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ASSOCIATES

ARBORICULTURAL IMPACT ASSESSMENT REPORT
BS 5837:2012 'Trees in relation to design, demolition and construction. Recommendations'

report

SITE

Land North of Cornells Lane,
Widdington
CB11 3SP

CLIENT

Mr and Mrs M Tee

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DATE: 25 June 2021
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Executive summary

This report is submitted in connection with a planning application by Mr and Mrs M Tee for the construction of 4 dwellings and associated works on land to the north of Cornells Lane, Widdington. I have provided all information in accordance with the British Standard (BS 5837: 2012 '*Trees in relation to demolition, design and construction – recommendations*' (referred to as BS). This revision relates to the tree removal for the site splays.

The extreme western end of the site boundary lies in the Widdington Conservation area. No trees are protected by a Tree Preservation Order and the hedgerows do not qualify as being important under the Hedgerow Regulations 1997.

There are no requirements to remove, or prune trees due to the proposal except for a group of patchy elm, blackthorn and elder scrub (c.6m high) for the proposed access. The only other removals recommended are for safety reasons. A low quality hedge adjacent to the eastern boundary (SHA H1) will need to be cut back to provide clearance for the footpath.

Trees to be retained will be protected during works, and arboricultural methods statements will be used where indicated in this report. Site supervision will take place at key stages.

Development provides an opportunity to bring the tree and hedge population into active management and to enrich the planting of the site by introducing additional native trees and shrubs and thickening the boundary planting. The new planting proposed, and the retention of the majority of boundary trees provides a significant uplift on tree numbers, diversity of species and provide canopy cover on an area of currently open ground. The new planting on the roadside in particular will enhance the '*green tunnel effect*' which is has '*an important aesthetic significance*' as cited from the planning inspectors report on the previous appeal.

This scheme will have a positive arboricultural impact.

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1. Introduction:

- 1.1. This report accompanies a planning application made by Mr and Mrs M Tee to Uttlesford District Council for the erection of 4 dwellings and associated works on land to the north of Cornells Lane, Widdington at Land North of Cornells Lane, Widdington.
- 1.2. This report details tree condition, the impact of the proposal on, and from, the existing trees and the measures taken to protect trees to be retained. It also includes tree surgery recommendations.
- 1.3. The survey has resulted in a layout as shown in the tree protection plan at Appendix 3. Where technical terms are used, the words are in grey and explanations are found in the glossary.

2. Statement of instructions and the issues addressed:

- 2.1. I was instructed by Mr and Mrs M Tee to:-
 - 2.1.1. Carry out a tree survey in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS);
 - 2.1.2. Analyse the proposals and the impact on trees to be retained;
 - 2.1.3. Produce a tree protection plan, showing the location of the tree protection fencing in accordance with the BS and a specification for the protection of the existing trees;
 - 2.1.4. Provide a tree surgery schedule which includes work to facilitate construction, based on the layout of, and works to, trees due to their condition or previous management;
 - 2.1.5. Provide arboricultural method statements in as much detail as is practical at this stage.
- 2.2. The issues addressed are tree condition, and how the proposal impacts on the tree population and vice versa. I discuss briefly landscape opportunities, although these are for the landscape architect to develop. Tree locations are indicated on the plan SHA 1244 TPP B at appendix 3.

3. The site:

- 3.1. *Location:* The site is located north of Cornells Lane, Widdington which forms its southern boundary. The eastern boundary of the “application site” has no physical boundary because it is set in from the paddock’s eastern vegetated boundary. A footpath route lies adjacent to the eastern boundary which has recently been provided with close board fencing.
- 3.2. *Size and character:* The site is approximately 0.48 ha. There is a bank of varying height on the southern boundary with Cornells Lane which steadily rises eastwards. Where the new access is proposed the bank is at a lowest point
- 3.3. The site is laid to rough grass and bordered by a line of trees and scrub on the southern boundary. A fence with open aspect to additional land attached to a residential garden lies near to but beyond (by 5-6m) the main body of the application site’s western boundary.
- 3.4. A hedgerow with occasional trees is located near to but several metres beyond the application site’s eastern boundary. This hedgerow is unmaintained except for being recently cut back to enable provision of a footpath corridor. The corridor is separated from the application site area by a new close board fence circa 1.8m high plus a maintenance strip.
- 3.5. *Site soils:* An assessment of soils on-site was carried out by a desktop analysis using the National Soil Resources Institute website which identified the soils as likely to be ‘*slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils*’. This is a guide only and detailed on-site soil analysis should be undertaken by the project engineer to inform the foundation design. There has been an intrusive survey borehole of the overall paddock, which the application site forms part of. This revealed deep lying clay.

4. The trees:

- 4.1. *Generally:* There are 21 trees, 5 groups and 1 hedge which form the subject of this survey. The predominant species include field maple, hawthorn, hazel, ash, elm and sycamore. Full details are found in the survey sheets at appendix 1 and their location on the tree survey plan *SHA 1244 TSP* at appendix 2.

4.2. *Legislation:* The trees are not protected by a tree preservation order, and the site (except the very western end of the existing entrance) is not within a Conservation Area. Further details are found at appendix 7.

4.3. *Retention Category from BS 5837:2012*

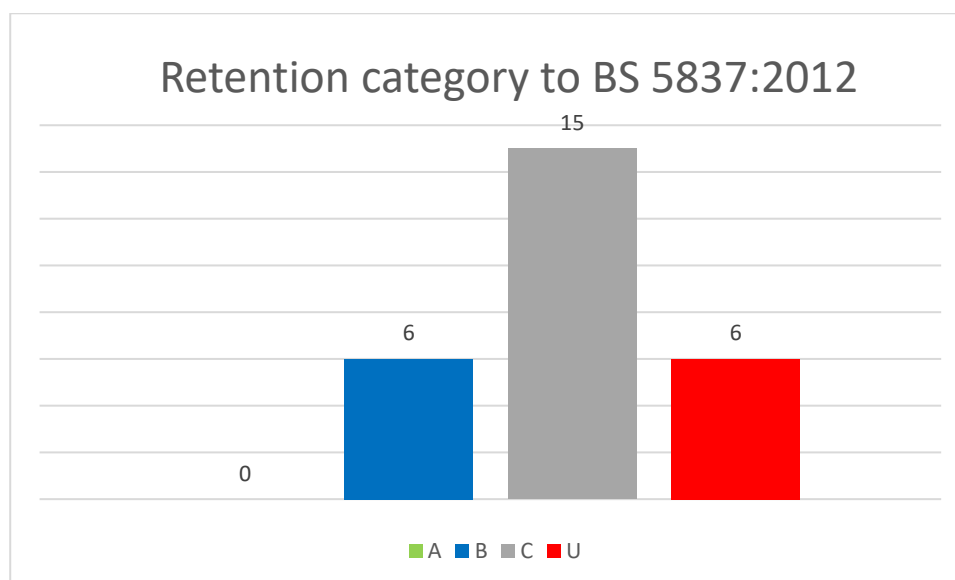


Table 1 – Retention category

A – high quality

B – moderate quality

C – low quality

U – unsuitable for retention

5. The Proposal

5.1. For the construction of 4 new dwellings and associated works on land to the north of Cornells Lane, Widdington.

6. Arboricultural impact assessment:

6.1. *Summary of the impact on trees:* Development can adversely impact on trees by causing them to be removed to facilitate the development, or in the future, by adversely affecting their potential for retention through disturbance in root protection areas (RPAs) or through post development pressure to prune or remove.

- 6.2. Tree roots can be asphyxiated and die if the rooting zone becomes compacted and soil structure damaged which can easily occur, particularly on clay soils, even with the passage of light vehicles. At the design stage, disturbance within the RPA should be avoided. If unavoidable (which may need demonstrating), consideration must be given to any construction activity such as demolition, including removal of existing hard surfaces, changing soil levels and the provision of services where within RPAs, as well as new surfaces and structures.
- 6.3. Construction of hard surfaces and other construction may be acceptable within RPAs providing specialist methods of design and construction are used. This can result in the use of minimal or no-dig methods which result in higher finished levels which must be allowed for during design due to the effect on access thresholds and structure heights etc. The ability of trees to tolerate some disturbance depends on individual circumstances including prevailing site conditions, tree species, age and condition which will be assessed by the Arboriculturist.

Comments on specific trees and the arboricultural impact

6.3.1.H1 hawthorn, blackthorn, T2 – T6 field maple, T7 ash, T8 field maple and T9 sycamore.

The hedge is unmanaged and the woody species is almost entirely hawthorn, with some patches of blackthorn which lean in towards the site. Parts of the hedge have dense bramble and ivy. The hedge has varying heights and widths, and parts are denser than others. Management will prolong the safe useful life expectancy and improve the appearance of the hedge. Subsequent to the survey, I understand that some cutting back of the hedgerow has occurred to enable creation of a footpath corridor.



Photo 1 of the boundary hedge H29 and H30 February 2018



*Photo 2 of the hedge in the paddock adjacent to the eastern boundary looking south in
September 2020*



Photo 3 of T2 and T3 field maple February 2020



Photo 4 of T2 and T3 looking east in September 2020

T2 field maple is in reasonable form and condition, although rather suppressed by the multi stemmed veteran field maple T3, which has grown in crown diameter considerably since 2018. The tree forms a dense screen between the site and open countryside to the east and there is scope to crown lift the canopy to ease use of the footpath. T5 field maple has a cavity at the base and there is a risk of shear failure at the top of the cavity, although it is sheltered by adjacent trees protecting it from windthrow. Its removal is recommended for safety reasons.



Photo 5 of the cavity at the base of T5



Photo 6 of trees in the south-eastern corner. The ash with fungus (T7) is shown arrowed. February 2018



Photo 7 of the ash tree T7 looking east. September 2020

The large ash T7 is in decline with a marked loss of vitality. Dead wood removal, ivy severance and re-inspection is recommended.

The trees on the bank (which is steeper on the eastern end than the western end) have collective landscape value, but individuals are of mixed quality. The elms should be removed for safety reasons due to Dutch Elm Disease. The trees are growing too close together resulting in poor stem taper and asymmetric crowns, weighted over the road. Many of the stems are clothed in ivy and the steep bank made a full inspection difficult due to the topography. The tree crowns have grown towards the northern side since the original survey. A sycamore (T17) has declined to such an extent it has been re-categorised as U under the BS (unsuitable for retention). There are two spindly dead sycamores shown on the plan which should be removed, but no other significant changes. Two ash trees in G19 have lax over extended crowns over the site and have a slightly reduced vitality. The trees have a high collective landscape value in keeping with the rural character of this part of Widdington.



Photo 8 of trees on the southern boundary. February 2018. There will be new planting within the gaps with native species



Photo 9 of the eastern part of the southern boundary, looking west. September 2020.



Photo 10 of the southern boundary looking west



Photo 11 of a cavity on T22 that could lead to the arrowed stem above failing. The tree surgery schedule at appendix 4 recommends the removal of this stem.

Photo 11 of the southern boundary looking west



Photo 12 of T17 sycamore with conspicuous dead wood and in terminal decline and will be removed for safety reasons and replaced. September 2020

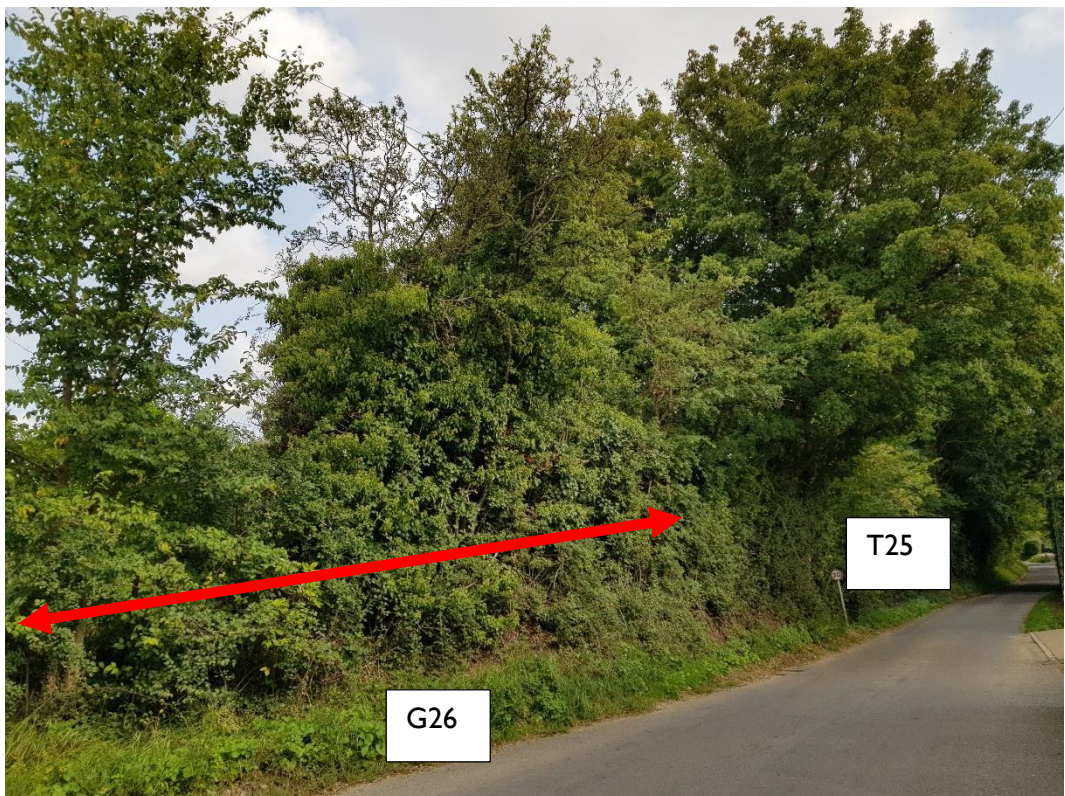
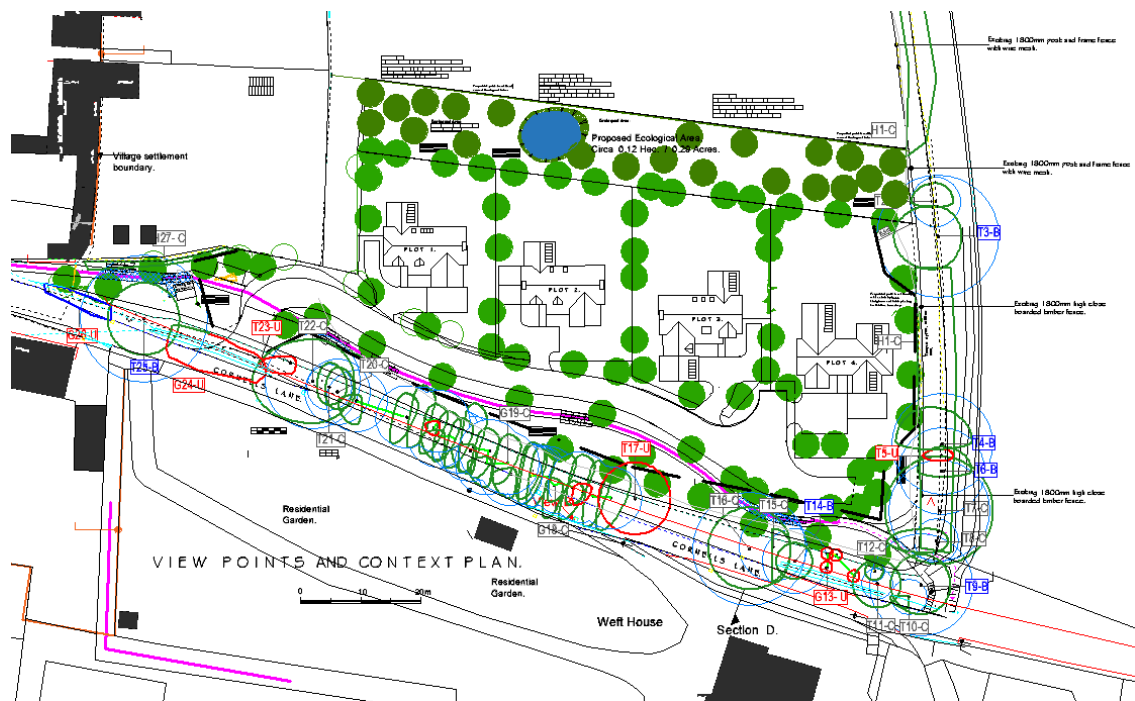


Photo 13 of the low quality scrubby elm and hawthorn G26. T25 field maple is in a good condition and. September 2020.

Arboricultural impact assessment:



Plan 4 – extract from SHA 1244 TPPB. Do not scale. North is vertical

Fell the following trees for safety reasons/landscape improvements:

- G13 (U), T17 (U), 1 dead tree in G18, 1 dead tree in G19, T23 (U) and 9.95m of G24 (U).
The weaker specimens will be removed in G26 (U) and infill planting of native hedgerow species will take place in gaps. The hedgerow plants to be removed in G26 will be marked up the arboricultural consultant with spray paint after some of the ivy has been removed. Any trees on the public highway are subject to consent from the highway authority
- Other minor works recommended for safety reasons and for site splay
- Protect the remainder of the trees with tree protection fencing, and the new footpath through the root protection area of T16 will be constructed in accordance with the method statement at appendix 6.

The access from Cornells Lane

The proposed access is through G24 elm, blackthorn and elder (U), and close to T23 hawthorn (U), most of which will be removed, plus opportunities taken to review improvements to the remaining section i.e., with replacement species. This is low quality, as seen in photos 14, 15 and 16. The closest side of the bellmouth kerb to the trunk of T22 is 6.5m which is on the outer edge of its root protection area.



Photo 14 of the access shown along G24. Looking south-east along Cornells Lane showing wider landscape context. Photo February 2018



Photo 15 of G24 showing extent of bellmouth entrance. Photo February 2018. This a patchy group of elm, blackthorn and elder with dense bramble.

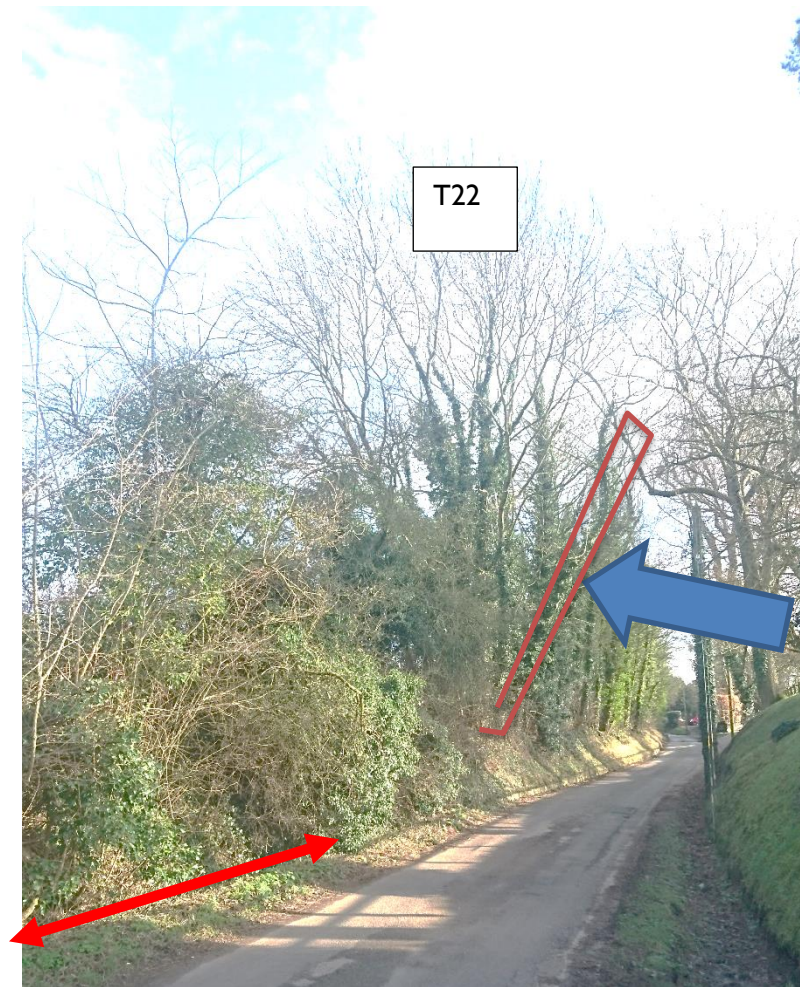
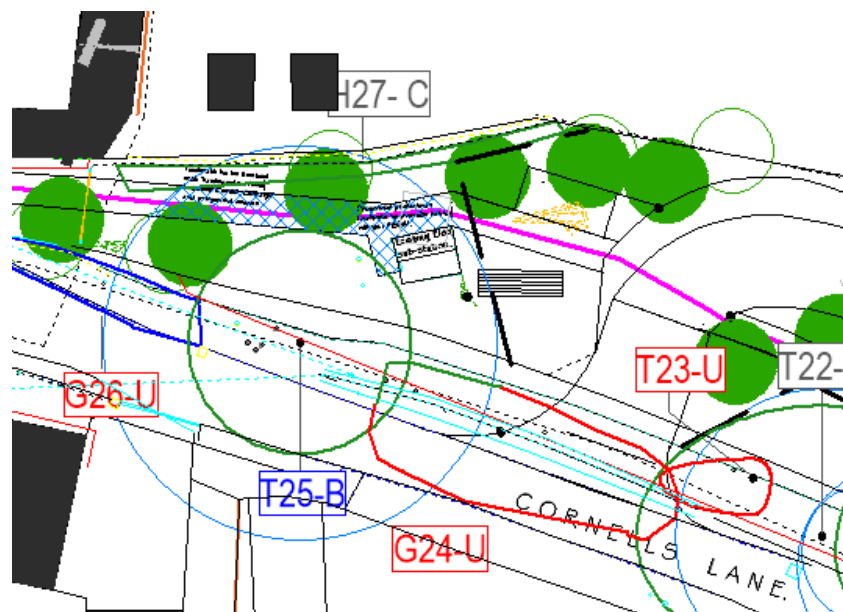


Photo 16 of G24 showing extent of bellmouth entrance. T22 ash shown in background.

Photo February 2018 Stem to be removed shown by the arrow and red outline



Plan 5 – extract from SHA 1244 TPPB. Do not scale. North is vertical

The site line is close to T22 and this will require minor pruning. The excavation of the bank will take place under arboricultural supervision to minimise impact on the tree. The extent of earthworks is potentially sensitive and the fact that the earthworks will be restricted will be made clear to the contractor and highway engineer by the arboriculturist. Both this tree, and T25, will be crown lifted to 5m to ensure site visibility. As a result of this, one of the coppice stems of T22 which leans heavily over the road will be cut back to the coppice stool. This is shown arrowed on photo 16. Its removal will have a negligible visual and physiological impact as the tree is a lapsed coppice multi stemmed tree historically cut periodically for use of timber.

7. **Conclusions:**

7.1. *The eastern aspect:* The hedgerow forms a strong landscape feature which continues north beyond the application boundary. The hedge would benefit from pruning to reduce the height and width slightly, and to control the amount of ivy and bramble. Individual boundary trees will be retained and protected during works. The largest tree, ash T7, has a decay fungus and large dead branches. At the time of writing the intention is to retain this tree, however a full assessment is required to see if it is safe to be retained. At the very least, the dead branches must be removed over the footpath (although I understand that some works may have been carried out). The buildings are clear of the root protection area and crown spreads of the trees and there will be no adverse impact from this proposal.

7.2. *The southern aspect:* The roadside bank contains an unmanaged group of tall, slender sycamores, groups of elm (in varying stages of Dutch Elm Disease) and occasional ash and field maple. The trees have collective landscape value, but many are individually of low quality due to over-crowding which has led to the trees being tall, slender and with unbalanced crowns weighted over the road. Tree removals are recommended on this boundary only for safety reasons. There is scope for new planting to replace the dead trees on the south-western corner of the site. There is no issue of the trees potentially shading the proposed dwellings as they are set back considerably from the road (at least 20m).

7.3. *The access:* The proposed access is within the lowest quality section of scrub along of boundary, and earthworks either side of the bellmouth will be severely restricted and carried out under arboricultural supervision to ensure the safe retention of T22 and T25. This is also along the lowest part of the bank along the lane. This is minor incursion and there will be no loss of the leafy character of the road.

7.4. The scheme provides an opportunity to enrich the species composition of the site which currently has a limited species palette. This will be addressed by the Landscape Architect at the post-planning stage, but the principle is to use native species of shrubs and trees on the boundaries, and to have a wide planting mix (within a suitable species list) to ensure against host specific pests and diseases affecting a species which is dominant in the site. The ash trees may succumb to Chalara ash dieback. Planting boundary hedges and trees on the western boundary will create ecological connectivity, as well as provide a landscape feature, and eventual screen. Infilling existing gaps, and the gaps created by removing low quality/dangerous trees, is an opportunity to boost the resilience in the landscape and robust boundary screening. This current application provides a high tree population of native species along the southern boundary, within gardens, along the drive and the northern ecological area. This is a significant uplift on the current situation in terms of tree numbers and species. The intention is to provide additional planting for biodiversity net gain.

7.5. Trees to be retained will be protected by tree protection fencing and by the application of arboricultural method statements. Site supervision will take place at key stages to ensure that there is a good understanding of tree protection on site and to oversee areas where method statements apply.

7.6. Development provides an opportunity to bring the trees and hedges into active management and to increase tree and hedge numbers and species. **This scheme will have a positive arboricultural impact.**

8. Recommendations:

8.1. That a copy of this report, and subsequent more detailed arboricultural method statement, is kept on site, including A3 colour copies of the tree protection plan. The arboricultural documents will be part of site induction by the main contractor to all sub-contractors.

8.2. That the arboricultural method statements are developed further and are observed by all site personnel and supervised at key stages by the project arboricultural consultant. Short supervision reports are to be written after each inspection as a record of compliance and audit trail to the Local Authority.

8.3. That the foundation design takes into account trees to be retained, trees to be removed and trees to be planted.

- 8.4. That there are no ground level changes with the area shown on the plan by tree protection fencing.
- 8.5. That the line of the underground services should be ideally located outside of Root Protection Areas. However, as a precaution the final service plan should be assessed by an arboriculturalist. If it is unavoidable that services are to be located in RPAs, then a method statement must be produced.
- 8.6. That the landscaping scheme includes a mix of native trees from a cross section of species to ensure biosecurity against host specific pests and diseases. The trees must be planted and maintained in accordance with BS 8545:2014 *Trees: from nursery to independence in the landscape – Recommendations*.
- 8.7. That no tree works take place until consent is granted except for tree work recommended for safety reasons.
- 8.8. That the tree protection fencing is installed before machinery enters the site and remains in place until the soft landscaping stage.
- 8.9. That the excavation of the bank either side of the site splay will be carried out under arboricultural supervision to ensure that trees to be retained are not harmed.
- 8.10. That the installation of the pathway within the root protection areas of trees to be retained is carried out under arboricultural supervision.
- 8.11. That the locations of the exploratory intrusive investigation for contamination are assessed by the arboricultural consultant and that the ground remediation methodology near trees is discussed with the arboricultural consultant.
- 8.12. That the drainage strategy detailing on and/or offsite drainage works, including SUDS, is reviewed by the arboricultural consultant to ensure minimum impact on trees to be retained and is mindful of new trees to be planted.

8.13. That, irrespective of the application, the landowner is made aware of the potentially hazardous condition of the large ash tree near the footpath (T7) as the tree has a decay fungi and large dead branches. I recommend an investigation using internal decay detection equipment to see if the fungus is causing loss of strength. If the tree is unsafe, it should be felled. If the fungus has caused little loss of strength, then the dead branches should be removed and a full climbing inspection carried out, and the tree annually monitored. I also recommend that T5, and a hazardous stem from T22, be removed for safety reasons irrespective of the application.

8.14. That, irrespective of the application, the dead elm trees are removed where they are adjacent to the public footpath and road.

Sharon Durdant-Hollamby FICFor FARborA BSc (Hons) Tech. Cert. (Arbor A)

Director

Sharon Hosegood Associates Ltd

Appendix 1

Tree survey sheets

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
H1	Crataegus monogyna (Hawthorn) Blackthorn (Prunus spinosa)	M	350	1	5(0)	11	2	2	2	2.5	Fair	20+	C2	4.2	55.42	Part of linear group. Ivy on tree. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Crown distorted due to group pressure. Informal rural unmanaged hedgerow comprising individual hawthorn with ivy. Varying amounts of brambles. Blackthorn is sprawling west. Some dead wood. Arching hawthorn crowns above narrower base. Good screen.	Manage bramble, the extent of blackthorn into the site and remove dead and defective stems.
T2	Acer campestre (Field Maple)	EM	346	3	7(0)	15	3	3	1	4	Good	20+	C2	4.15	54.11	Coppice. Ivy on tree. Unable to inspect stem due to undergrowth. Suckers around stem base. Multiple stems at ground level. Unbalanced crown shape. Crown distorted due to group pressure. Scrubby squat form. Subservient to the adjacent tree. No change since original survey.	

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T3	Acer campestre (Field Maple)	V	851	7	15(0)	17	5	5	6	7	Good	40+	B3	10.21	327.53	Coppice. Unable to inspect stem due to undergrowth. Cavity on stem. Suckers around stem base. Multiple stems at ground level. Major deadwood in crown. This is an old field boundary coppiced tree of character. Lowest branches sweep down to the ground. Skyline feature when looking east. A few rubbing and fused branches. Important tree. No significant change since original survey in 2018, except the crown has grown and the tree continues to have a good vitality.	
T4	Acer campestre (Field Maple)	M	700	4	18(2)	18	6	5	1	7	Good	40+	B2	8.4	221.7	Ivy on tree. Unable to inspect stem due to undergrowth. Multiple stems below 1.5m. Major deadwood in crown. Unbalanced crown shape. Crown distorted due to group pressure. Possibly coppiced when young. Skyline feature. Suckers around base. Grown considerably since 2018.	Sever Ivy. Remove Ivy. Inspect stem/basal area.

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T5	Acer campestre (Field Maple)	M	350	1	18(1)	8	1	2	1	3	Fair	<10	U	4.2	55.42	Spindly. Leaning West. Ivy on tree. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Cavity on stem. Unbalanced crown shape. Crown distorted due to group pressure. Major basal cavity accross one quarter of trunk and deep. Risk of shear failure at the top of the cavity.	Remove tree and root.
T6	Acer campestre (Field Maple)	M	600	1	18(2)	18	4	5	1	5	Good	40+	B2	7.2	162.88	Ivy on tree. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Major deadwood in crown. Unbalanced crown shape. Crown distorted due to group pressure. Skyline feature.	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T7	Fraxinus excelsior (Ash)	M	700	1	21(2)	22	9	9	9	9	Fair	10+	C2	8.4	221.7	Ivy on tree. Unable to inspect stem due to ivy. Unable to inspect stem due to undergrowth. Fungal brackets visible on stem. Broken branches in crown. Major deadwood in crown. This is a prominent tree with a large spreading crown. Dense ivy clothes the trunk and the scaffold limbs. Inonotus hispidus bracket on the ground. Old stubs. Some branches have linear wounds. Likely to be decaying due to fungus. In notable decline since 2018 survey with only 50% vitality and retrenchment.	Carry out further inspection. Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further inspection. Remove dead wood.
T8	Acer campestre (Field Maple)	EM	308	3	10(2)	15	2	2	2	5	Good	40+	C2	3.7	43.01	Ivy on tree. Unable to inspect stem due to undergrowth. Multiple stems at ground level. Broken branches in crown. Major deadwood in crown. Unbalanced crown shape. Leans west.	

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T9	Acer pseudoplatanus (Sycamore)	M	714	9	18(2)	22	5	5	5	5	Good	20+	B2	8.57	230.76	Coppice. Ivy on tree. Unable to inspect stem due to Ivy. Multiple stems at ground level. Included bark present in fork. Prominent tree growing on the steep bank. Ivy clothes the scaffold limbs. Weak forks with included bark in two stems where they bifurcate.	Sever Ivy. Remove Ivy.
T10	Acer campestre (Field Maple)	EM	250	2	14(4)	18	0	0	2	3	Fair	20+	C2	3	28.28	Poor shape & form. Spindly. Leaning South. Ivy on tree. Unable to inspect stem due to Ivy. Stem divides at ground level. Unbalanced crown shape. Crown distorted due to group pressure. Growing at the bottom of a steep bank. Very dense ivy.	Sever Ivy. Remove Ivy. Inspect stem/basal area.
T11	Corylus avellana (Hazel)	M	224	5	7(1)	11	4	4	4	4	Fair	20+	C2	2.69	22.74	Coppice. Ivy on tree. Unable to inspect stem due to Ivy. Major deadwood in crown. Growing on a steep bank.	Remove stems and retain coppice stool.
T12	Crataegus monogyna (Hawthorn)	SM	141	2	7(2)	11	1.5	2	2	1.5	Fair	20+	C2	1.69	8.97	Spindly. Ivy on tree. Unable to inspect stem due to Ivy. Stem divides at ground level. Crown distorted due to group pressure.	

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
G13	Ulmus procera (English Elm)	SM	150	1	8(0)	8	1	1	1	1	Poor	<10	U	1.8	10.18	Dead. Poor shape & form. Low vitality. Declining. Spindly. Ivy on tree. Unable to inspect stem due to Ivy. Major deadwood in crown. In varying stages of Dutch Elm Disease. Average dimensions given	Remove tree and root.
T14	Acer pseudoplatanus (Sycamore)	M	450	3	18(6)	20	3	3	3	3	Good	20+	B2	5.4	91.62	Ivy on tree. Unable to inspect stem due to Ivy. Multiple stems at ground level. Included bark present in fork. Growing near the bottom of the bank. Two over extended slender branches over the road. Unable to fully assess the northern side of trunks due to steepness of slope.	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further Inspection.
T15	Acer pseudoplatanus (Sycamore)	M	469	3	18(1)	20	3	3	6	0	Poor	20+	C2	5.63	99.59	Ivy on tree. Unable to inspect stem due to Ivy. Multiple stems at ground level. Included bark present in fork. Dieback in crown. Low bud/leaf density. Growing near the top of the bank. Swamped with ivy.	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further Inspection. Alternatively coppice.

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T16	Acer pseudoplatanus (Sycamore)	M	783	5	18(2)	22	6.5	6	6	6	Good	20+	C2	9.4	277.63	Coppice. Ivy on tree. Unable to inspect stem due to Ivy. Multiple stems at ground level. Included bark present in fork. Prominent tree growing on the steep bank. Ivy clothes the scaffold limbs. Weak forks with included bark in two stems where they bifurcate.	Sever Ivy. Remove Ivy.
T17	Acer pseudoplatanus (Sycamore)	M	716	2	15(3)	20	6	6	6	6	Poor	<10	U	8.59	231.84	In terminal decline. Ivy on tree. Unable to inspect stem due to Ivy. Suckers around stem base. Dieback in crown with only 20% live crown remaining. Broken branches in crown. Prominent tree at the top of the bank. Diameter estimated.	Fell within 6 months

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
G18	Acer pseudoplatanus (Sycamore)	EM	433	3	18(6)	20	5.5	1	2	4	Fair	20+	C2	5.2	84.96	Poor shape & form. Part of linear group. Spindly. Ivy on tree. Unable to inspect stem due to ivy. Multiple stems at ground level. Unbalanced crown shape. Crown distorted due to group pressure. This group of trees hve collective merit in the landscape but are individually poor specimens. Very overcrowded group with slender trunks with poor stem taper. Aymetric crowns due to overcrowding. average dimensions and stem numbers given. Unable to fully assess the bases on the northern side of the trunks due to the steepness of the slope. One spindly dead tree.	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further inspection. Fell dead tree.

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
G19	Acer pseudoplatanus (Sycamores) plus 2 Fraxinus excelsior (ash)	EM	433	3	18(6)	20	4	1	4	3	Fair	20+	C2	5.2	84.96	Poor shape & form. Part of linear group. Spindly. Ivy on tree. Unable to inspect stem due to Ivy. Multiple stems at ground level. Unbalanced crown shape. Crown distorted due to group pressure. This group of trees hve collective merit in the landscape but are individually poor specimens. Very overcrowded group with slender trunks with poor stem taper. Aymetric crowns due to overcrowding. average dimensions and stem numbers given. Unable to fully assess the bases on the northern side of the trunks due to the steepness of the slope. One dead tree. One ash has a crown spread of 6m (see plan) with rather lax over extended whippy branches. Lower epicormics, but crowns higher on the road side (south) and generally are above the overhead wires. The western ash has a 70% vitality	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further inspection. Fell dead tree.
T20	Fraxinus excelsior (Ash)	M	461	2	20(16)	20	4	3	3	2	Poor	<10	C2	5.53	96.09	Poor shape & form. Low vitality. Declining. Spindly. Leaning North. Ivy on tree. Unable to inspect stem due to Ivy.	Remove tree and root.
T21	Fraxinus excelsior (Ash)	M	320	2	12(16)	20	4	3	3	2	Poor	<10	C2	3.84	46.33	Poor shape & form. Low vitality. Declining. Spindly. Leaning North. Ivy on tree. Unable to inspect stem due to Ivy.	Remove tree and root.

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T22	Fraxinus excelsior (Ash)	M	663	6	20(13)	20	9	7	7	10	Fair	20+	C2	7.96	199.08	Coppice. Ivy on tree. Unable to inspect stem due to Ivy. Dieback in crown. Broken branches in crown. Major deadwood in crown. Unable to fully examine due to the steepness of the slope. Cavity on eastern stem which leans north at 1m. This could lead to stem failure over the road.	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further Inspection. Remove major deadwood. Remove broken/damaged branches. Remove eastern stem on road side within 2 months.
T23	Crataegus monogyna (Hawthorn)	M	200	1	8(0)	11	1	1	2	5	Poor	<10	U	2.4	18.1	Poor shape & form. Leaning West. Ivy on tree. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Major deadwood in crown. Unbalanced crown shape. Crown distorted due to group pressure.	Remove tree and root.
G24	Ulmus procera (English Elm), Prunus spinosa (Blackthorn) Sambucus nigra (elder)	Y	100	1	6(0)	11	1.5	2	2	1.5	Poor	<10	U	1.2	4.52	Low vitality. Spindly. Unable to inspect stem due to undergrowth. Likely to become infected with Dutch Elm Disease. Occasionally blackthorn which is partially collapsing over the road.	Remove tree and root.
T25	Acer campestre (Field Maple)	M	885	2	12(5)	18	6	6	6	6	Good	40+	B2	10.62	354.37	Ivy on tree. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Prominent tree.	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further Inspection. Remove major deadwood. Prune to clear overhead wires.
G26	Ulmus procera (English Elm), Crataegus monogyna (Hawthorn)	Y	100	1	6(0)	11	1.5	2	2	1.5	Poor	<10	U	1.2	4.52	Low vitality. Spindly. Unable to inspect stem due to undergrowth. Likely to become infected with Dutch Elm Disease.	Remove tree and root.
H27	Ligustrum ovatifolium (privet)	M	100	1	2.5(0)	5	0.5	1	1	0.5	Good	10+	C2	1.2	4.52	Well maintained hedge growing offsite, close to the boundary. Provides a low level screen.	

Explanation of the tree survey sheets

The tree survey has been carried out in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Below is an annotation of the abbreviations in the sheet and their meanings.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations

1 Tree

T - Tree, **G** - Group of trees, **H** - Hedge and **S** -shrub mass

2 Species - Botanical name and (Common name)

3 Age

NP – Newly planted, **Y** – Young - an establishing tree that could be easily transplanted

SM - Semi-mature - an established tree still to reach its ultimate height and spread with considerable growth potential.

EM – Early mature – a tree reaching its ultimate height and whose growth is slowing, however it will still increase considerably in stem diameter and crown spread.

M – Mature – a tree with limited potential for further significant increase in size, although likely to have a considerable safe useful life expectancy

OM – Over-mature – a senescent or moribund tree with a limited safe useful life expectancy

V – Veteran – a tree older than typical for the species and of great ecological, cultural or aesthetic value.

4 Dia (mm)

Diameter of the stem in millimetres at 1.5m above ground level for single stemmed tree or in accordance with Annex C of BS 5837 for multi-stemmed trees or trees with low forks or irregular stems.

5 Stems

Number of stems. Multi-stemmed is m/s

6 Height (Crown height)

Height in metres from the ground to the top of the crown

(Crown height) – height of canopy above ground level

7 Ult ht (m)

Height in metres that could be reasonably expected for the species given its condition, past management and location.

8 NSEW

The crown spread from the trunk to the tips of the crown at the four cardinal points

9 Cond

Physiological condition. Good, fair, poor or dead

10 Life Exp

Estimated remaining contribution in years; <10, 10+, 20+ and 40+.

11 BS Cat

Category in accordance with Table 1 and section 4.5 of BS

U – unsuitable for retention. Existing condition is such that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. Note, category U trees can have existing or potential conservation value which might be desirable to preserve.

A – high quality and value (non-fiscal) with at least 40 years remaining life expectancy

B – moderate quality and value with at least 40 years remaining life expectancy

C – low quality and value with at least 10 years remaining life expectancy, or young trees with a stem diameter below 150mm

A, B and C category trees are additionally graded into: 1 – mainly arboricultural values, 2 – mainly landscape values and 3 – mainly cultural values including conservation

12 RPR (m)

RPR – Root protection area radius (m)

13 RPA – Root protection area (m²)

14 Comments

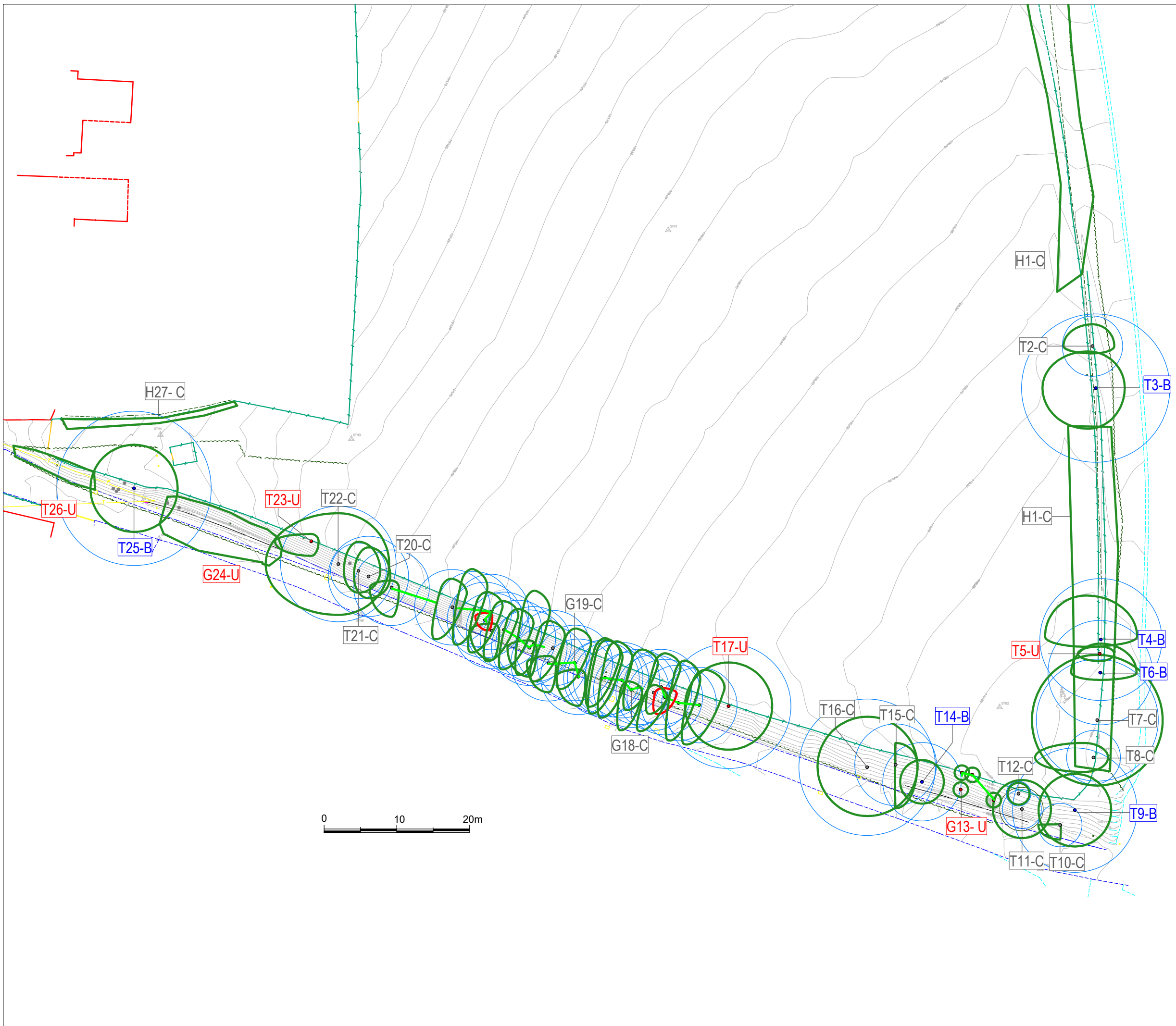
Detailed comments about the tree

15 Preliminary recommendations

Recommendations based on the tree's conditions and its current surroundings.

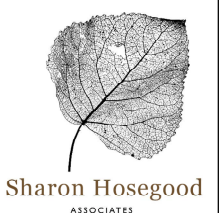
Appendix 2

Tree survey plan SHA 1244 TSP




- T1-B Category B - moderate quality and value
- T1-C Category C - low quality and value
- T1-U Category U - unsuitable for retention
- . Crown spread
- . RPA - root protection area as defined by Table 2 BS 5837:2012
- . Group
- . Group
- . Dead tree

- Notes**
1. Contractors to check all dimensions on site
 2. Discrepancies must be reported to the Arboricultural Consultant before proceeding
 3. The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
 4. It is the responsibility of the contractor to ensure necessary consents for tree works are in place
 5. This drawing is copyright © Sharon Hosegood Associates Ltd

Rev :	Description :	Authorized :
		Sharon Hosegood Associates
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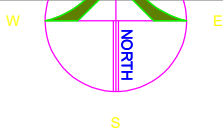
Client
The Clarke Smith Partnership

Site Address
Land North of Cornells Lane, Widdington

Drawing Title	Orientation	Drawn	Authorized
Tree Survey Plan		ND-H	SMD-H
Date	Drawing Number	Scale	Drawing Status
11.09.2020	SHA 1244 TSP 1:500@A3		For Issue
Revision			
-			

Appendix 3

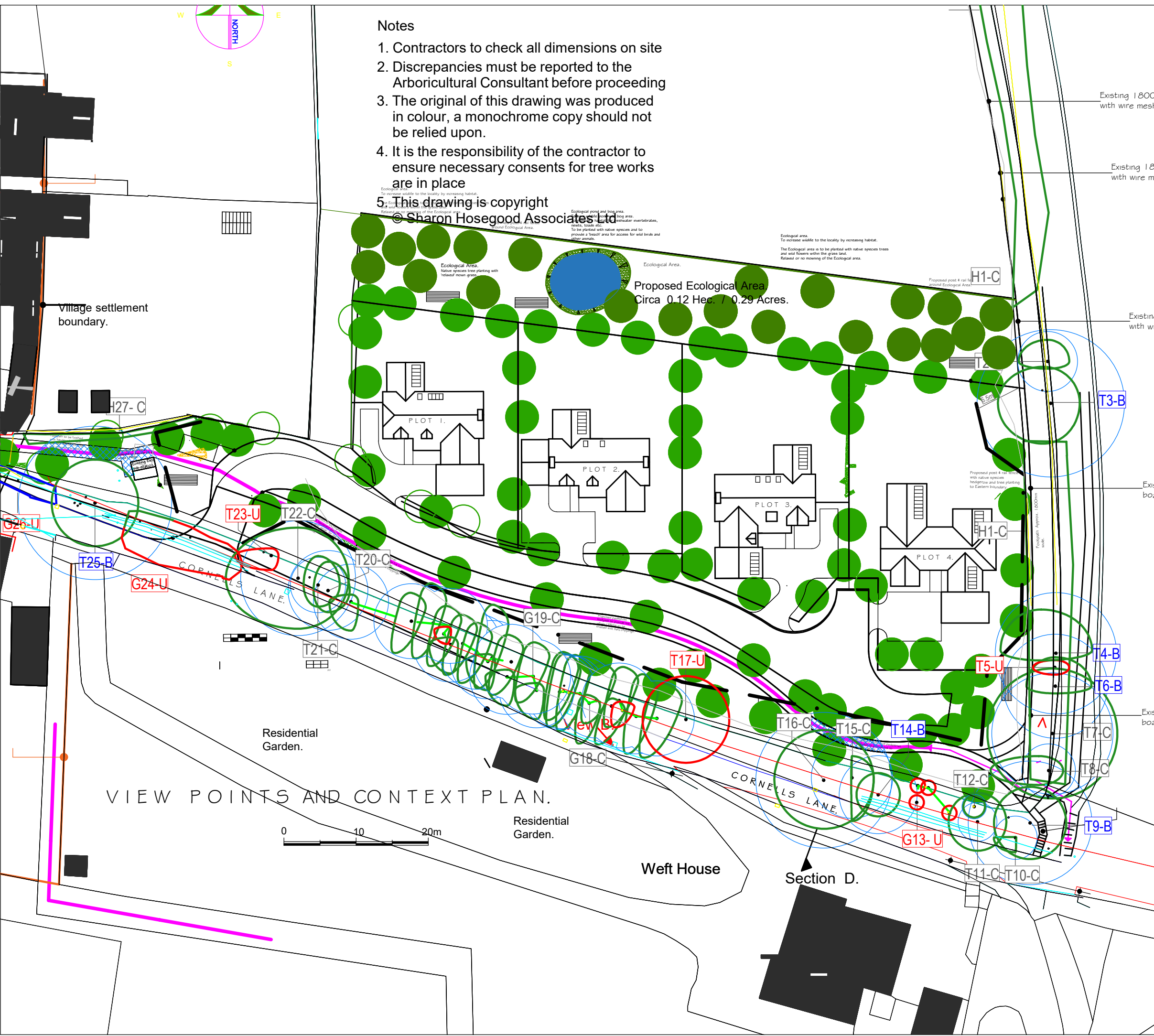
Tree protection plan SHA 1244 TPP B



Notes

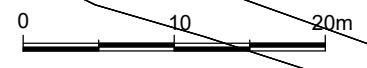
1. Contractors to check all dimensions on site
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4. It is the responsibility of the contractor to ensure necessary consents for tree works are in place

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- T1-B Category B - moderate quality and value
- T1-C Category C - low quality and value
- T1-U Category U - unsuitable for retention
- Trees to be retained
- RPA - root protection area as defined by Table 2 BS 5837:2012
- Group to be retained
- Group to be retained
- Tree to be removed due to poor condition
- Groups to be removed due to poor condition
- Tree protection fencing comprising braced Heras panels for construction phase
- Area for Arboricultural Method Statement for hard surfacing
- Selective removal/coppicing of the weaker specimens and infill planting.


VIEW POINTS AND CONTEXT PLAN.



Rev :B	Description : new layout	Authorized : SMD-H 25.6.21
Sharon Hosegood Associates		
		
Sharon Hosegood ASSOCIATES		t: 01245 210420 www.sharonhosegoodassociates.co.uk

Client
Mr and Mrs M Tee

Site Address
Land North of Cornells Lane, Widdington

Drawing Title	Orientation	Drawn	Authorized
Tree Protection Plan		ND-H	SMD-H
Date	Drawing Number	Scale	Drawing Status
11.09.2020	SHA 1244 TPP 1:500@A3		For Issue

Revision
B

Appendix 4

Tree surgery schedule

Tree surgery schedule

All works to be carried out in accordance with BS 3998:2010 'Tree works – Recommendations'. All pruning cuts to be made at suitable growing points in the line with the principles of 'Natural target pruning'. An ecological check is required by a competent person prior to tree works being carried. Works should not take place until planning permission is granted and all pre-commencement conditions are discharged.

Tree no.	Species	Proposed works	Reason
H1	Hawthorn	Shape by pruning by approximately 1m maximum to neaten. Control bramble and ivy.	To improve the structure of the hedge.
T2	Field Maple	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T3	Field Maple	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm Crown lift by removing secondary branches to achieve a 2.5m clearance on the western side	For safety reasons
T4	Field Maple	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons
T5	Field Maple	Fell to ground level and grind stump	Major basal cavity across one quarter of trunk and deep. Risk of shear failure at the top of the cavity. For safety reasons.
T6	Field Maple	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T7	Ash	Carry out further inspection. Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further Inspection using Arbortom, PICUS or Resistograph.	Major dead wood and dense ivy. Infected with the decay fungi <i>Inonotus hispidus</i> . For safety reasons.

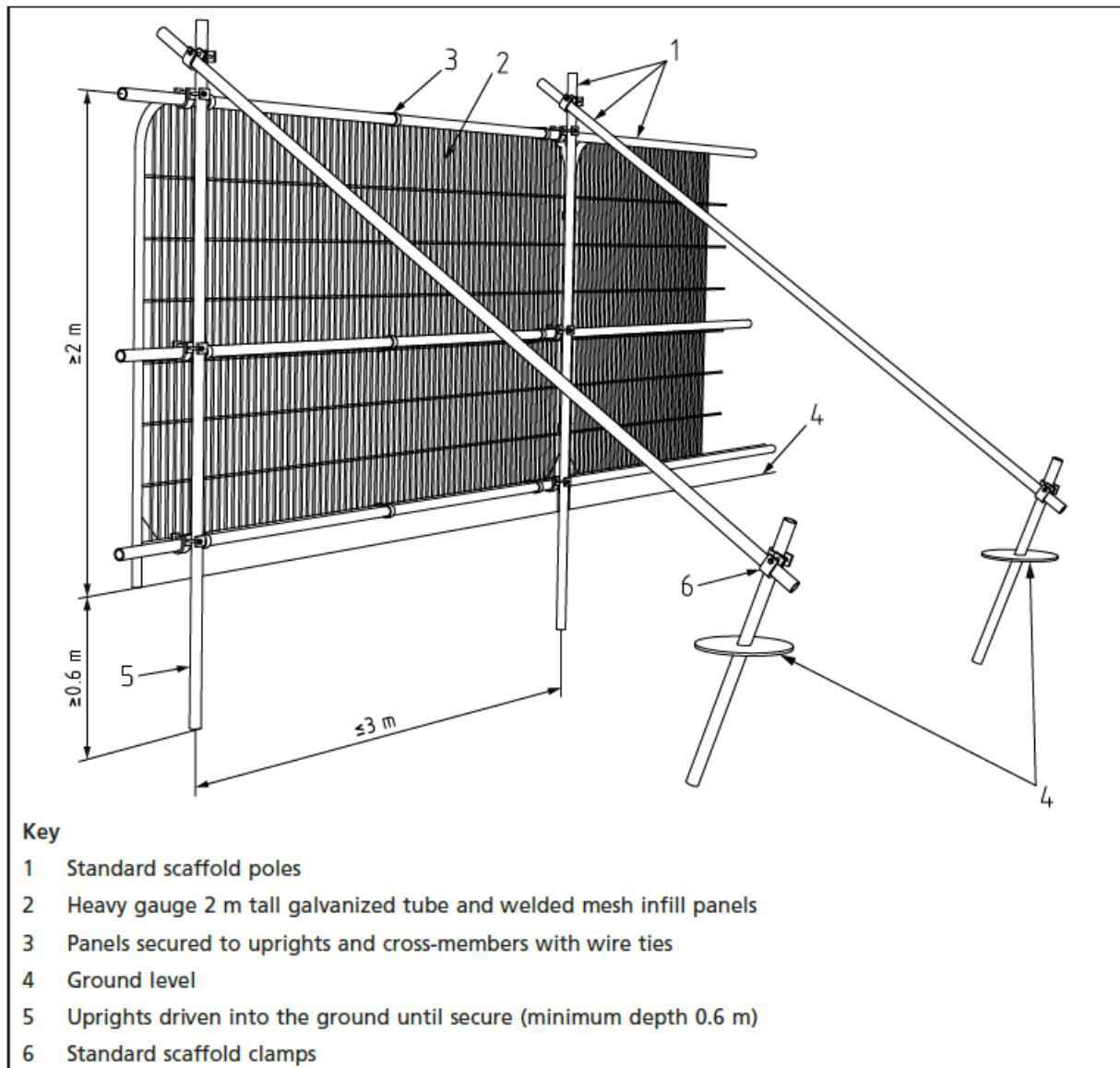
Tree no.	Species	Proposed works	Reason
T8	Field Maple	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T9	Sycamore	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T10	Field Maple	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T11	Hazel	Coppice	Good practice
T12	Hawthorn	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
G13	English Elm	Fell to ground level and grub out stump.	Dead and dying.
T14	Sycamore	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T15	Sycamore	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T16	Sycamore	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T17	Sycamore	Fell to ground level and grub out stump.	In terminal decline

Tree no.	Species	Proposed works	Reason
G18	Sycamore	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm Fell dead tree	For safety reasons.
G19	Sycamore	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm Fell dead tree	For safety reasons.
T20	Ash	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T21	Ash	Sever Ivy. Remove Ivy. Inspect stem/basal area. Remove dead wood with a diameter greater than 25mm	For safety reasons.
T22	Ash	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further Inspection. Remove major deadwood. Remove broken/damaged branches. Fell stem highlighted in photo 11 within 2 months. Remove stem over the road and ensure 5m clearance.	For safety reasons. For site splay reasons
T23	Hawthorn	Fell to ground level and grub out stump.	Low quality tree with poor shape and form. Opportunity to provide new planting.
G24	English Elm Blackthorn and elder	Fell to ground level and grub out stumps of most of the area, retaining some with opportunities taken to review improvements to the remaining section with replacement species	Low quality and or dead and dying trees.
T25	Field Maple	Sever Ivy. Remove Ivy. Inspect stem/basal area. Carry out further Inspection. Remove major deadwood. Prune to clear overhead wires Ensure 5m clearance of heigh over the road	For safety reasons. For site splay reasons
G26	English Elm, Hawthorn	Selective removal of weaker specimens which will be marked up with spray paint. Remove some of the ivy.	Dead and dying trees.

Appendix 5

Tree protection specification

Figure 2 Default specification for protective barrier



Tree protection fencing specification from BS 5837:2012 Figure 2

Section 6.2.2 of BS.

Barriers should be fit for purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.

The default specification is shown above at Figure 2. Care should be taken when locating the vertical poles to avoid underground services and structural roots.

The location for the tree protection fencing is shown on the tree protection plan delineated by a black dashed line. The location of the fencing is out the outer edge of the root protection area and the dimensions from fixed points are shown on the drawings. All weather signs should be affixed to the barriers, no more than 12m apart.

Suggested site warning sign format



Ground protection during demolition and construction

Where working space 'temporary access' is needed within the root protection area during works, fencing should be set back the minimum amount to achieve the required room. If there is existing hard surfacing in this area, it should remain during the works as ground protection. The suitability of this surfacing for ground protection, and whether it needs to be reinforced to bear the weight of machinery, should be assessed by an engineer and discussed with an arboriculturist.

Where the set back of the fencing exposes unmade ground, the ground must be protected before any works take place on site. This is to prevent root damage and soil compaction.

The ground protection might comprise of one of the following: (section 6.2.3.3 of BS)

- A) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;
- B) For pedestrian-operated plant up to a gross weight of 2 tonnes, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;
- C) For wheeled or tracked construction traffic exceeding 2 tonnes gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

The location for ground protection is shown on the tree protection plan by coloured hatching, identified in the key.

Appendix 6

Arboricultural method statement

Tree works:

Recommendations for tree works can be found in the tree surgery schedule in Appendix 5. All works shall be in accordance with BS 3998:2010 '*Tree work. Recommendations*'. The use of a competent and insured tree surgery contractor is necessary to comply with this. The main contractor and tree surgery contractor must ensure that any necessary consents have been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works. Within root protection areas, stumps, shrubs and other vegetation must be removed by hand or using stump grinding machinery to minimize root damage of retained trees. Where poisoning of stumps is specified, this must be carried out by competent operatives. Only chemicals approved for this purpose and used in accordance with the manufacturer's instructions will be used.

The following information must be sought:

- Current employers, public and product liability insurance
- Waste carriers' licence
- Qualification and experience of key personnel, including relevant NPTC certificates
- COSHH assessment
- Tool and task based risk assessment, including a Working at Height Risk Assessment
- Site specific risk assessment
- Emergency procedure plan
- Method Statement

A list of suitable tree surgeons is found at: <http://www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons>

Bio security measures are important and found at <https://www.forestry.gov.uk/biosecurity>

Fires: Fires on site should be avoided if possible. If unavoidable, they should be situated far enough so that there is no risk of damage to the trees, taking into consideration the wind direction.

Site and fuel storage, cement mixing and washing points: All site storage areas, cement mixing and washing points for equipment and vehicles and fuel storage areas should be outside root protection areas unless otherwise agreed with the Local Planning Authority. No discharge of potential contaminants should occur within 10m of a retained tree stem or where there is a risk of run off into Root Protection Areas.

Temporary buildings for site use: Site cabins, trailers and other temporary buildings can sometimes be used in root protection area if consent is agreed by the local planning authority. This can be very useful if there is a robust existing hard surfacing in place. The method for installing the buildings, and assessment of whether ground protection is needed is to be agreed with the Arboriculturist and specified prior to installation.

Installation of footpaths within the root protection area of trees to be retained. The area to which this applies is shown by blue cross hatched areas on the tree protection plan SHA 1244 TPP. The purpose of the method statement is to ensure that tree roots are retained and that they can function. Therefore, digging down, compacting the soil and creating an impermeable surface will be prevented. A method to spread and support the load of the hard surface and anticipated usage without causing compaction of the soil structure beneath will be used; a suitable method is a flexible cellular confinement system (further details available on request). The use of a geotextile membrane (such as Tree Tex T300) will help support the sub-base and be a partial filter (a last line of defense) for contaminants such as oil and road salt. This works by laterally diffusing the contaminants over a wider surface area so that the effect is minimized. The sub-base will be porous to enable gaseous exchange and water infiltration. A suitable material is washed angular stone with a diameter between 20 – 40mm with no fines. Aggregates or stones must have a near neutral PH. The surface material will be permeable paving. The exact specification of the hard surface is a matter for the engineer and architect, however the principles are as follows overleaf:

1. Mark the area that the method statement applies to with spray paint
2. Under **arboricultural supervision** skim off the grass using a spade cutting horizontally under the turf. Remove the turf from the root protection area. The depth of the excavation will be determined by the arboriculturist, and gentle scraping by a spade will continue until the shallowest root with a diameter greater than 25mm, or a matt of fine fibrous tree roots, are encountered.
3. Immediately after an even soil grading has been achieved, a geo textile membrane will be laid flat on the surface.
4. The sub-base will be laid to a depth and specification prescribed by the engineer/architect. The sub-base will be laid to a depth and specification prescribed by the engineer/architect. This could include a cellular confinement system
<http://www.geosyn.co.uk/product/cellweb-tree-root-protection>
5. A second geotextile layer to be laid to prevent mixing of materials

6. The no fines sand to be laid on top of the geotextile layer
7. Porous paving blocks (or similar) laid
8. The edge treatment within the areas hatched blue will comprise treated timber laid on end pegged every 500mm with a wooden peg on the outside. The top of the peg will be flush with the top of the board. A small amount of topsoil will grade down from the top of the board to the soil to prevent a trip hazard.
9. The path will need to be swept periodically to keep it free from dust and tree debris which would otherwise block the porosity of the parking spaces in time,

Points 1 – 4 would be carried out under arboricultural supervision.

New landscaping: Within the root protection areas of trees to be retained, the preparation of soil for planting and turfing will be carried out by hand. Cultivation will be kept to a minimum and new topsoil must not exceed 100mm in depth within 1m of the stem. Top soil and other materials will be transported by wheelbarrow on running boards when working near trees.

Arboricultural site supervision

An initial site meeting:

Before works have started, but after the tree surgery and tree protection measures are in place. At this meeting the site manager, contractor, arboricultural consultant should discuss methodology and the tree protection measures will be examined. A '*What you need to know about working near trees at Land North of Cornells Lane, Widdington*' sheet will be issued which includes contact details.

After each site supervision, a short report will be sent to the contractor, client and local authority as a record of compliance.

Appendix 7

Tree related legislation and policies affecting the site

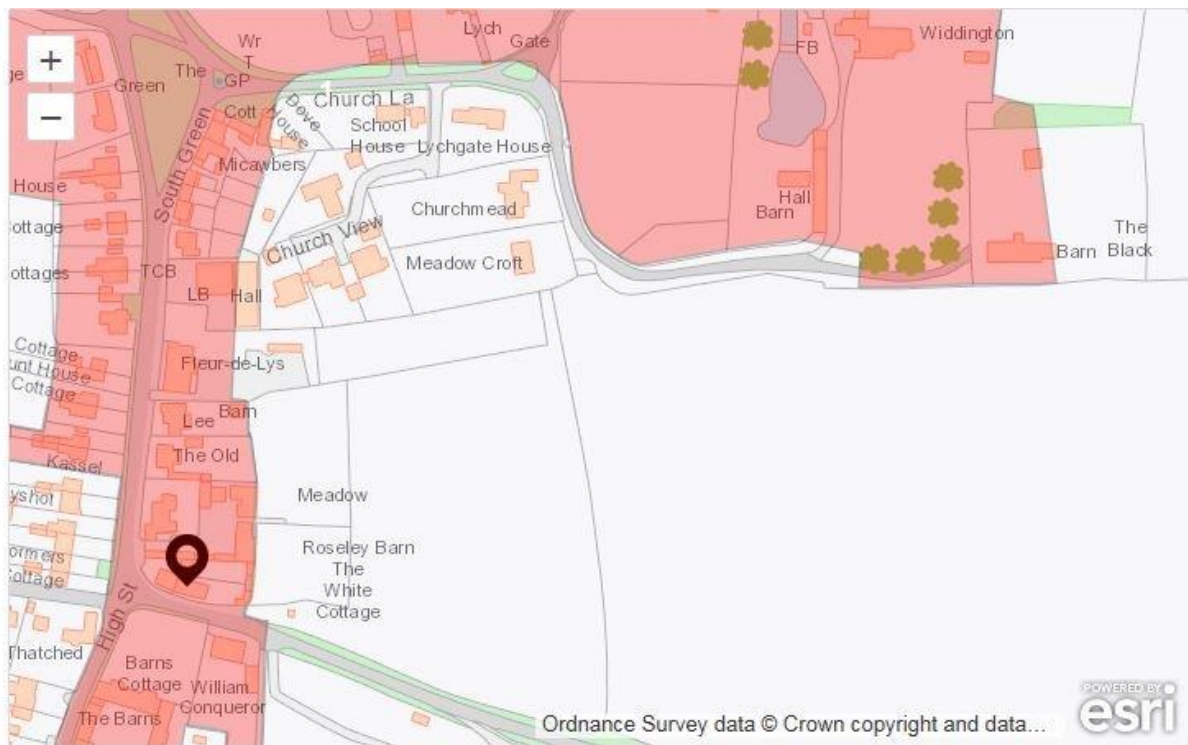
Tree preservation orders

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

There are no tree preservation orders affecting the site (checked on line with Uttlesford District Council mapping system). Checked again 11.09.2020.

Conservation Area

The site is outside the Conservation Area, apart from a very small section of the western side of the entrance. The location of the Conservation Area is shown as pink below.



Plan x – location of Conservation Area shown by pink colouring. Do not scale. North.



Ecological considerations

The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees.

The Preliminary Ecological Appraisal by SES dated March 2018. The report found that *'The majority of habitats within the site are considered to be of low ecological value due to the management regime of the grassland which dominates the site. Areas of ecological value are considered to be limited to the site hedgerows.'* Section 4.19 of the report. The hedgerows are likely to be of value to notable and legally protected species (e.g. foraging/commuting bats and nesting birds). No further surveys in relation to foraging and commuting bats are required. The report states that no trees have potential to support roosting bats. The site is considered to hold suitable nesting habitat, restricted to the hedgerow habitat, which is to be retained.

Hedgerow Regulations 1997

The hedgerows do not meet the criteria for an 'important hedgerow' under the Hedgerow Regulations 1997 due to lack of species diversity.

Occupiers Liability Act 1957 and 1984

The Occupiers Liability Act (1957 and 1984) places a duty of care to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore, this report includes recommendations within the tree tables for work required for safety reasons. 'Common sense risk management of tree (National Tree Safety Group 2012)' states that *'The owner of the land on which a tree stands, together with any party who has control over the tree's management, owes a duty of care at Common Law to all people who might be injured by the tree. The duty of care is to take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property'*.

Common law

This enables pruning back to the boundary line providing the work is reasonable. Other restrictions, such as tree preservation orders/conservation areas still apply.

The owner of a tree is not obliged to trim their trees or hedges to prevent them from crossing over a boundary. Whilst the tree owner is not obliged to cut back the branches, the person whose property is overhung has the right to cut back the branches to the boundary providing there are no planning or legal restrictions on the trees such as Tree Protection Orders or if they are located in a church yard, in which case suitable consent must be obtained. Such pruning works must be undertaken to a suitable standard and must not cause damage to the tree.

The resulting debris remains the property of the tree owner, but you must not cause any damage to their property when returning it back to them and you do not have the right to trespass on the tree owner's property in carrying out the works. In the interests of good neighbourly relations, we would encourage neighbours to discuss their intentions with each other before carrying out such works, providing the work is reasonable and that the trees are not subject to TPO or Conservation Area protection.

Felling licence

A felling licence is required to fell more than 5 cubic metres of timber in a calendar quarter.

Applications typically take 13 weeks to process and are administered by the Forestry Commission.

Exemptions include:

- Tree surgery other than felling
- Trees smaller than 8cm at 1.3m
- Trees growing in a garden, orchard, and churchyard or designated open space.
- Works to facilitate planning permission once all pre-commencement conditions are discharged
- Works to dangerous trees

The Uttlesford Local Plan Chapter 5: Environment, Built and Natural (ULP, 2005) remains relevant and includes:

Policy ENV3- Open Spaces and Trees

The loss of traditional open spaces, other visually important spaces, groups of trees and fine individual tree specimens through development proposals will not be permitted unless the need for the development outweighs their amenity value. Where the principle of development is acceptable it should avoid taking away features that are prominent elements and enhance the local environment, such as for example, healthy mature trees. However, as a specific example, it may not be possible to accommodate a residential development on a tight space without removing a clump of sycamore saplings or similar. This may be considered acceptable. Sometimes public facilities may be proposed on open space. Again, if a successful design can be achieved, a limited loss of open space may be permitted.

Policy ENV8 – Other Landscape Elements of Importance for Nature Conservation

Development that may adversely affect these landscape elements Hedgerows, Linear tree belts, Larger semi natural or ancient woodlands, Semi-natural grasslands, Green lanes and special verges, Orchards, Plantations, Ponds reservoirs, River corridors, Linear wetland features, Networks or patterns of other locally important habitats will only be permitted if the following criteria apply: a) The need for the development outweighs the need to retain the elements for their importance to wild fauna and flora; b) Mitigation measures are provided that would compensate for the harm and reinstate the nature conservation value of the locality. Appropriate management of these elements will be encouraged through the use of conditions and planning obligations.

Appendix 8

Statement of methodology and reference material

Statement of methodology

Review of architects plans

Site visit made by Sharon Hosegood on February 1st 2018 in cold weather with light snow flurries.

The site was revisited in September 2020

The tree survey was repeated and new photos taken. New plans were prepared.

Tree survey using *Visual Tree Assessment* carried out in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS). All investigations were from ground level only and binoculars were used when necessary. All trees with a trunk diameter of 75mm or above were surveyed. Obvious hedges and shrub masses were identified where appropriate. Information collected is in accordance with recommendations in subsection 4.4.2.5 of BS and include species, height, diameter, branch spread, crown clearance, age class, physiological condition, structural condition and remaining contribution. Each tree was then allocated one of four categories (U, A, B or C).

Received material

Widdington A1 Block Plan, Widdington A1 Legend of view points, Widdington M Tee file

Widdington A1 Floor Plans, Widdington A1 H&S Landscaping, Widdington A1 Landscaping

Widdington A4 Location Plan, landscape widdington comments from PC, Widdington A1 Block Plan

Widdington M Tee file, 202102317 406.05227.00006_Cornells_Lane_Widdington_AA,

Reviewed text

BSI. BS 3998:2010 *Tree work-Recommendations*.

BSI. BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*

R.G.Strouts and T.G.Winter 'Diagnosis of ill-health in trees' TSO 1994

Uttlesford District Council website

C. Mattheck 'The body language of trees' 2015

Appendix 9

Caveats & Exclusions

Specific report caveats

1. At the time of writing this report, the protected tree status is correct. However, this can change. Therefore, I advise that a further check is made with Uttlesford District Council before any works to trees take place.
2. No internal diagnostic equipment was used other than a sounding mallet and probe and all inspections were from ground level only, with the aid of binoculars where necessary.
3. The survey is concerned solely with arboricultural issues.
4. Any changes in ground level, or excavations near to tree roots not discussed within this report may change the stability and condition of the trees and a further examination would be required.
5. As trees are a dynamic living organism this report is only valid for a period of 12 months, in respect to their health and condition.
6. Only the trees listed in this report have been examined.
7. The measure of offsite trees has been estimated, except any crown within the site overhang which is measured. Where the crown of an onsite tree overhangs the boundary, the crown spread in this direction is also estimated.
8. The base and trunk of the offsite trees could not be examined, and therefore a full assessment of the trees condition could not be made.
9. Dense ivy and undergrowth prevent a full condition survey being carried out. The vegetation may be hiding structural defects. In addition, the steepness of the roadside bank and the icy and slippery conditions made it dangerous to scramble up the bank to look at all aspects of the bases of all trees. In any case, this is best done following severing the base of the ivy.
10. The tree information is from the time of the survey. Some pests, diseases and fungi only appear seasonally, therefore it is possible not all issues that may affect the health of the trees could be observed.

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Appendix 10

My experience and qualifications



Sharon Durdant-Hollamby

FICFor FArbor A BSc (Hons) Tech Cert Arbor A



Profile

Sharon is an Expert Witness, chartered arboriculturist and Director of Sharon Hosegood Associates Ltd. Sharon had eleven years' experience as a local government tree and landscape officer before joining DF Clark Contractors as a tree consultant in 2005. In 2007 she formed an environmental practice in Essex with the owner. As managing director, she built up the ecological and arboricultural consultancy to a team of 20. She is a regular presenter and an occasional trainer for Trevor Roberts Associates. She appeared on BBC1 in July 2015 and September 2015, in 'Britain Beneath Your Feet' demonstrating tree radar at the Burghley Country Park, Lincs, with Dallas Campbell, and latterly in the consumer programme 'Rip Off Britain', again with tree radar equipment. She is the President of the Institute of Chartered Foresters.

Specialties:	Trees in relation to development, including appeals and planning hearings
	Tree root investigations, including TreeRadar
	Tree hazard evaluation
	Tree preservation orders
	Trees and well-being with community engagement
Professional bodies:	Fellow of the Institute of Chartered Foresters (ICF)
	Vice President of the ICF
	Assessor for the ICF examination board
	Fellow of the Arboricultural Association
Qualifications:	Cardiff University Law School Bond Solon Civil Expert Certificate
	Arboricultural Associations Technicians Certificate
	BSc (Hons) Geography and Landscape Studies
	Managing Safely IOSH (2017)
Awards:	Top student award for the Technician's certificate in 2005
	The Broomfield Hospital Woodland Management project she has managed since 2009 has won the following awards:
	The Essex Biodiversity Awards (nomination)
	The Excellent Community Engagement Award (NHS Forest)
	Green Flag and Green Apple Award
	Highly commended for the Health Sector Journal Award 2013

Appendix 11

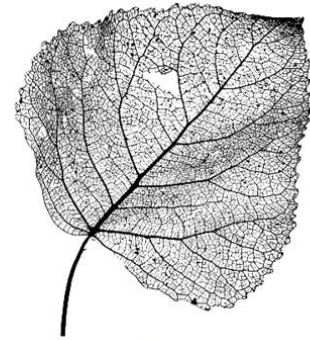
Glossary

Ancient hedgerow	Hedgerows which existed before the Enclosure Acts (1720-1840). These support a great variety of plants and animals, being species-rich with on average five or more native wood species in a 30m length.
Arboriculture	Formerly all aspects of the culture of trees, especially for forestry. Latterly, the art and science of cultivating and managing trees as groups and individuals, primarily for amenity and other non-forestry purpose.
Arboricultural method statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculturist	Person who has, through relevant education, training and experience in the field of trees in relation to construction.
Bark	A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm.
Biodiversity	The variability among all living organisms of an ecological complex.
Biomechanical	Pertaining to the mechanical functions and properties of living organisms, such as trees.
Body language	In trees, the outward display of growth responses and/or deformation in response to mechanical stresses.
Branch	A limb extending from the main stem or parent branch of a tree .
Branch bark ridge	The raised arc of bark tissues that forms the acute angle between a branch and its parent stem
Branch collar	The swelling or roughened bark often found at the base of a branch which should be left intact if the branch is to be pruned off.
Brown-rot	A type of wood decay in which cellulose is degraded, while lignin is only modified.
Burr	A term for various kinds of atypical woody protuberances, especially those derived from the mass proliferation of adventitious buds.
Buttress zone (root flare)	The basal part of a tree, where the major lateral roots join the stem with buttress-like formations on the upper sides of the junctions.
Canopy	The topmost layer of twigs and foliage in a tree.
Co-dominant	In trees, a similarity between two or more stems or branches with regard to their size and their position within the canopy.

Column	In the wood or phloem of a tree, an axially elongated zone of tissue that is distinguished from the surrounding tissue; e.g. Live versus dead or decayed versus non-decayed.
Construction exclusion zone	An area based on the root protection area from which access is prohibited for the duration of the project.
Coppard	A hybrid word (from coppice and pollard), describing a tree consisting of several coppice stems, each of which has been pollarded.
Coppicing	The cutting of a woody plant near ground level to encourage the development of multiple stems.
Coupe	An area of woodland that has been (or is about to be) selectively clear-felled or coppiced.
Crown	In arboriculture, the main foliage-bearing portion of a tree.
Crown lifting	The removal or shortening of the branches that form the lower part of the crown of a tree.
Crown reduction	Pruning in order to reduce the size of the crown of a tree.
Crown thinning	Pruning inside the crown of a tree in order to reduce its density.
Defect	In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.
Dieback	The death of part of a plant, usually starting from a distal point and often progressing proximally in stages.
Direct damage	Direct physical damage to a structure of surface from pressure exerted by the trunk or growing roots.
Epicormic	Pertaining to shoots or roots which are initiated on mature woody stems; shoots can form in this way from dormant buds or they can be adventitious.
Failure	In connection with tree hazards, a partial or total fracture within woody tissues or loss of cohesion between roots and soil.
Foreseeable	In hazard assessment, pertaining to failure and associated injury of damage which are predictable on the basis of evidence from a tree and its surroundings.
Fungi	Organisms of several evolutionary origins, most of which are multicellular and grow as branched filamentous cells within dead organic matter or living organisms.
Hazard	A thing, a process or a potential event that has the potential to cause harm.

Heartwood	The dead or predominantly dead central wood of various tree species whose outer living wood, sapwood, has a finite and pre-determined lifespan.
Included bark	Bark of adjacent parts of a tree (usually forked stems, acutely joined branches or basal flutes) which is in face-to-face contact; i.e. without a woody connection. Such a structure lacks inherent strength but is in many instances strongly reinforced by a surrounding 'shell' of wood.
Independent in the landscape	Point at which a newly planted tree is no longer reliant on excessive or abnormal management intervention in order to grow and flourish with realistic prospects of achieving its full potential contribute to the landscape.
Landscape character	A distinct, recognisably and consistent pattern of elements in the landscape that make one landscape different from another, rather than better or worse.
PICUS	The Picus Sonic Tomograph is a non-invasive tool for assessing decay in trees. It works on the principle that sound waves passing through decay move more slowly than sound waves traversing solid wood. By sending sound waves from a number of points around a tree stem to a number of receiving points, the relative speed of the sound can be calculated and a two-dimensional image of the cross-section of the tree can be generated
Pollard	A term for a pollarded tree
Pollarding	The complete or partial removal of the crown of a young tree so as to encourage the development of numerous branches; also, further cutting to maintaining this growth pattern.
Resistograph	<p>The IML-RESI system is based on the measurement of drilling resistance.</p> <p>The IML-RESI operates in a similar manner to a normal drill. A drilling needle with a diameter of 1.5mm is inserted into the wood under constant drive. While drilling, the resistance is measured as a function of the drilling depth of the needle. The data is printed and stored electronically at a scale of 1:1 simultaneously.</p> <p>Although invasive the relatively small needle diameter causes very little damage, testing is normally only undertaken to confirm the remaining stem wall thickness in decaying trees.</p>
Retrenchment	Progressive reduction in the size of the crown of an old tree, by means of the dieback or breakage of twigs and small branches, accompanied by the enhanced development of the lower or inner parts of the crown.
Risks	The likelihood of the potential harm from a particular hazard becoming actual harm.

Root protection area	A layout tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. BS 5837:2012 <i>'Trees in relation to design, demolition and construction – Recommendations'</i> .
Root flare	Thickened and expanded base of a tree stem at ground level from which buttress roots form.
Rootplate	The central part of the root system of a tree, consisting of the large-diameter main roots and a dense mass of smaller roots and soil.
SULE	Safe useful life expectancy of a tree (Barrell)
Target pruning	The pruning of a twig or branch so that tissues recognisably belonging to the parent stem or branch are retained and not damaged.
Targets	In tree hazard assessment, persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it.
Tree Preservation Order	In Great Britain, an order made by a local authority, whereby the authority's consent is generally required for the cutting down, topping or lopping of specified trees.
Tree protection plan	Scale drawing, informed by descriptive text where necessary, based upon the finalized proposal, showing trees for retention and illustrating the tree and landscape protection measures.
Utility	An undertaker by statute that has a legal right to provide customer services (e.g. communication, electricity, gas and water).
Veteran tree	<i>'A tree that has passed beyond maturity and is old, or aged, in comparison with other trees of the same species'</i> . Ancient Tree Guide No. 4 (ATF, 2008).
Vigour	In tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth.
Vitality	In tree assessment, an overall appraisal of physiological and biomechanical processes, in which high vitality equates with near-optimal function, in which high vitality equates with healthy function.
Visual Tree Assessment (VTA)	In addition to the literal meaning, a system expounded by Matteck and Breloer (1995) to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.
White-rot	Various kinds of wood decay in which lignin, usually together with cellulose and other wood constituents, is degraded.
Wound	Injury caused to a tree by a physical force.



Sharon Hosegood
ASSOCIATES

ARBORICULTURAL IMPACT ASSESSMENT REPORT
BS 5837:2012 'Trees in relation to design, demolition and construction.
Recommendations'

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