



NHS Property Services Ltd

Clitheroe Hospital

Tree Survey Report

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1.0 Summary

- 1.1.1 WYG was commissioned to carry out a tree survey in accordance with BS5837:2012 at the former Clitheroe Hospital, Chatburn Road, Clitheroe, Lancashire.
- 1.1.2 The former hospital is proposed for redevelopment as sheltered housing. The site is located on the north eastern outskirts of Clitheroe.
- 1.1.3 The local planning authority have been consulted to identify any trees protected by Tree Preservation Order. A reply has not been received to date. The site is not located in a Conservation Area.
- 1.1.4 The survey considered 114 individual trees and five groups of trees and shrubs.
- 1.1.5 Forty eight individual trees and no groups of trees were assigned to the high quality and value category (category A). Trees in this category are expected to make a substantial contribution to the site and surrounding area for over 40 years. The majority of the trees in this category are mature lime trees planted in formal rows and short avenues to the front of the building. The other trees of high quality are mature beech and ash trees in a small woodland area in the north-west corner of the site, and an early-mature memorial oak tree.
- 1.1.6 Twenty four trees and one group of trees were assigned to the moderate quality and value category (category B). These trees were considered to be in good condition with minimal defects, and are expected to make a significant contribution towards the site for a minimum of 20 years.
- 1.1.7 A total of thirty nine trees and four groups of shrubs were assigned to the low quality and value category (category C). These trees are assigned to this category due to their relatively young age, small size, low vigour, suppressed character where they are growing beneath the canopy of more dominant specimens, or the presence of structural defects.
- 1.1.8 Three individual trees are unsuitable for retention and require removal because of their condition (Category U). One beech tree in the north-west corner of the site (no. 98) is dangerous and should be felled as soon as possible.
- 1.1.9 Trees on the site represent a constraint that should be taken into account when designing future development. It is recommended that all trees of high quality are retained, and serious



consideration is given towards retaining trees of moderate quality where practicable. It is recommended that trees are retained with sufficient space to protect their roots, as defined by the root protection areas, and sufficient space is provided for future development without causing a nuisance.



2.0 Introduction

2.1 Scope & Brief

- 2.1.1 WYG was commissioned to carry out a tree survey in accordance with BS5837:2012 at the former Clitheroe Hospital.
- 2.1.2 The survey is to comply with BS5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'¹. This would determine the size, condition and value of the trees, and provide recommendations for remedial work and root protective distances to ensure the future health and stability of retained trees. This report has been produced following a recent visit to the site in December 2015.
- 2.1.3 The former hospital is proposed for redevelopment as sheltered housing. An arboricultural impact assessment has not been commissioned.
- 2.1.4 The report was prepared by Guy Morrison DipArb(RFS) MICFor MARborA, who is an arboricultural consultant and associate of WYG.

2.2 Report Limitations

- 2.2.1 Trees were assessed visually from ground level. No climbed inspection, removal of ivy or detailed investigation of decay was made.
- 2.2.2 Tree condition can change significantly over a relatively short period of time, and therefore the results and recommendations of this survey can only be held to be valid for a period of 12 months following the survey date.

¹BS5837:2012. *Trees in Relation to Design, Demolition and Construction – Recommendations*, British Standards Institute, 2012



3.0 Site Description

3.1 Site Location & Boundaries

- 3.1.1 The former Clitheroe Hospital is located on Chatburn Road, on the north eastern outskirts of Clitheroe, Lancashire. The site centre's OS grid reference is SD 7545 4301.
- 3.1.2 The Tree Constraints Plan in Appendix D shows extent of the survey.

3.2 Topography & Soils

- 3.2.1 Geological maps² show that the site is underlain by sedimentary rocks consisting of the Clitheroe Limestone Formation, Hodder Mudstone Formation and the Peach Quarry Limestone Formation. This is overlaid by superficial till material over most of the site.
- 3.2.2 Soil maps³ show that the local area has slowly permeable, seasonally wet, acid loamy and clayey soils.

3.3 Vegetation

- 3.3.1 Trees are concentrated in the northern half of the site. Mature common lime (*Tilia x europaea*) have been planted to the north of the hospital building. Mature beech (*Fagus sylvatica*) and ash (*Fraxinus excelsior*) are present in a small woodland in the north-west corner of the site. A small orchard of mature apple (*Malus domestica*) trees occurs in the south-eastern corner of the site and a band of mixed broadleaved trees including ash, hazel (*Corylus avellana*) and hawthorn (*Crataegus monogyna*) occurs on the southern boundary. Other trees present include silver birch (*Betula pendula*), pedunculate oak (*Quercus robur*) and Norway maple (*Acer platanoides*).

² www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer

³ www.landis.org.uk/services/soilscapes



3.4 Site Access & Visibility

3.4.1 The site is on the outskirts of Clitheroe, on the edge of both an urban and rural location. The trees at the site are highly visible from Chatburn Road and the adjoining newly built Clitheroe Community Hospital.



4.0 Statutory Protection

4.1 Tree Preservation Order & Conservation Areas

- 4.1.1 The local planning authority, Ribble Valley Borough Council, have been consulted (email sent 8 December 2015) to identify any trees protected by Tree Preservation Order (TPO). A reply is awaited.
- 4.1.2 TPOs place various restrictions on the felling, pruning or damaging of trees, subject to various exemptions⁴.
- 4.1.3 The site is not located in a Conservation Area⁵.

4.2 Felling Licences

- 4.2.1 Tree felling on non-residential land is also controlled by the need to obtain a tree felling licence from the Forestry Commission before felling more than 5 cubic metres in any calendar quarter (e.g., Jan to Mar, Apr to Jun, Jul to Sep and Oct to Dec), as long as no more than two cubic metres are sold. Five cubic metres is roughly equivalent to one large oak tree or 50 thin chestnut coppice trees felling, subject to various exemptions and variations⁶.

4.3 Protected Species

- 4.3.1 Trees and scrub provide habitat for a wide range of species, some of which are protected. Most nesting birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended). All bats and their roosts are protected by the Wildlife and Countryside Act 1981 (as amended) and gain additional protection under the Conservation of Habitats and Species Regulations 2010 (as amended). Birds listed under Schedule 1 of the Wildlife and Countryside Act 1981 are also

⁴ *Tree Preservation Orders: a Guide to the Law and Good Practise*, Department of the Environment, Transport and the Regions, 2000

⁵ www.ribblevalley.gov.uk/info/200359/conservation_and_listed_buildings/908/conservation_areas

⁶ *Tree Felling – Getting Permission*, Forestry Commission, 2005



protected from disturbance when building a nest, nesting, or when dependent young are at or near the nest.



5.0 Tree Survey

5.1 Methodology

5.1.1 The site was visited during December 2015 to carry out an assessment in accordance with BS5837:2012. A topographical survey plan was supplied.

5.1.2 The following information was collected for each tree: species, age class, height, stem diameter at 1.5m above ground level, crown spread in the four cardinal directions and height of the crown above the ground (excluding basal sprouts and epicormic branches). Tree age class categories are listed below:

- Young (Y) - <1/3 of life expectancy;
- Semi-mature (SM) - 1/3 – 1/2 of life expectancy;
- Early-mature (EM) – 1/2 - 2/3 of life expectancy;
- Mature (M) - >2/3 of life expectancy; and
- Over-mature (OM) - >2/3 of life expectancy, and crown retracting due to age.

5.1.3 An assessment was made of the trees' physiological and structural condition, noting any disorders or biomechanical features that present an obvious hazard to present or future users of the site or affect the trees' life expectancy.

5.1.4 Preliminary management works were proposed in order to either remove/reduce hazards or promote good future growth of the tree.

5.1.5 The trees' overall quality and value for retention was assessed in accordance with BS5837:2012 Table 1 (Appendix C). This was dependent on the trees' physiological and structural condition, safe useful life expectancy and arboricultural, landscape, cultural, ecological value and amenity value (as a function of size, prominence, attractiveness and screening).

5.1.6 The root protection area (RPA) for each tree was also calculated in accordance with BS5837:2012. The RPA is an area of ground that provides sufficient soil rooting volume to ensure the survival of the tree.



5.2 Survey Results

- 5.2.1 The survey considered 114 individual trees and five groups of trees and shrubs. The full survey results are shown in the tree survey schedule (Appendix A).
- 5.2.2 Forty eight individual trees were assigned to the high quality and value category (category A). Trees in this category are expected to make a substantial contribution to the site and surrounding area for over 40 years. The majority of high quality trees are mature and early-mature common lime trees (nos. 1-4, 51, 53-62, 64-69, 71-78 and 80-83) which have been planted in formal rows and short avenues to the north of the hospital building. These trees are visually prominent and form a feature of high amenity value. The other trees of high quality are mature and early-mature beech (nos. 48, 89, 92, 95, 96, 100, 102, 103, 104, 106 and 107) and ash (nos. 94, 97 and 99) trees. The majority of these trees are located in the small woodland in the north-west corner of the site which is also visually prominent and a feature of high amenity value. The other tree of high quality is an early-mature oak tree to the west of the hospital building which was planted as memorial tree in 1977 (no. 44).
- 5.2.3 Twenty four trees and one group of trees were assigned to the moderate quality and value category (Category B). Moderate quality trees are likely to make a significant contribution over a period of at least twenty years. Trees of moderate quality at the site are predominantly mature apple trees (nos. 21-23 and 32-42) which form a traditional orchard to the south of the former hospital buildings. Other trees in this category include several early-mature beech (nos. 19, 52, 90, 91 and 93), and single lime (no. 63), ash (no. 5), silver birch (no. 17), Scots pine (no. 20) and Norway maple (no. 25) trees. A single groups of trees (G1) has been allocated to this category. This group is forms the southern boundary of the site and consists of semi-mature hazel, ash and hawthorn which form an effective screen on this boundary.
- 5.2.4 A total of thirty nine trees and four groups were assigned to the low quality and value category (Category C). These trees consist mainly of semi-mature broadleaves with occasional conifers and frequent ornamental shrub planting. Groups in this category consist of a beech hedge (G2) to the south of the site, two groups of mature laurel (G2 and G3) and ornamental shrub planting (G4). These trees are assigned to this category due to their relatively young age, small size, low vigour, suppressed character where they are growing beneath the canopy of more dominant specimens, or the presence of structural defects.



5.2.5 Three individual trees are unsuitable for retention and require felling due to their poor condition (Category U). These are a mature apple tree (no. 24), a dead ash (no. 98) and an ash (no. 101) which has suffered from stem snap. The ash tree no. 98 is dangerous and should be felled as soon as possible.



6.0 Recommendations

6.1 Tree Retention

- 6.1.1 Trees on the site represent a constraint that should be taken into account when designing for future development. It is recommended that all trees of high quality (Category A) are retained, and serious consideration is given towards retaining trees of moderate quality where practicable.
- 6.1.2 In order to allow for the long-term sustainable retention of trees, two requirements need to be met. The first is that there is no adverse physical impact on the trees. This can be met by ensuring that no adverse construction takes place within the RPA given in the survey schedule and shown on the Tree Constraints Plan (Appendix D).
- 6.1.3 It is recommend that an arboricultural impact assessment is produced once the design of the redevelopment is finalised. The assessment should identify trees to be removed, and the direct and indirect impacts of the development proposal on the retained trees.

6.2 Construction Phase Tree Protection

- 6.2.1 It is recommended that all retained trees on or immediately adjacent to the site should be protected by protective fencing during any demolition and construction work. This construction exclusion zone should protect the RPA and ensure that trees to be retained and their essential rooting zone is not damaged during the works.
- 6.2.2 Tree protection details should be produced once the detailed design of the scheme has been finalised. These should include a tree protection plan showing the location and detailing of protective fencing and other measures that are necessary to protect the trees during demolition and construction works. An arboricultural method statement should be produced if it is proposed to carry out any demolition or construction works within the RPA of retained trees.

6.3 Arboricultural Works

- 6.3.1 Recommendations for tree works at this site have been made in the interest of maintaining a high quality tree stock. This schedule will be revised once the layout is finalised to include felling and pruning works necessary to accommodate the proposed development.



- 6.3.2 The hung-up ash tree no. 98 is dangerous and located within falling distance of the road to the north. This tree should be felled as soon as possible. It is also recommended that the partially collapsed branch in the beech tree no. 105 is removed as soon as possible.
- 6.3.3 The presence of TPOs on site (see section 4.1) should be confirmed with the LPA before any tree works are carried out, notwithstanding the felling of tree no. 98 which is dead and dangerous.
- 6.3.4 All works carried out should comply with BS3998:2010 'Tree Work – Recommendations'⁷.
- 6.3.5 It is recommended that wherever possible works are carried out between September and February in order to avoid impacting on nesting birds. It is recommended that an ecologist is consulted to advise on suitable precautions if it is necessary to carry out work during spring and summer.

⁷ *BS 3998:2010 Tree Work – Recommendations*. British Standards Institute, 2010



Appendices



Appendix A – Tree Survey Schedule



Appendix A – Tree Survey Schedule

No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
Individual Trees																	
1	Common Lime	M	65	17	3	-	7	7	5	8	G	Part of a formal row of lime trees.	-	>40	A2	7.80	191
2	Common Lime	M	70	18	4	-	3	8	5	8	G	Part of a formal row of lime trees.	-	>40	A2	8.40	222
3	Common Lime	EM	55	17	5	-	3	7	4	7	G	Part of a formal row of lime trees.	-	>40	A2	6.60	137
4	Common Lime	M	77	18	6	-	7	7	6	9	G	Part of a formal row of lime trees. Crown somewhat crowded with some rubbing branches.	Remove rubbing branches. Sever ivy at base.	>40	A2	9.24	268
5	Ash	EM	63	16	4	-	3	4	8	4	G	Somewhat leggy in form due to previous pruning.	-	>40	B1	7.56	180
6	Elder	M	20 18 9	6	2	-	2	2	3	3	F	Growing on outside of boundary wall.	Recommend removal.	10-20	C2	3.40	36

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							N	E	S	W							
7	Ash	Y	5	3	1	-	1	1	1	1	F	Self-seeded sapling in inappropriate position.	Consider removal.	10-20	C1	0.60	1
8	Ash	Y	5	3	1	-	1	1	1	1	F	Self-seeded sapling in inappropriate position.	Consider removal.	10-20	C1	0.60	1
9	Ash	Y	5	3	1	-	1	1	1	1	F	Self-seeded sapling in inappropriate position.	Consider removal.	10-20	C1	0.60	1
10	Leyland Cypress	SM	35	9	0	-	3	3	3	3	G	Likely to outgrow current position.	Consider removal.	10-20	C1	4.20	55
11	Ash	y	15	3	5	-	2	2	2	2	F	Self-seeded sapling in inappropriate position.	Consider removal.	10-20	C1	1.80	10
12	Lawson's Cypress	SM	21 19	4	0.5	-	2	2	2	2	G	-	-	10-20	C1	3.40	36
13	Ash	Y	3	2	0	-	1	1	1	1	F	Self-seeded sapling in inappropriate position.	Consider removal.	10-20	C1	0.36	0
14	Ash	Y	3	2	0	-	1	1	1	1	F	Self-seeded sapling in inappropriate position.	Consider removal.	10-20	C1	0.36	0



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							N	E	S	W							
15	Ash	Y	3	2	0	-	1	1	1	1	F	Self-seeded sapling in inappropriate position.	Consider removal.	10-20	C1	0.36	0
16	Stags Horn Sumac	M	9 6	5	3	-	1	1	1	1	F	-	-	10-20	C1	1.30	5
17	Silver Birch	M	43	13	4	-	4	4	2	4	G	-	-	20-40	B1	5.16	84
18	Norway Maple	EM	30 30 23 21 20	11	2	-	6	5	4	6	F	Poor form. Five stems spreading from fork at 1m.	-	20-40	C1	6.76	143
19	Beech	EM	57	13	3	-	5	6	8	6	G	-	-	>40	B1	6.84	147
20	Scots Pine	EM	48	12	3	-	5	5	5	5	G	-	-	>40	B1	5.76	104
21	Domestic Apple	M	19	6	2	-	2	2	2	2	G	Part of an orchard of mature apple trees.	-	20-40	B2	2.28	16
22	Domestic Apple	M	24	6	2	-	2	2	2	2	G	Part of an orchard of mature apple trees.	-	20-40	B2	2.88	26
23	Domestic Apple	M	28	6	2	-	3	3	3	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	3.36	35



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							N	E	S	W							
24	Domestic Apple	M	27	7	2	-	4	3	3	3	P	Part of an orchard of mature apple trees. Rubble dumped on root plate. Tree in poor health and poor structural condition.	Fell tree.	<10	U	3.24	33
25	Norway Maple	EM	55	12	3	-	5	4	4	4	F	-	-	>40	B1	6.60	137
26	Hawthorn	EM	20	4	2	-	2	2	2	2	F	Ivy clad.	Remove ivy	>40	C1	2.40	18
27	Juniper	M	5	1	0	-	1	1	1	1	F	Small ornamental shrub.	-	10-20	C1	0.60	1
28	Ornamental Shrub	M	5	1	0	-	1	1	1	1	F	Small ornamental shrub.	-	10-20	C1	0.60	1
29	Buddleia	SM	6 5 5 4	2	0	-	1	1	1	1	F	-	-	10-20	C1	1.21	5
30	Ornamental Shrub	M	5 5 5 5	1	0	-	1	1	1	1	F	Small ornamental shrub.	-	10-20	C1	1.20	5
31	Hazel	SM	5 5 5 5 5	2	0	-	1	1	1	1	F	Multi stemmed tree growing as shrub in flowerbed.	-	20-40	C1	1.34	6



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							N	E	S	W							
32	Domestic Apple	M	27	6	2	-	4	3	3	2	G	Part of an orchard of mature apple trees.	-	20-40	B2	3.24	33
33	Domestic Apple	M	22	5	2	-	2	3	4	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	2.64	22
34	Domestic Apple	M	28	5	2	-	4	3	3	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	3.36	35
35	Domestic Apple	M	28	6	2	-	3	2	3	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	3.36	35
36	Domestic Apple	M	24	5	2	-	3	2	3	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	2.88	26
37	Domestic Apple	M	22	5	2	-	3	3	2	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	2.64	22
38	Domestic Apple	M	37	7	2	-	4	4	4	5	G	Part of an orchard of mature apple trees.	-	20-40	B2	4.44	62
39	Domestic Apple	M	31	5	2	-	3	3	4	5	G	Part of an orchard of mature apple trees.	-	20-40	B2	3.72	43



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							N	E	S	W							
40	Domestic Apple	M	28	5	2	-	2	3	3	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	3.36	35
41	Domestic Apple	M	18	5	2	-	2	2	2	2	G	Part of an orchard of mature apple trees.	-	20-40	B2	2.16	15
42	Domestic Apple	M	26	7	2	-	3	4	2	3	G	Part of an orchard of mature apple trees.	-	20-40	B2	3.12	31
43	Norway Maple	EM	37 30 22	9	2	-	6	3	4	5	F	Multi stemmed with tight unions and included bark.	-	20-40	C1	6.30	125
44	Pedunculate Oak	EM	42	11	3	-	4	5	5	4	G	Memorial tree (planted 1977).	-	>40	A3	5.04	80
45	Ornamental Shrub	M	5	0.5	0	-	0.5	0.5	0.5	0.5	G	Small ornamental shrub.	-	10-20	C1	0.60	1
46	Ornamental Shrub	M	5	0.5	0	-	0.5	0.5	0.5	0.5	G	Small ornamental shrub.	-	10-20	C1	0.60	1
47	Ornamental Shrub	M	5	0.5	0	-	0.5	0.5	0.5	0.5	G	Small ornamental shrub.	-	10-20	C1	0.60	1
48	Beech	M	96	16	3	-	8	10	10	10	G	Large, well formed tree.	-	>40	A1	11.52	417

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							N	E	S	W							
49	Hawthorn	EM	15	6	1	-	3	2	3	2	F	Ivy clad	Sever ivy at base.	20-40	C1	1.80	10
50	Ash	SM	30 21 15	11	1	-	4	3	3	3	F	Poor form. Ivy clad.	Crown lift to 2m to improve form. Sever ivy at base.	20-40	C1	4.75	71
51	Common Lime	M	100	21	3	-	8	7	7	8	G	-	-	>40	A1	12.00	452
52	Beech	M	67	14	3	-	3	9	6	3	F	Dominance by neighbouring lime trees has caused the crown and upper limbs of this tree to grow with a bias to the E.	-	20-40	B1	8.04	203
53	Common Lime	M	67	21	3	-	3	5	5	7	G	Part of a formal row of lime trees.	-	>40	A2	8.04	203
54	Common Lime	M	65	21	3	-	3	6	4	7	G	Part of a formal row of lime trees.	-	>40	A2	7.80	191
55	Common Lime	EM	64	21	3	-	3	6	3	7	G	Part of a formal row of lime trees.	-	>40	A2	7.68	185
56	Common Lime	M	66	21	3	-	2	6	3	7	G	Part of a formal row of lime trees.	-	>40	A2	7.92	197

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							N	E	S	W							
57	Common Lime	M	67	21	3	-	6	6	3	7	G	Part of a formal row of lime trees.	-	>40	A2	8.04	203
58	Common Lime	EM	53	19	3	-	6	5	3	5	G	Part of a formal row of lime trees. Slightly smaller than other trees forming this avenue.	-	>40	A2	6.36	127
59	Common Lime	EM	64	21	3	-	4	5	7	4	G	Part of a formal row of lime trees.	-	>40	A2	7.68	185
60	Common Lime	EM	60	21	3	-	3	8	3	4	G	Part of a formal row of lime trees.	-	>40	A2	7.20	163
61	Common Lime	EM	62	21	3	-	3	4	3	3	G	Part of a formal row of lime trees.	-	>40	A2	7.44	174
62	Common Lime	EM	62	21	3	-	5	8	3	4	G	Part of a formal row of lime trees.	-	>40	A2	7.44	174
63	Common Lime	EM	43	21	3	-	5	4	3	3	G	Part of a formal row of lime trees. Tear out wound and possible occluded historic pruning wound at 5m	Aerial inspection to assess condition of tree at 5m.	20-40	B2	5.16	84



Clitheroe Hospital – Tree Survey Report

No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
64	Common Lime	M	67	21	3	-	5	6	5	4	G	Part of a formal row of lime trees.	-	>40	A2	8.04	203
65	Common Lime	EM	56	20	6	-	6	3	9	3	G	Part of a formal row of lime trees.	-	>40	A2	6.72	142
66	Common Lime	M	79	18	3	-	8	5	8	5	G	Part of a formal row of lime trees.	-	>40	A2	9.48	282
67	Common Lime	EM	36	15	3	-	4	3	9	3	G	Part of a formal row of lime trees.	-	>40	A2	4.32	59
68	Common Lime	M	70	15	3	-	7	4	9	4	G	Part of a formal row of lime trees.	-	>40	A2	8.40	222
69	Common Lime	EM	45	15	4	-	5	5	7	4	G	Part of a formal row of lime trees.	-	>40	A2	5.40	92
70	Camperdown Elm	M	37	4	2	-	5	2	1	1	P	Forms part of the formal layout of trees on site (with no. 79). Tree in poor structural condition but no significant health and safety risk.	-	10-20	C2	4.44	62



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No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
71	Common Lime	M	78	21	4	-	7	7	3	9	G	Part of a formal row of lime trees.	-	>40	A2	9.36	275
72	Common Lime	EM	56	21	4	-	4	7	3	9	G	Part of a formal row of lime trees.	-	>40	A2	6.72	142
73	Common Lime	M	72	21	4	-	4	7	3	9	G	Part of a formal row of lime trees.	-	>40	A2	8.64	235
74	Common Lime	M	74	20	3	-	3	8	6	7	G	Part of a formal row of lime trees.	-	>40	A2	8.88	248
75	Common Lime	M	74	20	3	-	3	9	9	7	G	Part of a formal row of lime trees.	-	>40	A2	8.88	248
76	Common Lime	EM	55	20	3	-	4	8	3	6	G	Part of a formal row of lime trees.	-	>40	A2	6.60	137
77	Common Lime	EM	55	19	3	-	4	8	3	7	G	Part of a formal row of lime trees.	-	>40	A2	6.60	137
78	Common Lime	EM	54	20	3	-	8	8	3	6	G	Part of a formal row of lime trees.	-	>40	A2	6.48	132

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No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
79	Camperdown Elm	EM	28	4	2	-	3	1	1	2	P	Forms part of the formal layout of trees on site (with no. 70). Tree in poor structural condition but no significant health and safety risk.	-	10-20	C2	3.36	35
80	Common Lime	M	84	18	3	-	10	7	9	9	G	Part of a formal row of lime trees.	-	>40	A2	10.08	319
81	Common Lime	M	86	20	3	-	11	4	10	6	G	Part of a formal row of lime trees.	-	>40	A2	10.32	335
82	Common Lime	EM	64	21	3	-	9	3	10	3	G	Part of a formal row of lime trees.	-	>40	A2	7.68	185
83	Common Lime	M	82	21	3	-	9	9	9	3	G	Part of a formal row of lime trees.	-	>40	A2	9.84	304
84	Ornamental Shrubs	SM	12 11 10 9 7	2	0	-	0.5	0.5	0.5	0.5	G	-	-	10-20	C1	2.67	22
85	Lawson's Cypress	SM	15	3	0	-	0.5	0.5	0.5	0.5	G	-	-	10-20	C1	1.80	10



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No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
86	Variegated Holly	SM	20 15	7	1	-	2	1	2	2	F	Two stems from 0.5m. Eastern stem dead.	Remove dead stem.	10-20	C1	3.00	28
87	Laburnum	M	27	6	1	-	1	2	5	2	F	Growing with a strong lean to the S.	-	10-20	C1	3.24	33
88	Lawson's Cypress	SM	10	2	1	-	0.5	0.5	0.5	0.5	G	-	-	10-20	C1	1.20	5
89	Beech	M	129	22	3	-	9	10	14	14	G	Very large tree	-	>40	A1	15.00	707
90	Beech	EM	52	12	3	-	10	3	7	2	G	Not quite as good in form as some neighbouring trees.	-	>40	B2	6.24	122
91	Beech	EM	43	12	3	-	10	4	6	2	G	Not quite as good in form as some neighbouring trees.	-	>40	B2	5.16	84
92	Beech	M	85	21	3	-	11	6	5	4	G	Very large tree	-	>40	A2	10.20	327
93	Beech	EM	60	20	3	-	11	5	2	2	G	Growing with a strong bias North, over the road.	-	>40	B2	7.20	163
94	Ash	EM	51	21	6	-	4	5	4	4	G	-	-	>40	A2	6.12	118
95	Beech	M	69	22	3	-	3	6	5	6	G	-	-	>40	A2	8.28	215



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No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
96	Beech	EM	64	22	2	-	2	2	4	8	G	-	-	>40	A2	7.68	185
97	Ash	EM	63	20	8	-	4	6	5	6	G	-	-	>40	A2	7.56	180
98	Ash	EM	48#	20	10	-	10	3	3	0	D	This tree has snapped off at ground level, causing damage to neighbouring trees and is hung up in tree no.99. Tree is dangerous and located within falling distance of the road.	Removal of tree as soon as possible.	0	U	5.76	104
99	Ash	EM	55#	20	6	-	3	5	5	5	F	This tree has a fallen neighbour 'hung up in its crown. The removal of the hung up tree may cause some damage.	Inspect tree once hung up tree removed.	>40	A2	6.60	137
100	Beech	EM	59	22	3	-	3	4	4	6	G	-	-	>40	A2	7.08	157
101	Ash	EM	40#	8	6	-	0.5	0.5	0.5	0.5	VP	This tree has snapped off at 8m. Significant stem decay appears to be present.	Fell tree.	0	U	4.80	72



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No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
102	Beech	M	102	22	3	-	7	5	8	12	G	-	-	>40	A2	12.24	471
103	Beech	M	69	22	3	-	5	7	3	5	G	-	-	>40	A2	8.28	215
104	Beech	M	103	22	3	-	6	18	4	4	G	Crown is growing with a very heavy bias to the E.	-	>40	A2	12.36	480
105	Beech	M	117	22	3	-	5	4	10	12	P	Very large tree. ~2m vertical column of decay visible in stem. Recently a large lower limb has failed and is still partly attached to the tree and laying in neighbouring property.	Remove failed limb as soon as possible. Carry out further assessment of decay to determine the extent and implications. Assess for bats if works required.	10-20	C2	14.04	619
106	Beech	M	77	22	3	-	4	8	5	3	G	-	-	>40	A2	9.24	268
107	Beech	M	73	22	3	-	3	4	9	6	G	-	-	>40	A2	8.76	241

Clitheroe Hospital – Tree Survey Report



No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
108	Ash	M	86	18	2	-	4	11	15	10	F	Crown is growing with a strong bias to the S. Acutely angled branch unions present. Rot holes in crown. Epicormic growth present on most limbs. Monitor in condition if retained.	-	20-40	C2	10.32	335
109	Elder	SM	15	3	1	-	1	1	1	1	F	Self-seeded scrub.	-	20-40	C2	1.80	10
110	Elder	SM	12	3	1	-	2	1	2	1	F	Self-seeded scrub.	-	20-40	C2	1.44	7
111	Elder	SM	14	3	1	-	2	2	1	1	F	Self-seeded scrub.	-	20-40	C2	1.68	9
112	Elder	SM	18	3	1	-	1	2	1	1	F	Self-seeded scrub.	-	20-40	C2	2.16	15
113	Hawthorn	SM	18	4	1	-	2	2	1	2	F	Self-seeded scrub.	-	20-40	C2	2.16	15
114	Hawthorn	SM	21	4	1	-	2	1	2	1	F	Self-seeded scrub.	-	20-40	C2	2.52	20
Groups of Trees & Shrubs																	



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No.	Species	Age class	Stem diameter (cm)	Height (m)	Crown clearance height (m)	Min. branch height & direction	Branch spread (m)				Condition	Comments	Recommended works	Remaining contribution (yrs)	Category grade	RPA radius (m)	RPA area (m ²)
							N	E	S	W							
G1	Mixed Broadleaves	EM	10 MS	6	0	-	2				G	Southern boundary feature of shrubs and semi mature trees. Predominantly hazel with hawthorn and ash. Effective screen.		>40	B2	CS	
G2	Beech	SM	15	2	0	-	2				G	Beech hedge. Maintained at 2m high 4m wide.		>40	C2	CS	
G3	Cherry Laurel	M	10 MS	2	0	-	1				G	A patch of Laurel 2m high.		20-40	C2	CS	
G4	Cherry Laurel	M	10 MS	2	0	-	1				G	Laurel at 2m high forming a ground level screen planted between mature lime trees.		20-40	C2	CS	
G5	Ornamental Shrubs	M	5 MS	1	0	-	0.5				F	A small hedge running alongside the drive.		20-40	C2	CS	

Key - General - * - Dominant species, # - Estimated figure, NA – not applicable, CS – Crown spread

Age - Y – Young, SM – Semi-mature, EM – Early-mature, M – Mature, OM – Over mature

Condition – G – Good, F – Fair, P – Poor, VP – Very poor, D - Dead

Category – A – High quality, B – Moderate quality, C – Low quality, U – Poor quality



Appendix B – Tree & Shrub Species List



Appendix B – Tree & Shrub Species List

Species	Common Name	Potential Height (m) (*from NHBC ⁸)
<i>Acer platanoides</i>	Norway Maple	18*
<i>Betula pendula</i>	Silver Birch	18
<i>Buddleja davidii</i>	Buddleia	5
<i>Chamaecyparis lawsoniana</i>	Lawson's cypress	18*
<i>Corylus avellana</i>	Hazel	8*
<i>Crataegus monogyna</i>	Hawthorn	10*
<i>x Cupressocyparis leylandii</i>	Leyland Cypress	20*
<i>Fagus sylvatica</i>	Beech	20*
<i>Fraxinus excelsior</i>	Ash	23*
<i>Ilex aquifolium</i>	Holly	12*
<i>Laburnum anagyroides</i>	Laburnum	12*
<i>Malus domestica</i>	Domestic Apple	10*
<i>Pinus sylvestris</i>	Scots Pine	20*
<i>Prunus laurocerasus</i>	Cherry Laurel	8*
<i>Rhus typhina</i>	Stags Horn Sumac	5
<i>Quercus robur</i>	Pedunculate Oak	20*
<i>Sambucus nigra</i>	Elder	10*
<i>Tilia x europea</i>	Common Lime	22*
<i>Ulmus glabra</i> Camperdownii'	Camperdown Elm	8

⁸ Chapter 4.2. *Building near trees*. National House Building Corporation, 2007



Appendix C – Tree Value Assessment Categories



Appendix C – Tree Value Assessment Categories

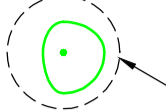
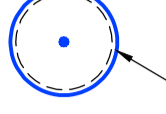
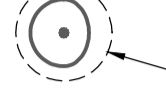


(From BS5837:2012, Table 1 – ‘Cascade chart for tree quality assessment’)

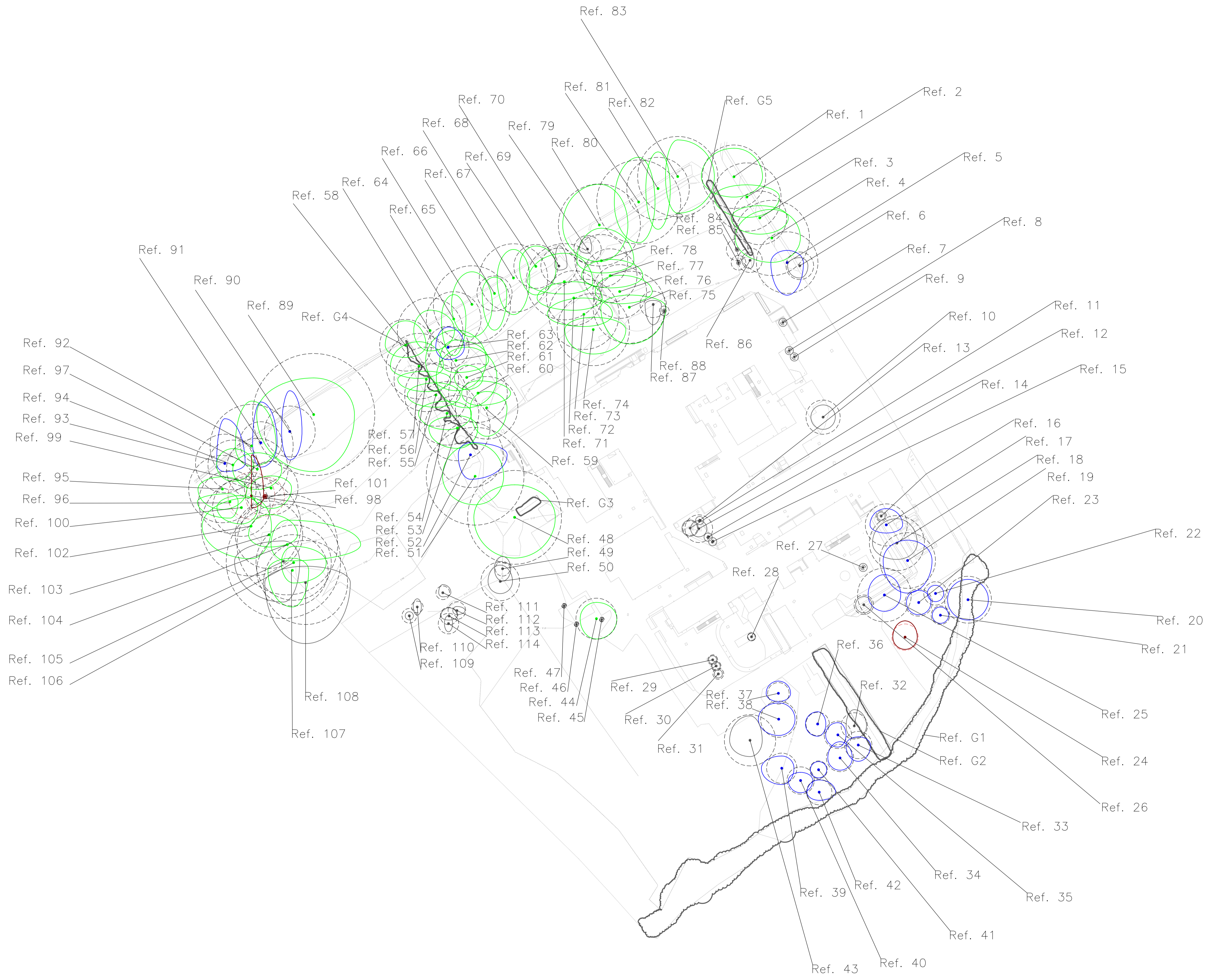
Category and definition	Criteria (including subcategories where appropriate)			Plan colour
TREES UNSUITABLE FOR RETENTION				
<p>Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</p>	<ul style="list-style-type: none"> Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve</i></p>			Dark red
TREES TO BE CONSIDERED FOR RETENTION				
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
<p>Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light green
<p>Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Mid blue
<p>Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm</p>	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Grey



Appendix D – Tree Constraints Plan

KEY

- Ref. 3 TREE REFERENCE
- Ref. G4 GROUP REFERENCE
- Ref. H1 HEDGE REFERENCE
-  CATEGORY A ROOT PROTECTION AREA (RPA)
-  CATEGORY B ROOT PROTECTION AREA (RPA)
-  CATEGORY C ROOT PROTECTION AREA (RPA)
-  CATEGORY U ROOT PROTECTION AREA (RPA)
-  ROOT PROTECTION AREA



NOTES

1. Tree constraints plan based on topographical survey by Survey SystemS job no. 1356 dated 04.12.15.

REV	DESCRIPTION	BY	CHK	APP	DATE

Client:
NHS Property Services Ltd

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Project:
Clitheroe Hospital

Drawing Title:
Tree Constraints Plan

Scale @	A1	Drawn	Date	Checked	Date	Approved	Date
1:500	RR	RR	11.12.15	MC	11.12.15	MC	11.12.15
Project No.	Office	Type	Drawing No.	Revision			
A094939	41	L	TCP01	-			

FILENAME: \\EEDS\EN\DATA\PROJECTS\A094939 - A094939\ACAD\DWGS\A094939 - CLITHEROE HOSPITAL - TREE CONSTRAINTS PLAN.DWG | PLOTTED BY: RADEK RUDNY | PLOTTED DATE: 20 January 2016 15:01:48



Appendix E – Report Conditions



WYG Environment Planning Transport Ltd

Clitheroe Hospital – Tree Survey Report

This report is produced solely for the benefit of NHS Property Services Ltd and no liability is accepted for any reliance placed on it by any other party unless specifically agreed by us in writing.

This report is prepared for the proposed uses stated in the report and should not be relied upon for other purposes unless specifically agreed by us in writing. In time technological advances, improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using reasonable skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented accordingly within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG by others, no independent verification of these has been made by WYG and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst reasonable skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal, budget and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative,



predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.

8 November 2012