

**ARBORICULTURAL REPORT
to BS 5837:2012
at
Land at Bailey Street/Enterprise Way
Manchester
Greater Manchester
M90 4AB**

Client:
KPP Architects Ltd

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Contents

1. Introduction.....	3
1.1 Purpose of the Report.....	3
1.2 Terms of Reference	3
1.3 Tree Survey Details and Methodology.....	3
2. Status of the Trees.....	5
3. Tree Survey Details	6
3.1 Tree Retention Categories	6
3.2 Recommended Work for Arboricultural Reasons.....	7
4. Tree Related Design Advice.....	8
5. Summary	9
 Appendix 1: Tree Descriptions and Recommendations.....	 11
Appendix 2: Explanation of Tree Descriptions.....	12
Appendix 3: General Guidelines	14
Appendix 4: Author Qualifications	15
Appendix 5: Tree Constraints Plan.....	16

1. Introduction

1.1 Purpose of the Report

- 1.1.1 JCA Limited has been instructed by **KPP Architects Ltd** to survey the trees at **Land at Bailey Street/Enterprise Way, Manchester**, and prepare the findings in a report.
- 1.1.2 This report provides detailed, independent, arboricultural advice on the trees in the context of potential development, conducted in accordance with the guidelines contained within BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS5837:2012).
- 1.1.3 This report will categorise the trees in accordance with the British Standard, which will help guide the design of potential development in terms of constraints and opportunities related to trees and provide details of which trees should be retained and which could be removed.
- 1.1.4 Once a proposed development scheme has been formalised, the full implications for trees should be assessed within an Arboricultural Impact Assessment (AIA).

1.2 Terms of Reference

- 1.2.1 For this purpose, a topographical survey (**Ref: 6015CM**) has been supplied, which forms the basis for the Tree Constraints Plan at **Appendix 5**. The topographical survey, along with all other documents supplied to JCA, is assumed to be correct. No checking of such documents will be undertaken and JCA cannot be held responsible for incorrect data supplied by other parties.

1.3 Tree Survey Details and Methodology

- 1.3.1 The survey took place during March 2024 and was conducted by **Andrew Bussey** *LANTRA Accredited PTI*.
- 1.3.2 During this survey, all trees were inspected from ground level. Further investigations, such as a climbed inspection or a decay detection survey, have not been undertaken.
- 1.3.3 Only those trees within the site boundary with a stem diameter above 75mm have been included. Where applicable, trees outside the site boundary, but close enough to be affected by a proposed development, are also included.
- 1.3.4 Tree data was collected in accordance with **Section 4.4** and **Section 4.5** of BS5837: 2012. Full details of all trees surveyed are recorded in the tables at **Appendix 1** which can be cross referenced with the Tree Constraints Plan at **Appendix 5**. A full explanation of the tables can be found at **Appendix 2**.

- 1.3.5 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible, due to restricted access or other mitigating circumstances, measurements were estimated to the best ability of the surveyor. Where measurements have been estimated, these are clearly highlighted at **Appendix 1** with a '#' symbol.

2. Status of the Trees

- 2.1 A check was made with **Manchester City Council** in February 2024 to determine whether any of the trees surveyed as part of this report are subject to any statutory controls.
- 2.2 We are informed that no trees within our survey are subject to any Tree Preservation Orders (TPO) and the site is not located within a Conservation Area.
- 2.3 However, prior to any works being undertaken to trees, those instructing and proposing to carry out the work should satisfy themselves that all appropriate consents are in place to prevent potential breach of legislation.

3. Tree Survey Details

3.1 Tree Retention Categories

3.1.1 Below is a summary of the surveyed vegetation with retention categories identified in accordance with BS5837: 2012. For a full explanation of the retention categories, please refer to **Appendix 2 (Section A2.3)**.

Retention Categories			
Retention Category	Trees	Groups	Totals
A	1	0	1
B	1	1	2
C	1	0	1
U	0	0	0
Totals	3	1	4

3.1.2 As a general rule, those trees listed as retention category ‘A’ or retention category ‘B’ are the most valuable items of vegetation and as such the removal of these is likely to be met with resistance by the Local Planning Authority (LPA).

3.1.3 The above information should guide the design in terms of which trees could be removed and which trees should be retained. However, due to changing attitudes with regards to environmental awareness, it should be noted that all trees are considered to have value. As such, it is advised that as many trees as possible be retained, regardless of their BS5837: 2012 retention category status.

3.1.4 The retention of trees is further advised to avoid the need to plant replacement specimens, which are usually required to be planted on a 2:1 or 3:1 ratio, and due to their ecological value, which will be assessed as linear habitat units in accordance with the Statutory Biodiversity Metric.

3.2 Recommended Work for Arboricultural Reasons

- 3.2.1 No tree works are required under the current context of the site. However, all trees which are to be retained within the proposed development should be inspected on a regular basis in the interests of risk management. They should have a biennial re-inspection regime, ideally with each inspection being undertaken during a different season, in order to observe any defects, pests and diseases that are only evident at certain times of year.

4. Tree Related Design Advice

- 4.1 The location of each tree is plotted on the Tree Constraints Plan at **Appendix 5**. The canopy spread of each surveyed item is colour coded as follows; Retention Category A: **Green**, Retention Category B: **Blue**, Retention Category C: **Grey**, Retention Category U: **Red**. The associated Root Protection Area (RPA) is also shown in **Gold**.
- 4.2 In order to enable the survival of trees shown to be retained within any proposals, encroachment into the canopy of the tree and/or its RPA should be avoided wherever possible. This relates to not just the location of new buildings, but also to the location of new areas of hard standing, proposed utility routes and any ground level changes (both excavations and soil piling). Where this is not possible, specialist construction methods and materials will need to be used.
- 4.3 Where information is available, the water demand of each tree is provided at **Appendix 1**, in accordance with current NHBC Standards. The water demand of trees can affect adjacent structures, and this is therefore included to inform foundation design, depth and the proximity of proposed structures to trees.
- 4.4 Retained trees will require adequate protective measures during development. Such measures typically entail temporary protective fencing, installed to the full extent of the RPA. Where this is not entirely possible, ground protection may also comprise part of the protective measures. This includes a compaction reducing construction detail which enables a degree of construction traffic over/within the RPA.
- 4.5 As the RPAs of the trees will require fencing off as a protection measure, this should be brought into consideration when planning such things as access routes and material storage during development. It is accepted that in some cases it is not entirely possible to completely avoid the RPA or canopy lines within a new development. The consulting arboriculturalist should therefore be made aware of any such incursions to make comment and, where possible, advise on mitigation actions. Such details should be contained within an Arboricultural Impact Assessment (AIA).
- 4.6 No material storage is permitted within the RPA of retained trees unless confirmed to be acceptable by the consulting arboriculturalist. The exact details and location of protective measures should be included within an Arboricultural Method Statement (AMS).
- 4.7 The position of the site compound is a major consideration. It is recommended that this, which typically includes the site office, facilities, toilets, storage of materials and parking, is located away from trees and outside the RPA.
- 4.8 Once the development proposals are finalised, the implications of this design on the existing trees should be assessed within an Arboricultural Implications Assessment (AIA).

5. Summary

- 5.1 The trees at **Land at Bailey Street/Enterprise Way, Manchester**, have been surveyed in accordance with BS5837: 2012 in order to provide independent advice relating to the constraints posed by trees to the potential development of the site.
- 5.2 We are informed that no trees within our survey are subject to any Tree Preservation Orders (TPO) and the site is not located within a Conservation Area.
- 5.3 No tree works are required under the current context of the site.
- 5.4 General tree related advice to assist the design proposals has been provided in **Section 4**, which should be used in conjunction with the Tree Constraints Plan at **Appendix 5**.
- 5.5 Upon provision of specific proposals, site-specific advice should be given with regards to the impact on trees. In accordance with **Section 5.4 of BS 5837: 2012**, the next stage should be the preparation of an **Arboricultural Impact Assessment (AIA)**, which will illustrate and discuss the impact of the proposals on the trees.
- 5.6 The data gained during the survey provides an indication of the health of the trees. However, it does not enable a comprehensive assessment of their condition over time. Trees are living organisms which are affected by many factors including weather conditions, diseases/disorders, light levels and human activities. Due to this, this report is only valid for a period of 1 year from the date of issuing. Should an update or revision of this report be required outside of this time period, JCA may require a further site visit to ensure that the condition of the trees has not significantly changed. It is advised that the trees are inspected regularly, in the interests of risk management.

Appendices

Tree Ref.	Age Common Name <i>Botanical Name</i>	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
G 1	Young to semi-mature Mixed species <i>Details in observations</i>	To 13#	0+	0+ n/a	To 25#	See plan	A dense plantation comprised of Wild Cherry, Scots Pine, Field Maple, Downy Birch, Lime, Elder, Common Ash, Plum and Goat Willow. Not fully inspected due to limited access and the density of the vegetation.	No action required. n/a	GOOD	GOOD	MOD	LOW TO HIGH	40+	1 B 2
T 2	Mature English Oak <i>Quercus robur</i>	19	2	4 n/a	98#	7# 7 6# 5	Twin-stemmed at 4m with a balanced crown. No evidence of significant pruning. Decay cavities with decay and moderate deadwood noted. Not fully inspected due to the adjacent watercourse and Ivy to the stem.	Monitor biennially. Low	GOOD	FAIR	MOD	HIGH	40+	A 1
T 3	Mature Common Ash <i>Fraxinus excelsior</i>	16	4	5 n/a	46#	5# 5 5# 4#	Single-stemmed and vertical with a balanced crown. Moderate Ash Dieback noted. Not fully inspected due to the adjacent watercourse.	Monitor biennially. Low	FAIR	FAIR	MOD	MOD	10+	C 1
T 4	Early-mature Whitebeam <i>Sorbus aria</i>	11	4	3 n/a	32	3.5 3 3 2.5	Twin-stemmed at 2m with a balanced crown. Occasional pruning wounds. No major visible defects.	No action required. n/a	GOOD	GOOD	MOD	MOD	40+	B 1

Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements/ Reference Information

- A2.1.1 *REF NUMBER*. All items surveyed are allocated a reference number preceded with a letter, identifying the type of vegetation surveyed: T = an individual tree, G = a group of trees or an area of vegetation, W = woodland, H = a hedgerow.
- A2.1.2 *SPECIES: COMMON AND BOTANICAL NAME*. The common and botanical names of the species present are noted. If the species is not clear or identifiable, then a general common name and genus will be noted.
- A2.1.3 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.
- A2.1.4 *HEIGHT* of the tree is measured in metres from the stem base to the top of the crown.
- A2.1.5 *CROWN HEIGHT* is an indication of the height above ground level at which the crown begins.
- A2.1.6 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; diameter measurements are taken for each stem. If more than five stems are present, an average stem diameter is taken. If for whatever reason it is not practical to measure multiple-stemmed trees in this way, the diameter is measured close to ground level, just above the root buttress.
- A2.1.7 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches to all four cardinal points.
- A2.1.8 *HEIGHT AND DIRECTION OF LOWEST BRANCH*. The height and direction of the lowest significant branch is noted because of potential issues relating to clearances and the need for tree pruning.
- A2.1.9 *NHBC WATER DEMAND*. The water demand of each tree is listed in accordance with current NHBC Standards. This is included to aid structural engineers, architects and other members of the design team as it determines foundation depth and other considerations with regard to trees.

A2.2 Evaluations

- A2.2.1 *PHYSIOLOGICAL CONDITION* is classed as good, fair, poor, or dead. This is an indication of the health and vitality of the tree and takes into account vigour, presence of disease and dieback.
- A2.2.2 *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.
- A2.2.3 *LIFE EXPECTANCY* is classed as; 0, less than 10 years, 10+ years, 20+ years, or 40 + years. This is an indication of the minimum number of years before removal of the tree is likely to be required.
- A2.2.4 *AMENITY VALUE*. A general indication is given in respect to the amenity/landscape value of the tree/group within the surrounding area.
- A2.2.5 *PRIORITIES*. A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

A2.3 Retention Categories

- A2.3.1 *A (marked green on the Tree Constraints Plan) = Trees of high quality.*

These trees are of high quality and value with a good life expectancy (usually with an estimated remaining life expectancy of 40 years).

- A2.3.2 *B (marked in blue on the Tree Constraints Plan) = Trees of moderate quality.*

These trees are of moderate quality and value with a reasonable life expectancy (usually with an estimated life expectancy of at least 20 years).

- A2.3.3 *C (marked in grey on the Tree Constraints Plan) = Trees of low quality.*

These trees are of low quality and value but which are in adequate condition to remain or are young trees with a stem diameter below 15cm (usually with an estimated life expectancy of at least 10 years).

- A2.3.4 Trees categorised as retention category 'A', 'B' or 'C' are then justified by being further divided into 3 subcategories:

1 = Mainly arboricultural qualities.

2 = Mainly landscape qualities.

3 = Mainly cultural values, including conservation value.

Appendix 3: General Guidelines

- A3.1 All tree work must be undertaken to BS 3998: 2010 '*Recommendations for tree work*' or other recognised industry practice.
- A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.
- A3.3 This report is based upon a visual inspection. The consultant 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 the guidelines and the terms listed in this report.
- A3.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.
- A3.5 No liability can be accepted by JCA in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.
- A3.6 It is advisable to have trees inspected by an arboricultural consultant regularly.

Appendix 4: Author Qualifications

Principal Consultant and Managing Director

Jonathan Cocking *F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor.* Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years' experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Director

Toby Thwaites *BSc (Hons), HND (Arboriculture), MArborA.* Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Operations Director

Charles Cocking *FdSc (Arboriculture), MArborA.* Charles joined JCA in January 2014 having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York, and is a Professional Member of the Arboricultural Association. Charles now oversees all internal operations for the company.

Consulting Staff: Arboriculture

Andrew Bussey. Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications, is QTRA qualified and is a LANTRA Accredited Professional Tree Inspector.

Emily Wilde *FdSc (Arboriculture).* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

Mick Eltringham *ND (Forestry).* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

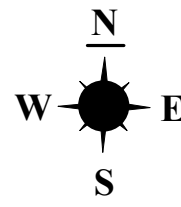
Dan Kemp *FdSc (Arboriculture), BTEC National Diploma(Arboriculture), National Certificate In Horticulture, City & Guilds In Horticulture.* Dan joined JCA in February 2019 with nearly 30 years' experience in arboriculture with extensive Botanical and Mycological expertise. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

Luke Wickham *FdSc (Arboriculture and Urban Forestry), TechArborA.* Luke joined JCA in 2021 after obtaining his Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. Having previously worked within the industry for the past 4 years, running his own small business and sub-contracting for local firms, Luke brings a sound knowledge and understanding of the practical and academic sides of the industry.

Administrative Staff

Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.

Lorraine Spink Administrative Assistant.
Adie Gray I.T. Officer.



Root Protection Area: RPA

THE ROOT PROTECTION AREA SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCROACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.



THIS PLAN IS TO BE PRINTED IN COLOUR
AND READ IN CONJUNCTION WITH THE
JCA ARBORICULTURAL REPORT
(JCA REF: 21843/AJB)

Appendix 5: Tree Constraints Plan

ADDRESS: Land at Bailey Street/Enterprise Way
Manchester, Greater Manchester, M90 4AB.
JCA REF: 21843/AJB

SCALE : 1:500 PAPER SIZE : A2

SURVEYED BY: AJB DRAWN BY: AJB APPROVED BY: ME

BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES	
Detailed definitions of these categories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.	
	CATEGORY A: 'RETENTION MOST DESIRABLE'
	CATEGORY B: 'RETENTION DESIRABLE'
	CATEGORY C: 'TREE WHICH COULD BE RETAINED'
	CATEGORY U: 'TREE FOR REMOVAL'
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA
	ROOT PROTECTION AREA (PRIOR TO OFF-SETTING)



I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



.....

Andrew Bussey *LANTRA Accredited PTI.*

29th May 2024

For and on behalf of **JCA Ltd**

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JCA Ltd. Arboricultural and Ecological Consultants

Professional Tree and Ecology Advice nationwide

ARBORICULTURAL SERVICES

Guidance for Architects and Developers

- British Standard 5837 Tree Surveys
- Arboricultural Implication Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

HEAD QUARTERS:

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