
Tree Survey & Arboricultural Impact Assessment



Hallgarth The Manor House
High Pitington
Durham
DH6 1AB

6th May 2023



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Report Details

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Site Visit: 4 th March 2023 Report Issued: 6 th May 2023

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1. Introduction

A planning application is to be submitted for a holiday / camping pod development at Hallgath The Manor House, Durham. There are many trees growing within the grounds of the property. The proposed pods are to be sited close to / amongst the trees; therefore a Tree Survey and Arboricultural Impact Assessment (AIA) have been requested during the initial design stage, and as part of the planning application submission to:

- Assess the current health, condition and retention value of the trees.
- Provide details on the trees to assist in the final layout of the proposals to minimise the impact upon the trees where possible.
- Provided mitigation measures to minimise any potential impact upon the trees because of the proposals.
- Provide recommendations with regards to tree protection.

2. Methodology

The site was visited and the trees inspected visually from ground level, as part of a visual tree assessment (VTA), in accordance with BS5837:2012. Each tree has been tagged on site with an individual number that corresponds with the numbers within the Tree Schedule at Appendix 1 and the accompanying Tree Location, Tree Constraints & Tree Protection Plan ref: TLP_TCP_TPP01 dated 6th May 2023.

Weather conditions were fine and dry at the time of the inspection. The trees were not in leaf. As trees are living organisms, their condition is subject to change; therefore, the details contained within this report are valid for a 12-month period.

Durham County Council's online mapping has been used to check the Tree Preservation Order (TPO) and Conservation Area status of the site. The site is within Hallgath Conservation Area, there are no TPO's.

Information included in this report includes:

- Tree Schedule (with tree details) – Appendix 1
- Site Location & Designations (Conservation Area) - Appendix 2
- Photographs – Appendix 3
- Terminology & BS5837: 2012 Methodology – Appendix 4
- Tree Protection – Appendix 5

3. Limitations

Some trees are covered in dense Ivy, restricting visual inspection. Where this is the case, tree retention value and condition has been estimated on what could be seen. Going forward Ivy should be severed, and the trees re-inspected when it has been removed / has died back so that a more accurate assessment of the trees health and condition can be ascertained.

4. Site Survey

Hallgarth Manor House is a country house hotel situated approximately five miles north east of Durham City. The property is within a semi-rural location, on the edge of the nearby village of Pitlington, off Hallgarth Lane. A small number of individual, residential properties surround the site on its south and eastern sides.

The property consists of the main hotel, which fronts north. Car parking is located to the north and north east of the hotel, a secondary car park (possible staff car park) can be found immediately west of the hotel. Vehicle access to the hotel and both car parks, is from the west of the site, off Hallgarth Lane.

The property has grounds / gardens that surround the hotel on its southern side, and extend to the north of the site where Hallgarth Lane meets Manor Viewed and a private access road that runs parallel to the eastern boundary of the site.

The garden to the rear and south of the hotel consists of well-maintained lawns, that are accessible and more frequently frequented in comparison to the grounds to the north of the site, that consists of unmaintained grass, with densely covered mature trees across the western side, and a dense row of trees across the eastern side.

5. The Proposed Development

The proposed development involves the siting of eight individual pods within / adjacent to trees at the front, northern side of the site.

A new single track access road is proposed off Hallgarth Lane from the north. The road extends in a north / south direction, approximately central across the site to the front of the hotel, before turning west onto the existing access from the west back onto Hallgath Lane at a more southern point. The pods will be sited either side of the new access road, five to the east and three to the west.

Each pod will have its own pedestrian path leading from the new access road. Services will be laid within the paths.

6. Tree Survey

Hallgarth The Manor House, has very good tree cover, with most of the trees growing across the northwestern part of the site. The trees in the main have grown to form, large, mature dominant trees, that are an attribute to the property and wider area. Collectively the trees are of high amenity, conservational and biodiversity value.

Group 1 trees, growing in a row across the north eastern side of the site (north / south direction) consist of low quality, self-seeded trees growing in competition, however they are of a greater collective value.

In terms of tree health and condition, the majority of the trees assessed appeared to be in a reasonable state of health, however a small number have signs of decay / defects / disorders (red category trees). Additionally, some trees are heavily suppressed by Ivy, restricting inspection and determination of the trees health.

Where trees are showing signs of decline, in their current environment these trees present less risk, opposed to post development, when there will be increased activity adjacent to the trees. Future tests will be required to ascertain the structural integrity of the trees with decay / defects (identified within the Tree Schedule).

A summary of the trees assessed and retention value (in accordance with BS5837: 2012) is shown in Table 1 below:

Table 1: Existing trees

BS5837: 2012 Retention Value	No of trees numbers (including Groups)
Green (high) value	4
Blue (moderate) value	20
Grey (low) value	18 (inc. x3 Groups)
Red (poor condition)	7
Total no of trees / Groups surveyed	49 (+ x3 Groups)

7. Arboricultural Impact Assessment (AIA)

Detailed consultation has taken place with the Architect in finalising the layout of the scheme to minimise the impact upon the trees. The potential impacts of the scheme are set out below:

7.1 The proposed access road

The proposed road from the northern boundary, that extends through the center of the site will not impact any of the trees.

From the TLP_TCP_TPP 01, it would appear that part of the road is on the eastern edge of T669's root protection area (RPA), however this area is existing car parking.

7.2 The proposed pods

The proposed pods sited across the eastern side of the site are close to Group 1 (G1) trees. In some cases, the pods encroach marginally into RPA's of G1, however this is minimal (less than 5% in each case). The trees in this location are low value, young and semi-mature trees opposed to mature trees. The works in this location should not have a detrimental impact upon them.

It will be necessary to raise the canopies of G1 on their western side, to facilitate the work and avoid damage to low, overhanging branches. Providing the tree works are undertaken

by a competent Arborists, in accordance with BS5837: 2012 the tree works will not be detrimental.

The proposed pods across the western side of the site have been sited as close to the access road as possible, opposed to amongst the trees to avoid impacting tree roots and canopies. Where there is some encroachment into tree RPA's (the central and most southern pod), this is minor. Nevertheless, to minimise any potential impacts upon tree roots, micro-piles and above ground beams are proposed instead of standard foundations. The pile and ground beam foundation design requires a reduced excavation compared to traditional foundations and removes the need for large plant. The piles would be installed at 3m intervals across the footprint of the proposed structure, using a hand-operated drive head. Shallow excavations would be dug and micro piles, each 3.5m long 150mm diameter, 'screwed' into the ground. A steel reinforcing cage, designed to span between the pile positions, would then be assembled around the pile top brackets and the concrete cast will form the ground beams on which the pod can be constructed above ground level. The localised excavations required for the micro piles should not be detrimental to tree roots.

In terms of tree canopies, many of the trees on this side of the site, particularly those close to the proposed pods, have high canopies. However, should it be necessary to undertake minor tip pruning / crown raising works to facilitate the installation of the pods, these works should be agreed with Durham County Council. Tree works must be undertaken by a competent Arborists in accordance with BS39998.

7.3 Paths

The paths to the pods across the western side of the site are within the RPA's of some of the trees. The paths will be 250mm deep (150mm hardcore, 50mm sharp sand: cement dry mix & 50mm Paving Finish). Service for drainage and electric runs beneath the paths will be 450mm deep (total depth 700mm).

On the western side the paths do not impact tree roots. On the eastern side, the paths have been kept 'short' (close to the access) to avoid tracking over tree roots.

8. Conclusion

Hallgath The Manor House has very good tree cover. The proposed development involves siting holiday / camping pods across grass and hard standing areas, adjacent to trees at the front, northern side of the site. Many of the trees within this part of the site, particularly those to the west have grown to form dominant specimens of high amenity and conservational value.

The Tree Survey was undertaken at an early stage of the design and used to develop the final layout of the scheme. As a result of detailed discussions between the Arborist and the Architect, the pods have been sited within spaces amongst the trees. There are no trees to be removed as a result of the scheme.

Where tree cover is denser across the western side of the site, the lodges are sited close to the proposed access road to minimise ground disturbance between the trees, reduce the

impact upon tree roots from the pods and service runs, but also reduce the need to trim back tree canopies to facilitate the work.

In terms of the future management of the trees, there are some trees that have cavities / decay. In their current environment, the trees pose less risk than they do post development. Therefore, consideration should be given to the future, long-term management and risks associated with these trees. Where required (set out within the Tree Schedule), further tests should be undertaken on trees with cavities and decay to ascertain the structural integrity and suitability for long-term retention as part of the scheme.

9. Recommendations

Recommendations for tree works are set out within the Tree Schedule at Appendix 1. Tree works must be undertaken by a qualified Arborist and in accordance with BS3998. Tree works must be undertaken outside the nesting bird season (March to September inclusive), otherwise pre-works nesting bird checks must be undertaken.

Trees must be protected in accordance with the TLP_TCP_TPP01 dated 6th May 2023 and Appendix 5 of this report to avoid risk of damage to trees during the work.

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For We Care Tree Care
Date: 6th May 2023

Appendix 1 - Tree Schedule

Tree Tag No. / Group No.	Species	Age	Height (m)	DBH (cm)	Crown Spread south, east & west) (m)	Height above ground level of		BS5837: 2012 Colour Retention Category	Life Expect- any (yrs.)	Structural Condition	Physiological Condition	Tree Detail	Recommendations	Root Protection Area (m) (radius from the centre of the tree)
						a) canopy (m)	b) 1st branch & direction of growth							
634	Beech	Mature	84	17	2 9 9 5	3	7m south	Blue (B3)	20-40	TBC	Fair	Large dominant tree. Canopy asymmetric with more growth south due to competition. Some lower pruning works. Wound & cavity with decay, 1m in length on eastern side of lower stem. Some occlusion around wound. Gravel at base with unofficial path passing adjacent to tree (cut through).	Monitor condition. Less urgent than other trees with large open cavities, however whilst other decay detection works are taking place on site – undertake decay detection work (precautionary).	10.1
635	Horse chestnut	Mature	82	17	5 0 10 2	4	4m north east	Red	<10	Poor	Poor	Tree growing in competition with adjacent Beech, canopy all north. Tree leaning towards a path. Canopy appears to be healthy, however decomposing fungus at tree base possible <i>Meripilus Gigantues</i> (Giant polypore). Linear wounds with decay on stem with fungus possible <i>Armillara</i> (Honey Fungus), although unusually given height up stem. Reaction wood evident in places.	Pollard to heavy first lower limb (for biodiversity) or remove and replant.	9.8
636	Sycamore	Mature	83	17	3 6 3 4	4	6m south west	Blue (B2)	20+	Fair	Fair	Dominant tree, stem & canopy more south west. Occluded self-pruned limbs in lower canopy. Tree may have comprised of x2 stem that have become occluded (unconfirmed).	No action.	9.7
637	Sycamore	Mature	68	15	3 7 4 4	4	5m west	Blue (B2)	20+	Fair	Fair	Established tree. Clear upright stem with secondary leader at 6m with lateral, upright branch. Canopy has more growth south. Wound on north of stem, partially occluded.	Monitor condition.	8.2

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						a) canopy (m)	b) 1st branch & direction of growth							
638	Sycamore	Mature	60	9	4 4 4 4	3	3 north	Grey (C2)	10-20	Fair	Fair	Established tree growing on the edge of grassed area adjacent to car parking. Small target wounds from self-pruned / removed branches. x2 heavy uptight lateral branches unbalancing canopy to the west.	Formative pruning, removal of two lower limbs would balance canopy. Aerial inspect target wounds when other tree works are taking place.	7.2
639	Horse chestnut	Mature	50	10	4 3 4 3	2	4 south west	Red	<10	Poor	Poor	'Twisting stem' with decay and Jews Ear fungus present. Signs of <i>Armillaria</i> (Honey Fungus) at trees base. Decay on north of lower stem. Should tree fail it would do so in a direction toward the compost bin, therefore considered to be low risk.	Pollard and retain decay stem for biodiversity or remove and replant.	6.0
641	Lime	Mature	71	17	1 4 4 4	4	2m south	Blue (B3)	10-20	TBC (tree to be re-inspected when in full leaf)		Dominant tree. Canopy is asymmetric with more growth south due to competition. Lower branches have been pruned back. Epicormic growth removed at base. Stem leans north, then canopy asymmetric to the south. Top canopy grows out south, lower dog leg limb to the east. Signs of deadwood and dieback within tree canopy.	Monitor condition / Re-inspect when in full leaf.	8.5
642	Sycamore	Mature	58	15	3 3 3 4	4	4m north	Blue (B3)	20+	Fair	Fair	Dominant, tree tall. Upright stem with codominant leaders, reasonable union.	No action.	7.0
643	Sycamore	Mature	69	16	4 5 4 3	5	5m n & s	Blue (B3)	TBC (due to Ivy)		Fair	Electric cables and power point attached to tree. Ivy on stem and into canopy restricting inspection. Epicormics at base.	Sever Ivy, reinspect when Ivy has died off.	8.3
644	Sycamore	Mature	-	-	-	-	-	-	Red	Poor	Poor	Decaying stem, tree has been pollarded. <i>Meripilus Gigantues</i> at base.	No action.	n/a

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						a) canopy (m)	b) 1st branch & direction of growth							
645	Sycamore	Mature	57	16	3 2 3 3	3	3m north	Grey (C2)	Unknow (due to Ivy)		Tree covered in Ivy	Sever ivy	6.8	
646	Sycamore	Mature	70	17	3 4 4 2	5	-	Blue (B3)	20+	Fair	Fair	Tall establish tree. Limited lower branches, tree has been crown raised in the past. Re-growth around old pruning works. Epicormics at base have been cut back. Minor deadwood, one large piece to north. Ivy has been severed.	No action.	8.4
647	Sycamore	Mature	55	15	3 4 2 2	8	4m west	Grey (C2)	20+	Fair	Fair	Tall, clear upright stem. Tree has codominant stems at 5m. Lateral branch to west growing parallel to main stem. Small, minor cavity at base north.	Formative prune - remove parallel lateral branch.	6.6
648	Sycamore	Mature	81	18	8 8 6 7	8	N/A	Blue (B2)	20+	Fair	Fair	Large, tall tree. Upright clear stem to 6m where it splits into codominant stems. High canopy Some lower growth suckers.	No action.	9.7
649	Ash	Semi-mature	56	16	3 5 1 3	10	8m east	Blue (B3)	20+	Poor	Fair	Tall tree. Stem and canopy asymmetric with more growth south west due to competition. Tree is in contact with adjacent Sycamore. Lower growth suckers on stem.	No action.	9.7
650	Sycamore	Early semi-mature	51	14	4 4 4 4	3	3m south west	Grey (C3)	20+	Fair	Fair	Younger tree within group. Canopy relatively well balanced.	No action.	6.2
651	Sycamore	Mature	89	18	3 3 3 3	-	N/ A	Grey (C2)	Unknow (due to Ivy)		Tree covered in Ivy , stem not visible.	Sever Ivy and reinspect when Ivy has died back.	10.7	
652	Beech	Young	29	6	1 1 3 0	2	2m west	Grey (C2)	20+	Fair	Fair	Small tree, upper canopy asymmetric to the east due to competition. Stem grows north then east.	No action.	3.5
653	Sycamore	Young	40	14	2 2 2 3	4	4m west	Grey (C2)	10-20	Fair	Fair	Small / medium sized spindly tree. Codominant stems formed at 5m.	No action.	4.8

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						a) canopy (m)	b) 1st branch & direction of growth							
654	Sycamore	Mature	64	17	4 2 0 5	6	-	Grey (C2)	10-20	Fair	Poor	Tree covered in Ivy restricting inspection.	Sever Ivy & reinspect when Ivy has died back.	7.7
655	Beech	Early semi-mature	49	12	3 0 4 4	4	4m east	Grey (C2)	20+	Fair	Fair	Top of canopy asymmetric, more growth west due to competition. Tree previously pruned, works partially occluded.	No action.	5.9
657	Beech	Semi-mature	66	15	3 0 7 0	3	2.5m south	Grey (C2)	20+	Fair	Fair	Tree stem is upright then upper stem grows out west over adjacent highway.	No action.	7.9
659	Lime	Mature	59	20	4 4 3 5	4	3m north	Blue (B3)	20+	Fair	Fair	Dominant tree. Approximately 15% deadwood evident. Epicormics at base. Minor Ivy.	Remove deadwood. Sever Ivy.	7.1
658	Sycamore	Mature	59	17	4 3 4 0	7	2m north & south	Grey (C2)	20+	Fair	Fair	Growing in competition. Top of canopy all south.	No action.	7.0
660	Sycamore	Mature	88	16	4 4 4 4	3	3m south	Blue (B3) - TBC when Ivy removed	Unknown (due to Ivy)		Tree covered in Ivy restricting inspection. Codominant stems at 3m.	Sever Ivy and reinspect once Ivy has been removed/ died off.	10.6	
661	Sycamore	Mature	66	17	4 5 6 4	3	3m east	Blue (B2)	20+	Fair	Fair	Dominant tree. Tall upright stem, codominant stems at 6m. Crossing leaders in canopy.	No action.	7.9
662	Sycamore	Mature	100	16	6 5 3 6	3	2.5m east	Blue (B1)	20+	Fair	Fair	Dominant tree. Codominant stems with 'V' union. Six stems almost in contact. Large heavy limb growing out to west unbalancing canopy. Canopy leans more to west. Minor deadwood. Epicormics off at base.	No action.	12.0

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						a) canopy (m)	b) 1st branch & direction of growth							
663	Sycamore	Mature	42	9	2 3 1 4	3	3m east	Grey (C2)	20+	Fair	Fair	Small tree. Canopy asymmetric with more growth west due to competition.	No action.	5.0
664	Sycamore	Mature	65	14	3 4 4 4	4	4m south east	Grey (C2)	20+	Fair	Fair	Reasonable, canopy slightly more west. Epicormics removed at base.	No action.	7.8
665	Elm group	Young	5	19 19 13	2 1 0 2	2	N/A	Grey (C2)	10	Poor	Fair	Multi-stemmed, regrowth from removed tree.	No action.	1.9
666	Sycamore	Mature	72	16	4 4 3 4	6	6m north	Blue (B3)	20+	Fair	Fair	Dominant tree. Clear upright stem. Codominant stems at 5m. Lower growth sucker. Epicormics removed.	No action.	8.6
667	Sycamore	Over-Mature	98	17	6 7 4 4	10	-	Red	10	Poor	Poor	Large mature tree. Clear stem to 3m where it splits into 3 competing stems – eastern leader has snapped out, decay evident. Large cavity at base with possible <i>Innonotus dryadeus</i> (Dryas saddle) (decomposed) large limb to the south east has been removed in past. Tree currently considered to be relatively low risk due to location.	Given the extent of the cavity, the tree may need to be removed in view of the proposals for the site. Decay detection can be undertaken to ascertain the full extent of decay (as is recommended elsewhere on site). Aerial inspect union.	8.2
668	Sycamore	Mature	75	16	4 6 5 4	4	3m north	Red	<10	Poor	Poor	Cavity at base on western side that extends into the tree's stem. Target wounds with minor decay. Epicormic growth at base.	Undertake decay detection work to establish extent of decay and structural integrity of tree.	9.0
669	Ash	Over-mature	120	20	7 9 11 10	8	8m north west	Green (A1)	20-40	Fair	Fair	Dominant tree of high value. Large buttress root growing out to the north. Clear, upright stem to 5m where into codominant stems are formed. Canopy is heavier to the east. Evidence of branch failure in past - snapped limbs	Remove epicormics and lower water shots.	14.4

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						a) canopy (m)	b) 1st branch & direction of growth							
												on ground. Lower water shots. Snags and approximately 15% deadwood within canopy.		
670	Sycamore	Mature	65	13	6 3 10 4	6	4m north	Red	10	Poor	Fair	Cavity with decay at base. Number small target wounds with minor decay.	Undertake decay detection work to establish extent of decay and structural integrity of tree.	7.8
671	Yew	Semi-mature	<10 5+ stem s)	3	2 2 2 2	<1	N/A	Grey (C2)	20-40	Fair	Fair	Low growing, multi-stemmed Yew.	No action.	6.0
672	Sycamore	Mature	85	15	8 7 7 7	3	2m south east	Blue (B2)	20+	Fair	Fair	Callusing on stem. Small pocket / cavity to south east (minor given stem size). Heavy lower limb. Canopy formed at 6m. Target wounds within canopy.	No action.	10.2
673	Sycamore	Mature	82	15	5 3 3 5	3	3m west	Blue (B2)	20+	Fair	Fair	Mature tree, mostly upright stem and balanced canopy with the exception of lower limb to east unbalancing canopy. Limb to west growing horizontal below cables. Small target wounds mostly fully occluded.	No action.	9.8
674	Sycamore	Mature	87	18	2 9 8 4	2	2.5m north	Blue (B2)	20+ (TBC)	TBC - Unknow (due to Ivy)		Heavy lower competing vertical limbs. Tree covered in Ivy restricting inspection.	Sever Ivy and reinspect once Ivy has been removed/ died off.	10.4
675	Sycamore	Over-mature	120	20	6 5 4 7	8	4m north west	Red (TBC)	20+ (TBC)	TBC - Unknow (due to Ivy)		Tree covered in Ivy. Decay / cavities at base / on lower stem not fully visible due to Ivy. Tree has 3/4 upright competing stems decay.	Survey Ivy and re-inspect. Decay detection work may be required to establish the extent of decay.	14.40

Tree Tag No. / Group No.	Species	Age	Height (m)	DBH (cm)	Crown Spread south, east & west (m)	Height above ground level of		BS5837: 2012 Colour Retention Category	Life Expect-any (yrs.)	Structural Condition	Physiological Condition	Tree Detail	Recommendations	Root Protection Area (m) (radius from the centre of the tree)
						a) canopy (m)	b) 1st branch & direction of growth							
676	Sycamore	Over-mature	106	22	9 8 11 6	6	4m north	Green (A1)	20+	Fair	Fair	Mature dominant tree. Large spreading canopy more east. Decayed pruning wounds / wound from lost limbs to east at 6m. Epicormics at base, water shots on stem. Minor deadwood.	Monitor condition.	12.7
677	Sycamore	Over-mature	125	22	7 8 9 7	6	4m north	Green (A1)	20+	Fair	Fair	Dominant, mature tree. Growing on slightly raised mound. Clear stem to 4m, where branching system is formed. Well balanced canopy, partly overhanging adjacent highway. Small target wounds. Minor deadwood. Large limb removed / part occluded.	No action.	15.0
678	Sycamore	Mature	58 30	17	5 6 5 5	10	N/A	Blue (B2)	20-40	Fair	Fair	Dominant tree, growing in raised bed gravel bed 0.5m higher than ground level. X1 dominant stem and secondary small stem attached / splits at 0.5m. Well balanced upper canopy lvy has been severed.	No action.	N/A
679	Sycamore	Mature	64	15	3 5 1 2	4	4m north / south	Blue (B2)	20+	Fair	Fair	Dominant tree. Canopy has more growth south. Codominant stems at 4m. Minor wound on north western side of stem partly occluded. Branch with wound in canopy to the south – branch low risk due to location (over raised bed).	No action.	N/A
680	Beech	Mature	90	22	8 7 6 6	5	5m south	Green (A1)	20	Fair	Fair	Tree growing 1m the ground level, in raised gravel topped bed. Occluded wounds on stem. Crossing branches typical of species. Some bark cracking (underside of scaffolds). Evidence of past pruning works (lower canopy). Minor gravel back fill at base.	No action.	N/A

Tree Tag No. / Group No.	Species	Age	Height (m)	DBH (cm)	Crown Spread south, east & west (m)	Height above ground level of		BS5837: 2012 Colour Retention Category	Life Expect-any (yrs.)	Structural Condition	Physiological Condition	Tree Detail	Recommendations	Root Protection Area (m) (radius from the centre of the tree)
						a) canopy (m)	b) 1st branch & direction of growth							
681	Sycamore	Mature	17	100	4 4 4 4	10+	4m -	Blue (B2)	20	Fair	Fair	Tree has 3 upright competing scaffold limbs from at 2m, with a U shaped crotch. Wound on south western side of most western leader.	U shape crotch to be inspected when tree works are being carried out.	12
Group 1 (G1)	Ash & Sycamore group	Semi-mature	Av. 40	Up to 14	Varies	2	Varies	Grey (C2)	20-40	Poor & Fair	Fair	Growing in a row / hedgerow effect. Some self-seeded, multi stemmed trees / in contact with one another. Individually of low quality but good screen. Some decayed stems in groups and some with bark damage.	Group may need crown raising (to 2-3m) in the future over development site to avoid damage to overhanging branches.	4.8
Group 2 (G2)	Conifers (Cypress sp.) X2	Mature	45, 48, 50, 35, 23	8	2 2 2 2	1.5	Varies	Grey (C2)	20-40	Fair	Fair	Two large multi-stemmed trees growing side by side. One tree has a heavy low growing limb to the north.	No action.	N/A
Group 3 (G3)	Holly Oak	Semi-mature	31 33	4	2 4 4 4 2 2 2 2	3	2m north	Grey (C2)	10-20	Fair	Fair	Small ornamental trees growing in a row side by side. Holly – closest to hotel. Small ornamental tree. Minor deadwood. Oak – small tree. In competition, canopy more growth south .	No action.	3.7 4.0

Appendix 2 – Site Designations



Figure 1 – Site Location Plan (Google Maps). The proposed pods are to be sited across the northern part of the site, adjacent to the trees (indicated location – red circle).

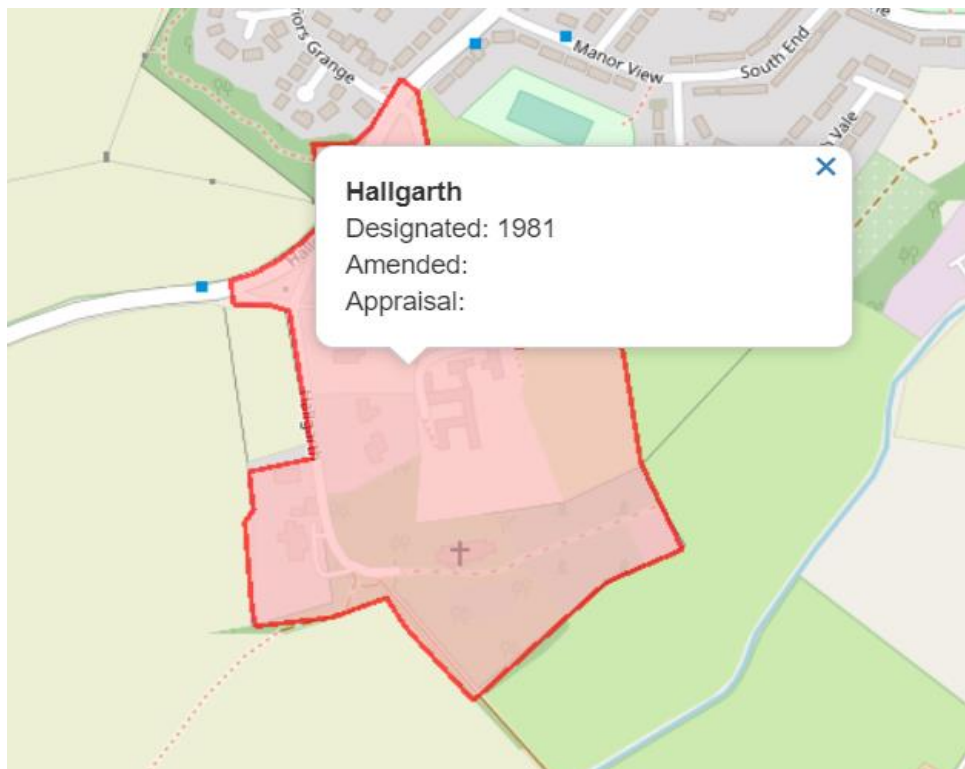


Figure 2 – Durham County Council Online Maps showing the extent of the Conservation Area (Durham County Council)

Appendix 3 – Photographs



Photograph 1 – Hallgarth The Manor Hotel



Photograph 2a & b – The trees growing on green space north east of the hotel (numbered 634 to 638)



Photographs 3a to d – Snap shots of the trees growing north west of the hotel



Photographs 4a & b – The trees either side of the existing driveway into the site



Photograph 4 – Tree 634 and the wound on the trees trunk



Photograph 5 – Tree 634 & 635



Photograph 5a to e – Tree 635 and the various defects



Photograph 6a to e – Tree 639 and the various defects



Photograph 7a & b – Tree 667



Photograph 8a & b – Tree 668



Photograph 9a & b – The large Sycamores at the northern end of the site (covered in Ivy).
The image to the right shows the decay / wound on the stem of tree 675



Photograph 10 – G1 trees



Photograph 11 – G2 & G3 trees

Appendix 4 - Terminology & BS5837: 2012 Methodology

- 1.0 **Tree number:** Where trees have been assessed individually, they were allocated individual 'T' or tree numbers. Where trees are in large groups and may be difficult to identify they have been 'tagged' with tree tags showing the allocated number. This is identified in the report.
- 1.1 **Tree species:** Tree species is identified and provided.
- 1.2 **Age class:** The estimated age of the tree, categorised as one of the following:
 - a) Young – Immature specimens, being in the early stages of life or development.
 - b) Semi-mature – half, or early stages of maturity.
 - c) Mature – Completely developed/ developed fully.
 - d) Over-mature –The latter stages of maturity, being past maturity and optimum life. The tree is therefore in latter stages of life.
- 1.3 **Tree Height:** Estimated height of the tree given from base at ground level to top of canopy.
- 1.4 **DBH:** The trees 'diameter at breast height' and involves measuring the diameter of the trees trunk at a height of approximately 1.3 meters above soil level. This measurement is then used to calculate trees 'Root Protection Areas' (RPA), a definition of which may be found within the glossary.
- 1.5 **Crown spread:** The spread of the trees crown was estimated in meters "at four cardinal points to derive an accurate representational the crown", e.g. from the centre of tree in north, south, east and western directions (BS 5837:2005).
- 1.6 **Existing height above ground level of a) first significant branch and direction of growth, and b) canopy.** This is used to inform on ground clearance, crown/stem ratio and sharding.
- 1.7 **Trees Condition – Structural / Physiological & further comments:** General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay and physical defect), and/or preliminary management recommendations.
- 1.8 **British Standard Colour Categorisation BS5837: 2012**

Trees are allocated a 'colour' in accordance with the chart below. The colour categorises are a coding system which identifies the trees 'retention value' (see overleaf).

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
Trees unsuitable for retention (see Note)		
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	<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; see 4.5.7.</i></p>	See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities
		3 Mainly cultural values, including conservation
Trees to be considered for retention		
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	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
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	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
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	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
	Trees with material conservation or other cultural value	See Table 2
	Trees with no material conservation or other cultural value	See Table 2

Table 2 Identification of tree categories

Category (from Table 1)	Colour ^{A)}	RGB code ^{A)}
U	Dark red	127-000-000
A	Light green	000-255-000
B	Mid blue	000-000-255
C	Grey	091-091-091

^{A)} Colours verified against <http://safecolours.rigdenage.com/palettefiles.html#files> [viewed 2012-03-26].

Terms used to describe such diseases and disorders may be found within the Glossary.

1.8 **Estimated remaining contribution in years in accordance with BS 5837:** This is a professional judgement may on the expected remaining life / contribution of the tree. The following categories apply.

Less than 10.

10-20

20-40

more than 40.

1.9 **Recommendations:** Advice is given on any recommended on tree works based on surveyor's experience and knowledge.

The following terms may be used:

- (a) Crown clean – involves the removal of dead, dying, diseased damaged and crossing branches, usually undertaken for the health and longevity of the tree, but also as a means of reducing potential risk associated with branch failure.
- (b) Crown raise/lift – the selective removal of the lower branches to raise the lower canopy of the tree. This may be undertaken to allow avoid obstruction to pedestrians/vehicles. Such works may be prescribed as a method of formative pruning to improve the shape of trees, particularly younger specimens.
- (c) Crown Thin – the selective removal of branches within the crown reduce crown density, allowing the increased penetration of light and air to pass through the canopy. This is usually prescribed as a percentage thin.
- (d) Removal – complete removal of the tree, usually to a height just above existing ground level unless indicated otherwise.

Appendix 5 - Tree Protection

- 5.1 In terms of tree protection all of the trees need to be protected in accordance with BS5837: 2012. Measurements were obtained on site which enabled the tree's root protection areas (RPA) to be calculated, the details of which are shown on the attached Tree Constraints Plan.

Usually, protective fencing would be set up outside of the trees RPA, however in the case, the southern side of the trees RPAs already encroaches into the developed area, therefore protective fencing would have to be set up adjacent, but as close to the boundary wall of the property as possible.

Further information on tree protection and protective fencing:

5.2 Barriers and ground protection (Extract Taken from BS 5837: 2012)

- 5.3 "All trees that are being retained on site should be protected by barriers and/or ground protection before any materials or machinery is brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. Where, due to site constraints, construction activity cannot be fully or permanently excluded in this manner from all or part of a tree's RPA, appropriate ground protection should be installed....

- 6.4 Where required, pre-development tree work may be undertaken before the installation of tree protection measures, with the agreement of the project arboriculturist or local planning authority if appropriate. It should be confirmed by the project arboriculturist that the barriers and ground protection have been correctly set out on site, prior to the commencement of any other operations" (BS 5837: 2012).

6.5 Barriers

"Barriers should be fit for the 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 should consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated in Figure 2. The vertical tubes should be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.

6.6 Where the site circumstances and associated risk of damaging incursion into the RPA do not necessitate the default level of protection, an alternative specification should be prepared by the project arboriculturist and, where relevant, agreed with the local planning authority. For example, 2 m tall welded mesh panels on rubber or concrete feet might provide an adequate level of protection from cars, vans, pedestrians and manually operated plant. In such cases, the fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers should be at least and should be uniform throughout the fence. The panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins (Figure 3a). Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray (Figure 3b)". (BS 5837: 2012)

