Tree Care Consultancy
ARBORICULTURAL CONSULTANTS

Arboricultural Impact Assessment
749 New Hey Road
Outlane
Huddersfield, HD3 3YL

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1 Introduction

1.1 Instruction and Brief

1.1.1 Tree Care Consultancy was commissioned by Fibre Architects to prepare an Arboricultural Survey and Impact Assessment to accompany a planning application for the proposed redevelopment of an existing listed barn. The report produced includes the following information:

- A tree survey (appendix 3), undertaken in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations
- Tree Constraint/Impact Plan (appendix 4) which highlights the potential development limitations trees pose on site
- An Arboricultural Impact Assessment which evaluates any potential impact the proposal may have on surrounding trees.

1.1.2 This report is based on site observations and information provided. Conclusions have been made in light of the surveyor's experience and qualifications. A list of experience and qualifications in arboriculture are detailed below.

1.1.3 This report is only concerned with trees in relation to construction. This report makes no attempt to provide a full safety inspection of the trees surveyed. It should not be seen as an alternative for a Tree Hazard Assessment which is specific to minimising the risk and liability associated with trees.

1.1.4 Climatic conditions including storms, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees do pose a risk and whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety. Although the risk should be managed to an acceptable level, no tree can be guaranteed as safe at all times.

1.1.5 This report is based on Visual Tree Assessment (VTA) methodology, as devised by Mattheck (1991). V.T.A is a ground level visual assessment of a tree, which is carried out to identify obvious mechanical defects, signs of ill health, potential mechanical failure and the suitability of a tree to a site. The survey is compiled in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations with Root Protection Areas (RPA's) based upon section 4.6 of the document.

1.2 Site Visit

1.2.1 An arboricultural survey was undertaken by Mike Shackleton on 18th July 2023. Mike has over 20 years' experience within the Arboricultural Industry. He has a Higher National Diploma in Arboriculture, is a Professional member of the Arboricultural Association and an associate member of the Institute of Chartered Foresters. He is a Valid Tree Risk-Benefit Validator. He has been involved in dealing with proposed/active development sites, advice on trees in relation to structures, health and safety appraisals, tree inventories and planning appeals. As part of his continuing professional development, he regularly attends seminars and training events on issues relating to Arboriculture.

1.2.2 On the day of inspection, the weather conditions were dry and still with no visibility constraints.

1.2.3 Measurements were calculated using the necessary instruments or estimated where access could not be gained. No climbing inspections or decay detection analysis was undertaken.

1.2.1 Details explaining the criteria and methodology used in generating the tree survey schedule is included at Appendix 1 and 2. Trees were graded using table 1 of BS5837. The resulting tree survey data results are included within the tree survey schedule at Appendix 3.

1.2.2 This survey should be read in conjunction with the Tree Constraint/Impact Plan (located at appendix 4) which has been prepared by overlaying tree survey data onto topographical and proposed site layout drawings. The author has relied on the accuracy of the drawing in the production of this report.

1.3 Site Description

1.3.1 The site is located in Outlane to the south of New Hey Road and to the north of the M62 motorway, with the former Golf House Hotel and St. Mary Magdalene's Church to the west. The existing buildings on the site are the former farmhouse and an adjacent barn that is a listed building.

1.3.2 The trees identified in the tree survey schedule and Tree Constraints/Impact Plan are chiefly located on adjacent property. The most notable of these are 2No. semi mature Maple T1 and T2 and a group of early-mature Sycamore G4 which all occupy the grounds of the former Golf House Hotel. No trees of significance are present within the site.

1.4 Tree Status

1.4.1 From viewing Kirklees Council's Online Interactive Map, it appears the site is not located within a Conservation Area and that no trees within the site are subject of Tree Preservation Order (TPO) controls.

1.4.2 In the case of trees that are subject of TPO, Conservation Area controls or planning application procedures it is essential the Local Authority's advice is sought and where necessary consent obtained prior to undertaking any tree removal or pruning operations.

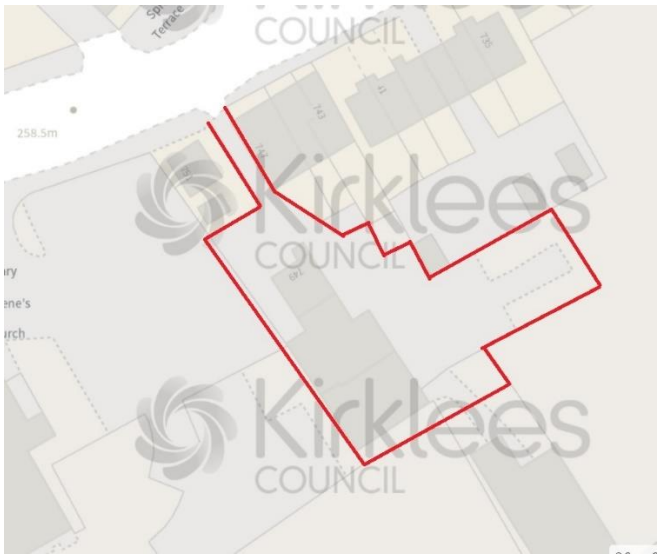


Figure 1: Extract from Kirklees Council online- Tree Preservation Order Map on 18/10/23
The approximate application boundary is identified by the red line.

1.5 Soil Assessment

1.5.1 No soil testing was undertaken and no soil information was provided for the author. However from studying the British Geological Survey 'Geology of Britain Viewer' the underlying geology is recorded as Huddersfield White Rock-sandstone.

1.5.2 With reference to information on Cranfield University, "Soilscapes Viewer" which details the information of the National Soils Resources Institute, identifies the superficial layer to be 'Freely draining slightly acid loamy soils.'

1.5.3 The precise soil type could only be confirmed with further soil investigation/analysis though it is assumed that the potential for the sub soil to consist of a highly shrinkable clay to be low.

2 Tree Quality Assessment

2.1.1 As highlighted in table 1 below, the tree survey included no retention category "A" items, 2No. individual trees and 2No. tree groups were identified as retention category "B" items. 2No. individual trees and 1No. hedge were identified as category "C" material. No trees were identified as retention category "U" items.

Table 1:

Category	Category Description	Tree Numbers
'A'	Trees of high quality, with life expectancy in excess of 40 years	Nil
'B'	Trees of moderate quality, with life expectancy in excess of 20 years	T1, T2, G4, G7
'C'	Trees of low quality with life expectancy in excess of 10 years or young trees	T3, H5, T6
'U'	Seriously defective trees that cannot be retained in present context for longer than 10 years	Nil
Total number of trees:		4No. individual trees & 2No. tree groups and 1No. hedge

2.1.2 A number of smaller shrubs and scrub material were present but are outside the scope of BS5837 and this report.

2.1.3 Of the onsite trees T3 (Spruce) is sparsely populated and entering a spiral of mortality. It is improbable for the tree to survive for an extended period, and its grading aligns with its expected lifespan. T6 is an inconsequential item probably of self-set origins the loss of which would be recommended irrespective of the proposed development.

2.1.4 The remaining tree/hedgerow cover is located on adjacent property and includes T1, T2, G4, H5 and G7 which collectively afford a reasonable level of visual amenity. Of these G4 provides the greater visual prominence being viewed from New Hey Road and neighbouring property.

3 Aboricultural Impact Assessment

3.1.1 The following section evaluates the proposed layout in relation to trees within influencing distance of the proposed development. Any tree and design conflicts are highlighted, and possible remedial action recommended. The assessment is based on the surveyor's findings, plans and information provided by Fibre Architects.

3.1.2 The proposal seeks to convert the existing buildings into to two dwellings with associated car parking. The development will include the demolition of a lean-to extension and stable block, both of which are classed as unsympathetic additions to the listed barn.

3.1.3 All significant tree cover can be retained and adequately safeguarded throughout the development process.

3.2 Trees to be Removed for Development

3.2.1 As highlighted in table 2 below, the removal of 2 low quality trees category "C" trees T3 and T6 will be required to accommodate the proposed development.

Table 2:

Tree categories A, B, C & U	Trees to be retained and protected	Trees to be removed for development	Trees to be removed for arboricultural management reasons regardless of development
'A'	Nil	Nil	Nil
'B'	T1, T2, G4 & G7	Nil	Nil
'C'	H5	T3 & T6	Nil
'U'	Nil	Nil	Nil

3.3 Demolition

3.3.1 The rear lean-to extension and stable block are to be demolished as part of the proposed development. The demolition work will not require access within the RPA's of retained trees and this work can be undertaken in a controlled manner without posing a threat to retained tree cover.

3.4 Below Ground Constraints

3.4.1 The area of roots that need to be protected around a tree to try to ensure it does not suffer damage during the construction process is called the Root Protection Area (RPA).

3.4.2 As recommended in BS5837 we have plotted the RPAs (in magenta) onto the attached Tree Constraints/Impact Plan taking full account of the surrounding topographical factors, adjoining structures, tree condition and probable root disposition.

3.4.3 A robust retaining wall defines the western boundary. The wall is approximately 1.5 meters in height and appears to pre-date the offsite trees T1, T2 and G4. These trees occupy higher ground immediately to the west. As such the wall is likely to have controlled the trees rooting morphology, forcing feeder root growth westwards into the carpark area and structural roots downwards into a deeper soils and sub soils behind the face of the wall. Figure 3 below demonstrates a picture of how G4 trees root plates are likely to have developed.

Figure 3: Extract taken from 'Updated Field Guide for Visual Tree Assessment- Mattheck 2007

3.4.4 The RPA's of T1, T2, T3 and G4 have been shown to reflect the presence of the wall and its likely constraint to root growth. As such it is considered limited rooting material will be present below the existing building and concrete hard-standing that stands to the rear of the dwelling. Taking account of the above, there is no requirement for foundation or excavation work to take place within the prescribed RPA's of trees highlighted for retention.

3.5 Hard Surfacing & Site Access

3.5.1 The existing concrete pad in the vicinity of H5 is to be replaced with block paving. Rooting material is likely to have developed in the favorable lawned area of the adjoining properties instead of below the inhospitable concrete. However, to minimise risk of root damage, the pad in the vicinity of H5 should be broken up by hand and the new block paving should be laid on the existing base aggregate.

3.5.2 The same methodology should be used to construct the proposed patio areas to the rear of the dwellings.

3.6 Above Ground Constraints (Facilitation Pruning)

3.6.1 The crowns of G4 encroach upon the fabric of the existing roofline. To ensure adequate clearance and a suitable spatial relationship, the removal of small diameter secondary and tertiary branches is required. This work is deemed necessary irrespective of the proposed development. The work would not compromise tree health or visual amenity.

3.6.2 Any pruning works should be carried out in accordance with BS3998:2010 'Recommendations for Tree Work' by a competent Arborist.

3.7 Alterations to Ground Levels

3.7.1 A rise or reduction in soil level can have major implications on the health and longevity of trees. No foreseeable changes in ground levels will be required within the prescribed RPAs.

3.8 Tree Protection

3.8.1 Tree protection measures will be installed prior to the commencement of any site works e.g. before any materials are brought on site. Tree protection fencing will have signs attached to it stating that this is a Construction Exclusion Zone (CEZ) and that **NO WORKS** are permitted within the CEZ. Tree protection measures will only be removed following completion of substantive construction work. It is presumed this is a matter the Local Planning Authority would be agreeable to conditioning as part of a detailed planning permission.

3.9 Material Storage & Site Compound

3.9.1 No material storage or plant movement will be required within the CEZs of retained trees. The existing access will serve the development and be used as the only entrance for the duration of the build. There is sufficient space to accommodate a site compound to the south of the site, well away from trees highlighted for retention.

3.10 Services (Drainage & Utilities)

3.10.1 As demonstrated on the attached Tree Constraints/Impact Plan, the existing drainage has been identified in red and will continue to serve the proposed development. The existing services will also continue to serve both properties.

3.10.2 Should it become necessary to excavate within the prescribed RPA's of surrounding trees these must be installed using techniques and methods described at section 4.1 of the current edition of the National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (www.njug.org.uk) or if this is not practicable, trenches are to be opened by compressed air excavation tools and not mechanically dug. Before any excavation within the highlighted RPA's commences, advice should be sought from either the project Arboriculturist or the local authority tree officer.

3.11 Landscaping

3.11.1 The loss of T3 and T6 can be mitigated with suitable replacement planting. The proposed planting will ensure continuity of tree cover for the enjoyment of future generations.

4 Conclusions

4.1.1 The design intention is to safeguard wherever reasonably practicable the health and longer term viability of retained tree cover and the value it affords to the property and local landscape.

4.1.2 Save for the loss of 2No. low quality category "C" trees, neighbouring higher value trees will be unaffected by the proposed development.

4.1.3 Retained tree cover will need to be safeguarded by tree protection measures which should be documented in an Arboricultural Method Statement. It is presumed the Local Planning Authority would be agreeable to conditioning this as part of a detailed planning permission.

4.1.4 The protection of trees and their subsequent health and future potential is dependent upon all persons operating within the site. Communications are vitally important to ensure that all parties understand the reason for tree protection and its continued existence. Providing all necessary tree protection works are undertaken as required by a planning condition on any approval notice, retained trees and development alike will satisfactorily coexist.

4.1.5 It is hoped that this report and recommendations provides all necessary information, however, should there be any queries, or should clarification of any points be required, please contact the report author.

Mike Shackleton

Mike Shackleton HND Arb, M.Arbor.A

5 Appendices

Appendix 1 - Explanation of Survey Details

Tree Id- Each tree/group has been given a unique number, which coincides with the drawings located in appendix 3.

Species & botanical name- where identifiable the full botanical name has been given. Where a cultivar, variety or species cannot be accurately given the genus name only will be given.

Height (m)- measured approximately to the nearest 1m. If height issues are critical, measurements can be collected accurately using optical instruments.

No of stems- the number of separate stems each individual tree has.

Stem Dia @1.5m (mm)- the diameter of the given tree at 1.5m above soil level, (on sloping ground taken on the up-slope side of the tree base). Where the tree is multi-stemmed measurements will be record for each stem.

Spread- indicates the crown radius from the base of tree in four compass directions, recorded to the nearest metre.

Crown height + direction (m)- recorded as the first significant branch and direction of growth.

Life stage- described as young, semi-mature, early-mature, mature or over-mature.

Physiological condition (P)- an assessment of the tree's health. Considers vitality, die back and the presence of disease. Described as Good = no significant health problems Fair = symptoms of ill health that can be remediated Poor = significant ill health.

Structural condition (S)- an assessment of the trees structural condition. Described as Good = no significant defects Fair = significant defects that can be remediated Poor = significant defects no remedy.

Observations – negative and positive- narrative comments on general condition, significant defects and overall appearance (e.g. the presence of any decay).

Preliminary management recommendations- e.g. requires pruning or further investigation of suspected defects is needed.

Life expectancy- preliminary management recommendations, e.g. requires pruning or further investigation of suspected defects is needed.

Retention Category- Each tree/group is identified with a retention category in accordance with BS5837 (an in-depth explanation is provided on the following page)

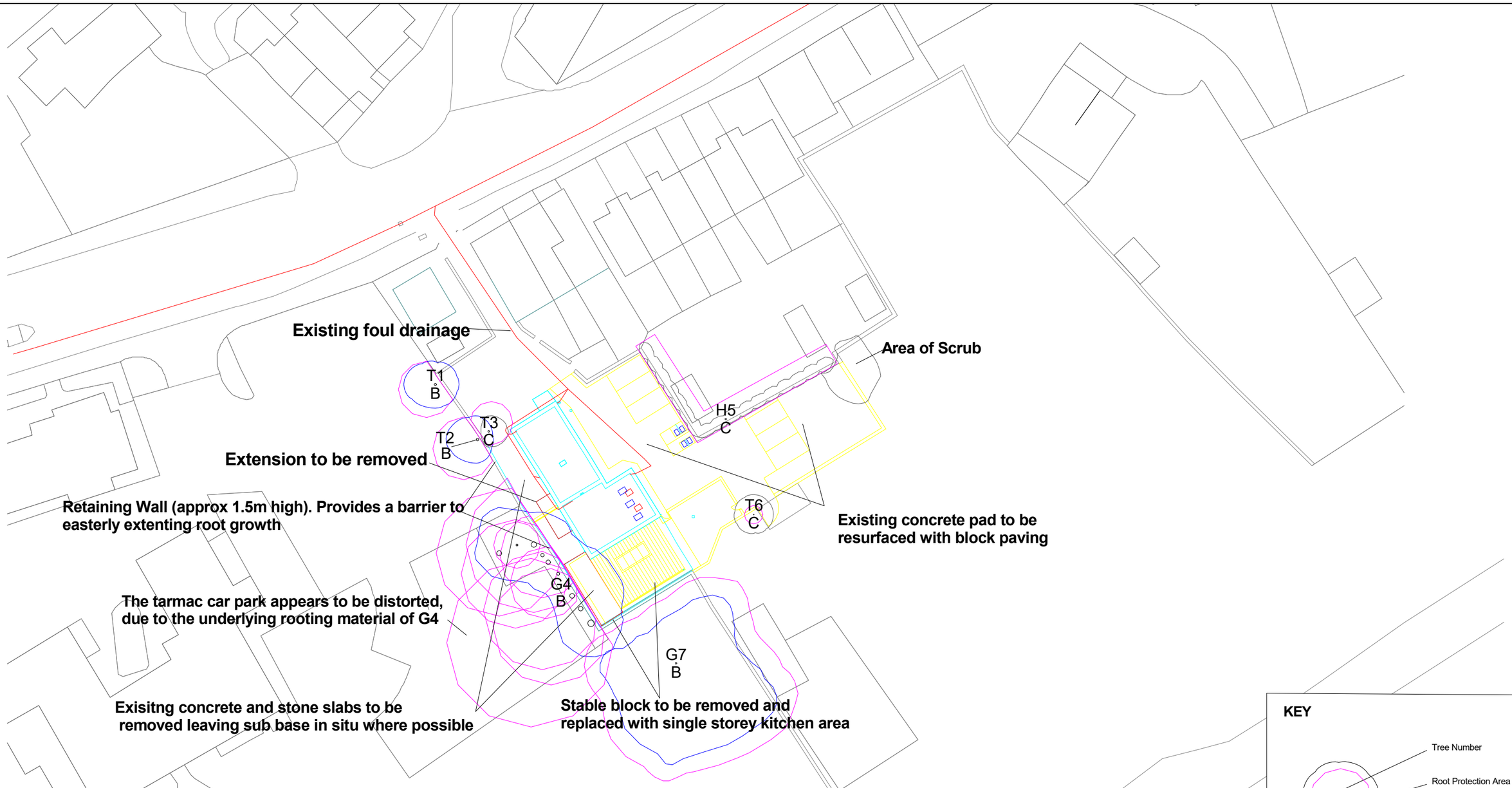
RPA radius (m)- minimum area in metres which should be left undisturbed around each retained tree.

Appendix 2 - Cascade Chart for Tree Quality Assessment (Extract from BS5837 table 1)

Category and definition	**Criteria (including subcategories where appropriate)**			**Identification on Plan**
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	• 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 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
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	**Criteria – Subcategories**			**Identification on Plan**
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Category A **Trees of a 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 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 **Those of moderate quality** with and 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 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 **Those 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 a 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 screening benefits	Trees with no material conservation or other cultural values	GREY

Appendix 3- Tree Survey Schedule

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T1	Norway Maple, Acer platanoides	8	1	290	3	3	3	4	2-s	Semi-mature	S=Good, P=Good. Off-site. Located at eastern edge of tarmacadam car park. Substantial retaining wall to east of tree stem which pre-dates age of tree will have influenced root morphology and growth westwards. Ivy present. Tree slightly suppressed by dominant neighbour.	Retain, no work required.	20 to 40 yrs	B2	3.5
T2	Norway Maple, Acer platanoides	8	1	320	3	2	3	4	3-s	Semi-mature	S=Good, P=Good. Located at eastern edge of tarmacadam car park. Substantial retaining wall to east of tree stem which pre-dates age of tree will have influenced root morphology and growth westwards. Ivy hindered accurate inspection.	Retain, no work required.	20 to 40 yrs	B2	3.8
T3	Norway Spruce, Picea abies	9	1	220	2	2.5	2	1	3-w	Semi-mature	S=Fair, P=Fair. Substantial retaining wall to west of tree stem that pre-dates age of tree will have influenced root morphology and growth chiefly to the north and east. Sparse appearance with needle growth only present to branch extremities. Appears to be entering a mortality spiral. No long term value.	Remove to facilitate development.	10 to 20 yrs	C1	2.6
G4	Sycamore, Acer pseudoplatanus	16	1	Various - each stem diameter recorded individually	See plan.				4-e	Early-mature	S=Good, P=Good. Off-site. Forming a collective feature with combined crowns. Substantial retaining wall to east of tree stem which pre-dates age of tree will have influenced root morphology and growth westwards. Evidence of surfacing roots spreading within tarmacadam car park. Ivy hindered accurate inspection.	Retain,crown lift/shorten lateral spread over existing building to achieve a 2.5m clearance between collective tree crowns and roofline.	20 to 40 yrs	B2	See plan - each RPA plotted individ-ually
H5	Leyland Cypress, X Cupressocyparis leylandii	5	1	Ave 180	See plan.				G/L	Early-mature	S=Good, P=Good. Off-site. Provides screening between neighbouring property. Lacks recent management but could easily be clipped back into a formal feature. Situated on top of a 0.5m retaining wall with existing concrete surfacing hard up to boundary line.	Retain, no work required.	10 to 20 yrs	C2	2.1
T6	Goat Willow, Salix caprea	3	10	Ave 20	2.5	2.5	2.5	2.5	G/L	Young	S=Poor, P=Fair. Coppice regeneration tightly positioned against stone wall. Not viable for retention.	Remove to facilitate development.	10 to 20 yrs	C1	0.8
G7	Group containing Silver Birch, Betula pendula, Sycamore, *Acer pseudoplatanus* & Field Maple, *Acer campstre*	8	1	Ave 200	See plan.				1-w	Semi-mature	S=Good, P=Good. Densely planted area, no accurate inspection completed. Ivy present. Ownership unknown.	Retain, no work required.	20 to 40 yrs	B2	2.4



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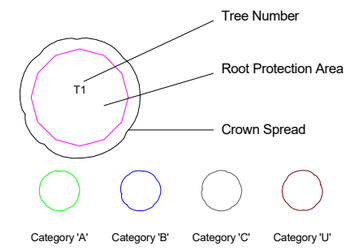

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Tree Constraints/Impact Plan

749, New Hey Road, Outlane, Huddersfield, HD3 3YL

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MAP FILENAME : 1749-1

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