

Tree Appraisal Report
44 Kingston Road, Manchester, M20 2SB:

“BS 5837 2012: Trees in Relation to Design, Demolition and Construction – Recommendations”



ROWBOTTOM'S TREE SERVICES LTD
INDEPENDENT ARBORICULTURAL CONSULTANCY

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Head Office: Cheddleton Lodge, West Road, Prestwich, Manchester, M25 3FB.
T: 0161 773 2788 E: bill@rowbottoms-tree-services.co.uk Web: www.rowbottoms.co.uk
Company Reg No: 4862189 VAT No 184 3636 88

44 Kingston Road, Manchester M20 2SB:

The following is a pre-development survey and appraisal of trees on and adjacent to the above site.

Its primary purpose being to categorize the trees according to BS 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations, so that the Local Planning Authority may review the existing trees in association with the proposed development.

The report and associated plans have been produced for the sole purpose: - to accompany the above planning submission.

Table of Contents

	Page
1. INTRODUCTION	4
2. SITE SURVEY AND OBSERVATIONS	5
3. APPRAISAL	6
4. CONCLUSIONS	7
5. RECOMMENDATIONS	8
6. BIBLIOGRAPHY	10

Appendices

1. Qualifications and Experience	11
2. Tree Data	12
3. Explanatory Notes	13
4. Protective Fencing Specifications	14
5. Tree Schedule	15
6. Tree Quality Assessment and Categorization Criterion	17
7. Site Photos	19

1. Introduction:

1.1 This tree survey has been commissioned by Mr Weinstock of 44 Kingston Road.

1.2 I have undertaken this tree survey following the guidance and recommendations of; 'BS 5837: 2012 Trees in Relation to Design, Demolition and Construction-Recommendations'.

1.3 **Instruction:** I am instructed by Mr Weinstock to inspect the significant trees on and adjacent to the site that may be affected by the proposed property regeneration works and to provide an arboricultural report to accompany a planning application. The relevant tree information that has been noted and prepared to accompany the planning application is;

- A schedule of the significant trees on and adjacent to the site, to include basic data and an assessment of their condition, (see appendix 2).
- An appraisal of the impact that the proposed development may have on the trees and as a result, the visual amenity of the locale.
- An initial arboricultural method statement (AMS) setting out basic protective requirements and management needs of the trees to be retained.

1.4 **Documents and information provided:** Mr Weinstock provide me with the following documents:

- *ZT19-196-08 Existing Site Plan with Tree Locations*
- *Heritage Statement document*

1.5 **Qualification and experience:** I have based this report on my site observations and the provided information, and I have come to conclusions in light of my experience. I have experience and qualifications in arboriculture and list the details in appendix 1.

1.6 **Report scope and limitations:** Construction work often exerts undesirable pressures on existing trees, as do changes in their environment following construction. This report has been prepared to analyse the impact that the proposed property development may have to the existing site trees. It further advises on protective requirements and appropriate management needs of the trees, should they be retained on the site. The primary purpose of the report is to provide sufficient tree information to allow the Local Planning Authority to review any tree issues associated with the development proposal.

1.6.1 It should be noted that this report takes no account of indirect structural damage that may arise to buildings as a result of tree induced soil volume changes. Such damage can occur to buildings built on shrinkable clay sub-soils and will be more prevalent during prolonged drought conditions. Also buildings built on shrinkable soils following tree removal can suffer heave affects as the soil rehydrates. These issues should be addressed during the design of the proposed development (*National House Building Council-NHBC 2011 part 4.2 building near trees*). Also, this report does not take into account damage to drains and underground services that may be due to tree root activity. If damaged, drains can allow roots to penetrate them. If, however, they are in good repair tree roots have little capacity to access them. A drainage expert could give more advice.

2. Site visit and observations:

2.1 Site visit: I carried out an unaccompanied site visit on 4th February 2021. All my observations were from ground level without detailed investigations and I estimated all dimensions unless otherwise indicated. The weather at the time of inspection, although dry and overcast with average visibility, was acceptable to proceed with the tree survey.

2.2 Brief site description: 44 Kingston Road is predominantly screened by a well maintained mature beech hedge and setback and down from the street behind an area of grass and a driveway. There is one gateway to Kingston Road between the mature hedgerows. The detached family home is mainly two-storey, with a single-storey elevation to the front for the double garage and a sunroom/reading room to the rear. Incorporated into this is a covered side and front porch. The single elevation is a felt flat roof. Looking toward the property from the rear garden which is largely grassed with mature borders there is a path that leads down to the pedestrian gateway on to Millgate Lane and the Fletcher Moss Park. The gateway has a pair of stone piers with 'Kingston House' inscribed upon them.

2.2.1 Site Aspect and Topography:

- The front of 44 Kingston Road is east facing.
- The site is broadly level with no significantly raised features within the garden area. The main hard standings on the site are the front tarmac driveway and a singular pedestrian pathway extending from the rear paved patio and ending with six steps down (approximately 1 metre) to the rear gate at Millgate Lane.

2.2.2 Preliminary Geological Information:

Soil Texture:	Loamy Clay
Soil pH:	Acid
Drainage:	Impeded Drainage
Fertility:	Low
Carbon:	medium
Drains to:	Stream Network

(Land Information Systems, 2021)

2.2.3: Tree Protection Status: The provided Heritage Statement confirms that 44 Kingston Road is located within in the southern section of the St James's Conservation Area.

2.3 Identification and location of the trees: The locations of the significant trees are illustrated on the Tree Protection Plan *RTS/04022021/TPP 001* included with this report. All the relevant information on the trees is contained within this report and the provided documents listed in 1.4 above.

2.4 Tree observations: The trees were not climbed; I visually inspected the significant trees from ground level in accordance with visual tree assessment (VTA) techniques and recorded the information on the schedule included at appendix 5. The assessment has been to a level one of the TRAQ assessment criteria.

3 APPRAISAL:

3.1 Relevant references: ‘BS 5837:2012 Trees in Relation to Design, Demolition and Construction-Recommendations’.

3.2 Arboricultural Impact Assessment (AIA): The proposal comprises of renovation and extensions to the existing house which would result in a 2-storey house with integrated garage. Externally, the private driveway will remain the same with only a slight increase in width toward the north to be able to accommodate two cars parked side by side. The proposal also includes provision for an electric sliding gate at the front for security. The increase in foot print area of the building will be to the south east and west sides of the existing house. At this stage I have not been made aware of the need to alter or install new underground drains or other utility services.

3.3 In order to facilitate the proposed building development it will be necessary to remove 3 of the existing site trees.

- T3 will require removal to accommodate the building extension to the rear of the property.
- T2, this tree is not within the required footprint area of the building renovation. However, the trees closeness to the existing building would prove problematic to the build process by restricting work space for the building contractors.
- T7 would require removal to allow space for the proposed width increase of the driveway.

3.3.1 Tree T2 is a small tree at 5 metres high and T7 another small tree at 3.5 metres high. Both do not significantly contribute to the visual amenity of the street scene, (photo 01 and 02) and their removal would most likely be unnoticed.

3.3.2 Tree T3 is a multi-stemmed Himalayan Birch which has been inappropriately planted adjacent to the rear corner of the building and the gable elevation of the neighbouring property (photo 03). The tree has recently been crown reduced, presumably to abate the nuisance of branch contact with the adjacent buildings. Also of note is that root growth from T3 is beginning to displace the surrounding patio paving, which may result in trip hazards (photo 04). Due to its future high growth potential, the long term practicality of T3 in this location is limited and its removal is recommended irrespective of the proposed building development. Similar to T2 and T7, T3 does not significantly contribute to the visual amenity of the street scene, (photo 05) and its removal would also most likely be unnoticed.

Proposed Tree Removal

Category	Total	Tree Tag / Number
Cat A		
Cat B		
Cat C	3	T2, T3 and T7
Cat U		

- 3.4** Also proposed, is to install an automatic sliding gate to the front driveway entrance of the property, whilst retaining the existing beech hedgerow. The open location of the gate will come close to T1; however, given adequate tree protection methods as noted in the recommendations section 5 of the report together with facilitation pruning, ill affects to tree health as a result are not anticipated.
- 3.5** Other trees on the site and in adjacent neighbouring properties are beyond influence of the development proposal and given the recommended tree protection fencing locations, ill effect to these trees is not anticipated.

4 CONCLUSIONS:

- 4.1** The proposed development works to 44 Kingston Road and the associated tree removals is anticipated to have little impact on the existing tree-scape and visual amenity of the area.
- 4.2** Two replacement trees, however, are suggested (to mitigate the removal of T3) adjacent to the rear property boundary with Millgate Lane. This new tree planting would be more appropriately sited to better serve the long term visual amenity of the area. The new tree planting locations are noted on the RTS/04022021/TPP 001 site plan and the tree specifications noted in the Recommendations at section 5.

5 RECOMMENDATIONS:
Arboricultural Method Statement;

- 5.1** Prior to any other activity on the site the following arboricultural works should be undertaken.

Table 1 Tree works:

Tree	Tree Work	Priority
T1	Crown lift to obtain a branch height clearance above ground level of approximately 2 metres	Prior to any other site works
T2, T3 and T7	Fell to ground level and grind out the remaining stumps	Prior to any other site works

- 5.1.1** All the recommended tree works should be of a standard that is in accordance with BS 3998:2010 Tree Work-Recommendations. All the arboricultural work on this site should be undertaken by an arboricultural contractor who is able to comply with the above BS standard. The arboricultural contractor should hold public liability insurance to a minimum of £5 million and employer's liability insurance as required by law. The arboricultural contractor should be able to show competency by means of relevant certification and health and safety policy. Suitable arboricultural contractors can be sourced from the Arboricultural Association approved contractor list or the Local Planning Authority occasionally has lists of competent contractors.
- 5.1.2** **The advised tree works within this report are recommended in order to facilitate the proposed property development. None of these tree works should be undertaken until there has been full approval from the Local Planning Authority.**
- 5.2** After the above tree works have been completed, protective fencing should be erected at the locations indicated on the tree protection plan RTS/04022021/TPP 001; the protective fencing should be constructed similar to the specifications at appendix 4. Or in this case the protective fencing could be of 2.0 metre tall herras fencing on rubber feet. The fence panels should be joined together using a minimum of two anti-tamper couplers, the vertical distance between the couplers should be at least 1 metre and uniform throughout the fencing. Signs should be attached to the fencing advising the contractors that this is a construction exclusion zone (CEZ); **keep out**.
- 5.3** Upon completion of the above arboricultural works and erection of the protective fencing, site construction may proceed following the guidance of AMS. Only on completion of all building activity should the tree protective fencing be removed.
- 5.4** Fires on the site should be avoided if possible. Where they are unavoidable, they should not be lit in a position where heat could affect tree foliage or branches. The potential size of a fire and wind direction should be taken into account when determining its location and it should be attended at all times until safe enough to leave.
- 5.5** Any materials whose accidental spillage would cause damage to a tree (e.g. oil, cement washing and vehicle washings etc.) should be stored and handled well away from the outer edge of its RPA.
- 5.6** All operatives of machinery and heavy plant should be made aware of the construction exclusion zones (CEZ). The operatives are to respect these zones and ensure that no damage occurs to trees due to careless use of machinery.

- 5.7 Siting of cabins and storage of building materials should be outside of the CEZ. Any proposal to install cabins or store materials within a CEZ should be agreed with the appointed arboriculturist and the Local Planning Authority prior to such installation.
- 5.8 A project arboriculturist should be appointed to ensure that compliance with tree protection requirements are upheld. The appointed arboriculturist should be an individual acceptable to the local authority. They must have a good understanding of the project requirements and be suitably qualified to understand the hazards associated with development near trees. They should work closely with the site manager, and have the authority to stop works until any major issues which could affect the retained trees have been resolved. They should keep the local authority updated at each stage of the project, including reporting of any unexpected issues which could affect the trees that are being retained. I can offer this service, or advice on the selection of a suitably qualified and experience individual.
- 5.9 Following completion of all building activity and building contractor vacation of the site, replacement tree planting shall be undertaken, which will take the form of:
Two trees;
One: - **Himalayan Birch** *Betula utilis*; 12cm to 14cm girth standard tree
One: - **Japanese Maple** *Acer palmatum*; multi-stemmed 5 litre pot
To be planted at the locations indicated on the RTS/04022021/TPP 001 site plan

6 BIBLIOGRAPHY

6.1 BS 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations



Mr W. J. Rowbottom. HN Dip ARB

M.Arbor.A

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Appendix 1

Brief qualifications and experience of Mr W. J. Rowbottom.

1. Qualifications:

- Tree surgery craft certificate 1992
- BTEC Higher National Diploma in Arboriculture 2000 (HN Dip Arb).

2. International Society of Arboriculture (ISA):

- Tree Risk Assessment Qualification (TRAQ).
This is a systematic qualification of the risks that may be posed by trees within their existing site setting over a given time frame.

3. Continuing professional development: Professional member of the Arboricultural Association.
M Arbor A. Professional member of the Consulting Arborist Society (CAS).

4. Experience: Managed an arboricultural contracting company for 20 years. Practiced arboricultural consultancy since 2010.

Appendix 2

Tree Data (Explanations of):

The data collected and recorded on each tree reflects the recommendations provided in section 4.4.2 of BS 5837:2012 Trees in Relation to Design, Demolition and Construction-recommendations.

Tree number: T (individual tree), G (group of stems or several trees planted together or self-seeded), S (stump of a tree that has been cut at or close to ground level), SH (shrub masses).

Species: Common tree name; specific name recorded in *italics*.

Height: Approximate height of the tree to the nearest metre.

DBH: Stem diameter (recorded in millimetres) measured in accordance with Annex C of the BS 5837:2012.

Crown Spread: A record (to the nearest half metre) of the radial distances between the tree trunk and the end of the further most branches, in the direction of the four cardinal compass points.

Height to Lowest Branch: This parameter estimates the lowest point of the crown above the ground. Minor and dead branches are ignored.

Age: Estimated maturity of the tree; Moribund (at the point of death), Mature (last one third of life expectancy), Early mature (one third to two thirds life expectancy), Young (at less than one third of life expectancy).

Condition: An assessment of tree physiological condition. Good (high vigour and strong growth), fair (average vigour and growth), Poor (low vigour and declining growth).

Category Rating: An assessment to identify the quality and value (in non-fiscal terms) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of a development occurring, (for categorisation criterion see appendix 6).

Observations and Comments: A preliminary observation of the tree's structural form and its suitability to the existing site setting. Basic tree management advice may be recommended.

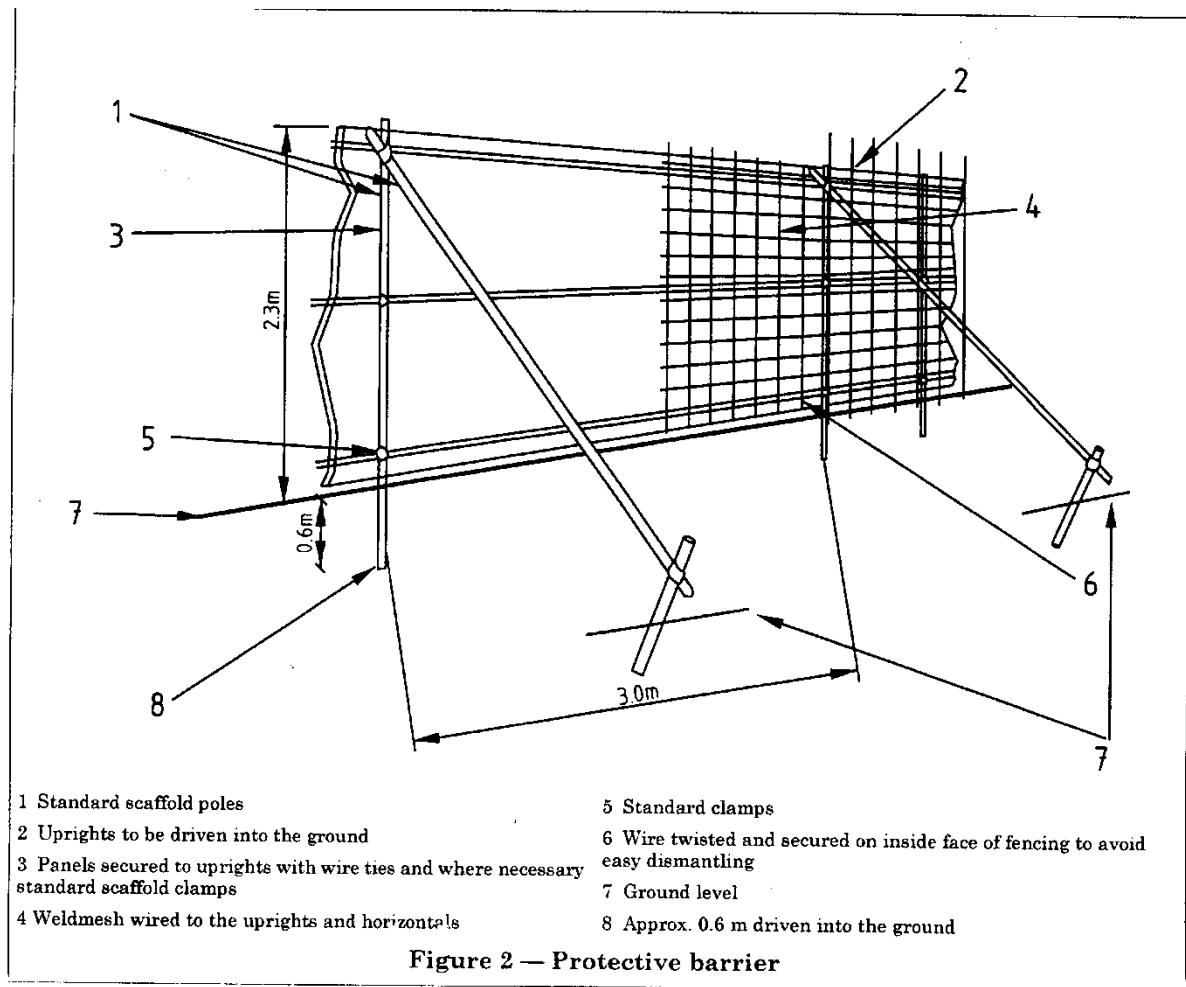
Appendix 3

Explanatory notes

AIA:	Arboricultural Impact Assessment; an assessment that evaluates the effects that the proposed design may have on the existing site trees and any constraints that the trees pose to the design, and where necessary recommend mitigation measures.
AMS:	Arboricultural Method Statement
GL:	Ground Level.
LPA:	Local Planning Authority
Measurements:	All dimensions are estimated unless otherwise indicated. Measurements taken with a tape or clinometer are indicated with a *. Less reliable estimated dimensions are indicated with a ‘?’.
RPA:	Root Protection Area; The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of roots and soil structure is treated as a priority. The RPA increases with tree size and is calculated from a measurement of the trunk diameter.
Species:	The tree species identification is based on visual identification. The common English name of what the tree appeared to be is listed first followed by the botanical name in italics. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigation. Where there is some doubt as to the precise species of the tree, the genus is followed by the abbreviation spp; in order to avoid delay in the production of the report. The species listed for groups and hedges represent the main component and there may be other minor species not listed.
TEMPO:	Tree Evaluation Method for Tree Preservation Orders; a method adopted by most Local Authorities of evaluating a tree for TPO status; <i>devised by Julian Forbes-Laird.</i>
TPO:	Tree Preservation Order
TRAQ:	Tree Risk Assessment Qualification. A tree risk qualification methodology; Level one; is a basic visual assessment of an individual tree or a population of trees near to targets of concern, conducted from a specified perspective, to identify obvious defects or specified conditions. Only defects visible from the perspective from which the assessment is made are expected to be identified.
VTA:	Visual Tree Assessment; a non-invasive method of examining the health and structural condition of individual trees, as advised by Mattheck (1993) and Hazard Evaluation by Matheny and Clark (1993). Guidance is also taken from Lonsdale (1999) Principles of Tree Hazard Assessment and Management.

Appendix 4

Protective Fencing Specification



Appendix 5
Tree Schedule

Tree No	Species	Tree Height (M) * Crown Height Above GL	DBH (mm) *	Crown Spread (M) *	Height to Lowest Branch (M)	Age	Condition	RPA Radius (M)	RPA Square metres	BS 5837 Category Rating	Observations and Comments
T1	Holly <i>Ilex aquifolium</i>	<u>7.0</u> 2.0	314 comb	N – 2.0 S – 3.0 E – 3.0 W – 1.5	1.8	Mature	Fair	3.7	43	C1	Low vigour; sparse foliage density; multi-stemmed
T2	Japanese Maple <i>Acer palmatum</i>	<u>5.0</u> 1.8	200	N – 2.0 S – 2.0 E – 1.5 W – 2.0	0.5	Mature	Good	2.4	18	C1	Minor included bark union at trunk to scaffold branch; small tree.
T3	Himalayan Birch <i>Betula utilis</i>	<u>9.0</u> 2.0	167 comb	N – 2.5 S – 2.0 E – 2.0 W – 3.0	2.0	Early Mature	Fair	2.0	12	C1	Three stemmed tree within 1.6 metres of the existing property and 2.5 metres of the neighbouring property; The tree has recently been reduce to abate nuisance to the building structures; the trees longevity here is limited
T4	Holly <i>Ilex aquifolium</i>	<u>10.0</u> 3.0	490	N – 2.0 S – 4.0 E – 2.0 W – 3.0	3.0	Mature	Good	5.8	105	B1	Ascending ivy growth has been cut
T5	Holly <i>Ilex aquifolium</i>	<u>9.0</u> 2.0	430	N – 4.0 S – 2.0 E – 3.0 W – 4.0	3.0	Mature	Fair	5.1	81	B1	Slightly low vigour; sparse foliage density; Ascending ivy growth has been cut

Tree No	Species	Tree Height (M) * Crown Height Above GL	DBH (mm) *	Crown Spread (M) *	Height to Lowest Branch (M)	Age	Condition	RPA Radius (M)	RPA Square metres	BS 5837 Category Rating	Observations and Comments
T6	Whitebeam <i>Sorbus spp</i>	<u>4.0</u> 1.8	90	N – 1.5 S – 2.0 E – 1.5 W – 2.0	1.2	Early Mature	Good	1.0	3	C1	Small tree; Slight asymmetry
T7	Maple <i>Acer spp</i>	<u>3.5</u> 2.0	140	N – 1.0 S – 1.0 E – 1.0 W – 1.0	2.0	Early Mature	Fair	1.6	8	C1	Small pollarded tree
T8	Malus <i>Malus spp</i>	<u>6.0</u> 3.0	200	N – 4.0 S – 3.0 E – 3.0 W – 3.0	2.0	Mature	Fair	2.4	18	C1	Neighbours tree; ivy ascending the trunk

Appendix 6

Tree Quality Assessment and Categorization Criterion

Category U: Trees unsuitable for retention;

Trees which are 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. These trees, however, can have existing or potential conservation value. They could, therefore, be up graded from a U category if issues concerning their safety can be appropriately managed.

Trees to be considered for retention;

Category A: trees of high quality

Have an estimated remaining life expectancy of at least 40 years.

Category B: Trees of moderate quality

Have an estimated remaining life expectancy of at least 20 years.

Category C: Trees of low quality.

Have an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

For a tree to qualify under any given category, it should fall within the scope of that categories definition (U, A, B, C).

Trees in categories A to C should then qualify under one or more of three subcategories (1, 2, and 3). The subcategories 1, 2 and 3 are intended to reflect arboricultural and landscape qualities, and cultural values, respectively. These definitions are described below:

Identification on the plan

Dark Red

Light Green

Mid Blue

Grey

Arboricultural Qualities:**Sub-Category A1:**

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).

Sub-Category B1: Trees that might be included in category A, but have been 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 beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.

Sub-Category C1: Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.

Landscape Qualities:

Sub-Category A2: Trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.

Sub-Category B2: 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.

Sub-Category C2: Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and / or trees offering low or only temporary / transient benefits.

Cultural Values:

Sub-Category A3: Trees or woodlands of significant conservation, historical, commercial or other value (e.g. veteran trees or woodland pasture).

Sub-Category B3: Trees with material conservation or other cultural value.

Sub-category C3: Trees with no material conservation or other cultural value.

Appendix 7

Photo 01:



Photo 02:



Photo 03:



Photo 04:



Photo 05:

