

Title: Basic survey of (selected) trees at Chalcot School, revision 4.12.12

Date: 27 November 2012

Surveyor: Liam Vincent

Client: Fiona Dixon

Introduction

I have been asked by Fiona Dixon, Project Manager (Architectural & Technical) for *Children, Schools & Families* to conduct a basic condition survey of the trees to the rear of the Chalcot school building, situated on Harmood Street, Camden Town. The trees were assessed using an enhanced VTA (visual tree assessment) survey - that being a basic assessment of their attributes but including the classifications of estimated remaining contribution in years and assessment category from the current BS5837: 2012 *Trees in relation to design, demolition and construction – Recommendations*. The cascade table from that document explaining the assessment categories is including at the end of this report (Table 1). In the spirit of BS5837, the trees were assessed 'as they are' currently, to avoid any bias toward tree works based upon proposed development works.

I attended site on Tuesday 27 November, late afternoon. Weather conditions were at best overcast.

This report consists of 9 pages.

Please note that although the information in this report was originally sent on 30 November 2012 as an email, this report has been revised slightly in content and so the previous report should be discarded.

Survey schedule

Tree ref	Species	Height (M)	Stem Diam @ 1.5M (MM)	Crown spread (Diam, M)	Life stage (see below)	General observations – structural / physiological + *preliminary management recommendations	Estimated remaining contribution (Years)	Assessment Category (see Table 1)
1	Sycamore	15	4x440	10	Mature	- Multi-stemmed tree consisting of 4 distinct stems of 2 pairs. Crown and majority of these stems are of overall fair condition, with little dead wood or issue. - The crown does not appear to have had any significant works carried out and is of a good form. - However there is a large area of dead wood apparent at the base of the northern most pair of stems, which has prompted an investigation using sonic tomography. The results of this have shown that there is approximately 70-80% transitional (i.e. not sound/ structurally intact) wood at the base of the tree. - Given the high risk zone nature of the site and the 'leading edge' positioning of the tree it would be prudent to remove the tree. If the tree were of better form it could be significantly reduced, but as this is not the case it is felt more appropriate to remove and replace. *REMOVE	<10	U

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3	Sycamore	14	380	5	Mature	• The tree has been reduced within the last 12 months as part of the cyclical inspection / maintenance regime, and is in good condition at this time, showing no obvious defect. • Tree is of a twin stem form from just above ground level; the union is of a 'U' form, but is acute thereby not of ideal form for high stress (e.g. through sudden change of prevalent wind direction). Though no sign of inclusion of the bark is apparent, the angle is in the region of the 20-25 degree guide (as recommended by Mattheck(1)) where bark inclusion would be expected. • The tree is in close proximity to the adjacent (private) building to the east, behind which is a busy overground train line. Previous pruning has been undertaken to clear this structure, and the crown has been lifted to allow light to the school building to the west (though this could only have been of limited effect). • Only 'fair' overall physiology due to previous poor pruning. *Reduce crown further 20% to as this tree will be subject to further exposure to weather conditions once T1 is removed and to address the ambiguity of the fork structure.	10+	C1,2
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5	Sycamore	14	350	8	Mature	• The tree has been reduced within the last 12 months as part of the cyclical inspection / maintenance regime. • Multi-stemmed tree with 4 distinct stems, the centre of the union between these is a 'cup' type hollow which is water filled and apparently without defect. This measures approximately 250mm diameter (it is ellipsoid in horizontal profile) and 300mm deep at the centre. • The tree is in close proximity to the adjacent (private) building to the east, behind which is a busy overground train line. Previous pruning has been undertaken to clear this structure, and the crown has been lifted to allow light to the school building to the west (though this could only have been of limited effect). • Only 'fair' overall physiology due to previous poor pruning. • Tree downgraded to Category 'C' due to the poor basal form which impairs its future growth potential thereby presenting the strong possibility of future maintenance issues. *No further work necessary at this time. Monitor the basal area, perhaps further reduction in future to keep tree size managed to this size or slightly smaller (to bring further within supposed safety margins, though no obvious defect is in evidence at this time)	10+	C1,2
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7	Sycamore	13	350	5	Mature	• The tree has been reduced within the last 12 months as part of the cyclical inspection / maintenance regime. • Tree is a single stem, with a slender form and limited root / buttress flare. This is likely due to its very close proximity to T8 (see below) and the crown appears to have developed mostly as a group with the twin stems / crown of T8. • Crown is in otherwise good form. • The tree is in close proximity to the adjacent (private) building to the east, behind which is a busy overground train line. Previous pruning has been undertaken to clear this structure, and the crown has been lifted to allow light to the school building to the west (though this could only have been of limited effect). *No further work necessary at this time. It is recommended to treat this tree as benefitting from a 'companion shelter' type relationship with T8, i.e. wind loading is probably mitigated by the group effect of the combined crowns. Therefore it is recommended that if significant works are undertaken to T8 then the likely effect upon T7 should be taken into account.	20+	C1,2,3
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8	Sycamore	13	370	5	Mature	• The tree has been reduced within the last 12 months as part of the cyclical inspection / maintenance regime. • The tree is a twin stem with the bifurcation occurring at approximately 500mm above ground level; the union is of a smooth 'U' type, and shows no sign of distortion associated with included bark or internal cracking. • The tree is in very close proximity to T7 (see above) and the crown appears to have developed mostly as a group with the crown of T7. • The tree is in close proximity to the adjacent (private) building to the east, behind which is a busy overground train line. Previous pruning has been undertaken to clear this structure, and the crown has been lifted to allow light to the school building to the west (though this could only have been of limited effect). *No further work necessary at this time. It is recommended to treat this tree as benefitting from a 'companion shelter' type relationship with T7, i.e. wind loading is probably mitigated by the group effect of the combined crowns. Therefore it is recommended that if significant works are undertaken to T7 then the likely effect upon T8 should be taken into account.	20+	C1,2,3
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Life stage categories – Juvenile – less than 1/3 of expected life span (e.l.s.), Middle-aged – 1/3 to 2/3 of e.l.s., Mature – at least 2/3 of e.l.s., Over-mature – older than e.l.s., Veteran – tree usually in decline and of importance for habitat / conservation value

(1) Updated Field Guide For Visual Tree Assessment Mattheck, C; 2007

Notes

The trees are mostly fine in terms of their condition, with the exception being T1 which after being tested recently has had a fairly poor result with regards structural integrity at the base. The recommended removal of T1 would have the possible knock-on effect on T3 of exposing it to further wind-loading and so it would be a good idea to reduce the 'sail area' of this tree slightly to minimise any possible issue of this new position within the group.

Beyond the survey of the trees themselves, the planting environment must be taken into account when assessing this site as a whole. The trees are planted in a landscape feature, essentially a 'raised planter'. This feature is approximately 1m high, by 3.5m wide (east > west) and runs the length of the space (north > south) behind the school building, bordered by the games area to the north and the boundary with the rear garden of a dwelling on Harmood Mews to the south.

The make-up of this structure is largely unknown, though the site manager John Logie has suggested that the bulk of the structure is mostly comprised of rubble encase within a retaining wall structure and a thin top layer of soil into which the trees are planted. If this is indeed the case then it must be considered that the rooting environment for these trees is probably concentrated in the north > south extent, given the limited amount of space east > west.

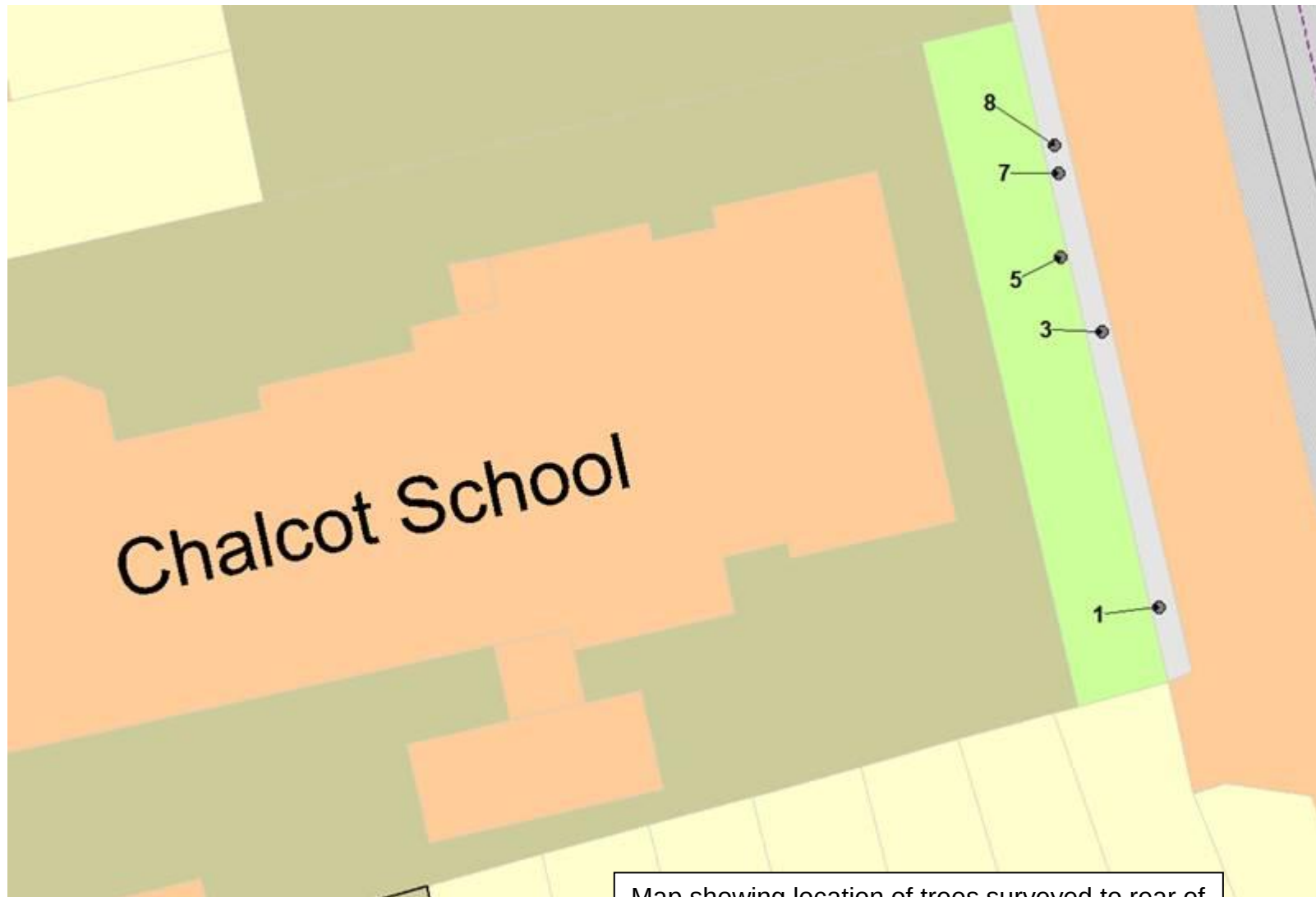
Due to this ambiguity on the last round of cyclical inspection and maintenance I carried out in November 2011, the trees which were retained (3 were removed due to poor basal condition) were reduced to start the management of their size in relation to the possible constraints on the root plate stability. At that time the trees were outgrowing their position laterally – being in very close proximity (<1m in some cases) to the rear of the school building. It is possible that they were also becoming too tall for the root structure in place, though this could not be evidenced without extensive exploratory excavations to map probable root distribution and condition.

Conclusion

The trees are in a relatively sheltered position and if kept through management to a reasonable size (for example 10-14m height) there should be no reason barring any development of structural decay that would necessitate their removal.

Where the original report submitted to CSF had three of the five trees as Category 'B', upon reflection due to the required management (as suggested to be kept to a managed height of 10-14m) Category 'C' is more suitable. **In light of this please disregard previous survey** (presented as email).

It should be noted that while their maturity is testament to the environment in which they have so far survived, the question over the structure of the raised planter should be investigated if they are to be retained with confidence.



Map showing location of trees surveyed to rear of Chalcot School building. Not to scale.

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BRITISH STANDARD BS 5837:2012

Table 1 Cascade chart for tree quality assessment

Category and definition		Criteria (including subcategories where appropriate)	
Trees unsuitable for retention (see Note)			
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 the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
Category A Trees of 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 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)	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)
Category B Trees of moderate quality with an 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 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	Trees with material conservation or other cultural value
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of 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 collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value