PLANNING AND
BUILDING CONTROL
13 AUG 2012

mulberry

TREE SURVEY FOR 8 HERITAGE GARDENS DIDSBURY

20 April 2012

1.0 Introduction

1.1 The purpose of this report is to carry out a site visit, identify and survey the principal trees on the site.

1.2 The survey on which the findings of this report are based was undertaken on Saturday the 7 April 2012.

1.3 This report should be read in conjunction with the attached location plan in Appendix One.

1.4 The reference to the left and right hand assumes a viewing position from the public highway, and facing the property.

1.5 The limitations of this report are restricted to the persons, time, information made available and purpose for which this report has been prepared.

2.0 Findings

2.1 The principal trees have been surveyed and plotted individually to assess their health and dimensions. To give assistance in reading the findings the following glossary gas been produced.

Arboricultural Glossary Of Terms

The following terms are concurrent with best Arboricultural practice and within the guidelines set by the International Society of Arboriculture (ISA), the Arboricultural Association (AA) and the British Standards Institute (BSI).

Age Range: Age is site specific and categorised:

Young (Y)	Out-planted trees that have not yet established.
Semi-Mature (SM)	Established trees up to 1/3 of expected height and crown.
Early Mature (EM)	Between 1/3 and 2/3 of expected height and crown.
Mature (M)	Between 2/3 and full expected height and crown.
Fully Mature (FM)	Full expected height and crown.
Over Mature (OM)	Crown beginning to break-up and decrease in size.
Senescent (S)	Crown in advanced stage of break-up.

Height: Height is estimated and recorded in metres.

DBH: Diameter at Breast Height is measured at 1.5m and recorded in metres. Where a tree becomes multi-stemmed below 1.5m the highest possible diameter is measured and indicated. Alternatively, above 1.5m the diameter of each stem or an average diameter is measured and indicated.

Condition - Assessment of current physiological condition and structural morphology incorporating vigour and vitality and categorised:

A - Tree needing little, if any attention
B - Tree with minor, but rectifiable defects, or in the early stages of physiological stress
C - Tree with significant structural and physiological flaws and/or extremely stressed
D - Tree that is dead, biologically/physically moribund or dangerous

Desirability To Retain – As Outlined in Table 1 of BS 5837:2005 (Trees in Relation to Construction - Recommendations)

Definition Of Physiological & Morphological Terms

Adaptive Growth - The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone.

Bifurcation – Forked or divided union.

Brown Rot - Form of decay where cellulose is degraded, while lignin is only modified.

Cankers (target or tumerous) - A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by woundwood development on the periphery. This may be annual or perennial.

Cavity - An open wound, characterised by the presence of extensive decay and resulting in a hollow.

Chlorotic Leaf - Lacking in chlorophyll, typically yellow in colour.

Compartmentalisation - The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.

Crack - Longitudinal spilt in stem or branch, involving bark and/or underlying wood. These may be vertically and horizontally orientated.

Decay - Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.

Deadwood - Deadwood is often present within the crown or on the stems of trees. In some instances is may be an indication of ill health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).

End Weight - The concentration of foliage at the distal ends of stems and deficient in secondary branches.

Girdling Root - Root which circles and constricts the stem or roots causing death of phloem and/or cambial tissue.

Hazard Beam - An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).

Included Bark Union - Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.

Ivy Growth - Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.

Live Crown Ratio - The relative proportion of photosynthetic mass (leaf area) to overall tree height.

Reaction Wood - Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.

Root Plate Lift - The physical movement of the rooting plate causing soils to shift and crack. May occur during adverse weather conditions. Trees may become unstable.

Structural Defect - Internal or external points of weakness, which reduce the stability of the tree.

Suppressed - Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.

Topping - A highly disfiguring practise, likely to cause severe xylem dysfunction and decay in major structural parts of the wood.

White Rot - Form of decay where both cellulose and lignin are degraded.

Wound - Any injury, which induces a compartmentalisation response.

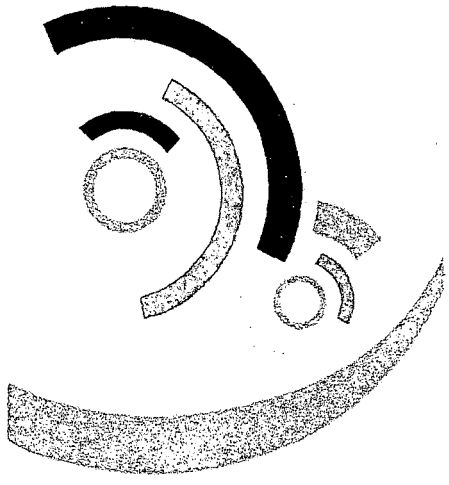
Woundwood - Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term "callus."

Woodland Structure - The vertical and horizontal arrangement of trees within a group or woodland i.e. Dominant - trees with a crown above the upper layer of the canopy, Co dominant - trees that define the general upper edge of the canopy, Intermediate - trees that have been largely overgrown by others, Suppressed - trees that have been overgrown and occupy an under storey position and grow slowly, often severely asymmetrical.

Note: The definitions described above, may not necessarily be included within the Arboricultural Survey Data.

Arboricultural Data Sheet: 102 Dalton Avenue, Warrington										Date of Survey: 20/04/09	Surveyor: C. Salisbury
Tree No.	Species	Dbh (mm)	Height (m)	Age	Crown Spread (m)				Condition rating	Comments and preliminary management recommendations	Estimated remaining contribution	Tree quality category rating
					N	E	S	W				
T1	Beech	1090	16.40	FM	6.7	4.5	8.5	5.8	C	A co-dominant specimen which dominates the rear garden of the property. The tree has poor form and is situated in close proximity to the property. There is evidence of some stem decay and the tree has a number of included unions and has been previously crown lifted.	40 – 60	B2
T2	Oak (situated off site)	560 est.	16.00	M	5.4	7.1	5.8 est.	6.2	C	A co-dominant specimen with reasonable form situated in an adjacent property. The tree is in close proximity to property and is showing signs of decline. – **Consider removal.**	20 – 40	C2
T3	Holly (situated off site)	280 est.	8.60	M	1.2	2.8	3.3	2.8	B	A co-dominant suppressed specimen with poor form situated in an adjacent property. The tree is in close proximity to property and has evidence of basal decay.	20 – 40	B2

Recommended works should be carried out to the *British Standard Recommendations for Tree Work, BS 3998 : 1989*



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ARBORICULTURAL IMPACT STUDY FOR 8 HERITAGE GARDENS DIDSBURY

20 April 2012

1.0 Introduction

1.1 The purpose of this report is to: -

a) Asses the impact, if any, the proposed development will have on the trees identified in the survey of April 2012 by Mulberry Tree Management.
b) Advise on arboricultural measures, which would be likely to mitigate any damage resulting from the proposed development

1.2 All background information from which this report is based has been taken from the initial survey, as stated in point 1.1 (a), by Mulberry Tree Management.

1.3 The limitations of this report are restricted to the persons, time, information made available and purpose for which this report has been prepared.

2.0 Findings

2.1 Due to the proposed development and its associated infrastructure there are a number of locations where the proposals are in close proximity to the trees surveyed. The Site Layout Plan within Appendix One identifies the trees in relation to the proposed development.

2.2 In order to fully assess the impact of the proposals an Impact Table has been created detailing each tree, which shows the proximity of the associated works to the tree.

2.3 This can then be assed in accordance with BS 5837:2005 to determine whether the development will have a detrimental impact on the health of each tree. Once this has been determined remedial measures can be detailed to reduce the impact the proposals will have on the treescape.

2.4 Impact Table: -

Tree No	Root Protection Area identified in Table 2 of BS 5837:2005	Radial Distance of Root Protection Area less 20% (m) as identified in BS 5837:2005 Section 5.2.4 (a)	Distance to Development (m)	Can the Tree be Successfully Retained
T1	537.48 m^2 = Circle with a radius of 13.08 metres	10.46	2.00	See point 4.1 below
T2	Fell due to condition			
T3	35.47 m^2 = Circle with a radius of 3.36 metres	2.69	4.00	Yes

3.0 Impact Assessment

3.1.1 To assess the implications of the Impact Table each tree can be categorised in the following way: -

	Trees to be Retained		Trees to be removed	
	With No Impact	With detailed construction	Due to Condition	Due to Development
Tree No.	3	1	2	N/A

4.0 Mitigating Proposals

4.1 Property Construction

4.1.1 As shown above, the Impact Table raises concern of the proximity of the development to T1 and the effect the proposals would have on the Safe Useful Life Expectancy of the tree.

4.1.2 This impact can be reduced should the following design principal be implemented: -

a) The extension should have a designed foundation to reduce the amount of excavation required for its construction. This can be achieved by constructing the property with a pile and beam foundation.

4.1.3 If the above foundation is implemented and in general the ground levels remain the same the only detrimental effect the proposals would have on this tree would be slight root severance in localised areas which would allow the successful retention of the trees.

APPENDIX

ONE

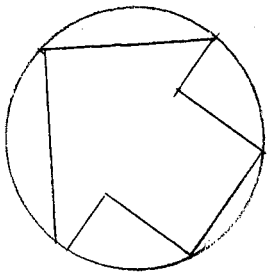
SITE PLANN
8 HERITAGE GARDENS
DIDSBURY
MANCHESTER

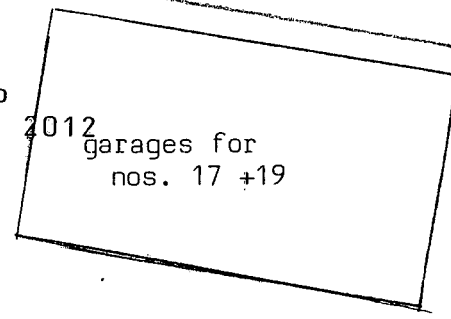
drawing no.4 a (revised gate position
at side of garage)13/09/09

NB Trees refs T1-T3 are not
scheduled for removal- refs. relate to
tree survey april 2012

0 2 4 6 8metres

Scale 1:200





HERITAGE GARDENS

