



ARBORICULTURAL REPORT

to BS 5837:2012 at:

***Merchant Fields,
Kilroyd Drive,
Cleckheaton,
West Yorkshire
BD19 4EA***

Prepared for:
Harron Homes Ltd
*Colton House,
Temple Point,
Bullerthorpe Lane,
Leeds,
West Yorkshire
LS15 9JL*

Date: *August 2019*

Reference: *AWA2797*



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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We have been instructed by Mark Beevers of Harron Homes Ltd, to visit the site and prepare our findings in a report.
- 1.1.2 The report is required in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Survey Details

- 1.2.1 The survey took place during August 2019.
- 1.2.2 The trees were surveyed visually from the ground using “Visual Tree Assessment” techniques and in accordance with the guiding principles of British Standard 5837:2012.
- 1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 1.2.4 The author’s qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5**.

2. The Site

2.1 Location & Description

2.1.1 The site is located off Kilroyd Drive in Cleckheaton, a town in the metropolitan borough of Kirklees, West Yorkshire.

2.1.2 The site consists of several open fields that surround a central residential property. Residential properties border the northern and southern boundaries with industrial units to the west of the site. Further open fields are situated to the east of the site. Numerous footpaths pass through the site.

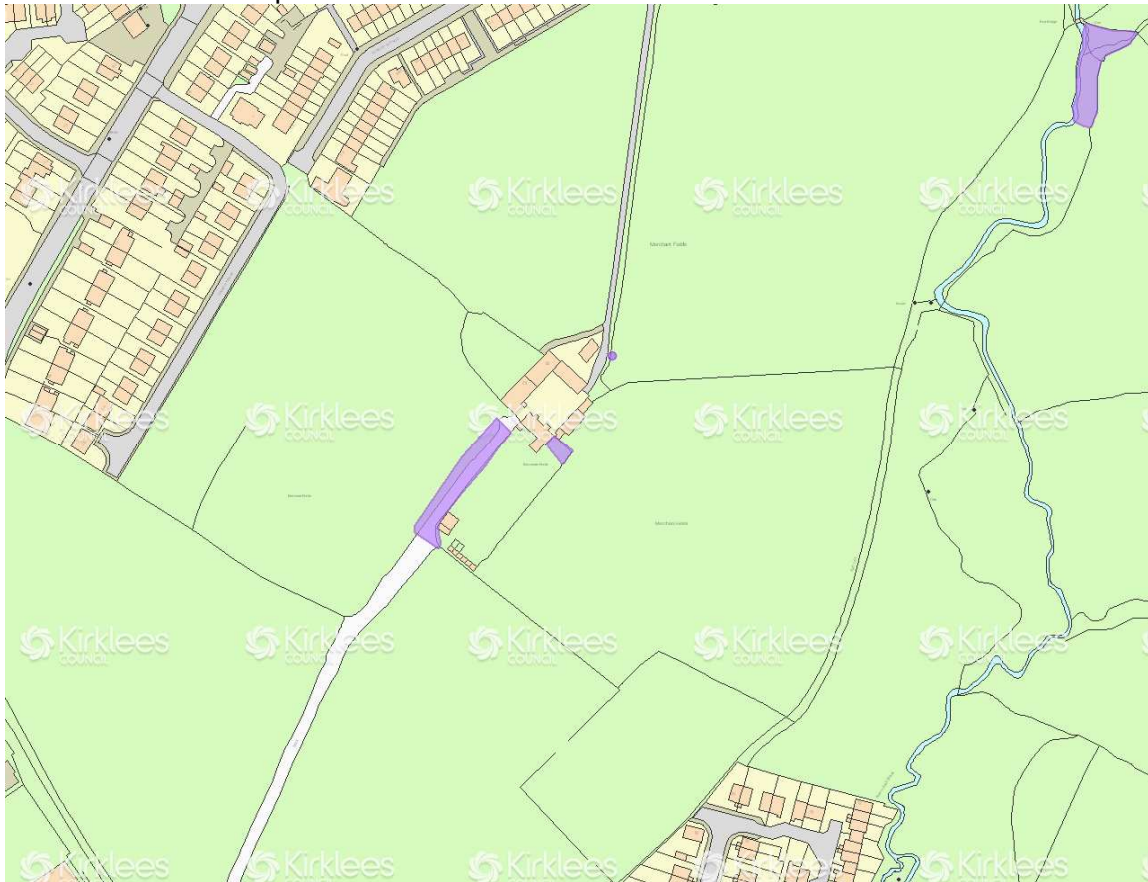
2.1.3 The general survey area is detailed in the highlighted (2016) image below:



3. The Trees

3.1 Legal

3.1.1 An online search has been carried out with Kirklees Council on 02/08/2019 to ascertain whether any trees at the site are protected by a Tree Preservation Order (TPO) or are located within a Conservation Area. Trees that are protected by the TPO ref: SP2/70 are highlighted in purple on the Kirklees Council plan below:



3.1.2 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm whether the trees are covered by a Tree Preservation Order or are in a Conservation Area. If either applies, statutory permission is required before any works can take place.

3.1.3 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance. All tree work should be carried out according to British Standard 3998: 2010 *Tree Work - Recommendations*.

3.2 Tree Survey Results

- 3.2.1 The tree survey revealed 46 items of woody vegetation, comprised of 34 individual trees and 12 groups of trees or shrub/hedge groups.
- 3.2.2 Of the surveyed trees: 1 tree is retention category 'A', 12 trees and 1 group are retention category 'B'; and the remaining 31 trees and groups are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.3 Species diversity at the site is fair. The dominant species is Hawthorn, with occasional larger individual trees of species including Oak, Ash, Willow, Birch and Maple. The site's trees had a good age diversity with a mix of semi-mature, early-mature and mature trees.
- 3.2.4 The site's most significant individual tree is the large mature Oak located close to the eastern site boundary. This tree has good prospects and is visually prominent from within the eastern site area and the surrounding fields to the east, providing a good level of individual amenity value.
- 3.2.5 Along the southern boundary are the Sycamore and Ash trees (T7 and T9). Both trees appeared to be in a good overall condition, although it is recommended to remove the deadwood from the Ash T7 that is overhanging a public footpath, regardless of any future development at the site.
- 3.2.6 Towards the centre of the site is a line of mature Sycamore trees (T12, T13, T14, T16, T17, T18 and T19). These trees are visually prominent due to their location at the top of an embankment, making them visible for some distance beyond the site to the east. They provide a good level of collective amenity value, although several trees had some minor defects that may require management works in the longer term if the trees are close to any future development.
- 3.2.7 Along the northern boundary of the residential property at the centre of the site are several smaller individual trees of low to moderate value (T20, T21, T22, T23, T24, T25 and G26). These trees generally have good future prospects and provide some limited screening between the site and the residential property.
- 3.2.8 There are several individual trees and tree groups along the eastern site boundary of varying condition and value (T33, T34, G35, T36, G37, T38, T39, G40, G41, T42, T44, G45 and T46). Many of the trees at the northern end

have some significant defects that are likely to limit their longer term prospects. The higher value trees to the south are generally large Alders situated amongst smaller Hawthorn and Elder shrubs.

- 3.2.9 There was evidence throughout the site that recent tree works have been carried out, with some dense regrowth from individual stumps and along boundary lines. The hedgerow groups G11 and G45 have recently been pruned and have grown back to the extent that they now form significant features, although currently of negligible value. G11 and G45, along with further hedgerow groups G30 and G31 provide some good screening between areas within the site and from the residential properties to the north.
- 3.2.10 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4) in such cases measurements were estimated and the condition values are indicative only.
- 3.2.11 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, is used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 3.2.12 The RPA for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.

3.3 Arboricultural Development Advice

- 3.3.1 Most of the sites central areas have no significant trees and so are free of any significant arboricultural impacts for any new development.
- 3.3.2 The higher value retention category 'A' and 'B' trees and groups should be retained, where possible, and incorporated into any new development design.
- 3.3.3 Where suitable, those category 'C' trees and groups with reasonable future prospects (as detailed in Appendix 4) should be retained as part of any new development. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can

result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

- 3.3.4 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, should be used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 3.3.5 If construction of new buildings is required within the trees RPA it may be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation.
- 3.3.6 Construction of hard surfaces, for drives and paths, within the RPA, can have negative impacts on tree roots. However, the potential negative impacts can often be overcome or minimised by employing a 'no-dig' type construction methods with a porous final surface.
- 3.3.7 The design of the new development should consider the trees crown position in relation to any new dwellings. Whilst either shade or sunlight might be desirable, depending on the potential use of the area affected, the design should avoid unreasonable obstruction of light and should give adequate provision for future tree growth.

3.4 Protection of the Retained Trees

- 3.4.1 The retained trees may require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 3.4.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

4. Signature

I trust this report provides all the required information.

Signed

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Adam Winson, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.*

20th August 2019

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Appendices

Appendix 1: Authors Qualifications and Experience

Appendix 2: Survey Methodology and Limitations

Appendix 3: Explanation of Tree Descriptions

Appendix 4: Tree Data

Appendix 5: Tree Constraints Plan

Appendix 1: Authors Qualifications & Experience

Mr Adam Winson *Chartered Arboriculturist, MSc, BSc (Hons), ND, MICFor, MArborA, ACIEEM, QTRA Registered.*

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years, and was awarded an MSc in Arboriculture and Urban Forestry, with distinction and the ICF top student award. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the Crown Court.

Mr Dave Farmer *FdSc (Arb). PTI. TechArborA.*

Dave joined AWA Tree Consultants early in 2016, after many years of experience within the tree care profession, including managing teams of Arborists and lecturing in arboriculture at one of the leading land-based colleges in the UK. He has a Foundation Degree in Arboriculture (with Distinction). He is an Associate Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters, working towards becoming a Chartered Arboriculturist. His work focuses on tree risk assessments and undertaking BS5837:2012 tree surveys for development projects; this involves tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and Tree Protection Schemes to BS 5837:2012.

Mr James Brown *BSc (Hons) Arboriculture. TechArborA.*

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. James joined AWA after working in Europe's largest tree nursery and Local Authority tree officer work, for Tameside Metropolitan Borough Council. He is a Technician Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters, working towards becoming a Chartered Arboriculturist. His main work consists of tree surveys for development projects, involving tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and Tree Protection Schemes to BS 5837:2012.

Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837 (2012) *Trees in relation to design, demolition and construction –Recommendations*. The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using ‘Visual Tree Assessment’ (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837 (2012). Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS5837 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998: 2010 - ‘*Tree Work: Recommendations*’.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees for removal. These trees are in such a condition that any existing value would be lost within 10 years.

TREE DATA

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management	
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works	
T1	Willow	<i>Salix caprea</i>	Mature	5	1	450	Yes	2	4	3.5	2.5	2.5	No visual defects	Single stemmed. Multiple stemmed at 2m. Epicormic growths. Stubs. Old pruning wounds.	50% dead/ absent	Previously topped at 5m. Situated in adjacent land. No access.	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context	
T2	Leyland Cypress	^x <i>Cupressocyparis leylandii</i>	Early-mature	11	6	150 avg	Yes	2	2	2	2	2	No visual defects	Multiple stemmed at 1m. Stubs. Tight union. Old pruning wounds.	Unbalanced crown. Minor deadwood.	1 tree that was previously part of a linear group. No live crown to north east of canopy.	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context	
T3	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	6	8	100 avg	No	2	2.5	2.5	3.5	2.5	Soil compaction. Soil erosion. Exposed roots. Root damage / loss.	Multiple stemmed at base. Slight lean. Old pruning wounds. Stubs. Epicormic growths. Tight union.	Normal. Minor deadwood.		Good	Fair	>40 yrs	Low	C	No works required in current site context	
T4	Maple	<i>Acer pseudoplatanus</i>	Young	5	2	90, 60	No	1.5	1	1	1	1.5	No visual defects. Soil compaction.	Twin stemmed at base. Vertical. Bark damage.	Normal		Fair	Good	>40 yrs	Low	C	No works required in current site context	
T5	Willow	<i>Salix caprea</i>	Mature	8	3	210, 400, 330	No	2	6	2	6	5	Soil compaction. Soil erosion. Exposed roots.	Multiple stemmed at base. Stubs. Old pruning wounds. Bark damage. Minor cavities. Minor decay.	Unbalanced crown	Boundary tree		Fair	Fair	20 to 40 yrs	Moderate	C	No works required in current site context

TREE DATA

Tree ID	Tree Species		Measurements				Crown (m)				Tree Condition						Value		Management			
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
G6	Hawthorn. Privet. Cotoneaster.	<i>Crataegus sp.</i> <i>Ligustrum sp.</i> <i>Cotoneaster sp.</i>	Semi-mature	2	10	50	No	0	See plan				Well managed garden boundary hedge. Good screening value.				Fair	Good	20 to 40 yrs	Moderate	C	No works required in current site context
T7	Sycamore	<i>Acer pseudoplatanus</i>	Mature	17	1	520	No	4	6.5	5	5	5.5	No visual defects	Single stemmed. Vertical. Epicormic growths. Stubs. Old pruning wounds	Minor deadwood	Self set saplings at base	Good	Good	>40 yrs	High	B	No works required in current site context
G8	Haw horn. Elder. Ash. Oak.	<i>Crataegus sp.</i> <i>Smabucus sp.</i> <i>Fraxinus sp.</i> <i>Quercus sp.</i>	Semi-mature	6	10	100	Yes	0	See plan				Sparsely situated shrubby group of Hawthorn and Elder bordering footpath. Occasional gaps. Occasional Ash and Oak saplings throughout.				Fair	Fair	>40 yrs	Moderate	C	No works required in current site context
T9	Ash	<i>Fraxinus excelsior</i>	Mature	21	2	510, 390	No	4	5	5	8	6.5	No visual defects	Twin stemmed at base. Slight lean. Stubs. Old pruning wounds.	Moderate deadwood	Some large sections of deadwood overhanging public footpath	Fair	Fair	>40 yrs	High	B	Recommended to remove deadwood overhanging footpath regardless of development
G10	Birch	<i>Betula sp.</i>	Semi-mature	6	3	140, 140, 120	No	1.5	See plan				No visual defects	Multiple stemmed at 1.5m. Vertical. Stubs.	Minor dieback. Minor deadwood.	3 trees forming a single canopy.	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context

TREE DATA

Tree ID	Tree Species		Measurements					Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
G11	Hawthorn	<i>Crataegus monogyna</i>	Mature	1.5	10	60	No	0	See plan				Sparse field boundary group of Hawthorn and Elder. Heavily pruned in the past.				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
T12	Sycamore	<i>Acer pseudoplatanus</i>	Mature	15	6	200	Yes	3	4	4	4	4	No visual defects	Multiple stemmed at base. Vertical. Stubs. Old pruning wounds. Tight union.	Minor deadwood	Situated in adjacent land. No access.	Good	Fair	>40 yrs	Moderate	B	No works required in current site context
T13	Sycamore	<i>Acer pseudoplatanus</i>	Mature	10	1	440	No	2.5	1	5	6	5	Decay. Damage to buttress roots.	Single stemmed. Significant lean. Stubs. Major cavities. Minor decay.	Minor deadwood	Large cavity at base on western side of stem. Barbed wire fence nailed to stem.	Fair	Fair	20 to 40 yrs	Moderate	C	No works required in current site context
T14	Sycamore	<i>Acer pseudoplatanus</i>	Mature	14	1	580	No	2	5.5	5.5	6	7	No visual defects	Single stemmed. Multiple stemmed at 2.5m. Vertical. Stubs.	Minor deadwood	Barbed wire fence nailed to stem	Good	Good	>40 yrs	Moderate	B	No works required in current site context
T15	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	8	6	100	No	0	2	1.5	2.5	2	No visual defects	Multiple stemmed at base. Vertical. Stubs. Old pruning wounds.	Slightly unbalanced. Minor deadwood.	Suppressed by surrounding trees	Fair	Good	>40 yrs	Low	C	No works required in current site context
T16	Sycamore	<i>Acer pseudoplatanus</i>	Mature	16	1	640	No	2	7	8	7	7.5	Exposed roots	Single stemmed. Vertical. Stubs.	Minor deadwood	Barbed wire fence nailed to stem	Good	Good	>40 yrs	High	B	No works required in current site context

TREE DATA

Tree ID	Tree Species		Measurements					Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T17	Sycamore	<i>Acer pseudoplatanus</i>	Mature	15	1	470	No	2	6.5	3	3	6	Soil compaction. Exposed roots.	Single stemmed. Vertical. Stubs. Old pruning wounds.	Minor deadwood	Barbed wire fence nailed to stem	Fair	Good	>40 yrs	High	B	No works required in current site context
T18	Sycamore	<i>Acer pseudoplatanus</i>	Mature	16	1	730	No	2.5	8	6	5	8.5	Soil compaction	Single stemmed. Vertical. Stubs. Old pruning wounds. Minor cavity. Minor decay.	Minor deadwood	Barbed wire fence nailed to stem. Minor decay from old pruning wound at 3m on south side of stem.	Fair	Fair	>40 yrs	High	B	No works required in current site context
T19	Sycamore	<i>Acer pseudoplatanus</i>	Mature	15	1	700	No	2	6	7	8	6	Exposed roots. Soil compaction	Single stemmed. Slight lean. Epicormic growths. Stubs. Old pruning wounds. Bark damage.	Minor deadwood	Barbed wire nailed to stem	Fair	Good	>40 yrs	High	B	No works required in current site context
T20	Oak	<i>Quercus cerris</i>	Semi-mature	9	1	300	Yes	2	4	3.5	3.5	3	No visual defects	Single stemmed. Vertical.	Minor deadwood	Good future prospects	Good	Good	>40 yrs	Moderate	C	No works required in current site context
T21	Birch	<i>Betula sp.</i>	Early-mature	10	1	280	No	2	4	4	3.5	3	Soil compaction	Single stemmed. Twin stemmed at 2m. Vertical. Stubs. Old pruning wounds.	Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	B	No works required in current site context

Tree ID	Tree Species		Measurements				Crown (m)				Tree Condition						Value		Management			
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T22	Ash	<i>Fraxinus excelsior</i>	Semi-mature	7.5	1	160	No	2	3	2.5	2.5	3	No visual defects	Single stemmed. Vertical. Stubs. Bark damage.	Minor deadwood	Long thin wound from base to 2m on eastern side of stem	Fair	Good	20 to 40 yrs	Low	C	No works required in current site context
T23	Hawthorn	<i>Crataegus monogyna</i>	Early-mature	6.5	1	220	No	1	2.5	2.5	2.5	2.5	No visual defects	Single stemmed. Vertical. Stubs.	Minor deadwood		Fair	Fair	>40 yrs	Moderate	C	No works required in current site context
T24	Sycamore	<i>Acer pseudoplatanus</i>	Early-mature	10	1	340	No	2.5	3.5	3.5	3.5	3.5	No visual defects	Single stemmed. Vertical. Stubs. Old pruning wounds.	Minor deadwood	Good future prospects	Good	Good	>40 yrs	Moderate	B	No works required in current site context
T25	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	8	1	230	No	2	1.5	2	2.5	2	No visual defects	Single stemmed. Vertical. Bark damage. Stubs.	Minor deadwood	Bark damage from base to 2m on western side of stem	Fair	Good	>40 yrs	Moderate	C	No works required in current site context
G26	Ash	<i>Fraxinus excelsior</i>	Semi-mature	8	6	150	No	1.5	See plan				Soil compaction	Multiple stemmed at base. Stubs. Bark damage.	Moderate deadwood	2 trees in generally poor condition	Poor	Fair	20 to 40 yrs	Low	C	No works required in current site context
T27	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5	5	80	No	0	2	2	2	2	No visual defects	Multiple stemmed at base. Vertical.	Normal		Fair	Good	>40 yrs	Low	C	No works required in current site context

TREE DATA

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T28	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5	5	80	No	0	2	2	2	2	No visual defects	Multiple stemmed at base. Vertical.	Normal		Fair	Good	>40 yrs	Low	C	No works required in current site context
T29	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5	5	80	No	0	2	2	2	2	No visual defects	Multiple stemmed at base. Vertical.	Normal		Fair	Good	>40 yrs	Low	C	No works required in current site context
G30	Hawthorn. Elder.	<i>Crataegus sp.</i> <i>Sambucus sp.</i>	Semi-mature	2	10	80	No	0	See plan				Well managed Hawthorn and Elder boundary hedge bordering an access road				Fair	Good	>40 yrs	Moderate	C	No works required in current site context
G31	Hazel. Hawthorn. Laurel. Cherry. Elder. Holly. Maple.	<i>Corylus sp.</i> <i>Crataegus sp.</i> <i>Prunus sp.</i> <i>Sambucus sp.</i> <i>Ilex sp.</i> <i>Acer sp.</i>	Semi-mature	3	10	100	Yes	0	See plan				Mixed species boundary group separating site from neighbouring residential properties. Good screening value.				Fair	Good	>40 yrs	Moderate	C	No works required in current site context
T32	Hawthorn	<i>Crataegus monogyna</i>	Mature	8.5	1	260	Yes	2	2.5	2.5	2.5	2.5	No visual defects	Single stemmed. Vertical.	Minor deadwood	Situated in adjacent land. No access.	Fair	Good	>40 yrs	Moderate	C	No works required in current site context
T33	Hawthorn	<i>Crataegus monogyna</i>	Mature	7	6	100	No	2	2	2	2.5	2.5	Soil compaction	Multiple stemmed at base. Vertical. Epicormic growths. Stubs.	Minor deadwood		Fair	Good	>40 yrs	Low	C	No works required in current site context

TREE DATA

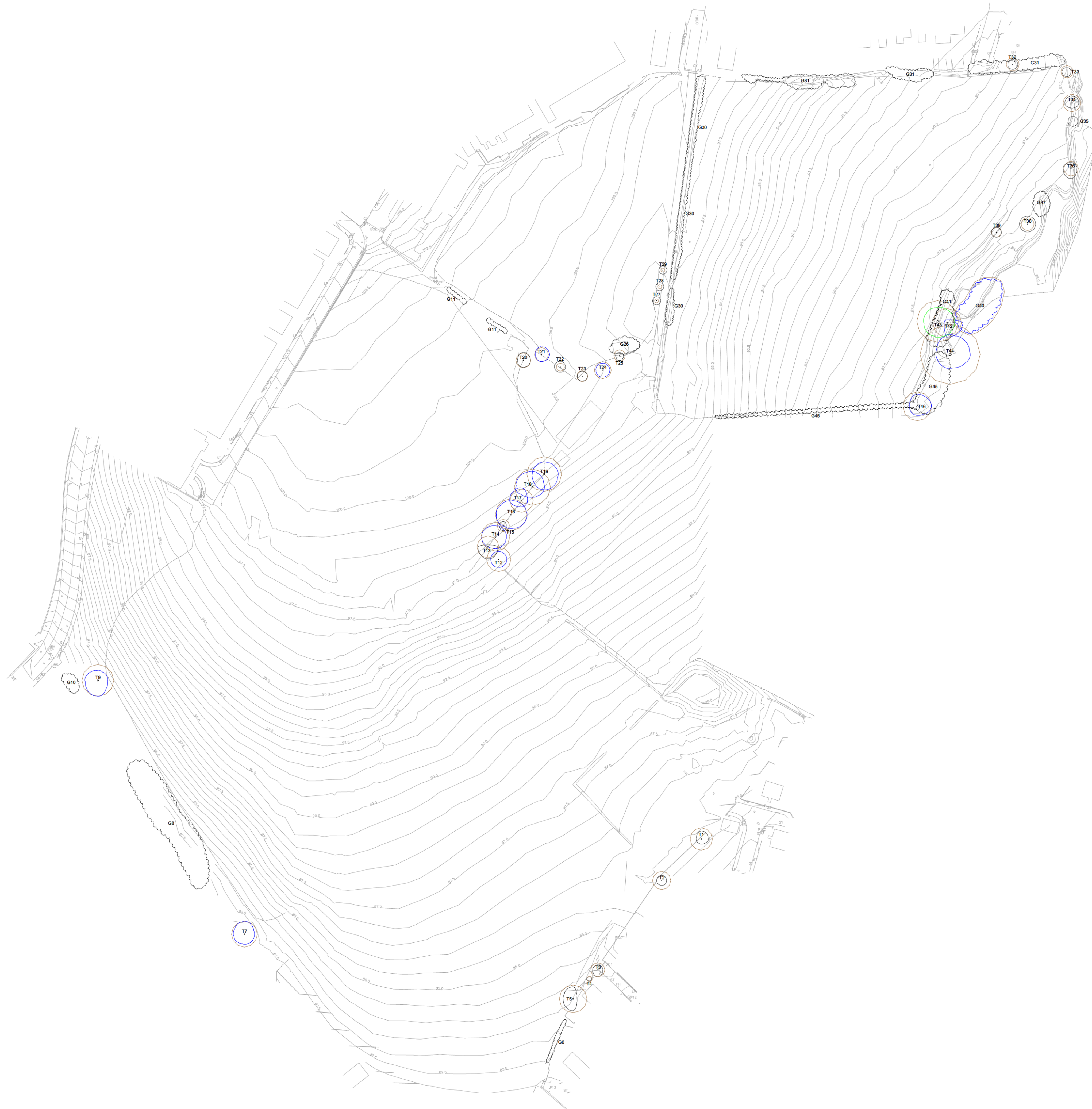
Tree ID	Tree Species		Measurements				Crown (m)					Tree Condition						Value		Management		
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T34	Ash	<i>Fraxinus excelsior</i>	Mature	14	3	200, 230, 180	No	3	3.5	3.5	2.5	3.5	Waterlogged. Soil erosion.	Multiple stemmed at 1m. Vertical. Stubs. Bark damage.	Moderate deadwood	Growing from base of wall. Extensive bark damage from base to 2.5m.	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G35	Ash	<i>Fraxinus excelsior</i>	Semi-mature	10	7	170 avg	No	2	See plan				Waterlogged. Soil erosion.	Multiple stemmed at 1m. Vertical. Stubs. Bark damage.	Minor dieback. Moderate deadwood.	Dense group of stems with extensive bark damage.	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
T36	Ash	<i>Fraxinus excelsior</i>	Early-mature	9	2	170, 240	No	2.5	3	3	5	4	Waterlogged	Twin stemmed at 1m. Stubs. Bark damage.	Small/ sparse. Moderate deadwood.	Extensive bark damage from base to 2m	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G37	Alder	<i>Alnus glutinosa</i>	Semi-mature	9	6	180	No	2	See plan				Group of individual trees on stream bank. Bark damage on main stems from base to 2m.				Fair	Good	20 to 40 yrs	Moderate	C	No works required in current site context
T38	Oak	<i>Quercus robur</i>	Semi-mature	10	1	260	No	2.5	4	4	4	4	Soil compaction. Soil erosion. Exposed roots. Damage to buttress roots.	Single stemmed. Vertical. Bark damage.	Minor deadwood	Bark damage on stem from 1m to 2m	Fair	Good	>40 yrs	Moderate	C	No works required in current site context
T39	Hawthorn	<i>Crataegus monogyna</i>	Mature	7	6	100	No	2	2	2	2.5	2.5	Soil compaction	Multiple stemmed at base. Vertical. Epicormic growths. Stubs.	Small/sparse. Moderate deadwood. Moderate dieback.		Fair	Good	>40 yrs	Low	C	No works required in current site context

TREE DATA

Tree ID	Tree Species		Measurements				Crown (m)				Tree Condition						Value		Management			
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
G40	Alder	<i>Alnus glutinosa</i>	Mature	14	10	200	No	2	See plan				Waterlogged	Multiple stemmed at base. Vertical. Stubs. Bark damage.	Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required in current site context
G41	Hawthorn. Elder.	<i>Crataegus sp.</i> <i>Sambucus sp.</i>	Early-mature	7	10	140	No	1.5	See plan				Group of Hawthorn and Elder shrubs forming an understorey under larger mature trees. Exposed roots and soil compaction throughout. Bark damage and deadwood throughout.				Fair	Fair	>40 yrs	Moderate	C	No works required in current site context
T42	Alder	<i>Alnus glutinosa</i>	Mature	14	1	580	No	3	15	8	7	1.5	Waterlogged	Single stemmed. Significant lean. Epicormic growths. Stubs. Old pruning wounds.	Unbalanced. Minor deadwood.		Good	Fair	>40 yrs	Moderate	B	No works required in current site context
T43	Oak	<i>Quercus robur</i>	Mature	17	1	840	Yes	2.5	7	8.5	8	7	Soil erosion. Exposed roots. Soil compaction. Damage to buttress roots.	Single stemmed. Vertical. Stubs.	Minor deadwood		Good	Good	>40 yrs	High	A	No works required in current site context
T44	Poplar	<i>Populus x canadensis</i>	Mature	20	2	1100 , 510	No	3	10	10	7	7	Soil erosion. Exposed roots. Waterlogged.	Twin stemmed at 1m. Significant lean. Epicormic growths. Stubs. Ivy covered.	Moderate deadwood	Minor fungal fruiting bodies low on main stem	Fair	Fair	>40 yrs	Moderate	B	No works required in current site context
G45	Hawthorn. Elder.	<i>Crataegus sp.</i> <i>Sambucus sp.</i>	Mature	2	10	60	No	1	See plan				Boundary group of Hawthorn and Elder shrubs. Heavily pruned in the past.				Fair	Good	>40 yrs	Moderate	C	No works required in current site context

TREE DATA

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T46	Alder	<i>Alnus glutinosa</i>	Mature	11	1	580	No	3	6	7	4.5	4	Soil compaction. Exposed roots. Damage to buttress roots.	Single stemmed. Vertical. Stubs. Old pruning wounds. Epicormic growths.	Minor deadwood	Barbed wire fence and nails embedded in stem	Fair	Good	>40 yrs	Moderate/High	B	No works required in current site context



**Appendix 5:
Tree Constraints Plan**

Merchant Fields, Kilroy Drive, Cleckheaton
Ref: AWAZ797

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be
found in Appendix 2 of the report.

SCALE: 1:1000 PAPER: A1

	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED
	CATEGORY U: FOR REMOVAL
	RPA: ROOT PROTECTION AREA
	TREE STEM