ARBORICULTURAL REPORT
to BS 5837:2005
at
Peel Street
Barnsley
South Yorkshire
S70 2RE

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1. Introduction

1.1 Purpose of the Report

1.1.1 A report is required at **Peel Street, Barnsley,** to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Terms of Reference

1.2.1 I am instructed by FDA Landscape Ltd to visit the site and prepare my findings in a report.

1.2.2 For this purpose I have been supplied with a topographical survey.

1.3 Scope of the Report

1.3.1 This report is compiled in accordance with *BS 5837:2005 Trees in relation to construction.*

1.3.2 Preliminary recommendations are given with a view to the long-term management of a sustainable tree cover.

1.3.3 All trees within the site boundary with a stem diameter above 75mm are included.

1.3.4 Where applicable trees outside the site boundary, but close enough to be affected by the proposed development, are included.

1.3.5 The specific design of any proposed development is not generally taken into account at this stage.

1.4 Survey details

1.4.1 The survey took place during the month of May 2010.

1.4.2 The survey was conducted by Adam Winson BSc (Hons) E Con, ND (Arboriculture).

1.4.3 Inspection was made at ground level. Further investigation, such as climbed inspections or decay detection surveys, may be recommended where appropriate.

1.4.4 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible measurements were estimated.

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2. Site Description

2.1 Land Use

2.1.1 The site is a former multiple-level car-park that is currently unused.

2.2 Topography

2.2.1 The site is approximately level.

2.3 Treescape

2.3.1 Surrounding the site is an urban area containing a reasonable distribution of street trees.

2.3.2 The trees on this site have a moderate impact on the local treescape.

2.4 Visual Amenity Value

2.4.1 The trees on site collectively provide a good visual amenity to the surrounding area.

2.5 Age Class Mix

2.5.1 The trees surveyed were all semi-mature.

2.6 Species Diversity

2.6.1 Species surveyed were all Norway Maple with one individual Cherry.

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3. Status of the Trees

3.1 A check was made on 25th May 2010 with: ***Barnsley Metropolitan Borough Council.***

We are awaiting a response from the Council and will forward this information to you as soon as it is received.

Before any work is organised, all the necessary steps to get the permission of the Local Planning Authority should be taken.

No work should be done to any trees until this permission has been granted.

3.2 Due to the large potential penalties for illegally carrying out work to protected trees, JCA recommend that a further check is carried out prior to any works being undertaken. We are able to arrange this and to organise and supervise professional contractors.

4. Tree Descriptions and Recommendations

4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**. A full explanation of the tables can be found at **Appendix 2**. Please refer also to the Tree Constraints Plan at **Appendix 6** for tree locations.

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5. Discussion

5.1 Tree Condition & Recommended Works

5.1.1 The tree survey revealed a total of 7 individual trees. Of these, 4 trees were identified as retention category 'B', and 3 trees were identified as retention category 'C'. No retention category 'A' or 'R' trees were identified on this occasion. Please refer to **Appendix 2** for retention category and definition criteria.

5.1.2 All the trees are situated to the western corner of the site. The higher value trees (Retention Category 'B') are all situated beyond a public footpath and steel railings.

5.1.3 The trees are situated in a busy urban location and as such, many have a high amenity value. However they are only semi-mature trees, whose value could be replaced with replacement planting.

5.1.4 Those trees which overhang the public footpaths or public highways, detailed at **Appendix 1**, shall require future maintenance in order to maintain clearance heights for vehicular or pedestrian traffic. These heights should be 5.6m above a road and 2.5m above a footpath.

5.1.5 The species and age diversity of existing trees on site is relatively poor and a proposed development would improve this by incorporating a Tree Planting Scheme which introduces younger trees of a variety of suitable species.

5.2 Potential Arboricultural Implications & Design Advice

5.2.1 The following comments can be made about the site in terms of its tree cover in relation to a potential development.

5.2.2 It is understood the new development will necessitate the removal of all of the existing trees.

5.2.3 Collectively the existing trees have a high amenity value; however, the fact they are only semi-mature trees means their value could be replaced with replacement trees that will form part of the proposed developments landscaping scheme.

5.2.4 Where a landscape planting scheme is proposed, consideration must be made at the planning stage as to where this is to be implemented on site. Such locations should be protected in order to prevent soil compaction and/or contamination and should therefore form part of a Construction Exclusion Zone.

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6. Conclusions

6.1 The trees surveyed were generally found to be in good condition.

6.2 All the trees are situated to the western corner of the site. The higher value trees (Retention Category 'B') are all situated beyond a footpath and steel railings.

6.3 It is understood the new development will necessitate the removal of all of the existing trees.

6.4 Collectively the existing trees have a high amenity value; yet their loss could be mitigated with replacement trees that will form part of the proposed developments landscaping scheme.

6.5 Where a landscape planting scheme is proposed, consideration must be made at the planning stage as to where this is to be implemented on site. Such locations should be protected in order to prevent soil compaction and/or contamination and should therefore form part of a Construction Exclusion Zone. JCA can provide Tree Planting Schemes where required.

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Appendices

Appendix 1: Tree Descriptions and Recommendations

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Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 1	Semi-mature Norway Maple *Acer platanoides*	8	2	26	4 4 4 4	Multiple-stemmed at 2.5m. Well developed crown. Good potential.	No action required	GOOD	GOOD	HIGH	40+	B
T 2	Semi-mature Norway Maple *Acer platanoides*	7	2.5	16	3 3 4 3	Single stemmed and vertical. Slightly suppressed. No major visible defects.	No action required	GOOD	GOOD	HIGH	10-20	C
T 3	Semi-mature Norway Maple *Acer platanoides*	8	2	24	4 4 4.5 4	Multiple-stemmed at 2.5m. Well developed crown. Good potential.	No action required	GOOD	GOOD	HIGH	40+	B
T 4	Semi-mature Norway Maple *Acer platanoides*	7	2.5	20	4 3 3 3.5	Multiple-stemmed at 2.5m. Well developed crown. Good potential.	No action required	GOOD	GOOD	HIGH	40+	B
T 5	Semi-mature Norway Maple *Acer platanoides*	8	2.5	24	4 3 4 4	Multiple-stemmed at 2.5m. Well developed crown. Good potential.	No action required	GOOD	GOOD	HIGH	40+	B
T 6	Semi-mature Norway Maple *Acer platanoides*	7	2	15	3 3 2 2	Multiple-stemmed at 1.5m. Slightly unbalanced crown.	No action required	GOOD	GOOD	MOD	20-40	C
T 7	Semi-mature Cherry *Prunus sp*	6	2	14	1 3 1 2	Multiple-stemmed at 2m. No major visible defects.	No action required	GOOD	GOOD	MOD	20-40	C

Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements

A2.1.1 *HEIGHT* of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

A2.1.2 *CROWN HEIGHT* is an indication of the average height at which the crown begins.

A2.1.3 *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, just above the root buttress.

A2.1.4 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

A2.2 Evaluations

A2.2.1 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

A2.2.2 *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.

A2.2.3 *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.

A2.2.4 *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.

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A2.3 Retention Categories

A2.3.1 ***A (marked green on the plan) = retention most desirable.***

These trees are of high quality and value with a good life expectancy. They may be further sub-divided as follows:

A1) Particularly good examples; perhaps rare or unusual species, or forming an essential part of arboricultural features e.g. avenues.

A2) Groups of trees having a significant landscape impact or with excellent screening properties, or those softening the effect of existing structures.

A3) Those having significant conservation or historical value e.g. veteran trees.

A2.3.2 ***B (marked in blue on the plan) = retention desirable.***

These trees are of moderate quality and value with a significant life expectancy. They may be further sub-divided as follows:

B1) Trees that might be included in the high category but because of their numbers or slightly impaired condition, are downgraded in favour of the better individuals.

B2) Groups of trees forming distinct landscape features, thereby attracting a higher collective rating than they might as individuals.

B3) Trees with clearly identifiable conservation or other cultural benefits.

A2.3.3 ***C (marked in grey on the plan) = trees which could be retained.***

These trees are of low quality and value, and are in adequate condition to remain until new planting could be established. They may be further sub-divided as follows:

C1) Trees not qualifying in higher categories.

C2) Groups of trees which do not form a distinct landscape feature.

C3) Trees with very limited conservation or other cultural benefits.

A2.3.4 ***R (marked in red on the plan) = trees for removal.***

These trees are in such a condition that any existing value would be lost within 10 years. This may be due to any of the following:

1) Failure is likely due to serious, irredeemable, structural defects.
2) Removal of other category R trees will render them exposed and unstable.
3) They are in serious, overall decline or are dead.
4) They are of low quality and suppressing adjacent trees of better quality.
5) Diseases are present which may affect the health of adjacent trees.

These trees should be removed or treated in such a way as to make them safe where they have high ecological value, such as in a woodland setting.

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Appendix 3: General Guidelines

A3.1 All work must be to BS 3998:1989 - '*Recommendations for tree work*'.

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 Ltd 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. In this instance it is recommended that these inspections are made every year.

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Appendix 4: Glossary of Terms & Abbreviations

Arboriculture	The cultivation of trees in order to produce individual specimens of the greatest ornament, for shelter or any primary purpose other than the production of timber.
Canker	Disease damaged area of a tree, usually caused by fungus or bacteria.
Co-dominant Stem	A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.
Crown Lift	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
Crown reduce	The reduction of a tree's height or spread while preserving its natural shape.
Crown thin	The removal of some of the density of a tree's crown, usually 5-25% allowing more light through its canopy and reducing wind resistance.
Deadwood	Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.
Dieback	Where branches are beginning to show signs of death usually at the tips in the crown.
Epicormic shoots	Small branches that grow in uncharacteristic clusters around the base or the stem of a tree, usually as a result of bad pruning or some other stress factor.
Formative pruning	The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown.
Included bark	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
Pollarding	A method of tree management in which the main trunk of the tree is cut at about 4m, and the resulting branches are then cropped on a regular basis.
Remedial pruning	The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.
RPA	Root Protection Area – The theoretical rooting area of a tree as defined in BS5837: 2005 *Trees in relation to construction.*
Topping	Topping is a form of pruning that removes terminal growth leaving a 'stub' cut end. Topping causes serious health problems to a tree.

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Appendix 6: Tree Constraints Plan

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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

.....

Adam Winson BSc (Hons) E Con, ND (Arboriculture).

26th May 2010

For and on behalf of ***JCA Ltd***

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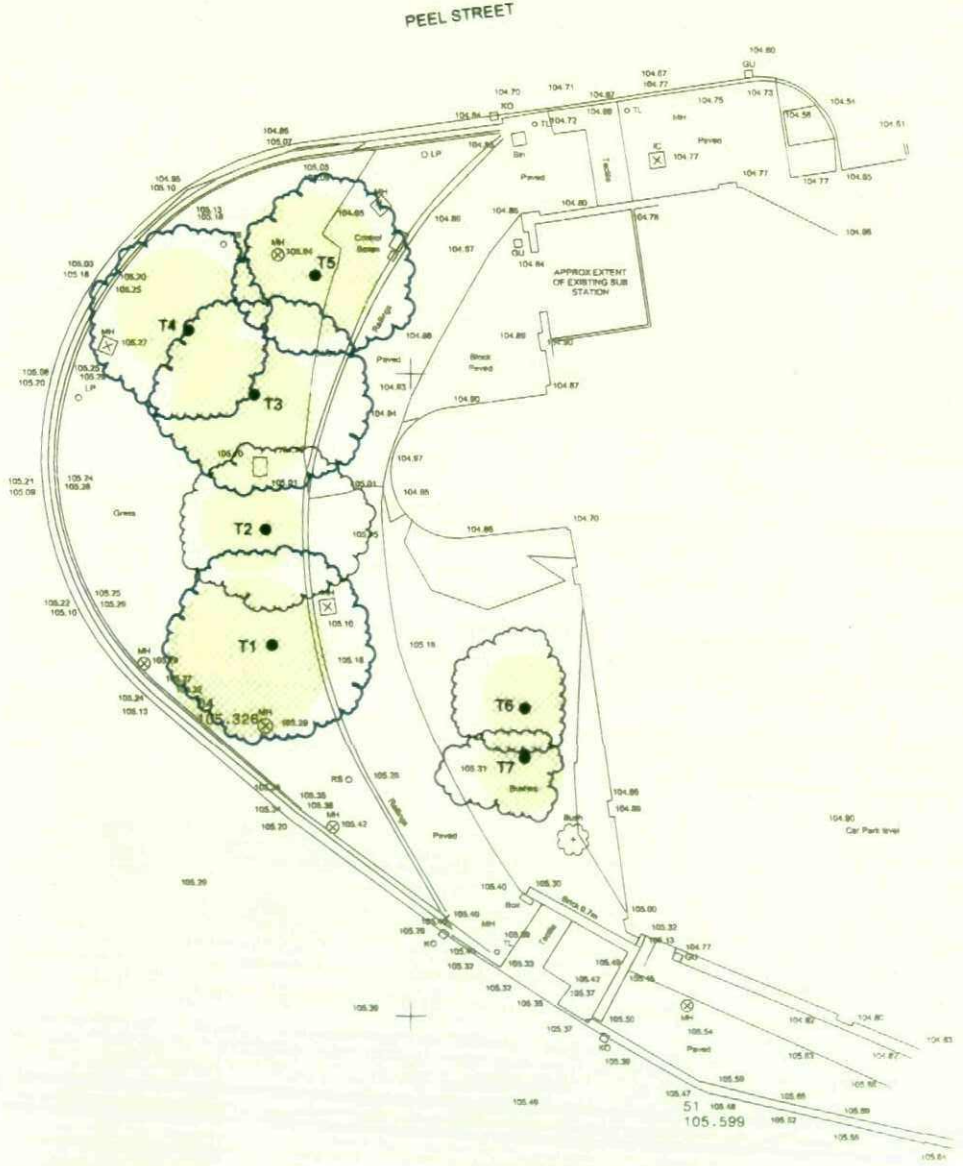
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N
W E
S

Root Protection Area: RPA

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE. THE RPA SHOULD IDEALLY REMAIN UNDISTURBED IF A 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.

Appendix 6: Tree Constraints Plan

TITLE:
Peel St, Barnsley
JCA Ref: 9602AW

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JCA LTD
Arboricultural & Forestry Consultants

Arboricultural Association Consultant

BRITISH STANDARD 5837: 2005 4.3.1 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 R: 'TREE FOR REMOVAL'
•	CENTRE OF TREE/SHRUB
	CENTRE OF TREE/SHRUB TO BE REMOVED
	ROOT PROTECTION AREA