Arboricultural Report

Tree Survey
Arboricultural Impact Assessment
& Tree Protection Plan

Land at
Aspen Place
Comptons Road
Horsham
RH13 6BW

Prepared by:

The Mayhew Consultancy Ltd

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AR/148224 June 2024

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1.0 Summary

1.1 **Site summary:**
The subject site is located on land at Aspen Place, Comptons Road, Horsham, RH13 6BW. The proposal is to install an additional level of accommodation to the south of the existing building, on the existing ground floor footprint. The scheme also requires the installation of an external fire escape stairway, to be installed on the rear southeastern face of the block.

1.2 **Existing trees (Section 8 refers):**
I surveyed nine individual trees, six groups of trees and one length of hedge both on and off-site in June 2024.

1.3 **Condition of existing trees (Section 9 refers):**
No trees were found to be in such a condition that their immediate removal is recommended irrespective of the outcome of this proposal.

1.4 **Consequences of development on trees (Section 9 refers):**
No trees would be lost if the proposal were to be implemented.

1.5 **Tree Works (Section 10 refers):**
No specific tree works are recommended to implement the proposal. However, some minor crown lifting or cutting back may be required in order to facilitate access.

1.6 **Tree Protection (Section 11 refers):**
In order to protect the root systems of retained trees during the construction period, the following is recommended:

- The installation of one tree protection barrier

1.7 **Conclusion:**
If the recommended tree protection measures are installed and adequately supervised, I consider that the proposal can be successfully implemented while protecting the retained trees to a level which complies with current arboricultural standards.

2.0 Survey details

The Site: Land at Aspen Place, Comptons Road, Horsham, RH13 6BW

TMC Ref: AR/148224

Local authority: Horsham District Council

Survey date: 25th June 2024

Report date: 30th June 2024

Surveyed by: Clive Mayhew BA (Hons), MICFor, FArbor.A., CEnv

3.0 Instructions

3.1 I have been instructed to:

1. Survey the trees potentially affected by the proposal.

2. Produce an arboricultural report fully compliant with the recommendations contained within 'BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.'

3.2 My name is Clive Mayhew, and I am the author of this report. I have over 35 years of experience in tree, landscape and ecology management in both the public and private sectors. I am a Chartered Arboriculturist within the Institute of Chartered Foresters, a Chartered Environmentalist, and a Fellow of the Arboricultural Association.

4.0 Site details

4.1 **Site description:** The subject site is located on land at Aspen Place, Comptons Road, Horsham, RH13 6BW.

4.2 **Proposal details:** The proposal is to install an additional level of accommodation to the south of the existing building, on the existing ground floor footprint. The scheme also requires the installation of an external fire escape stairway, to be installed on the rear southeastern face of the block.

4.3 **Existing structures:** There is the existing care home facility on site.

4.4 **Existing topography:** The site is generally level throughout, with no topographical variations of any arboricultural significance.

4.5 **Existing vegetation:** There is minimal additional vegetation to the trees listed in the report, restricted primarily to ornamental shrubs to the north and east of the building.

4.6 **Soils:** The soil type is of relevance because soils with a high clay content can be compacted, which in turn can be extremely damaging to tree roots. The British Geological website indicates the bedrock geology to be sandstone and mudstone from the Upper Tunbridge Wells sand formation. The clay content within such soils is likely to be low, but the tree protection measures advocated in this report are still set at the highest level of current technical specifications.

5.0 Planning history

5.1 I have been given no specific details of the site's planning history.

6.0 Protected trees

6.1 The two oak trees identified as G13 in this report appear to be protected as T1 and T2 within Horsham District Council's Tree Preservation Order No: 1194, which was served on 22nd August 2003.

6.2 It should be noted that the legal status of trees can change at any time through the serving of a new Tree Preservation Order or the creation of a Conservation Area, and this should be checked prior to the commencement of any works.

7.0 Documents supplied

7.1 I have been supplied with proposal plans by Coster Associates.

8.0 Existing trees

8.1 I surveyed nine individual trees, six groups of trees and one length of hedge both on and off-site in June 2024. These have been plotted on the existing tree plan at Appendix A, and described within the schedule at Appendix C.

8.1.1 I classed the trees according to the classifications outlined within BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (See Appendix E).

9.0 Arboricultural Impact Assessment (AIS)

9.1 The recommendations made here relating to tree retention, removal and planting are informed by current arboricultural, planning and urban design best practice, primarily British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations,' which advocates a pragmatic approach to tree removal and retention, based on sustainability.

9.2 **Trees requiring removal *irrespective* of the proposal**

9.2.1 No trees were found to be in such a condition that their removal is recommended irrespective of the outcome of this proposal.

9.3 **Trees requiring removal as a *consequence* of the proposal**

9.3.1 No trees would be lost if the proposal were to be implemented.

10.0 Tree Works

10.1 No specific tree works are recommended to implement this proposal. However, some minor crown lifting or cutting back may be required in order to facilitate access.

10.2 Any works undertaken should comply with the recommendations contained within British Standard 3998:2010 'Tree Work' and undertaken with the consent of the local planning authority – if such consent is required.

11.0 Arboricultural Method Statement (AMS)

11.1 Root Protection Areas (RPAs)

The identification of Root Protection Areas is the primary means by which retained trees are protected on construction sites. No unspecified activity should occur within any prescribed RPA, access should only be permitted with prior approval of the Local Planning Authority, and encroachment should normally only take place if the ground beneath is suitably protected.

11.1.1 BS 5837:2012 provides arboriculturists with a method to determine the extent to which excavations associated with construction works might have a damaging effect on the roots of adjacent trees. The Standard enables an RPA to be calculated from the diameter of each retained tree, and this is usually described as a circle with a radius at the prescribed distance from that tree.

11.2 RPAs and the subject site:

11.2.1 Some aspects of the proposed development will potentially encroach into the nominal RPAs of retained trees on site, while other activity will occur close to them, and I therefore make the following recommendations regarding specific tree protection measures.

11.3 Protective barriers

11.3.1 BS 5837:2012 recommends that the RPAs of the subject trees should be protected by the erection of barriers, the preferred form of which consists of welded mesh 'Heras' type panels 1.8 metres high, mounted on a braced scaffolding frame as detailed in Figure 2 & 3 of BS 5837:2012. (See Appendix F). The barriers should carry laminated signs stating: "Construction exclusion zone – No Access," or similar. (See Appendix G). It is recommended that gaps should be left beneath the bottom of any perimeter site fencing and the ground to allow for the passage of foraging mammals.

11.3.2 **The subject site**: The requirement for one Tree Protection Barrier has been identified and this has been illustrated at Appendix B.

- **TPB 1** - This barrier is located along the site's southern and southwestern boundaries. It is designed to protect the RPAs and stems of trees beyond the barrier from potential damage as a result of construction activity.

  Note: It was noted on site that the existing southern boundary fence is located to the north of the actual site boundary. Given the nature and relative robustness, of the existing boundary fence this could be utilised as an appropriate TPB for the duration of the construction works. This fence is located to the south of the indicated location of TPB1 illustrated at Appendix B, but given the existing ground covering on site, I consider that this arrangement will provide adequate protection to the roots of any trees that might be present in this area.

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11.4 Demolition

No specific demolition works are identified as part of this proposal. However, no works of any description should commence until the tree protection measures specified above have been installed.

11.5 Utilities

11.5.1 Where supply of any underground utilities passes through the RPAs of retained trees BS 5837:2015 recommends that detailed plans should be drawn up in conjunction with an appropriately qualified arboriculturist - See Section 7.7.

11.6 Other general activities

11.6.1 Many of the activities which occur on construction sites are potentially damaging to trees. These include the location of site huts, parking arrangements, the storage of materials, the storage of rubbish, and the movement and operation of plant. It is important to understand the range of potentially damaging activities that might occur on a site and ensure at an early stage that these possible conflicts are recognised and avoided. Therefore, areas designated for site huts, parking and storage of materials should be identified prior to the commencement of works.

11.6.2 **The subject site:** There appears to be adequate space within the body of the site to ensure that areas for storage and other aspects of site accommodation are not in conflict with the tree protection measures recommended in this report. However, this aspect of site management should be established and agreed prior to the commencement of works.

12.00 Post development pressure

12.1 When new structures are located near to trees there may be pressure to prune or remove them because of concerns that the trees might fail in some way, or because of perceived shading. Inevitably the tolerance of individuals towards trees varies considerably; one may take exception to the proximity of adjacent trees while another will happily coexist with the same juxtaposition.

12.2 **The subject site:** Concern has been expressed with regards to the potential post development pressure that could be exerted towards the two oak trees within G13 following completion of the works. I feel that the following factors are of relevance in considering this potential:

- The linear encroachment towards the crowns of these trees will be no greater than that which currently exists, given that the proposal is restricted to the building's current footprint.

- There is a perfectly acceptable degree of separation existing at the present time between the building and the trees' crowns which could be maintained, again acceptably, through crown maintenance if required.

- Fenestration within the first floor flat will be dual aspect, and the main, western window will not be obscured in any way by the trees' crowns.

- It is perfectly reasonable to expect that future residents would both enjoy and value a southern aspect view of the trees' crowns, and there is no evidence to necessarily consider the opposite view will prevail.

- The existing Tree Preservation Order means that the local authority has the mechanism by which to control any future works to these trees and refuse any works it considers to be excessive or unreasonable.

12.3 Given the above, I do not consider that the potential for any post development pressure directed towards these trees will be a significant issue in this instance.

13.0 Sequence of works

13.1 The sequence of works should be as follows:

1. Tree works
2. Erection of tree protection barrier
3. Construction works
4. Removal of tree protection barrier

14.0 Recommendations

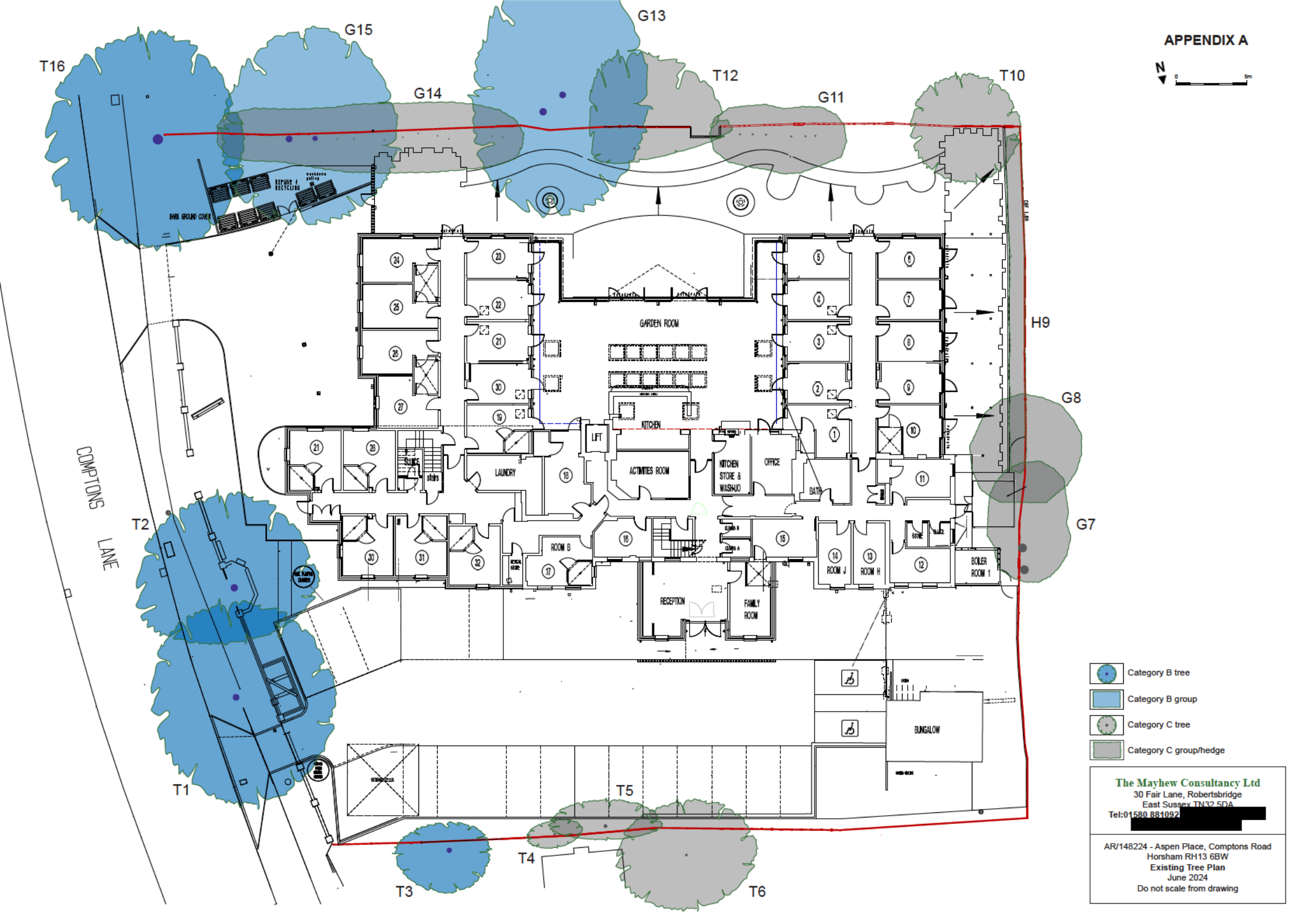
14.1 It is recommended that the tree protection measures advocated in this report should be followed at all times. Any deviation should only occur following consultation with the local authority's arboricultural officer, and then only with their specific approval.

14.2 It is recommended that a suitably qualified arboriculturist supervises the installation of the tree protection measures and confirms that they comply with BS 5837:2012, and if necessary, briefs the individual who will be responsible for the maintenance of tree protection measures for the duration of the works.

14.3 An individual should be identified as a point of contact for arboricultural matters for the duration of the works. This individual will need to be familiar with the arboricultural constraints presented by the site, the tree protection measures that have been installed, and the requirement to keep those measures adequately monitored and maintained.

15.0 Conclusion

15.1 I consider that this scheme is acceptable in arboricultural terms and that the subject trees can be protected according to current standards, providing the recommended mitigation measures are adopted.



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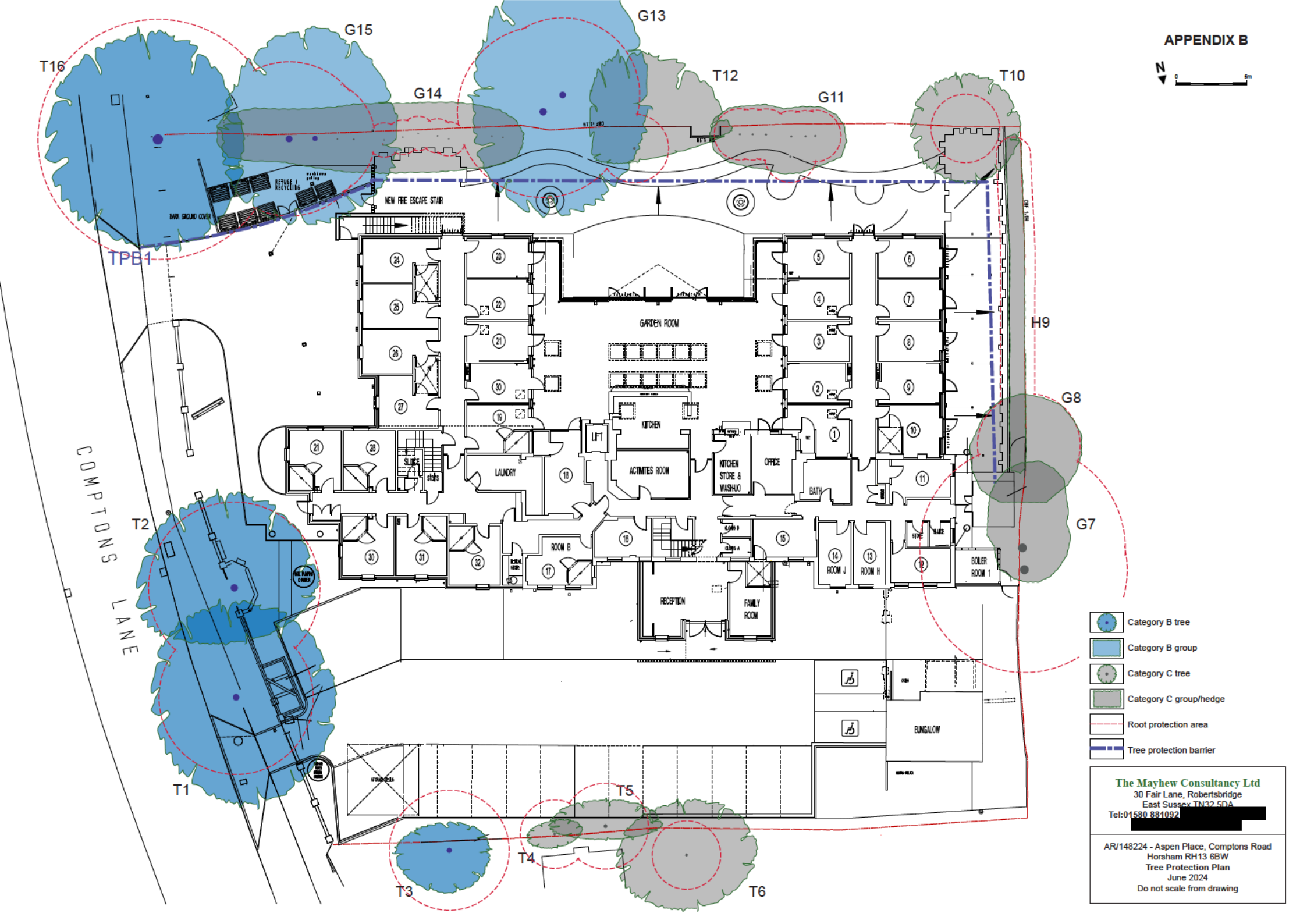
AR/148224 - Aspen Place, Comptons Road
Horsham RH13 6BW
Existing Tree Plan
June 2024
Do not scale from drawing



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AR/148224 - Aspen Place, Comptons Road
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Tree Protection Plan
June 2024
Do not scale from drawing

Tree Survey – 25th June 2024

Tree No	Species	Height	Stem dia.	RPA Rad	RPA Area	Crown spread N – S – E - W				CB	Age	Phy con	Str con	ECR	Class	Notes
T1	Lime	16	45	**5.4**	92	8	7	6	7	4	M	G	G	L	**B**	Street tree prominent to road.
T2	Lime	17	50	**6.0**	113	4	7	7	6	5	M	G	G	L	**B**	Essentially street tree, but within property boundary. Prominent to road.
T3	Cypress	18	35	**4.2**	55	4	3	2	3	2	M	G	G	M	**B**	Of-site tree. Prominent to road.
T4	Holly	7	20	**2.4**	18	1	1	2	2	2	M	F	F	M	**C**	Established, but unexceptional boundary tree.
T5	Holly	8	25	**3.0**	28	1	2	4	4	2	M	F	F	M	**C**	Established, but unexceptional boundary tree.
T6	Variegated sycamore	9	20	**2.4**	18	4	4	5	5	2	M	G	G	M	**C**	Established, but generally unexceptional off-site tree.
G7	Cypress	9	<60	**7.2**	163	As per plan				2	M	F	F	M	**C**	Topped cypress. Off-site.
G8	Lime	14	<30	**3.6**	41	As per plan				2	M	F	F	M	**C**	Unexceptional off-site limes.
H9	Privet & hazel	2	<10	**1.2**	5	As per plan				GL	M	G	G	M	**C**	Close pruned hedge.
T10	Lime	8	20	**2.4**	18	4	4	4	4	2	SM	F	F	M	**C**	Unexceptional established tree.
G11	Yew	8	<15	**1.8**	10	As per plan				2	Y	F	F	M	**C**	Generally unexceptional trees.

APPENDIX C

Tree No	Species	Height	Stem dia.	RPA Rad	RPA Area	Crown spread N – S – E - W	CB	Age	Phy con	Str con	ECR	Class	Notes
T12	Silver birch	<19	20	**2.4**	18	1 – 7 – 3 - 7	3	SM	F	P	S	C	Appears to have been previously topped.
G13	Oak x 2	<18	<50	**6.0**	113	Combined crowns 7 – 6 – 8 - 10	4	M	G	G	L	B	Twin stems with combined crown.
G14	Beech	<9	<10	**1.2**	5	As per plan	2	Y	G	F	M	C	Line of unexceptional topped trees.
G15	Beech x 2	<14	<45	**5.4**	92	Combined crowns 7 – 6 – 6 - 8	3	M	G	G	L	B	Good, established specimens. Prominent to road.
T16	Beech	15	70	**8.4**	222	8 – 8 – 8 - 6	3	M	G	G	L	B	Dense crowned tree. Prominent to road.

Survey sheet key

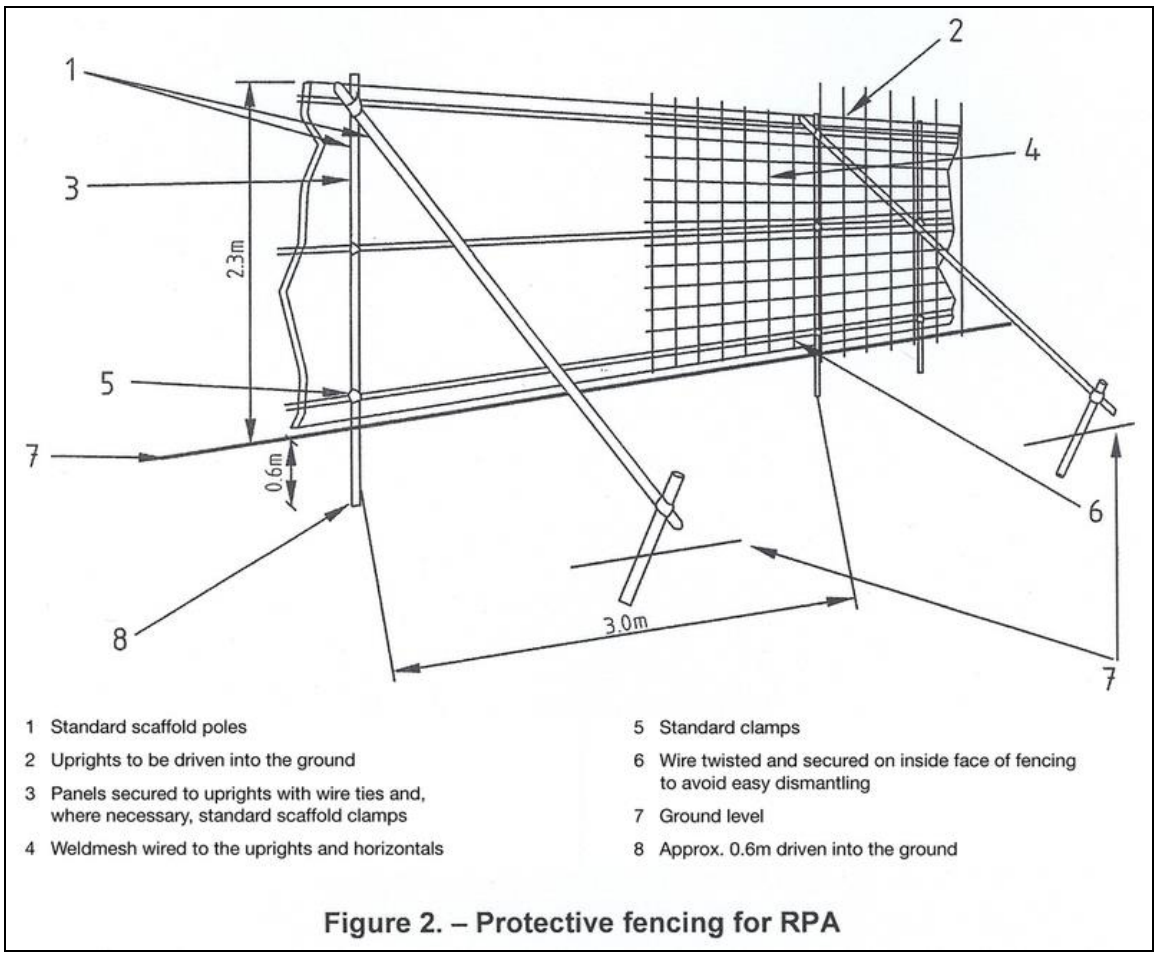
Tree No	**Tree reference number** as used in the report and survey plan T = Tree G= Group H = Hedge W = Woodland
Ht	**Tree height** in metres
Stem dia.	**Stem diameter** in millimetres Measured at 1.5 metres above ground level, or immediately above the root flare of multi-stemmed trees M = Multi-stemmed tree
Crown sp	**Crown spread** measured in metres from the stem to the four compass points
Crown break	**Height of crown** clearance above adjacent ground level, given in metres
Age class	**Age class** Y **=** Young: Staked or newly established tree SM = Semi-mature: An established tree at a stage of rapid growth EM = A tree nearing its ultimate canopy size for its situation M = Mature: A tree at its ultimate canopy size for its situation OM = Over mature: A mature tree smaller than its ultimate canopy size, often such trees are of great historical or ecological importance.
P. Con	**Physiological condition** of the tree expressed through an assessment of its general well-being G = Good, F = Fair, P = Poor, D = Dead
S. Con	**Structural condition** of the tree G = Good, F = Fair, P = Poor, D = Dangerous
R.C.	**Estimated remaining contribution** expressed in years D = <10, S = 10-20, M = 20-40, L = >40
BS Cat	**Tree category** graded as per the guidance given within Table 1 of BS 5837:2012 – See Appendix E A - Green = Trees of high quality with an estimated remaining life expectancy of at least 40+ years B - Blue = Trees of moderate quality with an estimated remaining life expectancy of at least 20 years C - Grey = Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm U – Red = Trees in such a condition that they cannot be realistically retained for longer than 10 years.
RPA ~ R	**Root Protection Area** radius, as measured in metres from the centre of the tree
RPA ~ A	**Root Protection Area** expressed in square metres

BS 5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and Definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Trees 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.	• 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 NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.			DARK RED
	1. Mainly arboricultural values	**2. Mainly landscape values**	**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 of 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
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	Trees with material conservation or other cultural value	MID BLUE
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 150mm	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 landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY

APPENDIX F

BS 5837:2012 - Tree protection fencing



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6m driven into the ground

Figure 2. – Protective fencing for RPA





On site examples of appropriate tree protection fencing installed as recommended within BS5837

Tree protection area warning sign



1.0 Scope of this report

1.1 I have been commissioned to produce base line survey data for trees, with a view to identifying constraints and opportunities for sustainable tree cover in the context of the development proposal for the site. The survey has been undertaken in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' and was made in the context of the site's current usage.

1.2 This report comprises the prerequisite information for the planning process recommended in BS 5837:2012

- The production of a Tree Survey
- The production of an Arboricultural Impact Assessment
- The production of a Tree Protection Plan if required.
- The production of an Arboricultural Method Statement, if required.

1.3 The tree locations and canopy spreads are plotted on the indicative plans at Appendix A.

1.4 A detailed condition survey or hazard assessment of each tree has not been undertaken within the scope of this report. If a tree was noted as being in such a condition as to require more detailed assessment, then that observation is included in the tree survey notes at Appendix B.

1.5 The findings within this report have been made on the basis of evidence seen on the day of inspection. It should be understood that some indications of tree hazard, such as leaf appearance and density, fungal fruiting bodies, and specific pests and diseases, are only visible at specific times of the year. Should significant additional information become apparent following the submission of this report I would reserve the right to modify the conclusion made accordingly.

1.6 This report is valid until:

- The re-inspection dates given for any tree in the survey schedule
- An episode of adverse weather conditions - for example winds over land measured at Beaufort scale force 8 or above.
- For two years from the date of inspection.

Whenever any of the above occurs first, the trees must be re-inspected, and any recommendations carried out. The presence of a hazard, the probability of harm and the value of the target area all help to determine the frequency of re-inspection.

1.7 Some trees are protected in law. Prior to any works to trees being undertaken a check should be made with the relevant Local Authority to ensure that prior permission is not required with regard to Tree Preservation Orders (TPOs), Conservation Areas (CAs) or planning conditions that may affect the site or its trees.

1.8 Works to trees can also be regulated because of the risk of harming wildlife which may live on, or around them. Wild birds and bats are protected under the Wildlife and Countryside Act (1981) for example, and it is an offence to knowingly disturb their nests or roosts, [redacted]

1.9 Any tree works should be undertaken in accordance with British Standard 3998:2010 'Tree work - Recommendations'.

1.10 If hard surfacing needs to be installed close to trees the principles prescribed in BS 5837:2012 and modified specifications contained within Arboricultural Practice Note 12, 'Through the Trees to Development,' should be adopted.

1.11 My expertise is within the field of arboriculture and this report is limited to the arboricultural aspects of the site only. Any comments made with regard to other matters are from a lay person's point of view.

2.0 Survey method

2.1 Each tree was inspected from ground level, noting only external features and defects. The Visual Tree Assessment (VTA) method was used to carry out the tree survey; this is an industry standard, best practice method for assessing the health, stability and, to some degree, the amenity of urban trees. A tree may be physiologically healthy, with vigorous growth, but also exhibit mechanical defects and therefore be structurally weak, consequently presenting a risk. VTA involves an assessment of each tree's physiological and structural condition. It is carried out from ground level, with the aid of binoculars as necessary.

2.2 No climbing inspection was made of the crown, no excavation was made of the root system, and no specific decay detection equipment was used.

2.3 The following instruments were available to carry out the inspection:

- Diameter tape – To measure stem diameters
- Nylon headed mallet – To sound trees for audible indications of decay
- Steel probe – To indicate the presence and extent of cavities
- Binoculars – To visually inspect above ground parts of the tree

2.4 No soil samples were taken, and no tissue samples were collected.

2.5 The following publications have been used to inform this survey, and the recommendations which follow from it:

1. British Standard 5837:2012
   'Trees in relation to design, demolition and construction – Recommendations.'

2. British Standard 3998:2010 'Tree work - Recommendations.'

3. 'Diagnosis of ill-health in trees' by R.G. Strouts and T.G. Winter.
   DoE booklet Research for Amenity Trees No. 2, 1994.

4. 'The body language of trees - A handbook for failure analysis'
   by C. Mattheck and H. Breloer.
   DoE booklet Research for Amenity Trees No. 4, 1994.