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**Arboricultural Impact Assessment**

**Proposed residential development  
Land off Beccles Road  
Loddon  
Norfolk**

Report reference: 18.05.11 AIA

May 2018

## **1.0 Introduction.**

- 1.1 This report has been prepared to identify and advise on the management options and precautions required in connection with the proposed residential development on land to the south of Beccles Road, Loddon, Norfolk ('the site').
- 1.2 The report is intended to supplement the planning application at the above site. It is not intended to be a health and safety assessment of the trees and shall not be used as such.
- 1.3 Plans have been provided by EJW Planning.
- 1.4 The report is limited to the state of the trees on the date the site was visited (24<sup>th</sup> May 2018) and allows for current site and weather conditions. However, should the trees be subject to changes in site use or ground conditions, storm force winds (Beaufort scale 9 or above) or heavy snowfall, re-inspection is recommended to check for deterioration of their structural condition.
- 1.5 Trees are dynamic living organisms and are therefore subject to constant change. The observations and advice given in the report are based on the condition of the trees at the time of inspection.
- 1.6 I have made no investigations to ascertain the legal protection of the trees. The Local Planning Authority (LPA) (South Norfolk Council) must be contacted to check for any restrictions before any tree work is undertaken.
- 1.7 The trees are surveyed with regard to the proposed planning application and the survey does not purport to establish ownership.

## **2.0 The trees and the site.**

- 2.1 The site is currently an area of mainly unused land. Surrounding land use is mostly residential, with a large new housing estate to the east.
- 2.2 The tree survey schedule, explanatory notes and the tree survey with proposed layout drawing 18.05.11 D2 can be found within appendix 1.
- 2.3 The trees on the site are of low quality and value when assessed as individuals. Five trees are recommended for removal because of their poor structures, health or condition. The remaining trees are mostly small, recently planted specimens.
- 2.4 To the east of the site, down a steep bank and to the far side of a drainage channel there is a group of coppiced willows.
- 2.5 There are no trees of significance on the site.
- 2.6 The surveyed trees are collectively in a fair to poor condition and deemed to be Category C or U (BS5837 Trees in relation to design, demolition and construction - Recommendations).

### 3.0 Proposed development.

- 3.1 Detailed plans showing the proposed development have been provided showing four properties with associated driveways, garaging and garden areas.
- 3.2 The proposed layout can be seen on drawing 18.05.11 D2 within appendix 1.
- 3.3 Indicative areas for new planting are shown on the drawing referenced above. Plant choice should draw on native species including, but not exclusively, rowan, hawthorn and alder for tree planting, with hazel, guelder rose, dogwood and hawthorn for shrub planting.

### 3.4 Table of recommended work

Tree No. & species	5837 cat.	Recommended work	Reason and justification
G1 – various	C2	Remove eastern and western sections and the dying plum to the west	To allow construction of the driveway and path for plot 1. Small plants that could be transplanted or replaced to further reinforce the front screening. The western plum is dying.
S2 – hazel	C1	Re-coppice.	Poorly formed, thinning upper growth and becoming outgrown.
T4 – goat willow	U	Fell.	Suckering from base, growing from fallen and cut stump. Poor quality internal tree of little significance reaching the end of its life expectancy.
T5 – willow	U	Fell.	Previously failed at the base, suckering, multiple lopped limbs where overhanging neighbouring garden, split and dead bark to the south. Poor quality internal tree of little significance.
T6 – poplar	U	Fell.	Lost top at 4m with consequent regrowth, suckering from the trunk recently removed from lower trunk, crown becoming broad and will quickly outgrow its context. Poor quality internal tree of little significance.
T8 – purple plum	U	Fell.	Dying.

### 3.5 Proposed tree loss.

- 3.6 There are five on-site trees proposed to be felled. All these trees are deemed to be in such a poor condition that they should be removed irrespective of the proposed development. The exception is the variegated poplar, whilst also of poor form, is deemed to be quickly outgrowing its context. All the trees are of low quality and value, insignificant and internal trees and their loss will be of little consequence to the landscape.

### **3.7 Below ground constraints.**

3.8 There are no infringements into any Root Protection Areas (RPA) in order to allow the development.

3.9 The group of willows off-site to the east were not surveyed to ascertain their RPAs due to their position, being the far side of a drainage channel, approximately 2 metres below the ground level of the site. It is not expected that their root systems extend into the site due to the growing conditions and topography.

### **3.10 Tree protection.**

3.11 Areas for protection are shown on drawing 18.05.11 D3, appendix 2. Fencing would need to consist of braced 2 x 3.5 metre HERAS panels.

3.12 It is considered that the scheme can be implemented without undue harm or damage to the trees.

3.13 It is vital that all protective fencing is suitably installed before any construction commences and remains in place until the construction is complete. The only work on site prior to the installation of tree protection is any tree work as cleared by the LPA.

### **3.14 Service runs.**

3.15 Details of service runs were not available at the time of writing. It is not anticipated that services will need to run within RPAs, given the peripheral position of the trees.

### **3.16 Boundary treatments.**

3.17 If it is proposed to erect new fences within the RPA of retained trees, any posts will need to be positioned so as to avoid significant roots and the holes should be dug by hand. No levelling or grading of soil should take place within RPAs as part of any fencing installation.

3.18 Where it is proposed to plant new hedges, shrubs or trees within any RPA, this should be done using hand tools, creating minimal disturbance to the ground.

3.19 Any fencing or planting works will need to be undertaken following the completion of the construction process, when there is no related machinery on site and the protective fencing may be dismantled to allow access within areas previously protected, for pedestrians and hand tools only.

### **3.20 Above ground constraints.**

3.21 Drawing 18.05.11 D2, appendix 1, shows indicative future canopy spreads. Future growth of the trees is not considered to be a major constraint on any proposed development due to the position of the trees in relation to the proposed dwellings.

3.22 Potential shade patterns have also been plotted, with most of the limited shade being cast to the rear of the gardens. The shade pattern should be seen as indicative only, with shade being dappled and varied throughout the day. None of the trees potentially casting shade are evergreen, so light levels through the winter will not be heavily depleted by foliage cover.

### **4.0 Future management**

4.1 Any other new plantings will need regular maintenance during their establishment, including watering, formative pruning and weed control.

4.2 There may be a need to maintain the mixed planting G1 in order to provide sufficient clearance from Plot 1.

### **5.0 Summary.**

5.1 The proposal does not require the felling of any significant trees.

5.2 Subject to recommendations within this report being followed, it is not anticipated that retained trees on or adjacent to the site will be unduly affected by the proposed development.

5.3 Above ground constraints are not considered significant given current proposals and recommendations.

Report written by Robert Thackray MArborA, Dip.Arb.(RFS) on behalf of Robert Thackray Ltd.

May 2018.

Appendix 1

Explanatory notes for tree schedule

Tree schedule

Tree survey with proposed layout – 18.05.11 D2

### Explanatory notes for the tree schedule.

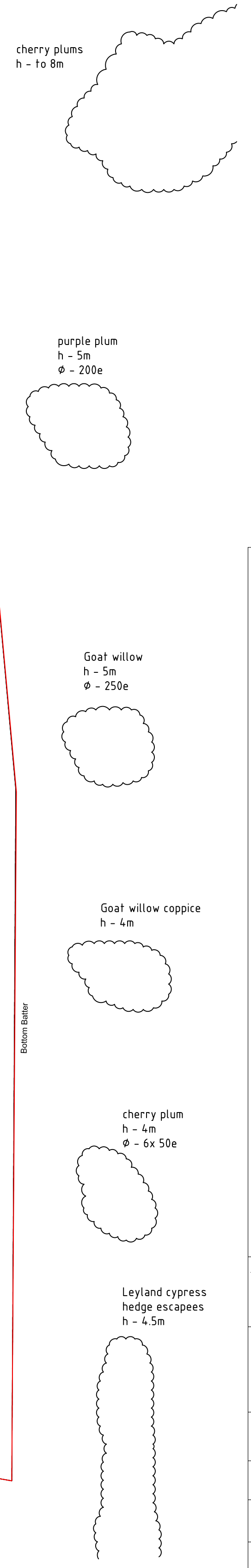
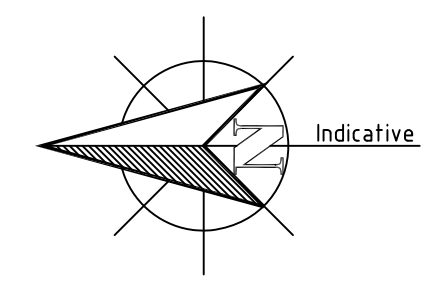
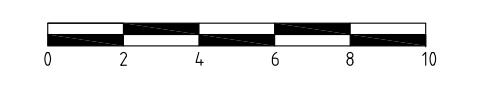
Tree No.	Gives the relevant tree number as shown on the enclosed site plans. <b>T</b> = tree <b>S</b> = shrub <b>G</b> = group
Species	Given in common or botanical terms.
Height	To the nearest meter as estimated.
Diameter	Of the trunk, to the nearest 10mm as measured. 'e' is an estimated figure. The measurement will be at 1.5 metres from ground level. Multiple stem trees where trunks originate below 1.5m will be measured individually and a combined diameter calculated. Should this prove impractical, a measurement at ground level ( <b>g/l</b> ) or at a stated height will be taken.
Branch spread	Of the trees crown, to the nearest 0.1 metre as measured or 0.5 metre as estimated. Given in compass quadrants from the trunk.
Height of crown clearance	Clearance between the lowest point of the tree's crown and adjacent ground level, as estimated.
Height of first branch attachment	Height at which the first branch is attached to the trunk, as estimated. This will generally ignore minor and epicormic/sucker growth. Orientation (if given) as N, E, S or W.
Age class	As estimated, <b>Y</b> = young, <b>SM</b> = semi-mature, <b>EM</b> = early mature, <b>M</b> = mature <b>OM</b> = over mature.
Health	An indication of the trees health and vitality, expressed as good, fair, poor or dead.
Structural condition	An indication of the tree's structural condition, expressed as good, fair, poor or ' <b>D</b> ' indicating that the tree is dangerous in its current setting. Where dashes are present, the condition could not be ascertained, usually due to the presence of ivy, the tree being off-site or the subject was a small shrub or low hedge.
Preliminary management recommendations / comments	General comments, recommended works and areas requiring further investigation, if any.
Estimated remaining contribution	Given in bandings, <b>&lt;10</b> = less than 10 years, <b>10+</b> = more than 10, possibly less than 20, <b>20+</b> = more than 20, possibly less than 40 and <b>40+</b> = more than 40 years.
Future growth potential	Expressed as <b>High</b> , ' <b>Med</b> ' for medium or <b>Low</b> . Estimated, based on current growth rates, present site factors, age and species.
RPA as a radius	Distance from the centre of the trunk, within which no ground disturbance will take place without prior consultation. This distance will be subject to specific site conditions and is intended as a guide.
Category grading	Assessed in accordance with BS 5837, Table 1, where <b>A</b> = high quality and value, such trees will be indicated on the site plan in green, <b>B</b> = moderate quality and value, in blue, <b>C</b> = low quality and value, in grey and <b>U</b> = remove due to current condition and situation, in red. Sub categories 1, 2 & 3 represent the context, where <b>1</b> = arboricultural or individual value, <b>2</b> = landscape or collective value and <b>3</b> = cultural value.

Tree No.	Species	Height (m)	Diameter (mm)	Branch spread		Height of crown clearance (m)	Height of first branch attachment (m)	Age class	Health	Structural condition	Preliminary management recommendations / comments	Estimated remaining contribution (years)	Future growth potential	RPA as a radius (m)	Category grading
G1	Various	Up to 6	Up to 150	N	See plan	0	0	Y to M	Fair	Poor	Mixed group of recent planting, coppice stumps, high coppice hawthorn and 4 mature but badly formed (due to past competition) plums. Western plum is dying, southern plum in decline	10+	High	1.8	C2
				E											
				S											
				W											
S2	Hazel	7	100, 70, 4x 50	N	4	0	0	M	Fair	Fair	Multiple suckers, thinning top and die-back, recommend re-coppicing	10+	Low	1.9	C1
				E	2										
				S	2										
				W	3										
G3	3x birch	4	100e	N	1	2.0	-	Y	Fair	-	Off site group planting, recently topped at 4m	20+	High	1.2	C2
				E	1										
				S	1										
				W	1										
T4	Goat willow	4.5	150	N	2	0.5	1	EM	Fair	Poor	Suckering from the base of an old stump, topped with maturing suckers	<10	Low	-	U
				E	2.5										
				S	2										
				W	2										
T5	Willow	6	380	N	4	0	0	M	Poor	Poor	Previously failed at the base, suckering, multiple lopped and topped limbs where overhanging the neighbours garden, split and dead bark to the south, thin crown with tip die-back	<10	Low	-	U
				E	2										
				S	2.5										
				W	2										
T6	Variegated poplar	8.5	360	N	3	1.5	2 E	SM	Good	Fair	Lost top at 4m with consequent regrowth, suckering from the trunk recently removed from lower trunk, crown becoming broad, will quickly outgrow its context	10+	High	-	U
				E	4										
				S	2.5										
				W	2.5										
T7	Liquidambar	6	160	N	2.2	0.5	1	Y	Good	Good	Small tree with good potential.	20+	High	2.0	C1
				E	1.7										
				S	2										
				W	2.1										

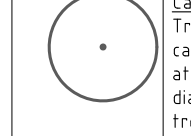
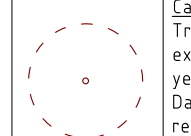
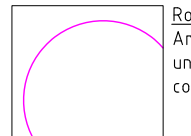
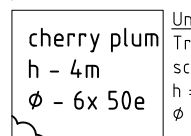

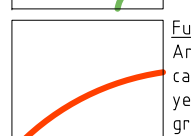



Tree No.	Species	Height (m)	Diameter (mm)	Branch spread		Height of crown clearance (m)	Height of first branch attachment (m)	Age class	Health	Structural condition	Preliminary management recommendations / comments	Estimated remaining contribution (years)	Future growth potential	RPA as a radius (m)	Category grading
T8	Purple plum	4	130	N	1	1	1.5	SM	Poor	Poor	Dying	<10	Low	-	U
				E	2.6										
				S	2.2										
				W	2.5										
T9	Winter flowering cherry	5	150	N	2.2	1.5	1.5	Y	Fair	Fair	Spreading form	10+	Low	1.8	C1
				E	2.5										
				S	3										
				W	2.5										
T10	Red Norway maple	5	100	N	1.4	1	1	Y	Good	Fair	Would benefit from a formative prune	20+	High	1.2	C1
				E	1.5										
				S	1.9										
				W	1										
T11	Silver birch	5	300e	N	2.5	1.5	2	EM	Good	-	Off site. Dense canopy, topped at c. 4m	10+	Med	3.6	C1
				E	2.5										
				S	2.5										
				W	2.5										
T12	Field maple	5	150	N	2.0	0.5	0.7	Y	Fair	Fair	Poorly formed, dead bark to the south on the main trunk, Western branch becoming dominant, minor tip die-back	10+	High	1.8	C1
				E	2.5										
				S	3										
				W	2.5										
G13	2x corkscrew willow	6	200 170	N	2	0	0	SM	Fair	Fair	Two trees within 150mm of each other	10+	Med	2.4	C1
				E	3										
				S	2.5										
				W	2.5										
T14	Grey poplar	8	200	N	3	0.5	0.5	Y	Good	Fair	Root suckers developing	10+	High	2.4	C1
				E	3.5										
				S	3										
				W	3										

Tree No.	Species	Height (m)	Diameter (mm)	Branch spread (m)		Height of crown clearance (m)	Height of first branch attachment (m)	Age class	Health	Structural condition	Preliminary management recommendations / comments	Estimated remaining contribution (years)	Future growth potential	RPA as a radius (m)	Category grading
T15	Hawthorn	6	270 g/l	N	1	0	0	M	Fair	Fair	One sided crown to the south	10+	Low	2.7	C1
				E	3.5										
				S	3										
				W	3										
T16	Ornamental cherry	3.5	200e	N	3	2	1.5	M	Fair	Fair	Off site. Small ornamental cherry	10+	Low	2.4	C1
				E	3										
				S	2.5										
				W	4										



Scale will depend on plot size/settings.  
To be read in conjunction with the tree survey schedule 18.05.11

-  **Category C**  
Trees of low quality and value capable of making a contribution for at least 10 years. Trees with a stem diameter below 150mm. Unremarkable trees of very limited merit.
-  **Category U**  
Trees in such a condition that any existing value would be lost within 10 years. Dashed line indicates intended removal of the tree.
-  **Root Protection Area**  
Area of ground that should remain undisturbed without arboricultural consultation.
-  **Un-surveyed tree**  
Tree not included within the survey schedule.  
h = height in metres  
phi = diameter in mm
-  **Indicative planting areas**
-  **Future growth potential**  
Anticipated future growth of the canopy over the next 10 - 20 years. Dashed line indicates future growth of a tree recommended for removal.
-  **Predominant areas of shade**  
Line shows potential extent of the shade cast by the trees. Note that this area will be transient and shading may be applied at times. Dashed line indicates future growth of a tree recommended for removal.

Rev.	Date	Description
1		Tree survey with proposed layout

Client: Reg Holmes

Project: Land off Beccles Road, Loddon

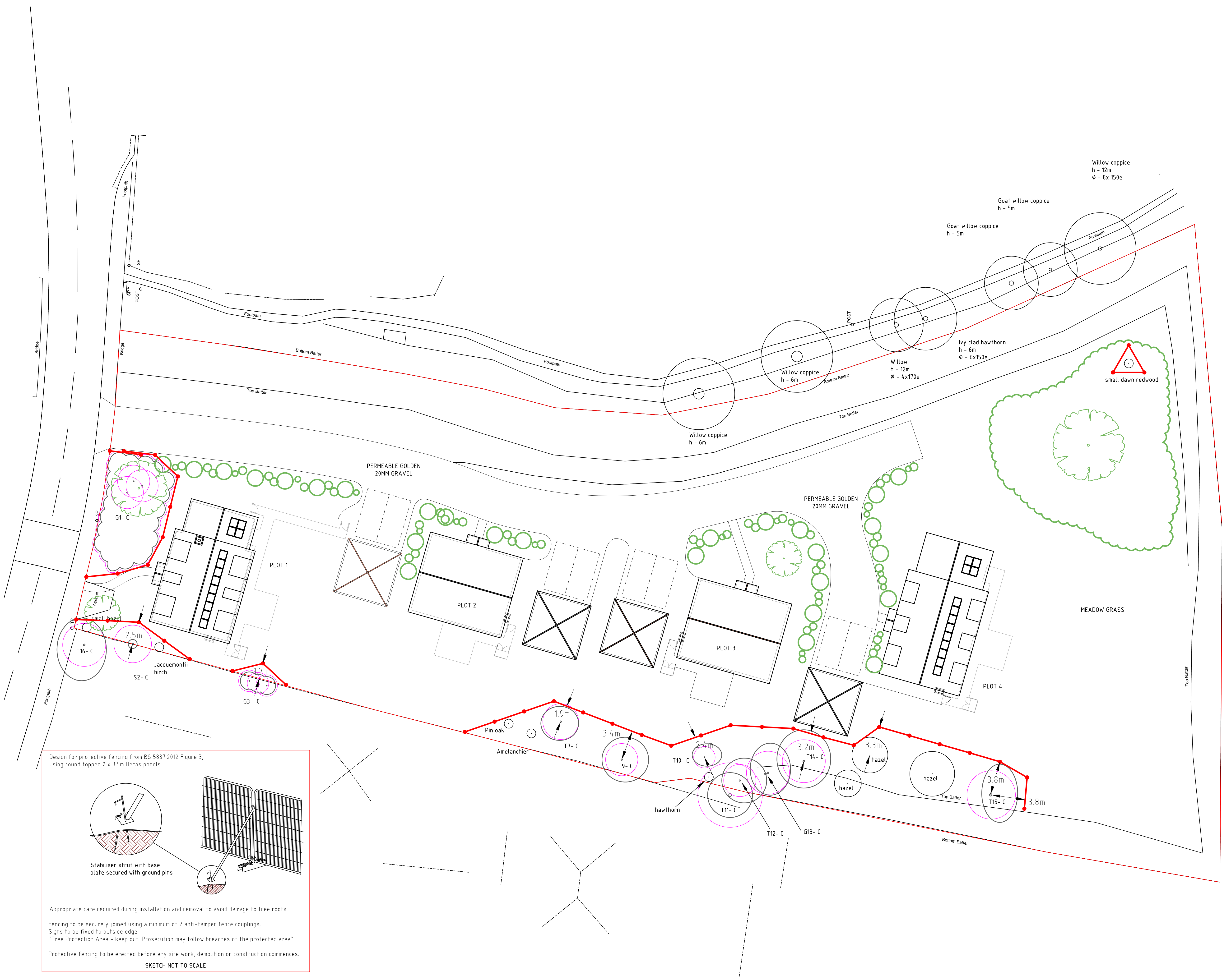
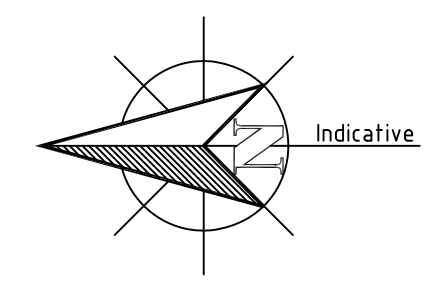
Date: May 2018	Drawn by: RT
Drawing No: 18.05.11D2	Scale: 1:200 @ A1

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Appendix 2

Tree protection – 18.05.11 D3





Scale will depend on plot size/settings. To be read in conjunction with the tree survey schedule 18.05.11

**Category C**  
 Trees of low quality and value capable of making a contribution for at least 10 years. Trees with a stem diameter below 150mm. Unremarkable trees of very limited merit.

**Root Protection Area**  
 Area of ground that should remain undisturbed without arboricultural consultation.

**Un-surveyed tree**  
 Tree not included within the survey schedule  
 h = height in metres  
 Ø = diameter in mm

**Protective fencing**  
 Braced HERAS panels, 2m x 3.5m long  
 Arrows show distance in metres.

Rev.	Date	Description
		Tree protection

Client: Reg Holmes

Project: Land off Beccles Road, Loddon

Date: May 2018	Drawn by: RT
Drawing No: 18.05.11.D3	Scale: 1:200 @ A1

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Design for protective fencing from BS 5837:2012 Figure 3, using round topped 2 x 3.5m Heras panels.

Stabiliser strut with base plate secured with ground pins

Appropriate care required during installation and removal to avoid damage to tree roots

Fencing to be securely joined using a minimum of 2 anti-lamper fence couplings.  
 Signs to be fixed to outside edge.  
 "Tree Protection Area - keep out. Prosecution may follow breaches of the protected area"

Protective fencing to be erected before any site work, demolition or construction commences.

SKETCH NOT TO SCALE