Gina Parle

From: Gina Parle on behalf of Peter Frampton
Sent: 01 May 2020 14:24
To: Emma.Pickernell@cheltenham.gov.uk
Cc: 'Ian Kirby'
Subject: Application Ref: 16/00683/OUT - Oakhurst Rise, Cheltenham
Attachments: FLAC 38-1036 PLANNING SUBMISSION (ARBORICULTURE) - 43 UNIT SCHEME_010520.pdf

Our ref: PJF/gp/PF/10093

Dear Emma

Town and Country Planning Act 1990
Application Ref: 16/00683/OUT
Oakhurst Rise, Cheltenham

Thank you for your email earlier today [09.08] and the acknowledgement letter attached thereto. Please find attached a revised submission regarding arboriculture, which has been produced by the arboriculturist to confirm compliance with development plan policy on arboriculture.

Kind regards

Peter J Frampton
BSc (Hons), TP, MRICS, MRTPI

Attach: FLAC 38-1036 Planning Submission (Arboriculture) – 43 Unit Scheme 010520

CC: Ian Kirby

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Institute of Chartered Foresters
Registered Consultant

OAKHURST RISE

RICS

PLANNING SUBMISSION (ARBORICULTURE)

EXPERT WITNESS INSTITUTE

43 Unit Scheme

- TREE SURVEY TO BS5837:2012
- PROPOSED TREE RETENTION & REMOVAL
- TREE PROTECTION PLAN

Prepared for: William Morrison (Cheltenham) Ltd

FLAC Instruction ref: SC38-1036

Issued: April 2020

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FLAC Instruction ref. CC38-1036
OAKHURST RISE

Outline application for residential development of 43 dwellings – access, layout and scale not reserved for subsequent approval

Arboricultural planning submission

Introduction

FLAC remains instructed by William Morrison (Cheltenham) Ltd in the promotion of land off Oakhurst Rise, Cheltenham. The current proposals are for a total of 43 residential units.

These proposals have been developed in light of the Inspector's Decision on Appeal Ref. 3227293, and in light of National and Local Planning Policy, emerging Local Policy HD4 *Land off Oakhurst Rise*, and a Tree Preservation Order.

The Appeal Decision

The following matters arising from the Appeal Decision have been addressed in full in the design of the current proposals:

1. Retention of tree 3014 (TPO tree T11)
2. Removal of all construction from veteran tree buffer zones
3. Removal of all gardens from within veteran tree buffer zones

Given the Inspector's endorsement of the RAVEN method for identification of ancient, veteran and notable trees, the list of which trees qualify under these headings remains unchanged.

National Planning Policy

Paragraph 175c of the NPPF is relevant insofar as there are irreplaceable habitat trees present.

All such trees would be retained, and would be afforded protective buffer zones in line with Natural England and Forestry Commission advice.

Accordingly, the proposals are compliant with National Planning Policy.

Local planning policy

So far as is presently material, local planning policy comprises Local Plan 2006 Saved Policies G12, G13 and GE6, and Joint Core Strategy Policy 2017 Policy SD9.

Saved Policy GE6 - Trees and Development

POLICY GE 6
TREES AND DEVELOPMENT

Objective O12

Development which would cause permanent damage to trees of high value (note 1) will not be permitted.

The following may be required in conjunction with development:

(a) the retention of existing trees; and

(b) the planting of new trees (note 3); and

(c) measures adequate to ensure the protection of trees during construction works.

Note 1
'High value' means a sound and healthy tree with at least 10 years of life remaining which makes a significant contribution to the character or appearance of a site or locality

Note 2
The preservation and planting of trees in conjunction with development should take account of the guidance in British Standard 5837 : 2005.

Note 3
Where appropriate the Council will seek agreement from developers for the planting of new trees off-site.

Note 4
See also policy CP 3 (sustainable environment).

In relation to the three possible requirements identified within Policy GE6:

a) As set out on the Tree Survey & Retention Plan, 100% of the high quality trees present are proposed for retention, as well as 85% of those of moderate quality
b) Accompanying landscape proposals confirm that numerous new trees would be delivered as part of the proposals
c) The Tree Protection Plan provides safeguarding details for retained trees

Accordingly, the proposals comply with this Policy.

JCS Policy SD9 - Biodiversity and Geodiversity

Clause 6 of JCS Policy SD9 seeks inter alia to avoid harm to biodiversity through on-site mitigation where possible. In the present case, there is a *theoretical* risk of harm to biodiversity from adverse impacts on ancient and other veteran trees and accordingly SD9 is engaged.

However, mitigation for this theoretical risk is provided on site in the form of buffer-zones in accordance with NE/ FC recommendation, such that no harm would in fact arise.

The result is that the proposals comply with this Policy also.

Other material considerations

Emerging Local Policy

Three Policies of the Emerging Local Plan (awaiting Adoption) are also relevant:

Policy HD4, *Land off Oakhurst Rise*, requires inter alia the protection and long-term maintenance of mature trees and hedges.

The Tree Protection Plan provides details for the protection during development of all retained trees and hedges. It also includes an *Outline Arboricultural Management Plan*.

Further details as regards forward management of trees and hedges could be sought via a planning condition should the Council consider these to be required.

It follows that the proposals are compliant with this Emerging Policy.

Policy G12, *Protection and Replacement of Trees*, seeks to avoid unnecessary felling of trees on private land and notes that the Council will make trees subject to Tree Preservation Order where appropriate.

It is apparent from the wording of Policy G12 that it relates to preservation of trees other than within the planning and the development context. It is therefore not required that the current proposals are in compliance with this policy, providing that they are in compliance with Policy G13 (below) and HD4.

Policy G13, *Trees and Development*, seeks to avoid permanent damage to trees with anything more than 10 years remaining life expectancy, which make a *significant contribution to the character or appearance of a site or locality*, i.e. trees described by the Policy as being of "high value" (Note 1). At Note 2, it is required that existing trees shall be considered in light of BS5837:2012 *Trees in Relation to Design, Demolition and Construction - Recommendations*, which identifies "high value" trees as those placed by the tree survey into the A category.

The proposals provide for the retention of all high value trees as defined in BS5837:2012 and are therefore Policy-compliant in this respect.

This Policy states that the Council *may also require* the planting of new trees and *measures adequate to ensure the protection of trees during construction works*. The former would be delivered in abundance by the proposals at hand, whilst the latter are apparent from the Tree Protection Plan within this submission material.

Accordingly, the proposals are Policy-compliant in these respects also.

The Cheltenham Borough Council Tree Preservation Order 1/1981 *Whitefriars School*

This Tree Preservation Order protects a number of the existing trees on the site. All such trees would be retained.

Matter for resolution by planning condition

One matter is required for resolution by planning condition: the Root Protection Area for tree 3015 would be subject to a small incursion of 25m^2 for the construction of vehicular access to northwest.

In recognition of this, the Tree Protection Plan provides for an increase in protection to northeast of 50m^2. In our view, the incursion would not result in a material adverse impact on the tree and accordingly is acceptable. If, however, the Council would prefer the vehicular access to be constructed according to a no-dig specification, this can readily be accommodated. Outline details for a suitable specification are provided on the accompanying Tree Protection Plan, under the heading *Tree Protection Measures for New Permanent Hard Surfacing Over RPAs*.

The Council is invited to take a view on this point and apply a conditioned requirement for the no-dig specification, should it be minded to do so, as part of conditioned tree protection.

In this regard, attention is drawn to our recommendations on the Tree Protection Plan for installation of drainage in proximity to trees: we consider that making use of the recommended details a requirement of the anticipated tree protection condition is advisable.

Overall conclusion on Local and Emerging Policy

It is our analysis of each of the relevant Policies discussed above that the 43 Unit Scheme is compliant in each case. Accordingly, we consider that there are no policy-based grounds why planning permission should be withheld.

Contents

This planning submission comprises the following elements:

- Tree survey compliant to BS5837:2012, supported by a detailed explanatory key
- RAVEN: methodology and findings
- Tree Survey, Retention and Removal Plan (FLAC dwg no. TSRP 38-1036.02-B)
- Tree Protection Plan (FLAC dwg no. TPP 38-1036.03-D)

Forbes-Laird Arboricultural Consultancy Ltd

OAKHURST RISE: KEY TO TREE SURVEY DATA SCHEDULE

Note

This survey has been undertaken in compliance with BS5837:2012; it is not intended to be a tree safety survey. Any notes offered on structural integrity of trees are incidental, though where trees are considered to be in immediately hazardous condition (identified by red font in the *Structural condition & Notes* column, see below*)*, our recommendations given for immediate intervention should be put in hand by the owner / site manager as soon as can be arranged.

Trees are dynamic living organisms capable of achieving considerable size and structural complexity. They are exposed to and can become damaged by the elements and by human activity, and have co-evolved with decay-causing organisms that can degrade and sometimes destroy their structural integrity. Due to genetic characteristics and local microenvironmental factors this integrity can be innately uncertain. The laws and forces of nature dictate a natural failure rate even among trees that are healthy and structurally sound. By their very nature, therefore, trees cannot be considered entirely hazard-free.

Tree surveys and / or tree inspections are, inherently, only a snapshot in time of the physiological and structural condition of the trees concerned.

Unless otherwise stated in our reporting material, all such surveys and inspections are undertaken from ground level and no internal inspections or tests have been undertaken. Any structural defects present might be not be visible, for example being masked by vegetation, whether the tree's foliage, plants growing round the base of the tree, or climbing plants growing on the stem and into the crown.

Unless otherwise states, the survey data should be considered time-limited **for planning purposes** to a maximum of three years (absent revisions of BS5837, which render pre-existing data obsolete).

FLAC Ref. No.

Tree numbers per FLAC dwg no. 38-1036.01 and subsequent drawings

In line with the advice of BS5837:2012, where trees occur as a cohesive group feature (prefixed TG for tree group or WG for woodland group), they are assessed as such

Size data for TG or WG are given as mean figures for trees at roughly the 80 percentile of the population concerned. Trees in the 90-100 percentile range for the group are identified on the TSP

Trees within TG/ WG boundaries that have more than one stem and which are sub-dominant within the TG/ WG (i.e. <80 percentile) are subsumed within the TG/ WG data; dominant multi-stemmed trees (i.e. >80 percentile) within TG/ WG boundaries are listed as individual trees

TG/ WG outlines follow the mapping base (typically either topographical survey or geo-rectified aerial imagery)

Hedges (domestic) are recorded prefixed H and are always excluded from the provisions of the Hedgerows Regulations 1997

Hedgerows (rural) are recorded prefixed HR and possibly fall within the provisions of the Hedgerows Regulations 1997

All numbering starts from *x*001 **for each type of vegetation**, where *x* identifies the surveyor (9000 series = JFL). Thus:

9000	Individual tree
TG9000	Tree group
WG9000	Woodland group
H9000	Domestic hedge
HR9000	Rural hedgerow

The addition of the FLAC instruction ref. ahead of the tree number provides a unique, non-repeated reference number for the arboricultural feature in question

Any trees omitted from the topo survey are listed on the referenced plan, though their positions are only shown indicatively. Off-site trees are included where deemed relevant, though their positions are also shown indicatively if omitted from the topo base

TPO Ref.

Statutory protection listing for individual trees, TG and WG
ATTENTION: SEE NOTE IMMEDIATELY BELOW

Note
This column is only completed in cases where FLAC has been instructed to undertake a TPO search and correlation to FLAC reference numbers. The absence of data in this column **must not** be taken to indicate that the trees concerned are not under TPO protection. Statutory protection may also arise from the trees' location within a Conservation Area. Further statutory control over tree removal may be conferred by the Forestry Act 1967

Species

Tree species as listed in the schedule by common name. Species present are:

Common name	*Botanical name*	*Provenance*	*Notes*
Ash	Fraxinus excelsior	Native	
Blackthorn	Prunus spinosa	Native	
Blue Atlas cedar	Cedrus atlantica 'Glauca'	Exotic	
Cherry laurel	Prunus laurocerasus	Exotic	
Crimean pine	Pinus nigra subsp. pallasiana	Exotic	
Damson	Prunus domestica subsp. insititia	Native	
Elder	Sambucus nigra	Native	
Elm	Ulmus procera	Native	
Field maple	Acer campestre	Native	
Hawthorn	Crataegus monogyna	Native	
Hazel	Corylus avellana	Native	
Holly	Ilex aquifolium	Native	
Holm oak	Quercus ilex	Exotic	
Lawson cypress	Chamaecyparis lawsoniana	Exotic	
Leyland cypress	x Cupressocyparis leylandii	Exotic	
Norway spruce	Picea abies	Exotic	
Pedunculate oak	Quercus robur	Native	
Red horse chestnut	Aesculus x carnea	Exotic	
Scots pine	Pinus sylvestris	Native	
Sycamore	Acer pseudoplatanus	Naturalised	

Tree Count

For trees assessed as groups (ident. prefix TG), number of trees present, according to:

2-10 trees	Accurate count
11-50 trees	Close estimate
51-100 trees	Estimate

Area m^2

For trees assessed as woodland (ident. prefix WG), existing area in square metres within survey envelope, derived from CAD interrogation of the completed tree survey plan

Ht. (m)

Tree height in metres

Either:

Crown Spread

For individual trees, measured radial crown spread in metres, listed for each of the four cardinal points

Or:
MRCS

For trees assessed as groups or woodland, an estimated mean radial crown spread in metres for trees at the 80 percentile size

Note
For trees assessed as woodland, sample measurements for canopy overhang beyond woodland boundary (i.e. hedgerow, fence, ditch etc.) are given on the tree survey plan

Or:

Mean Width

Mean width in metres of hedge or hedgerow

Length

Approximate length in metres of hedge or hedgerow

Ht. 1st Br.

For individual trees and trees assessed as groups or woodland, height in metres above ground of attachment point of first significant branch (cardinal point may be given indicating growing direction)

Ht. Can.

For individual trees and trees assessed as groups or woodland, mean height in metres of lower extent of tree canopy above ground

Stem Count

For individual trees, number of stems present below 1.5m AGL. Stem count affects diameter entry as follows:

Where the stem count is 1 the diameter should be entered into the 1 column under Stem Dia.
Where the stem count is up to 5 each stem dia. should be listed
Where the stem count exceeds 5, the mean stem diameter should be entered in the 1 column

Either:

Stem Dia. (mm)

Stem diameter(s) at 1.5m above ground level (see measurement system in BS5837:2012 Annex C), given in millimetres

Where entered 1:
Single measured stem diameter

Where entered 2-5:
Multiple measured stem diameters, listed per stem

Where entered >5:
For trees with more than five stems, diameter is listed as an estimated mean

Where the diameter entry for trees with 1 or 2-5 stems appears in italics, this indicates that it was estimated by the surveyor (for example, due to the presence of ivy on the stem)

It is our practice to round up when estimating stem diameters

Or:

Specimen Stem Dia.

For trees assessed as groups or woodland, stem diameter in millimetres at 1.5m above ground level for 80 percentile member of TG or WG. Trees with larger diameters are identified on the TSP

Or:

Mean Stem Dia.

Mean stem diameter in millimetres above the basal flare of hedge or hedgerow component plants

Either:

RPA Rad.

Radius in metres of the notionally circular Root Protection Area

Or:

Specimen RPA Rad.

For trees assessed as groups or woodland, radius in metres of the notionally circular Root Protection Area based on specimen diameter for TG or WG 80 percentile tree

Either:

RPA Area

Conversion of RPA radius to an area, given in m^2, capped to a maximum of $707m^2$ (in line with BS5837:2012)

Or:

Specimen RPA Area

For trees assessed as groups or woodland, conversion of specimen RPA radius to an area, given in m^2, capped to a maximum of $707m^2$

Note
RPA for hedges or hedgerows is to be taken as 3m from the centreline, half the height or 2m beyond existing width, whichever is the greater

Life Stage

Life stage assessment according into:

Y	Young
SM	Semi-mature
EM	Early mature
M	Mature
OM	Over-mature

Phys. Condition

An assessment of the **physiological** condition (i.e. health/vitality) status of the tree summarised according to:

GOOD	Generally in healthy condition
FAIR	Condition satisfactory though below mean species performance
POOR	Tree in decline/retrenching
DEAD	Self explanatory

Structural condition & Notes

Notes on the apparent structural integrity of the tree based on visual tree assessment, including notes on form, taper, forking habit, storm damage, decay fungi, pests, etc. plus other pertinent observations

Management recommendations

Preliminary recommendations for intervention (e.g. tree surgery, felling, etc) in relation to existing context

Trees assessed as being in apparently immediately hazardous condition will be notified to the client separately as soon as practical. Where the recommendation is for further investigation, including removal of ivy and reinspection, the given retention span and quality/value grade (see below) should be treated as provisional

Notes
This is **not** intended to comprise a specification for tree work: further advice should be sought prior to implementation

Change in land use (target value) requires further assessment

Ret. Span

Estimated remaining retention span based on species, condition & context divided into the following bands (relates to quality and value grade achievable as stated):

Years	*Best QV grade*
<10	U
10+	C
20+	B
>40	A

QV Grade

Quality & Value grade classification according to BS5837:2012 (see attached extract from BS5837:2012 'Table 1 - Cascade Chart for Tree Quality Assessment') –

Grade	*Summary meaning*	*Ident. colour spot on TSP*
U	Trees that are unretainable in viable condition	Dark red
A	High quality & value and consequent high retention priority	Light green
B	Moderate quality and value (moderate priority for retention)	Mid-blue
C	Low quality and value (generally considered to be sacrificial)	Grey

Note
Trees present which we consider to be **exceptional** specimens are identified by the suffix * after the A grade, e.g. A1*

Proposal

This column identifies:

1. Pre-planning (Arboricultural Stages 1, Tree Survey, & 2, Design):
   JFL's initial view of a defensible tree retention / removal balance
2. Planning submission (Arboricultural Stage 3):
   The actual tree retention / removal balance as proposed

The following codes are used:

RET 1. Trees preferably retained
2. Trees that would be retained

PRET *For tree groups (TG), woodlands (WG) & hedgerows (HR)* – signifies partial retention (see below)

REM 1. Trees defensibly removed to facilitate development
2. Trees that would be removed

U Trees identified to be unsuitable for retention

No. of trees retained

For tree groups only
Number of trees retained out of the total recorded for the group. Outcomes are as follows:

Survey grade U	Number of trees for retention defaults to 0 (can be amended by manual override)
Proposal code RET	Number of trees for retention defaults to total from *Tree Count* data field
Proposal code PRET	No. of trees for retention requires manual input following interrogation of relevant plans
Proposal code REM	Number of trees for retention defaults to 0

Trees retained %

For tree groups only
Percentage of pre-existing TG tree count that would be retained, based on an auto-sum derived from inputs into the preceding column

Area retained m^2

For woodlands only
Area, in square metres, of woodland (WG) proposed for retention. Outcomes are as follows:

Survey grade U	Area for retention defaults to 0 (can be amended by manual override)
Proposal code RET	Area for retention defaults to existing area
Proposal code PRET	Area for retention requires manual input following interrogation of relevant plans
Proposal code REM	Area for retention defaults to 0

Area retained %

For woodlands only
Percentage of pre-existing WG area that would be retained, based on an auto-sum derived from inputs into the preceding column

Length retained m

For hedgerows only
Length, in metres, of hedgerow (HR) proposed for retention. Outcomes are as follows:

Survey grade U	Length for retention defaults to 0 (can be amended by manual override)
Proposal code RET	Length for retention defaults to existing length
Proposal code PRET	Length for retention requires manual input following interrogation of relevant plans
Proposal code REM	Length for retention defaults to 0

Length retained %

For hedgerows only
Percentage of pre-existing HR length that would be retained, based on an auto-sum derived from inputs into the preceding column

BS5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012]* ***4.5.7****.*			
	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	

FLAC Note

The original contents of the column *Identification on plan* have been replaced by FLAC in the version above; spot colours to RGB codes given in BS5837:2012 Table 2

OAKHURST RISE: TREE SURVEY DATA TABLE

Data for individual trees

FLAC Ref. No.	1981 TPO Ref	Species	Ht. (m)	Crown Spread (m) N	S	W	E	Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm) 1 / mean	2	3	4	5	RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C	Proposal
3001		Ash	14.4	4.5	4	4.5	2.6	2 NW	2.5	1	257					3.09	30	EM	F	Upright stem. Principal branch structure and unions in satisfactory condition. Some crown asymmetry after companion shelter at east. Tree of relatively low significance.	No action required at time of survey.	>40	C1	RET
3002	T5	Pedunculate oak	24	8.5	11	9.3	9.6	3.8 W	1	1	1370					15.00	707	M	G	Very stout upright stem. Principal branch structure and unions in satisfactory condition. Bird box at 2 metres north. High quality landscape tree.	No action required at time of survey.	>40	A1	RET
3003		Hawthorn	3.5	3.2	2	4.5	1	1 W	0	1	*180*					2.16	15	EM	F	Scrubby specimen leans heavily over to north-west. Tree of relatively low significance.	No action required at time of survey.	10+	C1	RET
3004	T6	Ash	9.5	5	4.3	5.7	1	2.8 W	3	1	780					9.36	275	M	F	Significant basal decay and severe degradation of root buttress at west. Extensive bark loss around stem at west side. Large *Inonotus hispidus* fruiting bracket on stem at 4.5 metres west in zone of bark damage. Very heavily reduced but now unsightly. Very poor overall condition.	Fell.	<10	U	**U**
3005	T8	Crimean pine	20	10.5	2	9.3	2	4 E	8	1	910					10.92	374	M	G	Stem has a slight incline to north from ground level. Large limb from 4 metres east has an area of bark wounding on upper side of limb near union with stem, advise pruning to mitigate. Large scaffold limb at west has a sub-optimal union. Upper western crown contains partially fractured branches with some that have fallen to ground level.	Prune out broken/hanging branches at upper west crown and reduce branch structure associated with the western scaffold limb by 2 metres to mitigate for sub-optimal union with stem. Prune branch extents of large low limb from 4 metres east by 2 metres to mitigate potential weakening at wound near stem.	20+	B1	RET
3006		Sycamore	5	1.5	2.3	2	2.8	1.2 S	1	2	*130*	*60*				1.72	9	SM	F	Small, scrubby twin-stemmed specimen close to boundary. Low arboricultural or landscape merit.	No action required at time of survey.	20+	C1	RET
3007	T9	Pedunculate oak	9.6	5	5	5	5.5	3 W	2.5	1	1450					15.00	707	EM	G	Veteran, relic tree. Very stout lower stem with extensive stem hollowing, cavity opening at north side reveals very large cavity providing various habitat spaces. Old, small but tough fruiting body on north side of stem at 1.5 metres, provisionally identified as either *Phellinus robustus* or extinct *Ganoderma* species. Large wound on stem at 2 metres after scaffold limb loss. Crown retrenchment extensive, now only a 3.5 metres tall stem section bearing three remnant scaffold member stubs. Dead and non-functional volumes of dead wood present within scaffold stubs providing opportunities for water pooling plus additional habitat spaces. Foliage bearing crown comprises a small number of branches on each scaffold stub adapted now as a consolidated secondary crown and in good overall vitality.	No action required at time of survey.	>40	A3	RET
3008	G3	Pedunculate oak	18	12.4	4	7	8	3.5 N	1	1	1130					13.56	577	M	G	Stout lower stem. Slight stem incline to south. Principal branch structure and unions in satisfactory condition. Significant crown bias to south. Good overall condition. Small pond immediately to south of stem, wet at time of survey.	No action required at time of survey.	>40	A1	RET
3009	G3	Pedunculate oak	14	4.5	10.5	6	7	4 S	1	1	760					9.12	261	M	G	Stem and principal branch structure and unions in satisfactory condition. Rather asymmetrical crown form due to suppression by companion trees to eat and west. Ivy impedes inspection. Satisfactory overall condition.	No action required at time of survey.	>40	B1	RET
3010	G3	Pedunculate oak	14	6.5	6.5	8	7	2 NW	1	1	930					11.16	391	M	F	*Fistulina hepatica* fruiting body on root buttress at ground level east. *Laetiporus sulphureus* on old branch loss wound at 2 metres south. Numerous habitat holes within branch structure indicating heartwood fungal decay is well progressed. General bias of crown structure to west. Some distal crown dieback but chiefly small diameter material. Physiological condition and vitality coupled with structural condition considered likely to limit long-term retention prospects such that th specimen is not likely to have sufficinet longevity for veteran status. Crown consolidation advised to stabilize decayed structure in the short-term.	Crown consolidation pruning: Reduce western crown extents by 2.5 metres to stabilize the side of the crown bearing most loading, reduce remainder of crown by 2 metres.	>40	B1	RET
3011		Ash	11.5	3.5	2.5	2	2.7	1.5 N	1.8	1	255					3.06	29	EM	P	Upright stem and structural habit. Severe decline through crown.	Fell.	<10	U	**U**
3012		Ash	12	5	3.5	3	4	2.5 E	1	2	320	290				5.19	85	EM	F	Twin stems from close to ground level. South stem bifurcates at 2 metres with dead western scaffold member. Bark damage and loss of north stem, further decline expected. Limited potential.	Remove dead scaffold member.	10+	C1	**REM**
3013		Ash	12	6	6	6	5.5	2.5 W	1	3	360	320	220			6.36	127	EM	F	Multi-stemmed from ground level. Sub-optimal bark included unions developing between stems. Asymmetrical crown due to companion shelter at north. Tree of relatively low significance.	No action required at time of survey.	20+	C1	**REM**
3014	T11	Pedunculate oak	11	6.5	5.2	6.5	6.5	1.6 W	1	1	980					11.76	434	OM	F	Bark wounding after historic lightning strike seen as broad tongue of bark loss from ground level south extending into upper crown structure, exposed and desiccated non-functional heartwood within affected stem section comprises large volume dead wood. Scattered dead wood and smaller distal decline. Crown consolidated by pruning/tidying probably subsequent to past storm damage.	No action required at time of survey.	>40	B3	RET
3015	T10	Pedunculate oak	16.7	10.5	11.5	9	14.8	2 S	1	1	1460					15.00	707	M	G	Very stout lower stem. Broadly spreading crown structure. Crown bias to east. Dense ivy to 6 metres. Low limb to north shows adaptive growth at longitudinal fracture approximately 5 metres from the stem, pruning advised to stabilize. Few large dead limbs scattered through crown.	Shorten distal branch structure by 2.5 metres outboard of the defect located 5 metres from the stem on the lower limb to north.	>40	A1	RET
3016		Ash	14.5	6.5	7	6	8	2.5 W	0	1	690					8.28	215	M	G	Stem and principal branch structure and unions in satisfactory condition. Some crown asymmetry after companion shelter. Satisfactory overall condition.	No action required at time of survey.	>40	B1	**REM**
3017		Sycamore	14	5.5	4	6.5	5	2 W	1.2	1	500					6.00	113	M	F	Stem and principal branch structure and unions in satisfactory condition. Some crown asymmetry after companion shelter to south. Satisfactory overall condition.	No action required at time of survey.	>40	B1	**REM**

FLAC Ref. No.	1981 TPO Ref	Species	Ht. (m)	Crown Spread (m) N	S	W	E	Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm) 1 / mean	2	3	4	5	RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C	Proposal
3018	T18	Pedunculate oak	22.5	7.5	10.5	11.3	9.5	3 S	2	1	1760					15.00	707	M	G	Veteran tree. Very stout lower stem to bole and multiple regrown scaffold members after cessation of historic pollard management. Extensive stem and bole hollowing at east associated with major limb loss in the presence of brown rot decay fungi *Fistulina hepatica* . Failure of large scaffold member at north-east scaffold member leaves a large dead wood resource containing habitat spaces and including *Laetiporus sulphureus* fruiting body and exposed heartwood. Additional *F. hepatica* fruiting body also present on old branch breakout wound on central scaffold member at north. Several wounds and associated habitat space features through structure. Range of dead wood sizes. Crown retrenchment via storm damage as described but otherwise bearing a fully regrown crown in good overall vitality.	No action required at time of survey.	>40	A3	RET
3019		Ash	16	3	8	5	3.3	4 S	4	1	560					6.72	142	M	F	Stem inclined slightly to south. Severe bark loss at north obscured by surrounding debris, probably associated with infection by *Armillaria* species. Physiological impacts of infection and damage seen as thinning to branch structure, expected to deteriorate further.	No action required at time of survey.	10+	C1	RET
3020		Ash	14	5.5	4	5	5	3 E	2	2	*380*	*380*				6.45	131	M	F	Twin stems from ground level with bark-included union developing. Past limb removals at north. Suppressed and unremarkable specimen.	No action required at time of survey.	20+	C1	RET
3021		Ash	10	7	5	11.1	8.5	2 S	0	1	1520					15.00	707	M	F	Veteran tree. An extensively hollow and decayed lower stem section with only a relatively thin residual wall of functional wood after decay of the large majority of the heartwood volume. A cavity opening to north side of the stem occupies the length of the remnant stem section. Crown comprises only later/recent adventitious shoots that have now become the principal limbs after past loss of all primary crown structure and is in good physiological condition so pruning is advised of this later material to manage both the weight and sail area acting upon the increasingly fragile residual stem wood. NB currently the crown is not excessively suppressed by the surrounding younger and more vigorous trees, shading out should be avoided e.g. by pruning of the ash so that it is marginalized relative to the younger trees or by allowing younger trees to overtop the ash. Remaining dysfunctional wood within the central column of the stem is riddled by insect galleries. Fungal degradation of heartwood displays a pattern consistent with cubical brown rot mode. Varied habitat spaces present and mostly within the stem.	Shorten distal branch structure of later developed branches now forming the crown and attached to the original stem by 2.5 metres to reduce the potential for failures at, or inboard of, the attachment of the stem in the interests of preserving the oldest parts of the structure. Expect to repeat pruning as necessary.	>40	A3	RET
3022	T16	Pedunculate oak	23	9.5	11	12.3	11.5	5 E	1.5	1	1205					14.46	657	M	G	A stout, upright stem with good taper. Principal branch structure and unions in good condition. Attractive, broadly spreading crown structure. High quality landscape tree with good potential.	No action required at time of survey.	>40	A1	RET
3023	A4	Pedunculate oak	24	12	12.5	5.5	10	5.5 S	2	1	1365					15.00	707	M	G	Very stout upright stem. Multiple limb failures from north crown, possibly due to high wind events, residual limbs potentially exposed and vulnerable to similar failures by loss of crown integrity. Intervention pruning at remainder of north crown may prevent further crown failures.	Reduce remainder of north crown by 2.5 metres to stabilize due to apparent vulnerability to large limb failures.	>40	A1	RET
3024	A4	Pedunculate oak	22	10	6	5.5	6.5	9 S	9	1	1110					13.32	557	M	G	Stout upright stem. Principal branch structure and unions in satisfactory condition. Recent pruning management of west crown in the interests of maintenance of the relationship to the proximal dwelling to west. Bird box at 3 metres north. Good overall condition.	No action required at time of survey.	>40	A1	RET
3025	T15	Pedunculate oak	18	10.5	9	3	7	3.5 N	3	1	1462					15.00	707	M	F	Very stout lower stem with large scaffold member sweeping up into crown from 3 metres south and forming a substantial portion of the southern crown. Principal branch structure and unions in satisfactory condition. Recent management includes heavy crown reduction back to second order branch structure with virtually all third order branches removed, in additional to this there have been several lower limb removals up to 5 metres above ground level and limb removals of the west crown to accommodate the dwelling that is only a few metres west of the stem. General vitality after pruning is satisfactory with no subsequent decline.	No action required at time of survey.	>40	A1	RET
3026	T14	Pedunculate oak	15	9.5	11	10.5	12	2.5 E	1	1	1660					15.00	707	M	G	Veteran tree. Very stout lower stem clearly subject to historic pollard management. Now with a full and healthy regrown crown structure. A tree known to be important to bats. Past management treatment and subsequent regrowth provides habitat features, crevices, decay pockets, water pooling and sap run. Some minor pruning is evident, possibly to remove dead wood or broken limbs. Stable compact crown. Very good overall condition.	No action required at time of survey.	>40	A3	RET
3027	A3	Pedunculate oak	22	13	11	10	13.5	2 NE	0.5	1	1480					15.00	707	M	G	Very stout lower stem. Principal branch structure and unions in satisfactory condition. Large low limb to north-east and resulting crown bias. Large, broadly spreading and attractive crown form. Good overall condition. High quality landscape tree.	No action required at time of survey.	>40	A1	RET
3028		Pedunculate oak	10.5	7	7.2	7	6	2.5 W	1	1	740					8.88	248	M	G	Veteran, relic tree. Only the north-west fragment of the original stem column remains alive amounting to an estimated 20% of the stem circumference of the outermost portion of the former stem. A standing dead section remains at the south-west, this also approximately 20% of the former circumference. The eastern half of the stem has become dead and collapsed to east lying in situ (this should be retained here for habitat/ecological reasons). The former stem size can be approximately determined by measuring across the diameter in a north-south axis (1650mm). The live section currently bears a consolidated but healthy crown. Future management of the crown in the interests of preservation of the stem fragment is sensible and need only amount to periodic peripheral crown reduction pruning work.	No action required at time of survey.	>40	A3	RET
3029	A3	Pedunculate oak	21	6.2	7	6	12	3 N	1	1	970					11.64	425	M	G	Upright stem. Principal branch structure and unions in satisfactory condition. Recent pruning of west crown in the interests of maintenance of the relationship to the proximal dwelling to west. A few pieces of small dead wood remain and may potentially affect third party land.	Remove dead wood >15mm in diameter that may affect adjacent property.	>40	B1	RET

FLAC Ref. No.	1981 TPO Ref	Species	Ht. (m)	Crown Spread (m) N	S	W	E	Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm) 1 / mean	2	3	4	5	RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C	Proposal
3030	T13	Pedunculate oak	22.5	6	10.2	8	7.8	4 S	4	1	1505					15.00	707	M	F	Veteran tree. Very stout lower stem. Principal branch structure and unions in satisfactory condition. Several small habitat holes throughout scaffold structure. Past limb removal wounds provide for hollowing and habitat spaces. Distal dieback crown retrenchment and early senescence. Good overall condition.	No action required at time of survey.	>40	A3	RET
3031	T1	Pedunculate oak	13	6.3	7.6	7	6.5	4 N	1	1	1640					15.00	707	M	G	Veteran tree. Clearly subject to historic pollard management. Very stout lower stem. Broad flattening of secondary root development forming a large root plate likely to be adaptive growth response to root decay. Cavity from ground level north reveals extensive stem hollowing. Degraded remnant fungal fruiting bracket seen as old attachment position on stem burring at 2 metres east, likely *Ganoderma* species, with broken pieces lying on ground appear to have colouring and spore tube formation consistent with preliminary identification. Further fungal activity observed as *Laetiporus sulphureus* on old branch at 5 metres north in location of either past branch failure or pruning. Multiple and varied habitat spaces through regrown structure seen as habitat holes and crevices.	No action required at time of survey.	>40	A3	RET
3032	T2	Pedunculate oak	20	8.2	9.2	9.5	9.2	7 N	2	1	1750					15.00	707	M	G	Very stout lower stem. Burring of lower stem increases diameter. Principal branch structure and unions in satisfactory condition. Attractive specimen. High quality landscape tree.	No action required at time of survey.	>40	A1	RET
3033	T3	Pedunculate oak	18.4	8.6	9.3	8	9	4.5 W	2	1	1170					14.04	619	M	G	Stout stem. Fungal activity observed: *Inonotus dryadeus* at ground level south (with guttation droplet formation); *Fistulina hepatica* at 1 metre north. Large scaffold limb form 5 metres west has a decayed section and hollowing close to stem union that may increase the failure potential of the large low limb outboard of the noted defect, pruning is advised. Remainder of crown structure is in satisfactory condition.	Shorten the branch extents of the large limb form ca. 5 metres west by 2.5 metres to reduce loading upon decayed, hollow section close to stem.	>40	A1	RET
3034	A1	Scots pine	18.7	6	6.7	6	4.6	8 S	4	1	745					8.94	251	M	F	Upright stem. Typical form and structure for the species. Principal branch structure and unions in satisfactory condition.	No action required at time of survey.	>40	B1	RET
3035	A1	Blue Atlas cedar	15.4	9.3	7.4	4.7	10.3	4 E	4	1	740					8.88	248	M	F	Upright stem. Typical form and structure for the species. Principal branch structure and unions in satisfactory condition. Crown bias to east. Foliage appears slightly thinner than normally expected.	No action required at time of survey.	20+	B1	RET
3036	A1	Ash	19.5	7.5	8.5	8	9	5 W	4	1	730					8.76	241	M	F	Upright lower stem becomes co-dominant from 2.5 metres with a degree of bark inclusion but not significantly hazardous. Several medium sized pieces of dead wood scattered through crown.	Remove dead wood >15mm in diameter.	20+	B1	RET
3037	A1	Pedunculate oak	19	11	7.5	10	7.3	4 N	3	1	1760					15.00	707	M	G	Veteran tree. Very broad, stout upright stem then becoming a large bole with fully regrown crown after cessation of historic pollard management. Cavity from ground level at south-east reveals extensive stem hollowing from within root buttress to an unknown height within the stem but possibly into the pollard bole. Multiple *Laetiporus sulphureus* fruiting brackets observed on old branch removal or branch loss wounds in region of pollard bole at north and south-west with proximal habitat spaces via brown-rot decay. Crown structure has previously been reduced, possibly after natural crown retrenchment but remains in good overall condition both structurally and physiologically, although the current crown is generally free of smaller sized dead wood, broken branches or past storm damage.	No action required at time of survey.	>40	A3	RET
3038	A4	Pedunculate oak	15.5	4.8	10	5.8	4.8	2.5 NW	1.5	1	1120					13.44	567	M	F	Stout, upright stem. Small cavity between root buttresses from ground level at west. Ivy previously severed. Past heavy crown pruning presumably due to presence of proximal dwelling to west. Occasional medium sized dead wood. Satisfactory overall condition.	No action required at time of survey.	>40	B1	RET
3039	A4	Ash	12	2	4.8	4.2	4.7	3 S	2.5	1	250					3.00	28	EM	F	Slender specimen with crown asymmetry due to close companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey.	>40	B1	RET
3040	A4	Ash	15	5	4	8	2.5	4 W	3	1	390					4.68	69	EM	F	Slight stem incline to west. Majority of branch structure biased to west. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey.	>40	B1	RET
3041	A4	Scots pine	14	2.2	2	5.5	2	8 W	3	1	600					7.20	163	EM	F	Slight stem incline to north. Compact crown. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey.	>40	B1	RET
3042	A4	Horse chestnut	15	10	5	3.5	6	2 N	2	1	1020					12.24	470	M	F	Specimen situated with stem level with north-east corner of proximal residential dwelling with a companion chestnut to the south. Slight stem incline and general crown bias to north. Crown exhibits past itterations of crown pruning and lower imb removals likely to be associated with daylight and proximity issues to the house. Large scaffold limb form 2 metres north. Prinicpal branch structure and unions in satisfactory conditon.	No action required at time of survey.	20+	B1	RET

Data for trees assessed as groups (TG)

FLAC Ref. No.	1981 TPO Ref	Species	Tree Count	Ht. (m)	MRCS (m)	Ht. 1st Br. (m)	Ht. Can. (m)	Specimen Stem Dia. (mm)	Specimen RPA Rad. (m)	Specimen RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C	Proposal	No. of trees retained	Trees retained %
TG3001		Ash	14	7	4	1 N	1	200	2.40	18	SM	F	Dispersed linear tree group of small and unremarkable specimens of varying density. Unremarkable both individually and collectively.	No action required at time of survey.	>40	C2	RET	14	100.0
TG3002		Pedunculate oak	2	15	9.5	2.5 W	1	1050	12.60	499	M	G	Off site tree group. No access. Remote inspection only. Close-set pair share companion shelter, aerodynamic form and a common crown profile. Stems located close to boundary fence. Dense ivy impedes inspection. Principal branch structure and unions in satisfactory condition. Substantial crown overhang into site. Good overall condition. High quality tree group. Beneath the crown footprint of the two oaks there are additional off site trees along the boundary comprising both conifer and broadleaved species, all significantly smaller in both dimensions and constraints and all of comparative low quality and value.	No action required at time of survey.	>40	A2	RET	2	100.0
TG3003	G2	Sycamore x3	3	19	13	2 N	2	1130	13.56	577	M	G	Close-set stems share companion shelter, aerodynamic form and a common crown profile. Trio situated above ice house. Stems and principal branch structures and unions in satisfactory condition. Physiological condition fair for south and north-east tree but becoming poor for south-west tree seen as thinning of distal branch structure and tip decline and development of small to medium sized dead wood. Hawthorn scrub around base of south-west tree.	Remove dead wood >20mm in diameter.	20+	B2	RET	3	100.0
TG3004		Sycamore x4, ash x3, hawthorn x2, elm x6, elder x3, holly x3	25	15.5	5	2 E	1	360	4.32	59	EM	F	Cluster of slender upright principal trees comprising ash and sycamore with a scrubby understorey of other species. Quite dense, no management. Low arboricultural merit.	No action required at time of survey.	>40	C2	REM	0	0.0
TG3005		Blackthorn 60%, ash 35%, pedunculate oak 5%	80	19	10	2 E	1	500	6.00	113	M	F	A former blackthorn hedge that has now become a line of trees with scrubby understorey after cessation of past hedgerow management. Trees are mostly slender ash, drawn-up after close companion shelter and often multi-stemmed. *Inonotus hispidus* decay fungus observed within the dominant ash population likely to result in individual whole and partial tree failures due to the size (diameter) of the trees affected. Positioned internally to the site the tree group has low landscape presence in comparison with site boundary tree groups. Arboriculturally it is of relatively low merit with only a few distinct trees worthy of individual description as indicated on the plan. Tree count exc. blackthorn	No action required at time of survey.	>40	B3	PRET	60	75.0
TG3006	A4	Pedunculate oak x3, Scots pine x4, ash x10, hawthorn x1	18	19	7	2 N	1	500	6.00	113	M	F	Linear tree group along low fence with four Scots pines of larger stem diameter but set further back from fence to south. Scots pines observed to have a few broken branches in crowns when viewed from north. Ash often slender and drawn-up after companion shelter and several are multi-stemmed. Confers some screen function.	Prune out dead wood and broken branches, the latter including branches hanging in upper north crowns of Scots pines.	>40	B2	RET	18	100.0
TG3007	A3	Ash 50%, sycamore, field maple, hawthorn, hazel 50%	50	16	7	2 E	2	400	4.80	72	M	F	Linear tree group on west boundary of site. Often slender, drawn-up ash with scrubby understorey of other species. Although the tree group is comprised of mostly unremarkable individuals collectively they confer useful screen function.	No action required at time of survey.	>40	B2	RET	50	100.0
TG3008	A3?	Damson x14, hawthorn x7	20	6	3	1 N	1	230	2.76	24	M	F	Rather scrubby linear tree group with broad bramble cluster running contiguously along its length and thicketting to east. Low arboricultural or landscape merit. TPO query arises as TPO map unclear; does not merit TPO and probably not included	No action required at time of survey.	20+	C2	REM	0	0.0
TG3009		Sycamore x2, ash x2	4	13	6	2 S	2	510	6.12	118	M	F	Cluster of specimens in north-west corner of site. Ash at north asymmetrical after suppression by the proximal dominant oak (3030). Includes the off site sycamore at north-west for constraints mapping. Satisfactory overall condition.	No action required at time of survey.	20+	B2	RET	4	100.0
TG3010		Ash x6, sycamore x3, pedunculate oak x7	16	15	6	2 N	1	350	4.20	55	EM	F	Dispersed linear tree group of varying density. Often scrubby individuals with asymmetry born of companion shelter. Tree group of relatively low arboricultural significance.	No action required at time of survey.	>40	B2	RET	16	100.0
TG3011	A1	Leyland cypress	4	19	6.5	0	1	600	7.20	163	M	F	Close-set linear tree group. Large specimens now displaying typical species weakness of tight but heavy branches resulting in failures at north crown. No recent management evident. Limited future potential Low arboricultural merit.	Remove broken and damaged limbs.	20+	C2	RET	4	100.0
TG3012	A1?	Norway spruce x1, Lawson cypress x1, Lawson cypress cv x1, ash x1	4	6	3	0	0	200	2.40	18	EM	F	Cluster of unremarkable specimens. Norway spruce is larger than the mean dimensions with a stem diameter estimated to be 250+250mm, a height of 11 metres and crown radius of 4 metres. All unremarkable both individually and collectively. TPO query as may be too young to have been present in 1981	No action required at time of survey.	20+	C2	RET	4	100.0
TG3013	A1	Red horse chestnut	3	11	6.8	6 W	3	480	5.76	104	EM	F	Close-set trio of similar sized specimens share companion shelter, aerodynamic form and common crown profile. Some typical bark dysfunction but otherwise in satisfactory overall condition.	No action required at time of survey.	20+	B2	RET	3	100.0
TG3014	TG3014	Holm oak	3	16	8.5	4 N	2.5	650	7.80	191	M	G	Tree group represents the northernmost trees of the wider tree group (continuing to south) for constraints mapping. Diameter recorded here represents the specimen 6.8 metres to east of the existing manhole, one tree is closer but quite a bit smaller. Typical form and structure for the species albeit some crown asymmetry due to companion shelter. Satisfactory overall condition.	No action required at time of survey.	>40	B2	RET	3	100.0
TG3015	G4	Scots pine	2	18.6	5.5	5.5 W	2	730	8.76	241	M	F	Close-set pair share companion shelter. Both trees have suffered past limb failures but are in satisfactory overall condition.	No action required at time of survey.	20+	B2	RET	2	100.0

FLAC Ref. No.	1981 TPO Ref	Species	Tree Count	Ht. (m)	MRCS (m)	Ht. 1st Br. (m)	Ht. Can. (m)	Specimen Stem Dia. (mm)	Specimen RPA Rad. (m)	Specimen RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C	Proposal	No. of trees retained	Trees retained %
TG3016	A4	Ash	2	25	11	6 E	2.5	885	10.62	354	M	F	Close-set pair share companion shelter and aerodynamic form. Principal branch structure and unions in satisfactory condition. Occasional medium sized dead wood. Satisfactory overall condition.	Remove dead wood >20mm in diameter.	>40	A2	RET	2	100.0

Data for hedges (H)

FLAC Ref. No.	Species	Ht. (m)	Mean Width (m)	Length (m)	Mean Stem Dia. (mm)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C	Proposal
H3001	Leyland cypress	3	3	22	230	M	F	Ownership uncertain, potentially an off site item. Specimens have been heavily topped. Low arboricultural merit.	No action required at time of survey.	20+	C2	RET
H3002	Leyland cypress, cherry laurel	2.5	1	32	120	EM	G	Off site hedge. Regularly clipped. Good overall condition.	No action required at time of survey.	>40	B2	RET
H3003	Hawthorn, holly	2.5	1	85	120	EM	F	Off site hedge. Regularly clipped. Some variation in density beneath principal trees. Good overall condition.	No action required at time of survey.	>40	B2	RET
H3004	Cherry laurel	2.2	1	65	120	M	G	Off site hedge. Regularly clipped. Good overall condition.	No action required at time of survey.	>40	B2	RET

Recognition of Ancient, Veteran & Notable Trees –
R A V E N

Step One—Size Assessment

Tree has very large girth for species
Note—pollarding & senescence reduce stem increment: girth may be deceptive – assess stem girth relationship with life-stage accordingly

Refer to *Ancient and other veteran trees: further guidance on management* (Lonsdale, ATF 2013) at Fig. 1.3: *Chart of girth in relation to age and developmental classification of trees*

IF GIRTH NOT VERY LARGE FOR SPECIES, STOP HERE!

Step Two—Additional Primary Features

At least one of the following should be present, or refer to Step Three

- ☐ Extensive decay, especially brown rot or exposed stem heartwood in relevant species
- ☐ Extensive hollowing
- ☐ Crown senescence
- ☐ Retrenchment

Step Three—Secondary Features

If no additional Primary Feature is present, tree should have at least four Secondary Features

- ☐ Large quantity of dead wood in crown, especially where large-sized
- ☐ Major storm damage/ breakout wounds
- ☐ Habitat spaces: decay holes and/ or crevices/ branch splits sheltered from direct rainfall
- ☐ Aerial rooting
- ☐ Sap run/ slime flux
- ☐ Water pool
- ☐ Bark loss inc. due to lightning strike
- ☐ Fungi
- ☐ Other epiphytic plants, including significant presence of lichens

Step Four – Identification Guide

☐ **ANCIENT**
Veteran tree with extremely large girth: age likely > 50% of estimated species maximum
E.g. pedunculate oak, 2m stem dia, average site: ca. 460 years old, ca. 50% of species max

☐ **VETERAN**
Very large girth for species and qualifies under either Step Two or Step Three

☐ **NOTABLE**
Very large girth for species but does not qualify under either Step Two or Step Three

IF A TARGET IS PRESENT, ASSESS RISK USING *THREATS*

FLAC

RAVEN Assessment - Oakhurst Rise

Guide to column headings

Tree No. Refer to accompanying plan
Species Listed by common name
Form Key factors that influence significance of stem size and age estimation
Pollard Whether the tree bears a pollard form, even if now long grown out
Relic Tree assessed as bearing <75% of former maximum crown volume

Required primary feature Tree must be large relative to others of its kind to qualify for assessment; refer to Lonsdale 2013
Additional primary features Features of principal importance for identifying A/V trees. In each case, feature should be present significantly
Secondary features Less important though still valuable features that aid identification, especially where present in numbers
Extensive decay Exposed decay areas should exceed 400cm2
Exposed HW HW refers to heartwood; applicable to relevant species only

DW>150mm dia Dead wood present in the crown, with diameter over 150mm
Maj. Storm damage Breakout wounds or broken spars exceeding 30cm dia
Dry habitat space Potential for faunal use where not subject to rain entry
Water pool Offers niche habitat for specialist inverts, even where transient
Signif. bark loss/ LS Bark loss exceeding 400cm2. LS refers to lightning strike
Notable fungi Refers to species with known associations to old-growth trees
Other epiphytic plants Should be either rare or present in significant quantity

Age estimate Computed using FC White Method, form & senescence weighting added
Ancient Veteran trees beyond ca. 50% of species' maximum life expectancy
Veteran Trees with Required & Primary or Secondary features as listed
Notable Trees that are large and/ or becoming old for species, but which lack qualifying features
Non-special All other trees

Note - Stem dia. for 3028 reflects estimated former maximum, used here for dating purposes; current dia. 740mm

Tree no.	Species	Form		REQUIRED PRIMARY FEATURE	*Either:* ADDITIONAL PRIMARY FEATURES - at least one of						*Or:* SECONDARY FEATURES - at least four of												AGE ESTIMATE		RAVEN ASSESSMENT				NOTES
		Pollard	**Relic**	**Large stem dia.**	**Extensive decay**			**Hollowing**	**Senescence**	**Retrenchment**	**DW>150mm dia**	**Maj. Storm Damage**	**Dry habitat space**	**Aerial roots**	**Sap run/ slime flux**	**Water pool**	**Signif. bark loss/ LS**	**Fungi**		**Other epiphytic plants**			**Years**	**Origin**	**Ancient**	**Veteran**	**Notable**	**Non-special**	
				(mm)	Brown rot	Exposed HW	Other											Notable	Other	Lichens	Ferns	Other							
3007	Pedunculate oak		X	1450			X	X	X	X	X	X	X				X		X				325	1694		X			
3008	Pedunculate oak			1130																			181	1838			X		Just qualifies by size & age, but lacks veteran features
3010	Pedunculate oak			930																			138	1881				X	Meets none of the criteria for veteran status
3014	Pedunculate oak			980		X							X				X						148	1871			X		Some veteran features present but size & age insufficient to merit veteran descriptor
3015	Pedunculate oak			1460							X												268	1751			X		Qualifies by size & age, but lacks sufficient veteran features for descriptor to apply
3018	Pedunculate oak	X		1760	X			X		X	X	X	X					X					427	1592	X				Laetiporus sulphureus & Fistulina hepatica present
3021	Ash		X	1520	X	X		X	X			X	X	X			X	X					354	1665	X				Fungi not identifed due to absence of fruitbodies, but brown rot very unusual on ash
3022	Pedunculate oak			1205																			200	1819			X		Just qualifies by size & age, but lacks veteran features
3023	Pedunculate oak			1365								X											242	1777			X		Qualifies by size & age, but lacks sufficient veteran features for descriptor to apply
3025	Pedunculate oak			1460																			268	1751			X		Just qualifies by size & age, but lacks veteran features
3026	Pedunculate oak	X		1660			X						X		X	X							392	1627		X			Approaching ancient status
3027	Pedunculate oak			1480																			274	1745			X		Just qualifies by size & age, but lacks veteran features
3028	Pedunculate oak		X	1650		X		X	X	X	X		X										389	1630		X			Approaching ancient status
3030	Pedunculate oak			1505				X	X	X			X										314	1705		X			
3031	Pedunculate oak	X		1640				X		X			X					X					386	1633		X			Approaching ancient status. L.sulpureus & G.resinaceum likely present
3037	Pedunculate oak	X		1760	X			X					X					X					427	1592	X				Laetiporus sulphureus present

FLAC

Client
William Morrison
(Cheltenham) Ltd

Instruction
Oakhurst Rise

Instruction ref.
SC38-1036

Dwg title
Tree Survey & Retention Plan
43 Unit Scheme

Dwg no.
38-1036.02-B

Rev. B Date
17.04.20

Scale
1:500 @ A0

Quality & value grades:

Category A — High

Category B — Moderate

Category C — Low

Category U — Unretainable

Trees to be retained (purple fill = veteran tree)

Indicative retained extent of TG3005 (>75%)

Trees to be removed to facilitate development

Trees for removal for arboricultural reasons

Indicative tree root protection area (retention trees only)

Veteran Tree Buffer

Dendron House
Barford Road, Blunham
BEDFORD, MK44 3ND
T 44(0)1767 641648 // F 44(0)1767 660330
enquiries@flac.uk.com
www.flac.uk.com

Notes

Do not scale off dwg - refer to tree survey data schedule for crown spreads etc

Tree/ woodland group outlines follow the topo survey or aerial imagery, as applicable

All tree positions are indicative except where plotted by topo survey

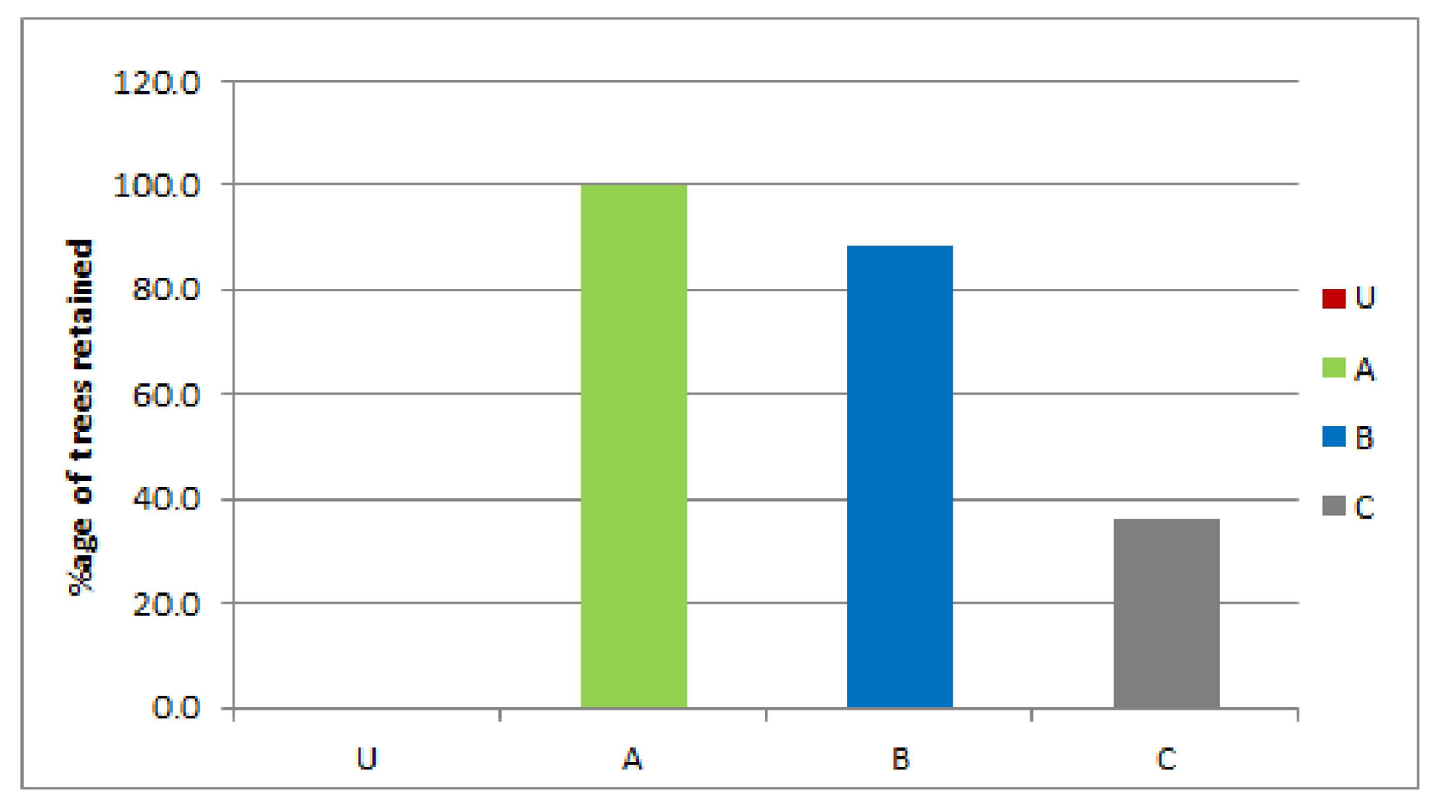
Any trees omitted from topo survey are located indicatively (suffixed *)

RPA for hedges or hedgerows to be taken as 3m from centreline, half the height or width + 2m each side, whichever is the greater

Drawn to N unless otherwise indicated

CAUTION: THIS DRAWING IS INTENDED TO BE READ IN COLOUR

OUTCOME OF PROPOSED RETENTION/ REMOVAL BALANCE



CAUTION: THIS DRAWING IS INTENDED TO BE READ IN COLOUR

0m 10m 20m 30m 40m 50m

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Client
William Morrison
(Cheltenham) Ltd

Instruction
Oakhurst Rise

Instruction ref.
SC38-1036

Dwg title
Tree Protection Plan

Dwg no.
38-1036.03-E

Rev. E Date
01.05.20

Scale
1:500 @ A0

Key

Quality & value grades:

Category A — High
Category B — Moderate
Category C — Low
Category U — Unretainable

Key:

- Trees for retention
- Tree root protection area - RPA (retention trees only)
- Veteran Tree Buffer
- Indicative retained extent of TG3005
- Area NW of 3015 subject to 25m2 incursion (3.5% of total RPA) by vehicular access
- 50m2 compensatory additional protection NE of 3015 (i.e. double the area of incursion to NW)
- Area for construction of no-dig vehicular access NW of 3015 if required by planning condition
- Type 1 tree protection fencing (see inset sketch 1) in primary alignment to protect RPAs
- Additional run of TPF to be installed if no-dig solution NW of 3015 required by planning condition

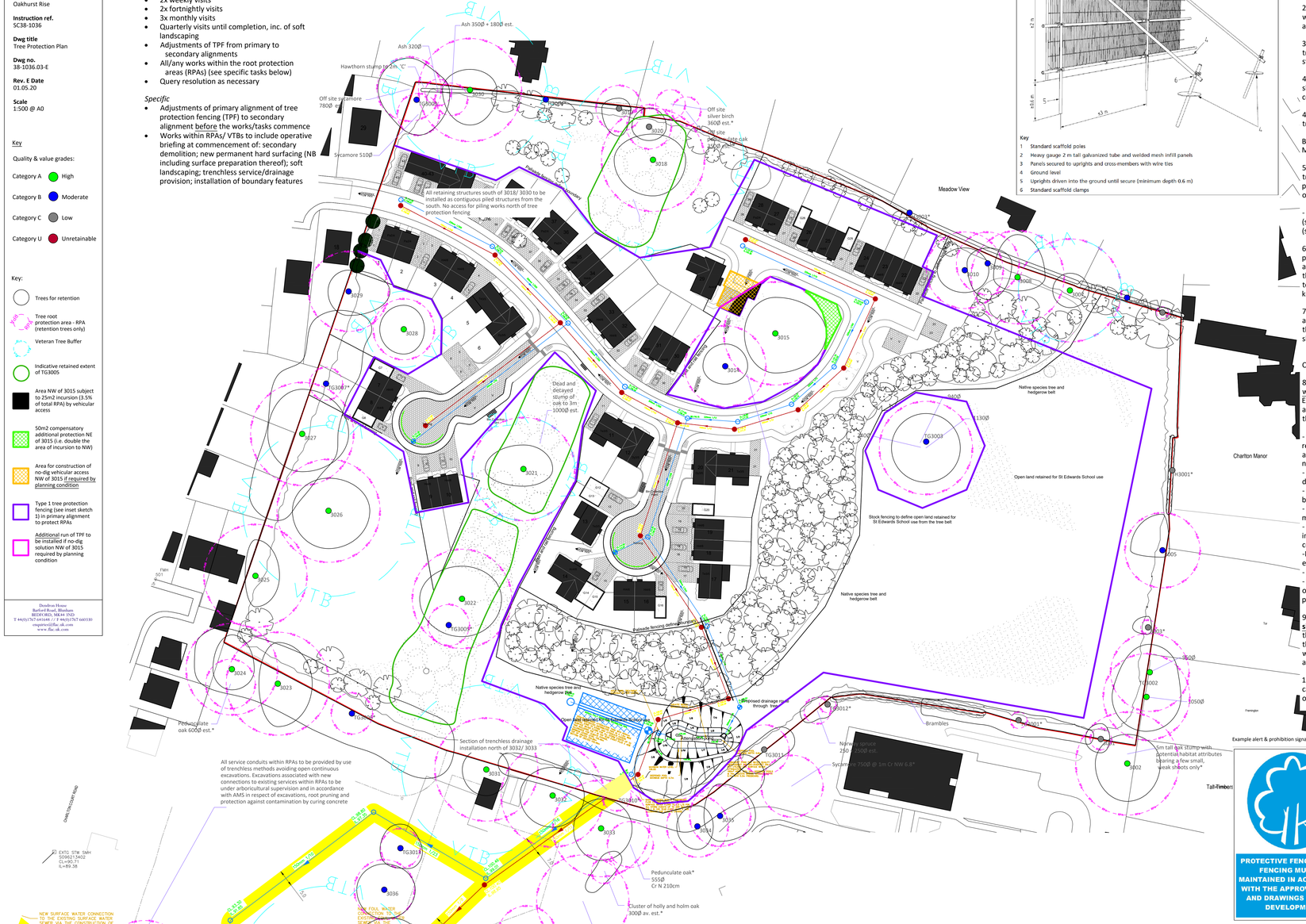
ARBORICULTURAL SUPERVISION SCHEDULE

General

- Pre-start meeting with contractors (tree, dems, build)
- Audit of enabling tree works & tree protection system, fencing and ground protection
- 2x weekly visits
- 2x fortnightly visits
- 3x monthly visits
- Quarterly visits until completion, inc. of soft landscaping
- Adjustments of TPF from primary to secondary alignments
- All/any works within the root protection areas (RPAs) (see specific tasks below)
- Query resolution as necessary

Specific

- Adjustments of primary alignment of tree protection fencing (TPF) to secondary alignment before the works/tasks commence
- Works within RPAs/ VTBs to include operative briefing at commencement of: secondary demolition; new permanent hard surfacing (NB including surface preparation thereof); soft landscaping; trenchless service/drainage provision; installation of boundary features



Inset Sketch 1
FLAC Type 3 TPF - BS5837:2012 Figure 2 - Default specification for protective barrier

ARBORICULTURAL METHOD STATEMENT

A) PRELIMINARY MATTERS

1. Prior to any ground modelling, demolition or construction work on site, the approved tree works (see FLAC dwg. no. 34-1036.02) shall be undertaken by tree contractors (not unskilled personnel).

2. No plant access is permitted for tree work operations within the RPAs or VTBs of retention trees, including areas identified for temporary ground protection

3. All approved tree removals shall be undertaken by tree contractors. Each tree shall be cut down to a low stump

4. Trees for removal within the RPA of retention trees shall have their stumps ground out (also by tree contractors)

4. Stumps from felled trees not in proximity to retention trees can be grubbed out.

B) INSTALLATION OF PHYSICAL TREE PROTECTION MEASURES

5. Following completion of enabling tree works, physical tree protection measures (barriers and ground protection) shall be installed in line with the provisions of BS5837:2012. These measures comprise:

- Tree Protection Fencing (TPF) to BS5837:2012 Figure 2 (see Inset Sketch 1) fitted with all-weather warning signs (see elsewhere on plan)

6. The TPF to be installed on the primary alignment (as per the dwg key) prior to any demolition, ground works and construction operations. It is to be be left in situ throughout the redevelopment process except for temporary repositioning to secondary alignment (see key) under arboricultural supervision by FLAC.

7. If required by planning condition, the vehicular access area NW of 3015 will be installed as a no-dig surface. In this event, an additional run of tree protection fencing shall be provided as shown on this drawing (pink line).

C) PROHIBITIONS & PRECAUTIONS

8. Tree protection fencing and any existing hard surfaces within root protection areas comprise the Construction Exclusion Zone. Within this zone, the following activities are strictly prohibited during primary demolition (other than as described below):

- Excavation / lowering of levels into rootable soil: removal of surface organic matter using hand tools is acceptable; scraping or reduction in depth of topsoil is not
- Removal of existing hard surfaces (= 'secondary demolition': see below)
- Grubbing out of redundant buried structures (see below)
- Operation, transit or storage of plant, and storage of materials, including demolition arisings
- Storage or handling of any chemical substance injurious to trees, including fuels, oils, lubricants and cement washings
-No services/drainage to be formed through RPAs/ VTBs except by trenchless methods
- No level changes within RPAs/ VTBs
- Boundary features must avoid continuous excavations or trenching within RPAs/ VTBs (fences on posts are preferable)

9. The Construction Exclusion Zone shall be established **site-wide** as set out above, and shall remain in place throughout the redevelopment process. No elements of the physical tree protection shall be removed or altered without prior written consent from the local planning authority.

10. Demolition of superstructures within 3m of tree canopies and/ or the construction exclusion zone is an operation with a high potential to damage retention trees ('high-risk operation'), and requires on-site arboricultural supervision by FLAC

11. Within the Construction Exclusion Zone, break-out and replacement of existing hard surfaces and decommissioning of redundant services, including drainage structures, are also high-risk operations and shall be undertaken under site supervision by FLAC

D) METHODS FOR TREE FRIENDLY WORKING

12. Redundant buried structures are preferably disconnected / backfilled and retained in situ; further advice should be sought from FLAC before consideration is given to grubbing them out. Existing hard surfaces within the Construction Exclusion Zone are to be retained and not demolished / removed until completion of primary construction (see Phasing Schedule)

13. The recommendations of BS5837:2012 6.2.4.1 shall be strictly observed throughout the demolition and construction process:

BS5837:2012 6.2.4.1
Planning of site operations should take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees. Such contact can result in serious damage to the trees and might make their safe retention impossible. Consequently, any transit or traverse of plant in proximity to trees should be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times. Access facilitation pruning should be undertaken where necessary to maintain this clearance

Note In some instances local planning authority consent for pruning might be required

14. No-dig new surfaces shall be constructed in accordance with the principles set out in the Arboricultural Practice Note 12 *Through the trees to development* (APN12) using a 3 dimensional cellular confinement system of appropriate specification to the anticipated loading. The design of the cellular confinement system is to be produced by engineers.

BS5837:2012 7.2 Avoiding physical damage to roots during demolition or construction

7.2.1 To avoid damage to tree roots, existing ground levels should be retained within the RPA. Intrusion into soil (other than for piling) within the RPA is generally not acceptable, and topsoil within it should be retained in situ.However, limited manual excavation within the RPA might be acceptable, subject to justification. Such excavation should be undertaken carefully, using hand-held tools and preferably by compressed air soil displacement.

NOTE Due to the demands that manual excavation places on a development project, and limitations arising from health and safety considerations, it is not realistic to plan for excavation using hand-held tools where there is a need for trench shoring or grading the sides of the excavation to a stable angle of repose.

15. Boundary treatments within RPAs/ VTBs shall preferably comprise timber fences fixed to posts (see risk/control methodology for fence post installation elsewhere on this drawing). Any walls within RPAs/ VTBs will require tree-friendly, non-invasive design avoiding trench footings by, for example, brickwork founded upon pile supported lintels born above the existing ground level, pile hole locations avoiding major tree roots and ground-truthed under arboricultural supervision.

D) EXCAVATIONS WITHIN THE RPAs

16. Excavations within the RPA may proceed only under arboricultural supervision. Personnel must be briefed on the precautions to be taken by the arboricultural consultant at the start of an operation; supervision will be carried out to ensure that the method statement is understood and complied with.

17. No mechanical excavation including lowering of levels shall occur within the RPA.

18. Excavations of the top 600mm associated with any construction activities within the RPA shall be carried out carefully and by hand tools only e.g. spades, shovels, trowels etc, this may include a hand held pneumatic breaker where sub-surface structures are encountered and their removal is essential. Air excavation tools may be employed where operatives have an understanding of the use of these tools in proximity to roots and soil conditions allow. Care must be taken to avoid damage to the bark of parts of roots that will be retained.

E) ROOT TREATMENT

19. Root pruning operations may proceed only under arboricultural supervision.

20. Typically, where roots are encountered they are first assessed primarily for size; roots over 25mm in diameter should be retained (or referred for further arboricultural advice) and those below 25mm in diameter should be pruned at 90 degrees to the direction of the root.

21. Proprietary cutting tools only shall be used to prune roots i.e. secateurs and sharp pruning saws.

22. Should any roots over 25mm be discovered they should only be severed following consultation with the arboricultural consultant with regard to the tree's health and stability.

23. Where roots are to be left exposed for any period of time they shall be protected from the drying effect of wind and sunlight, e.g. wrapped in clean dry Hessian to prevent desiccation.

24. Prior to backfilling retained roots should be unwrapped and surrounded by sharp sand (not builder's sand because of the high salt content which is toxic to tree roots) or another loose granular material before soil is replaced.

25. Any imported topsoil for backfilling must be of good quality and free of contaminants and foreign bodies, it must be well graded and friable to promote good growing conditions and perform as a suitable rooting medium. The topsoil to be used must satisfy the requirements of a multipurpose topsoil as is described within BS3882:2007.

26. All materials, including any new topsoil to replace the hard surface must be close to hand prior to commencement of the works. These works will be carried out to the recommendations of BS5837: 2012 7.2 (see below). Once the works are complete tree protection fence is to be erected around the new open ground.

F) ARBORICULTURAL SUPERVISION & REPORTING

28. All high risk operations (i.e. intra-RPA /VTB) require arboricultural supervision. Additionally ongoing inspection of the tree protection measures shall be provided whilst works are in progress. A schedule of supervision is provided elsewhere on this drawing.

A WRITTEN & PHOTOGRAPHIC REPORT WILL BE PROVIDED WITHIN 5 WORKING DAYS OF EACH MONITORING VISIT

WARNING: RISK OF CRIMINAL PROSECUTION

Many trees on this site are under legal protection by Tree Preservation Order:
Any failure in compliance with the Arboricultural Method Statement that damages the trees could render the developer & contractor liable to criminal prosecution under Town & Country Planning Act 1990

TRENCHLESS DRAINAGE/SERVICE PROVISION WITHIN RPAs

1. GENERAL
The drainage route (shaded yellow) represents an incursion through the notional RPA of 3032, 3033 and TG3013. To minimize the potential for tree damage the use of trenchless techniques is proposed. Below is an overview (from an arboricultural perspective) of the precautions to be employed when installing trenchless conduits through RPAs. Access for the connection to the existing manhole located at the outer edge of the VTB of 3037 can be achieved by compressed air excavation without any or any measurable impact on the tree concerned.

2. KEY PRECAUTIONS
- Pits for ingress and egress are required into which the boring equipment can be inserted and retrieved. Pits must be preferentially located outside of the RPAs
- If it is not possible to place a pit outside of the RPA then it must be located at as close to the periphery of the RPAs as is possible
- Any excavations for pits within the RPAs are to be carried out by hand (please refer to the primary AMS at section D for excavations within the RPA and section E for root treatment within the RPA)
- Pits within the RPA must be kept to the minimum dimensions practicable and any excavations must be carried out under arboricultural supervision
- The thrust boring/pipe jacking must take place at a depth of no less than 1000mm below the existing ground level: this is very important to avoid the principal rooting horizon
- Only water or non phyto-toxic materials are to be used for lubrication to avoid contamination of the rooting area

TREE PROTECTION MEASURES FOR NEW PERMANENT HARD SURFACING OVER RPAs

1. GENERAL
All new hard surfacing e.g. footpaths, driveways and parking bays within RPAs of retained trees shall require a no-dig tree-friendly design and method to be adhered to.

2. TPF SET-UP AND PHASED FENCING ALIGNMENT
The work area is to be secured by the secondary tree protection fence alignment as shown (see key). No work is to begin until this has been set up and confirmed by FLAC. Operatives are to be briefed on the precautions necessary for each task by FLAC.

3. GROUND SURFACE PREPARATION
Preparation of the ground to receive no-dig surfaces within RPAs will be subject to the following precautions:

i) No vehicle or plant movements across RPAs without temporary ground protection
ii) Careful removal of unwanted surface vegetation by hand tools only and not to exceed a depth of greater than 50mm
iii) A blinding of no greater than 100mm of a clean sandy loam topsoil is to be applied to provide flowing contours and neutralize any localized dips and hollows, smoothing out the ground ready for construction
iv) This operation places trees at the greatest risk during no-dig surface construction and accordingly it is advised that FLAC oversees surface preparation as a minimum

4. DESIGN AND CONSTRUCTION PRINCIPLES
New hard surfacing is to be constructed to an engineer's specification with regard to the anticipated loading. The design must be in accordance with the principles set out in *Arboricultural Practice Note 12 - Through the Trees to Development* (APN12).

New hard surfacing is to be constructed above the prepared ground, **no** excavations, soil stripping or soil lowering (other than that described at 3 above) for preparation of a typical consolidated sub base may take place within RPAs of retained trees.

Use of a 3 dimensional cellular confinement system is recommended within the RPAs to provide a sub base capable of bearing anticipated loading without the need for consolidation by compaction. Engineer to determine cell depth and construction specification. Installation is to be in accordance with the manufacturer's instructions.

If the new surface design is to incorporate an edge retention system this also must not require excavations but instead must use pegs, pins or posts to provide lateral restraint in combination with a timber board or metal edging.

5. NEW SURFACE USE DURING CONSTRUCTION
Once completed , construction access to the new permanent hard surfacing can be either excluded by returning the fencing to the primary alignment or used for temporary access with the secondary alignment of fencing in place, a temporary wearing course may be beneficial.

No vehicle or plant movements are to take place upon the new permanent hard surfacing unless they have been designed and constructed to bear the loading adequately.

FENCE POST INSTALLATION WITHIN RPAS/VTBS OF RETAINED TREES

Risks

- Damage/severance of roots by excavations for posts
- Contamination of rootable soil by uncured concrete leachate

Controls

- Vertical holes shall be hand dug carefully under arboricultural supervision. Holes shall be kept to the minimum dimensions possible. Use of either a hand-held auger or a twin-handled post-hole spade is recommended as this enables the dimensions of the holes to be kept to a minimum
- If present, existing hard surfacing and sub-base or other obstruction may be broken out with a hand held pneumatic breaker
- If roots over 25mm are encountered then the post hole shall be moved to the side of the root to avoid the need for root severance
- Roots below 25mm may be cut cleanly against the side of the post hole using sharp secateurs or pruning saw. Roots above 25mm may only be severed following assessment of impact by the arboriculturist.
- Where concrete is to be used to fix the posts in place then the upper metre of holes must first be lined with a heavy-duty, non-permeable membrane, such as a 1000 micron polythene, to protect tree roots from the toxic effects of uncured concrete leachate
- There must be no storage or mixing of concrete within the RPAs of retained trees.

OUTLINE ARBORICULTURAL MANAGEMENT PLAN

General
The tree stock site wide shall require management in the interests of both trees and users of the surrounding land both on and off site. The overarching objectives are as follows:

a. Discharge duty of care obligations owed to residents, visitors and neighbours imposed by both common law and Owners and Occupiers Liability Act
b. Preserve and enhance arboricultural attributes within the constraints of best practice and the controlling statutory protection

The second bullet at (b) captures all trees within the site but this necessarily includes a subset of veteran trees that shall require specific considerations (see sub-heading *Veteran tree management* below)

Tree risk and general management
It is acknowledged at (a) above that reasonable measures must be taken to minimize the risk of tree failures resulting in harm or damage. This shall be achieved by cyclical tree inspections to provide:

c. A risk-assessed and prioritized schedule of tree works recommendations as deemed necessary to achieve an acceptable level of risk
d. A schedule of ancillary works if considered advisable in the interests of sound arboricultural management

Best practice and legislative control
It is acknowledged at (b) above that statutory tree protection is in force and accordingly tree management requires adherence to legislative controls affecting tree works ordinarily by application to Cheltenham Borough Council for consent, this shall be achieved by:

e. Preparation of documentation appropriate for submission to CBC's Trees Section in pursuit of consent to undertake works to trees under statutory tree protection, as necessary

Veteran tree management
The cohort of veteran trees by virtue of their age,size and condition confer attributes of exceptional biodiversity, cultural or heritage value. Maintaining these attributes is a primary objective of the management plan, sitting alongside the general objectives listed above.

Heads of terms for management of veteran trees
f. Condition and maintenance of veteran tree crown radius knee-rail
g. Condition and maintenance of veteran tree deterrent planting
h. Maintenance of land within veteran tree buffers
i. Arboricultural risk-facing inspection and preparation of works schedule for application to CBC
j. Assessment of veteran attributes (i.e. structural and conditional features of ecological potential - please refer to RAVEN) including works advisable in the interests of optimizing habitat
k. Assessment of works advisable in the interests of preservation, for example to prevent major mechanical failures and preserving the oldest parts of veteran trees

Inspection cycles, qualifications and review
l. The first inspection shall take place immediately prior to first occupancy
m. The period between inspections as described above shall be every two years
n. Inspections shall be undertaken by suitably qualified, trained and experienced arboriculturists (i.e. ideally qualified to level 6) with reference to suitable ecologists as appropriate. At each inspection a detailed works specification shall be prepared as required
o. Tree work shall be undertaken by qualified and experienced arboricultural contractors and they shall be briefed by the project arboriculturist prior to commencing works
p. Tree work shall be undertaken in accordance with BS3998:2010 Tree work - recommendations. Care shall be taken to ensure that nesting birds and bats are not disturbed, and that bat roosts are not damaged during tree work. Pre-work surveys for bats shall be undertaken in accordance with BS8596:2015 Surveying for bats in trees and woodland - Guide
q. Cycles of inspection provide an opportunity to review the management plan particularly in light of tree condition and emerging information relating to tree management.