



TREE SURVEY DATA

In respect of:

Sites A & B

Clifton Hampden
Abingdon Road
Clifton Hampden
Oxon

October 2020

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4.0 TREE SURVEY DATA – Sites A & B, Clifton Hampden

In accordance with BS 5837:2012, the characteristics of trees over 75mm stem diameter measured at 1.5m above ground level have been recorded and they have been categorised in accordance with Table 1 of BS5837: 2012. The following tree data tables should be read in conjunction with the annotated site plan shown at **Appendix 1** and the key on page 14.

SITE A

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T1 Common walnut (<i>Juglans regia</i>)	5m	320mm	N5m E4m S4m W5m	1m	SM	Good	Good	Moderate	40+	Of good form; medium sized boundary tree.	B (2)	3.8m	46.3m ²
T2 Common walnut	5m	230mm	N5m E4m S5m W5m	2m	SM	Good	Good	Moderate	40+	Of good form; medium sized boundary tree.	B (2)	2.8m	23.9m ²
T3 Honey locust (<i>Gleditsia triacanthos</i>)	5m	160mm	N4m E3m S4m W5m	2m	SM	Good	Good	Moderate	20+	Off-site street tree; unbalanced crown biased to the W; form not untypical for species.	B (2)	1.9m	11.6m ²
T4 Common walnut	4m	120mm 110mm	N3m E2m S3m W3m	2m	SM	Fair	Fair	Low	20+	Twin-stemmed from 1m; tight compression fork with included bark; form not untypical for species.	C (2)	2.0m	12.0m ²
T5 Common walnut	6m	280mm	N6m E4m S5m W4m	2m	SM	Good	Good	Moderate	40+	Of good form; medium sized boundary tree.	B (2)	3.4m	35.5m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T6 Common walnut	5m	160mm 240mm	N6m E5m S5m W5m	1m	SM	Good	Good	Moderate	40+	Twin-stemmed from 0.5m; of good form.	B (2)	3.5m	37.6m ²
T7 Common walnut	4m	110mm 100mm 180mm	N4m E2m S4m W4m	1m	SM	Fair	Fair	Moderate	20+	Three stemmed from base; tight compression forks with included bark; of good form.	C (2)	2.8m	24.7m ²
T8 Common walnut	3m	120mm	N3m E3m S2m W2m	1m	Y	Fair	Fair	Low	20+	Of good form; young tree.	C (2)	1.4m	6.5m ²
T9 Sycamore (<i>Acer pseudoplatanus</i>)	7m	320mm	N5m E5m S5m W5m	0m	SM	Good	Good	Moderate	40+	Of good form; form not untypical for species; minor and medium deadwood.	B (2)	3.8m	46.3m ²
T10 Plum (<i>Prunus Domestica</i>)	5m	560mm	N8m E5m S5m W5m	0m	M	Poor	Poor	Low	In decline	Unlikely to last more than ten years due to poor condition; of very poor structure; multi-stemmed from base; cavity at base.	C (2)	6.7m	141.9m ²
T11 Norway spruce (<i>Picea abies</i>)	12m	200mm 190mm 200mm 250mm	N6m E4m S5m W6m	0m	M	Fair	Fair	Moderate	10+	Form not untypical for species; four stemmed from base; minor and medium deadwood.	C (2)	5.1m	80.8m ²
T12 Silver birch (<i>Betula pendula</i>)	14m	230mm 240mm	N4m E7m S5m W2m	0m	M	Good	Fair	Moderate	20+	Form not untypical for species; twin stemmed from base; medium sized tree; minor deadwood.	B (2)	4.0m	50.0m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T13 Common lime (<i>Tilia x europaea</i>)	12m	360mm	N5m E5m S4m W6m	0m	SM	Good	Good	Moderate	40+	Form not untypical for species; part of group; boundary tree.	B (2)	4.3m	58.6m ²
T14 Ash (<i>Fraxinus excelsior</i>)	12m	290mm	N6m E6m S4m W5m	1m	SM	Good	Good	Moderate	40+	Form not untypical for species; medium sized boundary tree.	B (2)	3.5m	38.0m ²
T15 Common lime	14m	310mm	N5m E6m S4m W5m	0m	SM	Good	Good	Moderate	40+	Of good form; medium sized boundary tree; part of group.	B (2)	3.7m	43.5m ²
T16 Common lime	12m	330mm	N4m E5m S5m W4m	0m	SM	Good	Good	Moderate	40+	Of good form; medium sized boundary tree; part of group.	B (2)	4.0m	49.3m ²
T17 Common lime	6m	350mm	N4m E4m S4m W4m	1m	SM	Good	Good	Moderate	40+	Sound base and stem, typical form and vigour for species.	B (2)	4.2m	55.4m ²
T18 Ash	7m	220mm	N3m E4m S3m W2m	1m	SM	Good	Good	Moderate	40+	Sound base and stem. Typical form and vigour for species.	B (2)	2.6m	21.9m ²
T19 Norway maple (<i>Acer platanoides</i>)	8m	270mm	N3m E4m S3m W4m	1m	SM	Good	Good	Moderate	40+	Sound base and stem. Typical form and vigour for species.	B (2)	3.2m	33.0m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T20 Norway maple	12m	380mm	N5m E6m S4m W4m	1m	SM	Good	Fair	Moderate	20+	Sound base. Stem bifurcates at 2m with included union. Crown in typical form and vigour.	C (2)	4.6m	65.3m ²
T21 Norway maple	10m	410mm	N3m E4m S3m W4m	1m	SM	Good	Fair	Moderate	10+	Sound base. Stem with included union from 1m. Stems with further inclusions and rubbing stems throughout crown. Deadwood throughout.	C (2)	4.9m	76.0m ²
T22 Norway maple	10m	380mm	N6m E6m S5m W3m	0m	M	Good	Good	Moderate	20+	Sound base and stem, with asymmetric crown to the east. Low branches touching ground. Crown in typical form and vigour.	B (2)	4.6m	65.3m ²
T23 Common Oak (<i>Quercus robur</i>)	18m	710mm	N8m E6m S12m W10m	3m	M	Good	Good	High	40+	Sound base and stem. Limbs overhanging field historically cut back with some stub cuts/tear wounds. Crown in typical form and vigour for species. Deadwood throughout.	B (1)	8.5m	228.0m ²
T24 Ash	18m	520mm ivy	N3m E8m S3m W8m	4m	M	Fair	Fair	Moderate	20+	Base, stem and crown with dense ivy. Asymmetric crown as historic windblown tree adjacent. Deadwood throughout. Poor form.	C (2)	6.2m	122.3m ²
T25 Ash	12m	370mm ivy	N4m E3m S3m W4m	3m	M	Fair	Fair	Moderate	20+	Base, stem and crown with dense ivy. Crown in reasonable vigour with deadwood throughout.	C (2)	4.4m	61.9m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T26 Sycamore	12m	390mm	N4m E3m S4m W4m	3m	M	Good	Good	Moderate	20+	Sound base and stem with minor ivy. Stem bifurcates at 3m with good union. Crown in typical form and vigour.	B (2)	4.7m	68.8m ²
T27 Sycamore	10m	410mm	N5m E5m S4m W3m	2m	M	Good	Good	Moderate	20+	Sound base and stem with minor ivy. Multiple stems from 3m. Crown in typical form and vigour.	B (3)	4.9m	76.0m ²
T28 Common walnut	4m	210mm	N3m E3m S3m W3m	0m	Y	Good	Good	Low	40+	Sound base and stem, bifurcating at 1m with good union. Crown in typical form and vigour.	B (3)	2.5m	20.0m ²
T29 Common walnut	4m	200mm	N3m E3m S3m W3m	0m	Y	Good	Good	Low	40+	Sound base and stem. Crown in typical form and vigour.	B (3)	2.4m	18.1m ²
T30 Common walnut	4m	190mm 210mm	N3m E3m S3m W3m	0m	Y	Good	Good	Low	40+	Sound base with 2 stems from ground level, good union. Crown in typical form and vigour.	B (3)	3.4m	36.3m ²
T31 Common walnut	4m	200mm	N3m E3m S3m W3m	0m	Y	Good	Good	Low	40+	Sound base and stem. Crown in typical form and vigour.	B (3)	2.4m	18.1m ²
T32 Common walnut	5m	270mm	N4m E3m S3m W4m	0m	SM	Good	Good	Low	Dead	Sound base and stem. Crown in typical form and vigour.	B (3)	3.2m	33.0m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
TG1 Flowering cherry Field maple Hazel, Norway spruce and Common Hawthorn	5m	Avg 120mm	0m	0m	SM	Fair	Poor	Low	10+	Mixed species group; heavily ivy covered; of low level screening value only.	C (2)	1.4m	6.5m ²
TG2 Common lime, Sycamore, Plum, Field maple and English elm	8m	Avg 200mm	0m	0m	SM	Fair	Fair	Moderate	10+	Mixed species group; belt of closely growing trees; of moderate boundary screening value.	B (3)	2.4m	18.1m ²
TG3 Norway maple, Common lime, Ash, Field maple, English elm, Common Hawthorn and Plum	4m	Avg 180mm	0m	0m	SM	Fair	Fair	Moderate	10+	Historic farm boundary hedgerow with typical historic maintenance Many dead standing trees, and trees in poor form and vigour. Providing a well established green screen and habitat.	C (3)	2.2m	14.7m ²
TG4 Norway maple, Common lime, Ash, Field maple, English elm and Common Hawthorn	6m	Avg 180mm	0m	0m	SM	Fair	Fair	Moderate	20+	Mixed native belt of trees to northern boundary of site. Lower crown and smaller trees flailed back to boundary. In typical woodland habitat, providing well established green screen. Larger trees within group separately surveyed.	B (3)	2.2m	14.7m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
TG5 Common walnut and Flowering cherry	3m	Avg 180mm	0m	0m	Y	Fair	Fair	Low	10+	Trees sporadically planted throughout the site, mostly lapsed form fruit trees, some young walnuts and oaks. In poor form and vigour with limited useful life expectancy.	C (3)	2.2m	14.7m ²
Hedge 1	Managed boundary hedge with hawthorn, sycamore and elder. Vigorous and a good green screen at the boundary										B (2)		
Hedge 2	Limited management – mainly privet hedge with a mixed species.										C (2)		
Hedge 3	Historic farm hedgerow of mixed native species including field maple, hawthorn and elm. Historically flailed back hard. Providing established green screen and habitat.										C (3)		

SITE B

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T1 Common Oak (<i>Quercus robur</i>)	5m	260mm	N4m E5m S4m W5m	2m	SM	Good	Good	Moderate	40+	Of good form; no obvious defects; minor deadwood. Two Holm Oaks directly adjacent within crown.	B (2)	3.1m	30.6m ²
T2 Common Oak	7m	380mm	N7m E7m S5m W6m	2m	SM	Good	Good	Moderate	40+	Of good form; no obvious defects; minor deadwood.	B (1)	4.6m	65.3m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T3 Common walnut (<i>Juglans regia</i>)	12m	470mm	N7m E9m S7m W6m	2m	M	Good	Fair	High	20+	Of good form. Stem surrounded by historic metal tree guard, now rubbing against stem; three-stemmed from 2.5m; minor and medium deadwood.	B (2)	5.6m	99.9m ²
T4 Common walnut	8m	440mm	N7m E6m S6m W6m	2m	M	Good	Fair	High	20+	Stem surrounded by historic metal tree guard, now rubbing against stem; of good form; twin-stemmed from 2m; minor and medium deadwood.	B (2)	5.3m	87.6m ²
T5 Common walnut	7m	410mm	N8m E8m S6m W6m	2m	M	Good	Good	High	20+	Stem surrounded by historic metal tree guard; of good form; no obvious defects; minor and medium deadwood.	B (1)	4.9m	76.0m ²
T6 Common walnut	8m	410mm	N6m E5m S5m W6m	2m	M	Good	Good	High	20+	Stem surrounded by historic metal tree guard; of good form; no obvious defects; minor and medium deadwood; twin-stemmed from 2m.	B (1)	4.9m	76.0m ²
T7 Common walnut	12m	420mm	N5m E6m S5m W6m	2m	M	Good	Good	High	20+	Stem surrounded by historic metal tree guard; of good form; no obvious defects; minor and medium deadwood.	B (1)	5.0m	79.8m ²
T8 Common lime (<i>Tilia x europaea</i>)	16m	500mm ivy est	N6m E5m S7m W5m	1m	M	Good	Good	High	20+	Boundary tree; shared ownership; ivy restricts view of main unions; ivy covered; of good form; no obvious defects.	B (2)	6.0m	113.1m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T9 Common lime	14m	520mm ivy est	N6m E5m S7m W5m	1m	M	Good	Good	High	20+	Boundary tree; shared ownership; of good form; no obvious defects; minor and medium deadwood.	B (2)	6.2m	122.3m ²
T10 Common lime	10m	430mm	N7m E5m S5m W5m	1m	SM	Good	Good	Moderate	20+	Third party tree; part of group; medium sized boundary tree; of good form; minor and medium deadwood.	B (2)	5.2m	83.6m ²
T11 Common lime	12m	490mm	N7m E5m S5m W5m	1m	SM	Good	Good	Moderate	20+	Third party tree; part of group; medium sized boundary tree; form not untypical for species; minor and medium deadwood.	B (2)	5.9m	108.6m ²
T12 Common walnut	12m	320mm	N6m E4m S2m W3m	2m	M	Good	Fair	Moderate	20+	Third party tree; medium sized boundary tree; form not untypical for species.	B (3)	3.8m	46.3m ²
T13 Horse chestnut (<i>Aesculus hippocastanum</i>)	10m	370mm	N6m E4m S4m W4m	1m	SM	Good	Good	Moderate	20+	Third party tree; part of group; medium sized boundary tree; form not untypical for species; minor deadwood.	B (3)	4.4m	61.9m ²
T14 Crack willow (<i>Salix fragilis</i>)	10m	540mm	N11m E2m S2m W4m	1m	EM	Fair	Fair	Low	10+	Boundary tree; shared ownership; trunk leans heavily to north; twin-stemmed from 2m; unbalanced crown biased to the north; one-sided crown as suppressed by adjacent tree; part of group.	C (2)	6.5m	131.9m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T15 Horse chestnut	14m	360mm est	N6m E5m S4m W4m	2m	SM	Good	Good	Moderate	20+	Off-site tree; part of group; medium sized boundary tree; unable to view lower trunk due to boundary fence; form not untypical for species.	B (3)	4.3m	58.6m ²
T16 Lawson cypress (<i>Chamaecyparis lawsoniana</i>)	16m	410mm est	N4m E10m S4m W0m	0m	M	Fair	Fair	Low	10+	Form not untypical for species; boundary tree; part of collection.	C (2)	4.9m	76.0m ²
T17 Common lime	8m	560mm	N5m E5m S5m W5m	0m	SM	Poor	Fair	Low	10+	Trunk leans heavily to east; of very poor structure.	C (2)	6.7m	141.9m ²
T18 Common walnut	14m	350mm ivy est	N5m E6m S7m W6m	1m	M	Good	Good	High	40+	Of good form; no obvious defects; twin-stemmed from 1m; medium sized boundary tree; of moderate boundary screening value.	B (1)	4.2m	55.4m ²
T19 Common lime	10m	330mm	N5m E4m S6m W4m	1m	SM	Good	Good	Moderate	40+	Of good form; no obvious defects; medium sized boundary tree; of moderate boundary screening value.	B (2)	4.0m	49.3m ²
T20 Common lime	12m	340mm	N5m E4m S7m W4m	1m	SM	Good	Good	Moderate	20+	Of good form; no obvious defects; medium sized boundary tree; of moderate boundary screening value.	B (2)	4.1m	52.3m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
T21 Common lime	5m	380mm	N4m E3m S4m W3m	1m	SM	Fair	Fair	Low	20+	No obvious defects; unbalanced crown as suppressed; minor deadwood.	C (2)	4.6m	65.3m ²
T22 Common lime	8m	520mm	N5m E5m S6m W4m	1m	SM	Good	Good	Moderate	20+	Multi-stemmed from base; form not untypical for species; minor deadwood.	B (2)	6.2m	122.3m ²
T23 Common lime	4m	290mm	N3m E3m S3m W3m	0m	SM	Fair	Fair	Low	10+	Trunk leans heavily to E; form not untypical for species; of mainly low-level boundary screening value.	C (2)	3.5m	38.0m ²
T24 Common Oak	8m	300mm	N5m E5m S6m W5m	2m	SM	Good	Good	High	40+	Of good form; no obvious defects.	B (1)	3.6m	40.7m ²
T25 Common lime	12m	350mm est	N6m E5m S6m W5m	1m	M	Fair	Fair	Moderate	20+	Form not untypical for species; no obvious defects; of moderate boundary screening value.	B (3)	4.2m	55.4m ²
T26 Common walnut	12m	210mm 220mm	N6m E6m S6m W4m	2m	M	Good	Good	Moderate	20+	Twin-stemmed from 1m; of good form; no obvious defects; minor deadwood; medium sized boundary tree.	B (2)	3.6m	41.8m ²
TG1 Hawthorn and Ash	4m	Avg 140mm	0m	0m	SM	Fair	Fair	Moderate	10+	Mixed species group; of moderate boundary screening value; form not untypical for species.	B (3)	1.7m	8.9m ²

Tree	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category	RPA Radius	RPA m2
TG2 Plum and Goat willow	5m	Avg 200mm	0m	0m	SM	Fair	Fair	Low	10+	Canopy entirely offset from centre; of moderate boundary screening value; boundary tree.	C (3)	2.4m	18.1m ²
Hedge 1	Managed boundary hedge with hawthorn, sycamore and elder. Vigorous and a good green screen at the boundary										B (2)	-	-

The comments made with regard to the health of the trees within this report were correct at the time of inspection. Trees are dynamic structures and changes can occur in response to biological, mechanical or environmental changes at any time.

Key to terms.

- Identification numbers have been used and correspond to the site plan shown at **Appendix 1**.
- Vegetation type has been categorized as one of the following: Tree (T), Hedge (H), Shrub (S), Group (TG), Stump (ST)
- Species are listed by common and botanical name where appropriate.
- Where possible, measurements have been made in accordance with the conventions detailed below. Where this was not possible, due to site conditions or the vegetation being in third party ownership, dimensions have been estimated. * Indicates estimated measurement.
- Height has been estimated to the nearest half metre.
- Stem diameter (of single stem trees and multi stemmed trees) has been measured at 1.5m and recorded in millimetres. Where this was not possible the actual height where the diameter was measured is recorded. GL = Ground Level.
- Crown spread has been recorded in metres.
- Age class has been recorded as follows:
 - Y** Young recently planted or establishing tree that could be transplanted without specialist equipment, i.e. up to 12-14cms-stem girth.
 - S/M** Semi mature. An established tree but one that has not reached its potential ultimate height and has significant growth potential.
 - E/M** Early mature. A tree reaching its ultimate potential height, whose growth rate is slowing down but will increase in stem diameter and crown spread and has a safe life expectancy.
 - M** Mature. A mature specimen with limited potential for any significant increase in size but with a reasonable safe life expectancy.
 - O/M** Over mature. A senescent or moribund specimen with a limited safe life expectancy. Possibly also containing significant structural defects with attendant safety and/or duty of care implications.
- Physiological Condition has been recorded as Good, Fair or Poor.
- Recommendations for tree management have been based on current Arboricultural Best Practice as set out by the Arboricultural profession and all relevant publications.

5.0 TREE QUALITY ASSESSMENT

Two sites were surveyed – Site A and Site B. Site A had a total of thirteen trees, two groups and two hedgerows. Site B had a total of twenty-six trees, two groups and one hedgerow worthy of survey. This vegetation has been surveyed for planning purposes and categorized according to BS5837: 2012 as a guide to their condition. They are coloured on the plan attached at **Appendix 1** and **Appendix 2** to indicate their category and the colours are explained in the key of the plan. The full tree quality assessment chart, which gives a more detailed explanation of the definition of the subcategories, has been attached at **Appendix 3**.

5.1 Category A Trees

There were no trees on either site considered of such high quality and condition to warrant an 'A' grade.

5.2 Category B Trees

Site A – T1 Walnut, T2 Walnut, T3 Honey Locust, T5 Walnut, T6 Walnut, T9 Sycamore, T12 Silver Birch, T13 Lime, T14 Ash, T15 Lime, T16 Lime, T17 Lime, T18 Ash, T19 Norway Maple, T22 Norway Maple, T23 Oak, T26 Sycamore, T27 Sycamore, T28, T29, T30, T31 and T32 Walnut, TG2 Mixed species and Hedgerow 1:



T1 Walnut



T2 Walnut



T5 Walnut



T6 Walnut



T9 Sycamore



T12 Silver Birch



T13 Lime



T14 Ash



T15 Lime



T16 Lime



T17 Lime



T18 Ash



T19 Norway Maple



T23 Oak



T26 Sycamore



T31 Walnut



TG2



Hedge 1



The site

Site B - T1 – T13 Walnut, T15 Horse Chestnut, T18 Walnut, T19 Lime, T20 Lime, T22 Lime, T24 Oak, T25 Lime and T26 Walnut, TG1 Hawthorn and Ash and Hedge 1.



T1 Walnut



T2 Oak



T3 Walnut



T4 Walnut



T5 Walnut



T6 Walnut



T7 Walnut



T8 and T8 Lime



T10, T11, T12, T13 Lime, Walnut and Chestnut



T15 Horse Chestnut



T18 Walnut



T19 Lime



T26 Lime



TG1 Mixed species

These trees are of moderate quality with an estimated remaining life expectancy of at least 20 years. They may have been previously managed and no longer exhibit their natural form, or they have been downgraded because of impaired condition such that they are unlikely to be suitable for retention for beyond 40 years.

5.3 Category C Trees

Site A: T4 Walnut, T7 Walnut, T8 Walnut, T10 Plum, T11 Spruce, T20 and T21 Norway Maple, T24 and T25 Ash, TG1, TG3, TG5, Hedge 2 and 3 Mixed species.

Site B: T14 Willow, T16 Lawson Cypress, T17 Lime, T21 Lime, T23 Lime and TG2 Plum and willow.

These trees are generally of low quality with an estimated remaining life expectancy of at least 10 years. They provide structure to the sites, but they are generally unremarkable trees with historically limited or poor management and do not qualify in higher categories.

6.0 ROOT PROTECTION AREAS

- 6.1 In accordance with BS5837:2012, the root protection areas (RPA) of the trees have been calculated and shown in the previous table and on the plans attached at **Appendix 1 and Appendix 2**. This is the minimum area in m², which if being retained, should ideally be left undisturbed around the trees to ensure their safe retention during the development process. It is calculated as an area equivalent to a circle with a radius twelve times stem diameter. Where the tree is growing next to structures such as roads, walls, buildings etc, it would be expected that the shape of the RPA be altered (but not reduced in size) to take into account the area of ground that the roots are most likely exploiting. In some circumstances, the incorporation of hard surfaces and other construction can take place within the RPA.

7.0 LEGAL CONSTRAINTS

- 7.1 Both sites are within the Clifton Hampden Conservation Area. All the trees are therefore afforded statutory protection under this legislation and any tree work to trees over 75mm at 1.5m height must be approved by the Local Planning Authority. It is a criminal offence to fell or wilfully damage a tree within a Conservation Area without the consent of the LPA. No trees, within the site shall be felled, uprooted wilfully damaged or destroyed, cut back in any way or removed without previous written consent of the local planning authority.

8.0 TREES IN RELATION TO PROPOSED DEVELOPMENT

The impact of the trees in terms of their crown spread and likely root spread can be seen on the plans attached at **Appendix 1 and Appendix 2**. It shows how Site A has more scope for development than Site B because of tree constraints and the overall quality of the tree stock. On both sites, it would be important to retain the trees along the boundaries for screening purposes and to provide a softening to the new built form from a landscape perspective. It is likely that trees such as T10, T11, T12 T28 – T32 and TG1 within Site A would require removal to facilitate any new development. The removal of these trees could be easily mitigated with a robust replacement planting scheme. Given the good quality of the trees across both sites, any new design layouts should look to retain as many of the trees as possible.

8.1 Changes in ground surface and ground level within RPA's

With any proposed design, there should be no change of ground surface or level with the RPAs of the trees being retained – including that for hard and soft landscaping at the end of the project.

8.2 Tree Protection Detail

It will be important to prevent the compaction of soil around the trees during any development works as this can be harmful to tree roots by reducing gaseous exchange and the availability of water and nutrients.

As such, construction exclusion zones (CEZ) must be designated on site by using protective barriers and ground protection to ensure the safe retention of the trees to be retained. These barriers and ground protection would be in accordance with BS 5837: 2012 and will guard against impact damage to the trunks and branches and will protect the below ground rooting environment so that the soil structure remains viable for root growth and not compacted by construction operations. Where possible, the positions of the barriers should be based on a distance equivalent to the radius of each tree's RPA, which means, any new development must be sited outside the likely rooting areas of the trees being retained.

8.3 Infrastructure Detail

Services

No specific detail about the new service routes is available at the time of writing. New service routes must be designed in such a way as to either connect directly to existing underground services (with no further excavations) or be connected to existing

services using a route outside the construction exclusion zones of trees shown to be retained. If the existing services within RPAs require upgrading, care shall be taken to minimise disturbance and where practicable, trenchless techniques employed; only as a last resort should open excavations be considered. Where existing services within RPAs are deemed not satisfactory for any further use, they should be left in situ rather than being excavated or removed. No dig techniques in line with NJUG 4 Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees', to be used for installation of services if installed or modified within the RPAs of any retained tree.

All work within the RPAs is to be supervised by the project Arboriculturalist. A method statement of how the services are to be established must be submitted to and agreed in writing by South Oxfordshire District Council if required.

8.4 Landscaping

It is recommended that any trees shown for removal be replaced by future landscaping, as shrubs and trees will ultimately screen and soften the impact of any new development. Replacement planting will ensure continuity of tree cover for future generations and help enhance the ecological value of the sites.

Glossary

Arboriculturist	Person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction
Construction Exclusion Zone	Area based on the root protection area from which access is prohibited for the duration of the project.
Root Protection Area (m2)	Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the trees viability and where the protection of the roots and soil structure is treated as a priority.
Services	Any above ground or below ground structure or apparatus required for utility provision. E.g. drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.
Stem	Principal above ground structural components of a tree that supports its branches.
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.

IMPORTANT NOTES

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The statements made in this report do not take account of extremes in weather, accidental damage including fire, chemical and physical injury, or vandalism. Venners Arboriculture cannot therefore accept any liability in connection to these factors, or for work not carried out to current industry best practice. The validity of this report ceases at the prescribed time limit or after one year from the site inspection, or if the site conditions change due to unspecified works that affect the subject tree(s), whichever is the sooner.

CREDENTIALS OF THE AUTHOR

Sarah Venners has worked in the arboricultural profession for twenty-three years. Her experience has been gained from both the public and private sector. She was the Tree Officer for Tunbridge Wells Borough Council and for South Oxfordshire District Council and was a consultant for Marishal Thompson & Co of Alnwick Northumberland until March 2006. In addition to her experience, she holds the following qualifications:

Master's degree in forestry from The Oxford Forestry Institute, Oxford University. (MSc For. Oxon).

BSc (Hons) Degree in Agriculture and The Environment, Wye College, London University. (BSc Hons Agric).

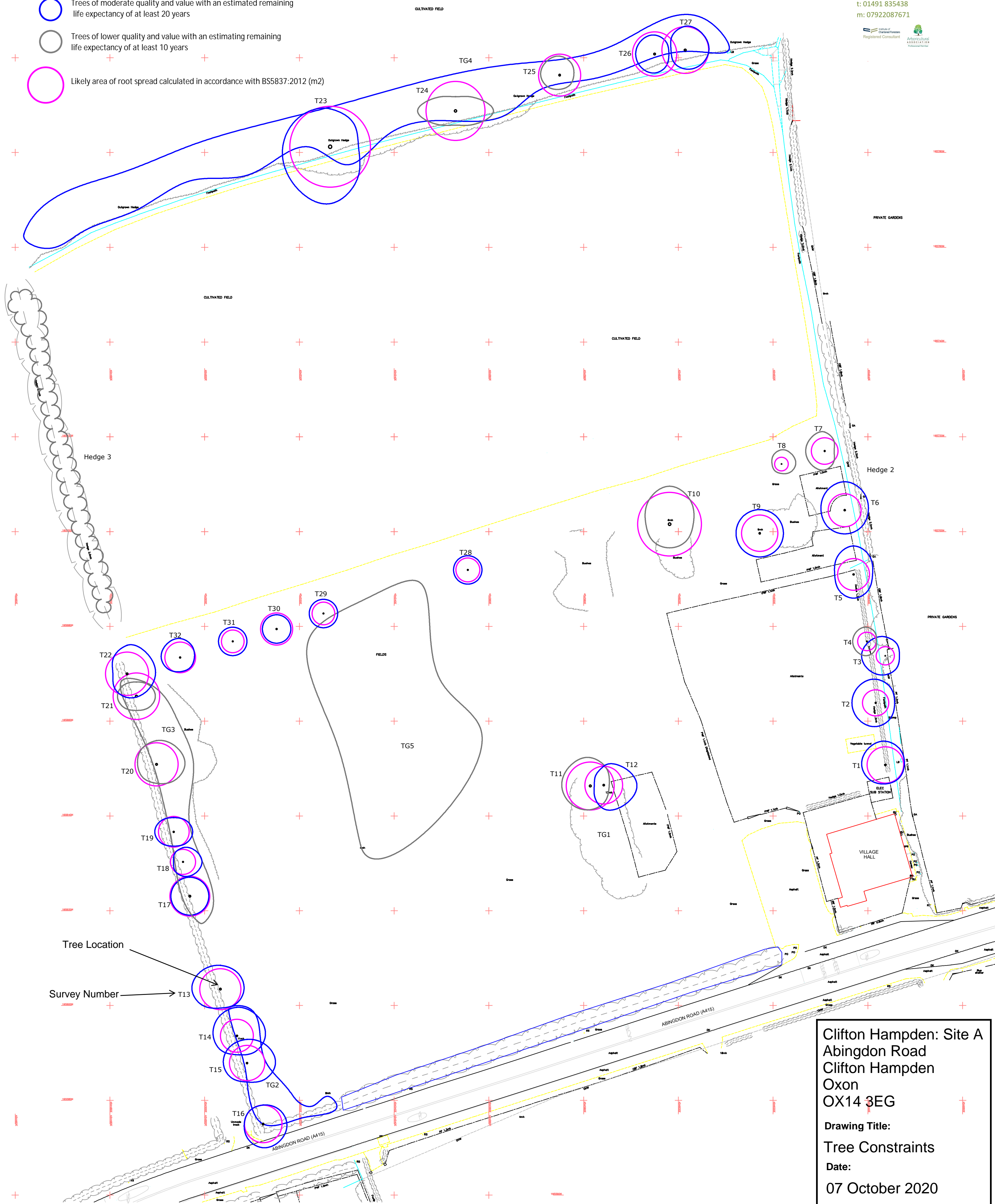
She is also a Professional Member of the Institute of Chartered Foresters (MICFor) and the Arboricultural Association (M.Arbor.A.).



Appendix 1

Key

- Trees of high quality and value in accordance with BS5837:2012 with an estimated remaining life expectancy of at least 40 years
- Trees of moderate quality and value with an estimated remaining life expectancy of at least 20 years
- Trees of lower quality and value with an estimated remaining life expectancy of at least 10 years
- Likely area of root spread calculated in accordance with BS5837:2012 (m2)



Tree Location
Survey Number

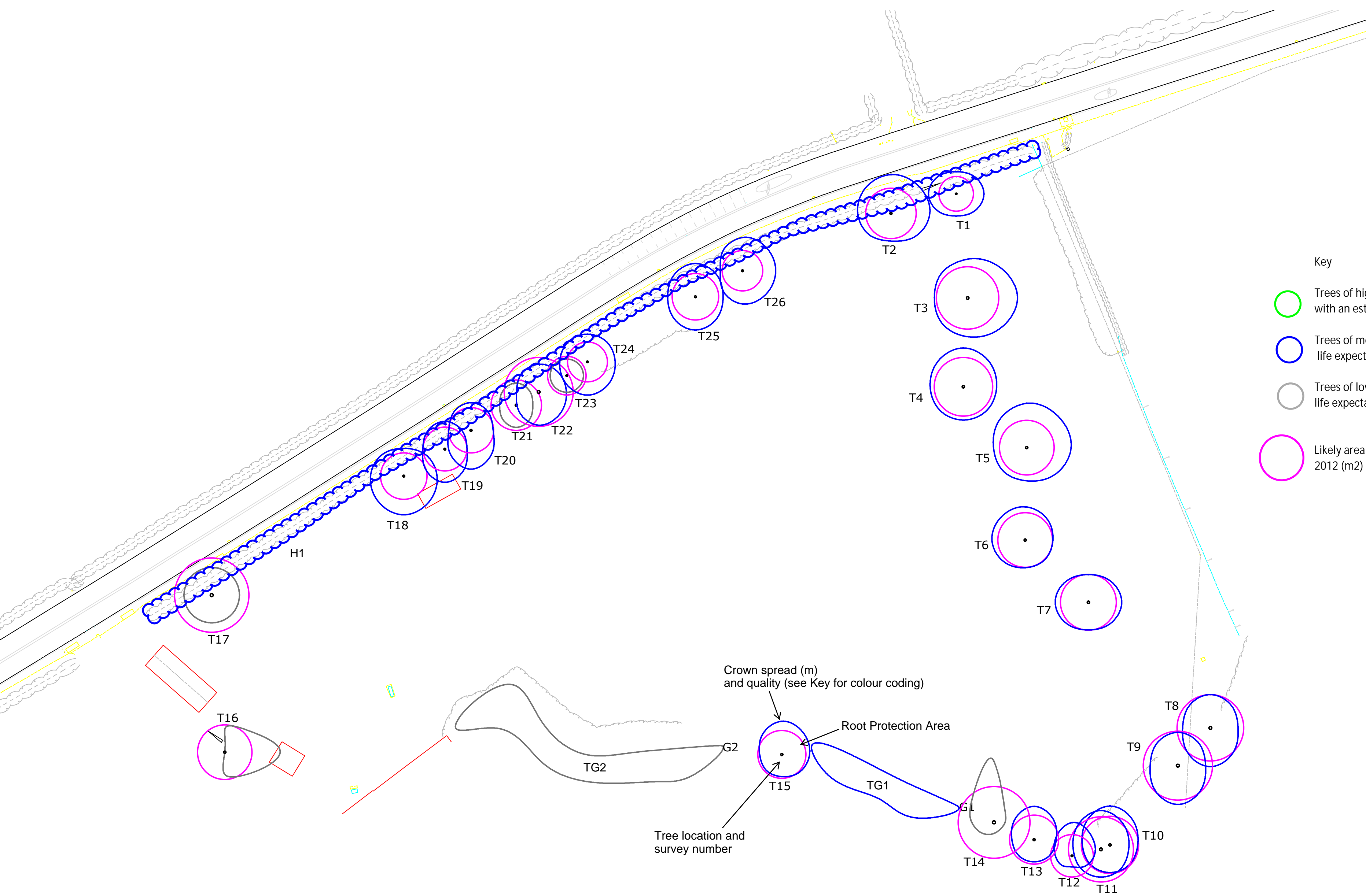
Clifton Hampden: Site A
Abingdon Road
Clifton Hampden
Oxon
OX14 3EG

Drawing Title:
Tree Constraints

Date:
07 October 2020

Scale:
1:500 on A2

Appendix 2



- Key**
- Trees of high quality and value in accordance with BS5837:2012 with an estimated remaining life expectancy of at least 40 years
 - Trees of moderate quality and value with an estimated remaining life expectancy of at least 20 years
 - Trees of lower quality and value with an estimating remaining life expectancy of at least 10 years
 - Likely area of root spread calculated in accordance with BS5837:2012 (m²)

Crown spread (m) and quality (see Key for colour coding)

Root Protection Area

Tree location and survey number

Clifton Hampden: Site B
 Abingdon Road
 Clifton Hampden
 Oxon
 OX14 3EG

Drawing Title:
 Tree Constraints

Date:
 30 June 2020

Scale:
 1:500 on A2