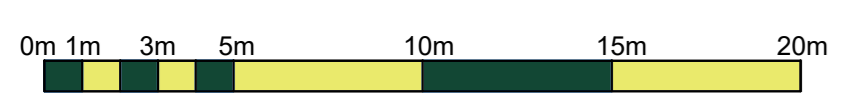
Based on: File name: BURSTON\_UAV-TOPD\_Linework\_OSGE36\_CDM\_Rev1\_20230131

Drawing No: Arbtech TCP 01 Sheet: 4 of 4

Date: Feb 2023 Scale: 1:200 @ A0 Drawn: DM

Key:

Tree No. 1	Tree Category 'U'	Trunk	○
RPA: 'U' tree	Category 'U' tree	Category 'U' group	○
Category 'C' group			



## 10. Document Production Record

Document number	Editor	Signature	Position	Issue number	Date
Arbtech TSR 01	Dean Meadows	<i>Dean</i>	Principal Arboricultural Consultant	01	13/02/23

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