

Appendix A2

Key to headings/abbreviations in the tree survey schedule

1. **Prefix:** This indicates whether the tree or trees are an individual, a group, a woodland or a hedge (T, G, W or H)
2. **Tree No:** Relates to individual tree numbers on a plan used in the tree survey. Also, land survey tag numbers placed on the trees and TPO numbers.
3. **Species:** The name given is the 'common name'.
4. **Height:** The overall height of the tree in metres
5. **Stem Dia:** Stem diameter measured at 1.5 metres ('breast height') above ground level, given in millimetres. In the case of multi-stemmed trees (m) the stem diameter is taken just above the root flare
6. **Crown Spread:** Crown radius measured from the centre of the trunk to the tips of the live lateral branches measured in metres. Given as separate measurements following the compass points N-S-E-W.
7. **Height of Crown:** Distance between ground level at the base of the tree and the lowest branch or limb – also known as the crown clearance height
8. **Age:**

Y	Young
MA	Middle aged
M	Mature
OM	Over-mature - fully mature, past peak condition and beginning to decline
V	Veteran - trees of interest biologically, aesthetically or culturally because of significant age.
9. **Con:** Overall physiological condition based upon how the tree would be expected to appear in its surroundings:

G	Good
F	Fair
P	Poor
D	Dead
10. **Comments/Notes:** Comments have been made in relation to the following:
 - Health or condition
 - Defects
 - Safety
 - Aesthetics
 - Relationship to other trees or features
 - Presence of Ivy
 - Any other relevant details
11. **Preliminary Management Recommendations:** These are in relation to the proposed development and should be implemented before construction work commences and/or works required such as removal for Health and Safety [H & S] reasons or pruning etc deemed necessary to improve the quality/well-being of the tree.
12. **Life Exp – Estimated Life Expectancy:** an estimate of the future life expectancy of the tree(s) in the present setting given normal circumstances - in years.
13. **BS5837 Category:** A qualitative assessment of the tree based on criteria detailed in BS5837:2005.

A:	Those of high quality and value
B:	Those of moderate quality and value
C:	Those of low quality and value
R:	Trees for removal

These categories are followed by value criteria 1 to 3

1) Mainly arboricultural values 2) Mainly landscape values 3) Mainly cultural values incl. conservation. See Appendix A3

< = less than > = greater than

Please note that trees are living organisms and their condition is subject to change over time. Assessments are based on their condition on the day of inspection and cannot cover unforeseen circumstances.

Appendix A3

Tree Quality Assessment Chart [BS 5837:2005 - Table 2]

Table 1 — Cascade chart for tree quality assessment

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category R Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	• 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 R category trees (i.e. 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 (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria — Subcategories			Identification on plan
	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	GREY
NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation.				

Appendix B

Root Protection Area (RPA) of T 7

P	No	Species	SD ¹	RPA (m²)	RPA square sides (m)
T	7	Lombardy Poplar	900	366	19

Notes:

1 Stem diameters (SD) are measured at 1.5 metres ('breast height') above ground level, given in centimetres. In the case of multi-stemmed trees the stem diameter is taken just above the root flare in accordance with BS 5837: 2005.

Appendix C

Method Statement for the removal of hard surfacing and demolition of buildings near trees

Reminder: RPA refers to the Root Protective Area as specified in the Report, derived from paragraph 5.2.2 of British Standard 5837:2005 'Trees in relation to construction'

1. The uptake of the existing surface and buildings should be carried out from outside the RPA whenever possible and from within the footprint of the existing surfacing or building where this is within the RPA of a tree.
2. The excavation of the material must not extend into the soil underneath. In practical terms the bucket of the excavator must be used so that the cutting edge is horizontal so that any disturbance of the underlying soil is kept to an absolute minimum. The cutting edge of the bucket should be flat and without 'teeth' to further reduce the risk of root damage. Where the surfacing is very thin and/or roots are very near the surface, the digging should be done manually.
3. The rubble must not be stockpiled within the RPA of the tree and must be exported without crossing the RPA.
4. Due care and planning must be taken to ensure that the operational arcs of excavators do not damage the crowns of retained trees.
5. Where new surfacing is to be installed, if the depth of the old surface is insufficient, the wearing surface may need to be higher than existing in order to accommodate the appropriate thickness. There may be a requirement for a geo-textile membrane to be laid on the soil surface, but this is an engineering matter dependent upon soil type. The separation is beneficial for root development.
6. Where the old surface is taken up and not replaced, the infill should be of good quality topsoil laid without compaction.

Appendix D

General notes regarding the installation of driveways/paths etc close to trees using the 'No Dig' method and a cellular confinement system (CCS)

1. Remove surface vegetation using a systemic herbicide and gather dead organic material. Care must be taken to select (by reading the product label) a herbicide that will not affect the roots of retained trees and vegetation. This must be carried out by an appropriately trained operative.
2. Remove major protrusions such as rocks and stumps (stumps should be ground out to minimise ground disturbance).
3. Any exposed roots should be covered with good quality top soil immediately to prevent them drying out. Any damaged roots should be cut cleanly with a hand saw or secateurs.
4. Fill significant hollows with sharp sand.
5. Install a non woven geotextile membrane directly on top of the finished soil grade level to provide protection to and separation from the soil level.
6. Lay the three dimensional CCS directly onto the soil over the whole of the driveway or parking area.
7. Install kerbs or edgings directly on top of the existing soil grade level. For light structures a treated peg and edging board may be acceptable. For more substantial constructions, railway sleepers, drilled kerbstones or gabions should be used and held in place with track or road pins.
8. Fill the cells of the CCS with a no fines aggregate (such as DoT Type2). This should be placed near one end and spread along the CCS so that machinery only moves on the laid sub-base. The aggregate should not be tipped straight onto the CCS.
9. Compact to ensure binding with the CCS and to minimise future rutting of the surface.
10. Install temporary surface if necessary
11. Install final surface which should be permeable and gas porous over a suitable sub base that is separated from the CCS by another layer of geotextile membrane.
12. Where brick paviors or similar are used, these should be laid on a dry bed and should not be pointed/grouted.

Appendix E

Method Statement for the placing of a site cabin within a Root Protection Area (RPA)

- 1 The cabin must be able to be moved into position without causing damage to nearby trees. In the case of lifting, there should be suitable clearance for the lifting machinery. If there is not, or significant tree pruning is required, the cabin must be placed elsewhere or be of a type that can be wheeled into position.
- 2 The ground must be protected with boarding or other suitable material to dissipate ground loading and avoid compaction.
- 3 The access to the building should ideally be from ground outside the Root Protection Area. However, if that is not possible, the access ground should be protected with side-buttressed scaffolding boards on a compressible layer as described in BS5837 at paragraph 9.3.2.
- 4 If there is a void underneath the cabin it should be blocked off to deny access and use (there is a potential for stored materials to leak substances toxic to trees).
- 5 Tree Protective Barriers should abut the cabin and associated access route.
- 6 Removal of the cabin is to be a reversal of the installation process.

Appendix F

Plans 1 and 2 in digital format

Print at A1 size for correct scale

Mengam Road Plan 1
Tree Survey.pdf

Mengham Rd Plan 2
TPP.pdf

