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DOWNLANDS

TOWN AND COUNTRY PLANNING ACT 1990
(as amended)
Section 78 — APPEAL

PINS Ref: APP/C1435/W/23/3321978

EXPERT EVIDENCE OF JULIAN FORBES-LAIRD

ON BEHALF OF THE APPELLANT,
IN RELATION TO ARBORICULTURAL MATTERS

Vol. 3—APPENDICES

Prepared for: *Gleeson Land and John Allison Land & Research Ltd*

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Volume 3 – Appendices

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JFL 1

QUALIFICATIONS & EXPERIENCE OF THE AUTHOR

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JULIAN FORBES-LAIRD

QUALIFICATIONS & EXPERIENCE

Julian Forbes-Laird is Senior Director at FLAC, a small but internationally reputed arboricultural and environmental risk consultancy. He has over 30 years' experience in arboriculture, and works with a wide range of public, corporate and private clients.

Together with Alistair Baxter of Aspect Ecology, JFL is co-principal of Sylvan Consulting, which provides planning and development-related advice on ancient woodland, veteran trees and historic landscapes.

JFL started his career on the practical side of the profession, completing a transition to consultancy in 2000 after a decade 'on the tools'. After two years spent working as an independent consultant, he spent a further two years as Senior Consultant at CBA Trees, before establishing FLAC in 2004.

Having developed and lectured widely on a respected and peer-reviewed method designed to quantify the risk posed by defective trees (THREATS), JFL is a recognised authority on tree hazard assessment. He has undertaken numerous forensic accident investigations, including in relation to fatalities caused by trees, and has appeared as an expert witness in the High Court several times.

He is *Special Advisor on Tree Risk* for Network Rail Infrastructure Ltd and Consultant to *L'Union Internationale des Chemins de Fer* (the world cooperation body for railways), for whom he has drafted a new International Railway Standard *Technical Aspects of Tree Risk and Vegetation Management – Recommendations*. He now leads FLAC's collaboration with its technology partner, Airbus Defence and Space, on the development of natural hazard management systems.

JFL has published a number of articles in the arboricultural and landscape press, variously covering tree risk assessment, legal aspects of liability for hazard trees, subsidence, and the arboricultural significance of certain wood decay fungi on trees. He is the author of RAVEN, the only appeal-validated field recognition system for ancient veteran and notable trees.

In addition, JFL is a well-known figure on the international arboricultural lecture circuit, covering specialist topics such as the philosophy of tree risk assessment, retrenchment pruning of veteran trees, the use of remote sensing technology for vegetation management and infrastructure protection, and forensic entomology for tree-related accident investigation.

In 2019 he developed a proof of Professor Claus Mattheck's principle of the *Axiom of Uniform Stress* in trees, and has subsequently been granted Licensed Lecturer status in *Visual Tree Assessment* by Karlsruhe Institute of Technology, being one of only a handful of such licensees worldwide.

JFL is regularly instructed in the area of tree root damage to buildings, frequently acting as an expert witness in this complex area of arboriculture.

JFL has been instructed as an expert witness on several occasions in relation to prosecutions for offences under Tree Preservation Order legislation and has appeared for both prosecution and defence in the Crown Court. Additionally, he is author of the TEMPO system for assessing whether trees merit TPO protection; TEMPO is used by over 60 local authorities and dozens of consultants.

JFL has appeared numerous times at planning-related Public Inquiries, the majority of which have concerned ancient woodland, veteran tree and historic landscape issues.

JFL was a technical editor of BS5837:2012, being responsible for preparing drafts of the clauses relating to tree survey methodology, and demolition & construction in proximity to trees.

In December 2021, he was appointed Chair of British Standards Institution committee B/213 *Trees and tree work*, with responsibility for steering the revision and development of all British Standards relating to arboriculture.

JFL has undertaken several items of original research, including:

- Stability of trees on slopes to derive failure criteria for tree height against degrees of slope
- The use of infra-red aerial photography for tree vitality assessment
- Site-related predisposing factors for storm resilience modelling of large-scale tree populations
- Cross-correlational analysis of woodbank width as an indicator of century of formation

A summary of JFL's memberships, designations and appointments is set out below:

- Chartered Arboriculturist and Registered Consultant of the Institute of Chartered Foresters
- Member of the Royal Society of Biology
- Member of the Royal Institution of Chartered Surveyors
- Professional Member of the Arboricultural Association
- Registered Consultant of the Arboricultural Association 2004-2018
- Member of the Expert Witness Institute
- Member of the Royal Forestry Society and holder of its 'Professional Diploma in Arboriculture'
- National Special Advisor on Tree Risk for Network Rail Infrastructure Ltd
- Consultant to the world cooperation body for railways, the UIC
- VTA Licensed Lecturer, Karlsruhe Institute of Technology
- Chair of British Standards Institution technical committee B/213 Trees and Tree Work

JFL has a Bachelor of Arts Honours Degree in Theology and a Diploma in Greek and Roman Studies, from the University of Exeter; and read for a Masters in War Studies at King's College London.

JFL 2

ARBORICULTURAL IMPACT ASSESSMENT TEXT FROM THE **FLAC** PLANNING SUBMISSION

FLAC Instruction ref. CC40-1020
DOWNLANDS

ARBORICULTURAL IMPLICATIONS ASSESSMENT (OUTLINE) -

KEY POINTS

1 Tree retention and removal - qualitative analysis

1.1 Trees subject of our survey have been assessed by FLAC according to the recommendations of BS5837:2012 *Trees in relation to design, demolition and construction - Recommendations*. As its title indicates, this document is specifically designed to inform and be used within the planning process.

1.2 A BS5837-compliant assessment includes differentiation of the quality of the trees according to that Standard's Table 1, which provides for trees to be placed into one of four quality categories:

A	High quality
B	Moderate quality
C	Low quality
U	Trees which are unretainable in viable condition, regardless of development

1.3 Following categorisation, the impact of any given set of proposals on a tree population can be assessed in terms of the retention or removal of trees within each quality category. The impact of proposals for existing trees (comprising both individual trees and trees within tree groups), woodland groups and hedgerows is summarised in figures 1 to 3 below.

Table 1. Tree numbers by quality and value categories, after impacts by the proposals

Grade	Trees before	Trees after	Trees lost	Percentage of grade lost	Percentage of grade retained
U	64	0	64	100	0
A	127	126	1	1	99
B	617	550	67	11	89
C	661	576	85	13	87

Table 2. Woodland retention and removal by area and percentage, after impacts by proposals

Total area of woodland on site (m^2)	Retained woodland area (m^2)	Retained woodland area (%)	Removed woodland area (m^2)	Removed woodland area (%)
567500	562887	99.2	4613	0.8

Note 1: Woodland clearance is associated with the principal vehicle access within WG7008 and WG7009, non-ancient woodland.

Table 3. Hedgerow retention and removal by length and percentage, after impacts by proposals

Total length of hedgerow on site (m)	Retained hedgerow length (m)	Retained hedgerow length (%)	Removed hedgerow length (m)	Removed hedgerow length (%)
164	164	100	0	0

2 Veteran tree identification

2.1 The appended RAVEN Recorder lists all trees considered by FLAC to be ancient or other veteran trees (AVTs). FLAC veteran trees confirmed by application of RAVEN (for Recognition of Ancient, Veteran & Notable Trees) is a systematized, transparent, repeatable, evidence-based methodology, and is based four-square on a) the governing criteria within the Annex 2 definition; and b) on the necessary presence (or absence) of specific habitat features on the trees concerned, the method is also appended. Annex 2 of the NPPF (Feb 2019) states

> *Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.*

2.2 All veteran trees are a) retained by proposals and b) afforded their 15 x stem diameter veteran tree buffers (VTBs) in accordance with Natural England's Standing Advice.

JFL 3

EXPLANATORY INFORMATION TO THE TREE SURVEY

FLAC

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 relevant FLAC dwg

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 (3000 series = AJC). Thus:

3000	Individual tree
TG3000	Tree group
WG3000	Woodland group
H3000	Domestic hedge
HR3000	Rural hedgerow

The addition of the FLAC instruction ref. ahead of the tree number provides a unique, non-repeated reference number for the particular tree 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*
Alder	Alnus glutinosa	Native	
Apple	Malus domestica	Native	
Ash	Fraxinus excelsior	Native	
Aspen	Populus tremula	Exotic	
Beech	Fagus sylvatica	Native	
Blackthorn	Prunus spinosa	Native	
Cherry laurel	Prunus laurocerasus	Exotic	
Cider gum	Eucalyptus gunnii	Exotic	
Coast redwood	Sequoia sempervirens	Exotic	
Common lime	Tilia x europaea	Native	
Copper beech	Fagus sylvatica 'Purpurea'	Native (cultivar)	
Corsican pine	Pinus maritima var. laricio	Exotic	
Downy birch	Betula pubescens	Native	
Elder	Sambucus nigra	Native	
Elm	Ulmus procera	Native	
European larch	Larix decidua	Native	
False acacia	Robinia pseudoacacia	Exotic	
Field maple	Acer campestre	Native	
Gean	Prunus avium	Native	
Goat willow	Salix caprea	Native	
Hawthorn	Crataegus monogyna	Native	
Hazel	Corylus avellana	Native	
Holly	Ilex aquifolium	Native	
Hornbeam	Carpinus betulus	Native	
Horse chestnut	Aesculus hippocastanum	Naturalised	
Japanese cherry	Prunus serrulata 'Kanzan'	Exotic	
Laburnum	Laburnum anagyroides	Exotic	
Lawson cypress	Chamaecyparis lawsoniana	Exotic	
Leyland cypress	x Cupressocyparis leylandii	Exotic	
Monterey cypress	Cupressus macrocarpa	Exotic	
Norway spruce	Picea abies	Exotic	
Pedunculate oak	Quercus robur	Native	

Plum	Prunus domestica	Native
Portuguese laurel	Prunus lusitanica	Exotic
Rhododendron	Rhododendron ponticum	Exotic
Rowan	Sorbus aucuparia	Native
Scots pine	Pinus sylvestris	Native
Silver birch	Betula pendula	Native
Smooth Japanese maple	Acer palmatum	Exotic
Sweet chestnut	Castanea sativa	Naturalised
Sycamore	Acer pseudoplatanus	Naturalised
Turkey oak	Quercus cerris	Exotic
Weeping willow	Salix x sepulcralis 'Chrysocoma'	Exotic
Western hemlock	Tsuga heterophylla	Exotic
Wych elm	Ulmus glabra	Native
Yew	Taxus baccata	Native

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 m²

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, based on 12x stem diameter (example for single stemmed trees), capped to 15m radial to stem centre

Note
Where trees are identified as being *notable* (i.e. very large trees that have yet to attain veteran status), FLAC removes the cap such that the RPA is simply 12x stem diameter

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:

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

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):
   Our 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

JFL 4

TREE SURVEY DATA,
INC. TREE RETENTION/ REMOVAL OUTCOMES

DOWNLANDS : TREE SURVEY DATA TABLE

Data for individual trees

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					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
				N	S	W	E				1 / mean	2	3	4	5									
3001		Ash	16	4	2	3	6	3 E	4	4	190	190	190	190		4.56	65	M	F	VETERAN TREE. Woodbank coppice stool dimensions 115 x 100cm. Typically decayed stool but satisfactory. Appears to be separate from immediately adjacent companion ash coppice to south although difficult to be certain but contrasting physiological condition tends to support this.	No action required at time of survey	40+	A3	RET
3002		Ash	13	1	2	2	3	2 E	3	5	180	180	180	180	180	4.83	73	M	P	Former woodbank coppice stool dimensions 120 x 110cm. Very little live material present crown largely dead. Appears to be separate from immediately adjacent companion ash coppice to south although difficult to be certain but contrasting physiological condition tends to support this. Apparently some public access in open space to east.	Remove stems to keep old stool on woodbank.	<10	U	U
3003		Ash	16	3	5	5	5	1 E	3	9	250					9.00	254	M	F	VETERAN TREE. Woodbank coppice stool dimensions 190 x 180cm. High standing, typically decayed stool with large opening to basal cavity to north but satisfactory. Small central stem dead but otherwise in satisfactory condition.	No action required at time of survey	40+	A3	RET
3004		Ash	15	5	1	4	6	3 E	3	13	160					6.93	151	M	F	VETERAN TREE. Woodbank coppice stool dimensions 155 x 115cm. Typically decayed stool with low basal cavity but satisfactory. Some internal dead wood but otherwise in satisfactory condition.	No action required at time of survey	40+	A3	RET
3005		Ash	15	6	4	5	8	3 E	3	13	200					8.66	235	M	F	VETERAN TREE. Woodbank coppice stool dimensions 170 x 100cm. High standing, Some basal decay of stool but satisfactory. Some internal dead wood but otherwise in satisfactory condition. Provisional onset of ash dieback. Not reflected in ret span assessment.	No action required at time of survey	40+	A3	RET
3006		Ash	17	4	2	1	5	3 E	3	6	180					5.30	88	M	F	VETERAN TREE. Woodbank coppice stool dimensions 145 x 105cm. High standing, significant basal decay of stool but satisfactory. Some internal dead wood including death of shaded small internal stems but otherwise in satisfactory condition.	No action required at time of survey	40+	A3	RET
3007		Gean	21	5	5	5	6	7 E	7	1	560					6.72	142	M	F	VETERAN TREE. Very stout upright stem. Bark loss of lower stem south. Dry habitat spaces on stem. Past major storm damage. Major dead wood. Major hollowing at stem wound ca. 7 metres. Onset of crown senescence seen as distal decline.	No action required at time of survey	40+	A3	RET
3008		Ash	22	7	3	9	4	10 N	10	3	510	350	290			8.20	211	M	P	Iron ore pit slope coppice stool dimensions 210 x 95cm. High standing, significant basal decay of stool but satisfactory. Three live stems a fourth dead. Advancing ash dieback seen as crown wide distal dieback, poor prospects. Low occupancy area.	No action required at time of survey	<10	U	U
3009		Ash	18	3	3	5	1	10 W	10	3	330	260	240			5.81	106	M	P	Iron ore pit slope coppice stool dimensions 130 x 90cm. Some internal basal decay of stool but satisfactory. Three live stems. Advanced ash dieback seen as crown wide severe dieback, poor prospects. Low occupancy area.	No action required at time of survey	<10	U	U
3010		Ash	18	4	3	7	4	5 W	7	3	300	260	260			5.70	102	M	F	Iron ore pit slope coppice stool dimensions 125 x 85cm. Severe basal decay. Shares companion crown shelter with specimens exhibiting ash dieback, possible onset of early crown symptoms.	No action required at time of survey	10+	B3	RET
3011		Pedunculate oak	20	13	11	10	13	3 S	1	1	1740					15.00	707	M	G	Notable specimen. Very large for the species stem diameter. Three principal scaffold members from 2.5 metres. Structurally and physiologically in good condition. Dry habitat spaces in old branch cones and small areas of branch decay. Infrequent medium sized dead wood scattered through crown.	No action required at time of survey	40+	A1*	RET
3012		Norway spruce	15	5	7	6	6	2 S	2	1	*600*					7.20	163	M	G	Off site tree. Remote inspection only. Typical form and structure for the species. No apparent significant defects observed.	No action required at time of survey	40+	B1	RET
3013		Horse chestnut	9	5	5	5	5	2 N	3	1	750					9.00	254	M	F	Off site tree. Remote inspection only. Typical form and structure for the species. Crown reduced, possibly in response to concerns or issues relating to bleeding canker. Young regrowth present. No apparent significant defects observed.	No action required at time of survey	20+	B1	RET
3014		Yew	13	10	10	10	10	2 N	1	1	1100					13.20	547	M	G	Off site tree. Remote inspection only. Typical form and structure for the species. No apparent significant defects observed.	No action required at time of survey	40+	A1	RET
3015		Weeping willow	10	5	5	5	5	2 N	2	1	600					7.20	163	M	G	Off site tree. Remote inspection only. Typical form and structure for the species. Crown reduction management evident. No apparent significant defects observed.	No action required at time of survey	40+	B1	RET
3016		Pedunculate oak	19	10	10	10	10	4 W	3	1	950					11.40	408	M	G	Dense vegetation impedes inspection and stem measurement. Good overall condition. Symmetrical crown form. Attractive specimen with good future potential.	No action required at time of survey	40+	A1	RET
3017		Silver birch	17	2	3	1	5	5 E	4	1	400					4.80	72	M	F	Off site tree. Remote inspection only. Typical form and structure for the species. Crown asymmetry after former companion shelter. No apparent significant defects observed.	No action required at time of survey	20+	B1	RET
3018		Silver birch	10	2	3	3	1	2 W	2	2	300	250				4.69	69	M	D	Assumed off site tree. Remote inspection only. Standing dead, fragile.	Fell.	<10	U	U
3019		Pedunculate oak	15	7	7	7	7	3 N	3	1	450					5.40	92	M	G	Off site tree. Remote inspection only. Stem and principal branch structure and unions in satisfactory condition. No apparent significant defects observed.	No action required at time of survey	40+	B1	RET
3020		Ash	13	3	3	3	3	5 N	5	1	300					3.60	41	EM	P	Off site tree. Remote inspection only. Advanced ash dieback symptoms seen as dieback throughout crown. Poor prospects.	Fell.	<10	U	U
3021		Pedunculate oak	18	10	16	13	11	2.5 S	2	1	1520					15.00	707	M	G	Notable specimen. Very large for the species stem diameter. Multi-tiered *Ganoderma australe* fruiting bracket at lower stem north. Three principal scaffold members from 3.5 metres and large low limb becoming two to south. Structurally and physiologically in good condition. Dry habitat spaces in old branch cones and small areas of branch decay. Infrequent medium sized dead wood scattered through crown. Past storm damage seen in upper east crown.	Remove dead wood with potential to affect highway to east.	40+	A1*	RET
3022		Pedunculate oak	17	9	10	10	9	3 W	1.5	1	700					8.40	222	M	G	Situated to east of boundary fence. Stem and principal branch structure and unions in satisfactory condition. Small dead wood scattered through crown. Good overall condition.	Remove dead wood with potential to affect highway to east.	40+	A1	RET
3023		Sycamore	15	5	5	2	7	2 E	3	2	480	360				7.20	163	M	F	Uncompleted windthrow to east. Supported by roots under high tension. Intervention advisable. Retention and grade based upon intervention required.	Reduce whole crown by 1/3 height and 1/3 spread to reduce lever arm forces and stabilize structure.	10+	C1	RET
3024		Field maple	16	2	6	6	6	2.5 S	2	1	980					11.76	434	M	G	Diameter measurement at 1 metre due to form. Three principal scaffold members from 1.5 metres. General crown bias to south due to woodland edge position. Good overall condition	No action required at time of survey	40+	A1	RET
3025		Sycamore	15	5	4	2	5	2 E	3	2	480	230				6.39	128	M	F	Uncompleted windthrow to east. Supported by roots under high tension. Intervention advisable. Retention and grade based upon intervention required.	Reduce whole crown by 1/3 height and 1/3 spread to reduce lever arm forces and stabilize structure.	10+	C1	RET

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					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
				N	S	W	E				1 / mean	2	3	4	5									
3026		Pedunculate oak	20	9	12	13	13	4 SE	4	1	1400					15.00	707	M	G	VETERAN TREE. Very stout upright stem. Major hollowing of stem near ground level north in presence of extinct bracket fungi, unidentified, possibly *Ganoderma* resinaceum. Further extinct fruiting bodies found on ground nearby. Past major storm damage. Major dead wood. Dry habitat spaces in stem and structure. Onset of crown senescence seen as distal decline.	No action required at time of survey	40+	A3	RET
7001		Pedunculate oak	16.2	6.4	4.7	5.8	5.5	1.7 - N	1	1	680					8.16	209	M	G	Ivy covered lower stem and crown. No observed dieback or disease and no sign of obvious decay. Well proportioned tree	No action required at time of survey	>40	A1	RET
7002		Pedunculate oak	13.8	6.2	7	6	4.2	2.5 - S	3.2	1	620					7.44	174	M	F	Somewhat thin crown compared to adjacent trees. Minor dieback in outer/upper crown. Major deadwood in central crown. Ivy covered lower stem. No stem decay evident	Stabilise deadwood	20+	B1	RET
7003		Pedunculate oak	16.5	6.5	7	6.5	7	2.7 - N	0.9	1	710					8.52	228	M	G	Ivy covered lower stem. Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	A1	RET
7004		Pedunculate oak	16	6	4.2	6.2	5.8	1.6 - N	0.7	1	720					8.64	234	M	G	Upright stem forms continuous crown with adjacent two trees. No apparent significant defect	No action required at time of survey	>40	A1	RET
7005		Pedunculate oak	16.4	4.5	4.5	6	6.2	2.2 - E	0.8	1	650					7.80	191	M	G	Upright stem forms continuous crown with adjacent two trees. No apparent significant defect	No action required at time of survey	>40	A1	RET
7006		Pedunculate oak	16.2	4.6	5.2	6.4	6.1	2.3 - S	1.7	1	680					8.16	209	M	G	Upright ivy covered stem forms continuous crown with adjacent two trees. No apparent significant defect	No action required at time of survey	>40	A1	RET
7007		Silver birch	13.8	4.6	4.5	4.8	4.5	2 - W	1.7	1	430					5.16	84	M	G	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
7008		Elm	15.2	3.2	3.4	3	3.4	1.9 - W	2.3	1	460					5.52	96	M	F	3rd party tree just beyond fence line. Minor dieback in lower drown. Congested central crown.	No action required at time of survey	10+	C1	RET
7009		Pedunculate oak	14.5	6.7	7	4.6	5	3.7 - N	1.8	1	630					7.56	179	M	F	Minor dieback in lower crown to N. Major deadwood in central crown. No significant decay evident	Stabilise deadwood	>40	B1	RET
7010		Pedunculate oak	16.4	6.8	6.3	6.5	5.2	2 - S	1.1	1	820					9.84	304	M	G	Upright stem with full healthy crown. Ivy covered lower stem and crown. Very small amount of apical dieback in N crown. No stem decay evident.	No action required at time of survey	>40	A1	RET
7011		Pedunculate oak	13.7	5.3	5.6	5.8	5.3	3.2 - S	1.8	1	620					7.44	174	M	G	Minor apical dieback in central upper branches of otherwise healthy and full crown. No sign of decay.	No action required at time of survey	>40	A1	RET
7012		Pedunculate oak	16.6	5.8	6.2	6.5	6	4.5 - W	0.4	1	660					7.92	197	M	G	Tree forms single crown with adjacent tree. Historic storm damage in W crown has left ragged stump. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	RET
7013		Pedunculate oak	17	7.2	6.5	7	7.2	1.8 - E	1.2	1	*650*					7.80	191	M	G	Tree forms single crown with adjacent tree. Minor dieback in W crown with medium dead wood. No sign of significant decay	No action required at time of survey	>40	A1	RET
7014		Pedunculate oak	15.2	5.8	5.3	6	6.2	5.2 - E	2.6	1	*640*					7.68	185	M	F	Single stem becomes twin leader from 7m with tight forks where stems meet. Dieback in upper crown with Major deadwood. Thin crown elsewhere. No stem decay apparent	Stabilise deadwood	20+	B1	RET
7015		Pedunculate oak	16.4	7.2	6.4	7.5	6.2	4.6 - W	0.8	1	*720*					8.64	234	M	G	Upright stem with full healthy crown. No apparent significant defect.	No action required at time of survey	>40	A1	RET
7016		Pedunculate oak	17.3	6.5	5.4	6	5	2.3 - W	3.3	1	640					7.68	185	M	F	Major deadwood in central and lower crown. Major hanging broken branch to S. No observed dieback or disease and no sign of obvious decay	Stabilise deadwood	>40	B1	RET
7017		Pedunculate oak	16.2	6.5	5	6.5	6.8	1.8 - W	0.3	1	640					7.68	185	M	G	Upright stem with full healthy crown. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay	Stabilise deadwood	>40	A1	RET
7018		Pedunculate oak	17	4.9	5.2	6.8	6.5	2.6 - W	2	1	610					7.32	168	M	F	Thinner foliage than adjacent trees, but no significant dieback. Major deadwood in central crown.	No action required at time of survey	20+	B1	RET
7019		Pedunculate oak	13.2	5.2	6.2	6	7	2.3 - W	0.4	1	570					6.84	147	M	F	Upright stem with full healthy crown. Medium dead wood in central crown. No apparent significant defect	No action required at time of survey	>40	B1	RET
7020		Pedunculate oak	16.3	5.8	6	6	5.5	0.4 - E	0.5	1	760					9.12	261	M	F	Upright stem with full healthy crown. Attractive parkland form	No action required at time of survey	>40	A1	RET
7021		Pedunculate oak	18.2	7	6.2	5	6.3	1.8 - E	1.6	1	830					9.96	311	M	G	Upright stem with full healthy crown. Ivy covered lower stem and crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	RET
7022		Pedunculate oak	17.5	5.4	6.8	3.8	7.8	2.4 - S	4.5	1	620					7.44	174	M	F	Somewhat suppressed/constrained crown. Minor dieback in upper crown.	No action required at time of survey	20+	B1	RET
7023		Pedunculate oak	18.4	6	7.5	8.2	3.6	2.4 - W	0.6	1	730					8.76	241	M	F	Ivy covered lower stem. Skewed crown due to adjacent trees. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	RET
7024		Pedunculate oak	13.6	2.8	3.7	4.2	3.2	2.3 - S	0.5	1	560					6.72	142	M	F	Somewhat suppressed crown. Dieback in upper central area with Major deadwood	No action required at time of survey	20+	B1	RET
7025		Pedunculate oak	12.5	4.5	4.8	5	6.2	2.7 - S	1.3	1	680					8.16	209	M	G	Upright stem with full healthy crown. Attractive parkland form	No action required at time of survey	>40	A1	RET
7026		Silver birch	7.5	2.5	0.8	1.6	2.3	1.6 - N	1.6	1	170					2.04	13	EM	F	Significantly angled stem towards NE. Crown suppressed and thin	No action required at time of survey	10+	C1	RET
7027		Pedunculate oak	16.2	6.2	6.2	6	0.6	1.5 - E	1.2	1	780					9.36	275	M	G	Upright stem with full healthy crown. Attractive parkland form	No action required at time of survey	>40	A1	RET
7028		Pedunculate oak	6.2	4.2	0.5	0.5	3.8	1.6 - W	0.8	1	270					3.24	33	EM	F	Suppressed/constrained crown with angled stem. No observed dieback or disease	No action required at time of survey	10+	C1	RET
7029		Pedunculate oak	14.5	5	5.3	4.3	4.8	2.3 - S	0.5	1	710					8.52	228	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	B1	RET
7030		Goat willow	9.5	3.3	3	2.5	3.4	0.5 - S	0.2	6	110					3.24	33	SM	F	Multiple stems from ground level. Constrained crown due to adjacent larger tree. No observed dieback or disease	No action required at time of survey	20+	C1	RET
7031		Pedunculate oak	13.8	4.2	4.5	5.6	5	2.1 - N	0.3	1	650					7.80	191	M	F	Ivy covered lower stem and crown. Significant dieback in N crown with Major deadwood. No stem decay evident	No action required at time of survey	20+	B1	RET
7032		Pedunculate oak	16.5	6.5	7	7.4	7.2	2.7 - W	1.2	1	690					8.28	215	M	G	Upright stem with full healthy crown. Attractive parkland form	No action required at time of survey	>40	A1	RET
7033		Pedunculate oak	16.2	6.2	7.1	6.6	7	2.4 - E	1.1	1	760					9.12	261	M	G	Upright stem with full healthy crown. low branches form a small thicket to S of tree. No apparent significant defect	No action required at time of survey	>40	A1	RET
7034		Pedunculate oak	16.9	6.8	7.3	6.5	7.5	1.1 - S	2.1	1	820					9.84	304	M	G	Upright stem with full healthy crown. Minor dieback in N crown. Major deadwood in central area	Stabilise deadwood	>40	A1	RET
7035		Pedunculate oak	15.8	5.6	6.7	7	5.5	2.6 - S	1.8	1	710					8.52	228	M	F	Crown thick and healthy but constrained to E by adjacent larger tree. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	RET
7036		Pedunculate oak	13.4	6.2	6	6.5	5.1	2.1 - W	1.3	1	660					7.92	197	M	F	Major deadwood in central area of otherwise healthy and thick rounded crown. No apparent significant defect	No action required at time of survey	>40	A1	RET
7037		Pedunculate oak	16.2	6.8	5.6	6.3	6	2.0 - N	1.4	1	650					7.80	191	M	F	Relatively thin crown compared to adjacent trees. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
7038		Pedunculate oak	13.2	4.2	5.2	5.6	4.6	2.1 - E	1.6	1	540					6.48	132	M	F	Angled stem towards SW. Crown constrained by adjacent tree. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
7039		Pedunculate oak	14.2	6.5	6.7	3.9	6.6	1.8 - W	1.1	1	570					6.84	147	M	F	Crown forms single canopy with adjacent tree to W. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	RET
7040		Pedunculate oak	14.6	6	6.4	6.7	4	1.7 - S	0.6	1	630					7.56	179	M	F	Crown forms single canopy with adjacent tree to E. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	RET

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					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
				N	S	W	E				1 / mean	2	3	4	5									
7041		Beech	10.2	5.6	6	6.5	7	2.4 - W	2.1	1	850					10.20	327	OM	F	VETERAN TREE - Main stem has extensive decay from base to top where historic storm damage has removed main leader above c.8.5m. Spreading crown below this us healthy throughout.	No action required at time of survey	20+	A3	RET
7042		Silver birch	12.1	3	3.9	3.2	2.6	1.1 - W	0.6	2	320	280				5.11	82	M	F	Twin stems from 1.6m with included unions where stems meet. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
7043		Sycamore	9.3	3	2.9	3	2.6	0.8 - N	1	2	200	180				3.23	33	SM	F	Twin stems from ground level with included unions where stems meet. Overgrown self set tree. No observed dieback or disease	No action required at time of survey	20+	C1	RET
7044		Sycamore	10.4	6.2	4.3	4.5	3.6	0.6 - W	1	12	170					7.07	157	SM	F	Multiple stems from ground level. Overgrown former hedgerow tree. No observed dieback or disease	No action required at time of survey	20+	C1	RET
7045		Sweet chestnut	10.2	1.5	6.8	6	2.8	3.1 - S	0.6	1	470					5.64	100	M	F	Constrained/suppressed crown with angled stem towards S. No observed dieback or disease	No action required at time of survey	20+	C1	RET
7046		Pedunculate oak	15.8	5.6	5	5	4.5	3.6 - E	4	1	480					5.76	104	M	F	High crown on woodland edge tree. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
7047		Corsican pine	21	5.5	4.5	5.5	5	4.5 - S	6	1	600					7.20	163	M	F	3rd party tree just beyond boundary fence. Crown has been raised in recent past. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
7048		Corsican pine	21	3.5	6	5.5	5.5	4 - S	5.5	1	560					6.72	142	M	F	3rd party tree just beyond boundary fence. Crown has been raised in recent past. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
7049		Field maple	14.2	5	2.2	4.3	5	2.4 - E	1.8	3	420	360	140			6.85	147	M	F	Multiple stems from ground level with tight forks where stems meet. Tree appears to be overgrown boundary tree growing from edge of ditch. Skewed crown due to proximity of woodland. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
7050		Goat willow	13	5.2	6	6.5	5	1.3 - S	2.1	5	530	480	320	260	180	10.14	323	M	F	Multiple ivy covered stems from 0.3m with included unions where stems meet. Decaying branch wounds on lower 2m of stems. No dieback in crown	No action required at time of survey	10+	C1	RET
7051		Pedunculate oak	14.6	4.2	6.5	4.5	4	2.3 - E	2.4	1	880					10.56	350	OM	P	Approximately 50-60% of crown is dead and skeletonised. Crown to S and E has thick healthy foliage. Extensive bark loss and associated stem decay on lower 3-4m of N of main trunk. Woodpecker/animal habitats within upper stem and dead major limbs.	Stabilise deadwood	20+	B3	RET
7052		Pedunculate oak	16.3	5.5	5.4	6.7	6.6	2.3 - W	3.3	1	600					7.20	163	M	F	3rd party tree at corner of property. Congested lower crown where pruning has initiated epicormic growth, but no dieback, disease or decay evident	No action required at time of survey	>40	B1	RET
7053		Pedunculate oak	16.3	8.2	9	7.6	7.5	2.2 - E	1.3	1	1210					14.52	662	M	G	Stout lower stem with significant burr growth. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay. Possible future veteran	No action required at time of survey	>40	A1	RET
7054		Coast redwood	27	6	6	5.5	6	4.5 - E	0.5	1	1750					15.00	707	M	G	Very large tree growing on slope of woodland hollow. Single stout low trunk becomes twin leaders from 3.2m with tight forks where stems meet. Historic storm damage on W most stem has left major tear wound. No dieback in foliage and no significant stem decay evident. Potential future veteran tree	No action required at time of survey	40	A1	RET
7055		Ash	18.5	5.5	6	5.5	5	7.5 - S	9.5	1	710					8.52	228	M	P	Very straight and tall stem makes tree distinctive from adjacent woodland. April 2023 walkover finds advancing dieback symptoms consistent with infection by Chalara ash dieback. The tree is not expected to survive for longer than 10 years based on the 'typical' rate of deterioration from this stage of infection.	Fell.	<10	U	U
7056		Copper beech	17.8	9.5	9	8	7.5	4 - S	0.5	1	910					10.92	374	M	G	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	A1	RET
7057		Goat willow	8.5	5.2	3.9	4	5.5	1.5 - E	0.6	1	620					7.44	174	M	F	Stout lower stem becomes multiple leader from 1.6m with included unions where stems meet. Large amount of broken/damaged limbs in upper crown. No observed dieback or disease	No action required at time of survey	20+	B1	RET
7058		Sweet chestnut	17.5	6	7.8	6.5	7	2.6 - N	0.5	1	1180					14.16	630	M	F	Upright stem leads to crown with beginning of stag-heading/retrenchment present. Major deadwood in lower reaches. No stem decay evident. Possible future veteran	No action required at time of survey	>40	A1	RET
7059		Sweet chestnut	18	7.5	7	7	8	1.5 - E	0.4	2	1030	610				14.37	648	M	G	Twin stems from ground level with tight forks where stems meet. Stems growing at angle towards SW. Full healthy crown with no dieback or decay evident	No action required at time of survey	>40	A1	RET
7060		Pedunculate oak	19.5	6.2	9	8.5	8	2.7 - S	1.1	1	840					10.08	319	M	G	Upright stem with full healthy crown. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	RET
7061		Ash	18.2	6.2	4	5.7	6.2	4.8 - N	1.3	1	780					9.36	275	M	G	Upright stem with full healthy crown. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	RET
7062		Ash	16.7	6.8	5.5	6.5	7.8	2.3 - W	1.7	1	600					7.20	163	OM	P	Significant decline in crown. Inonotus hispidus fungal fruiting bodies on main stem at 8-10m.	Fell to as low as reasonably practicable	<10	U	U
7063		Pedunculate oak	15.5	6	6.5	6.2	6.8	5.5 - W	3.2	1	680					8.16	209	M	G	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	A1	RET
7064		Ash	19.2	8.5	9.5	7	8.5	4.3 - S	4	1	840					10.08	319	M	G	Upright stem with spreading healthy crown. Bark loss at base to E with superficial decay.	No action required at time of survey	>40	A1	RET
7065		Turkey oak	26	5	7.5	7	9	4.2 - E	0.5	1	820					9.84	304	M	G	April 2023 walkover finds collapse of north-east stem, presumed to be the result of a combination of the poor mechanical union between the stems plus high winds during wet soil conditions. Exposed roots do not reveal extensive decay but some slight decay is found within the root/stem interface including of the remaining stem. Sudden exposure of the remaining stem, the crown of which is heavily asymmetrical, notionally increases the likelihood of further failure. Current occupancy within fall radius is low but this might potentially change with development, in which case intervention will be necessary.	No action required at time of survey. If occupancy is increased within fall radius intervention will be necessary either to reduce lever-arm forces sufficiently (i.e. 1/3 crown height and spread) as to stabilise/shorten fall radius or to fell the remaining stem.	10+	C1	RET
7066		Goat willow	11	6.2	6.5	6	5	0.8 - N	2	7	260					8.26	214	M	F	Multiple stems from ground level with included unions where stems meet. Multiple broken branches in central crown. No observed dieback or disease	No action required at time of survey	20+	C1	RET
7067		Pedunculate oak	24	8	4.5	6	12	1.8 - E	0.6	1	970					11.64	425	M	F	Trunk and leaders angled towards E. No root plate movement evident. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	RET
7068		Copper beech	23.5	9	8.5	9	11	2.9 - E	1.2	1	860					10.32	334	M	G	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	A1	RET
7069		Scots pine	23	6.5	9.5	8	6	8.5 - N	12	1	780					9.36	275	M	G	Upright stem becomes multiple leader from 8-10m. Major deadwood in central reaches. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	RET
7070		Pedunculate oak	21	8.5	6.5	13	10	5.8 - S	4.8	1	860					10.32	334	M	G	Upright stem with full healthy crown. Major deadwood in central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	REM
7071		Pedunculate oak	21.5	8	7.5	7	10	3.1 - N	1	1	890					10.68	358	M	G	Upright stem with full healthy crown. No apparent significant defect. Excellent specimen	No action required at time of survey	>40	A1	RET
7072		Pedunculate oak	19.5	13	12	13	11	3.6 - W	9.5	1	920					11.04	383	M	G	Ivy covered lower stem. Upright stem with widely spreading crown. Major deadwood in lower reaches. No observed dieback or disease and no sign of obvious decay	Stabilise deadwood	>40	A1	RET
7073		Pedunculate oak	23	9	10	12	11	2.5 - S	3.5	1	940					11.28	400	M	G	Upright stem with full healthy crown. No apparent significant defect. Excellent specimen	No action required at time of survey	>40	A1	RET
7074		Downy birch	23	7	6	8	8	2.4 - N	2.8	1	1010					12.12	461	M	G	Very large excellent specimen. No apparent significant defect	No action required at time of survey	>40	A1	RET
7075		Pedunculate oak	22	11	12	11	11	3.4 - W	3.5	1	1250					15.00	707	M	G	Upright stem with full healthy crown. Single stem becomes twin leader at 3-4m. No apparent significant defect. Excellent specimen	No action required at time of survey	>40	A1	RET

FLAC Ref. No.	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
7076		Pedunculate oak	21	10	9	8.5	11	2.3 - E	4.5	1	960					11.52	417	M	G	Upright stem leads to spreading crown. Major deadwood in lower crown. No stem decay or dieback in crown. Open cavity in major limb towards E. Possible future veteran	Stabilise deadwood	>40	A3	RET
7077		Pedunculate oak	19.5	7	6..5	8	5.5	4.8 - N	7.2	1	980					11.76	434	OM	F	Potential future veteran. Strip of bark loss from ground to top of crown with minor decay associated throughout length. Likely historic lightning strike damage. Major deadwood in lower reaches. No extensive basal decay and no fungal fruiting bodies found.	Stabilise deadwood	>40	A3	RET
8001		Beech	14.2	5.6	5.3	4.3	3.5	1.4 - S	1.6	2	520	320				7.33	169	M	F	Twin stems from ground level. Larger stem bifurcates at 6m with included unions where stems meet. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	REM
8002		Silver birch	14.8	2.3	3	3	3.2	2.2 - SE	2.6	1	310					3.72	43	M	F	Ivy covered lower stem . Constrained crown due adjacent trees. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	REM
8003		Beech	16.5	6.5	6.8	7.2	7	2 - NW	2.2	1	630					7.56	179	M	F	Major limb at 2.2m forms poor union with main stem. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	REM
8004		Sycamore	17.2	4.2	6.4	4.3	5	4.2 - S	5	1	520					6.24	122	M	P	Ivy covered lower stem and crown. Dieback through central upper crown. Major deadwood in upper crown. No sign of basal decay	Fell to as low as reasonably practicable	10+	C1	REM
8005		Holly	12.3	3.4	3.2	2	3.4	1.3 - SW	1	2	300	260				4.77	71	M	F	Twin stems from ground level with included unions where stems meet. Constrained crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	REM
8006		Yew	10.5	3.8	6.2	4.4	4	2.3 - SW	0.4	3	360	350	350			7.35	170	M	F	Multiple stems from 0.5m with included unions where stems meet. Skewed crown towards S. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	REM
8007		Yew	8.5	1.5	2	1.8	2.2	0.5 - N	0.3	1	190					2.28	16	EM	F	Ivy covered lower stem . Skewed and leaning crown towards S. No observed dieback or disease	No action required at time of survey	20+	C1	REM
8008		Elm	16	7.4	6	6.5	6	1.8 - S	2.1	3	370	340	320			7.15	161	M	F	Multiple stems from ground level with tight forks where stems meet. Ivy covered lower stem and crown. No sign of dieback or disease at present.	No action required at time of survey	20+	B1	REM
8009		Yew	7.8	2.2	3.3	3.4	3.4	1 - W	1.3	1	260					3.12	31	M	F	Single stem becomes multiple leader from 1.5m. Ivy covered lower stem and crown. No observed dieback or disease	No action required at time of survey	20+	B1	REM
8010		Sycamore	17	2	6.4	3.5	2.2	4.6 - E	4	2	720	680				11.89	444	M	F	Twin stems from ground level with included unions where stems meet. One stem has been reduced heavily down to 12m leaving only minor regrowth on stem. Remaining crown on larger stem is heavily skewed towards SW. No observed dieback or disease and no basal decay present.	No action required at time of survey	20+	C1	REM
8011		Yew	10.4	3	4	3.6	3	1.8 - S	1.3	2	250	220				4.00	50	M	F	Twin stems from ground level with included unions where stems meet. Stems angled towards SW, but no sign of root plate movement. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	REM
8012		Yew	9.5	0.5	3	2.4	1.4	0.8 - S	1.2	1	210					2.52	20	M	F	Heavily constrained crown on angled stem towards SW. No observed dieback or disease	No action required at time of survey	20+	C1	RET
8013		Sycamore	14.3	4.2	1.5	2.8	3.4	4.8 - N	5.5	1	330					3.96	49	M	F	Heavily constrained and skewed crown. Ivy covered lower stem and crown. No basal or stem decay evident.	No action required at time of survey	20+	C1	RET
8014		Sycamore	22	7.4	5.2	7	6.5	2 - S	5.4	1	780					9.36	275	M	F	Single stem bifurcates at 6.5m with tight forks where stems meet. No stem or basal decay evident. No sign of dieback or disease in central crown.	No action required at time of survey	20+	B1	RET
8015		Laburnum	4.8	3	2.5	3.1	2.6	1.8 - NW	1.9	8	150					5.10	82	M	F	Multiple stems from ground level with tight forks where stems meet. No apparent significant defect	No action required at time of survey	20+	C1	REM
8016		Laburnum	4.2	2.4	2.1	0.5	3	1.6 - S	1.5	2	130	110				2.05	13	M	F	Twin stems from ground level with tight forks where stems meet. Skewed and constrained crown. No observed dieback or disease	No action required at time of survey	20+	C1	REM
8017		Japanese cherry	9.5	2.8	2	2.2	2.5	1.7 - SE	2.3	1	240					2.88	26	M	F	Grafted stem from 1.3m. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	REM
8018		Apple	5.2	3.5	2.2	3.6	3.5	1.2 - W	1.5	1	260					3.12	31	M	F	Skewed crown towards N. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	RET
8019		Pedunculate oak	21	6.5	10	7.4	7	5.2 - S	5	1	770					9.24	268	M	G	Upright stem with full healthy crown. Moderate deadwood in upper crown. No apparent significant defect	Stabilise dead wood according to occupancy levels beneath the crown	>40	A1	RET
8020		Sycamore	16.5	5.2	2.5	5.3	6	4.3 - N	2.9	1	540					6.48	132	M	F	Single stem bifurcates at 1.8m with tight forks where stems meet. Skewed crown due to adjacent larger trees. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8021		Silver birch	10	3.5	1.5	1.2	3.2	1.9 - N	2.3	1	300					3.60	41	M	P	Ivy covered lower stem and crown. Heavily constrained and skewed crown. Little of foliage visible. No basal or stem decay evident	No action required at time of survey	10+	C1	RET
8022		Sycamore	18.5	7	6.5	6	5.5	2.4 - S	4.8	2	610	470				9.25	269	M	F	Twin stems from 1.3m with tight forks where stems meet. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8023		Sycamore	13.8	2.5	4.5	4	3.5	2.3 - E	3.2	1	270					3.24	33	M	F	Skewed and constrained crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	RET
8024		Silver birch	11	2.8	3	2.6	3.3	2.6 - N	0.2	1	230					2.76	24	M	F	Somewhat constrained crown, but no sign of dieback or disease	No action required at time of survey	20+	B1	RET
8025		Yew	7.2	4.2	3.5	3.1	3.6	1 - N	1	1	260					3.12	31	EM	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	B1	RET
8026		Cider gum	18.5	6.5	5	4.8	5.6	3.8 - E	12.5	1	580					6.96	152	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8027		Pedunculate oak	18	2.5	3	6	3.8	7.8 - E	9	1	300					3.60	41	M	F	Ivy covered lower stem and crown. High, but full crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8028		Ash	17.2	4.2	6	5.4	6.4	2.5 - S	3.2	6	460					13.53	575	M	F	Multiple stems from ground level with included unions where stems meet. Dieback in upper central crown showing signs of as dieback disease. No basal or stem decay evident	No action required at time of survey	10+	C1	RET
8029		False acacia	15	2.5	6.4	6	4.2	2.3 - NW	3.4	2	320	190				4.47	63	EM	F	Twin stems from 0.4m with included unions where stems meet. Further poor unions from 2.2m and partially failed/split limbs here also. Hanging broken branches in upper crown. No observed dieback or disease	Remove hanging broken branches and partially failed stems.	20+	C1	RET
8030		Beech	14.2	5.5	7	5.5	6.5	2.6 - S	2	1	380					4.56	65	M	F	Single stem bifurcates at 5.5m with included unions where stems meet. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8031		Scots pine	19	5.5	6.5	5.2	6	10.2 - W	13	1	810					9.72	297	M	F	Heavily kinked/contorted central stem. Major deadwood in upper crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8032		Scots pine	18.6	3.2	6.4	2	6	3.2 - W	8.5	1	630					7.56	179	M	F	Heavily constrained crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8033		Pedunculate oak	17	6.2	6.5	7	4.8	3.9 - N	4.2	1	560					6.72	142	M	F	Upright stem with full healthy crown. Moderate deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	RET
8034		Pedunculate oak	9.8	2.4	4.2	3.2	4.6	2.3 - S	2	2	360	220				5.07	81	M	F	Twin stems from ground level. Third stem has been historically lost with decaying stump remaining between stems. No observed dieback or disease	No action required at time of survey	20+	B1	RET
8035		Ash	12.8	2.9	3.4	3.4	3.6	4.6 - SE	4	1	330					3.96	49	EM	F	Ash dieback through lower crown. No basal or stem decay apparent	No action required at time of survey	10+	C1	RET

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					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
				N	S	W	E				1 / mean	2	3	4	5									
8036		Pedunculate oak	20	9.6	10	5.5	11.3	2.6 - SE	2.1	1	1420					15.00	707	M	G	VETERAN. Major limb failure in lower crown has left very large decaying branch stub with woodpecker holes. Further bark loss of limbs in upper crown. Major deadwood in upper crown. No sign of basal or lower stem decay	Stabilise dead wood according to occupancy levels beneath the crown	>40	A1	RET
8037		Sycamore	18.2	8.8	7.2	7.5	4.2	2.6 - S	3.3	2	780	290				9.99	313	M	F	Main stem with overgrown basal shoot. Constrained crown due to adjacent trees. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8038		Monterey pine	25.4	10.4	13	9.4	9.5	9.8 - S	12.5	1	1540					15.00	707	M	G	Notable tree - Very large stem leading to spreading crown. Relatively recent major limb failures have left major branch stubs/wounds in upper crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A1	RET
8039		Beech	14.8	6.5	3.5	5.8	4	2.3 - NW	1.8	3	1130	190	120			13.83	601	OM	P	VETERAN relic tree. Major and widespread stem decay from 0-5m where stem has failed historically. Ganoderma sp. Fruiting body at base to S and E. Single major limb present. Overgrown basal shoots form secondary stems.	No action required at time of survey	20+	B3	RET
8040		Pedunculate oak	22	5.6	7	5.5	7.4	6.2 - N	7	1	520					6.24	122	M	F	Upright stem leads to high crown. Major deadwood in central crown. No basal or stem decay	Stabilise dead wood according to occupancy levels beneath the crown	>40	B1	RET
8041		Sycamore	18.5	3.2	6.4	4.5	6	3.5 - SW	2.5	2	530	270				7.14	160	M	P	Twin stems from ground level with decaying remnants of at least one further stem between them. Main stem has extensive internal hollowing with open cavities on N and S face.	Fell to as low as reasonably practicable	>10	U	U
8042		Pedunculate oak	12.5	3	4.1	4.5	3.6	1.8 - SW	2.2	1	690					8.28	215	M	F	Historic stem failure at c.11m has left decaying stub. Remaining foliage appears healthy throughout. Major deadwood in upper crown. No basal or stem decay evident.	Stabilise dead wood according to occupancy levels beneath the crown	20+	B3	RET
8043		Silver birch	14.2	5.6	6	6.8	6.7	3.4 - NE	1.9	1	570					6.84	147	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8044		Yew	12.2	3.4	3.8	3.8	4.2	1.8 - W	1.6	1	460					5.52	96	M	F	Single stem bifurcates at 6m with included unions where stems meet. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	REM
8045		Pedunculate oak	18.5	7.2	8	7.8	6.5	1.9 - W	2.6	1	1200					14.40	651	M	G	Notable tree - Stout lower stem leads to spreading crown from 2.5m. Major limbs in lower crown have decaying columns on upper surfaces with saprophytic fruiting body present hear also. Major deadwood in central crown. No sign of stem or basal decay	Stabilise dead wood according to occupancy levels beneath the crown	>40	A3	RET
8046		Pedunculate oak	19	8	7.5	9.2	7.6	1.8 - SW	2.4	1	990					11.88	443	M	G	Stout lower stem leads to spreading crown. Major deadwood in upper crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown	>40	A1	RET
8047		Beech	17.8	6.5	6	5.8	6.5	5.4 -NE	6	1	680					8.16	209	M	F	Decaying branch wounds on lower stem. Branch failure in central crown has left decaying stub. Major deadwood in upper crown. No basal or stem decay evident	Stabilise dead wood according to occupancy levels beneath the crown	20+	B1	RET
8048		Pedunculate oak	19.2	8.2	7	8.3	6.9	4.4 - SW	3.2	1	910					10.92	374	M	G	Upright stem with full healthy crown. Major deadwood in upper crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown	>40	A1	RET
8049		Pedunculate oak	19	6.5	9	6.8	8	2.1 - E	1.6	1	800					9.60	289	M	G	Upright stem with full healthy crown. Major deadwood in upper crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown	>40	A1	RET
8050		Pedunculate oak	17.8	8.8	6.5	7.2	5.8	2.3 - N	1.5	1	620					7.44	174	M	F	Ivy covered lower stem and crown. Skewed crown due to position on edge of woodland. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	B1	RET
8051		Ash	18.5	7	8.4	6.2	5	4.7 - NE	3	1	640					7.68	185	M	F	Very start of ash dieback through upper central crown. Major deadwood in lower crown. No basal or stem decay evident.	No action required at time of survey	20+	B1	RET
8052		Pedunculate oak	17.4	6.8	7.4	6.8	7	1.9 - SW	4.2	2	480	400				7.50	177	M	F	Twin stems from 1m with included unions where stems meet. No observed dieback or disease and no sign of obvious decay.	No action required at time of survey	>40	B1	RET
8053		Ash	16.4	4.8	5.4	6.3	3.2	2.8 - NE	1.9	3	380	190	130			5.34	90	M	F	Multiple stems from ground level with tight forks where stems meet. Dieback evident in lower crown. No basal or stem decay	No action required at time of survey	10+	C1	RET
8054		Scots pine	17.5	1.9	2.5	2.8	2.1	14.2 - W	14	1	340					4.08	52	M	F	High crown on tall, slender tree. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	RET
8055		Elm	9.5	2.3	2.8	2.8	2.5	1.9 - W	2.2	1	220					2.64	22	EM	F	Somewhat constrained crown, but No apparent significant defect	No action required at time of survey	20+	C1	RET
8056		Scots pine	16.2	1.8	19	1	2.2	6.8 - E	7	1	230					2.76	24	M	F	Heavily constrained crown with evidence of historic limb failures in upper crown	No action required at time of survey	10+	C1	RET
8057		Scots pine	17.4	2.8	3.4	2.8	3.5	9.8 - S	9.5	1	300					3.60	41	M	F	Column of decay from 0-2.5m on main stem. No dieback in crown.	No action required at time of survey	10+	C1	RET
8058		Scots pine	18.5	4.2	4	3.8	4.5	12.2 - S	13.5	1	460					5.52	96	M	F	Slightly inclined stem towards NE, but no sign of root plate movement. Moderate deadwood in upper crown. No observed dieback or disease	No action required at time of survey	20+	B1	RET
8059		Elm	18.5	3.3	3.8	3.5	4	4.5 - SE	3.2	2	380	340				6.12	118	M	F	Twin stems from ground level with included unions where stems meet. Stems inclined and contorted around each other towards NE. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	RET
8060		Scots pine	14	0.5	1	0.8	1	12 - N	12	1	260					3.12	31	M	D	Standing dead tree	Fell to as low as reasonably practicable	<10	U	U
8061		Silver birch	15	3	3.4	2.9	3	4.8 - N	6.7	1	270					3.24	33	M	F	Single stem becomes twin leader from 6-7m. No apparent significant defect	No action required at time of survey	20+	B1	RET
8062		Sweet chestnut	15.6	31	4	3.2	3.4	2.6 - S	1.5	1	330					3.96	49	M	F	Skewed and contorted crown due to adjacent trees. No apparent significant defect	No action required at time of survey	20+	C1	RET
8063		Ash	17.5	2.8	3.8	4	3.5	7.5 - N	13.5	2	330	280				5.20	85	M	P	Twin stems from ground level with decaying stool present between. Advanced dieback through crown.	Fell to as low as reasonably practicable	<10	U	U
8064		Ash	18.8	5.4	4.5	3.8	4	12.5 - E	14	1	400					4.80	72	M	P	Significant dieback/decline through upper crown. No basal or stem decay evident	No action required at time of survey	10+	C1	RET
8065		Elm	19	4	3.8	4	4.2	4.8 - N	3.8	1	360					4.32	59	M	F	Upright stem with full healthy crown No apparent significant defect. No sign of DED.	No action required at time of survey	20+	B1	RET
8066		Elm	8	3.2	3.8	3.5	4	5 - SE	4.4	1	340					4.08	52	M	F	Upright stem with full healthy crown No apparent significant defect. No sign of DED.	No action required at time of survey	20+	B1	RET
8067		Ash	18.5	5	4.8	4.2	6.2	6.2 - E	5.8	3	480	400	250			8.08	205	M	F	Overgrown coppice stool, with tight forks where stems meet. Dieback/decline beginning to take hold in upper central crown. No basal or stem decay.	No action required at time of survey	10+	C1	RET
8068		Elm	19.4	3.5	6.2	6.5	6.8	2.7 - E	2.4	3	440	410	330			8.24	213	M	F	Multiple stems from ground level from overgrown stool. Decaying stump present beside other stems. Contorted/twisted stems leading to full healthy crown.	No action required at time of survey	20+	B1	RET
8069		Silver birch	17.1	3.2	4.3	2.4	4	1.9 - S	3.2	3	430	160	75			5.58	98	M	F	Secondary stems are overgrown basal shoots. Skewed crown due to adjacent trees, but no sign of dieback or decline	No action required at time of survey	20+	B1	RET
8070		Elm	15.9	6.2	3.5	4	3.8	1 - W	2.3	3	310	220	110			4.75	71	M	F	Multiple stems from 0.8m with included unions where stems meet. Skewed, but healthy crown. No sign of DED.	No action required at time of survey	20+	C1	RET
8071		Silver birch	18.2	3	3	2.5	3.2	9.9 - N	10	1	260					3.12	31	M	F	Upright stem leads to high, slender crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8072		Ash	18.5	4.2	4	3.5	4.8	1.8 - S	6.5	4	360	340	330	140		7.34	169	M	P	Multiple stems from ground level with tight forks where stems meet. Widespread decline due to ash dieback through crown. No basal or stem decay evident.	Fell to as low as reasonably practicable	<10	U	U
8073		Ash	18.3	5.1	3.8	4.2	4	6.4 - NE	7.2	1	370					4.44	62	M	P	Widespread dieback throughout crown. No basal or stem decay evident.	Fell to as low as reasonably practicable	<10	U	U
8074		Silver birch	17	3	3.2	2.8	4	11.2 - S	13	1	260					3.12	31	M	F	Upright stem leads to full, but high crown. No apparent significant defect	No action required at time of survey	20+	B1	RET

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					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
				N	S	W	E				1 / mean	2	3	4	5									
8075		Ash	15.8	4.3	4.5	4.3	5.3	5 - NE	7.2	1	360					4.32	59	M	F	Upright stem with full high crown. Ash dieback starting to affect upper crown, but not significantly at present. No basal or stem decay evident	No action required at time of survey	10+	C1	RET
8076		Pedunculate oak	15.4	3.9	5.3	4.2	5.2	2.5 - N	2.6	1	430					5.16	84	M	G	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	B1	RET
8077		Scots pine	18.5	5	3.9	4.4	5.8	9.5 - E	13	1	500					6.00	113	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8078		Scots pine	16.2	4	3.9	2.6	3.4	11 - S	10.6	1	410					4.92	76	M	F	Somewhat constrained crown, but no sign of dieback or decline	No action required at time of survey	20+	B1	RET
8079		Pedunculate oak	14.8	3.8	4.9	3.2	4.6	4.8 - E	4.6	1	340					4.08	52	M	F	Constrained crown, but healthy throughout. No apparent significant defect	No action required at time of survey	>40	B1	RET
8080		Pedunculate oak	13.2	4.3	5.2	2.1	3.2	3.6 - E	4.2	1	340					4.08	52	M	F	Constrained crown, but healthy throughout. No apparent significant defect	No action required at time of survey	>40	B1	RET
8081		Yew	14	3.9	4.6	5.3	5	2.3 - SW	1.6	2	400	390				6.71	141	M	G	Twin stems from 1.2m with tight forks where stems meet. Full healthy, well rounded crown. No apparent significant defect	No action required at time of survey	>40	A1	RET
8082		Sycamore	17.2	4.6	5.8	5.4	5.5	2.2 - N	2.8	2	540	520				9.00	254	M	F	Twin stems from ground level with included unions where stems meet. Historic branch failure has left decaying wound with woodpecker holes at c. 12m in central crown. No basal or lower stem decay apparent	No action required at time of survey	20+	B1	RET
8083		Pedunculate oak	12.8	3.8	0.9	2	1.2	9.2 - NW	10	1	1100					13.20	547	OM	D	Standing dead tree	Reduce to 8m high pole	<10	U	U
8084		Silver birch	16.3	4.2	4	4.2	4.5	4.3 - SW	4.2	1	370					4.44	62	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8085		Silver birch	11.5	3.8	3	2.8	2.2	2 - E	1.8	2	200	85				2.61	21	EM	F	Twin stems from ground level with tight forks where stems meet. No apparent significant defect	No action required at time of survey	20+	C1	RET
8086		Holly	9	3.6	4.9	3.8	4.3	1.7 - SE	1.4	8	170					5.77	105	M	F	Multiple stems from ground level with tight forks where stems meet. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8087		Holly	6.2	2.9	3.6	3	3.6	2.3 - W	1.1	2	270	120				3.55	40	M	F	Twin stems from ground level with included unions where stems meet. Pocket of decay relating to historic branch failure on lower stem. No observed dieback or disease	No action required at time of survey	20+	B1	RET
8088		Holly	8.8	2.6	3	3.2	2.4	1.9 - NW	1.8	1	260					3.12	31	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8089		Sycamore	11	1.5	3.4	3.2	3	2.1 - NE	4.5	3	220	220	190			4.38	60	M	P	Multiple stems from ground level originating from edge of heavily decayed stump. Smallest stem is dead, and another shows significant dieback.	Fell to as low as reasonably practicable	<10	U	U
8090		Silver birch	13.2	3.2	3.4	4	3.6	2.4 - E	4.1	2	230	110				3.06	29	EM	F	Twin stems from ground level with tight forks where stems meet. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	RET
8091		Holly	5.8	3.5	3.2	3	3.2	1.4 - S	1	2	310	200				4.43	62	M	F	Twin stems from ground level with included unions where stems meet. Large decaying branch wound at 1.8m to N. No observed dieback or disease	No action required at time of survey	20+	C1	RET
8092		Sycamore	7.5	3.4	3.2	2.5	3	1.9 - NW	1.8	11	100					3.98	50	M	P	Multiple stems growing from heavily decayed stump. Minor dieback in N most stems.	No action required at time of survey	<10	U	U
8093		Sycamore	5.5	2	1.8	2.4	1.2	1.9 - NE	1.7	1	140					1.68	9	SM	F	Skewed crown, but no dieback or decline	No action required at time of survey	20+	C1	RET
8094		Holly	7.2	2	2.3	2.1	2.3	0.5 - SW	0.8	1	220					2.64	22	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8095		Pedunculate oak	2.8	2	1.8	1.8	2	1.4 - E	1.5	1	110					1.32	5	SM	G	Ornamental, planted tree. No apparent significant defect	No action required at time of survey	>40	C1	RET
8096		Sycamore	9	2.5	2	2	2.5	1.4 - S	1.5	3	130	120	90			2.39	18	SM	F	Multiple stems from ground level with tight forks where stems meet. No observed dieback or disease	No action required at time of survey	20+	C1	RET
8097		Sycamore	7.5	1	2	2.5	2	0.5 - S	0.4	3	170	75	75			2.41	18	SM	F	Decline in crown of largest stem. Pocket of decay at base.	No action required at time of survey	10+	C1	RET
8098		Silver birch	15	3	3.5	4	4.5	1.5 - S	1	1	290					3.48	38	EM	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8099		Elm	14	1	4.5	3.5	1.5	2.5 - S	4	1	250					3.00	28	EM	F	Skewed crown, but no sign of decline, disease of decay	No action required at time of survey	20+	B1	RET
8100		Elm	16	2	3.5	4	3.5	3.5 - N	4.5	1	240					2.88	26	M	F	Skewed crown, but no sign of decline, disease of decay	No action required at time of survey	20+	B1	RET
8101		Scots pine	18	3.5	3.5	3	3.5	11.5 - E	12	1	380					4.56	65	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8102		Scots pine	18	4.5	3	3	3	9.5 -S	13	1	410					4.92	76	M	F	Slightly inclined stem towards N, but no sign of recent root plate movement. Major deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8103		Scots pine	17	3.5	3.5	3.5	2.5	11 - SW	11	1	390					4.68	69	M	F	Upright stem with full healthy crown. Major deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET
8104		Sycamore	12.5	4	5	4	3	3 - W	7.5	9	190					6.84	147	EM	F	Multiple stems from ground level with tight forks where stems meet. Squirrel damage in upper stems has left dead/dying material.	No action required at time of survey	20+	C1	RET
8105		Scots pine	14	0.5	4.5	3	4	8 - SE	10.5	1	310					3.72	43	M	F	Heavily skewed crown on kinked upper stem, possibly due to historic leader failure. No basal or stem decay.	No action required at time of survey	20+	C1	RET
8106		Scots pine	15.5	2	4.5	4.5	2.5	10 - NW	12	1	380					4.56	65	M	F	Historic stem failure at 9m has left decaying stub and meant side branches have becoming codominant leaders. No observed dieback or disease and no basal decay apparent.	No action required at time of survey	20+	C1	RET
8107		Scots pine	11	1.5	4	2.5	3	6.5 - SW	7.5	1	230					2.76	24	EM	F	Contorted/spiralling upper half of stem, related to historic stem failure at 6m. Minor decay present at failure point.	No action required at time of survey	20+	C1	RET
8108		Scots pine	18.5	4	3.5	3.5	3.5	10.5 - N	12	1	430					5.16	84	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1	RET
8109		Scots pine	14	1	2.5	3	1	8 - W	10	1	240					2.88	26	EM	F	Heavily skewed/constrained crown due to adjacent trees. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	RET
8110		Yew	6	3	2.5	3	2.5	1 - S	0.4	1	180					2.16	15	EM	G	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	>40	B1	RET
8111		Ash	14	2.5	3	3	2	2.2 - N	10.5	1	200					2.40	18	EM	P	Ash dieback apparent in crown, but fully crown wide yet.	No action required at time of survey	<10	U	U
8112		Elm	10	1	3	2.5	2	2.8 - SE	3.5	1	180					2.16	15	EM	F	Constrained by healthy crown. No observed dieback or disease	No action required at time of survey	20+	C1	RET
8113		Ash	15	3.5	3	5.5	5.5	8.5 - N	12.5	1	300					3.60	41	EM	P	Advanced widespread dieback through crown, likely ash dieback disease.	Fell to as low as reasonably practicable	<10	U	U
8114		Elm	13	4	1.5	3.5	3	4 - N	4.5	1	220					2.64	22	EM	F	Constrained by healthy crown. No observed dieback or disease	No action required at time of survey	20+	C1	RET
8115		Ash	15.5	4.5	5.5	3.5	3.5	3 - SE	4	1	350					4.20	55	M	P	Major decline through crown due to ash dieback disease. No basal or stem decay apparent.	Fell to as low as reasonably practicable	<10	U	U
8116		Pedunculate oak	13	4.5	3.5	6	2	1.6 - W	0.6	1	290					3.48	38	EM	F	Slightly constrained crown, but no dieback or decline present.	No action required at time of survey	20+	B1	RET
8117		Ash	10	1	1	1	1	3.9 - E	4.5	1	150					1.80	10	SM	P	Advanced decline through crown.	Fell to as low as reasonably practicable	<10	U	U
8118		Scots pine	17	3	2.5	3.5	2.5	9 - W	10	1	380					4.56	65	M	F	Very slight incline towards N, but no sign of dieback or disease.	No action required at time of survey	20+	B1	RET
8119		Goat willow	16.5	3.5	2.5	3	2	5.5 - N	7	6	160					4.71	70	EM	F	Multiple stems from ground level with included unions where stems meet. Partial stem failure between two stems near base. No observed dieback or disease	No action required at time of survey	20+	C1	RET

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					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
				N	S	W	E				1 / mean	2	3	4	5									
8120		Scots pine	18	5	4	5.5	4.5	11 - SW	12	1	470					5.64	100	M	F	Very slight incline towards N, but no sign of dieback or disease.	No action required at time of survey	20+	B1	RET
8121		Ash	16.5	3	3	4	3	5.5 - SW	6.5	1	240					2.88	26	EM	P	Significant and widespread decline present throughout crown due to ash dieback disease.	Fell to as low as reasonably practicable	<10	U	U
8122		Elm	14	2	3	3	4	6 - W	7	1	300					3.60	41	EM	P	Dieback in E upper crown. Remaining foliage is healthy. No basal or stem decay apparent.	Stabilise dead wood according to occupancy levels beneath the crown	10+	C1	RET
8123		Ash	17	6	4.5	4	4	7 - N	9	1	370					4.44	62	M	P	Contorted stem leads to crown with extensive decline due to ash dieback disease. Small open pocket of decay at base to N.	Fell to as low as reasonably practicable	<10	U	U
8124		Ash	18.5	5	5.5	3	6	2.8 - SW	13	1	460					5.52	96	M	P	Advanced decline throughout crown. Small area of basal decay to NW.	Fell to as low as reasonably practicable	<10	U	U
8125		Elm	14	3.5	3	4.5	3	2.9 - E	3.5	3	220	150	75			3.32	35	EM	F	Multiple stems from ground level with tight forks where stems meet. No observed dieback or disease	No action required at time of survey	10+	C1	RET
8126		Sycamore	15	3	4	2	0	5 NW	6	1	190					2.28	16	EM	F	Scrubby specimen. Asymmetrical form. Low arboricultural merit.	No action required at time of survey	20+	C1	RET
8127		Sycamore	13	2	5	5	1	4 W	4	5	150	130	130	100	90	3.28	34	EM	F	Multi-stemmed from ground level. Asymmetrical form. Low arboricultural merit.	No action required at time of survey	20+	C1	RET
8128		Scots pine	17	2	4	2	1	10 SW	9	1	380					4.56	65	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8129		Scots pine	15	1	3	3	3	8 SW	8	1	380					4.56	65	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8130		Sweet chestnut	8	2	4	2	2	1 N	2	1	130					1.56	8	SM	F	Slender tree developing stem lean and crown asymmetry. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8131		Sycamore	10	0	4	2	5	2.5 E	3	1	160					1.92	12	EM	F	Scrubby specimen. Asymmetrical form. Low arboricultural merit.	No action required at time of survey	20+	C1	RET
8132		Scots pine	17	2	2	4	2	8 W	8	1	410					4.92	76	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8133		Scots pine	17	2	4	4	2	9 N	9	1	430					5.16	84	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8134		Scots pine	15	0	2	0	2	8 S	8	1	280					3.36	35	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Heavy crown asymmetry after companion shelter.	No action required at time of survey	40+	C1	RET
8135		Sycamore	12	2	4	5	3	2.5 W	3	2	210	140				3.03	29	EM	F	Basal decay below twin stems. Asymmetrical crown form. Low arboricultural merit.	No action required at time of survey	10+	C1	REM
8136		Scots pine	15	1	2	3	1	9 S	8	1	260					3.12	31	EM	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Heavy crown asymmetry after companion shelter.	No action required at time of survey	40+	C1	REM
8137		Sycamore	13	5	4	5	6	3 E	3	2	230	210				3.74	44	EM	F	Twin-stemmed with decay at canker wound of lower west stem. Squirrel damage through crown. Low arboricultural merit.	No action required at time of survey	10+	C1	REM
8138		Ash	17	7	3	5	6	6 NE	7	1	440					5.28	88	M	P	Crown displays thinning of distal branch structure and dieback. Probable honey fungus infection and potentially also ash dieback infection.	No action required at time of survey	10+	C1	REM
8139		Scots pine	15	1	1	2	1	12 W	12	1	260					3.12	31	EM	F	Very slender stem. Small asymmetrical crown. Low arboricultural.	No action required at time of survey	40+	C1	RET
8140		Scots pine	15	1	1	4	0	11 W	11	1	260					3.12	31	EM	F	Very slender stem. Small asymmetrical crown. Low arboricultural.	No action required at time of survey	40+	C1	RET
8141		Scots pine	17	1	3	1	2	10 S	10	1	340					4.08	52	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8142		Wych elm	15	5	5	6	4	4 W	4	3	210	100	100			3.04	29	EM	F	Multi-stemmed with additional basal shoots. Crown asymmetry after companion shelter. Generally suppressed.	No action required at time of survey	40+	C1	RET
8143		Scots pine	17	2	1	4	1	13 W	12	1	420					5.04	80	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8144		Scots pine	17	3	2	2	0	12 NW	12	1	390					4.68	69	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8145		Sycamore	10	3	2	4	0	4 W	4	1	120					1.44	7	SM	F	Very slender stem. Small asymmetrical crown. Low arboricultural.	No action required at time of survey	20+	C1	RET
8146		Ash	17	4	0	2	1	12 N	12	1	260					3.12	31	EM	P	Slender stem and heavily asymmetrical crown. Crown appears thin, possibly due to onset of ash dieback.	No action required at time of survey	10+	C1	RET
8147		Wych elm	16	5	5	5	7	5 E	4	2	230	160				3.37	36	EM	F	Twin-stemmed from ground level. Slender branch structure. Satisfactory overall condition.	No action required at time of survey	40+	B1	RET
8148		Sycamore	15	2	3	3	4	4 W	5	1	210					2.52	20	EM	F	Omitted from topo. Scrubby specimen with squirrel damage.	No action required at time of survey	10+	C1	RET
8149		Sycamore	17	3	0	6	0	7 NW	7	2	250	210				3.92	48	EM	F	Twin-stemmed from ground. Heavily asymmetrical crown form. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8150		Ash	14	1	1	1	1	4 E	5	1	210					2.52	20	EM	D	Dead.	No action required at time of survey	<10	U	U
8151		Sycamore	16	2	3	3	3	4 E	4	1	260					3.12	31	EM	F	Slender upright stem. Branch failures following squirrel damage. Low arboricultural merit.	No action required at time of survey	10+	C1	RET
8152		Sycamore	16	3	2	3	4	7 W	7	3	250	180	170			4.23	56	EM	F	Multi-stemmed. Branch failures following squirrel damage. Low arboricultural merit.	No action required at time of survey	10+	C1	RET
8153		Scots pine	17	2	2	2	1	9 W	8	1	360					4.32	59	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8154		Wych elm	13	6	4	4	4	4 S	2	1	200					2.40	18	EM	F	Suppressed with associated asymmetrical crown form. Satisfactory overall condition but a tree if low significance.	No action required at time of survey	40+	C1	RET
8155		Goat willow	12	6	6	7	0	1 S	1	3	180	120	90			2.82	25	EM	F	Multi-stemmed with south stem collapsed after lower stem decay remaining stems likely to follow suit.	No action required at time of survey	10+	C1	RET
8156		Goat willow	12	2	3	0	9	2 E	2	1	300					3.60	41	M	F	Recent windthrow arrested by adjacent tree to east due to basal decay.	No action required at time of survey	<10	U	U
8157		Ash	17	3	1	4	3	6 W	7	1	350					4.20	55	M	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8158		Ash	17	1	3	3	4	8 W	8	1	400					4.80	72	M	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8159		Hornbeam	15	4	7	5	6	2 S	1.5	2	310	100				3.91	48	M	F	Swept stem, some crown asymmetry after companion shelter. Satisfactory overall condition.	No action required at time of survey	40+	B1	RET
8160		Goat willow	10	3	1	2	1	4 N	4	2	170	110				2.43	19	SM	D	Basal decay. Appears dead.	No action required at time of survey	<10	U	U
8161		Ash	17	2	2	2	1	8 S	8	1	270					3.24	33	EM	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8162		Wych elm	12	2	3	3	1	3 N	4	1	190					2.28	16	SM	F	Slender stem. Some crown asymmetry after companion shelter. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8163		Wych elm	11	0	4	0	5	2.5 E	3	2	130	130				2.21	15	SM	F	Twin-stemmed from ground level. Heavily asymmetrical crown form. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8164		Wych elm	12	2	4	1	4	4 E	4	2	130	130				2.21	15	SM	F	Twin-stemmed from 1.3 metres. Heavily asymmetrical crown form. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8165		Wych elm	11	0	4	0	6	5 E	5	1	130					1.56	8	SM	F	Slender stem. Heavy crown asymmetry after companion shelter. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8166		Goat willow	15	2	4	2	4	2 S	4	1	340					4.08	52	M	F	Lower stem becomes four slender scaffold limbs from 2.5 metres, the northernmost has fractured. Scrubby overall condition, further failures likely.	No action required at time of survey	20+	C1	RET
8167		Goat willow	13	3	6	3	5	3 S	4	1	270					3.24	33	M	F	Basal decay. Swept stem with asymmetrical crown form. Low arboricultural merit.	No action required at time of survey	10+	C1	RET
8168		Pedunculate oak	19	4	4	4	3	8 S	8	1	400					4.80	72	M	G	Upright stem with good taper. Good overall condition.	No action required at time of survey	40+	B1	RET
8169		Yew	7	3	3	3	3	1 W	0.5	1	145					1.74	10	SM	F	Small tree with thin foliage density. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8170		Goat willow	15	4	3	4	3	5 E	5	1	270					3.24	33	M	F	Upright stem. Debilitating squirrel damage in upper crown, failures likely.	No action required at time of survey	20+	C1	RET
8171		Hazel	7	3	1	3	2	2 W	2	7	80					2.54	20	SM	F	Scrubby, multi-stemmed , typical form. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8172		Ash	17	2	4	4	2	5 W	5	1	300					3.60	41	M	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U

FLAC Ref. No.	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
8173		Ash	18	1	4	2	3	11 E	11	1	310					3.72	43	M	F	Slender, upright stem. Satisfactory overall condition.	No action required at time of survey	40+	B1	RET
8174		Ash	19	4	2	4	2	11 NW	11	1	340					4.08	52	M	P	Slender, upright stem. Distal branch thinning, suspect onset of ash dieback infection.	No action required at time of survey	10+	C1	RET
8175		Ash	16	2	3	5	2	6 W	8	1	270					3.24	33	EM	P	Slender, upright stem. Distal branch thinning, suspect onset of ash dieback infection.	No action required at time of survey	10+	C1	RET
8176		Ash	18	2	4	5	7	6 N	6	3	410	130				5.17	84	M	P	Principal stem plus a secondary stem at west, a second small stem to west has died, the sunken bark indicates ash dieback infection, Wider crown thinning evident. Not expected to survive for the long-term.	No action required at time of survey	10+	C1	REM
8177		Wych elm	11	5	3	5	4	4 N	5	1	170					2.04	13	SM	F	Slender, upright stem. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	B1	RET
8178		Yew	9	4	4	4	4	1 S	1	1	230					2.76	24	EM	F	Stem and crown structure in satisfactory condition.	No action required at time of survey	40+	B1	RET
8179		Hornbeam	14	6	6	6	6	2.5 SW	2	1	250					3.00	28	EM	G	Stem and principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8180		Scots pine	28	1	2	2	2	14 S	14	1	380					4.56	65	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8181		Scots pine	18	2	3	2	2	13 S	13	1	420					5.04	80	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8182		Scots pine	18	5	2	5	2	7 W	7	1	460					5.52	96	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter. Crown is a component of woodland edge canopy.	No action required at time of survey	40+	B1	RET
8183		Ash	17	4	3	3	2	7 NE	8	1	270					3.24	33	EM	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8184		Scots pine	18	4	1	4	1	8 W	8	1	450					5.40	92	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter. Crown is a component of woodland edge canopy.	No action required at time of survey	40+	B1	RET
8185		Scots pine	18	3	2	4	3	6 W	5	1	470					5.64	100	M	F	Upright stem with medium density ivy to 6 metres. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter. Crown is a component of woodland edge canopy.	No action required at time of survey	40+	B1	RET
8186		Pedunculate oak	10	4	7	6	0	1.2 W	1	2	340	280				5.29	88	EM	F	Twin-stemmed from ground level with a poor quality bark-included union. Heavily asymmetrical crown due to woodland edge position. Structurally compromised, exacerbated by form.	No action required at time of survey	20+	B1	RET
8187		Ash	15	6	6	4	3	2 NW	2	1	340					4.08	52	M	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8188		Ash	17	4	3	3	1	10 N	10	1	270					3.24	33	M	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8189		Ash	15	7	0	6	1	7 N	5	1	360					4.32	59	M	F	Stem lean and crown bias to north due to woodland edge position. Ivy into crown. Satisfactory overall condition.	No action required at time of survey	40+	B1	RET
8190		Ash	14	3	2	4	4	5 S	5	1	220					2.64	22	EM	F	Slender stem. Asymmetrical crown form after companion. Low arboricultural merit.	No action required at time of survey	40+	C1	RET
8191		Holly	6	2	2	2	2	2 S	1.5	1	115					1.38	6	SM	F	Slender, upright stem. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8192		Ash	17	2	3	3	1	12 W	12	1	300					3.60	41	EM	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8193		Pedunculate oak	7	2	2	1	4	2 E	2	1	130					1.56	8	SM	F	Slender stem with asymmetrical crown after light competition. Low arboricultural merit.	No action required at time of survey	40+	C1	REM
8194		Wych elm	11	4	3	4	4	2.5 W	3	4	170	80	70	70		2.55	20	EM	F	Multi-stemmed. Slender stems and crown structure. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	B1	REM
8195		Ash	16	3	3	3	3	11 N	11	1	260					3.12	31	EM	P	Slender, upright stem. Distal branch thinning, suspect onset of ash dieback infection.	No action required at time of survey	10+	C1	REM
8196		Wych elm	14	2	5	5	1	5 S	6	1	210					2.52	20	EM	F	Slender stem with asymmetrical crown after light competition. Tree of relatively low significance.	No action required at time of survey	40+	B1	REM
8197		Downy birch	16	3	3	4	2	9 E	8	1	390					4.68	69	M	F	Upright stem. Squirrel damage at base of central leader pre-disposes its failure. Remainder of structure appears satisfactory.	No action required at time of survey	20+	B1	REM
8198		Yew	7	3	2	3	3	1 E	1	1	110					1.32	5	SM	F	Slender, upright stem. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	REM
8199		Wych elm	12	2	5	1	2	4 S	5	1	160					1.92	12	SM	F	Slender stem. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	REM
8200		Wych elm	10	2	5	2	3	3.5 S	2	2	150	100				2.17	15	SM	F	Slender stems. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	REM
8201		Pedunculate oak	11	3	3	4	2	6 NW	6	1	190					2.28	16	SM	F	Slender stem. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	B1	REM
8202		Goat willow	15	1	7	5	6	6 W	6	1	310					3.72	43	M	F	Stem incline and crown bias to south. Sub-optimal condition of northern of two scaffold limbs at 7 metres. Failures are likely. Low arboricultural merit.	No action required at time of survey	20+	C1	REM
8203		Ash	11	1	1	0	2	4 SE	4	2	130					1.56	8	SM	P	Crown displays advanced decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8204		Ash	14	3	4	1	5	3.5 N	4	1	250					3.00	28	EM	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8205		Wych elm	10	5	6	1	6	1 E	3	2	180	170				2.98	28	SM	F	Slender stems. Heavy crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8206		Wych elm	13	4	3	2	5	3.5 E	4	1	180					2.16	15	SM	F	Slender stem. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8207		Ash	17	1	3	4	3	7 S	8	2	350	140				4.53	64	M	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8208		Wych elm	10	2	4	2	3	2.5 E	5	1	190					2.28	16	SM	F	Slender stem. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8209		Ash	15	1	3	1	3	6 S	8	1	260					3.12	31	EM	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8210		Ash	17	3	2	3	3	12 S	12	1	290					3.48	38	EM	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8211		Downy birch	13	3	3	3	5	5 S	4	1	270					3.24	33	M	F	Upright stem. Some crown asymmetry after companion shelter. Satisfactory overall condition.	No action required at time of survey	20+	B1	RET
8212		Ash	15	0	3	4	1	8 W	8	1	280					3.36	35	EM	F	Slender, upright stem. Distal branch thinning, suspect onset of ash dieback infection.	No action required at time of survey	10+	C1	RET
8213		Ash	17	4	3	3	3	11 W	11	1	360					4.32	59	EM	F	Upright stem. Principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8214		Pedunculate oak	11	0	2	3	1	6 S	6	2	150	80				2.04	13	SM	F	Slender stems. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8215		Ash	16	3	3	3	1	11 W	11	2	290	70				3.58	40	EM	F	Slender, upright stem. Distal branch thinning, suspect onset of ash dieback infection.	No action required at time of survey	10+	C1	RET
8216		Wych elm	15	5	5	7	3	7 W	5	1	290					3.48	38	M	F	Slight stem incline to west. Crown asymmetry after companion shelter. Satisfactory overall condition.	No action required at time of survey	40+	B1	RET
8217		Ash	16	2	1	1	1	7 N	7	1	270					3.24	33	EM	P	Crown displays advanced decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8218		Gean	10	3	3	1	5	2.5 E	2	1	140					1.68	9	SM	F	Upright stem. Some crown asymmetry after companion shelter. Satisfactory overall condition.	No action required at time of survey	40+	C1	RET
8219		Ash	18	3	3	2	2	11 S	11	1	310					3.72	43	EM	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8220		Wych elm	13	3	5	5	4	2 E	2	3	240	200	120			4.02	51	EM	F	Slender stems. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	B1	RET
8221		Wych elm	11	9	0	5	3	3.5 N	4	1	220					2.64	22	EM	F	Slender stem with increasing sweep to north. Some crown asymmetry after companion shelter. Squirrel damage within branch structure. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					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
				N	S	W	E				1 / mean	2	3	4	5									
8222		Ash	17	4	4	3	4	8 E	8	1	370					4.44	62	M	P	Crown displays advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U
8223		Downy birch	16	4	4	4	4	4 E	4	1	320					3.84	46	M	F	Stem and principal branch structure and unions in satisfactory condition.	No action required at time of survey	20+	B1	RET
8224		Goat willow	14	4	4	4	4	5 NW	5	1	350					4.20	55	M	G	Slight lower stem incline to north-west. Principal branch structure and unions in satisfactory condition.	No action required at time of survey	20+	B1	RET
8225		Wych elm	11	4	0	3	1	4 W	4	1	130					1.56	8	SM	F	Slender stem. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8226		Wych elm	14	2	4	4	4	3 S	4	1	210					2.52	20	EM	F	Slender stem. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8227		Pedunculate oak	6	3	3	3	3	1 SE	1.5	1	130					1.56	8	SM	F	Slender stem. Some crown asymmetry after companion shelter. Satisfactory overall condition. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8228		Ash	18	5	5	5	5	6 S	6	1	450					5.40	92	M	F	Stem and principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8229		Ash	16	4	4	5	5	5 E	5	1	380					4.56	65	M	F	Stem and principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8230		Scots pine	17	4	1	2	3	10 N	9	1	370					4.44	62	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8231		Scots pine	17	2	4	3	4	8 S	7	1	470					5.64	100	M	F	Upright stem. Scattered lower crown dead wood. Bare lower stem. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8232		Pedunculate oak	11	3	5	4	5	3 NE	3	1	290					3.48	38	EM	F	Stem and principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8233		Pedunculate oak	16	3	6	5	5	3 S	4	1	380					4.56	65	EM	G	Stem and principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8234		Pedunculate oak	7	3	4	3	4	1 S	1	1	170					2.04	13	SM	G	Stem and principal branch structure and unions in satisfactory condition. Tree of relatively low significance.	No action required at time of survey	40+	B1	RET
8235		Beech	15	3	4	3	5	1.7 E	1	1	260					3.12	31	EM	F	Slender, drawn-up stem. Principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	REM
8236		Sycamore	15	1	2	1	5	3 E	3	1	190					2.28	16	EM	F	Slender, drawn-up stem. Basal decay. Secondary stem has rotted away leaving only a small low branch. Heavily asymmetrical crown form. Low arboricultural merit.	No action required at time of survey	20+	C1	RET
8237		Solver birch	17	2	2	2	3	6 N	6	1	320					3.84	46	M	F	Drawn-up form after companion shelter. Principal branch structure and unions in satisfactory condition.	No action required at time of survey	20+	B1	RET
8238		Sycamore	15	3	5	5	3	4 S	3	2	220	210				3.65	42	EM	F	Twin-stemmed from ground level. Asymmetrical crown form after companion shelter. Low arboricultural merit.	No action required at time of survey	20+	C1	RET
8239		Sycamore	7	1	3	0	4	1 E	1	3	80	70	60			1.47	7	SM	F	Scrubby, suppressed, multi-stemmed and asymmetrical.	No action required at time of survey	20+	C1	RET
8240		Silver birch	7	1	3	0	5	2 S	3	1	130					1.56	8	SM	F	Suppressed specimen. Stem lean and crown bias to east. Low arboricultural merit.	No action required at time of survey	20+	C1	REM
8241		Silver birch	9	1	3	1	4	2.5 E	2	2	160					1.92	12	SM	F	Suppressed with asymmetrical crown form. Sapling adjacent included. Low arboricultural merit.	No action required at time of survey	20+	C1	REM
8242		Silver birch	8	3	4	0	4	2 N	2	3	170	100	100			2.66	22	SM	F	Suppressed with asymmetrical crown form. Small, twin-stemmed specimen adjacent included. Low arboricultural merit.	No action required at time of survey	20+	C1	REM
8243		Silver birch	10	0	1	2	2	6 S	5	3	130	60				1.72	9	SM	F	Suppressed specimen. Stem lean and crown bias to south-east. Low arboricultural merit.	No action required at time of survey	20+	C1	REM
8244		Sycamore	8	3	3	1	2	3 E	3	4	90	80	70	40		1.74	10	SM	F	Multi-stemmed. Basal decay. Dead wood including smaller stems. Suppressed. Low arboricultural merit.	No action required at time of survey	10+	C1	REM
8245		Sycamore	9	3	2	2	3	1.2 E	1	2	145	125				2.30	17	SM	F	Twin-stemmed from ground level, rooting over rick face. Slender stems. Some crown asymmetry after companion shelter. Tree of relatively low significance.	No action required at time of survey	20+	C1	REM
8246		Sycamore	7	5	3	2	3	1 E	1	7	100					3.18	32	SM	F	Multi-stemmed. Squirrel damage. Asymmetrical. Low arboricultural merit.	No action required at time of survey	20+	C1	RET
8247		Silver birch	10	2	3	1	3.5	1.5 E	0.5	1	210					2.52	20	EM	G	Slight stem incline to east. Crown bias to east. Some surface rooting over rocks. Principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8248		Holly	8	3	3	3	3	2 W	1	2	220	150				3.20	32	EM	F	Twin-stemmed. Stems and principal branch structure and unions in satisfactory condition.	No action required at time of survey	40+	B1	RET
8249		Holly	6	2	3	2	3	2 E	1	2	*190*	190				3.23	33	EM	F	Twin-stemmed. Stems and principal branch structure and unions in satisfactory condition. General crown bias to east.	No action required at time of survey	40+	B1	RET
8250		Holly	5	2	2	1	3	1 S	1	2	*145*	85				2.02	13	SM	F	Compact, twin-stemmed specimen on edge of rock face. Tree of relatively low significance.	No action required at time of survey	40+	C1	RET
8251		Holly	7	4	3	2	3	2 S	1.5	5	*190*	120	120	100	80	3.43	37	SM	P	Decline of former central stem. Crown dieback. Suspected *Armillaria* damage.	No action required at time of survey	<10	U	U
8252		Silver birch	10	1	3	3	1	2.5 W	2.5	1	220					2.64	22	EM	F	Slight damage to bark of root buttresses at east, no significant decay found. Stem lean and crown bias to south-west. Tree of relatively low significance.	No action required at time of survey	20+	C1	RET
8253		Pedunculate oak	8	2	3	1	3	2 S	2	2	140	120				2.22	15	SM	F	Twin-stemmed with relatively poor bark-included union. Asymmetrical crown form. Low arboricultural merit.	No action required at time of survey	20+	C1	RET
8254		Pedunculate oak	9	1	5	3	5	2 E	2	1	260					3.12	31	EM	G	Stem and principal branch structure and unions in satisfactory condition. Asymmetrical crown form. Satisfactory overall condition.	No action required at time of survey	40+	B1	RET
8255		Pedunculate oak	8	2	2	1	3	2.5 NE	2	1	180					2.16	15	SM	G	Slender stem with small, asymmetrical crown.	No action required at time of survey	40+	C1	RET
8256		Smooth Japanese maple	4	3	2	3	2	1 N	1	1	130					1.56	8	EM	F	Slender stem becomes co-dominant from 1.4 metres, diameter measurement just below. Suppressed crown. Low arboricultural merit	No action required at time of survey	20+	C1	RET
8257		Holly	8	3	4	3	4	2 E	1	1	250					3.00	28	EM	G	Stem and principal branch structure and unions in satisfactory condition. Some crown asymmetry after companion shelter.	No action required at time of survey	40+	B1	RET
8258		Sycamore	17	7	5	5	5	2.5 NW	4	1	770					9.24	268	M	F	Significant basal and lower stem decay, likely *Armillaria* in butt-rot mode. Lower stem residual wall fracture evident under loading. Collapse likely. Whilst slightly weighted away from highway, cannot rule out collapse into highway in high winds.	Fell.	<10	U	U

Data for trees assessed as groups (TG)

FLAC Ref. No.	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		Scots pine x4, pedunculate oak x4, Lawson cypress x12, beech x2, goat willow x1	23	18	8	2 S	2	700	8.40	222	M	G	Off site tree group. Remote inspection only. Dense vegetation impedes inspection. Good overall condition. No apparent significant defects observed. Domestic hedgerow of mixed species beneath trees along stem line.	No action required at time of survey	40+	A2	RET	23	100.0
TG3002		Pedunculate oak x4, silver birch x3,	7	18	8	2 E	2	500	6.00	113	M	G	Off site tree group. Remote inspection only. West side of ditch and stock fence. Dispersed holly and hazel understorey. Satisfactory overall condition.	No action required at time of survey	40+	B2	RET	7	100.0
TG3003		Holly x7, yew x2, rowan x1,	10	9	3	2 S	2	380	4.56	65	EM	G	Assumed to be off site. Dispersed linear tree group along north of driveway. Satisfactory overall condition. Rowan at east end appears to be the poorest.	No action required at time of survey	40+	B2	RET	10	100.0
TG3004		Pedunculate oak	4	12	7.5	1 S	1	450	5.40	92	EM	G	Close-set cluster share companion shelter and common crown profile. Central tree suppressed. General crown bias to south. Structurally and physiologically satisfactory.	No action required at time of survey	40+	B2	RET	4	100.0
TG3005		Pedunculate oak	5	12	8	1 E	1	540	6.48	132	EM	G	Close-set cluster share companion shelter and common crown profile. Scattered internal dead wood. Structurally and physiologically satisfactory.	No action required at time of survey	40+	B2	RET	5	100.0
TG3006		Ash	2	20	10	4 S	3	800	9.60	289	M	F	Off site tree group. Remote inspection only. Multi-stemmed pair. Possibly early stage onset ash dieback, not certain. Currently satisfactory both structurally and physiologically.	No action required at time of survey	20+	B2	RET	2	100.0
TG3007		Pedunculate oak x1, hawthorn x1, holly x1	3	10	5	3 S	3	300	3.60	41	EM	F	Off site tree group. Remote inspection only. Dispersed specimens at gate to west and to east beyond east ash. Scrubby but satisfactory.	No action required at time of survey	40+	B2	RET	3	100.0
TG3008		Pedunculate oak	3	14	8	1.5 S	3	700	8.40	222	EM	G	Ownership uncertain, assumed off site. Specimens share companion shelter and common crown profile. Stems and principal branch structure and unions in satisfactory condition. Dense understorey of hazel with hawthorn and holly beneath crown profile.	No action required at time of survey	40+	B2	RET	3	100.0
TG3009		Pedunculate oak	2	19	10	4 N	2	1000	12.00	452	M	G	Close-set pair share companion shelter and common crown profile. Shallow ditch to south. Principal branch structure and unions in satisfactory condition. Dominant above woodland group.	No action required at time of survey	40+	A2	RET	2	100.0
TG3010		Pedunculate oak x23, beech x2, ash x1	26	18	9	3 W	2	650	7.80	191	M	G	Linear tree group of mostly close-set specimens sharing companion shelter and common crown profile. Hazel and holly understorey. Scattered small dead wood. Good overall condition.	No action required at time of survey	40+	B2	RET	26	100.0
TG3011		Ash	2	20	8	4 N	1	857	10.29	332	M	F	Off site tree group. Remote inspection only. Pair of multi-stemmed specimens. East tree largest and dominant over west tree. No apparent significant defects observed.	No action required at time of survey	40+	B2	RET	2	100.0
TG3012		Sycamore	4	14	3	3 W	3	350	4.20	55	EM	F	Located outside boundary fence, assumed off site. Former companion near centre collapsed into field. Some past topping evident, probably associated with power line clearance works.. Tree group of relatively low arboricultural merit.	No action required at time of survey	10+	C2	RET	4	100.0
TG3013		Ash	30	15	5	3 E	3	580	6.96	152	EM	F	Veteran ash coppice stools dispersed along top of woodbank feature. Generally homogenous form and condition with basal decay of stools and slender stems but with some individuals exhibiting physiological impairment. Mean age of individually assessed coppiced stools applied.	No action required at time of survey	>40	A3	RET	30	100.0
TG7001		Goat willow x5, sycamore x7	12	14	4	0.5 - N	0.5	370	4.44	62	M	F	Cluster of multiple stem trees with several poor unions near base of trunks. Ivy covers majority of stems. No observed dieback or disease	No action required at time of survey	20+	B2	RET	12	100.0
TG7002		Pedunculate oak	3	6.5	3.2	1.3 - E	0.6	250	3.00	28	EM	F	Row of relatively young trees on well maintained/mowed area just within site boundary. No apparent significant defect	No action required at time of survey	20+	B2	RET	3	100.0
TG7003		Copper beech, sycamore	3	4.5	2.2	1.7 - W	1.7	140	1.68	9	SM	F	Row of well maintained ornamental trees. No apparent significant defect	No action required at time of survey	20+	C2	RET	3	100.0
TG7004		Goat willow, silver birch	8	3.5	2.5	0.2 - N	0	80	0.96	3	SM	F	Cluster of scrubby trees growing at edge of canopy line of larger tree. No apparent significant defect	No action required at time of survey	20+	C2	RET	8	100.0
TG7005		Goat willow, silver birch	50	8	2.5	0.5 - W	0	220	2.64	120	SM	F	Dense cluster of trees separate from adjacent woodland. Thicket-like feature. No observed dieback or disease	No action required at time of survey	20+	C2	RET	50	100.0
TG7006		Goat willow, silver birch, pedunculate oak	25	9	4	1.1 - S	1	220	2.64	22	EM	F	Strip of younger trees in row between more nature specimens. Small amount of dieback in occasional silver birch. No other dieback or decay evident	No action required at time of survey	20+	B2	RET	25	100.0
TG7007		Pedunculate oak x3, sycamore x1	4	8.5	3.5	0.6 - W	0.8	190	2.28	16	EM	F	Row of scrubby boundary trees. No apparent significant defect	No action required at time of survey	20+	C2	RET	4	100.0
TG7008		Silver birch	5	12	3	1.2 - W	0.6	180	2.16	15	EM	F	Dense cluster of trees at boundary. No observed dieback or disease	No action required at time of survey	20+	C2	RET	5	100.0
TG7009		Ash	2	13	4.5	2.2 - E	3.2	220	2.64	22	EM	F	Pair of multiple stem trees along boundary beside footpath entrance. Ivy covered lower stems. No observed dieback or disease	No action required at time of survey	20+	C2	RET	2	100.0
TG7010		Hornbeam, sweet chestnut, silver birch, pedunculate oak, aspen, goat willow	35	11	3.5	0.5 - E	0.1	260	3.12	31	EM	F	Row of trees along footpath edge, with extended self set regeneration advancing into space towards S. No observed dieback or disease	No action required at time of survey	20+	B2	RET	35	100.0
TG7011		Pedunculate oak	3	19	6.5	1.5 - S	1.5	650	7.80	191	M	G	Small amount of large mature trees separated from adjacent woodland by footpath. Major deadwood in all trees, but no sign of dieback, disease or decay	No action required at time of survey	>40	A2	RET	3	100.0
TG7012		Goat willow	10	7.5	3	0.4 - E	0.5	100	1.20	5	SM	F	Small thicket of multiple stem trees. No observed dieback or disease	No action required at time of survey	20+	C2	RET	10	100.0
TG7013		Sycamore, goat willow, Leyland cypress, yew	50	12	3.5	0.5 - N	0	320	3.84	46	M	F	Visual barrier on 3rd party land. Many multiple stem trees in feature and good mix of species along length. No systemic issues observed	No action required at time of survey	20+	B3	RET	50	100.0
TG7014		Pedunculate oak x5, ash x1	6	17	6	2 - N	1.2	550	6.60	137	M	F	Short row of trees on 3rd party land just beyond boundary. No apparent significant defect	No action required at time of survey	>40	B2	RET	6	100.0
TG7015		Elder, sycamore, goat willow	25	4.5	2.5	0.5 - E	0	160	1.92	12	EM	F	Cluster of scrubby trees in loose group. No apparent significant defect	No action required at time of survey	20+	C2	REM	0	0.0
TG7016		Sycamore, goat willow, ash, hazel	40	10	3.5	1 - S	0.5	330	3.96	49	EM	F	Cluster of trees, mainly scrubby in nature, with dense nettle/bramble growth underneath. Majority of trees have multiple stems with poor unions. Trees appear to be natural regeneration over rough ground composed of rubble and building waste. Several willows appear to be failing/have subsiding stems. No observed dieback or disease	No action required at time of survey	20+	C2	PRET	30	75.0
TG7017		Pedunculate oak	5	4.5	2.5	0.5 - E	0.2	130	1.56	8	SM	F	Loose cluster of scrubby trees within grass area. No apparent significant defects	No action required at time of survey	20+	C2	RET	5	100.0
TG7018		Ash, sycamore, common lime	20	10.5	3.5	1.2 - W	1.5	250	3.00	28	EM	F	Row of multiple stem trees along edge of driveway. Several show signs of subsiding limbs/stems and majority are ivy dominated. No observed dieback or disease	No action required at time of survey	20+	C2	RET	20	100.0
TG7019		Elder, hawthorn, gean, cherry laurel, pedunculate oak	15	4.5	2.2	0.1 - S	0	140	1.68	9	M	F	Scrubby, overgrown former hedgerow trees. Dense ruderal growth around base of trees. No observed dieback or disease	No action required at time of survey	20+	C2	RET	15	100.0
TG7020		Hawthorn, elm, gean, ash, blackthorn, pedunculate oak	50	6.5	3	0.1 - E	0	180	2.16	15	M	F	Heavily overgrown hedgerow has become tree group in its own right. Occasional poor condition ash in group due to ash dieback, but rest of group is healthy and thick with foliage	No action required at time of survey	20+	B2	PRET	30	60.0
TG7021		Goat willow, pedunculate oak, sycamore, blackthorn,	50	7	3	0.2 - W	0	200	2.40	18	EM	F	Dense thicket-like feature. Multiple stem trees throughout. No observed dieback or disease	No action required at time of survey	20+	C2	RET	50	100.0

FLAC Ref. No.	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 %
TG7022		Blackthorn, gean, apple, plum, ash, sycamore, goat willow	60	7.5	3	0.5 - E	0.5	200	2.40	18	M	F	Thicket-like group appears to be former orchard, but no recent management evident, although trees appear in fair condition throughout.	No action required at time of survey	20+	B3	RET	60	100.0
TG7023		Goat willow, silver birch	15	10	4.5	0.8 - E	1.5	230	2.76	24	M	F	Row of multiple stem trees along old path/track. All have subsiding/failing stems and/or limbs. No dieback evident in group	No action required at time of survey	20+	C2	RET	15	100.0
TG7024		Pedunculate oak, alder, goat willow	35	9	3.5	0.5 - N	0.4	350	4.20	55	EM	G	Area of relatively young planted trees beside much more mature woodland group. No apparent significant defect	No action required at time of survey	>40	B2	REM	0	0.0
TG7025		Common lime	8	25	6	2.5 - S	3	950	11.40	408	M	G	Short row of very large trees which align with track/ride, giving impression of part of old avenue. Extensive basal/epicormic shoot growth inhibits inspection of main trunk and central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	>40	A2	RET	8	100.0
TG8001		Sycamore	4	18.5	6	6.8 - E	8	580	6.96	152	M	F	Row of trees parallel to road edge. Ivy on all stems. Occasional moderate deadwood. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown	20+	B1	RET	4	100.0
TG8002		Lawson cypress	2	9	2.5	0.3 - E	0.1	250	3.00	28	EM	F	Pair of trees with heavily constrained crowns, with only significant foliage towards N and NW. No observed dieback or disease	No action required at time of survey	20+	C2	RET	2	100.0
TG8003		Sycamore	7	17.5	4	2.8 - S	3	440	5.28	88	M	F	Cluster of multiple stem trees on top of ridge. Tight forks and included unions in all trees. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C2	RET	7	100.0
TG8004		Silver birch, pedunculate oak, goat willow, sycamore	10	16	4	2.2 - N	2.5	320	3.84	46	EM	F	Relatively sparse cluster of trees with garden area distinct from adjacent woodland. No observed dieback or disease and no sign of obvious decay in any trees.	No action required at time of survey	20+	B2	RET	10	100.0
TG8005		Holly, sycamore	15	12	3	1.8 - E	0.4	240	2.88	26	EM	F	Dense cluster of trees on sloped ground. Majority have multiple stems from near ground level. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B2	RET	15	100.0
TG8006		Sycamore, ash, silver birch	25	14.5	3.5	1.4 - S	2.5	350	4.20	55	M	F	Dense area of trees forming boundary feature at top of and on slope. Majority have multiple stems from ground level. Ash trees are starting to show decline due to ash dieback. No other systemic issues observed.	No action required at time of survey	20+	B2	RET	25	100.0
TG8007		Portuguese laurel, yew, sycamore	60	8	3	0.1 - S	0	180	2.16	15	M	F	Dense thicket of laurel with sporadic yew and young sycamore. No systemic issues observed	No action required at time of survey	20+	C2	PRET	52	86.7
TG8008		Scots pine	10	17	3	9 - W	10.5	350	4.20	55	M	F	Cluster on relatively densely planted trees. High crowns on all. No apparent significant defect	No action required at time of survey	20+	C2	PRET	3	30.0
TG8009		Scots pine	6	17	2.5	12 - E	14	260	3.12	31	M	F	Rough row of trees, all with slender crowns and relatively thin stems. No apparent significant defect	No action required at time of survey	20+	C2	RET	6	100.0
TG8010		Ash	3	16	3	2.6 - S	4.2	190	2.28	16	EM	F	Dieback through crowns, but not to advanced. Slender and high crowns. No basal or stem decay	No action required at time of survey	10+	C2	PRET	1	33.3
TG8011		Ash	5	18	4	5.5 - NW	6	320	3.84	46	M	F	Dieback through upper crowns, with associated deadwood. No basal or stem decay evident.	No action required at time of survey	10+	C2	RET	5	100.0
TG8012		Elm	2	17.5	4	2.7 - NW	1.8	420	5.04	80	M	F	Pair of trees growing at slight angle towards NE. No apparent significant defect.	No action required at time of survey	20+	B2	RET	2	100.0
TG8013		Ash	4	18	3.5	4.8 - W	13.5	280	3.36	35	EM	P	Significant and widespread decline due to ash dieback through all trees in group. No basal or stem decay.	No action required at time of survey	<10	U	U	0	0.0
TG8014		Scots pine	2	18	3.5	13 - E	14	400	4.80	72	M	F	Skewed but healthy crowns through both trees. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B2	RET	2	100.0
TG8015		Elm	4	17.5	3.8	3.4 - W	3.2	360	4.32	59	M	F	Cluster of trees with healthy, full crowns and no sign of DED.	No action required at time of survey	20+	B2	RET	4	100.0
TG8016		Hazel, elm	10	7	3	1.4 - E	1.6	120	1.44	7	EM	F	Cluster of relatively small and younger trees. Most have multiple stems from ground level.	No action required at time of survey	20+	C2	RET	10	100.0
TG8017		Ash, elm, silver birch	12	13	2	3.4 - W	3	150	1.80	10	EM	F	Cluster of relatively young trees with slender stems and crowns. Ash dieback starting to affect trees within group, but not significantly yet.	No action required at time of survey	20+	C2	RET	12	100.0
TG8018		Pedunculate oak, ash, field maple, sweet chestnut	16	13.5	2.5	1.6 - S	1.8	150	1.80	10	EM	F	Cluster of relatively young trees towards edge of sparser area of woodland group. Ash dieback starting to affect trees within group, but not significantly yet.	No action required at time of survey	20+	C2	RET	16	100.0
TG8019		Ash, elm, silver birch, sweet chestnut, goat willow, hawthorn	30	13	2.5	1.2 - N	1.5	170	2.04	13	EM	F	Well mixed group of relatively young/less mature trees within wider woodland group. No systemic issues observed	No action required at time of survey	20+	C2	RET	30	100.0
TG8020		Pedunculate oak, gean, field maple, ash, silver birch, holly	18	14	3	1 - N	1	160	1.92	12	EM	F	Group of trees on sloped ground. Ash are beginning to suffer from ash dieback. All of trees are somewhat scrubby in appearance and form.	No action required at time of survey	20+	C2	RET	18	100.0
TG8021		Holly	11	6	3	1.6 - N	1.4	170	2.04	13	M	F	Dense cluster of multiple stem trees forming thicket-like feature. Larger trees within group have decaying stools evident or pockets of decay where branch failures have occurred. No dieback or decline in any crown.	No action required at time of survey	20+	C2	RET	11	100.0
TG8022		Rhododendron	6	4.5	3	0.4 - E	0	80	0.96	3	M	F	Dense multiple stem trees forming thicket. No observed dieback or disease	No action required at time of survey	20+	C2	RET	6	100.0
TG8023		Silver birch	4	12.5	2.5	2.2 - S	4	150	1.80	10	EM	F	Cluster of relatively young/small trees. No apparent significant defect	No action required at time of survey	20+	C2	RET	4	100.0
TG8024		Rhododendron	5	4.5	3	0.4 - E	0	80	0.96	3	M	F	Dense multiple stem trees forming thicket. No observed dieback or disease	No action required at time of survey	20+	C2	RET	5	100.0
TG8025		Silver birch	7	14	3	3.4 - S	3.5	150	1.80	10	EM	F	Cluster of relatively young/small trees. No apparent significant defect	No action required at time of survey	20+	C2	RET	7	100.0
TG8026		Sycamore	12	14	3.5	1.5 - SW	3.5	230	2.76	24	EM	F	Cluster of trees, most of which have twin or multiple stems, all showing significant decline and crown dysfunction relating to squirrel damage. No basal or stem decay evident.	Stabilise dead wood according to occupancy levels beneath the crown	10+	C2	RET	12	100.0
TG8027		Ash	9	15	3.5	4 - N	6.5	240	2.88	26	EM	P	Cluster of trees all with significant decline in crown due to ash dieback disease. Scrubby hazel, wild cherry and elm in understorey here.	Fell to as low as reasonably practicable	<10	U	U	0	0.0
TG8028		Ash	5	12	3	2.5 - E	3.5	130	1.56	8	SM	F	Cluster of relatively young trees all with some degree of ash dieback disease evident.	No action required at time of survey	10+	C2	RET	5	100.0
TG8029		Scots pine	9	17	3.5	8 - S	10	300	3.60	41	M	F	Cluster of similar sized/aged trees. All have moderate/major deadwood in lower crowns. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B2	RET	9	100.0
TG8030		Ash	4	17	3	10 E	10	270	3.24	33	EM	P	Crowns display advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U	0	0.0
TG8031		Scots pine x12, ash x14, goat willow x2, pedunculate oak x4, yew x1	33	17	3	5 N	4	400	4.80	72	M	F	Tree group comprises high canopy pines in a lozenge contiguous with west boundary of woodland, thereafter slender others internally to woodland and dispersed amongst pines.	No action required at time of survey	40+	B2	RET	33	100.0
TG8032		Goat willow	4	13	5	5 S	5	150	1.80	10	EM	F	Close-set cluster of slender asymmetrical specimens. East tree slightly larger stem diameter. Unremarkable both individually and collectively.	No action required at time of survey	20+	C2	RET	4	100.0
TG8033		Ash	4	17	4	9 E	8	290	3.48	38	EM	P	Crowns display advancing decline symptoms typical of ash dieback.	No action required at time of survey	<10	U	U	0	0.0
TG8034		Pedunculate oak, ash, gean, hazel holly, yew holm oak, goat willow, field maple	40	14	3	3 N	3	230	2.76	24	SM	F	Tree group comprising understorey specimens. Mostly slender, upright with compact, often asymmetrical crowns. Unremarkable individually but collectively providing tree cover where few mature high canopy trees are present.	No action required at time of survey	40+	B2	RET	40	100.0
TG8035		Sycamore x10, silver birch x1, yew x1, holly x10, Portuguese laurel, cherry laurel	50	14	4	1 N	1	320	3.84	46	EM	F	Dense cluster of frequent *Prunus* species understorey with scattered trees. All rather unremarkable but collectively providing screening to/from the highway for the residential dwelling. The broadleaf species are generally drawn-up, slender trees that are getting away above the evergreen understorey.	No action required at time of survey	40+	C2	PRET	42	84.0

Data for trees assessed as woodland (WG)

FLAC Ref. No.	TPO Ref	Species	Area (m^2)	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	Area retained (m^2)	Area retained %
WG3001		Goat willow, hazel, pedunculate oak, silver birch, holly	4982	15	5	1 S	1	480	5.76	104	F	EM	Dense canopy comprising chiefly goat willow with hazel and scattered oaks with infrequent birch. Older goat willow collapsing in typical fashion, hazel stools from past coppice management. Ditches to north and south edges, north edge bears holly with hazel from presumed past hedgerow management. Limited structural diversity and almost no herb and shrub layer species. Could benefit from management to increase biodiversity attributes.	No action required at time of survey	40+	B2	RET	4982	100.0
WG3002		Cherry laurel, sycamore, hazel, ash, holly, field maple, pedunculate oak	4629	15	6	1 S	1	500	6.00	113	G	EM	Dense canopy comprising chiefly sycamore with hazel and scattered ash and birch with infrequent gean and field maple, the latter in southern edge. Cherry laurel near east boundary. Ash dieback present. Some older sycamore dispersed through area, stools from past coppice management. Ditches to south edge bears holly with hazel and field maple from presumed past hedgerow management. Limited structural diversity and little herb and shrub layer species, bluebell seen. Could benefit from management to increase biodiversity attributes. Woodyard and associated activities at west end.	Undertake risk-facing tree assessments of trees with potential to affect third party and highway land.	40+	B2	RET	4629	100.0
WG3003		Cherry laurel, sycamore, elm, ash, holly, pedunculate oak, gean, hazel, elder	3369	25	7	2 S	2	700	8.40	222	P	M	High canopy sycamore and ash with infrequent oak and gean. Thicketting cherry laurels with other understorey. Access cut through from highway serves powerline clearance etc. Ash dieback seen near highway. Trees thin to thorn scrub with hazels and elder to west end.	Undertake risk-facing tree assessments of trees with potential to affect third party and highway land. Fell ash with dieback within fall radius of highway or third party land.	40+	B2	RET	3369	100.0
WG7001		Ash, sycamore, elm, silver birch, goat willow, pedunculate oak	2081	16	5.5	1.5 - S	1	450	5.40	92	M	F	Woodland strip just beyond site boundary. Majority of canopy is formed of multiple stem ash and sycamore. Ivy is rife. Evidence of ash dieback in feature.	No action required at time of survey	20+	B3	RET	2081	100.0
WG7002		Ash, gean, pedunculate oak, aspen, sweet chestnut, field maple, hazel, holly, silver birch, European larch, Scots pine	47349	15	3.5	3.5	2	300	3.60	41	M	F	Dense wooded area centred around damp hollows. Extensive historic coppicing activity evident with no recent maintenance meaning that all stools are over stood. Significant planting has been undertaken in the southern 1/3 of the feature within the last 10-15 years, tree shelters are still present. Along the E boundary of the site is a ditch with what looks like a very overgrown hedge-like feature present along its edge, this is where field maple is present within the group. Sporadic scattering of larger, more mature ash throughout group, but these makeup less than 5% of canopy cover. Small area of conifer plantation towards E edge of group approximately half way up feature. Multiple informal paths through group, particularly around or near to edges.	Create management plan to ensure long term health is maintained	>40	A3	RET	47349	100.0
WG7003		Pedunculate oak, gean, ash, western hemlock, elder	6646	16	4	1.8 - N	1.5	450	5.40	92	M	F	Woodland area spreading into 3rd party land with little in the way of boundary signifiers. Larger, more mature trees towards edges, with younger planted conifers and natural regeneration concentrated within the central areas. Moderate amount of standing dead trees, mainly conifers. No systemic issues	No action required at time of survey	>40	B3	RET	6646	100.0
WG7004		Pedunculate oak, gean, silver birch, Norway spruce, ash, sycamore, holly, hazel, goat willow	18459	15	4.5	1.2 - E	1	500	6.00	113	M	G	Woodland is centred around the valley of small gill. Dense understorey of unmanaged coppice species as well as natural regeneration. Occasional cluster of non-native planted trees present. Ground flora is diverse and healthy. Good mix of species and maturities throughout group. No systemic issues present	No action required at time of survey	>40	A3	RET	18459	100.0
WG7005		Goat willow, pedunculate oak, field maple, hawthorn, holly	2717	15	5	1.2 - E	0.5	500	6.00	113	M	F	Small woodland group centred around pond. Larger more mature trees found at boundary of group with more scrubby willows towards the centre/edge of pond. Ground flora is limited to edges of group, and is somewhat dominated by bracken and brambles. No systemic issues observed	No action required at time of survey	>40	B3	RET	2717	100.0
WG7006		Ash, pedunculate oak, sweet chestnut, elder, aspen, Scots pine, horse chestnut	28645	17	5.5	1.5 - E	1	600	7.20	163	M	G	3rd party woodland just beyond boundary of site. Larger proportion of ash than anywhere else on site. Ivy dominated ground of edges of group. No systemic issues observed	No action required at time of survey	>40	A3	RET	28645	100.0
WG7007		Ash, pedunculate oak, gean, holly, sycamore, field maple, hazel	54136	16	6	1.2 - E	0.5	500	6.00	113	M	G	3rd party woodland group bounded by shallow ditch to N. Evidence of historic coppicing activity within group, but no apparent recent management. Good mix of species and maturities with established understorey. Several informal footpaths at edges, particularly N boundary. No systemic issues observed	No action required at time of survey	>40	A3	RET	54136	100.0

FLAC Ref. No.	TPO Ref	Species	Area (m^2)	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	Area retained (m^2)	Area retained %
WG7008		ash, hornbeam, sweet chestnut, hazel, field maple, hawthorn	6092	7	2.5	0.5 - S	0.5	140	1.68	9	SM	F	Dense area of relatively young woodland. Young coppice stools and relatively new planting throughout group. Density shows lack of management. Dense ruderal growth throughout. No systemic issues evident	No action required at time of survey	20+	B3	PRET	5334	87.6
WG7009		Ash, pedunculate oak, sweet chestnut, field maple, elm, hazel, hawthorn	5663	14.5	5	1 - E	0.5	420	5.04	80	M	F	Taller/more mature woodland area than areas to N and S. Significant area of windthrow and decline in sweet chestnut in SW corner beside roadside. Rest of area appears healthy with little in the way of decline or disease. Understorey is established with hazel, hawthorn and young field maple	Fell to ground level area of dead/dying sweet chestnut.	20+	B3	PRET	1808	31.9
WG7010		Goat willow, hawthorn, pedunculate oak, hazel, elm, ash	5350	9	2.2	0.5 - E	0.8	160	1.92	12	EM	F	Relatively young woodland with well spaced, planted semi-mature tree stock. Little in the way of management evident. No systemic issues observed	No action required at time of survey	20+	B3	RET	5350	100.0
WG7011		Ash, pedunculate oak, hazel, hawthorn, horse chestnut	9665	18	6	2.5 - E	2	600	7.20	163	M	G	Tall stand of predominantly ash and occasional oak, with understorey of coppice-like hazel and other smaller species. Occasional mature tree showing signs of decline/dieback, possibly result of ash dieback. No systemic issues, but lack of management evident. Group bounded to N and S by shallow ditch.	No action required at time of survey	>40	A3	RET	9665	100.0
WG7012		Hazel, hawthorn, goat willow, ash, pedunculate oak	5748	7	2.5	0.5 - S	0.5	140	1.68	9	EM	G	Densely planted, relatively young coppice-like woodland. Occasional larger willow scattered through group. No recent management evident, but no systemic issues. Group bounded to N by drainage ditch	No action required at time of survey	20+	B3	RET	5748	100.0
WG7013		Pedunculate oak, ash, copper beech, hazel, silver birch, hawthorn, beech, goat willow, Scots pine	12204	14	5	1 - E	1	550	6.60	137	M	G	Dense wooded area where distinct understorey of hazel/hawthorn has developed below tall ash and oak standards. Probably originally managed as coppice coup, but no recent management evident. No systemic issues observed	No action required at time of survey	>40	A3	RET	12204	100.0
WG7014		Pedunculate oak, silver birch, hazel, holly, aspen, ash, goat willow, hornbeam	23109	15	4.5	0.5 - S	1	480	5.76	104	M	F	Dense understorey of hazel, willow and hawthorn throughout group. Canopy of birch, oak, ash and goat willow. No recent management evident. Rhododendron is starting to overtake understorey in central and E parts of group.	No action required at time of survey	>40	B3	RET	23109	100.0
WG7015		Silver birch, pedunculate oak, sweet chestnut, Scots pine, hazel, beech, sycamore, alder	117776	17	5.5	1.8	2	450	5.40	92	M	G	Dense woodland towards W, S and N gives way to more open area towards E. Woodland around series of small dips, wet areas and raised rock outcrops. Dense woodland has distinct coppice-like understorey. Rhododendron beginning to spread through E and S areas. Bluebells prominent in large areas. Occasional large mature trees found scattered around group. Area of dead/dying sweet chestnut present. Large area of over stood sweet chestnut coppice present within central area with significant historic windthrow	Create management plan to ensure long term health is maintained	>40	A3	RET	117776	100.0
WG7016		Pedunculate oak, aspen, silver birch, common lime, beech, hazel, holly, sycamore	33773	20	7	0.5 - S	1	750	9.00	254	M	G	Very thick woodland. Extensive understorey of hazel, holly and sycamore. Very large trees scattered throughout group, but are more frequent at edges of group, in particular the NW boundary. No systemic issues	No action required at time of survey	>40	A3	RET	33773	100.0
WG7017		Silver birch, pedunculate oak, hornbeam, goat willow, hawthorn, sweet chestnut	60593	16	6.5	1.5 - E	0.5	520	6.24	9	M	F	Dense woodland with thick understorey. W edge of group has thick band of young regeneration growing here, as woodland area expands. Good mixture of species through rest of feature. No systemic issues observed	No action required at time of survey	>40	A3	RET	60593	100.0
WG7018	TPO 93, 1990 W1	Pedunculate oak, silver birch, sweet chestnut, holly, hawthorn, ash, sycamore	87953	17	5.5	1.5 - S	1	550	6.60	9	M	G	3rd party woodland beyond boundary fence/markers. Well established, mixed and diverse group with established understorey as well as diverse ground flora. No systemic issues present.	No action required at time of survey	>40	A3	RET	87953	100.0

FLAC Ref. No.	TPO Ref	Species	Area (m^2)	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	Area retained (m^2)	Area retained %
WG8001		Elm, ash, Scots pine, sweet chestnut, silver birch, pedunculate oak, holly, yew, hazel, hawthorn, gean	26561	18	4	1.8 - E	2	400	4.80	72	M	F	Relatively well spaced woodland group with several glade-like areas, particularly towards the central portion. Understorey is sporadic with mixture of elm, hazel and holly forming densest areas, particularly around edges. Ash are showing significant decline throughout group, due to ash dieback disease. Densest area of ash towards N and W edges of group. Little in the way of decline seen within elm. Group lacks significantly older/more mature trees indicating relatively recent/constant management. No sign of recent coppice management.	No action required at time of survey	>40	A3	RET	26561	100.0

Data for hedgerows (HR)

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	Length retained (m)	Percentage retained %
HR3001	Hazel, hawthorn	7	12	99	550	M	G	Close-set specimens from past coppice management. No recent management so becoming broad but in good overall condition.	No action required at time of survey	40+	B2	RET	99	100.0
HR3002	Hawthorn, elder,	7	6	65	300	M	G	Southern section to just north of 3021 cut to 1.8 metres and clipped, remainder not subject to management. Good overall condition in both sections.	No action required at time of survey	40+	B2	RET	65	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
H3001	Hazel	2	2	102	150	EM	G	Regularly clipped boundary hedge. Assumed under private ownership.	No action required at time of survey	40+	B2
H3002	Hazel, hawthorn, elder, yew, holly	2	1.5	183	150	EM	G	Regularly clipped boundary hedge. Assumed under private ownership.	No action required at time of survey	40+	B2

JFL 5

RAVEN METHODOLOGY & DATA RECORDER



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*

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FLAC

RAVEN - *Recognition of Ancient, Veteran & Notable trees*

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 (or evidence retarded increment); 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 Trees beyond 50% of species maximum life expectancy
Veteran Trees with Required/ Primary or Secondary features as listed, and age >25% of species maximum life expectancy
Notable Trees that are large and/ or old for species, but which lack qualifying features
Non-special All other trees

Note: This assessment reports findings on identified candidate A-V-N trees within flac's study area: refer to accompanying indicative plan of tree locations

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							
3001	Ash	Coppice		190, 190, 190, 190			X																269	1752		X			Typical decay of coppice stool
3003	Ash	Coppice		250 x 9			X																463	1558		X			Typical decay of coppice stool
3004	Ash	Coppice		160 x 13			X																339	1682		X			Typical decay of coppice stool
3005	Ash	Coppice		200 x 13			X																343	1678		X			Typical decay of coppice stool
3006	Ash	Coppice		180 x 6			X																315	1706		X			Typical decay of coppice stool
3007	Gean			560				X	X		X	X	X										94	1928		X			
3026	Pedunculate oak			1400				X	X		X	X	X					X					251	1771		X			Extinct fungi provisionally identified as Ganoderma resinaceum
7041	Beech			850			X			X													116	1906		X			
8036	Pedunculate oak			1420			X				X	X	X										257	1765		X			
8039	Beech		X	1130, 190, 120				X		X									X				198	1824		X			Provisional fungi identification as genus Ganoderma
TG3013	Ash	Coppice		n/a			X				X												346	1676		X			Veteran ash coppice stools dispersed along top of woodbank feature. Mean age of individually assessed coppiced stools applied

JFL 6

TREE SURVEY, RETENTION/ REMOVAL PLAN
FLAC dwg no. 40-1020.02

Dwg title

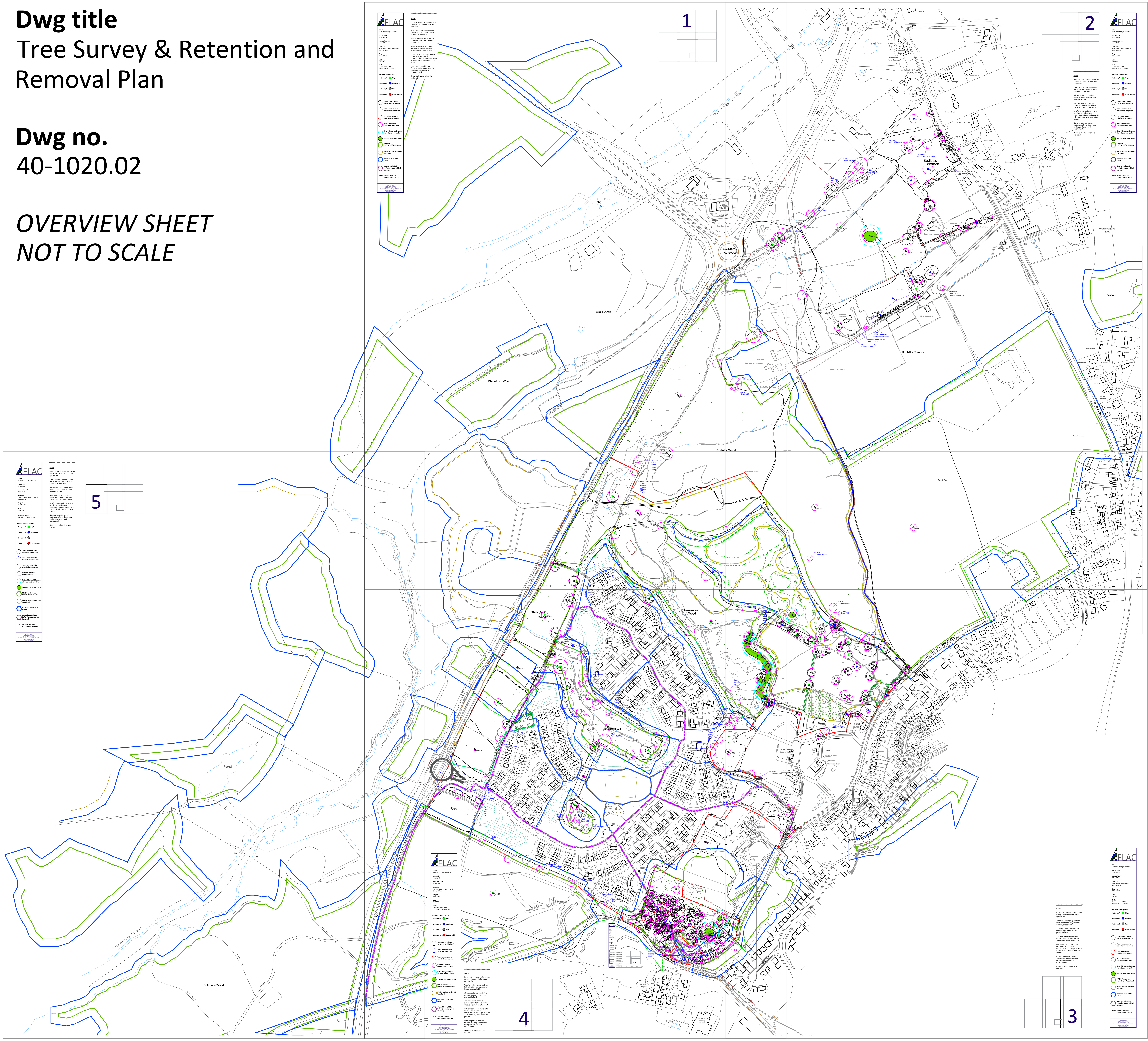
Tree Survey & Retention and Removal Plan

Dwg no.

40-1020.02

OVERVIEW SHEET

NOT TO SCALE



FLAC

Client
Gleeson Strategic Land Ltd.

Instruction
Downlands

Instruction ref.
SC40-1020

Dwg title
Tree Survey & Retention and Removal Plan

Dwg no.
40-1020.02

Date
06.07.23

Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0

Quality & value grades:

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

- Tree crowns (shown yellow on aerial photo)
- Trees for removal to facilitate development
- Trees for removal for arboricultural reasons
- Notional tree root protection area - RPA
- Natural England 15x stem dia. veteran tree buffer
- Veteran tree crown hatch
- MAGIC Ancient and Semi-Natural Woodland
- MAGIC Ancient Replanted Woodland
- Indicative 15m ASNW buffer
- Ground-truthed 15m buffer (to topographical features)
- 7001* Asterisk indicates approximate position

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

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 unless a topo survey has been provided to FLAC

Any trees omitted from topo survey are located indicatively. These trees are marked with a *

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

Notes on potential habitat features are for guidance only: ecological assessment is recommended

Drawn to N unless otherwise indicated

1

Black Down

Blackdown Wood

Budlett's Wood

Old Keeper's House

Budletts Cottage

BLACK DOWN ROUNDABOUT

Shortbridge Stream

Drain

Track

Pond

FB

El Sub Sta

Filling Station

Service Area

A26

A32

Lay-by

Path (um)

Ed & Ward Bay CR

7076

7077

7074

7073

7072

7070

7069

7068

WG7015

WG7014

TG7024

P.Oak
Diam = 1250mm

W.Hemlock
Diam = 720mm

P.Oak
Diam = 950mm

P.Oak
Diam = 600mm

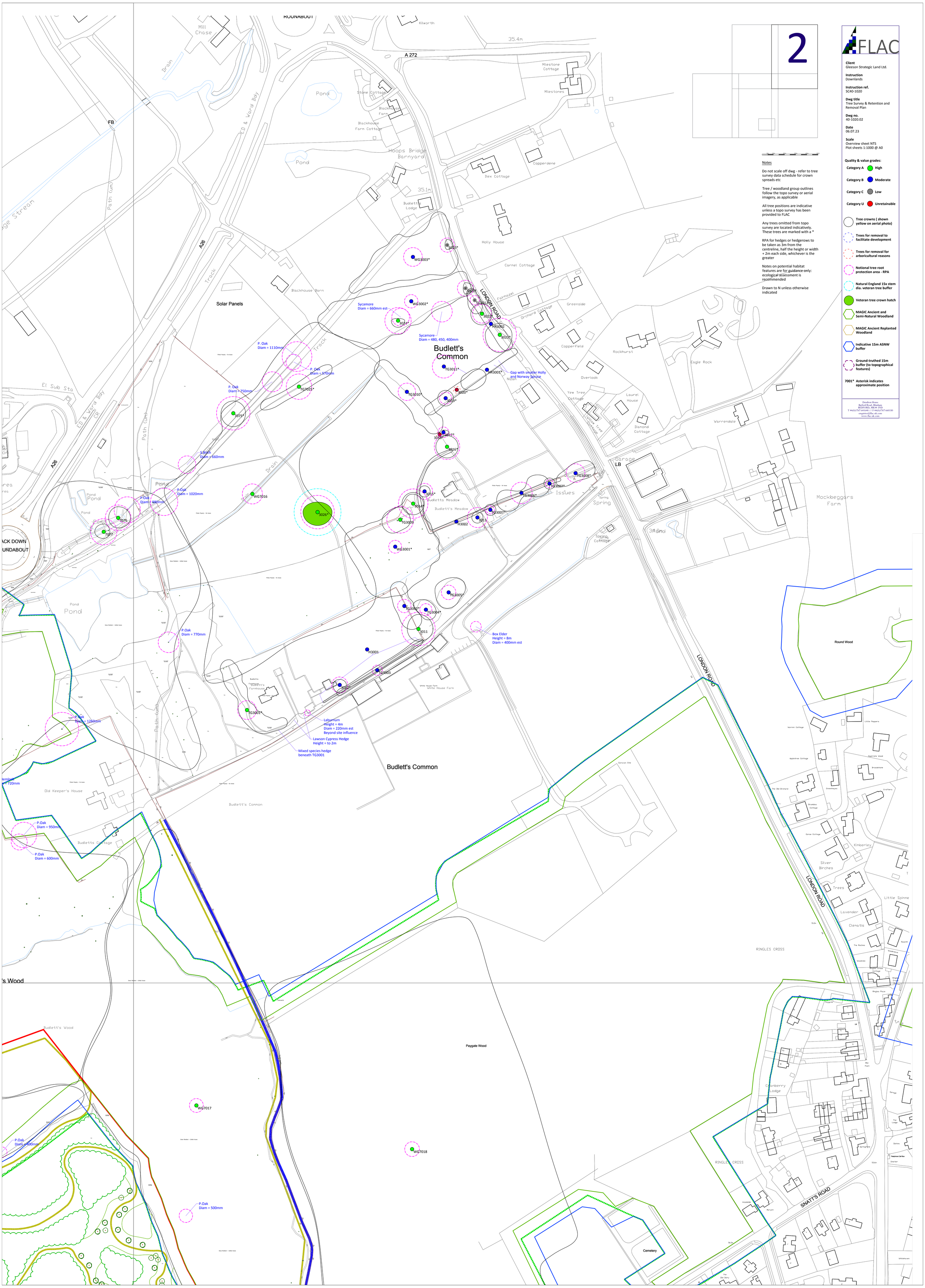
Sweet Chestnut
Diam =
680mm
460mm
450mm
420mm

Sweet Chestnut
Diam =
750mm
620mm
360mm
340mm
260mm

P.Oak
Diam = 560mm

P.Oak
Diam = 400mm

P.Oak
Diam = 810mm



2

Notes

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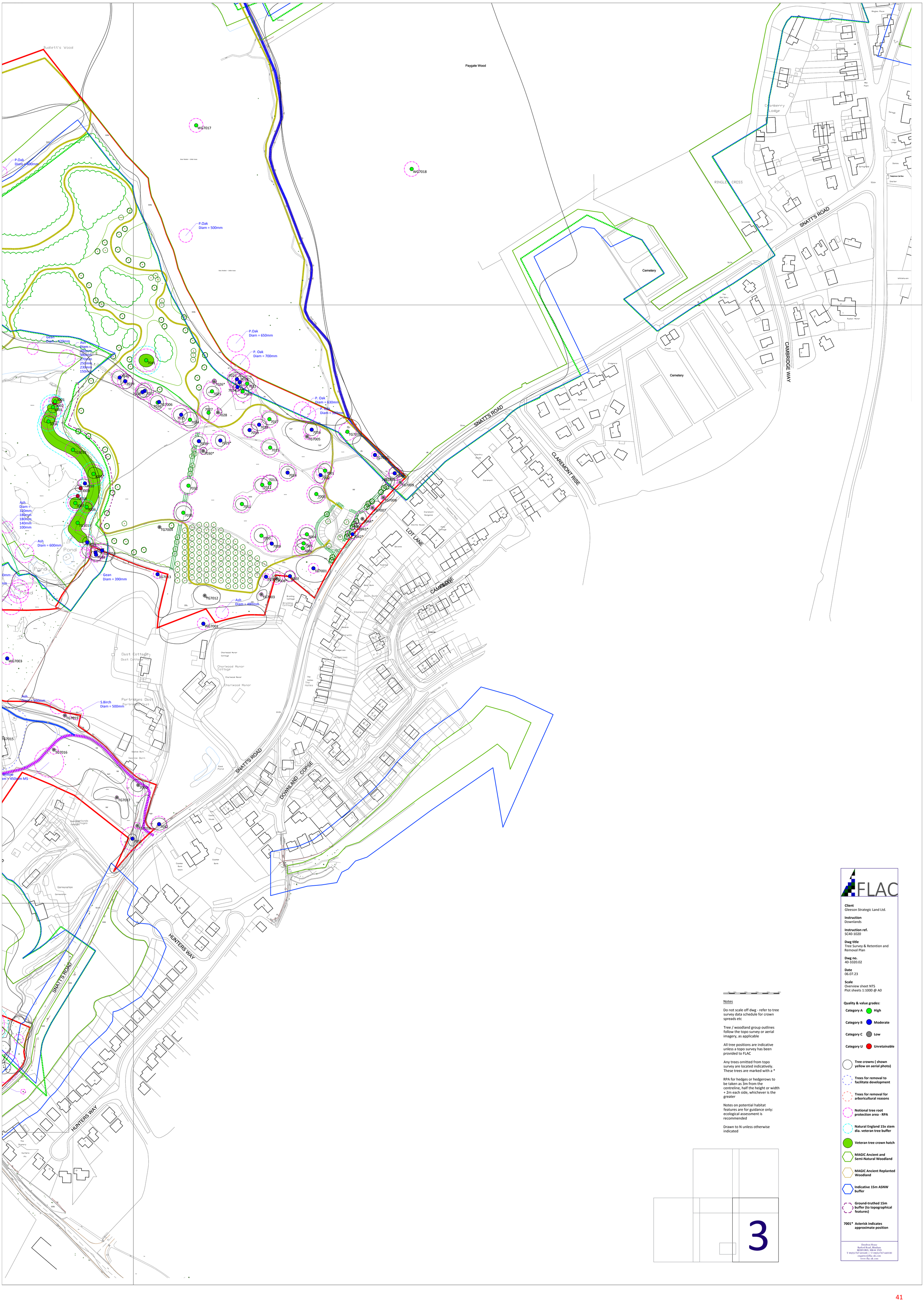
Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0

Quality & value grades:

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

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- Trees for removal to facilitate development
- Trees for removal for arboricultural reasons
- Notional tree root protection area - RPA
- Natural England 15x stem dia. veteran tree buffer
- Veteran tree crown hatch
- MAGIC Ancient and Semi-Natural Woodland
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Notes

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Any trees omitted from topo survey are located indicatively. These trees are marked with a *

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

Notes on potential habitat features are for guidance only: ecological assessment is recommended

Drawn to N unless otherwise indicated

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Dwg no.
40-1020.02

Date
06.07.23

Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0

Quality & value grades:

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

Tree crowns (shown yellow on aerial photo)

Trees for removal to facilitate development

Trees for removal for arboricultural reasons

Notional tree root protection area - RPA

Natural England 15x stem dia. veteran tree buffer

Veteran tree crown hatch

MAGIC Ancient and Semi-Natural Woodland

MAGIC Ancient Replanted Woodland

Indicative 15m ASNW buffer

Ground-truthed 15m buffer (to topographical features)

7001* **Asterisk indicates approximate position**

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Dwg no.
40-1020.02

Date
06.07.23

Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0

Quality & value grades:

- **Category A** High
- **Category B** Moderate
- **Category C** Low
- **Category U** Unretainable

- **Tree crowns (shown yellow on aerial photo)**
- **Trees for removal to facilitate development**
- **Trees for removal for arboricultural reasons**
- **Notional tree root protection area - RPA**
- **Natural England 15x stem dia. veteran tree buffer**
- **Veteran tree crown hatch**
- **MAGIC Ancient and Semi-Natural Woodland**
- **MAGIC Ancient Replanted Woodland**
- **Indicative 15m ASNW buffer**
- **Ground-truthed 15m buffer (to topographical features)**

7001* **Asterisk indicates approximate position**

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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

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Notes on potential habitat features are for guidance only: ecological assessment is recommended

Drawn to N unless otherwise indicated

4

Thirty Acre Wood

Longwood Gill

Shermanreed Wood

Dudlett's Wood

Shortbridge Stream

Ward Bay

Lay-by

Track

Pond

Issues

Dairy

Bucks Wood Grange

Rocks Park Primary School

ROCKS ROAD

SNATTS ROAD

HUNTERS WAY

A22

FLAC

Client
Gleeson Strategic Land Ltd.

Instruction
Downlands

Instruction ref.
SC40-1020

Dwg title
Tree Survey & Retention and Removal Plan

Dwg no.
40-1020.02

Date
06.07.23

Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0

Quality & value grades:

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

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

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5

Shortbridge Stream
Ward Bay
Pond
Track
Path (um)
FB
Butcher's Wood
A22

Diam = 500mm

Ash
Diam = 550mm

H. Chestnut
Diam = 470mm

Dead collapsing

Dead Scots pine to 30m ht

Birch

Holly/sycamore scrub understorey

Mixed species shrubs

Mixed species shrubs

Pedunculate oak 8045 is not expected to have significant rooting presence in area of cut/fill earthworks due to the sandstone between the two and consequent level difference - the incursion upon the 'notional' circular RPA is considered acceptable

Red line shows extents of earthworks

ROCKS ROAD

SNATT'S ROA

46.5m

FLAC

Client
Gleeson Strategic Land Ltd.

Instruction
Downlands

Instruction ref.
SC4D-1020

Dwg title
Tree Survey & Retention and Removal Plan

Dwg no.
40-1020.02

Date
12.05.22

Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0
THIS INSET SHEET 1:250 @A0

Quality & value grades:

- **Category A** High
- **Category B** Moderate
- **Category C** Low
- **Category U** Unretainable

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- **Ground-truthed 15m buffer (to topographical features)**
- **7001*** **Asterisk indicates approximate position**

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5m 10m 20m 30m 40m 50m

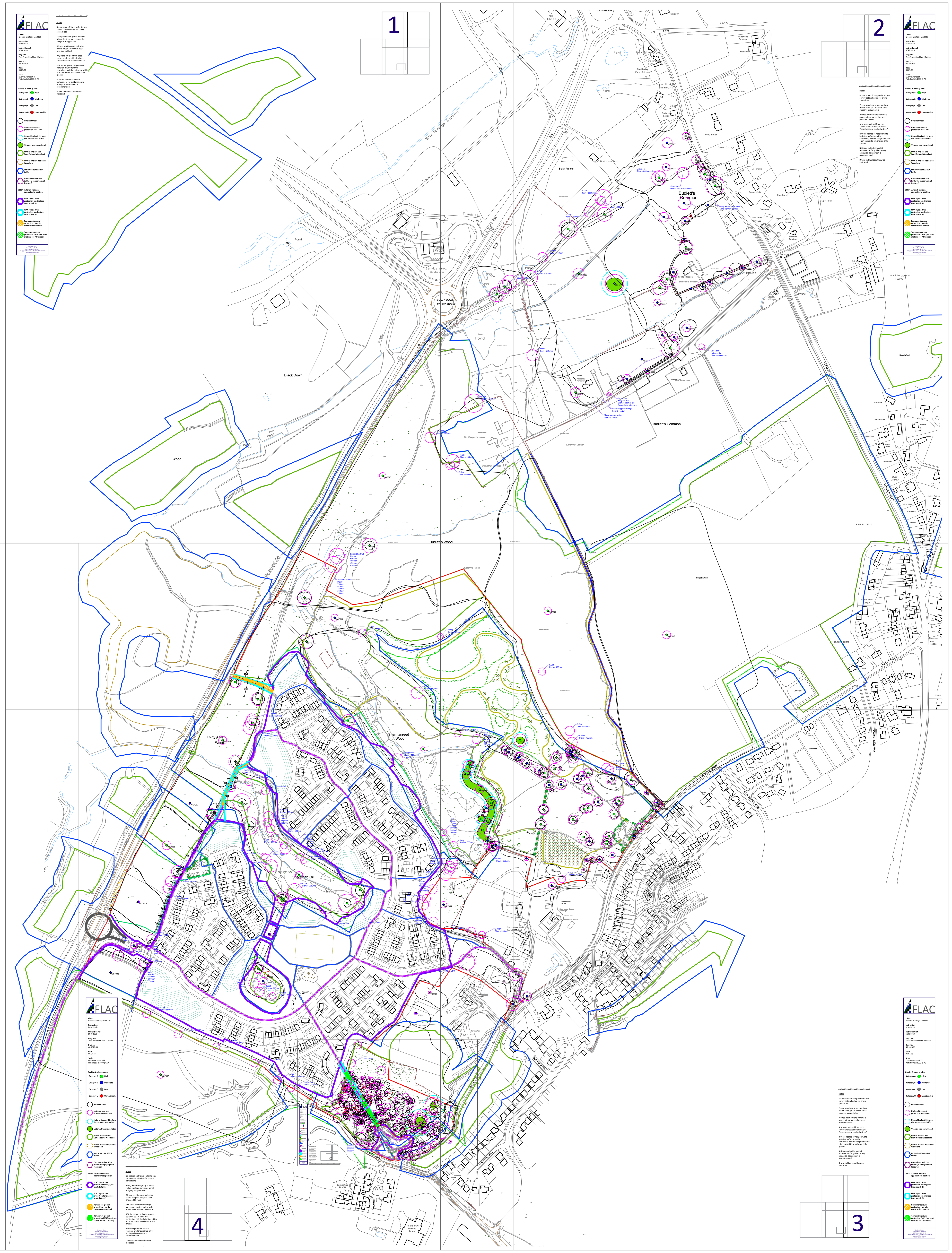
JFL 7

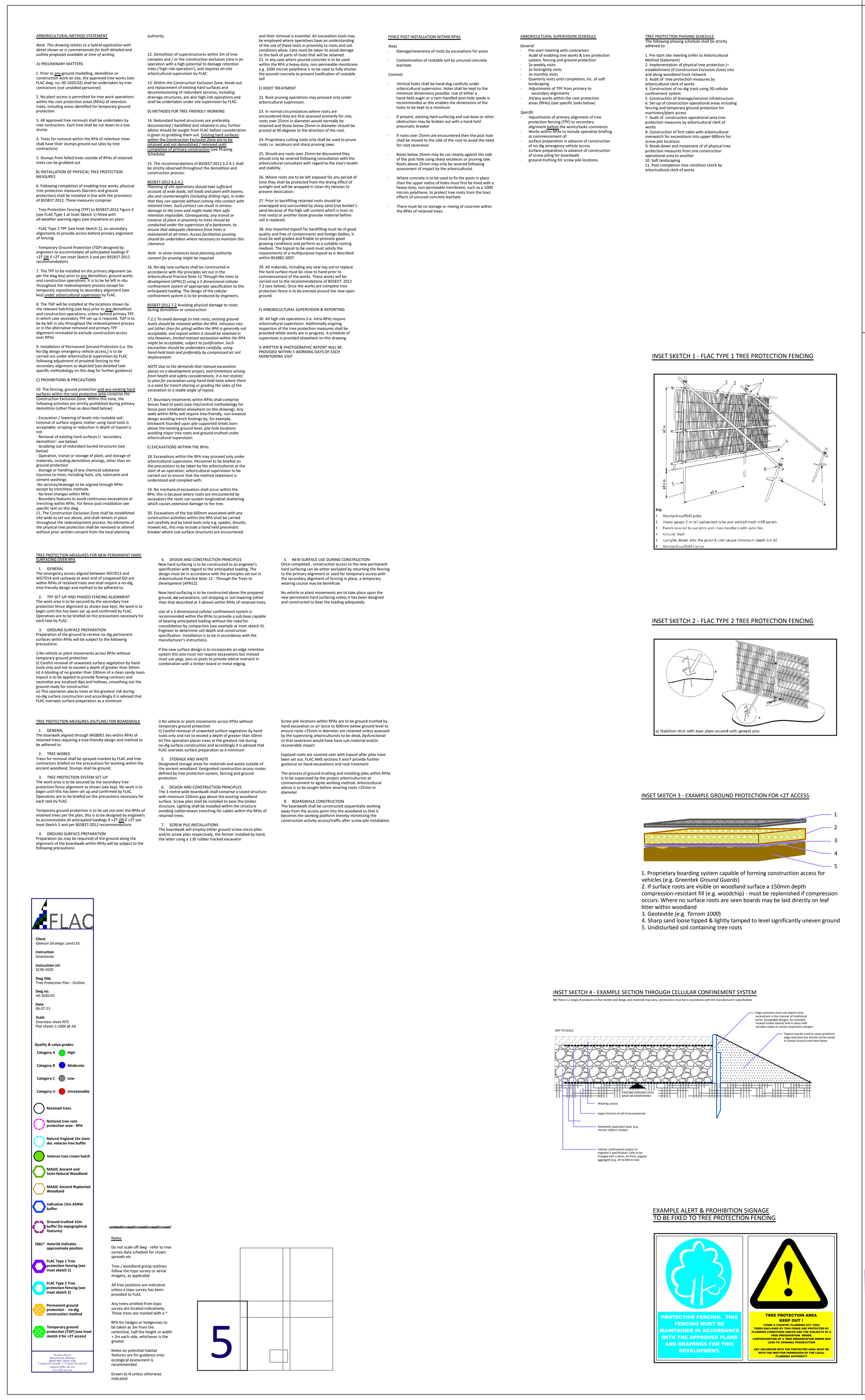
TREE PROTECTION PLAN
FLAC dwg no. 40-1020.03

Dwg title
Tree Protection Plan

Dwg no.
40-1020.03

OVERVIEW SHEET
NOT TO SCALE





FLAC

Client
Gleeson Strategic Land Ltd.

Instruction
Downlands

Instruction ref.
SC40-1020

Dwg title
Tree Protection Plan - Outline

Dwg no.
40-1020.03

Date
06.07.23

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Overview sheet NTS
Plot sheets 1:1000 @ A0

Quality & value grades:

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- FLAC Type 2 Tree protection fencing (see Inset sketch 2)
- Permanent ground protection - no-dig construction method
- Temporary ground protection (TGP) (see Inset sketch 3 for <2T access)

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

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Drawn to N unless otherwise indicated

1

FB
Path (um)
Shortbridge Stream
Drain
Track
El Sub Sta
E/D & Ward Bay CR
Pond
Filling Station
Service Area
A26
BLACK DOWN ROUNDABOUT
7076
7077
Track
Drain
A22
Black Down
Wood
Pond
Old Keeper's House
Budletts Cottage
P.Oak
Diam = 1260mm
W.Hemlock
Diam = 720mm
P.Oak
Diam = 950mm
P.Oak
Diam = 600mm
WG7015
7074
Sweet Chestnut
Diam =
680mm
460mm
450mm
420mm
Budlett's Wood
Sweet Chestnut
Diam =
750mm
620mm
360mm
340mm
260mm
7073
WG7014
P.Oak
Diam = 560mm
P.Oak
Diam = 400mm
7072
12.3
9.2
25.2
16.5
7069
7068
P.Oak
Diam = 810mm
Lay-by


2
FLAC
Client
Gleeson Strategic Land Ltd.
Instruction
Downlands
Instruction ref.
SC40-1020
Dwg title
Tree Protection Plan - Outline
Dwg no.
40-1020.03
Date
06.07.23
Scale
Overview sheet NTS
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Budlett's Common
Solar Panels
Round Wood
Paygate Wood
Cemetery
LONDON ROAD
SNATTS ROAD
A 272
A26
Mockbeggars Farm
Sycamore Diam = 660mm est
Sycamore Diam = 480, 450, 400mm
P. Oak Diam = 1110mm
P. Oak Diam = 770mm
P. Oak Diam = 1020mm
P. Oak Diam = 950mm
P. Oak Diam = 600mm
P. Oak Diam = 500mm
Gap with smaller Holly and Norway Spruce
Box Elder Height = 8m Diam = 400mm est
Laburnum Height = 4m Diam = 220mm est Beyond site influence
Lawson Cypress Hedge Height = to 2m
Mixed species hedge beneath TG3001
WG7016
WG7017
WG7018
TG3001*
3026*



Notes

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FLAC

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Instruction
Downlands

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SC40-1020

Dwg title
Tree Protection Plan - Outline

Dwg no.
40-1020.03

Date
06.07.23

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4

ARBORICULTURAL METHOD STATEMENT

Note: This drawing relates to a hybrid application with detail shown as is commensurate for both detailed and outline proposals available at time of writing.

A) PRELIMINARY MATTERS

1. Prior to any ground modelling, demolition or construction work on site, the approved tree works (see FLAC dwg. no. 40-1020.02) shall be undertaken by tree contractors (not unskilled personnel)

2. No plant access is permitted for tree work operations within the root protection areas (RPAs) 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)

5. Stumps from felled trees outside of RPAs of retained trees can be grubbed out

B) INSTALLATION OF PHYSICAL TREE PROTECTION MEASURES

6. 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 FLAC Type 1 at Inset Sketch 1) fitted with all-weather warning signs (see elsewhere on plan)

- FLAC Type 2 TPF (see Inset Sketch 2), on secondary alignments to provide access behind primary alignment of fencing

- Temporary Ground Protection (TGP) designed by engineers to accommodate all anticipated loadings if >2T *OR* if <2T see Inset Sketch 3 and per BS5837:2012 recommendations

7. 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.

8. The TGP will be installed at the locations shown by the relevant hatching (see key) prior to any demolition and construction operations, unless behind primary TPF, in which case secondary TPF set-up is required. TGP is to be be left in situ throughout the redevelopment process or in the alternative removed and primary TPF alignment reinstated to exclude construction access over RPAs

9. Installation of Permanent Ground Protection (i.e. the No-Dig design emergency vehicle access,) is to be carried out under arboricultural supervision by FLAC following adjustment of proximal fencing to the secondary alignment as depicted (see detailed task specific methodology on this dwg for further guidance)

C) PROHIBITIONS & PRECAUTIONS

10. The fencing, ground protection and any existing hard surfaces within the root protection area 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, other than on ground protection
- Storage or handling of any chemical substance injurious to trees, including fuels, oils, lubricants and cement washings
-No services/drainage to be aligned through RPAs except by trenchless methods
- No level changes within RPAs
- Boundary features to avoid continuous excavations or trenching within RPAs. For fence post installation see specific text on this dwg
11. 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.

12. 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

13. 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

14. 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)

15. 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

16. 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.

17. Boundary treatments within RPAs shall comprise fences fixed to posts (see risk/control methodology for fence post installation elsewhere on this drawing). Any walls within RPAs 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.

E) EXCAVATIONS WITHIN THE RPAs

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

19. No mechanical excavation shall occur within the RPA; this is because where roots are encountered by excavators the roots can sustain longitudinal shattering which causes extensive damage to the tree.

20. 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.
21. In any case where poured concrete is to be used within the RPA a heavy-duty, non-permeable membrane e.g. 1000 micron polythene is to be used to fully shutter the poured concrete to prevent toxification of rootable soil

E) ROOT TREATMENT

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

23. In normal circumstances where roots are encountered they are first assessed primarily for size; roots over 25mm in diameter would normally be retained and those below 25mm in diameter should be pruned at 90 degrees to the direction of the root.

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

25. 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.

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

27. 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.

28. 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.

29. All materials, including any new top soil 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

30. All high risk operations (i.e. intra-RPA) 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

FENCE POST INSTALLATION WITHIN RPAS

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.

ARBORICULTURAL SUPERVISION SCHEDULE

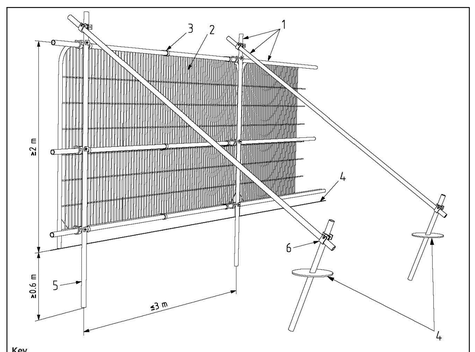
General
- Pre-start meeting with contractors
- Audit of enabling tree works & tree protection system, fencing and ground protection
- 2x weekly visits
- 2x fortnightly visits
- 3x monthly visits
- Quarterly visits until completion, inc. of soft landscaping
- Adjustments of TPF from primary to secondary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

Specific
- Adjustments of primary alignment of tree protection fencing (TPF) to secondary alignment before the works/tasks commence
- Works within RPAs to include operative briefing at commencement of:
- surface preparation in advance of construction of no-dig emergency vehicle access
- surface preparation in advance of construction of screw piling for boardwalk
- ground-truthing for screw pile locations

TREE PROTECTION PHASING SCHEDULE
The following phasing schedule shall be strictly adhered to:

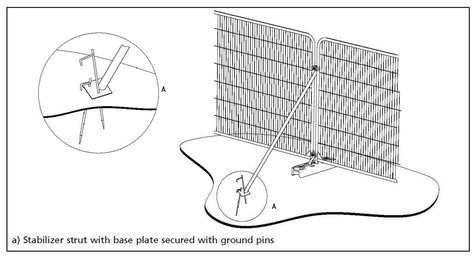
1. Pre-start site meeting (refer to Arboricultural Method Statement)
2. Implementation of physical tree protection (= establishment of Construction Exclusion Zone) into and along woodland track network
3. Audit of tree protection measures by arboricultural clerk of works
4. Construction of no-dig track using 3D cellular confinement system
5. Construction of drainage/services infrastructure
6. Set-up of construction operational areas including fencing and temporary ground protection for machinery/plant access
7. Audit of construction operational area tree protection measures by arboricultural clerk of works
8. Construction of first cabin with arboricultural overwatch for excavations into upper 600mm for screw pile locations
9. Break-down and movement of of physical tree protection measures from one construction operational area to another
10. Soft landscaping
11. Post-completion tree condition check by arboricultural clerk of works

INSET SKETCH 1 - FLAC TYPE 1 TREE PROTECTION FENCING



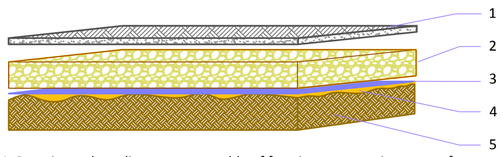
Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

INSET SKETCH 2 - FLAC TYPE 2 TREE PROTECTION FENCING



a) Stabilizer strut with base plate secured with ground pins

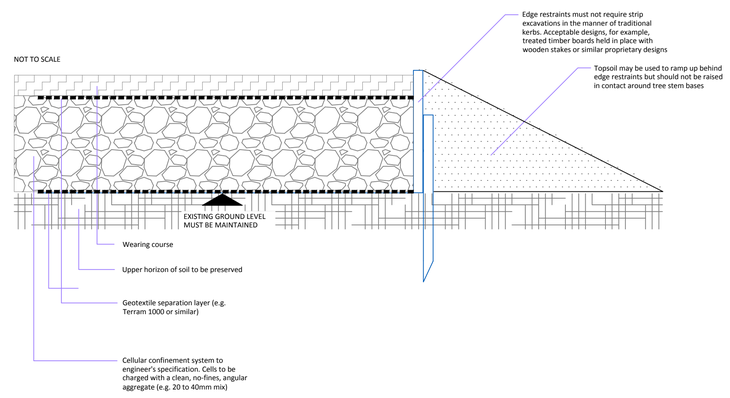
INSET SKETCH 3 - EXAMPLE GROUND PROTECTION FOR <2T ACCESS



1. Proprietary boarding system capable of forming construction access for vehicles (e.g. Greentek *Ground Guards*)
2. If surface roots are visible on woodland surface a 150mm depth compression-resistant fill (e.g. woodchip) - must be replenished if compression occurs. Where no surface roots are seen boards may be laid directly on leaf litter within woodland
3. Geotextile (e.g. *Terram 1000*)
4. Sharp sand loose tipped & lightly tamped to level significantly uneven ground
5. Undisturbed soil containing tree roots

INSET SKETCH 4 - EXAMPLE SECTION THROUGH CELLULAR CONFINEMENT SYSTEM

NB There is a range of products on the market and design and materials may vary, construction must be in accordance with the manufacturer's specification



EXAMPLE ALERT & PROHIBITION SIGNAGE
TO BE FIXED TO TREE PROTECTION FENCING



TREE PROTECTION MEASURES FOR NEW PERMANENT HARD SURFACING OVER RPA

1. GENERAL
The emergency access aligned between WG7013 and WG7014 and cycleway at west end of Longwood Gill are within RPAs of retained trees and 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 permanent 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) 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 (see example at Inset sketch 4). 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 it has been designed and constructed to bear the loading adequately.

TREE PROTECTION MEASURES (OUTLINE) FOR BOARDWALK

1. GENERAL
The boarwalk aligned through WG8001 lies within RPAs of retained trees requiring a tree-friendly design and method to be adhered to.

2. TREE WORKS
Trees for removal shall be sprayed-marked by FLAC and tree contractors briefed on the precautions for working within the ancient woodland. Stumps shall be ground.

3. TREE PROTECTION SYSTEM SET-UP
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.

Temporary ground protection is to be set out over the RPAs of retained trees per the plan, this is to be designed by engineers to accommodate all anticipated loadings if >2T *OR* if <2T see Inset Sketch 3 and per BS5837:2012 recommendations

4. GROUND SURFACE PREPARATION
Preparation (as may be required) of the ground along the alignment of the boardwalk 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) 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

5. STORAGE AND WASTE
Designated storage areas for materials and waste outside of the ancient woodland. Designated construction access routes defined by tree protection system, fencing and ground protection

6. DESIGN AND CONSTRUCTION PRINCIPLES
The 3 metre wide boardwalk shall comprise a raised structure with minimum 150mm gap above the existing woodland surface. Screw piles shall be installed to bear the timber structure. Lighting shall be installed within the structure avoiding subterranean trenching for cables within the RPAs of retained trees.

7. SCREW PILE INSTALLATIONS
The boardwalk will employ either ground screw micro piles and/or screw piles respectively, the former installed by hand, the latter using a 1.8t rubber tracked excavator
Screw pile locations within RPAs are to be ground-truthed by hand excavation or air lance to 600mm below ground level to ensure roots >25mm in diameter are retained unless assessed by the supervising arboriculturists to be dead, dysfunctional or that severance would have have sub-material and/or recoverable impact

Exposed roots are covered over with topsoil after piles have been set out. FLAC AMS sections E and F provide further guidance on hand excavations and root treatment

The process of ground-truthing and installing piles within RPAs is to be supervised by the project arboriculturists at commencement to agree working method. Arboricultural advise is to be sought before severing roots >25mm in diameter

8. BOARDWALK CONSTRUCTION
The boardwalk shall be constructed sequentially working away from the access point into the woodland so that it becomes the working platform thereby minimizing the construction activity access/traffic after screw pile installation

FLAC

Client
Gleeson Strategic Land Ltd.

Instruction
Downlands

Instruction ref.
SC40-1020

Dwg title
Tree Protection Plan - Outline

Dwg no.
40-1020.03

Date
06.07.23

Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0

Quality & value grades:

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

- Retained trees
- Notional tree root protection area - RPA
- Natural England 15x stem dia. veteran tree buffer
- Veteran tree crown hatch
- MAGIC Ancient and Semi-Natural Woodland
- MAGIC Ancient Replanted Woodland
- Indicative 15m ASNW buffer
- Ground-truthed 15m buffer (to topographical features)
- 7001* Asterisk indicates approximate position
- FLAC Type 1 Tree protection fencing (see Inset sketch 1)
- FLAC Type 2 Tree protection fencing (see Inset sketch 2)
- Permanent ground protection - no-dig construction method
- Temporary ground protection (TGP) (see Inset sketch 3 for <2T access)

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enquiries@flac.uk.com
www.flac.uk.com

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

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

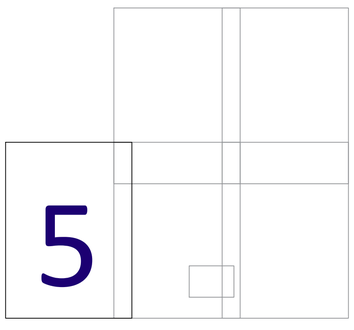
All tree positions are indicative unless a topo survey has been provided to FLAC

Any trees omitted from topo survey are located indicatively. These trees are marked with a *

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

Notes on potential habitat features are for guidance only: ecological assessment is recommended

Drawn to N unless otherwise indicated





Diam = 500mm

Ash
Diam = 550mm

540mm

H. Chestnut
Diam = 470mm

Dead collapsing

Dead Scots pine to 30m ht.

Birch

Holly/ wayfarer scrub under Horsey

Mixed species shrubs

Mixed species shrubs

Red line shows extents of earthworks

Pedunculate oak 8045 is not expected to have significant rooting presence in area of cut/fill earthworks due to the sandstone between the two and consequent level difference - the incursion upon the 'notional' circular RPA is considered acceptable

ROCKS ROAD

SNATT'S ROA

46.5m

FLAC

Client
Gleeson Strategic Land Ltd.

Instruction
Downlands

Instruction ref.
SC40-1020

Dwg title
Tree Protection Plan - Outline

Dwg no.
40-1020.03

Date
06.07.23

Scale
Overview sheet NTS
Plot sheets 1:1000 @ A0
THIS INSET SHEET 1:250 @A0

Quality & value grades:

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

- **Retained trees**
- **Notional tree root protection area - RPA**
- **Natural England 15x stem dia. veteran tree buffer**
- **Veteran tree crown hatch**
- **MAGIC Ancient and Semi-Natural Woodland**
- **MAGIC Ancient Replanted Woodland**
- **Indicative 15m ASNW buffer**
- **Ground-truthed 15m buffer (to topographical features)**
- **7001* Asterisk indicates approximate position**
- **FLAC Type 1 Tree protection fencing (see Inset sketch 1)**
- **FLAC Type 2 Tree protection fencing (see Inset sketch 2)**
- **Permanent ground protection - no-dig construction method**
- **Temporary ground protection (TGP) (see Inset sketch 3 for <2T access)**

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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 unless a topo survey has been provided to FLAC

Any trees omitted from topo survey are located indicatively. These trees are marked with a *

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

Notes on potential habitat features are for guidance only: ecological assessment is recommended

Drawn to N unless otherwise indicated

5m 10m 20m 30m 40m 50m

JFL 8

FLAC TECHNICAL NOTE ON
BOARDWALK TREE PROTECTION

FLAC 40-1020_JFL
DOWNLANDS

The use of pile-supported boardwalks for access routes through ancient woodland –

Technical Note, 210823

Context

Boardwalks are a known and accepted response to the possibility or occurrence of unmade path degradation at sensitive sites, including nature reserves, peatland, ancient woodland and so on. As such, boardwalks are a **mitigation measure**, that is, a measure is designed to reduce or remove harm that would otherwise occur.

It is for this reason that many landowners use ground protection boardwalks, including the Woodland Trust, the National Trust, many Wildlife Trusts, Royal Botanic Gardens Kew, and also the reason why Natural England frequently recommends and often requires their installation.

The latter is true in the case of Downlands, where NE has asked for boardwalks to be installed for SANG pathways within ancient woodland, as a mitigation measure for ground damage.

The adverse effect of ground damage on trees

The adverse effect of ground damage from excessive and unmanaged foot traffic on trees is confined to their roots but, via these, can have a whole-tree impact. Specifically, severe ground damage on unmade paths:

1. Leads to path spreading as people try to go around damaged areas.
2. Destroys ground flora, including that comprising woodland specialist plants.
3. Compacts the soil to localised bulk densities that exceed the range tolerated by roots.
4. Causes poaching and waterlogging, thereby creating anaerobic conditions within which roots cannot respire.
5. Causes an inversion in the fungi : bacteria ratio, to the detriment of the former, including mycorrhizal fungi beneficial to trees, which are highly sensitive to adverse soil conditions.
6. Results in tree stress, rendering affected trees vulnerable to frequently lethal, endemic, soil-dwelling pathogens such as Armillaria and Phytophthora.
7. Leads to a collapse in soil microfauna, in turn impacting the whole subterranean food-web.

These many deleterious effects can become difficult to reverse and so lead to the progressive deterioration of woodland adjacent to damaged paths. This is the existing situation with many paths in ancient woodland at Downlands, such that the installation of boardwalks would be strongly net beneficial.

Boardwalk elements

The design of ground protection boardwalks includes two essential elements, and a number of optional elements. The essential elements are a traffic surface (e.g. wooden cross-slats with anti-slip finish), and a ground support system.

This Technical Note considers the nature and effect of the proposed ground support system.

Tree root protection areas

As a technical editor for BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, and, now Chair of the British Standards Committee *Trees and Tree Work*, that oversees all tree-related British Standards, I have been closely involved in the preparation of standards for construction systems for use near to trees since 2003.

BS5837:2012 specifically endorses the use of piles for foundation systems in tree root protection areas, and does so with regards to the relatively large-sized piles required for building foundations.

However, much smaller piling systems are available for lightly-loaded structures, for example *Radix Ground Screws*, which result in even less (essentially zero) impact. Ground screws can be installed with hand tools and located to avoid likely high-density rooting areas by adjusting the pile-spacing (within the maximum), which is marked out during the site assessment and installation process.

Proposal at Downlands

In relation to excavation for the foundation/ support system, **no excavation is proposed** because the design relies on minimally invasive piles of the type referred above. These piles would be narrow diameter (76mm) screwpiles that are specifically designed for and endorsed for use in tree root protection areas (and other sensitive locations). See example product brochure at Enclosure 1.

Impact assessment

The boardwalk proposal at Downlands will sit on existing unmade paths that are already heavily trafficked and severely damaged in many places, whilst in others comprise bare ground. As such, there is no existing, sensitive ground flora assemblage at risk.

The proposed boardwalk within ancient woodland at Downlands is a mitigation measure explicitly sought by Natural England. It must follow that Natural England considers this an acceptable and site-appropriate solution. The proposed boardwalk would be installed using the single most environmentally friendly and minimally invasive system currently available. As such, we would not expect this feature to result in any measurable adverse impact on the receptor woodland.

By preventing further/ ongoing ground damage on the existing path network, damaged areas would start to recover, and healthy soil conditions would return over time. This would significantly improve rooting conditions for adjacent trees.

Overall, there would be no harmful impacts, and strongly net beneficial impacts from this proposal.

Julian Forbes-Laird

JFL 9

TREE & LANDSCAPE OFFICER CONSULTATION RESPONSE ON PLANNING APPLICATION

From: David Massheder
Sent: 17 October 2022 16:16
To: Claire Turner; Ben Rainbow
Cc: planning
Subject: RE: Planning Application WD/2022/1637/MEA

Categories: Consultee

Dear Claire,

I have the following tree & landscape comments in respect of this outline application:

Situation & location

The site is significantly constrained by ancient and semi natural woodland habitat (ASNW), areas of which project deeply into the centre of the site and influence the developable space. This habitat connects to a wider network of similar features. Current planning policy guidance stipulates that: *180c - development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.*



Ancient Woodland (ASNW) and Veteran Tree (VT) Impact

The proposal would result in a sudden and abrupt change leading to an intensification of the use of the site. A previously undeveloped space would become an urban edge feature to the existing adjacent woodland and veteran trees making them far more vulnerable to direct and indirect impacts such as those described below:

- Higher levels of noise
- Light pollution
- Disturbance to wildlife
- Vehicle noise and pollution
- Increased human activity, including trampling, creation of desire lines, fly tipping, cat predation etc

- Veteran trees are sensitive to sudden environmental change and are particularly vulnerable to the disturbance that inevitably results from a fundamental change of land use, such as construction.
- Changes to air quality can also adversely affect organisms that contribute to the irreplaceable nature of ancient woodlands and veteran trees (lichens, bryophytes, mycorrhizal networks etc).

Proposed buffer zones

In line with current standing advice the application proposes a 15m buffer around all ASNW and a x15 stem diameter buffer around veteran trees. Standing advice however notes that where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone. The size and scale of the development and it's interface with the existing ASNW and VT constraints suggests that this is an appropriate case where site specific larger buffers should be considered. In the case of Thirty Acre Wood for instance, the development proposal would lead to the woodland being encased within an urban structure, the A22 to the west and the proposed built form to the north and south. Similarly, Longwood Gill would become surrounded by built form and new hard surfacing to the north, south west and east, and its current protective isolation would be lost.

SUDS

It is noted that in at least nine instances, proposed attenuation ponds encroach into the delineated 15m ASNW buffer zones. Current standing advice states that development proposals within a buffer zone should not be approved. The proposed installation of SUDS structures within ASNW buffer zones should not be encouraged as these bring with them access and maintenance requirements that would undermine the effectiveness of the buffer zone as an undisturbed protective space.

Drainage connections using trenchless methodology

The drainage strategy proposes below ground drilling through much of the existing surrounding ASNW to connect with ghyll streams located within the same parcels of ASNW. Proposed methodology includes *"locating drainage inflows at pre-existing inflow points, installation of piped connections using trenchless methodology, and use of ground-bearing, prefabricated headwalls to prevent loss of woodland*." I am sceptical that this engineered solution would be as straightforward and harm free as it is presented and I am unconvinced that there would be no impact, direct or indirect, to the ASNW habitat from such a technical undertaking. Access of machinery and materials alone would cause disturbance to the habitat during the construction and this has not been fully assessed. The starting point of the standing advice is avoidance of impact to ASNW and the proposal to actually employ the ASNW habitat to make the proposal acceptable seems to be contrary to this advice. The caveat of Para 181c of 'wholly exceptional circumstances' is not met in this case.

Boardwalk connection to Uckfield Town

The application proposes the installation of a raised boardwalk through the south east corner of the site to act as a pedestrian connection to local services. The installation of an unnatural manmade feature, which incorporates lighting units, directly into ASNW habitat again raises a concern as an unwelcome and unnecessary intrusion into the ASNW habitat. The connection also encourages an intensification of use and would involve the removal of a linear swathe of woodland trees in order to accommodate the structure. The tree removals are detailed on FLAC 40-1020-02 within the AIA and shows that a number of the trees are categorised as B quality

under BS 5837:2012 standards, which would presume a remaining contribution of at least 20 years. However, using the BS 5837:2012 classification method for trees within woodland overlooks their habitat importance as dead/decaying wood and this appraisal format is generally more appropriate for amenity contexts rather than habitat assessment.

Objection

I am unable to support the application in its current form as the cumulative effects and impacts to the ASNW habitat, as outlined above, are considered to be contrary to NPPF (2021) para 180c and saved WDC Policy EN13.

Kind regards,

David Massheder | BA (Hons), Dip Arb L4 (ABC) | Tree & Landscape Officer
Planning & Environmental Services, Wealden District Council
[redacted]
Council Offices | Vicarage Lane | Hailsham | East Sussex | BN27 2AX

http://www.wealden.gov.uk
@wealdendc @wealden @wealdendc

IMPORTANT - PLEASE DO NOT RESPOND TO THIS EMAIL BUT SEND ANY COMMENTS TO planning@wealden.gov.uk. REPLYING TO THIS EMAIL COULD RESULT IN YOUR CONSULTATION RESPONSE BEING DELAYED IN REACHING THE CASE OFFICER. Please find document attached relating to planning application number WD/2022/1637/MEA for LAND AT DOWNLANDS FARM, UCKFIELD. Please note that the documents relating to this application will be available on the website within the next 24 hours.

JFL 10

ECOLOGY OFFICER CONSULTATION RESPONSE ON PLANNING APPLICATION

From: Ben Rainbow
Sent: 14 October 2022 17:12
To: Claire Turner
Cc: planning; David Massheder
Subject: WD/2022/1637/MEA Land at Downlands Farm, Uckfield

Categories: Consultee

Dear Planning Officer,

Please find below ecology consultation for this application:

Ancient Woodland, Irreplaceable Habitat
The large site is extensively bounded by and includes ancient woodland (AW), irreplaceable habitat. The site directly borders Lake Wood Local Wildlife Site on its southern side consisting of AW. The southeast of the site includes Fir Grove Copse AW, largely within the site boundary. The north-northwest of the site includes a thick corridor of woodland consisting of AW and priority habitat deciduous woodland. An AW ghyll, Longwood Ghyll, bisects the proposed developed area of the site within the south-centre to west area of the site. Shermanreed Wood AW bisects the site in the north-centre of the site alongside proposed developed area and proposed sustainable alternative natural greenspace (SANG). And the extensive Budlett's Wood is partially within and borders the site along its north to east boundary alongside proposed SANG. These poise significant and material constraints to development at this location.

SUDS, Proposed Directional Drilling under and into Ancient Woodland, Irreplaceable Habitat and AW Buffer Zones
The development proposes 13 SUDS ponds on the site. 9 of these are proposed within the minimum 15 metre buffer zone for ancient woodland, irreplaceable habitat. This includes SUDS pond on sheet 2 of the hard and soft landscape plan at 7 metres, SUDS on sheet 3 at 4 metres, SUDS on sheet 4 at 7 metres and SUDS on sheet 6 at 0 metres. It is clear SUDS at these locations will not be able to be accommodated without impacts upon AW. Natural England standing advice for AW states: "Buffer zone recommendations: For ancient woodlands, the proposal should have a buffer zone of at least 15 metres from the boundary of the woodland to avoid root damage (known as the root protection area). Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone". And: "A buffer zone should consist of semi-natural habitats such as: woodland; a mix of scrub, grassland, heathland and wetland". Failure of SUDS drainage and effectiveness to capture pollutants, contaminants and nutrients would lead to AW degradation and loss. Whiles SUDS can provide wetland habitat they do not provide sufficient buffer habitat for ancient woodland and waterbodies reflect light and noise, indirect impacts to AW; the majority of SUDS proposed are between road and AW where such impacts would be frequent onsite (e.g. vehicle movements).

At 11 locations the SUDS are proposed to have outflows directionally drilled underground through AW, emerging in AW by the ghyll streams. This will cause direct damage to AW and AW habitat/species where drilled pipes emerge through AW soils, levelling and citing proposed headwalls and ongoing impacts through proposed permanent citing of what is described as ground-bearing, prefabricated headwalls. Whilst bore-hole surveying has been undertaken on the site, for assessing soakaway capabilities of the site, this is at sporadic locations and it is understood such proposed directional drilling can be prevented by soil and rock composition on proposed routes, for example seams of sand causing drilling to change direction or be aborted; it

is noted such geology is present very near and potentially on the site. There is also likelihood that one or more of the proposed directionally drillings will meet complication and not able to be completed or damage AW habitat, soils or tree roots in the process. The geo-environmental site investigation report indicate soakage rates are too low to drain the site by infiltration, as such SUDS at these locations would be therefore discharge through ancient woodland, causing direct erosion and damage, or leading to recommendations for drainage trenches or hard landscaping features to accommodate outflow within AW, causing direct impact and degradation.

The proposed development would significantly increase hard surfaces on the site leading to a likelihood of increased water flow of, potentially contaminated surface water run-off into AW. The SUDS outflows are proposed to be concentrated at 11 points within AW where changes in hydrology will likely occur with increased localised flow rates and increased localised erosion of AW habitat within AW ghylls. Currently the drainage conditions onsite consist of a large expanse of grassland, which provides soakaway outside of the AW and distribute residual amounts of water widely into the AW, maintaining slow water flow and negating erosion. It is reasoned the development would not mimic the existing hydrological regime as water outflows would be concentrated AW watercourses through drainage pipes; such piping of water may would also not act as current processes of slowing water flow down to prevent erosion and silt deposition within AW.

The proposed development includes and has a large interface with AW. Natural England Standing Advice states the proposal should have a buffer zone of at least 15 metres. The development proposes extensively the minimum 15 metre buffer zone (where detailed elsewhere in this consultation is compromised in a number of locations). With such a large interface with AW it would be expected that buffer zones would be greater, to demonstrate no direct or indirect impacts, degradation or loss.

Ecological objection is raised.

Installation, Lighting and Access through Fir Tree Grove Ancient Woodland, Irreplaceable Habitat

A boardwalk is proposed through Fir Tree Grove woodland, AW. There is no current access through the AW. This will cause direct and indirect impacts to the ancient woodland, AW loss and degradation. This does not meet the exceptional circumstances test of the NPPF 2021 s180c. Impacts include: direct impact to AW through installation of circa 95 upright supports into AW soils; preventing and reducing light to the woodland floor, impacting ecology, eradicating existing species and preventing natural AW regeneration and growth; increase lighting levels (see below), and; increased noise and disturbance through increased access. The detailed soft landscape plan depicts 20 trees or groups of trees to be removed to accommodate the boardwalk in AW. In addition there is high likelihood that there will be future and immediate pressure to reduce or fell further AW trees in the vicinity of the new access proposed; increasing the risk of damage to people and property by falling branches or trees requiring tree management causing habitat deterioration.

Installation of 20 lighting units are proposed along the boardwalk length within Fir Tree Grove woodland, AW. The submitted lux lighting plan shows these will emit between 5 lux at these 20 locations. This is unacceptable and will materially impact ancient woodland ecology; lighting should be restricted to outside of AWs and AW buffer zones.

Development within ancient woodland should be avoided. The existing condition of AW is not a reason to give permission for development. A woodland or tree in poor condition can be improved with good management.

Ecological objection is raised.

Access to Ancient Woodland, Irreplaceable Habitat
There is no current public rights of way on the site. The application proposes circa 780 metres of footpath in AW. This will cause impacts upon the ancient woodland and an increase of damage to habitat including: trampling of plants and erosion of soil by people accessing AW; increasing disturbance to wildlife such as noise from additional people and traffic; increasing the amount of pollution including pet faeces and rubbish, and; increasing the risk of damage to people and property by falling branches or trees requiring tree management or removal causing habitat deterioration.

Along this route unsurfaced footpath is proposed with loose log edging lined with brash, approx. 0.5m high. This is an deemed ineffective to limit access to ancient woodland where no current access exists.

The proposed emergency access to the site from the A22 is through a narrow strip of woodland between two areas of AW. No buffer zone is proposed. It is unclear how access can be achieved for large vehicle visibility and turning without direct impacts and loss of AW.

Ecological objection is raised.

Biodiversity Net-Gain/Loss & SANGS
As per section 180 of the National Planning Policy Framework 2021 and policy WCS12 Biodiversity of the Wealden District Core Strategy Local Plan 2013, development should provide biodiversity net-gain that is integrated as part of their design. A biodiversity net-gain (BNG) assessment has been submitted with the application. This proposes a BNG of 42.33% for habitat units and estimated 86.41% for hedgerow units. The assessment states all created habitats will be made into 'good condition' significantly uplifting BNG calculations; this is deemed as unrealistic and unachievable. Post development, habitats would be subject to increased access, disturbance, noise, littering, fly-tipping & garden encroachment issues, roadside habitat parking, lighting and trampling & compaction and nutrient input through pet faeces and pet predation of wildlife. Habitats adjoining proposed/retained woodland and scrub such as proposed good condition wildflower grassland would also be subject to heavy shading, significant leaf litter and scrub encroachment. SUDS functions involve cumulative storage and capture of pollutants, contaminants and nutrients; it is unclear how good condition can be achieved and maintained. Ancient woodland and priority habitat deciduous woodland (as covered above) would be subject to increased direct and indirect impacts and achieving good condition is also deemed as unrealistic with these new and increased pressures.

The Natural England guidance for SANGS states:
"The identification of SANG should seek to avoid sites of high nature conservation value which are likely to be damaged by increased visitor numbers. Such damage may arise, for example, from increased disturbance, erosion, input of nutrients from dog faeces, and increased incidence of fires. Where sites of high nature conservation value are considered as SANG, the impact on their nature conservation value should be assessed and considered alongside relevant policy in the development plan".
"It is recommended that the BNG calculations for the SANG are done separately from the rest of the project calculations, in order to ensure a clear audit trail and allow for simple demonstration of the additional biodiversity unit uplift beyond the minimum SANG requirements. Any additional features provided for BNG purposes should not conflict with the principle purpose of the SANG. Consideration should be given for other ecosystem services provided by the SANG and design should ensure BNG does not compete with these but delivers alongside them. For example, a wildflower rich grassland area created for biodiversity benefits would provide additional ecosystem services but could potentially also conflict with recreational services provided by the SANG".

And: “Careful consideration should be given to the design of any additional biodiversity features introduced into the SANG to ensure they did not conflict with the SANGs principle purpose. For the purposes of the BNG calculation, the baseline value of the SANG is the site with the Habitat Regulation key required habitat features incorporated. Enhancements should be additional to count towards BNG, in that the enhancements would not have taken place in the absence of the BNG funding (or commitment of funding) and the biodiversity benefit (as measured through the metric) should not also be claimed to compensate for another project’s biodiversity impact”.

Ecological objection is raised.

Recommendation
Ecological objection. It is recommended the development does not meet local and national policy and associated guidance. Ref:
National Planning Policy Framework 2021 sections 174, 157 179 180 & 185
Wealden District Core Strategy Local Plan 2013, policy WCS12 Biodiversity
Wealden District Local Plan 1998 saved policy EN13 Ancient Semi-Natural Woodlands
Natural England Guidelines for Creation of Suitable Alternative Natural Greenspace 2021
Natural England and Forestry Commission standing advice for ancient woodland and veteran trees

Ben Rainbow | Biodiversity and Arboricultural Officer
Planning and Environmental Services, Wealden District Council
[redacted]
Council Offices | Vicarage Lane | Hailsham | East Sussex | BN27 2AX

http://www.wealden.gov.uk
@wealdendistrict @wealden @wealdendc

JFL 11

DRAINAGE OFFICER CONSULTATION RESPONSE ON PLANNING APPLICATION

My reference GK/LV8000

ask for Graham Kean

date 16 August 2022

Wealden District Council
Council Offices, Vicarage Lane
Hailsham
East Sussex BN27 2AX

website : www.wealden.gov.uk

MEMORANDUM

Mrs C Turner, Planning

/our reference

Planning Application WD/2022/1637/MEA
Land at Downlands Farm, Uckfield

I write further to your memorandum of 15 July 2022 regarding the above planning application and I would have the following comments.

Flood Risk

The site lies wholly within EA Flood Zone 1 so the sequential test is met and the exception test is not required for this site. The site does not appear to be at risk from tidal, sea or fluvial flooding or from failure of a drainage asset such as a canal or reservoir. The majority of the site is at very low risk of flooding from surface water but with high risk flow paths associated with the watercourses described below. Groundwater levels are stated to be typically greater than 1.9 metres below ground level.

There are ordinary watercourse systems shown on the EA mapping which rise within the site and flow westwards off the site towards the Shortbridge Stream. The majority of these are ghyll streams located within areas of Ancient Woodland. There are ponds shown on the EA mapping within the application site, both associated with the watercourses and on their own.

There are no records of flooding close to this location within this Council's land drainage database.

The Geological Map for the area is complex. The eastern side of the site is on the Upper Tunbridge Wells Sand Formation of interbedded sandstones and siltstones; the north western area is on the Ardingly Sandstone Formation of sandstones and the south-western area is on the Grinstead Clay Formation of mudstones.

Surface Water Drainage

There are no adopted, public surface water sewers in the vicinity of the site so this method of drainage is unavailable.

Infiltration is the first recommended drainage method in the SUDS hierarchy but the mixed, underlying mapped geology of the site and the presence of watercourses and ponds on the surface suggests that this may not be a usable solution for this site. No infiltration testing has been carried out.

The site drainage proposals are illustrative at present and comprise a series of swales and attenuation ponds directing water to the existing ordinary watercourses. It should be noted that drainage works will **not** normally be allowed in areas of Ancient Woodland even if directional drilling is used. Given the extent of this Ancient Woodland across the site, this may require a substantive redesign from what is presently proposed. The applicants are advised to discuss the matter with the Council's arboriculturalist as soon as possible. The Council does not wish to see areas of land raise just to accommodate filter trenches or swales and would wish for such areas to be redesigned. Given the presence of groundwater c2.0m below the surface it will be necessary to line the ponds. There is no indication of the condition and size of the existing watercourses and their capacity (or not) to carry the water from the site.

In considering the drainage principles proposed for the site, the Lead Local Flood Authority, ESCC, will require full detail in the drainage calculations used to design the system and Wealden, as the planning authority, would support this request. The calculations should prove that the final design can accommodate the site runoff rates for the standard 1 in 100 year rainfall event plus 45% climate change. I note the need for the new 45% rate is acknowledged in the Flood Risk Assessment.

It is stated that note that the maintenance activities for the surface water drainage system are to be undertaken by a site management company. A full maintenance plan will be required when the drainage design is finalised and before first occupation.

Notes

Any new outfall or outfalls to an ordinary watercourse will require Ordinary Watercourse Consenting from the Lead Local Flood Authority, over and above any planning permission which may be may be granted.

Provision of the foul sewage arrangements is for Southern Water to comment on.

Conclusion

In my opinion, the information provided within this application is not adequate for this application until and unless the question of outfalls through the ancient woodland can be addressed. I would therefore **object** to this application on surface water grounds.

Should this matter be overcome to the satisfaction of the Council's arboriculturalist and you are minded to allow planning permission, I would wish to see the following **conditions** applied namely:-.

> "No development shall take place until full details of the surface water drainage scheme, have been submitted to and approved in writing by the local planning authority. The surface water drainage scheme should be confirmed as deliverable by an assessment of the site's potential for disposing of surface water by means of a sustainable drainage system. The submitted details shall include the following:

i. Supply detailed plans, layouts and sections of the proposed drainage system and pollution/silt control devices and construction details of any non-standard features.

ii. Provide a full management and maintenance plan for the development which shall include the setting up of any necessary company to secure the operation of the scheme throughout its lifetime or evidence of adoption by the PCWLMB.

iii. Supply full hydraulic calculations to the correct level of climate change (45%), to the satisfaction of the Lead Local Flood Authority.

iv. Provide evidence by means of a photographic survey or similar that the receiving watercourses are in sufficient condition to receive the calculated flows.

NOTE: Attention should be given to non-statutory technical standards for sustainable drainage systems, the ESCC "Guide to Sustainable Drainage Systems in East Sussex" and the total costs of implementing the drainage scheme, that is design, construction and maintenance costs.

REASON: To reduce the risk of flooding, both on and off site, to improve and protect the water quality and improve habitat and amenity having regard to the guidance set out in the National Planning Practice Guidance and at paragraphs 163 and 165 of the NPPF and any local plan policies where appropriate according to the local planning authority, for example WCS14 of CSLP, saved policy CS2 of the Wealden Local Plan."

Please contact me if you wish to discuss the matter further or to meet on site.

Graham Kean
Engineer and Countryside Officer

My reference GK/LV8000

ask for Graham Kean

date 30 September 2022

Wealden District Council
Council Offices, Vicarage Lane
Hailsham
East Sussex BN27 2AX

website : www.wealden.gov.uk

MEMORANDUM

Mrs C Turner, Planning

your reference

Planning Application WD/2022/1637/MEA - Reconsultation
Land at Downlands Farm, Uckfield

I write further to your reconsultation memorandum of 7 September 2022 regarding the above planning application and I would have the following comments. I commented initially on this application on 16 August 2022.

This reconsultation is effectively replying to the Technical Note – Response to Drainage Comments dated 23 August 2022.

Flood Risk

As previous.

Surface Water Drainage

There are no adopted, public surface water sewers in the vicinity of the site so this method of drainage is unavailable.

Infiltration is the first recommended drainage method in the SUDS hierarchy but the mixed, underlying mapped geology of the site and the presence of watercourses and ponds on the surface suggests that this may not be a usable solution for this site. I note that the applicants have carried out infiltration testing which confirmed that the percolation rates were has been carried out.

The site drainage proposals comprise a series of swales and attenuation ponds directing water to the existing ordinary watercourses. It should be noted that drainage works will **not** normally be allowed in areas of Ancient Woodland even if directional drilling is used. Given the extent of this Ancient Woodland across the site, this may require a substantive redesign from what is presently proposed. The applicants are advised to discuss the matter with the Council's arboriculturalist as soon as possible, based on the ideas outlined in the arboricultural and ecological consultant work submitted as part of the application.

The Council does not wish to see areas of land raise just to accommodate filter trenches or swales and would wish for such areas to be redesigned. Given the presence of groundwater c2.0m below the surface it will be necessary to line the ponds. There is no indication of the condition and size of the existing watercourses and their capacity (or not) to carry the water from the site.

In considering the drainage principles proposed for the site, the Lead Local Flood Authority, ESCC, will require full detail in the drainage calculations used to design the system and Wealden, as the planning authority, would support this request. The calculations should prove that the final design can accommodate the site runoff rates for the standard 1 in 100 year rainfall event plus 45% climate change. I note the need for the new 45% rate is acknowledged in the Flood Risk Assessment. I note that initial calculations have already been provided.

It is stated that note that the maintenance activities for the surface water drainage system are to be undertaken by a site management company. A full maintenance plan will be required when the drainage design is finalised and before first occupation.

Notes

Any new outfall or outfalls to an ordinary watercourse will require Ordinary Watercourse Consenting from the Lead Local Flood Authority, over and above any planning permission which may be may be granted.

Provision of the foul sewage arrangements is for Southern Water to comment on.

Conclusion

In my opinion, the new information provided within the Technical Note – Response to Drainage Comments makes valid points acknowledged above. In surface water terms, the information is largely satisfactory. However, the key question is whether approval can be obtained from the Council's arboriculturalist for the works in the ancient woodland. I would therefore **maintain my holding objection** to this application until this point is determined.

Should this matter be overcome to the satisfaction of the Council's arboriculturalist and you are minded to allow planning permission, I would wish to see the following **conditions** applied namely:-.

> "No development shall take place until full details of the surface water drainage scheme, have been submitted to and approved in writing by the local planning authority. The surface water drainage scheme should be confirmed as deliverable by an assessment of the site's potential for disposing of surface water by means of a sustainable drainage system. The submitted details shall include the following:
>
> i. Supply detailed plans, layouts and sections of the proposed drainage system and pollution/silt control devices and construction details of any non-standard features.
>
> ii. Provide a full management and maintenance plan for the development which shall include the setting up of any necessary company to secure the operation of the scheme throughout its lifetime or evidence of adoption by the PCWLMB.

iii. Supply full hydraulic calculations to the correct level of climate change (45%), to the satisfaction of the Lead Local Flood Authority.

iv. Provide evidence by means of a photographic survey or similar that the receiving watercourses are in sufficient condition to receive the calculated flows.

NOTE: Attention should be given to non-statutory technical standards for sustainable drainage systems, the ESCC "Guide to Sustainable Drainage Systems in East Sussex" and the total costs of implementing the drainage scheme, that is design, construction and maintenance costs.

REASON: To reduce the risk of flooding, both on and off site, to improve and protect the water quality and improve habitat and amenity having regard to the guidance set out in the National Planning Practice Guidance and at paragraphs 163 and 165 of the NPPF and any local plan policies where appropriate according to the local planning authority, for example WCS14 of CSLP, saved policy CS2 of the Wealden Local Plan."

Please contact me if you wish to discuss the matter further or to meet on site.

Graham Kean
Engineer and Countryside Officer

My reference GK/LV8000

ask for Graham Kean

date 30 September 2022

Wealden District Council
Council Offices, Vicarage Lane
Hailsham
East Sussex BN27 2AX

website : www.wealden.gov.uk

MEMORANDUM

Ms T Zulu, Planning

your reference

Planning Application WD/2022/1637/MEA – Second Reconsultation
Land at Downlands Farm, Uckfield

I write further to your second reconsultation memorandum of 25 January 2023 regarding the above planning application and I would have the following comments. I previously commented on this application on 16 August and 30 September 2022.

This reconsultation is effectively replying to the second Technical Note – Response to Drainage Comments dated 18 January 2023.

Flood Risk

As previous.

Surface Water Drainage

There are no adopted, public surface water sewers in the vicinity of the site so this method of drainage is unavailable.

Infiltration is the first recommended drainage method in the SUDS hierarchy but the mixed, underlying mapped geology of the site and the presence of watercourses and ponds on the surface suggests that this may not be a usable solution for this site. I note that the applicants have carried out infiltration testing which confirmed that the percolation rates were has been carried out.

The site drainage proposals comprise a series of swales and attenuation ponds directing water to the existing ordinary watercourses. It should be noted that drainage works will **not** normally be allowed in areas of Ancient Woodland even if directional drilling is used. Given the extent of this Ancient Woodland across the site, this may require a substantive redesign from what is presently proposed. The applicants are advised to discuss the matter with the Council's arboriculturalist as soon as possible, based on the ideas outlined in the arboricultural and ecological consultant work submitted as part of the application.

The Council does not wish to see areas of land raise just to accommodate filter trenches or swales and would wish for such areas to be redesigned. Given the presence of groundwater c2.0m below the surface it will be necessary to line the ponds. There is no indication of the condition and size of the existing watercourses and their capacity (or not) to carry the water from the site.

In considering the drainage principles proposed for the site, the Lead Local Flood Authority, ESCC, will require full detail in the drainage calculations used to design the system and Wealden, as the planning authority, would support this request. The calculations should prove that the final design can accommodate the site runoff rates for the standard 1 in 100 year rainfall event plus 45% climate change. I note the need for the new 45% rate is acknowledged in the Flood Risk Assessment. I note that initial calculations have already been provided.

It is stated that note that the maintenance activities for the surface water drainage system are to be undertaken by a site management company. A full maintenance plan will be required when the drainage design is finalised and before first occupation.

Notes

Any new outfall or outfalls to an ordinary watercourse will require Ordinary Watercourse Consenting from the Lead Local Flood Authority, over and above any planning permission which may be may be granted.

Provision of the foul sewage arrangements is for Southern Water to comment on.

Conclusion

The new information provided within the most recent, second Technical Note – Response to Drainage Comments merely restates my previous comments in regard to surface water drainage at this location. No new or further information is provided. Therefore, the key question remain whether approval can be obtained from the Council's arboriculturalist for the works in the ancient woodland. I would therefore **maintain my holding objection** to this application until this point is determined.

Should this matter be overcome to the satisfaction of the Council's arboriculturalist and you are minded to allow planning permission, I would wish to see the following **conditions** applied namely:-.

> "No development shall take place until full details of the surface water drainage scheme, have been submitted to and approved in writing by the local planning authority. The surface water drainage scheme should be confirmed as deliverable by an assessment of the site's potential for disposing of surface water by means of a sustainable drainage system. The submitted details shall include the following:
>
> i. Supply detailed plans, layouts and sections of the proposed drainage system and pollution/silt control devices and construction details of any non-standard features.
>
> ii. Provide a full management and maintenance plan for the development which shall include the setting up of any necessary company to secure the operation of the scheme throughout its lifetime or evidence of adoption by the PCWLMB.

iii. Supply full hydraulic calculations to the correct level of climate change (45%), to the satisfaction of the Lead Local Flood Authority.

iv. Provide evidence by means of a photographic survey or similar that the receiving watercourses are in sufficient condition to receive the calculated flows.

NOTE: Attention should be given to non-statutory technical standards for sustainable drainage systems, the ESCC "Guide to Sustainable Drainage Systems in East Sussex" and the total costs of implementing the drainage scheme, that is design, construction and maintenance costs.

REASON: To reduce the risk of flooding, both on and off site, to improve and protect the water quality and improve habitat and amenity having regard to the guidance set out in the National Planning Practice Guidance and at paragraphs 163 and 165 of the NPPF and any local plan policies where appropriate according to the local planning authority, for example WCS14 of CSLP, saved policy CS2 of the Wealden Local Plan."

Please contact me if you wish to discuss the matter further or to meet on site.

Graham Kean
Engineer and Countryside Officer

JFL 12

SYLVAN REPRESENTATION TO NATURAL ENGLAND REGARDING BEECHY PIT WOOD

Our ref: SC40-1020

25 August 2020

Operations Delivery, Consultations Team
Natural England
County Hall
Spetchley Road
Worcester, WR5 2NP

c/o Aspect Ecology Ltd
West Court
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Banbury
Oxfordshire OX16 2AF

t: : 01767641648
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By E-Mail to:
consultations@naturalengland.org.uk
emma.goldberg@naturalengland.org.uk

Dear NE Consultations,

LAND AT DOWNLANDS FARM, UCKFIELD

We are instructed to undertake historic landscape investigations in respect of woodland ancientness on land at Downlands Farm, Uckfield, which hosts extensive areas of woodland listed within the Ancient Woodland Inventory (AWI) (Figure 1)

One such area is a very small copse (1180m^2; red box on Figure 1) which comprises a narrow fringe of trees around a pond. This pond is in fact an Iron Ore pit of the type common in the Weald.

Our desk-based research has identified two consecutive maps which show no woodland in this area:

1. Ordnance Survey Draft (OSD) 1806 (Figure 2)
2. Uckfield Parish Tithe Map 1841, where the area of interest appears as Plot 67 (Figure 3)

In relation to the latter, we have consulted the Tithe Apportionment Record accompanying the map. Plot 67 is named as Beechy Pit, and is described as being under arable use (Figure 4).

The Tithe data, which is consistent with the evidence provided by the OSD, confirms an alternative, non-woodland, land-use. The woodland appears around the pond some time afterwards, as it is shown in the Ordnance Survey 6" map of 1878 (Figure 5). However, there is no evidence of woodland present before this date provided by any cartographic source.

In addition to undertaking a desk-based assessment, Sylvan has also undertaken field work seeking extant features that would support the ancient identification. In particular, we sought sylvio-archaeological remains, old growth trees, tree stumps and coppice, and botanical indicators.

We found nothing in either of the first two categories. In respect of botanical indicators, we found no strong indicators of ancient woodland; three of moderate strength (three-nerved sandwort, harts-tongue fern, primrose (Figure 6)), and four weak indicators (bluebell, field maple, holly, wood-sedge).

The Sylvan brand is a specialist collaboration between Aspect Ecology Ltd (registered number 5648214 – England and Wales) and Forbes Laird Arboricultural Consultancy Ltd (registered number 05253618 – England and Wales)

Whilst this very low botanical interest does not provide material support for woodland ancientness, even this should be considered in the context that the copse is connected by a maturing planting belt to woodland that our investigation confirms is probably ancient (Longwood Gill). This connectivity provides a plausible colonisation route for the plants concerned, which further reduces the weight that should be attached to their presence in the copse.

In any event, the confirmed alternative land-use in the first half of C19 prevents the copse from meeting the criteria for ancient woodland set out in the NPPF, specifically the copse has not been *continuously wooded since at least 1600AD*. It is, therefore, not ancient woodland and it is on this basis that we request its removal from the AWI.

Yours sincerely

[redacted]

[redacted]

Figure 1 - Extract from MAGIC database showing Inventory woodland at Downlands Farm
Red box indicates the subject area

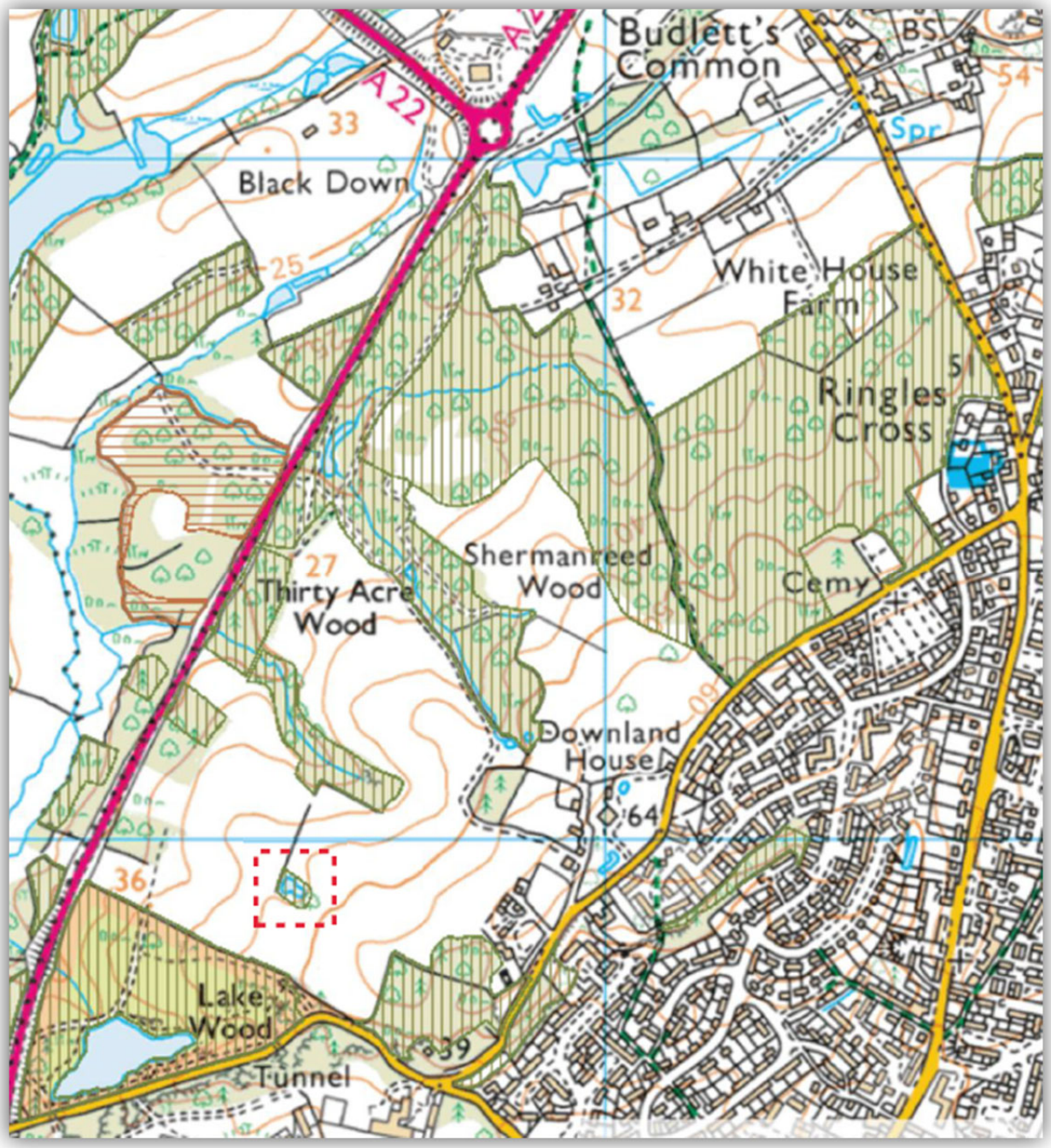


Figure 2 - Extract from OSD 1806
Red box around faint outline of Iron Ore pit



Figure 3 - Extract from Uckfield Parish Tithe Map 1841 showing Plot 67
Red box indicates the subject area



Figure 4 - Uckfield Parish Tithe Apportionment Record extract giving land-use details for Plot 67

	Downland				
510	No Mans Slip	Pasture	.	3	4
22	No Mans Land	"	2	2	10
23	Day Field	"	6	1	7
24	By Field Brook	"	4	.	35
25	Uckfield Acre	"	1	2	26
71	Little Ox pasture	"	1	3	30
511	Shaw	Wood	.	1	3
72	Holly Banks	Pasture & Rough	9	.	20
73	Upper & Lower Fairhazel	Pasture	3	1	10
59	Barn Field	Meadow	3	.	33
67	Beechy Pit	Arable	5	2	2
70	Gate Field	"	5	1	24

Figure 5 - Extract from OS 6" map 1878 showing woodland around pond
Red box indicates the subject area

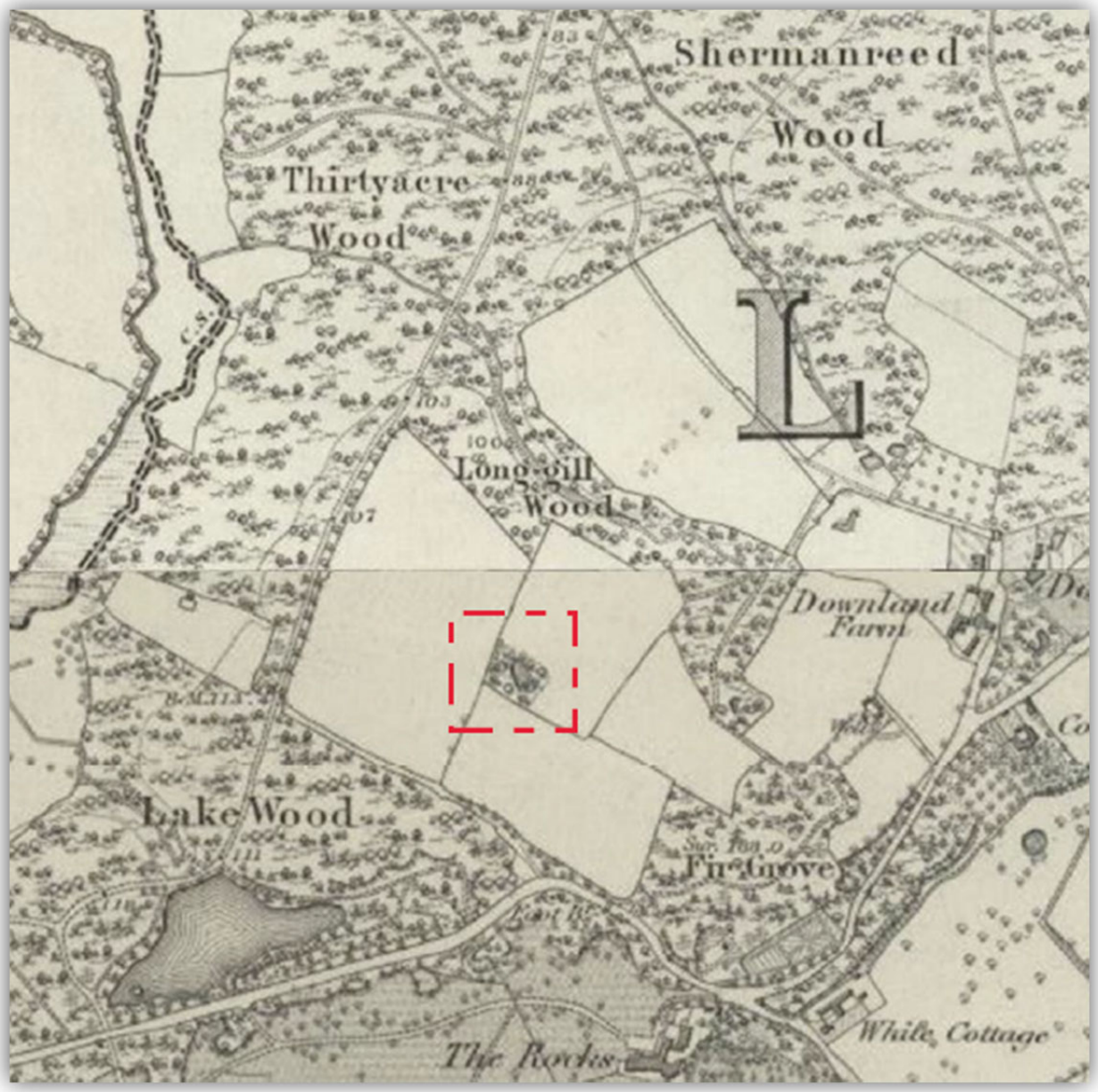


Figure 6 - Primula vulgaris (rhubarb-and-custard form) photographed by the author on 28.05.20



JFL 13

NATURAL ENGLAND FIRST PLANNING CONSULTATION RESPONSE ON MANYDOWN

Date: 25 February 2019
Our ref: 271963
Your ref: 17/00818/OUT

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Lucy Page
Principal Planning Officer
Basingstoke & Deane Borough Council

BY EMAIL ONLY

Dear Lucy

Planning consultation: FURTHER INFORMATION - Mixed use residential led development for max 3,520 dwellings, schools, local centres, public open spaces, country park and supporting infrastructure.
Location: Manydown Land Off Roman Road And Worting Road, Worting Road, Basingstoke, Hampshire

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Thank you for your consultation on the above application relating to further information.

Objection - Additional Information required

Biodiversity Impact Assessment
It is welcomed that overall the development is shown to provide an overall net gain in biodiversity. However Natural England are concerned that residual losses remain in terms of loss of arable flora and 22 breeding skylark plots. Uncertainty remains regarding the compensatory measures to offset the loss of arable flora, their appropriateness and how they will be secured long-term. No additional measures have been put forward to address the moderate adverse impact on skylarks. It is our advice that until the residual impacts are addressed, it is not possible to conclude the development will result in biodiversity net gain. Please see further advice on this below.

The covering letter states that the Biodiversity Impact Assessment (TEP, Nov 2018) is based on a 'cautious interpretation' of the proposals and therefore it is advised this metric should be re-run for subsequent full and detailed applications relating to the development.

Ex-situ farmland mitigation/compensation
The updated Farmland Wildlife Mitigation Framework outlines various possible compensation and mitigation measures in the form of countryside stewardship options, to address impacts on arable flora and farmland birds such as skylark, in areas within land within the applicant's control outside of the red development line. The document outlines that 'some of the land identified in the ES for ex-situ secondary mitigation is currently under review for application into the Countryside Stewardship (CS) scheme' and that 'there is no intention for this Addendum Appendix to prejudice any ongoing application or existing management plan currently implemented under the Stewardship Options'. The document outlines the intention for measures to form a 'holistic farmland wildlife management plan' that would ideally be brought under 'applicable/equivalent options under CS or an equivalent scheme'.

Natural England would like to make clear that it is not possible to deliver mitigation and compensation measures secured through any planning permission through a funded agri-environment scheme. These measures should be fully funded by the applicant/developer including measures in-perpetuity (80 years) as advised below.

It therefore stands that Natural England's advice provided in the letter dated 13th September 2018 still applies regarding arable flora and skylark. As uncertainty remains regarding the practicability to secure measures elsewhere in the Estate over the long term, it is advised the arable margins and other measures (which should include provision of skylark plots) are managed for a set period (e.g. 5 or 10 years), plus appropriate funding provided to a long-term farmland wildlife scheme that benefits arable flora and skylark via a Section 106. Funding should be provided upfront and calculated in-perpetuity (80 years) to ensure net gain in biodiversity is secured over the long-term – the Dorset habitat compensation framework or other can be used to achieve an appropriate figure, or similar mechanism such as that used by the Environment Bank. It is recommended the developer engages with relevant non-governmental organisations such as the Hampshire & IoW Wildlife Trust as potential deliverers of any conservation management. Natural England is happy to advise further on compensation and mitigation options.

Annual or bi-annual reports monitoring the ex-situ mitigation and compensation measures should be made available to relevant stakeholders (including Natural England and Basingstoke & Deane Borough Council).

As stated in our previous advice, the establishment of compensatory sites for arable flora through a condition of any planning permission will make these sites ineligible for future agri-environment scheme funding.

Additionally, it is noted that the land is subject to an existing CS scheme and we strongly recommend that the agreement holder engages in discussion with the Rural Payments Agency (RPA) so that appropriate alternative sites for options are identified with the assistance of Natural England. (Rotational options that are designed to be moved around the farm should be moved to areas where they will have a positive impact. Where the option cannot be relocated the RPA are likely to reclaim grants previously made.)

Ancient woodland

Although the buffers along the southern boundary of Worting Wood and the southern and eastern boundaries of Wootton Copse are set at a minimum of 20m between these woodlands and the adjacent development, the Biodiversity Impact Assessment show these appear to be outlined for management as amenity grassland. The minimum 15m buffer as described in the Natural England standing advice caters for protection of the tree root zone, however it is considered these woodlands are still at major risk from recreational impacts associated with public use (such as soil compaction; eutrophication (dogs) and tipping). It is advised these buffers in their current form will not be sufficient to avoid or adequately mitigate these impacts. It should be ensured that these buffers are of a minimum 50m width to take full account of the close proximity of the development to these woodlands. At least 15m from the woodland boundaries should be left in a semi-natural state and allowed to 'scrub up' to allow the development of a graded woodland-edge habitat and further protect the ancient woodland. Paths, SuDS (appropriately located) and other features within the buffers could be considered reasonable beyond the 15m.

Natural England's previous response outlined concerns that impacts on ancient woodland across the development site were not being fully addressed and made a request for further information. It is maintained that further assessment is still required and where impacts cannot be avoided, extra mitigation measures should be outlined. As previously requested, a woodland management plan or dedicated BMMP should be compiled that outlines mitigation and enhancements to all the woodlands affected by the development, with details of how they will be delivered and how this will be secured over the operational phase of the development (i.e. in perpetuity). Particular regard should be given to the long-term management of the woodland SINCs. Mitigation measures should include the following:

- Changes to the buffers that lie directly adjacent to the development as outlined above;
- Protection of the most sensitive areas of woodland by establishing 'refuge' areas where access will be prohibited
- Appropriate woodland path layout to direct visitors to less sensitive parts of site (e.g. red kite nesting area)
- Restoration of areas of plantation to semi-natural woodland
- Creation and maintenance of open graded rides
- Provision of enhancement features for woodland species (bat and bird boxes, reptile hibernacula, wood piles for invertebrates etc.)

Soils and Land Quality

Although we consider that this proposal falls outside the scope of the Development Management Procedure Order (as amended) consultation arrangements, Natural England draws your Authority's attention to the following land quality and soil considerations:

1. Based on the information provided with the planning application, it appears that the proposed development comprises approximately 360 ha of agricultural land, the majority of which is classified as 'best and most versatile' (Grades 1, 2 and 3a land in the Agricultural Land Classification (ALC) system).

2. Government policy is set out in paragraph 170 and 171 of the National Planning Policy Framework which states that:

   'Planning policies and decisions should contribute to and enhance the natural and local environment by:

   recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.'

   And

   Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework[1]; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

In order to safeguard soil resources as part of the overall sustainability of the development, it is important that the soil is able to retain as many of its many important functions and services (ecosystem services) as possible through careful soil management.

3. Consequently, we advise that if the development proceeds, the developer uses an appropriately experienced soil specialist to advise on and supervise soil handling, including identifying when soils are dry enough to be handled and how to make best use of the different soils on site. Further guidance is available in Defra *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (including accompanying Toolbox Talks)* and we recommend that this is followed.

If you have any queries relating to the advice in this letter please contact Rebecca Aziz on 020 8026 0064.

[1] Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.

Should the applicant wish to discuss the further information required and scope for mitigation with Natural England, we would be happy to provide advice through our Discretionary Advice Service.

Please consult us again once the information requested above, has been provided.

Yours sincerely

Rebecca Aziz
Sustainable Development Lead Advisor
Dorset, Hampshire and Isle of Wight Area Team

JFL 14

LETTER FROM MANYDOWN PLANNING CONSULTANTS TO NATURAL ENGLAND

Tibbalds

9th December 2019

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BY EMAIL ONLY

Dear Mike

REF: Outline Planning Application for Manydown 17/00818/OUT (the Application)

This letter provides additional and supplementary information to the Outline Planning Application (OPA) originally submitted in February 2017 and updated in July 2018 and January 2019 for the Manydown site located to the west of Basingstoke. It is provided on behalf of the applicant (Hampshire County Council and Basingstoke and Deane Borough Council) in order to provide an overview of the various updates to the application documents and to set out the ongoing progress and discussions with the Local Planning Authority and a range of other statutory consultees. It sets out updated application proposals and supporting information and confirms which information remains part of the application and which is now superseded. It should be read in conjunction with the addendum Planning Statement MDS2RA submitted alongside this letter.

In summary, this addendum submission:

- Changes the status of one of the site access points along the B3400 within the application in order to further support future comprehensive access arrangements;
- Updates two of the parameter plans (5556/OPA/004/P Rev D & 5556/OPA/005/P Rev D);
- Updates the Transport Assessment with a revised addendum setting out the impact of Manydown on the highway network and how it can be mitigated;
- Updates the Environmental Impact Assessment in a number of relevant areas and to address the amendments above; and
- Explains related proposals for off-site mitigation through the creation of areas of additional habitat planting to the west of the site (and secured separately under planning reference 19/02649/FUL).

A more detailed explanation of each of these changes is set out below.

We confirm that the material included with this letter does not include nor is it the

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result of any further changes (from those submitted in January 2019) to the substantive proposals for the Manydown application itself and in particular in terms of what is proposed for the new housing, local centres, the Country Park, community facilities and open spaces etc. but rather it provides supplementary information, clarifications and an update on a number of key related issues.

This letter provides an update on the following topics:

1 Summary of key correspondence to date

2 Key updates and scope of this December 2019 addendum submission

3 Updates to Environmental Impact Assessment and baseline studies

4 Proposed role and nature of the Main Street

5 Planning policy update

6 Nitrate Limits in Solent Protected Waters

7 S106 Heads of Terms Update

8 Statutory and public consultation update

The letter also contains the following appendices:

- Appendix 1: List of planning application documents that form the final submitted documents in support of the OPA
- Appendix 2: Summary and response to statutory and neighbour consultation comments:
- Table 1: statutory consultees
- Table 2: neighbour comments
- Table 3: response to HCC highways letter of 13th February 2019 as duplicated from the TA Second Addendum document MSD12aRA2)

1. Summary of key correspondence to date

For clarity, we record the following key dates of submission and principal correspondence between the Applicant and the Local Planning Authority (LPA).

- 1st March 2017: OPA validated by the LPA
- 2nd June 2017: Response letter received from LPA setting out an initial assessment of the application
- 18th July 2018: Additional and revised material submitted to LPA, with response to 2nd June 2017 letter from LPA
- 28th January 2019: Additional and revised material submitted to LPA
- 6th December 2019: Additional and revised material submitted to LPA

A final list of the planning application documents for approval is included in Appendix 1 to this letter, which notes where documents have been revised and replaced, or if there is an addendum in support of an original document submitted previously. This list confirms the intended final list of application documents and drawings for this application. We confirm that any other previously submitted documents, not included on this list, no longer form part of this application.

2. Key updates and scope of December 2019 Addendum submission (duplicated from Planning Statement MDS2RA for clarity)

Since January 2019 the Applicant has been engaging in on-going discussions with statutory consultees and the LPA with respect to the planning application. Under the headings below, we set out the key updates to the OPA as contained in this December 2019 Addendum submission.

Highways updates

Through ongoing discussions with the highways authority and in response to their letter of February 2019 the applicant has further developed the detail of the proposals for off-site junction improvements that may form part of a package of mitigation for the site and have sought to fully respond to the issues raised. A table of responses to the Hampshire County Council highways letter of the 13th February 2019 is included within section 11 of the Transport Assessment Second Addendum (document MSD12aRA2) and for clarity is repeated in appendix 2 table 3 of this letter.

Further work with the Highways Authority since January has focussed on refining the approach to each of the junctions identified as potential mitigation for the impact of the Manydown proposals, undertaking Road Safety Audits (RSAs) for both the junction and walking and cycling improvement schemes, refinement of the distribution diagrams for the network as a whole, and updates to the public transport (PT) proposals to demonstrate the baseline strategy that sits alongside the baseline modelling used for highways and vehicular trips. Further work has been undertaken to develop the "monitor and manage" approach that will be used through the delivery of the proposals to allow these to be refined based on phasing proposals, changes in movement patterns, and for delivering more aspirational transport measures that deliver on sustainable transport objectives adopted by the Borough and County Councils.

One of the areas of amendment to the highways mitigation package has been an update to the proposed changes to the A339 Rooksdown junction. The earlier version proposed a right turn ban for all movements and following consultee feedback and discussion with local groups this has now been refined, with the agreement of the Highways Authority to allow for the retention of a key right turn movement within the future proposals. More recent discussions with the local community have confirmed that this issue has now been adequately addressed to overcome the earlier concerns. The revised proposals for this junction are set out in the TA Second Addendum.

A Transport Assessment Second Addendum (document MSD12aRA2) dated December 2019 updates the information discussed with HCC as Highways Authority and provides a refined set of transport proposals for the site as a whole.

Further work has also been completed to test a number of scenarios around the quantum of vehicles expected to use Main Street as a through route and which is accommodated into the above work.

Worting Road Secondary Southern Access

The promoters of Worting Park are progressing pre-application discussions with regard to their land within the SS3.10 local plan allocation and potential access arrangements from Worting Road. In order to ensure a comprehensive approach and not prejudice potential proposals, in line with Local Plan Policy SS3.10 and the Manydown Development Brief SPD, we are writing to withdraw drawing 5556-OPA-009-P Worting Road Southern Secondary Access (January 2019) as a drawing for approval but have still retained this junction on the Access and Movement parameter plan (ref 5556-OPA-004-P rev D) as a point of access. Nonetheless we have still taken into account the impacts of the proposed junction as part of the assessments carried out in the Environmental Statement and Transport Assessment.

This change is made in the context of Manydown Development Brief SPD Development Principle 2d which requires a comprehensively planned movement network. This approach facilitates comprehensive proposals being developed and brought forward across both sites at the appropriate time and prior to the delivery of those parts of the allocation.

To reflect the withdrawal of this drawing, we have submitted a revised version of the Access and Movement and Parameter Plan (ref 5556-OPA-004-P rev D). This retains the principle of access in this location but leaves the detail to be agreed as part of a comprehensive approach to come forward at a later date.

Advanced Ecological and Landscape Planting (planning application reference 19/02649/FUL)

The Manydown OPA site includes some areas of ecological value for a range of species and biodiversity features. These include a north-south movement corridor (known as the 'Green Lane') that is used by certain bats and other species and that needs to be re-provided and enhanced through mitigation in key locations to allow for a future connection to be made across the site for the Main Street.

The OPA currently provides for this particular mitigation within the application site boundary through a 25m corridor along the inside of the Western application boundary to the east of the lane connecting the B3400 to Wootton St Lawrence. This corridor comprises two elements made up of a core ecological mitigation corridor of 15- 20m in width, and an eastern 5m-10m edge that is a buffer to the adjacent development. This is identified on the relevant parameter plans and is described in greater detail within the ecology chapter of the ES and the relevant sections of the DAS addendum. As such it forms an identified element of the mitigation for the OPA proposals and would in due course need to be detailed and approved as reserved matters before it is able to be implemented.

However, in order to allow for this planting to come forward within the next planting season and given the current timescales associated with the determination of the OPA the applicant has looked at ways of bringing forward key elements of the mitigation sooner in order to support early delivery.

A separate planning application has been submitted in parallel with the OPA (application reference: 19/02649/FUL), to secure an alternative option for delivering this mitigation in a slightly different location from that proposed in the main OPA. The application seeks approval for "advanced planting of approximately 4.5ha of new habitat and the reinforcement of existing habitat alongside associated ground works and surface water drainage. This new habitat will provide ecological and landscape mitigation for the Manydown OPA ref 17/00818/OUT."

Both the mitigation in the OPA and the alternative mitigation in the separate detailed application form acceptable options for this element of mitigation and are considered through the amendments to the ES. A comparison of the two approaches is set out within ES Chapter 9 Ecology and Nature Conservation (MSD13 Appendix F) and the cumulative impact of the separate application has been assessed in ES Chapter 16 Cumulative and In-combination Effects (MSD13 Appendix M). The OPA therefore is set out so that it is able to rely either on the separate detailed application if that is the mitigation route is implemented, or the existing mitigation proposals contained within the OPA.

To reflect this approach, the Open Space and Landscape Parameter Plan (5556/OPA/005/P Rev D) has been updated to allow for both of these approaches and the future implications for these parts of the site, noting through a hatched pattern that the 25m corridor is now shown as 'Strategic Multi-functional Green Space: Visual Buffer (tree planting) and biodiversity features' and/or 'Strategic Multi-functional Green Space: Green Corridors and Buffers'.

3. Updates to Environmental Impact Assessment and baseline studies (duplicated from Planning Statement MDS2RA for clarity)

As the Manydown proposals are subject to an Environmental Impact Assessment, a review of all of the additional application material, as set out with this letter, has been undertaken to ensure that none of this information materially changes the conclusions or mitigation proposed in the Environmental Statement (MSD12 and 13 plus related documents).

We can confirm that the additional documents that now form part of the Environmental Statement do not give rise to changes to the assessment of significant effects, with the exception of Traffic and Transportation. The additional significant effect of the Traffic and Transportation assessment are set out in the ES Addendum Summary and the updated version of Chapter 14 of the ES.

Individual chapters of the ES have been updated where necessary to reflect the Transport Assessment Second Addendum, the amended Parameter Plans and withdrawal of the Worting Road Secondary Southern Access plan (5556-OPA-009-P).

The baseline surveys / studies underpinning each technical assessment have been reviewed to determine whether updates are required. Section five of MSD13R ES Addendum Summary provides an explanation for each technical topic and whether an updated assessment has been necessary. As set out in the ES Addendum Summary, only the baseline habitat and flora surveys have been updated and are submitted as ES Appendix F4. MSD15R Biodiversity Impact Assessment Summary has also been updated with this new baseline material. Following discussion with BDBC Environmental Health Officers, the Applicant has also taken the opportunity to update ES Chapter 6 Air Quality to reflect the latest transport scenario testing.

The table in Appendix 1 sets out the package of information that now forms the Environmental Statement including originally submitted documents in March 2017 and addendum/revised material submitted in July 2018, January 2019 and December 2019.

As part of this update and given the time since the application was originally submitted the applicant has reviewed the baseline information used to assess the proposals and their impact. In some cases survey work has been updated and in other areas a commentary is provided on why it remains valid in relation to the proposals. A detailed commentary on each of the different areas of baseline information is provided in section 5 of the Environmental Statement (ES) Addendum Summary (document MSD13R December 2019).

4. Proposed role and nature of the Main Street

The Main Street will be an important movement corridor for both the proposed development and the existing road network. Whilst this has not changed since the January 2019 submission it is worth including further information on its intended role and purpose for clarity.

The Main Street is envisaged to be the focal point for a new vibrant and sustainable local centre and is designed to provide:

- A safe and comfortable environment for all road users, including pedestrians and cyclists. This will include provision of fully segregated, continuous pedestrian and cycle routes alongside the carriageway, good quality lighting and active frontage;
- A route that reflects the changing character of the development so it relates appropriate to adjoining land uses;
- Frequent crossing points, with their location informed by desire lines, expected traffic flows and the surrounding land uses, to avoid severance;
- Safe vehicle speeds encouraged by appropriate alignment and surfacing; and

- Sufficient space for a wider variety of uses including easy movement of buses and facilities for servicing and delivery – the OPA provides for a corridor width and alignment to accommodate site constraints and varying capacity along its length.

In order to help achieve these objectives the baseline assumptions are that it will be designed to:

- Accommodate traffic speeds of between 20mph and 30mph (with slower sections reserved for the local centres and/or access to schools or community facilities).
- Be between 7.3m and 15m carriageway width (one or two lanes with space for additional parking or servicing where this does not conflict with through-movement) with separate and dedicated routes along it for pedestrians and cyclists.
- Accommodate a greater volume of vehicular trips at the north end and a smaller number in the south, with a new roundabout connection to the B3400 at its southern end and a separate signalised crossroads access to link to the area south of the B3400.

As previously set out around nine junctions (between the new junctions on the B3400 and A339) will provide primary access to each of the key development parcels, and additional other junctions for secondary access.

5. Planning policy update

A number of changes and updates to planning policy and guidance have taken place since earlier addendum and update submissions to this application. A planning statement addendum (MSD2RA) is included with this letter to cover the following updates and to review their impact on the application.

- Review of National Planning Policy Framework (2019)
- Review of Planning Practice Guidance (PPG) (2019)
- Review of New National Design Guide (2019)
- Review of BDBC Heritage SPD (2019)
- Review of Wootton St Lawrence Parish Neighbourhood Plan 2016-2029 (due for adoption December 2019)

6. Nitrate limits in Solent protected waters (duplicated from Planning Statement MDS2RA for clarity)

There has been some concern recently about residential development leading to increased nitrate concentrations in the Solent, primarily due to increasing wastewater load. Nitrates are often used in fertilisers on arable farms and generated by foul waste from housing / employment uses and higher nitrate concentrations in water can adversely affect marine environments. The 843-hectare Manydown estate falls partly within the Test catchment which flows to the Itchen and onto the Solent although the extent of potential developed area within the catchment as part of OPA is relatively minor (at around 30 hectares or around

10% of application site area). Additionally, there are a number of mitigating factors at Manydown that mean the proposed development will not worsen nitrate outputs from the site to the Solent, including:

- Foul flows at Manydown will go to the waste-water treatment works (WWTW) at Chineham as confirmed with Thames Water. Its relative direction and ultimate point of discharge (into the River Loddon) will avoid the Solent catchment;
- There is significant area of green infrastructure proposed at Manydown, including a Country Park, and the design includes significant areas of SUDs which will include reed bed filters;
- The extent of development on what is currently agricultural land should be viewed as a beneficial effect with respect to future reductions in potential agriculture-related nitrate runoff from the land; and
- In line with Policy EM9 on sustainable water use, the new homes will meet a water efficiency standard of 110L or less per person per day, which will be conditioned and monitored via an appropriate mechanism.

In conclusion, because of the proposed location of the development as well as the infrastructure approach adopted, Manydown should not present any significant risk to nitrate levels in the Solent.

This position has been discussed and agreed with the local planning authority. The applicant will work with Natural England through the consultation period and to respond to any key points raised.

7. S106 Heads of Terms update

The Applicant submitted a revised s106 Heads of Terms in January 2019 and has been engaging with the LPA and statutory consultees since then to review further. Reflecting these discussions, a further revised version is submitted with this application in MSD2RA Planning Statement Addendum.

Discussions with statutory consultees around the detail of the obligations are ongoing.

8. Statutory and neighbour consultation update

Following the January 2019 addendum submission, a number of statutory and neighbour consultee comments were submitted to the LPA. These have been reviewed by the Applicant and are set out in document MSD5A2 Addendum Statement of Community Involvement. For clarity these are further summarised in the table 1 and 2 within Appendix 2 of this covering letter.

A formal response to the TA Addendum and January 2019 submission was provided by HCC Highways in February 2019. The focus of the team's work has been to ensure that this letter is fully responded to and the approach confirmed in each case. Section 11 of the Transport Assessment Second Addendum (MSD12aRA2) sets out a summary of each comment made and provides a response in each case. This table is repeated as table 3 of appendix 2 to this letter.

The feedback from consultees has informed the further amendments to the Application and the scope and content of the revised and amended material presented as part of the Application with this letter. Given the extent of the responses and the age of the previous Statement of Community Involvement, an addendum statement (MSD5A2) has been prepared setting out each key issue raised and the applicant response. This includes responses made to the separate ecology application which relate more specifically to this outline application.

The tables contained within appendices 2 and 3 should be read alongside the analysis of public comments on the application and comments made on the separate ecological mitigation application in relation to the OPA captured within the Statement of Community Involvement Addendum Statement (MSD5A2).

We hope that this letter provides the reassurance that you and the statutory consultees need that key consultation responses have been carefully considered by the Applicant and their team in this update.

Yours sincerely
For Tibbalds Planning and Urban Design



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Director

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List of enclosures:

- Appendices
- Appendix 1: List of planning application documents
- Appendix 2: Summary and response to statutory and neighbour consultation comments (Table 1: Consultee comments, Table 2: Neighbour comments, and Table 3: Response to February 2019 Highways Authority letter)

Documents included with this letter that are submitted as part of the OPA:

- 5556/OPA/004/P Rev D Access and Movement Parameter Plan (Revised December 2019)
- 5556/OPA/005/P Rev D Revised Open Space and Landscape Parameter Plan (Revised December 2019)

- MSD2RA Planning Statement Addendum (December 2019)
- MSD12AR Environmental Statement Figures (Addendum December 2019)
- MSD12aRA2 Transport Assessment Second Addendum (December 2019) (note this document is also MSD13R ES Addendum Appendix P)
- MSD12zR ES Non-technical Summary (December 2019)
- MSD13R ES Addendum Summary (Revised December 2019)
- MSD13R ES Addendum Appendix O Updated ES Chapter 4 Proposed Development (Revised December 2019)
- MSD13R ES Addendum Appendix A Chapter 6 Air Quality (Revised December 2019)
- MSD13R ES Addendum Appendix B Updated ES Appendix 6-1 to 6-5 (Revised December 2019)
- MSD13R ES Addendum Appendix F Update to the Ecology and Nature Conservation Assessment in ES Chapter 9 (Revised Addendum December 2019)
- MSD13R ES Addendum Appendix F2 Farmland Wildlife Mitigation Framework (Revised December 2019)
- MSD13R ES Addendum Appendix F3 Protected Species Mitigation Framework (Revised December 2019)
- MSD13R ES Addendum Appendix F4 Habitats and Flora (Revised December 2019)
- MSD13R ES Addendum Appendix J Updated ES Chapter 14 Transport (Revised December 2019)
- MSD13R ES Addendum Appendix M Update ES Chapter 16 Cumulative and in-combination effects (Revised December 2019)
- MSD5A2 Statement of Community Involvement (Second Addendum December 2019)
- MSD14R Manydown Movement Strategy (Revised December 2019)
- MSD15R Biodiversity Impact Assessment Summary (Revised December 2019)

Cc:

Lucy Page	Basingstoke and Deane Borough Council as LPA
Matthew James	Hampshire County Council as Applicant
Andrew Reynolds/Jess Harris	Basingstoke and Deane Borough Council as Applicant

Appendix 1: List of Planning Application Documents
Updated to 6th December 2019 with additional documents submitted in December 2019 identified in RED.

Document Reference	Document Title
5556/OPA/001/P Rev C	Planning Application Boundary (Red Line)
5556/OPA/002/P Rev C	Land use parameter plan (Revised July 2018)
5556/OPA/003/P Rev C	Building heights and density parameter plan (Revised July 2018)
5556/OPA/004/P Rev D	Principal access and movement parameter plan (Revised December 2019)
5556/OPA/005/P Rev D	Open space and landscape parameter plan (Revised December 2019)
5556/OPA/006/P Rev H	Primary means of access Plan 1: Access to A339 and Roman Road (Revised July 2018)
5556/OPA/007/P Rev A	Primary means of access Plan 2: Roman Road/Winklebury Way (Revised July 2018)
5556/OPA/008/P Rev A	Primary means of access Plan 3: Worting Road Access Junction (Revised July 2018)
MSD1R	Design and Access Statement (Revised July 2018)
MSD1RA	Design and Access Statement Addendum (January 2019)
MSD2R	Planning Statement (Revised July 2018) (note: s106 Heads of Terms updated in covering letter dated December 2019)
MSD2RA	Planning Statement Addendum (December 2019) (Including updated heads of terms document December 2019)
MSD3R	Landscape Strategy (Revised July 2018)
MSD4R	Affordable Housing Statement (Revised July 2018)
MSD5	Statement of Community Involvement (February 2017)
MSD5A	Statement of Community Involvement Addendum (July 2018)
MSD5A2	Statement of Community Involvement Second Addendum (December 2019)
MSD6R	Phasing Plan, Schedule of Development and Delivery Statement (Revised July 2018)
MSD7R	Community Development Strategy (Revised July 2018)
MSD8R	Infrastructure Delivery Strategy (Revised July 2018)
MSD9R	Economic Statement (including Retail Impact Assessment) (Revised July 2018)
MSD9RA	Economic Statement Addendum (January 2019)
MSD10	Construction Statement (February 2017)

MSD11R	Outline Construction Environmental Management Plan (Revised July 2018)
MSD12	Environmental Statement (February 2017)
	ES Chapter 1 Introduction (February 2017)
	ES Chapter 2 EIA Methodology (February 2017)
	ES Appendix 2-1 to 2-3 (February 2017)
	ES Chapter 3 Site Description (February 2017)
	ES Chapter 5 Alternatives Considered (February 2017)
	ES Chapter 7 Community, Social and Economic Effects (February 2017)
	ES Appendix 8-3 Archaeological Geophysical Report (February 2017)
	ES Appendix 8-4 Pre-determination Evaluation Areas A & B (February 2017)
	ES Appendix 8.5 Catern Crossroads SM Evaluation (February 2017)
	ES Chapter 9 Ecology and Nature Conservation (February 2017)
	ES Appendix 9-1 Ecological Desk based Assessment (February 2017)
	ES Appendix 9-3 Arboriculture (February 2017)
	ES Appendix 9-4 Ornithology (February 2017)
	ES Appendix 9-5 Bats (February 2017)
	ES Appendix 9-6 Hazel Dormice (February 2017)
	ES Appendix 9-7 Badgers (February 2017)
	ES Appendix 9-8 Reptiles (February 2017)
	ES Appendix 9-9 Invertebrates (February 2017)
	ES Chapter 10 Ground Conditions and Soils (February 2017)
	ES Appendix 10-1 Geo-environmental Geo-technical Desk Based Study (February 2017)
	ES Chapter 11 Landscape (February 2017)
	ES Appendix 11-A Plan extract showing countryside design areas (February 2017)
	ES Appendix 11-B Site BAS 098 (February 2017)
	ES Chapter 12 Views (February 2017)
	ES Appendix 12-A Verified photomontage method statement (February 2017)
	ES Appendix 12-C Manydown Visual Assessment Tables (February

	2017)
	ES Appendix 12-D Plan extract showing countryside design areas (February 2017)
	ES Appendix 13-1 Baseline noise and vibration (February 2017)
	ES Chapter 15 Water Environment (February 2017)
	ES Appendix 16-1 Fiveways Modelling Assessment (February 2017)
	ES Chapter 17 Mitigation Measures and Significant Residual Effects (February 2017)
	ES Figures Chapter 1 to 5 (February 2017)
	ES Figures Chapter 6 to 11 (February 2017)
	ES Figures Chapter 12 to 16 (February 2017)
	ES Glossary (February 2017)
MSD12A	Environmental Statement Figures (Addendum July 2018)
MSD12A	Environmental Statement Figures (Addendum December 2018)
MSD12A	Environmental Statement Figures (Addendum December 2019)
MSD13R	Environmental Statement Addendum Summary (Revised December 2019)
	Appendix A Updated ES Chapter 6 Air Quality (Revised December 2019)
	Appendix B Updated ES Appendix 6-1 to 6-5 (Revised December 2019)
	Appendix C Updated ES Chapter 8 Cultural Heritage (Revised July 2018)
	Appendix F Update to the Ecology and Nature Conservation Assessment in ES Chapter 9 (Revised Addendum December 2019)
	Appendix F1 ES Appendix 9-3 Arboriculture (Addendum July 2018)
	Appendix F2 Farmland Wildlife Mitigation Framework (Revised December 2019)
	Appendix F3 Protected Species Mitigation Framework (Revised December 2019)
	Appendix F4 MSD12mR Habitats and Flora (Revised December 2019)
	Appendix G Update to the Landscape Assessment in ES Chapter 11 (Addendum July 2018)
	Appendix H Update to the Assessment of Views in ES Chapter 12 (Addendum July 2018)
	Appendix H1 Updated ES Appendix 12-B Sequential Visual

	Assessment for Linear Visual Receptors Through and Adjacent to the Site (Revised July 2018)
	Appendix H2 Update to the ES Appendix 12-C Manydown Visual Assessment Tables (Addendum July 2018)
	Appendix I Updated ES Chapter 13 Noise and Vibration (Revised July 2018)
	Appendix J Updated ES Chapter 14 Traffic and Transportation (Revised December 2019)
	Appendix M Updated ES Chapter 16 Cumulative and In-combination Effects (Revised December 2019)
	Appendix O Updated ES Chapter 4 Proposed Development (Revised December 2019)
MSD12aR	MSD13 ES Addendum Appendix K Transport Assessment (Revised July 2018)
MSD12aRA	MSD13 Appendix P Transport Assessment Addendum (January 2019)
MSD12aRA2	MSD13 Appendix P Transport Assessment (Second Addendum December 2019)
MSD12bR	MSD13 Appendix N Framework Travel Plan (Revised July 2018)
MSD12cR	MSD13 ES Addendum Appendix D Archaeological Desk Based Assessment (Revised July 2018)
MSD12dR	MSD13 ES Addendum Appendix E Heritage Statement (Revised July 2018)
MSD12e	ES Appendix 10-3 Agricultural Land Classification (February 2017)
MSD12f	ES Appendix 10-2 Land Quality Statement (February 2017)
MSD12gR	MSD13 ES Addendum Appendix L Flood Risk Assessment (Revised July 2018)
MSD12h	Foul Drainage and Utilities Assessment (February 2017)
MSD12zR	Environmental Statement Non-Technical Summary (Revised December 2019)
MSD14R	Manydown Movement Strategy (Revised December 2019)
MSD15R	Biodiversity Impact Assessment (Revised December 2019)

Note: any other documents to those identified above have been superseded or replaced and no longer form part of the application material.

Appendix 2: Summary and response to statutory and neighbour consultation comments

TABLE 1: SUMMARY AND RESPONSES TO STATUTORY CONSULTEE COMMENTS SINCE THE JANUARY 2019 ADDENDUM SUBMISSION	
Transport and Movement	
HCC Highways	Please see Transport Assessment Second Addendum for detailed response to HCC highways letter of February 2019.
British Horse Society • Request HCC and Applicant continue to work with the BHS to agree public rights of way improvements.	The Applicant met with the British Horse Society on 13/11/2018, and HCC Countryside Services on 12/10/2017 and 12/09/2019. A package of public rights of way (PROW) improvements are being developed and will be secured through appropriately worded planning condition and obligations.
HCC Countryside Services • Financial contribution is sought towards identified access improvement projects to be secured through s106 agreement.	The applicant met with HCC Countryside Services on 12/09/2019. A package of public rights of way (PROW) improvements are being developed and will be secured through appropriately worded planning condition and obligations.
West Berkshire • S106 contribution sought towards A339 and specific junction improvements in Newbury	The Applicant met with West Berkshire on 08/04/2019 to discuss strategic investments in west and east of the A33 corridor. It is considered that a contribution is no longer required.
Heritage and Archaeology	
BDBC Conservation • Concern regarding the 20 m buffer zone which should be increased in size to sufficiently protect Worting Conservation Area. • The Urban Centre should be located further north into the site to reduce its impact on the western approach to the Conservation Area.	The development to the northern edge of the WCA has now been highlighted as a strategic character generator. Whilst the OPA fixes a minimum buffer, the January 2019 DAS addendum demonstrates that a sensitive and varied interface will be created. This will be achieved through sensitive development heights and densities, and varied front garden lengths to create an informal edge that retains a sense of openness along the existing tree belt. The Applicant will work with consultee through Site Wide and Key Phase Framework design to address the setting of WCA. The Western centre location has been developed through extensive consultation. The Applicant has reduced building heights to up to 3 storeys in this centre to respond to the sensitive setting of the WCA and reduce its impact.
HCC Archaeology • Concern about ecological and archaeological issues pursuant to	The Applicant met with consultee on 19/02/2019 and followed up with a response to the LPA on 21/02/2019. The Applicant outlined how the landscape and ecology

the White Barrow Scheduled Monument. • Heritage concerns need to be integrated into the open space and biodiversity agendas	strategies would be updated to integrate the setting and future management of the Scheduled Monument as part of the next stage of work. The Applicant will work with consultee through Site Wide and Key Phase Framework design to address concerns about the White Barrow Scheduled Monument.
Historic England • Withdraw previous objection to principle of development • Concerned about how the Worting Conservation Area is addressed and width of the buffer provided on the north side of the boundary. Seek to work with Applicant through detailed design stages to discuss how the setting of the Conservation Area could be better respected. • Concerned about the setting of the White Barrow Scheduled Monument and the impact of ecological/landscape planting on existing open views which contribute to its significance. Seek to work with Applicant through detailed design stages to achieve a more integrated solution to ecological and heritage issues. • A scheme of education, outreach and interpretation in relation to cultural heritage should be developed at an early stage of the detailed design as a key element of placemaking and creation of character.	The applicant met Historic England and discussed the concerns raised. It was agreed that the applicant would work with the consultee through Site Wide and Key Phase Framework design to address the setting of WCA and balance of ecological/landscape mitigation with impact on the White Barrow SAM. The Applicant is keen to develop a positive heritage agenda as detailed designs emerge through the Site Wide and Key Phase stages. Community engagement and heritage within green infrastructure will be addressed and discussed with the consultee, and captured in subsequent applications. To encourage public engagement with the cultural heritage of the area, and to offset any harm caused to the setting of the monument, provision could be made to encourage public access and provide information on the Scheduled Monument.
Landscape and Biodiversity	
BDBC Parks and Open Spaces • Accept development in principle • Some inconsistency and double counting of multi-functional green	The Applicant met with the consultee on several occasions to review concerns and provided clarity on the MFGS proposed in relation to Local Plan policy and adopted Green Space Standards.

space with biodiversity mitigation, and multi-functional green space with allotments. • Concern over the proposal for 3 neighbourhood parks of a minimum 2ha. Instead, suggest one central park to the north of the development and one to the south of Worting Road. • The final location, size and design of multi-functional green space must be approved as part of future submissions including the Site Wide Framework and Key Phase Framework submissions	The Applicant agreed the overall quantum of MFGS to be provided, and confirmed commitment to meeting minimum dimensions, areas, and distance thresholds required as set out in the Local Plan. The MFGS will be delivered alongside the new homes with areas related to each key phase. The Applicant confirmed the intended process of developing the design through Site Wide Framework and Key Phase Framework to demonstrate compliance with relevant policy.
Natural England • Concern regarding loss of arable flora and 22 breeding skylark plots, and that a resultant net gain in biodiversity could not be achieved until these residual impacts are addressed • Mitigation and compensation for ex-situ farmland cannot be funded through an agri-environment scheme, and instead these measures should be fully funded by the applicant/developer, including measures in-perpetuity (80 years). • The buffer zone to the Ancient Woodland should be a minimum of 50m, and extra mitigation methods should be used to protect this area. • Request a Woodland Management Plan or dedicated Biodiversity Mitigation and Monitoring Plan	Compensation for the loss of all skylark territories will be delivered by means of a financial contribution, to be secured by an appropriate planning condition or obligation. Off site mitigation for farmland birds would also be delivered across farmland located to the west of the Proposed Development through the adoption of appropriate management approaches. The arable flora mitigation set out in the OPA will not be delivered through existing or future Countryside Stewardship (CS) schemes, and the Farmland Wildlife and Pollinator Package is to be delivered/funded in addition to any CS measures. It is agreed that a Woodland Management Plan will be provided, and secured by planning condition. Whilst the OPA fixes a minimum buffer in accordance with local policy, the final width of the buffer to the Ancient Woodland will be confirmed during subsequent Key Phases. The detailed design will be informed by relevant policy, the development edge, adjoining land uses and biodiversity requirements.
Other	
BDBC Housing	The Applicant has made a commitment to work with the

• Support policy compliant quantum and tenure split of affordable housing. • Support approach to providing details of affordable housing scheme with each Key Phase Framework and proposed approach to monitoring. • Work with Applicant to develop 'Manydown Housing Charter' and develop understanding of tenancies and how affordable housing will be available to local people on low to medium incomes.	consultee and prepare and submit an Affordable Housing Scheme within each Key Phase. This will be secured through the s106 Agreement.
HCC Extra Care • Expect provision for an 80 unit extra care scheme on the site, to constitute part of the overall affordable housing percentage.	There is currently no policy basis for requesting the provision of an Extra Care scheme. However, OPA allows for up to 200 units of C2 residential uses across the site.
HCC Waste Management • Consideration to be given to impact on local waste management infrastructure. It is understood that a site within the development may not be possible – a financial contribution towards increasing and improving capacity in the area should be provided.	There is currently no policy basis for requesting a financial contribution towards waste management.
Hart District Council – Joint Waste Client Team • Cannot comment without sight of proposed Site Layout, Waste Management Strategy (Including the location of waste containers) and Swept-Path Analysis to show the proposed route of the waste collection vehicles.	This is an outline application and thus detailed site layouts will not be available until later stages of the development process. The Applicant will continue to work with the consultee through design development at Key Phase Framework and Reserved Matters stages and provide the requested information.
HCC Public Health • Pleased to see consideration of active travel between Manydown and Leisure Park, Winklebury, the town centre and the railway	Through on-going meetings with HCC Highways, the Applicant has reviewed and prepared a package of pedestrian and cycle improvements. This will include a crossing from Manydown to Rooksdown, providing links to Basingstoke Hospital and the nearby employment areas.

station. • Consideration to be given to pedestrian/cycle movements to Basingstoke Hospital and nearby employment areas north of the A339 Ringway North. Strategically-placed crossings should be considered to facilitate these journeys.	
Environment Agency • Development is acceptable subject to securing 3 planning conditions covering: piling and foundation designs; the discovery of contaminated land during construction and submission of a surface water drainage scheme.	The Applicant accepts the requested conditions in principle.
Thames Water • In order to service the development, it would be necessary to outline a planning condition that ensures an integrated water management strategy is agreed prior to the commencement of development. This will highlight what infrastructure is required, where it is required, and when it is required, and should be approved by the local planning authority in consultation with the sewerage undertaker.	The requested condition is reasonable in principle. The Applicant will work with the LPA and consultee to agree the final wording.

TABLE 2: SUMMARY AND RESPONSE TO NEIGHBOUR COMMENTS RAISED SINCE THE JANUARY 2019 ADDENDUM SUBMISSION	
Design and housing	
The linear nature of the Manydown development results in an impermeable neighbourhood	The Main Street is designed to both be a key route for vehicle traffic but also for pedestrian/cyclists, and provides an important route along the length of the site. The fundamental structure of the masterplan is also based around strong and clear links across the Main Street and the linear site, connecting Roman Road and B3400 Worting Road to the Country Park. The illustrative design is based on simple development blocks, providing high levels of permeability. These link with pedestrian routes along the northern and southern edges of the development through linear parks and green corridors, providing permeability along the linear length of the development.
Quantity and scale of development is too high	The proposed quantity of housing has been assessed in relation to its impact on community, social and economic effects, cultural heritage, ecology, landscape, views, noise and vibration, air quality, traffic and transport and drainage and demonstrated to be appropriate. The impact of the development on views has been assessed through the OPA (Chapter 12 of the Environmental Statement). The views assessed in the application were agreed with the LPA as the most appropriate and sensitive and include two views – 10 and 11 – that are located south of the development and west of the A30, looking to the north-northwest towards Manydown and the AONB beyond. A summary of the effects on views is presented in the Environmental Statement, which includes proposed mitigation through landscape buffers, and tree and hedgerow planting. Since the initial submission of the OPA, building heights have been reduced across the development and specifically in sensitive areas such as the Worting Conservation Area and at Worting Wood Farm, Roman Road and Worting Road. The Key Phase Framework submission(s) will consider the detailed relationships between land form and building heights, to respond to sensitivities and key views.
Too many 3 bed dwellings proposed, require more 1-2 bed dwellings	The indicative dwelling mix provides an appropriate balance to respond to current and future needs. The mix has been developed in relation to local example schemes, Basingstoke and Deane's Strategic Housing Market Assessment, existing

	Neighbourhood Stock Analysis and projected household growth.
Highways	
Closure of Roman Road access to A339, increasing journey times and congestion	Following discussion with HCC as local highway authority, the closure of the A339/Roman Road junction has been proposed to address a pre-existing safety issue at the junction of Roman Road and Wellington Terrace. The OPA proposes a road linking the northern part of Roman Road to the northernmost part of the main street, which would then link to the A339 via a proposed roundabout. This would provide an alternate access point to the A339 from Roman Road that would bypass much of the traffic on the main street, minimising any potential increase to journey times. The aspiration is that Roman Road is reduced to a 30mph speed limit, with additional walking and cycling provision alongside Roman Road within a linear park. This would support the integration of Winklebury and Manydown and improve safety. Design measures would be needed to support any reduction in the speed limit, and these would need to be compatible with the existing direct access for a number of residential properties along the frontage of Roman Road. We will continue to discuss how this could be achieved with the local highway authority.
Concern about impact of additional vehicles on network, and increased noise and air pollution as a result (particularly along Roman Road)	The Environmental Statement submitted as part of the OPA included detailed assessments of the predicted changes in air quality and noise associated with predicted road traffic movements. These assessments used best practice computer modelling and were based on the predicted road traffic flows assuming the proposed development is built out in full, plus background traffic growth over time and the additional traffic flows on roads surrounding the site from other known committed developments. This approach was agreed with the local highway authority. These assessments have been updated following the updates to the OPA and they demonstrate that there would not be significant adverse effects on noise and air quality. No specific air quality mitigation is required and appropriate acoustic mitigation for different residential areas within the proposed development will be agreed with Basingstoke and Deane Borough Council through future reserved matters applications.

Introducing a No Right Turn from the A339 into Rooksdown Lane: • Will transfer safety issues directly onto narrow residential streets such as Gillies Drive, Florence Way and Nightingale Gardens where children play outside • Will Increase traffic volumes of delivery vehicles, HGVs and construction traffic • Has not been fairly consulted upon, nor have viable alternative routes been presented	The introduction of a no right turn into Rooksdown Lane from the A339 and out of Rooksdown Lane onto the A339 was proposed to address pre-existing safety issues at the junction. Feedback from the public focused on concerns around access to the golf club, including rat-running through residential roads and its impact on road safety. In response, the project team has worked with HCC as local highway authority to revise the junction proposals. Under the newly proposed layout, traffic will be able to turn right into Rooksdown Lane from the A339 so that traffic going to the golf club is not routed through residential roads. Traffic will however be banned from turning right from Rooksdown Lane and from Ibworth Lane onto the A339 for safety reasons. It also stops the right turn into Ibworth Lane from the A339, as this is also a safety issue.
Public Transport, Walking and Cycling	
Motor transport has been prioritised which is unlikely to make cycling or walking attractive alternatives	A key principle for Manydown is to encourage a shift towards sustainable transport choices, making for better quality of life, a friendly place and a cleaner environment for those living there. The size of Manydown means that it will need to consider a range of transport choices to enable ease and safety of movement for all. This includes provision for public transport, which needs to offer an attractive and viable alternative to travelling by car for local trips. The Movement Strategy and updated Public Transport Strategy submitted in support of the application consider how trips to and from the site can link in with existing local bus routes and provide a good connection to Basingstoke station for onward travel. To achieve this objective, public transport needs to provide fast, frequent and reliable access to key destinations such as Basingstoke town centre, Basingstoke railway station and surrounding areas of interest. It is intended that the design of the main street will include excellent public transport services through Manydown, linking to key destinations and promoting safe and attractive walking and cycling routes, as well as allowing car users to move efficiently along it.
Wider cycling network has been neglected - there are no cycling connections to schools or villages along the B3400	Walking and cycling routes to the town centre and the station are proposed to be improved alongside the Proposed Development. This is intended to help as many people as possible access the main destinations for onward travel, work and other town centre activities.

	The proposed development is currently in the outline planning stage, which requires the consideration of highway access to the site, as well as its wider impact on the surrounding highway networks. Proposals related to movement for pedestrians and cyclists, as well as further highway proposals, will come forward at later planning stages, creating a balanced approach to transport and movement to, within and from the proposed development.
How will the modal share of bus use be increased beyond current levels?	The Movement Strategy and updated Public Transport Strategy submitted in support of the application considers how trips to and from the site can link in with existing local bus routes and provide a good connection to Basingstoke station for onward travel. To achieve this objective, public transport needs to provide fast, frequent and reliable access to key destinations such as Basingstoke town centre, Basingstoke railway station and surrounding areas of interest. As set out within Public Transport Strategy, the baseline public transport service will be based on the provision of a link to the town centre, railway station and bus station. Within early phases of the development this would be delivered by utilising and/or enhancing existing routes, with dedicated services then being implemented with a 10-minute service frequency within later phases. This baseline offer has the potential to increase the mode share by bus to 10%-12% through travel planning measures and directing transport investment to infrastructure upgrades eg; bus priority measures and town-wide Mass Rapid Transit projects. The level of bus provision will be agreed through the Section 106 agreement. Further detail is set out in Section 6 and Appendix B (Public Transport Strategy) of MSD12aRA2 Transport Assessment Second Addendum.
Ecology and landscape	
Impact of development on wildlife and habitats (e.g. bats)	Biodiversity will be promoted within the site through the Ecological Mitigation Strategy by utilising locally appropriate native species within planting schemes and delivering new habitats of principal importance for biodiversity, such as wood pasture/parkland and species-rich grassland within the country park. Particular focus will be on strengthening and diversifying retained habitats within the site and managing farmland to the west within the applicant's control. Habitat measures will also be incorporated for the benefit of pollinators and bird and bat species. Some mitigation measures are also proposed, including habitat creation for

	skylarks and arable plants. The applicant has submitted MSD15 Biodiversity Impact Assessment in January 2019 and a revised version MSD15R in December 2019, which demonstrates that there will be an overall biodiversity net gain.
Loss of views onto fields. Roof heights should be limited to protect views	The impact of the development on views has been assessed through the OPA, and mitigation is proposed through landscape buffers, and tree and hedgerow planting. Since the original OPA submission, building heights have also been reduced across the development and specifically in sensitive areas such as the Worting Conservation Area and at Worting Wood Farm, Roman Road and Worting Road.
Infrastructure	
The capacity of the sewer network will be insufficient	Given the location and size of the proposed development, the water infrastructure is an important issue, not only for the development itself but also for the surrounding communities. Therefore, our approach has been to undertake comprehensive modelling, looking at different scenarios and options, in conjunction with the various water companies and authorities to ensure that the proposed development is able to function in a manner that does not create problems for the surrounding communities. The proposed development will include a network of new foul sewers to manage the additional flows from the new land uses. Consultation undertaken with Thames Water has confirmed that there is capacity for the foul sewers on the site to connect to existing wastewater treatment works at Whitmarsh Lane in Chineham.
Heritage and Archaeology	
The development does not conserve or enhance the heritage assets in the area	A Heritage Statement and Archaeological Desk-Based Assessment have been submitted to support the OPA, which recognise the significance and assess the impact of the development on heritage assets in the area. These reports demonstrate that the heritage assets and character have been thoughtfully incorporated into the illustrative masterplan and include a number of primary and secondary mitigation measures to balance the impact with the public benefits proposed.

TABLE 3: RESPONSE TO HIGHWAYS AUTHORITY LETTER OF 13th FEBRUARY 2019 Note: all reference to appendices are those to MSD12aRA2 Transport Assessment Second Addendum (December 2019) unless otherwise stated.	
Comment	Response / Action
NHTM	
The use of the model needs to be supported by an understanding of how the network operates and any displacement of traffic that is forecast to occur is understood.	This is set out in the Trip Distribution Technical Note and is contained in **Appendix F** of the TA Second Addendum.
Golf Course site: confirm the background growth factors applied within the modelling runs in addition to the committed development sites already accounted for.	This is set out in the Trip Distribution Technical Note and is contained in Appendix F. The Golf Course site is not explicitly included as a site in the Scenario 2 modelling as it does not have planning permission and therefore is not 'committed'. However, the site is accounted for in the model through the application of TEMPRO growth.
The impact of banning the right turn at the junction of VS9 Old Kempshott Lane/B3400 junction	An appraisal of alternative options has been undertaken and is set out in the VS9 Kempshott Lane Technical Note, which is contained in Appendix A. This appraisal has shown that a compact roundabout, ghost right turn priority junction, signals and a mini roundabout either are not deliverable or do not provide sufficient capacity.
Use of rural routes heading from the site A30 and junction 7 via Trenchards Lane. NHTM has routed traffic on these route which may not be realised due to the nature of the rural roads. Journey time data required to understand and inform route choice.	This is set out in the Journey Time Technical Note and is contained in **Appendix D.**
Analysis of the safety record of the routes to/thorough Oakley and the rural lanes to the south rural routes to the south west of the site is required together with an assessment of how increased traffic flows as a result of the development may impact safety.	Due to the anticipated low volume of additional traffic flow through and towards Oakley, this route was not identified for inclusion within the PIA analysis. The conclusion remains that, since any future mitigation in this area will not seek to accommodate or encourage additional vehicular trips, analysis of further PIA data is not considered to be required.
A33 Corridor - PIA data for A33 is required.	The extent of the PIA data was previously agreed with HCC Highways prior to submission of the July 2018 Transport Assessment and January 2019 TA Addendum. The A33 junctions do not fall within the scope of those requiring additional assessment.

	Should consideration of alternative routes be required as a result of the Monitor and Manage strategy, this will include assessment of the most up-to-date PIA information at the relevant time.
A33 Corridor – Impacts of diversion of development traffic require further explanation.	An analysis of North Hampshire Traffic Model (NHTM) in relation to the anticipated future routing of traffic in and around the A33 corridor to the north-east of Basingstoke has been undertaken. This was initially discussed in Chapter 2 of the January 2019 TA Addendum. The future year (2031) scenarios within the NHTM modelling indicate that there will be a significant increase in vehicular traffic, not just that generated by Manydown, using the A33 corridor, and that as a result it is likely that some vehicle trips will divert from the main A33 on to adjacent roads, principally those serving the Chineham and Popley areas. This driver behaviour is observed in scenarios both with and without the inclusion of Manydown traffic; with the addition of vehicle trips associated with Manydown, a net change analysis indicates that a majority of these vehicle trips (i.e. those generated directly by travel to or from the Manydown site) would use the main A33 corridor, with a proportion of existing vehicle trips diverting on to other routes. Analysis of the local highway network surrounding the main A33 indicates that traffic seeking to avoid congestion on the corridor would have the greatest incentive to travel through the western part of Chineham (from Crockford roundabout via Crockford Lane, Lime Tree Way, Cufaude Lane and Rockbourne Road to the Gaiger Avenue junction). Shorter diversions (such as between Lillymill Chine and Binfields Avenue) would not allow for any significant part of the main A33 corridor to be avoided or would require a much longer diversion in order to cross the Basingstoke – Reading railway line. Crockford Lane and Lime Tree Way principally serve a major employment area; the road network here has been designed to accommodate a full range of employment uses (including servicing by large vehicles) and the route's capacity for vehicular traffic is therefore considerable. The main areas of tension are largely anticipated to be at the

	intermediate junctions (principally roundabouts) where there could be increases in delays to vehicles waiting to exit from minor arms serving development plots. It is noted that there are significant areas of green space around these junctions and that therefore some expansion of the capacities in these areas could be made, to improve the corridor's function during peak periods; any requirement for such mitigation would need to be considered as part of the monitor and manage approach, and weighed against the benefits of other improvements as set out in the Movement Strategy. Conversely, to the north of this area, Chineham has a number of residential areas which are served by established local routes (Cufaude Lane) and newer estate roads (Rockbourne Road). The planning of these residential areas has been specifically undertaken to make rat running behaviour less attractive, and this is a principle which any future mitigation proposals associated with growth on the main A33 corridor will need to respect. It is considered that, if prioritised, investment could be targeted on alternative routes as part of a monitor and manage approach which is proposed to form part of the S106 package for the development.
A30/Kempshott Lane Roundabout (VS27) Assessments are based on the NHTM outputs and are not based on a validated model. Further assessment and mitigation measures are required if an impact is confirmed.	New surveys have been undertaken at VS27 and the flows have been subject to the same analysis as the other junctions. A junction model has been developed and has been validated against queueing observations. The operation of the junction in the future year, 2031, with and without Manydown has been undertaken and this shows that the development will not have a significant impact on the junction. This analysis is set out in the A30 Kempshott Lane Technical Note and is contained in Appendix A.
Kempshott Lane/Heather Way mini-roundabout is not considered in the January 2019 TA Addendum and is only included in Appendix J of that report. The model has not been validated. A further assessment is required, to be informed by queue length surveys.	Appendix J of the TA Addendum included a highway capacity assessment of the Heather Way mini-roundabout, which was undertaken using data from NHTM. It is noted as part of this original assessment that, whilst there would be an increase in traffic flow through this junction as a result of the Manydown development, the increases in traffic would be such that it was not expected on the basis of the modelling that there would be any significant impact on the performance of this junction.

Homestead Road (VS17) – further refinement of the design is required to understand the impact on vertical alignment.	The proposed mitigation has been reviewed and the revised scheme will not affect the vertical alignment. This is set out in the Homestead Road VS17 Technical Note in Appendix A.
Traffic Distribution Diagrams	
Traffic distribution diagrams are required showing how the future year flows have been developed.	These have been developed and are contained in Appendix E.
Offsite Junctions In Basingstoke	
Trumpet Junction VS3 Design refinement required with respect to the proximity to the overpass. The traffic modelling does not match traffic patterns and expected lane usage, and the model structure does not match the layout drawing. Update required.	The proposed mitigation has been reviewed and the revised scheme will not affect the vertical alignment. This is set out in the Trumpet Roundabout VS3 Technical Note in Appendix A.
Winchester Roundabout VS12 Traffic modelling not provided and excessive queueing needs to be addressed.	The operation of Winchester Roundabout has been reviewed and updated to reflect the recently implemented improvement scheme. The updated analysis is set out in the Winchester Roundabout VS3 Technical Note in Appendix A.
Victory Roundabout VS14 LINSIG adopted, default values for give way parameters have been used which do not represent the operation of the actual junction – correct modelling needs to be provided.	Further discussions have been held with HCC regarding the modelling platform and Stage 1 RSA audit undertaken. As a result, a revised mitigation scheme has been developed and assessed. The updated analysis is set out in the Victory Roundabout VS14 Technical Note and is contained in Appendix A.
A339 Corridor	
HCC Highways noted that additional assessment of the impact on the A339 corridor (Basingstoke-Newbury) was provided, with selected mitigation proposed. Additional design work was deemed required to establish the feasibility of the proposals.	A series of improvement scheme have been discussed with HCC for junctions along the A339 corridor. These are set out in Section 9 of this report.
A339/Rooksdown Lane/Ibworth Lane VS1 Proposed restriction to right turn or straight ahead will affect some traffic	A revised mitigation scheme proposed to address comments raised in the Stage 1 RSA, which involves retaining the right turn into Rooksdown Lane is proposed and has been agreed with HCC. The updated analysis is

and divert bus 54. Correct mitigation plan and associated traffic modelling needs to be provided.	set out in the Rooksdown Lane VS1 Technical Note which is in Appendix A.
Basingstoke Road JC28 It has not been demonstrated that the proposal will mitigate the safety concerns. Financial contribution that can be used to manage potential changes in traffic flows on rural routes	The Technical Note for VS28 sets out how the revised improvement proposals for this location would address the identified safety concerns. Journey time analysis (as set out in the Journey Times technical note) has shown that the existing alternative route to the Aldermaston roundabout via the local road network and the A340 would not be quicker than the route solely via the A339, using the new Northern Access junction. It is recognised that a financial contribution towards A339 / Basingstoke Road may be appropriate in order to manage potential issues during the Monitor and Manage approach. It is noted that any impacts must be proportionate to the impact of the proposed development.
A339/Crabs Hill JC25 Further assessment is required of the right turn out movements to ensure that layout suitably accommodates both movements.	The proposed improvement scheme is set out in the JC25 technical note and provides a ghost right turn lane for both right turns into and out of Crabs Hill onto the A339. The preferred form of junction is the most appropriate to address safety concerns, given that the design accommodates both right turns in and out of the scheme (with suitable give way to turning vehicles). The provision of alternative scheme that will positively address right turning traffic, such as signals, is not considered appropriate to the scale and overarching conditions at the junction.
A339/George Street/Little Knowl Hill VS21 Proximity to highway boundary needs to be addressed.	Further discussions have been held with HCC regarding the operation and layout of this junction. As a result, a revised mitigation scheme has been developed and assessed. The updated analysis is set out in the Little Knowl VS21 Technical Note and is included in Appendix A.
A339/Union Lane Roundabout VS22 Use of third party land, proximity to highway boundary, staging needs to be reviewed to avoid right turns giving way turning across two ahead lanes – separate stages.	Further discussions have been held with HCC regarding the operation and layout Union Lane roundabout. As a result, a revised mitigation scheme has been developed and assessed. This scheme moves the proposed scheme away from the highway boundary. The revised layout and analysis is set out in the Union Lane VS22 and is contained in Appendix A.
A339/Ashford Hill Road VS23 It is not demonstrated that the proposed measures would address the issues identified.	The issues in relation to A339/Ashford Hill and A339/Thornford Road have been discussed with HCC. Alternative proposals have been considered and there is no feasible alternative to the proposed schemes. It has

	subsequently been agreed with HCC that a proportionate contribution to the value of these schemes will be included in the highways mitigation package which could be used to fund a safety study of the A339.
JC26 A339/Thornford Road Clarification is required for the works to the A339/Thornford Road.	The issues in relation to A339/Ashford Hill and A339/Thornford Road have been discussed with HCC. Alternative proposals have been considered and there is no feasible alternative to the proposed schemes. It has subsequently been agreed with HCC that a proportionate contribution to the value of these schemes will be included in the highways mitigation package which could be used to fund a safety study of the A339.
B3400 Corridor	
B3400 Worting Road / Roman Road VS10 Vehicle tracking is required on the proposed left turning lane on the eastbound approach The traffic model needs to be rerun using entry lane simulation mode. Flare lengths have been presented with arms longer than what appears on the plan.	A revised mitigation scheme has been developed in response to the issues raised by the Stage 1 RSA and to reflect the as built 4 arm roundabout. The revised analysis and mitigation scheme is set out in Roman Road VS10 Technical Note which is contained in Appendix A.
Old Kempshott Lane / Worting Road VS9 Right turn ban in this location is questioned. It has not been established if alternative design solutions could be introduced and it is not clear what effect banning this manoeuvre would have on traffic diverting other routes.	An appraisal of alternative options has been undertaken and is set out in the VS9 Kempshott Lane Technical Note, which is contained in Appendix A. This appraisal has shown that a compact roundabout, ghost right turn priority junction, signals and a mini roundabout either are not deliverable or do not provide sufficient capacity.
Worting Road Roundabout (Buckskin Roundabout) VS7 No mitigation has been presented to address the queueing and delay on the B3400(W) approach for AM and PM peaks.	An updated mitigation scheme has been developed and assessed. This is set out in the Buckskin Roundabout VS7 Technical Note in Appendix A.
West Ham Roundabout VS6 The traffic modelling and design proposals are agreed but the modelling indicates a residual safety concern with increases in delay.	A Road Safety Audit was undertaken and submitted to HCC in July/Aug. The junction analysis is set out on West Ham Roundabout VS6 Technical Note in Appendix A

Stage 1 RSA is required	
Public Transport Strategy	
1. Confirm the patronage assumptions to support the bus strategy. 2. Flexible strategy required to respond to changing demands. 3. HCC considered a 12-15 minute journey time to the town centre to be unrealistic. It was noted that these journey time assumptions were based on observations from 2016 and therefore further journey time surveys were requested using an agreed methodology to ensure robustness. 4. Manydown strategy does not commit to implementation of bus priority measures, so service unlikely to attract car drivers as buses will be held up by congestion. An alternative route via Winklebury should be explored to improve journey times.	The Revised Public Transport Strategy (included at Appendix B) has been updated to address the comments raised. The amendments are also summarised at Section 6 of this TA Second Addendum. Patronage assumptions are being prepared and will form the basis of future discussions the S106 discussions to secure the public transport strategy. It is agreed that flexible delivery is a preferred approach. Stagecoach have been consulted and it has been identified that their preferred approach in the long term would be to secure new routes to create capacity. Bus routes as set out in the strategy are deliverable and can be adapted to respond to new opportunities, such as the Leisure Park. The PT Strategy makes allowances for changes to journey times by assuming that one bus can make a round trip to and from the site and the town centre in one hour, providing resilience and accommodating shift patterns. The PT Strategy illustrates the advantage of twin bus loops to serve the eastern and western parts of the site, reducing journey times and providing a 10 minute service frequency where the routes converge. Bus priority can be considered as part of the investment package for later phases of the development as part of the monitor and manage approach. An alternative route via Winklebury is not within the control of the Applicant but can be explored as opportunities arise.
Walking and Cycling	
Applicant is encouraged to continue to work with highway authority to significantly enhance infrastructure proposals and connectivity of the site.	The walking and cycling route to the town centre is deliverable and has been prepared in discussion with HCC officers, as set out in TN on Walking and Cycling and as set out in section 7 of this TA Second Addendum. HCC have confirmed that they have no objection to this strategy; and discussions have been held regarding the potential for direct contributions toward alternative schemes which are currently being developed between BDBC and HCC (but which it would not be feasible for the Manydown application to deliver in isolation).
Future Development	
highway network. No assessment has been undertaken	The Applicant has safeguarded land for a rail crossing to enable future connectivity if land to the south comes

regarding the future provision of a western by-pass or to accommodate traffic to and from future phases of development. It has not been demonstrated that the Main Street and junctions would be able to accommodate traffic from future development together with through traffic.	forward for development, and to enable different potential bridge locations to link to the wider highway network; the illustrative masterplan demonstrates how a bridge crossing could be accessed from the B3400. The detailed layout of Main Street does not form part of this OPA and there are robust trip rate assumptions within the TA that allow for future proofing. There is also space around the principal junctions at the A339 and B3400 to adapt to changing demands, if required. The design approach is also considered to be appropriate in the context of the SPD requirements for the main street to serve dual functions in terms of both placemaking and movement. It is noted that a wider sustainable transport strategy will be required to play a key part in any growth strategy for the town in the future. The forthcoming Local Plan Review and its associated evidence base will determine the expected quantum, location and connectivity requirements for future growth and it is considered that the parameters which have been set for the main street will enable it to respond positively to this.

JFL 15

NATURAL ENGLAND SECOND PLANNING CONSULTATION RESPONSE ON MANYDOWN

From: PlanningComments
Sent: 09 January 2020 14:52
To: Lucy Page
Subject: FW: 303709 NE response - 17/00818/OUT FURTHER AMENDMENTS - Manydown Land Off Roman Road And Worting Road, Worting Road, Basingstoke

Jason Gregory
Planning Development Support Officer
Basingstoke and Deane Borough Council
Tel: 01256 845765
Jason.Gregory@basingstoke.gov.uk
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Basingstoke and Deane

THAMES VALLEY PROPERTY AWARDS 2017 Town of the Year WINNER

From: Aziz, Rebecca [mailto:Rebecca.Aziz@naturalengland.org.uk]
Sent: 07 January 2020 15:31
To: PlanningComments <planning.comments@basingstoke.gov.uk>
Subject: 303709 NE response - 17/00818/OUT FURTHER AMENDMENTS - Manydown Land Off Roman Road And Worting Road, Worting Road, Basingstoke

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FAO Lucy Page

RE: 17/00818/OUT Residential development land for schools, local centres, public open spaces, country park and supporting infrastructure. Manydown Land Off Roman Road And Worting Road, Worting Road, Basingstoke, Hampshire. - FURTHER AMENDMENTS

Thank you for consulting Natural England on the above application.

Farmland wildlife and arable flora

The revised 'Appendix F Ecology and Nature Conservation in ES Chapter 9' and Updated draft Section 106 Heads of Terms within the revised Planning Statement outline that a financial contribution, or other relevant ecological mitigation project, to offset the moderate adverse impact on 22 skylark territories (and a further 2 where the separate permitted ecological mitigation ref 19/02649/FUL is implemented) will be secured by an appropriate planning condition or obligation, the details of which will be agreed 'alongside the Site wide Framework submission and prior to the implementation of any key phase'. The supporting revised Appendix F2: Farmland Wildlife Mitigation Framework outlines the intention that the compensation will take the form of a more holistic approach to supporting farmland birds. The ES recommends this is incorporated into a Farmland Wildlife and Pollinator Package to be agreed with relevant stakeholders. It is anticipated this will be secured by condition, and delivered and funded separately to any existing or future Countryside Stewardship schemes.

Provided the FWPP is secured as described above, that requires the need for agreement between relevant stakeholders to ensure an appropriate scale and long-term certainty of mitigation can be delivered, Natural England is satisfied the impacts on farmland wildlife, including skylark and arable margins, are appropriately addressed at this Outline stage of the application.

Ancient woodland

The supporting covering letter (Tibbalds, 9th December 2019) outlines that a Woodland Management Plan will be provided and secured by planning condition. Natural England welcomes this and advises the planning condition is worded to ensure that such a Plan will detail measures, including appropriately sized buffer zones, to protect and enhance all ancient woodlands affected by the proposed development with details of long term funding, implementation and management, and to be agreed with relevant stakeholders prior to the implementation of any key phase (as with the FWPP). It is recommended the specific wording of such a planning condition is agreed with the Council's biodiversity team.

Nitrates

It is noted from the covering letter that waste water from the proposed development will be directed to Chineham waste water treatment works, which ultimately discharges to the Thames river system. Therefore Natural England confirm a nutrient loading budget is not required with regards to impacts on Solent European protected sites.

If you have any queries please let me know.

Many thanks,
Becky

Becky Aziz ACIEEM
Sustainable Development Lead Advisor
Thames Solent Area Team
Natural England
4th Floor, Eastleigh House
Upper Market Street
Eastleigh SO50 9YN
Tel: 020 8026 0064

Please note my non-working day is Friday

www.naturalengland.org.uk

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In an effort to reduce Natural England's carbon footprint, I will, wherever possible, avoid travelling to meetings and attend via audio, video or web conferencing

Natural England offers two chargeable services – The Discretionary Advice Service (DAS) provides pre-application, pre-determination and post-consent advice on proposals to developers and consultants as well as pre-licensing species advice and pre-assent and consent advice. The Pre-submission Screening Service (PSS) provides advice for protected species mitigation licence applications.

These services help applicants take appropriate account of environmental considerations at an early stage of project development, reduce uncertainty, reduce the risk of delay and added cost at a later stage, whilst securing good results for the natural environment.

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JFL 16

FLAC TECHNICAL NOTE ON TRENCHLESS DRAINAGE CONNECTION AT ASPBURY'S COPSE (M42 MSA)

FLAC Instruction ref. SC38-1002
LAND BETWEEN JUNCTIONS 5 AND 6 OF THE M42, SOLIHULL

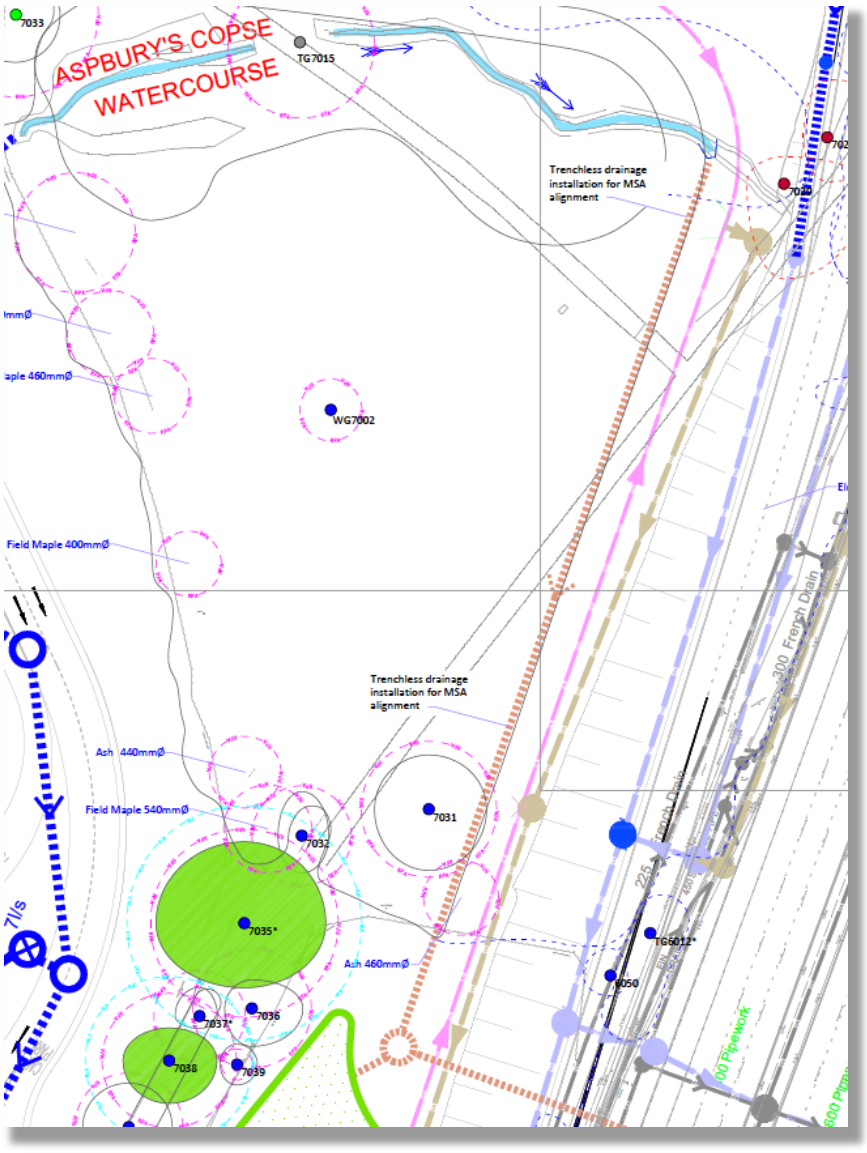
HORIZONTAL DIRECTIONAL DRILLING -

KEY POINTS

1 Directional drilling proposals

1.1 A section of MSA drainage aligned north-south at the east edge of FLAC ident. WG7002 is proposed to be installed by trenchless technique, in this instance horizontal directional drilling (HDD), along the alignment seen as the orange dashed line at Figure 1 below.

Figure 1 – Extract from FLAC dwg TSRRP 38-1002.08 to show trenchless drainage alignment (orange dash)



1.2 A new headwall will be constructed at the Aspury's Copse watercourse end (north), the section to be installed by trenchless techniques will run beneath the woodland to the proposed manhole to south of the woodland, which links with the drainage alignment to the east that will be beneath the M42.

1.3 A specialist contractor has reviewed proposals, a summary of their preliminary assessment informs:

- The job is suitable for HDD technique
- A launch pit 3m x 1m will be located on Solihull Road verge (i.e. outside of the woodland)
- They would use wireline technology to guide the drill head so no access to walk the alignment is required
- The accuracy achieved is +/-10mm, ideal for gravity drainage systems with restricted access
- The receive pit at the southern manhole will also be outside of the woodland and the agricultural field will provide working space for pipeline construction and string-out
- The pipe will be 300mm diameter, made from hdpe sdr 11 polyethelene and ca. 150 metres long
- The drill length will be ca. 180 metres in length and terminate at the point where the new head wall will be constructed to pick up Aspbury's Copse watercourse
- Historic bore samples indicate soil type is sandy clay to -2.5 metres then mudstone, all of which is suitable ground conditions for the HDD technique.

2 Suitability of HDD in proximity to the woodland

2.1 The use of trenchless techniques to install drainage or service conduits is well established in arboriculture as a suitable means for installing pipes in close proximity to trees. The chief benefit over traditional trench excavations is that it preserves both roots and the soil environment by passing beneath the critical rooting horizon.

2.2 British Standard 5837:2012[1] makes the following recommendations:

> *7.7.1 Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local soil hydrology in a way that adversely affects the health of the tree. For this reason particular care should be taken in the routeing and methods of installation of all underground apparatus.*

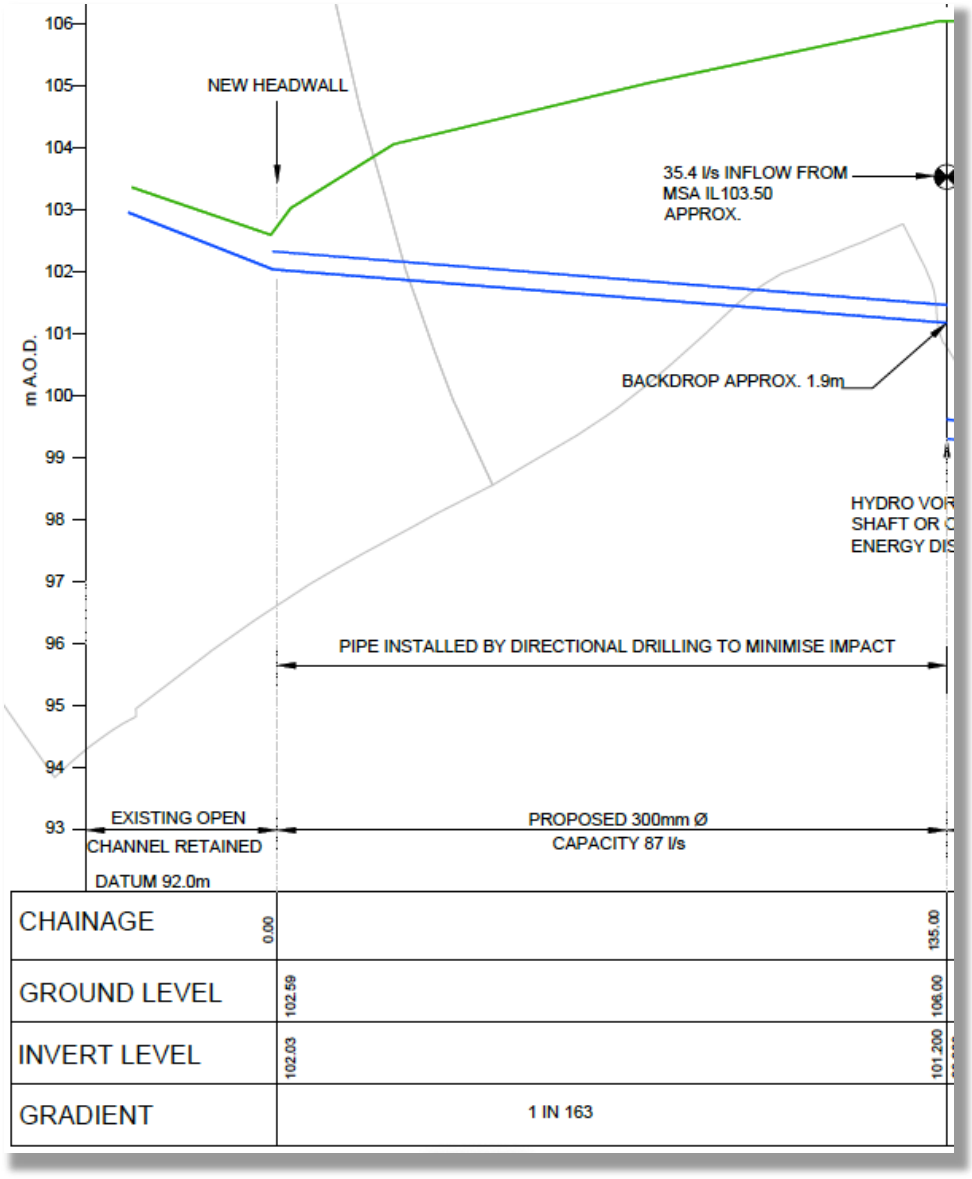
[1] BRITISH STANDARDS INSTITUTE, BS5837:2012 *Trees in relation to design, demolition and construction - Recommendations*. Fourth ed. 2012

It continues

> *7.7.2 Where underground apparatus is to pass within the RPA [root protection area], detailed plans showing the proposed routeing should be drawn up in conjunction with the project arboriculturist. In such cases, trenchless insertion methods should be used (see Table 3), with entry and retrieval pits being sited outside the RPA.*

2.3 Turning back to the proposals, engineers Wardell Armstrong have prepared a long section insert on their SuDS plan to show how the diverted Aspbury's Copse drainage alignment relates to existing ground level, an extract is provided at Figure 2 below.

Figure 2 – Extract from Wardell Armstrong SuDS Surface Water Drainage Strategy



2.4 The long section demonstrates that the trenchless drainage alignment will for the most part be greater than 2 metres below ground level, far below the critical rooting horizon. It is shallowest at the northern end where the new headwall will pick up the watercourse, however, this area is already subject to heavy disturbance and contamination from previous use, see figure 3 below.

Figure 3 – Photograph to show disturbance and contamination of ground at position of new headwall



2.5 Our analysis of proposals against the guidance provided within BS5837:2012 and site conditions is summarized as:

- Root severance by trenching is avoided by use of HDD trenchless technique
- Soil environment and hydrology is preserved
- Launch and retrieval pits will be located outside of the woodland and RPAs of retained trees
- The alignment will be a straight run with no intervening pits or manholes within the woodland
- The alignment will be below critical rooting horizon and where it is shallowest at the north end the ground is already heavily disturbed so any potential for impact on roots is minimal.

3 Conclusion

3.1 The proposal to provide this element of the MSA drainage by trenchless technique beneath Aspbury's Copse meets with the recommendations set out in BS5837:2012 (the primary guidance for construction matters in relation to trees and woodland).

3.2 If this same alignment were to be installed by trench excavation then an additional swathe of trees would necessarily have to be cleared to west of the whole drainage alignment to ensure that retained trees were not structurally compromised by the inevitable root severance. It would be inappropriate to retain trees adjacent a busy off slip of the new junction where roots had been severed by trenching, in the interests of safety.

3.3 Additionally, the proposal to use trenchless drainage installation avoids associated impacts that trenching activity would likely cause, such as compaction, general disturbance by construction activity within the woodland, risk of contamination and above ground damage to trees by plant and machinery.

3.4 Overall the proposal represents a responsible means of minimizing impacts upon Aspbury's Copse preserving greater woodland area, trees and soils thereby resulting in significantly less impact upon the ancient woodland than a 'normally' installed pipe within a trench excavation.

Forbes-Laird Arboricultural Consultancy

JFL 17

EMAIL FROM NATURAL ENGLAND
ACCEPTING TRENCHLESS DRAINAGE CONNECTION

Julian Forbes-Laird

From: Murray, susie <Susan.Murray@naturalengland.org.uk>
Sent: 14 September 2020 09:41
To: Alistair Baxter
Cc: Osborne, Lawrence (Places Directorate - Solihull MBC)
Subject: PL/2015/51409/PPOL Proposed MSA (M42 Solihull) - Horizontal Directional Drilling – NE response
Attachments: PL/2015/51409/PPOL Proposed MSA; FLAC 38-1002 DIRECTIONAL DRILLING NOTE_ISSUE 310720.pdf

Dear Alistair
Cc Lawrence

PL/2015/51409/PPOL Proposed MSA (M42 Solihull)
Horizontal Directional Drilling – NE response

You will recall Natural England provided a response to the ancient woodland package of information in our email 12 July 2020 (attached). In response to our concerns in respect of horizontal directional drilling, Sylvan provided the above document (attached) 29 July 2020.

Unfortunately, there has been some capacity issues in the woodland team which explains the delay in providing our response. We thank you all for your patience in this regard.

Happily, I can confirm that Natural England has now reviewed the document above and we **confirm we have no concerns as regards the potential impact upon ancient woodland from horizontal directional drilling as we are content this will avoid the rooting zone.**

Our specialist team, however, notes that the area of capture of the watercourse is within the ancient woodland. Therefore, whilst you could argue is already disturbed, risks being further damaged by access of personnel and plant leading to vegetation loss and soil compaction. **We ask the council satisfy itself that this is mitigated appropriately by the CEMP.**

Our NE specialist team also noted that the proposed additional stream diversion underground needs a clear rational as it goes against EA policy not to culvert watercourses. Undeniably, this represents an extended length of culvert which presents an additional barrier to any fauna and reduces habitat connectivity. We consider this may represent a missed opportunity for any net gain by increased length of open water course (within a woodland habitat) and flood attenuation.

We hope you find the above helpful.

Many thanks,

Mrs Susie Murray
Lead Adviser
West Midlands Area Team (East) – Planning
Natural England
M: 07920 594142
susan.murray@naturalengland.org.uk

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JFL 18

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No More Digging was formed in early 2018, initially servicing the expanding garden building market with a sustainable alternative to concrete foundations.

Since then, No More Digging has become the UK's most trusted ground screw installer. Our teams are strategically positioned across the country, ensuring we can provide a swift, reliable and cost-effective service to customers across the UK and Ireland.

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Listening to our customer's needs and putting them at the heart of everything we do.

Value

Offering efficient and high-quality solutions that deliver positive outcomes for our customers.

Sustainability

Protecting the environment for future generations offering a low-carbon alternative to concrete foundations.

Partnership

Through great communication and building strong relationships we work together as one team.

Our mission is to support our customers with efficient and sustainable foundation solutions that protect our environment for future generations.

WHY USE NO MORE DIGGING

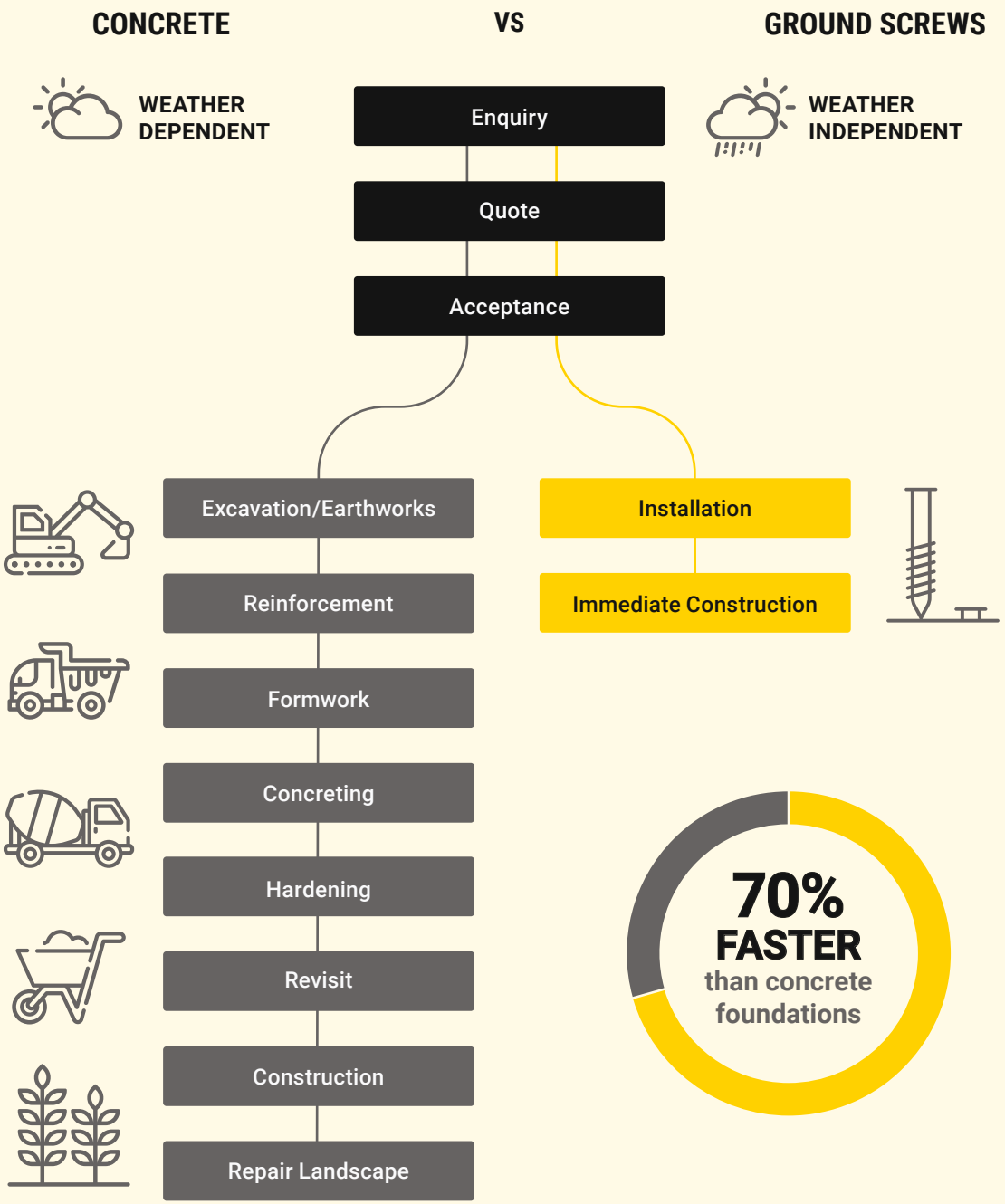
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At No More Digging, we have built a robust infrastructure and process for supplying and installing our ground screw foundations, allowing us to serve the growing number of projects for hundreds of homeowners and contractors across the UK and Ireland.

Our ground screw foundations offer the most efficient and sustainable system for creating a solid, level base for projects of all sizes and applications, backed by our skilled team and unrivalled service.

> *An excellent team! So professional, friendly and helpful. Nothing was a bother and they were happy to answer all my questions. They did an excellent job. I highly recommend them!*
>
> **E. MacDonald**

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Helping the planet

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Now that's something to build on.



Concrete Facts

Concrete is the

2nd highest

consumed substance on Earth after water

3 tonnes

of concrete is used on average by every person on the planet per year

10% of carbon emissions

are a result of cement production globally





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Project	*The Artist Bothy*
Product	*8 no. RDX PRO RF200 76x1550mm Ground Screws*

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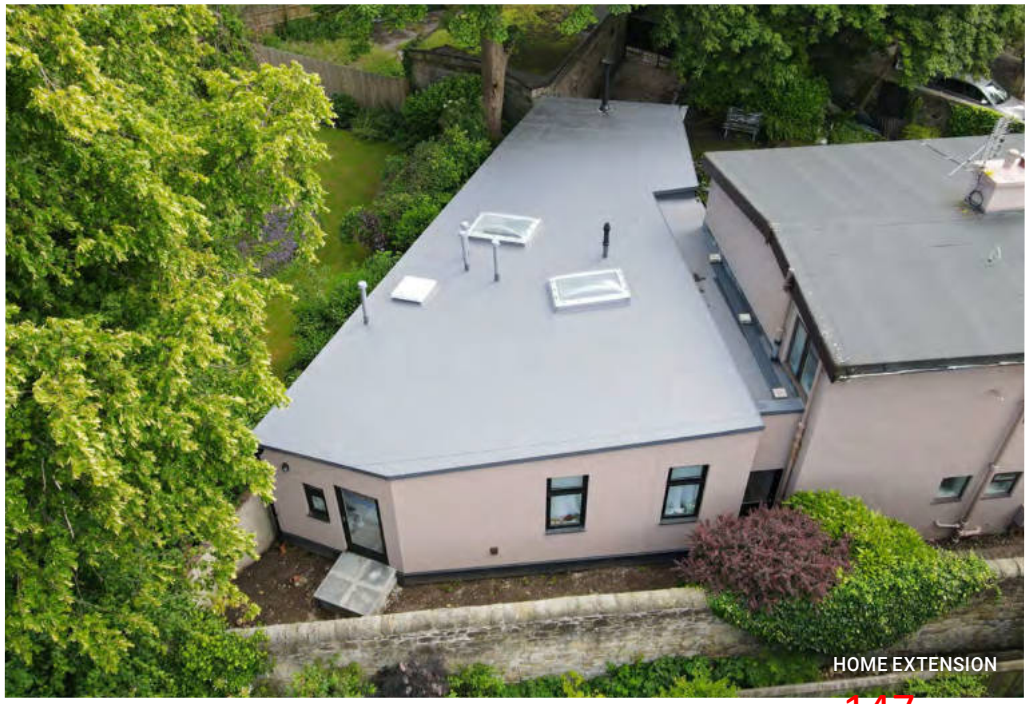
Ground screw foundations provide a strong, level base for all sizes of residential projects, from garages and carports to patios and hot tubs.

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Our team can conduct detailed site surveys and load-bearing tests and work with your architect and project engineer to specify ground screw foundations that will support home conservatories and extensions.



CARPORT



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> *Really good experience working with No More Digging. The guys went the extra mile to understand the project, talking directly to other suppliers to make sure that they got it right. Really friendly and professional installers too.*
>
> **R. Wade**

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Client	*Beech Joinery Ltd*
Project	*Luxury Holiday Lodge*
Product	*66 nr. RDX PRO RF140 76x2050 Ground Screws and Bespoke Brackets from RADIX*

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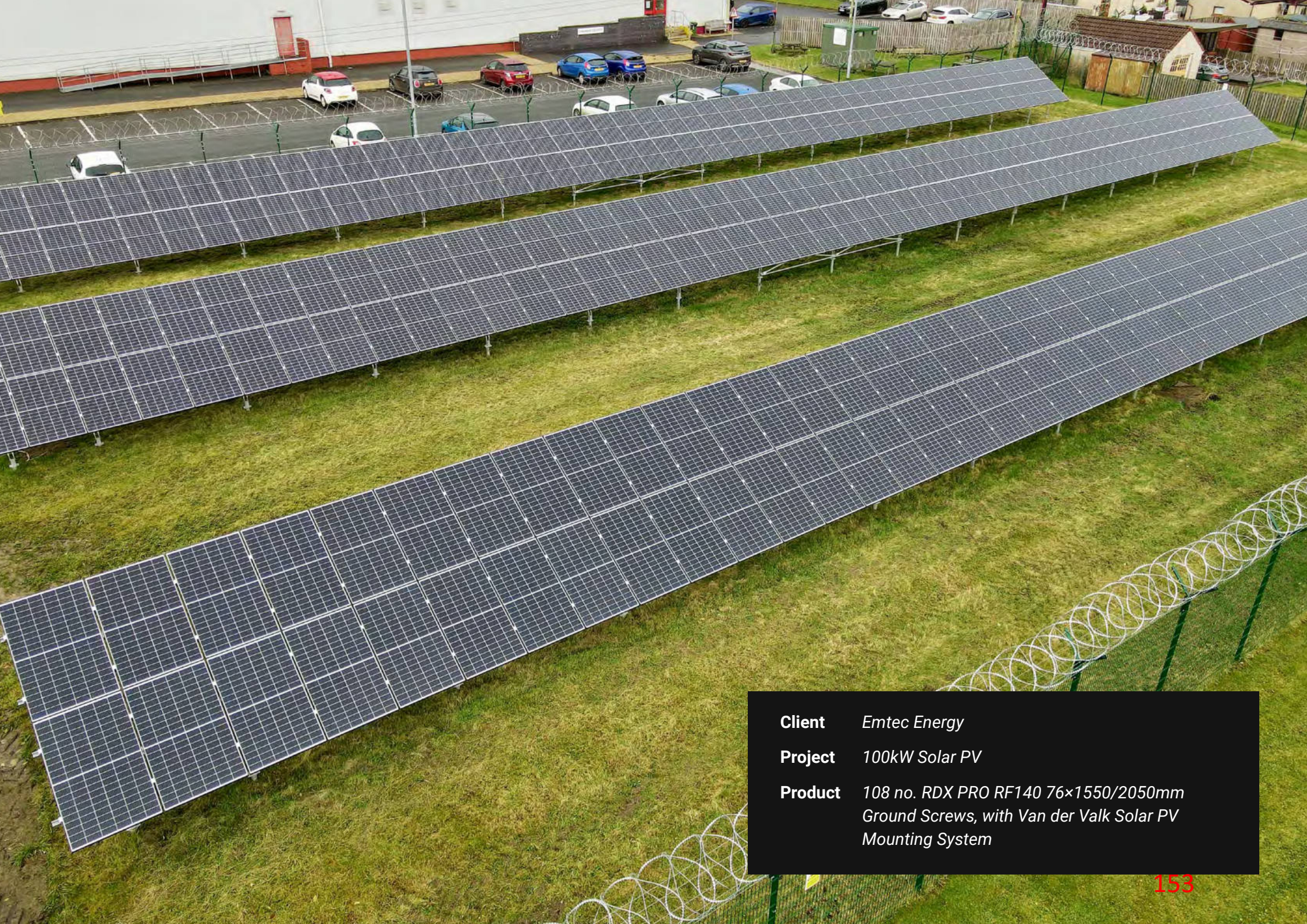
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Client	*UrbanPods*
Project	*Jak's Den Support Units*
Product	*36 no. RDX PRO RF200 76x1250mm Ground Screws for Pods and 9 no. 76×1050 for Decking*



Client	*Emtec Energy*
Project	*100kW Solar PV*
Product	*108 no. RDX PRO RF140 76×1550/2050mm Ground Screws, with Van der Valk Solar PV Mounting System*

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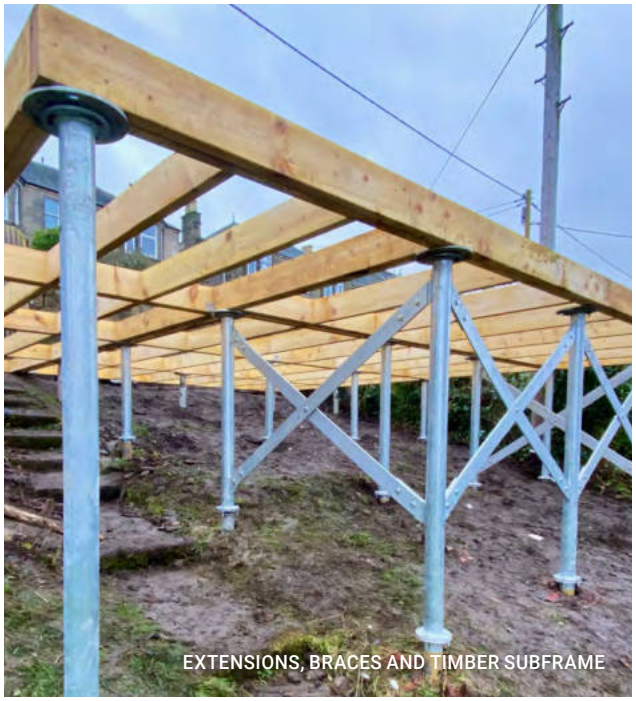
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> *"The whole process from start to finish was outstanding. After the screws and subframe went down I had a perfectly square, level, and solid foundation.*
>
> **K. Johnston**

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TIMBER SUBFRAME



EXTENSIONS, BRACES AND TIMBER SUBFRAME



VALKFIELD SOLAR PV MOUNTING SYSTEM



LIGHT GUAGE STEEL SUBFRAME



Client	*Private Client*
Project	*3.1m x 4.8m Windsor Pavilion*
Product	*12 no. RDX PRO RF140 76x1050mm Ground Screws and Bespoke Oval Timber Subframe*

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argyllandbute@nomoredigging.co.uk

Central Scotland
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01501 763 995
centralscotland@nomoredigging.co.uk

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01463 263 080
highlands@nomoredigging.co.uk

North East England
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northeast@nomoredigging.co.uk

North West England
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northwest@nomoredigging.co.uk

East England
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east@nomoredigging.co.uk

South East England
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southeast@nomoredigging.co.uk

Greater London
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0800 195 2337
london@nomoredigging.co.uk

South Coast England
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southcoast@nomoredigging.co.uk

Guildford
The Rannoch 26 Linersh Wood, Bramley Guildford, GU5 0EE
01483 323 515
guildford@nomoredigging.co.uk

Thames Valley
Unit 7 Station Industrial Estate, Oxford Road, Wokingham, Berks, RG41 2YG
0118 418 1042
thamesvalley@nomoredigging.co.uk

Wales
Unit 6A1 Atlantic Trading Estate, Barry, Vale of Glamorgan, CF63 3RF
02920 001 606
wales@nomoredigging.co.uk

JFL 19

FLAC TECHNICAL NOTE
RESPONDING TO THE WOODLAND TRUST'S PLANNING CONSULTATION RESPONSE

40-1020_JFL
DOWNLANDS

Veteran trees - Technical response to matters raised by the Woodland Trust

FLAC is advising Gleeson Land in relation to arboricultural aspects of proposed development on land at Downlands Farm, Uckfield.

Further to the planning submission of June 2022, Wealden District Council application ref. WD/2022/1637/MEA, a consultation response dated 16 September 2022 has been received by WDC from the Woodland Trust. In summary, the Woodland Trust objects to the proposed development.

One ground given for this objection relates to veteran trees. In this regard, FLAC has undertaken a veteran tree search and identification exercise. We report our list of veteran trees, identified using our RAVEN methodology, within the planning submission as Appendix FLAC2.

The Woodland Trust adopts our identification, for which we wish to record our appreciation.

The Woodland Trust confirms that none of the identified veteran trees would be subject to direct impacts from development, and that in consequence there would be no loss of veteran trees.

The Woodland Trust asks:

> *That the council ensures that appropriate buffer zones have been afforded to all of the above trees and that the council is satisfied with proposed management to ensure avoidance of their deterioration*

We are pleased to confirm that all identified veteran trees have been provided with buffer zones compliant to the Natural England and Forestry Commission of 15x stem diameter, or crown spread +5m (whichever is the greater). This detail is confirmed by consideration of the Tree Survey, Retention & Removal Plan (TSRRP), FLAC dwg no. 40-1020.02, found at Appendix FLAC3 of our planning submission bundle.

Turning to less positive comments, the Woodland Trust raise concerns over:

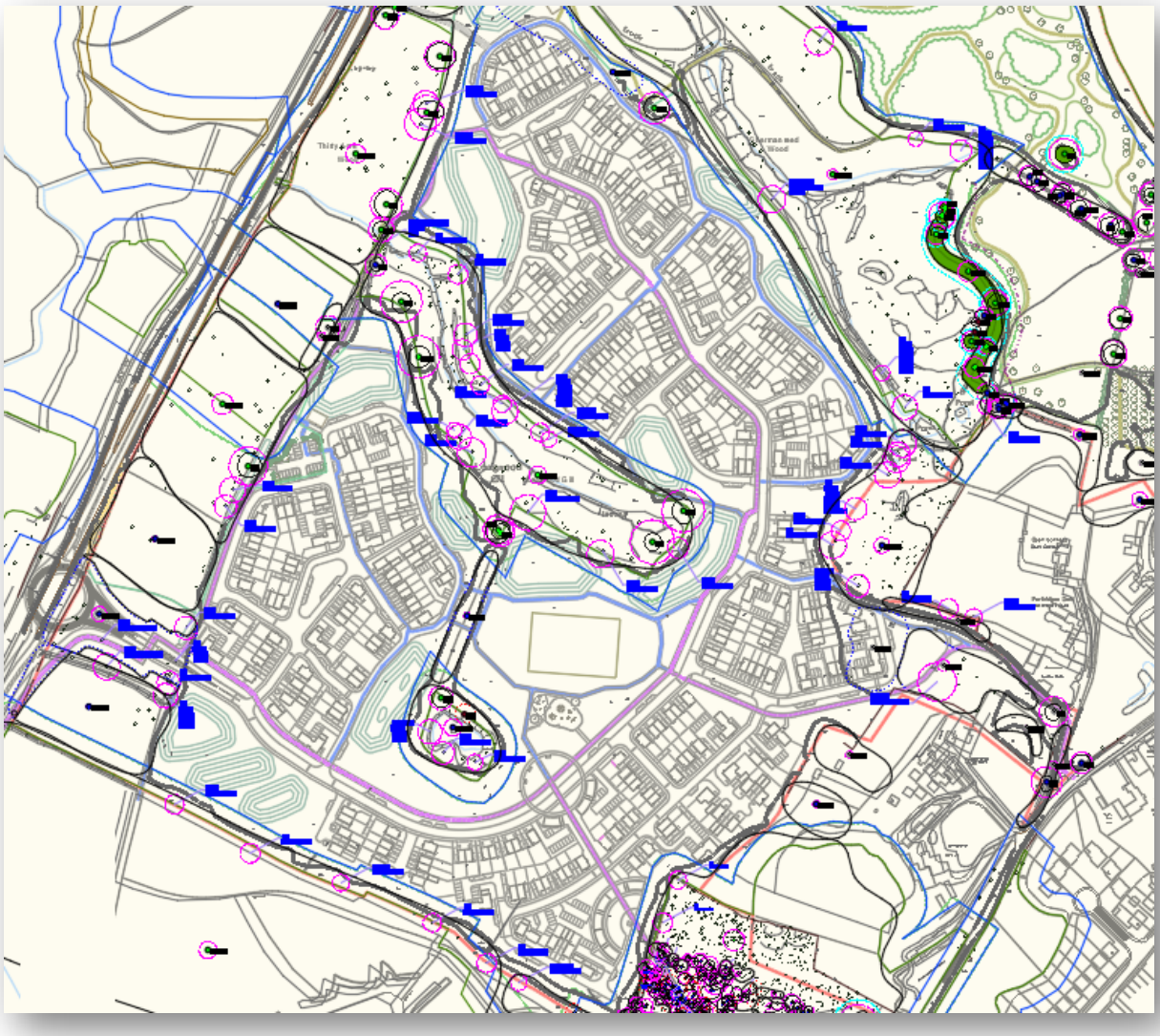
- Pollution effects (noise, dust, light)
- Public access leading to harmful tree surgery

We are pleased to address these concerns as follows:

Pollution

Figure 1 is an extract from our TSRRP showing the area of proposed built development, with the illustrative layout overlaid with our tree survey information. Veteran trees are shown with a solid green crown fill, and by this means can be identified even at this small scale.

Figure 1 – Extract from FLAC dwg no. 40-1020.02



It is apparent from Figure 1 that the identified veteran trees are located outside and to the east of the development area proper. In fact, they are located on the far side of an area of woodland over 75m away. As such, it is apparent that there is no realistic likelihood that they would be subject to adverse pollution impacts, even if these were likely to occur given provision of the recommended buffer zone (which is not accepted).

Public access

In its consultation response the Woodland Trust states:

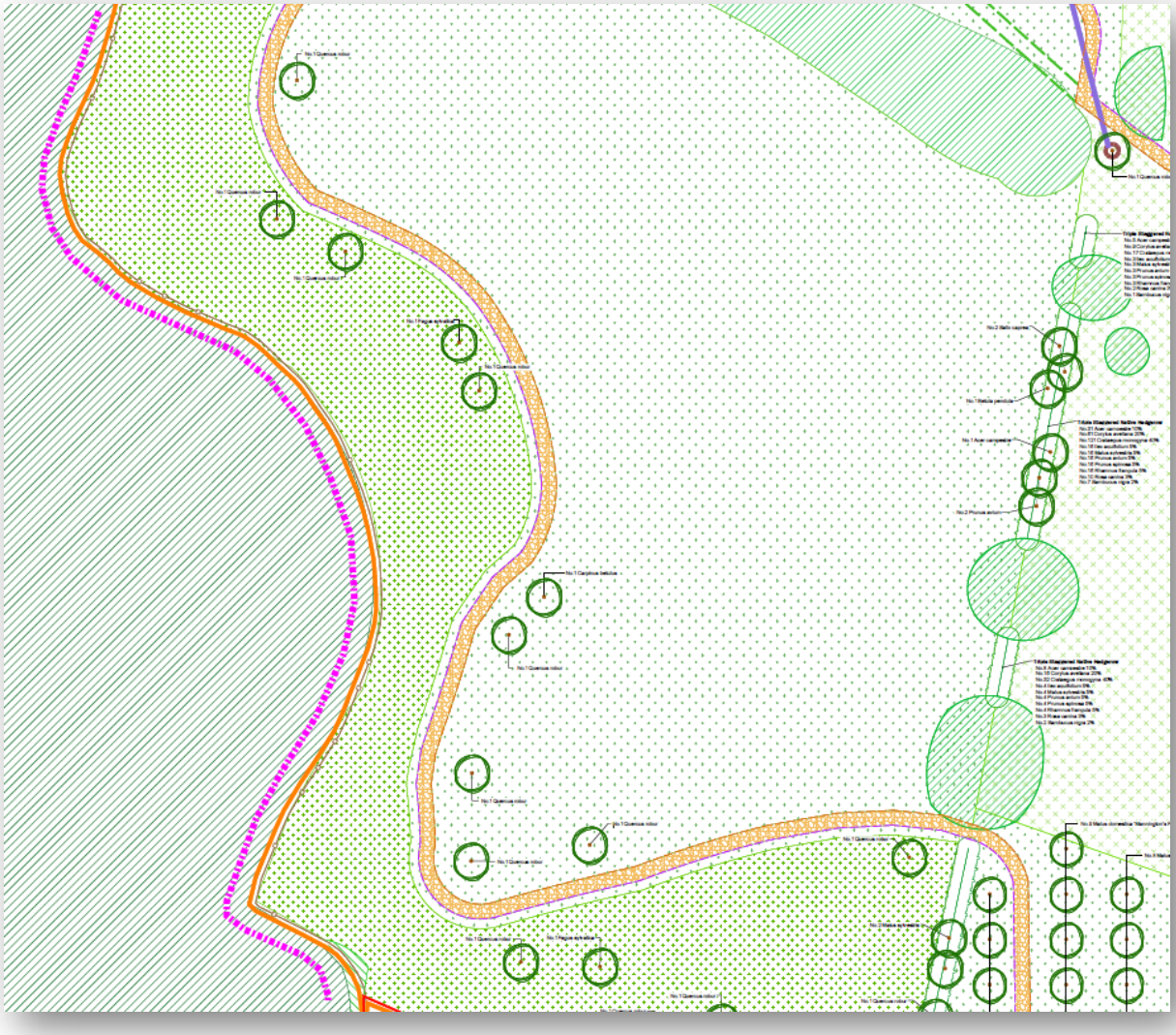
> *Increased human activity in the vicinity of veteran trees will increase the need to manage such trees more intensively so as to reduce associated health and safety risks… Veteran trees typically feature significant deadwood habitat of great value for biodiversity… and the removal of such features in the interests of managing safety risks can result in loss of habitat and/or consequential decline or removal.*

Therefore, where such trees are to be located within public areas, other mitigations should be considered to reduce human activity around these trees, i.e. restricting access within their canopy area and rooting environment.

Attention is drawn to the location of the veteran trees within woodland in all cases save two, trees 7041 and 3026. Tree 3026 is located some way off-site to the northeast (being captured by the FLAC survey before the site disposition was known), and accordingly it does not require further consideration. Tree 7041 is located in a grassed area within the proposed SANG.

In relation to those veteran trees located within woodland, Figure 2 is an extract from the detailed SANG proposals submitted as part of the (hybrid) application. The extracted area includes the southeast boundary of Shermanreed Wood, within the outer margins of which are the veteran trees (other than those listed above). We have highlighted this area with a dashed pink line in Figure 2.

Figure 2 – Extract from detailed SANG proposals; pink FLAC markup indicates veteran tree presence



It is apparent from the detailed SANG application that no public access is proposed within the southern end of Shermanreed Wood. Moreover, careful scrutiny of the SANG proposals finds that its boundary is proposed to be protected by a dog-proof fence.

It follows from these details that public access to those veteran trees located in this area will not be subject to intensification of human activity. Indeed, given that there is *existing* public access to this part of Shermanreed Wood, it is clear that the outcome of the proposed development will be a net reduction in human proximity to the veteran trees concerned.

In relation to tree 7041, public access in proximity to this tree can be prevented by installation of a circumferential post and rail fence, within which can be set access-deterrent planting (such as dog rose and blackthorn).

In conclusion, whilst the Woodland Trust have raised concerns about certain aspects of the proposals in relation to veteran trees, on further examination it is found that these concerns are misplaced. In all but one case, tree 7041, the veteran trees would be either or both of remote from development and not subject to nearby public access.

Whilst tree 7041 *could* be subject to public access, this can be prevented from causing adverse impact, including from otherwise superfluous safety-critical tree work, by means of suitable fencing and access-deterrent planting.

Overall, we welcome common ground on the identification of veteran trees, and on an agreed lack of direct impacts.

Finally, attention is also drawn to the fact that veteran trees would be subject to a long-term conservation management plan so as to maximise their longevity. This would lead to a net positive outcome for veteran trees on the site.

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SYLVAN TECHNICAL NOTE ON ALLEGED HYDROLOGICAL CONNECTION TO LAKE WOOD

Technical Briefing Note

Project: Downlands Farm, Uckfield

Technical Briefing Note 08: Potential for hydrological connectivity to Sphagnum bed at Lake Wood

Date: 11 October 2022

1. Executive Summary

- Objectors have raised in issue the potential for deterioration to the Irreplaceable Habitat of Lake Wood, which is included within the Ancient Woodland Inventory compiled and maintained by Natural England.
- The deterioration is said to arise from changes to the hydrology of Lake Wood, and specifically to inflows from the Downlands Farm site that currently support a small Sphagnum moss bed, which in turn is said to feed the lake.
- Outflow from the lake, which is alleged will be adversely affected, drains into the Shortbridge Stream, which is known to have specialised ecology; this, too, is said to be subject to adverse effects should the development proceed.
- Sylvan has undertaken a review of relevant technical information, including the *Geo-environmental Site Investigation* (GSI) prepared by BRD Environmental, the *Flood Risk Assessment* (FRA) prepared by Waterman Consulting, the topographic survey, and LiDAR data.
- Sylvan has also undertaken field work to test the validity of the conclusions of the FRA and GSI.
- Based on our combined desk and field study, we conclude that no hydrological connection exists at or above the level of materiality between Downlands Farm and the Sphagnum bed and/ or the lake in Lake Wood.
- Accordingly, the proposed development would neither cause deterioration to Irreplaceable Habitat, nor result in an adverse effect of the ecology of the Shortbridge Stream.

The Sylvan brand is a specialist collaboration between Aspect Ecology Ltd (registered number 5648214 – England and Wales) and Forbes Laird Arboricultural Consultancy Ltd (registered number 05253618 – England and Wales)

2. Introduction and Background

2.1. Sylvan (Aspect Ecology and Forbes-Laird Arboricultural Consultancy (FLAC)) is advising in respect of ancient woodland matters relating to the site Downlands Farm, Uckfield. The site is being considered for residential development, with an application pending decision before Wealden District Council (its ref. WD/2022/1637/MEA).

2.2. Consultation responses have been received on the application from, amongst others, Sussex Wildlife Trust (SWT); the Woodland Trust (owners of Lake Wood); and a local resident, Dr Martyn Stenning.

2.3. Whilst the Woodland Trust does not directly take a position on hydrological change affecting Lake Wood, it does cite with approval the opinion of Dr Stenning. Dr Stenning states:

> *The Sphagnum peat fed lake at Lake Wood, which… supports a huge biodiversity of aquatic plants, invertebrates and vertebrates, including great crested newts, is… fed with water from Downlands Farm and would be jeopardised by the drainage engineering proposed by the developers.*

2.4. However, this assertion is not supported by reference to evidence. Notably Dr Stenning does not refer to the FRA or GIS and their findings.

2.5. In similar vein, SWT state, also without providing evidence, that Downlands Farm is:

> *Hydrologically connected to the Woodland Trust's Lake Wood Reserve which contains a sphagnum peat fed lake.*

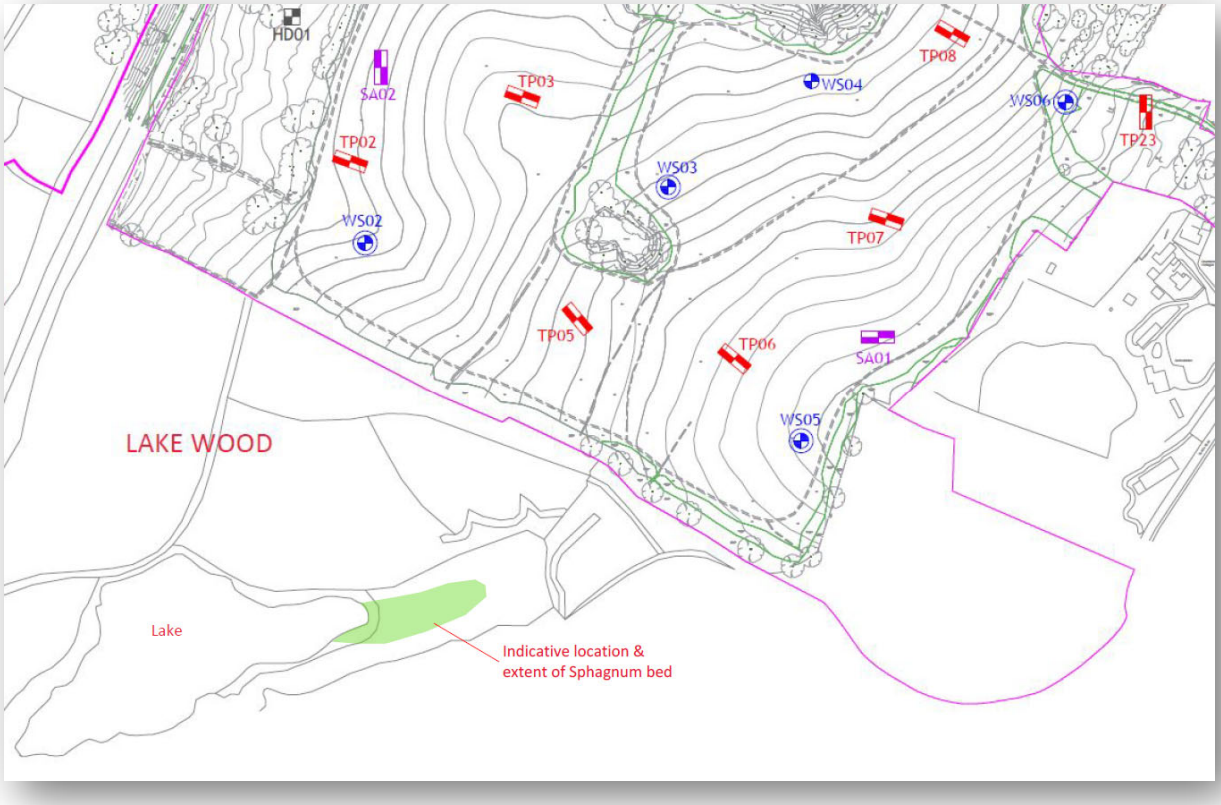
2.6. This Technical Note directly addresses these assertions.

3. Desk study

Geo-environmental Site Investigation

3.1. Appendix 10.2 of the Environmental Statement comprises the GIS referred to already. The GIS includes reports of trial hole and bore-hole surveys that provide empirical evidence of soil conditions. Figure 1 is an extract from the *Exploratory Hole Location Plan* found within Appendix 1 of the GIS.

Figure 1 – Extract from BRD Environmental Exploratory Hole Location Plan, *11.01.2022, marked up by Sylvan to show indicative location and extent of the Sphagnum bed in Lake Wood*



3.2. The GIS summarizes the ground conditions as follows:
The ground conditions encountered at the site were generally as anticipated from the published geology.

3.3. The published geology, derived from the British Geological Survey (BGS) online viewer, shows "Grinstead Clay Member" being present on-site for the length of the common boundary with Lake Wood. An extract from the BGS website depicting the relevant area is included at Figure 2.

Figure 2 – Extract from BGS Geology Viewer showing Grinstead Clay member as green fill



3.4. Referring to the exploratory hole location plan extract at Figure 1, it is apparent that holes WS02, WS05, TP02, TP05 and TP06 are all located in that area of the site which abuts the Lake Wood boundary. The exploratory hole results are included in the GIS at its Appendix 2. Consulting this data confirms that the stratum underlying the topsoil in all five cases is Grinstead Clay Member.

3.5. BGS technical report WD/00/04, titled *The physical properties of minor aquifers in England and Wales*, describes the Grinstead Clay Member as an "aquiclude" (5.3.3.4). An aquiclude is a stratum that takes up water until field capacity is reached, and then retains it, confining soil water in adjoining strata. In other words, the Grinstead Clay Member adjacent to Lake Wood acts as a barrier, preventing lateral flow from soil water on site into Lake Wood. This technical work demonstrates that the assertions of Dr Stenning and SWT are not supported by the GIS which shows the contrary, namely the absence of a material sub-surface hydrological link.

Flood Risk Assessment

3.6. Appendix 8.1 of the Environmental Statement comprises the FRA referred to already. The FRA includes the proposed drainage strategy, which was worked up based on detailed collaboration between Sylvan and Waterman Consulting.

3.7. A key element of the drainage strategy is the extent to which infiltration could be used to drain the proposed development area. To inform their view on this point, Waterman Consulting undertook a review of the infiltration test data contained within the GIS, concluding that:

Soakage testing was undertaken across the Site, which demonstrated soil permeability that was too low to calculate the infiltration rate in most locations. In one location a rate of 1.12 x 10-6 m/s was calculated, which is considered too low to successfully support infiltration. The Geo- Environmental Site Investigation report concludes that the disposal of surface water to soakaways will not be feasible at this Site due to the predominantly cohesive nature and proved low permeability of the underlying soils.

3.8. This finding further demonstrates that a material hydrological link between Downlands Farm and Lake Wood is absent (contrary to the assertion of objectors), instead strongly indicating that on-site water remains on-site, currently draining with the lie of the land.

Topographic survey

3.9. The site topographic survey provides directly relevant information on the extent to which the lie of the land favours drainage from Downlands Farm to Lake Wood. Levels data from the topo confirms a fall along the Lake Wood boundary of ca. 10m from southeast (at Chicory Cottage) to northwest (the A22).

3.10. The levels data also confirms a more complex topography from within the site and towards Lake Wood. Whilst in the southeast Downlands Farm slopes towards Lake Wood, more centrally along the boundary the slope lies the other way, before the land lies broadly even in the northwest. Thus it is the case that only in the southeast, for ca. 120m, would the lie of the land permit potential overland flows into Lake Wood from Downlands Farm in any event.

LiDAR data

3.11. Figure 3 is an extract from the Environment Agency's LiDAR data visualization for the locality. This information allows us to plug the gap between the on-site topo survey covering Downlands Farm, and the off-site terrain within Lake Wood, which has not been topographically surveyed.

Figure 3 – Extract from EA LiDAR survey, 1m resolution DTM



3.12. The location of the lake is readily apparent in Figure 3, as is a valley feature extending from the westerly projection of the lake to head, somewhat north of west, towards the common site boundary. Cross-referencing Figure 3 to Figures 1 and 4, helps in understanding the location of the Sphagnum bed: it occupies the lower reaches of the valley where this terminates at the lake.

Figure 4 – Extract from aerial image dated 2004 selected to show thicketting trees within Sphagnum bed, indicative extent of which is highlighted



3.13. Referring back to Figure 3, the dark shadow along the southern aspect of the valley is a line of sandstone bluffs, which together form a more or less continuous outcrop at this point, frequently rising to a height of 4m or so. The nature of the sandstone outcropping effectively provides the enquirer with a section through the local geology that is plain to see (Figure 5).

3.14. Extending NNE and NE from the northernmost point of the lake are two linear depressions: these are tracks. Extending NNW from the north shore of the lake is a much wider depression: this is the outflow route to the culvert under the A22, through which the lake drains into the Shortbridge Stream.

3.15. With the terrain at lake Wood now revealed by the LiDAR data, it becomes apparent that any hydrological connection between Downlands Farm and the Sphagnum bed involves the valley in which the latter sits. Thus an on-site search for indications that such a connection could be present, despite the strong geophysical evidence to the contrary set out above, must consider the northern valley side, especially the bluffs, and the head of the valley.

Figure 5 – Photograph taken 07.10.22 showing part of sandstone bluff along north side of valley



4. Field work

Methodology

4.1. Sylvan undertook field work in Lake Wood on 06 & 07 October 2022. As well as seeking obvious signs of hydrological connections into the Sphagnum valley, our primary search targets were botanical indicators of elevated soil moisture (phyto-hydrological markers), that would suggest (or confirm) the presence of overland flows, wet flushes, seasonal watercourses, and so on.

4.2. In this regard, it should be understood that plants are symptomatic of soil conditions, with locally higher levels of soil moisture giving rise to specific marker species, which colonise damp locations opportunistically. For example, in Longwood Gill and Shermanreed Wood, the key marker species for hydrological inflows is Hart's-tongue Fern (*Asplenium scolopendrium*).

Findings

4.3. In brief, we found no indications of any material hydrological connection between Downlands Farm and the valley hosting the Sphagnum bed which is said by Dr Stenning and SWT to feed the lake. Both the northern side of the valley and its head appeared to be floristically homogenous with elsewhere in the wood, with no phyto-hydrological marker species being found except the Sphagnum bed itself, which occupies a well-defined area.

4.4. Examination of the sandstone bluffs found no signs of water flowing over, through or under these features. This is significant because at about 34-39AOD the bluffs occupy a key part of the level transition from the site (at ca. 40-42AOD) to the valley floor (at ca. 34AOD): if there were deeper seepage inflows in play, for example if soil water was moving below the Grinstead Clay Member, these should be apparent on examination of the sandstone and related plant colonies. No such indications were found.

5. Discussion

5.1. The Woodland Trust owns and manages Lake Wood, in furtherance of which latter it has prepared a Management Plan covering the period 2016-2021 (no more recent edition appears to be available). Within this document is section 5.1 *Historic Landscape*, which contains the following description:

> *The landscaping of Lake Wood occurred in the late eighteenth and early nineteenth century after the site became part of the Rocks Estate, owned by the Streatfield family, in 1789. An existing spring-fed pond was enlarged by the building of the dam.*

5.2. Notwithstanding that the Woodland Trust cited Dr Stenning's opinion with approval, the text set out above directly contradicts both his and the SWT's assertion that the lake is fed from Downlands Farm via the Sphagnum bed. Having examined all the evidence in print and on site, we conclude that the Woodland Trust's description of the lake as being spring fed is correct.

5.3. In this regard, we do not consider it material whether the spring feeds the Sphagnum bed, which in turn supplies the lake, or the spring feeds the lake, which supplies the Sphagnum bed. Either is equally consistent with the Woodland Trust's understanding of the site, and neither speaks to hydrological supply from Downlands Farm.

6. Conclusion

6.1. Consultees on the planning application have put forward a claim that deterioration of Irreplaceable Habitat at Lake Wood, as well as adverse impact on lake and stream ecology, would occur due to changes to hydrology arising from the proposals. Notably, the objectors put forward no evidence to support their assertions.

6.2. To test these assertions, Sylvan has undertaken a review of the data supplied to the Council as part of the planning process, and has ground-truthed the presence/ absence of possible hydrological connection pathways between the Downlands site and Lake Wood. In this regard, the evidence centres on the Geo-environmental Site Investigation and the Flood Risk Assessment, supported by topographic and lidar survey data.

6.3. This work provides confirmatory geophysical evidence that sub-surface or surface flow pathways are absent between the Downlands site and the Sphagnum bed or lake in Lake Wood. Sylvan has further checked this conclusion through field survey work, which confirms an absence of any indications of a hydrological connection between the two sites.

6.4. It is the case, therefore, that all of the evidence supports the Woodland Trust's position that the lake is spring fed, rather than fed via hydrological supply from the Downlands Farm site.

6.5. Based on the suite of information available, we conclude that there is no material hydrological link between the Downlands site and the lake in Lake Wood. Accordingly, the claim by objectors that hydrological change could occur through such a link is not supported by the evidence.

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JOINT NATURAL ENGLAND & FORESTRY COMMISSION *STANDING ADVICE*, NOVEMBER 2018

GOV.UK

1. Home (https://www.gov.uk/)
2. Planning and development (https://www.gov.uk/topic/planning-development)
3. Protected sites and species (https://www.gov.uk/topic/planning-development/protected-sites-species)

Guidance

Ancient woodland, ancient trees and veteran trees: protecting them from development

What planning authorities should consider for developments affecting ancient woodland, ancient trees and veteran trees.

Published 13 October 2014
Last updated 5 November 2018 — see all updates

From:
Forestry Commission (https://www.gov.uk/government/organisations/forestry-commission) and Natural England (https://www.gov.uk/government/organisations/natural-england)

Applies to:
England

Contents

- Ancient woodland
- Ancient and veteran trees
- Making decisions
- Assess the impacts
- Avoid impacts, reduce (‘mitigate’) impacts, and compensate as a last resort
- When to contact Natural England
- When to contact the Forestry Commission
- Further information

You should use this Natural England and Forestry Commission guidance (known as ‘standing advice’) to help you decide on development proposals affecting ancient woodland, ancient trees and veteran trees.

Standing advice is a ‘material planning consideration’. This means you should take it into account when making decisions on planning applications. It replaces the need for each agency to give an individual response to planning consultations. It has the same authority as an individual response.

This guidance is also useful for decision-makers who are responsible for major infrastructure projects, such as road and rail schemes.

Natural England and the Forestry Commission will only provide bespoke advice as set out in the when to contact sections, or in exceptional circumstances.

Ancient woodland

Ancient woodland takes hundreds of years to establish and is defined as an irreplaceable habitat. It's important for its:

- wildlife (which include rare and threatened species)
- soils
- recreational value
- cultural, historical and landscape value

It's any area that's been wooded continuously since at least 1600 AD. It includes:

- ancient semi-natural woodland mainly made up of trees and shrubs native to the site, usually arising from natural regeneration
- plantations on ancient woodland sites - replanted with conifer or broadleaved trees that retain ancient woodland features, such as undisturbed soil, ground flora and fungi

They have equal protection in the National Planning Policy Framework (https://www.gov.uk/guidance/national-planning-policy-framework/11-conserving-and-enhancing-the-natural-environment#paragraph_118) (NPPF).

Other distinct forms of ancient woodland are:

- wood pastures identified as ancient
- historic parkland, which is protected as a heritage asset in the NPPF

Many of these do not appear on the Ancient Woodland Inventory because their low tree density did not register as woodland on historic maps.

You should give consideration to wood pasture identified as ancient in planning decisions in the same way as other ancient woodland.

'Wooded continuously' does not mean there's been a continuous tree cover across the whole site. Not all trees in the woodland have to be old. Open space, both temporary and permanent, is an important component of ancient woodlands.

Ancient and veteran trees

Ancient and veteran trees can be individual trees or groups of trees within wood pastures, historic parkland, hedgerows, orchards, parks or other areas. They are often found outside ancient woodlands. They are irreplaceable habitats with some or all of the following characteristics.

Ancient trees

An ancient tree is exceptionally valuable. Attributes can include its:

- great age
- size
- condition
- biodiversity value as a result of significant wood decay and the habitat created from the ageing process
- cultural and heritage value

Very few trees of any species become ancient.

Veteran trees

All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value.

Making decisions

When making planning decisions, you should consider:

- conserving and enhancing biodiversity
- reducing the level of impact of the proposed development on ancient woodland and ancient and veteran trees (see 'Avoid impacts, reduce impacts and compensate as a last resort')

You should make decisions on planning applications in line with paragraph 175C of the NPPF (https://www.gov.uk/government/publications/national-planning-policy-framework--2).

You should refuse planning permission if development will result in the loss or deterioration of ancient woodland, ancient trees and veteran trees unless:

- there are wholly exceptional reasons
- there's a suitable compensation strategy in place

Assess the impacts

You should use the following process to assess impacts on ancient woodland when making decisions on planning applications. The process also applies to:

- wood pastures identified as ancient
- ancient trees and veteran trees

Consult inventories

You can use the following inventories to help you decide whether a development will affect ancient woodland (including wood pastures identified as ancient) or ancient and veteran trees:

- Natural England's ancient woodland inventory - download the data (https://naturalengland-defra.opendata.arcgis.com/datasets/ancient-woodlands-england) or view it on the Magic map system (http://magic.gov.uk/MagicMap.aspx?chosenLayers=ancwoodIndex,bapdecIndex,orchardIndex,bapwoodIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=207763:417195:576753:592195&useDefaultbackgroundMapping=false) (zoom in to see local detail)
- ancient tree inventory (http://www.ancient-tree-hunt.org.uk/) (click on 'Tree search' and enter a postcode)
- wood pasture and parkland inventory (includes some ancient sites) (http://magic.gov.uk/MagicMap.aspx?chosenLayers=bapwoodIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=207763:417195:576753:592195&useDefaultbackgroundMapping=false) (zoom in to see local detail)

Ancient woodlands smaller than 2 hectares are unlikely to appear on these inventories. You should use this guidance for all ancient woodlands and ancient and veteran trees whether they're on the inventories or not. They are updated and reviewed from time to time.

You should contact Natural England if a site has evidence of ancient woodland on it and is not on the inventory.

Potential impacts

Development can affect ancient woodland, ancient and veteran trees, and the wildlife they support on the site or nearby. You can assess the potential impacts using this assessment guide (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/740503/FCNE_AWSA_AssessmentGuideFinalSept2018.pdf) to help you with planning decisions.

Direct impacts of development on ancient woodland or ancient and veteran trees include:

- damaging or destroying all or part of them (including their soils, ground flora or fungi)
- damaging roots and understorey (all the vegetation under the taller trees)
- damaging or compacting soil around the tree roots
- polluting the ground around them
- changing the water table or drainage of woodland or individual trees
- damaging archaeological features or heritage assets

Nearby development can also have an indirect impact on ancient woodland or ancient and veteran trees and the species they support. These can include:

- breaking up or destroying connections between woodlands and ancient or veteran trees
- reducing the amount of semi-natural habitats next to ancient woodland
- increasing the amount of pollution, including dust
- increasing disturbance to wildlife from additional traffic and visitors
- increasing light or air pollution
- increasing damaging activities like fly-tipping and the impact of domestic pets
- changing the landscape character of the area

Providing evidence

You and the developer should work together to make sure there's enough suitable evidence to make a decision. This may include fieldwork and historic maps.

You should include proposed mitigation and compensation measures.

You should ask developers for a tree survey and an ecological survey, where appropriate. The tree survey should be in accordance with guidance in British Standard BS 5837 'Trees in relation to demolition, design and development' (https://shop.bsigroup.com/ProductDetail/?pid=000000000030213642). Ecological surveys should follow guidance approved by the Chartered Institute of Ecology and Environmental Management (CIEEM) (http://www.cieem.net/).

Avoid impacts, reduce ('mitigate') impacts, and compensate as a last resort

You and the developer should identify ways to avoid negative effects on ancient woodland or ancient and veteran trees. This could include selecting an alternative site for development or redesigning the scheme.

You should decide on the weight given to ancient woodland and ancient and veteran trees in planning decisions on a case-by-case basis. You should do this by taking account of the NPPF and relevant development plan policies.

If you decide to grant planning permission that results in unavoidable loss or deterioration, you should use planning conditions or obligations to make sure the developer:

- avoids damage
- mitigates against damage

- compensates for loss or damage (use as a last resort)

Ancient woodland, ancient trees and veteran trees are irreplaceable. Consequently you should not consider proposed compensation measures as part of your assessment of the merits of the development proposal.

Existing condition of ancient woodland

A woodland in poor condition can be improved with good management and development proposals should enhance the condition of existing ancient woodland, where appropriate. Where a proposal involves the loss of ancient woodland, you should not take account of the existing condition of the ancient woodland when you assess the merits of the development proposal. Its existing condition is not a reason to give permission for development.

Mitigation measures

Mitigation measures will depend on the development but could include:

- improving the condition of the woodland
- putting up screening barriers to protect woodland or ancient and veteran trees from dust and pollution
- noise or light reduction measures
- protecting ancient and veteran trees by designing open space around them
- identifying and protecting trees that could become ancient and veteran trees in the future
- rerouting footpaths
- removing invasive species
- buffer zones

Use of buffer zones

A buffer zone's purpose is to protect ancient woodland and individual ancient or veteran trees. The size and type of buffer zone should vary depending on the scale, type and impact of the development.

For ancient woodlands, you should have a buffer zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, you're likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic.

A buffer zone around an ancient or veteran tree should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter.

Where possible, a buffer zone should:

- contribute to wider ecological networks
- be part of the green infrastructure of the area

It should consist of semi-natural habitats such as:

- woodland
- a mix of scrub, grassland, heathland and wetland planting

You should plant buffer zones with local and appropriate native species.

You should consider if access is appropriate and can allow access to buffer zones if the habitat is not harmed by trampling.

You should avoid including gardens in buffer zones.

You should avoid sustainable drainage schemes unless:

- they respect root protection areas
- any change to the water table does not adversely affect ancient woodland or ancient and veteran trees

Compensation measures

Compensation measures are always a last resort. These measures can only partially compensate for loss or damage.

Compensation measures should be appropriate for the site and for the scale and nature of the impacts on it. A compensation strategy could include the following package of measures:

- planting new native woodland or wood pasture
- restoring or managing other ancient woodland, including plantations on ancient woodland sites, and wood pasture
- connecting woodland and ancient and veteran trees separated by development with green bridges, tunnels or hedgerows
- long-term management plans for new woodland and ancient woodland
- managing ancient and veteran trees
- planting individual trees that could become veteran and ancient trees in future
- monitoring the ecology of the site over an agreed period

Plant new native woodland

Establishing new trees and woodland is not a direct replacement for lost or damaged trees or woodland. You can accept large-scale woodland planting as a compensation measure alongside other measures. This could be on soil that has been moved from the destroyed area of ancient woodland (‘soil translocation’). You cannot move an ancient woodland ecosystem because:

- it’s not possible to replicate the same conditions at another site
- it’s no longer an ancient woodland

New woodland creation can be effective where it links to and extends existing woodland, as long as it does not affect:

- other semi-natural habitats
- heritage features

Restore or improve ancient woodland

You can partially compensate for loss or damage of ancient woodland by improving:

- and restoring plantations on ancient woodland sites
- the management of nearby ancient woodland sites and connecting them better to semi-natural habitat
- the condition of important features of ancient woodland
- access for management purposes

You can partially compensate for loss or damage to wood pasture by restoring soils and pasture.

Management plans should follow the UK Forestry Standard (https://www.gov.uk/government/publications/the-uk-forestry-standard). You can monitor the ecology of the site, over an agreed period, to help you advise on management measures.

Compensate for the loss of ancient and veteran trees

You can partially compensate by planting:

- young trees of the same species with space around each one to develop an open crown
- new trees near to the trees they're replacing

As a last resort, you can manage nearby ancient and veteran trees (including dead and dying trees) to help prolong their life. You should get advice from a registered tree consultant ('arboriculturist') before carrying out work on veteran trees by contacting:

- the Arboricultural Association (https://www.trees.org.uk/Other-Pages/Contact-Us)
- the Institute of Chartered Foresters (https://www.charteredforesters.org/contact-us/)

Leave the intact hulk of the ancient or veteran tree where it is (preferably standing) to benefit invertebrates and fungi. If that's not possible, move it near other ancient and veteran trees or parkland in the area.

When to contact Natural England

Natural England is a statutory consultee (https://www.gov.uk/guidance/consultation-and-pre-decision-matters#Statutory-consultees) for proposals that affect any site of special scientific interest (http://designatedsites.naturalengland.org.uk/). For all other proposals that affect ancient woodland or ancient and veteran trees, you should use the guidance on this page.

Consultation service

Natural England
Electra Way
Crewe Business Park
Crewe
Cheshire
CW1 6GJ

Email consultations@naturalengland.org.uk

Telephone 0300 060 3900

When to contact the Forestry Commission

The Forestry Commission is a non-statutory consultee (https://www.gov.uk/guidance/consultation-and-pre-decision-matters#Non-statutory-consultees). You should use the guidance on this page. Contact your Forestry Commission England area office (https://www.gov.uk/government/organisations/forestry-commission/about/access-and-opening#area-offices) for individual advice that's not covered on this page.

Forestry Commission England Tree Health Team

620 Bristol Business Park
Coldharbour Lane
Bristol
BS16 1EJ

Telephone: 0300 067 4000

Further information

Policy and standards:

- 'Keepers of time' (https://www.gov.uk/government/publications/keepers-of-time-a-statement-of-policy-for-englands-ancient-and-native-woodland) policy statement
- National Planning Policy Framework, paragraphs 11 (footnote 6), 175c, 190 (https://www.gov.uk/government/publications/national-planning-policy-framework--2)
- The UK Forestry Standard (https://www.gov.uk/government/publications/the-uk-forestry-standard)
- British Standard 5837:2012 (http://shop.bsigroup.com/en/ProductDetail/?pid=000000000030213642) 'Trees in relation to design, demolition and construction - Recommendations'
- British Standard 42020:2013 (https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiwzqKXkYnXAhWJVRoKHbYRCuAQFggmMAA&url=https%3A%2F%2Fshop.bsigroup.com%2FProductDetail%3Fpid%3D000000000030258704&usg=AOvVaw3YGxru_nRV3IsPhkJrtjqT) Biodiversity. Code of practice for planning and development
- Managing ancient and native woodlands in England (https://www.gov.uk/guidance/how-to-benefit-species-and-habitats-biodiversity-in-your-woodland)

Other useful information:

- Natural England (2000) Veteran Trees – a guide to good management (http://publications.naturalengland.org.uk/publication/75035)
- Lonsdale, D (2013) 'Ancient and other veteran trees: further guidance on management (http://ancienttreeforum.co.uk/wp-content/uploads/2015/02/ATF_book.pdf)
- Soil translocation - 'A Habitats Translocation Policy for Britain' (https://webarchive.nationalarchives.gov.uk/20080718180931/http://www.jncc.gov.uk/pdf/habitats_policy.pdf)
- Corney et al (2008) Impacts of nearby development on the ecology of ancient woodland (https://www.woodlandtrust.org.uk/mediafile/100168350/Impacts-of-nearby-development-on-the-ecology-of-ancient-woodland.pdf)
- Ryan (2012) Impacts of nearby development on the ecology of ancient woodland - addendum (https://www.woodlandtrust.org.uk/mediafile/100168353/Impacts-of-nearby-development-on-the-ecology-of-ancient-woodland-addendum.pdf)
- Woodland Trust: Ancient tree guides (https://www.woodlandtrust.org.uk/publications/search/?query=&sortby=date&count=10&type=100007505&subject=100007508)

Published 13 October 2014
Last updated 5 November 2018 + show all updates

1. 5 November 2018 This page has been updated to: align with the revised National Planning Policy Framework; give clearer guidance on taking account of the existing condition of ancient woodland; and give further guidance on mitigation measures, including the use of buffer zones.
2. 4 January 2018 The advice on the appropriate size of buffer zones (under 'Mitigation measures') has changed. The last version suggested a 50 metre (m) zone to mitigate the effects of pollution and trampling. Following queries about the 50m zone, this text has been removed. Natural England and the Forestry Commission are reviewing the feedback they've received.
3. 27 November 2017 Republished as part of the biennial update.
4. 29 October 2015 Added definitions of 'wooded continuously' and 'ancient wood-pastures', and clarified the rules about soil translocation in 'plant new native woodland'.
5. 3 August 2015 Clarified the purpose of this standing advice.
6. 29 March 2015 Guide fully updated for publication on GOV.UK after consulting with Natural England experts.
7. 30 January 2015 Guidance temporarily removed, pending revisions.
8. 30 January 2015 Guidance temporarily removed due to pending revisions.
9. 13 October 2014 First published.

Related content

- Planning applications affecting trees and woodland (https://www.gov.uk/guidance/planning-applications-affecting-trees-and-woodland)
- How to benefit species and habitats biodiversity in your woodland (https://www.gov.uk/guidance/how-to-benefit-species-and-habitats-biodiversity-in-your-woodland)
- Keepers of time: a statement of policy for England's ancient and native woodland (https://www.gov.uk/government/publications/keepers-of-time-a-statement-of-policy-for-englands-ancient-and-native-woodland)
- Get consent to convert woodland to open habitats (https://www.gov.uk/guidance/get-consent-to-convert-woodland-to-open-habitats)
- Sites of special scientific interest on or near woodland (https://www.gov.uk/guidance/sites-of-special-scientific-interest-on-or-near-woodland)

Detailed guidance

- Protected sites and areas: how to review planning applications (https://www.gov.uk/guidance/protected-sites-and-areas-how-to-review-planning-applications)

Explore the topic

- Protected sites and species (https://www.gov.uk/topic/planning-development/protected-sites-species)

JFL 22

CARTOGRAPHIC REGRESSION FOR SECONDARY WOODLAND ADJACENT TO THE A22


OSGB
United Kingdom • England • East Sussex • Budletts
Down Street
Little Brown's Wood
Maresfield
Chantlers
Strawberry Hall
Five Ash Down
New House Farm
Olives Wood
Pond Bay
Forge Wood
Gate House
Weald Way
The Oast Farm
The Old Rectory
Batt's Farm
Training Centre
Park Farm House
Mill House Farm
Lepham's Bridge House
Lepham's Bridge
Parsonage Wood
Sewage Works
Buxted
Batt's Wood
Furnacebank Wood
Vulcan House Farm
Harrock House
Grover's Farm
Budlett's Common
Cooper's Green
Black Down
White House Farm
Park Wood
Ringles Cross
Buxted Park (Hotel)
Buxted Park Deer Park
River Uck
Lower Totease Farm
Culver Wood
Piltdown Golf Club
Views Wood
Shermanreed Wood
Thirty Acre Wood
Cemy
Fairhazel Wood
Manor Park
Downland House
Farhazel
Hempstead Farm Stud
Great Streele
Upper Morgan's Farm
Lake Wood
Tunnel
Butcher's Wood
Highlands Wood
Shortbridge
Weir
Coll
Hempstead
Hempstead Lane
Hempstead Wood
West Park Nature Reserve
Lower Morgans Farm
Rocks
UCKFIELD
Highlands
A272
A26
A22
Feedback
186
Image courtesy of Ordnance Survey

Background map - ESRI World Imagery

OS 1-25K 1957

Black Down

FB

Weir

Thirty Acre Wood

Shermanreed Wood

A22

122

A26

Ringles Cross

GP

T

Cemy

Claremont Cottage

Downland Farm

Downland House

118

Lake Wood

F.P.

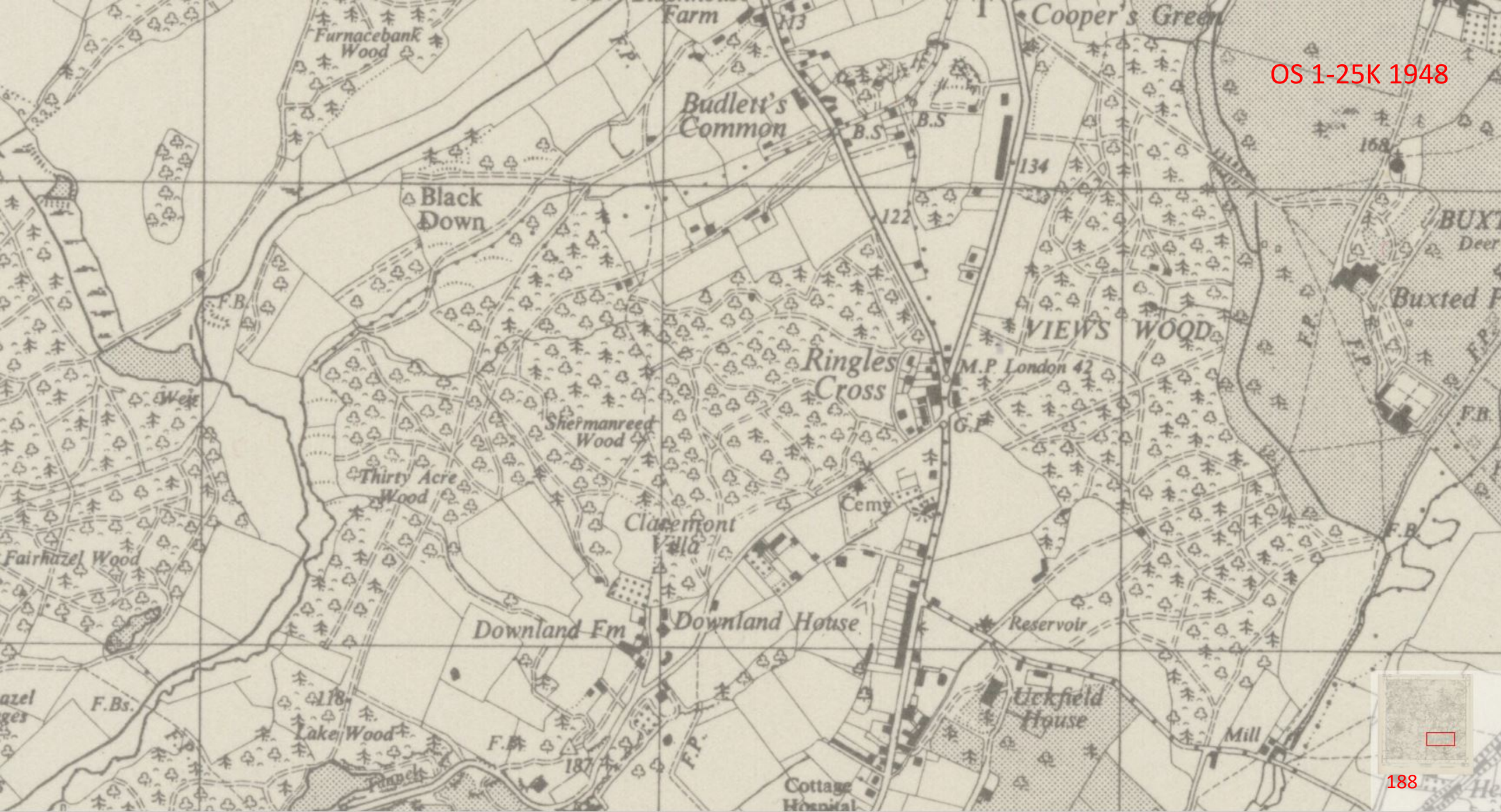
FB

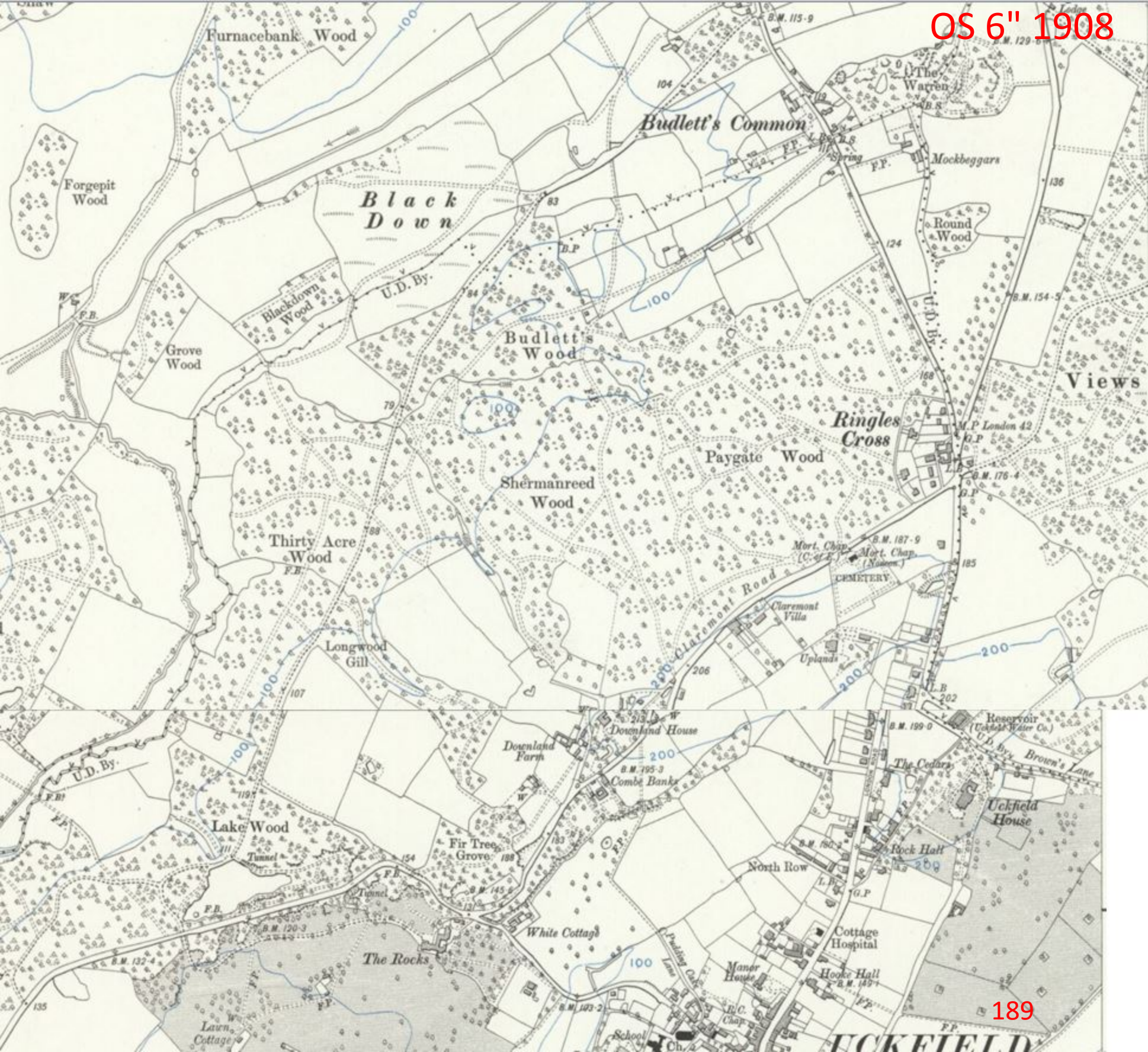
187

Tunnel

F.P.

200


OS 1-25K 1948
Furnacebank Wood
Budlett's Common
Cooper's Green
Black Down
VIEWS WOOD
Ringles Cross
M.P London 42
Shermanreed Wood
Thirty Acre Wood
Clairemont Villa
Cemy
Fairhazel Wood
Downland Fm
Downland House
Reservoir
Uckfield House
Mill
Lake Wood
Cottage Hospital
F.B.
F.Bs.
B.S
G.P
F.P.
Weir
188


OS 6" 1908
Furnacebank Wood
Budlett's Common
The Warren
Mockbeggars
Forgepit Wood
Black Down
Round Wood
Blackdown Wood
U.D. By.
Grove Wood
Budlett's Wood
Views
Ringles Cross
Paygate Wood
Shermanreed Wood
Thirty Acre Wood
Longwood Gill
Claremont Road
Claremont Villa
Upland
CEMETERY
Downland House
Downland Farm
Combe Banks
Reservoir
The Cedars
Brown's Lane
Uckfield House
Lake Wood
Tunnel
Fir Tree Grove
North Row
Rock Hall
White Cottage
The Rocks
Cottage Hospital
Manor House
Hooke Hall
Laurn Cottage
School
UCKFIELD
189


Show Search Panel
Background map - ESRI World Imagery
Measurement tools
OS 6" 1899
Park Wood
Pil Down
Fairhazel Wood
Batt's Wood
Furnacebank Wood
Budlett's Common
Budlett's Wood
Black Down
Shermanreed Wood
Paygate Wood
Thirty Acre Wood
Ringles Cross
Views Wood
Buxted
BUXTED PARK
Deer Park
Culver Wood
Hempstead Wood
Lake Wood
Butcher's Wood
Pierpoint's Wood
UCKFIELD U.D.
UCKFIELD
Acres 1759·538
TUNBRIDGE WELLS & LEWES LINE
L.B.&S.C.R.
Sussex XXVIII.SW, Revised: 1897, Published: 1899 - View this map
TQ 48630 22444
548630, 122444
0.1160, 50.9822
50° 59' 56" N 0° 06' 58" E
Tiles © ArcGIS NLS Historic Maps Subscription API layer
190

OS 6" 1878


Cave Wood
Marshall's Farm
Kingsfield Wood
Herdall
High Wood
Flitterbanks
Reading's Farm
Reading's Wood
Gatehouse Wood
Dairy Farm
Maresfield Park
Langley Wood
Maresfield
Pickbones
Forge Wood
Gatehouse Farm
Chantler's Wood
Mill Wood
Park Farm
Batt's Farm
Manor Pound
Malling Down
Batt's Bridge
Calves Shaw
Furnacebank Wood
Holly Lodge
Cooper's Green
Crouch's Croft
Forgepit Wood
Mockbeggars
Budlett's Common
Black Down
Oak Ferrers
Bildown Nursery
Park Wood
Blackdown Wood
Grove Wood
Budlett's Wood
Paygate
Ruggles Cross
Wood
Views
Shermanreed Wood
Thirtyacre Wood
Fairhazel Wood
Long Hill Wood
Claremont Villa
Downland Farm
Downland House
Combe Banks
Round Wood
Lake Wood
Fir Grove
The Cedars
Uckfield House
Butcher's Wood
The Rocks
White Cottage
Shortbridge
Holy Cross Church
Belmont
Uckfield
Pierpoint's Wood
Copwood
Old Workhouse
White Rails
Darvel Wood
Kiln Wood
Sewage Works
Station
Acres
1759·661
Beeches Farm
Needham Farm
Bridge Farm
Beechen Wood
Buckham Hill House
Buckham Hill
Meadow Place
New Town
Bookland Farm
Westmoreland House
Oldfield Lodge
LONDON AND SOUTH COAST RAILWAY
TUNBRIDGE WELLS LINE

OS6" 1878

Woods
Chimney
B.M.88.8
Budlett's Wood
Paygate
Ringles Cross
Wood
Well
LONDON 42
LEWES 9
Guide Post
B.M.176.6
Lodge
Guide Post
Shermanreed
Wood
Thirtyacre
Wood
183
200
Claremont Villa
197
zel Wood
Long-dill
Wood
Downland
Farm
Downland House
Spring
B.M.199.6
191
The Cedars
Combe Banks
Lake Wood
Fir Grove
North Row
Rock Hall
Butler's Croft
Chapthall Ho.
Butcher's Wood
The Rocks
White Cottage
Bedford Cottage
Manor House
Brook Hall
Holy Cross Church
B.M.138.6
100 m
192


TITHE 1841
34
6
29
156
193

FIGG 1829

DOWNLAND FARM

SHERMANREED and other LANDS.

in the Parishes of

Uckfield and Maresfield.



No	Names of the Fields	a	r	p
37	Wood	4	3	7
36	Road Field	2	2	39
42	The Wood	2		4
43	Wood Field	3	2	3
44	Foot Path Field	3	3	16
50	House Gardens Lawn &c	3	3	16

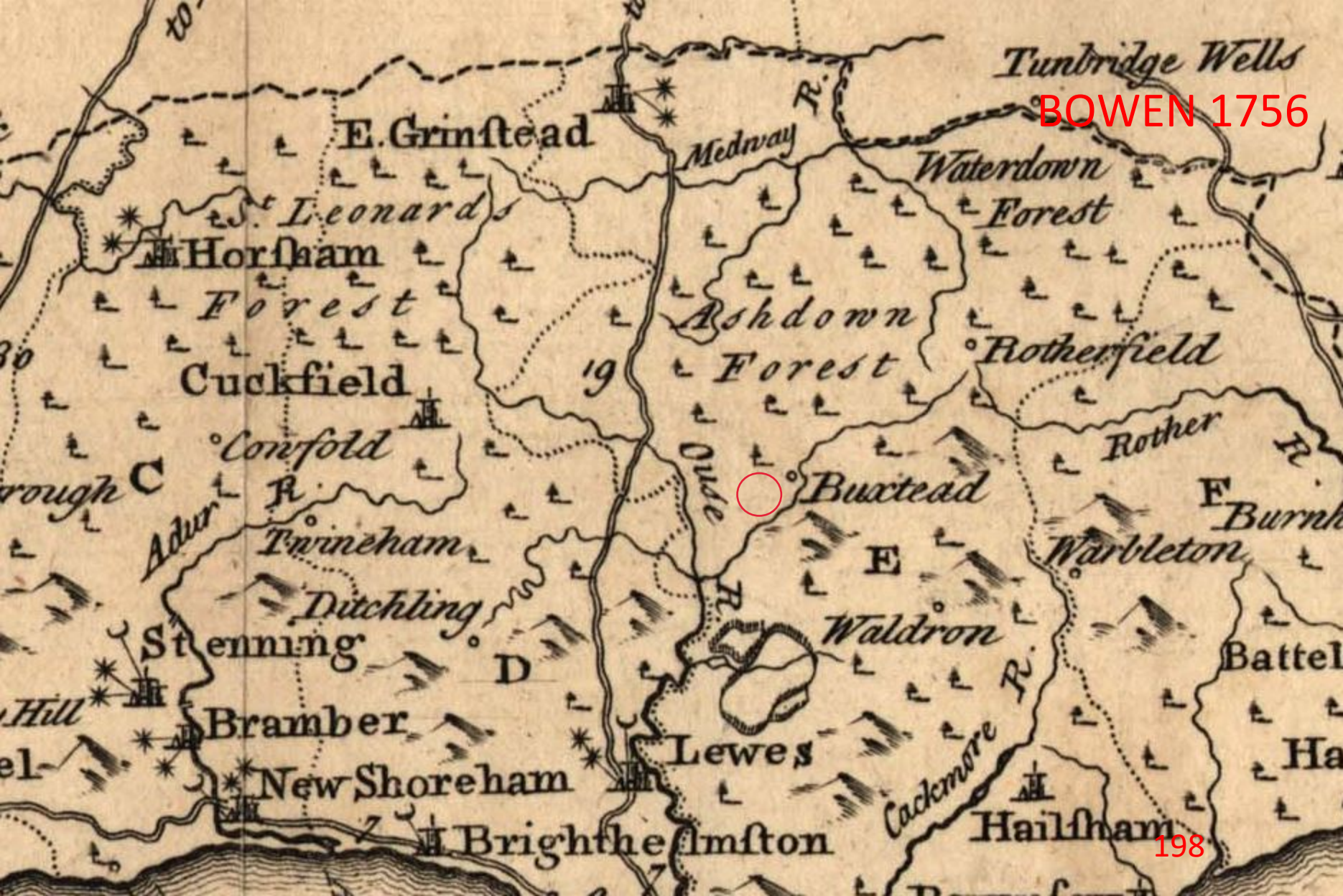
Reference.

No	Names of the Fields		Arable a r p	Pasture a r p
1	Downland Buildings &c &c			1 1 11
2	Barn Field		3 0 1	3 0 34
3	Orchard			1 0 0
4	Wood Field		3 2 14	3 2 38
5	Long Field		3 1 31	3 2 20
6	The Three Acres		3 0 20	3 0 30
7	The Five Acres		3 3 36	3 0 28
8	Grab Field		3 2 0	0 0 12
9	Beech Pit Field		3 2 32	3 2 18
10	North Mead		2 2 0	2 3 8
11	Fir Grove			0 2 28
12	The Acre Plot			2 0 36
13	Cottage and Garden			1 2 0
14	Gate Field		2 0 1	2 2 0
15	Hollow Field		2 0 0	3 1 28
16	Little Or Pasture		1 3 32	2 0 1
17	Willow Shaw			1 12
18	Michelborne's Brook		2 3 11	3 0 3
19			2 0 16	2 1 1
20	Byfields Brook		3 3 39	0 1 12
21	Uckfield Acre		1 3 0	1 3 24
22	Shermanreed & other Woodlands			121 1 2
23	Hop Garden	late Fuller	3 2 38	4 1 0
24	Plot		1 2 22	1 3 0
25	Do		1 2 23	1 3 16
	TOTAL		60 2 2	200 2 22
26	Quarry			


Down
Mayfield
New Hs.
Batts Br.
Brxted
Tanyard
Great Str.
UCKFIELD
Down Ho.
Framfield Place
Framfield
New Plo.
Harlots
Blackham Hill Ho.
Camwood
Park Ho.


OSD 1806
Mill
Blackland F.
Park Wood
Downland
Rocks
Uckfield
Shortbridge F.
Copwood F.
196


Butts
Mill
Rock Mill
Uckfie
FADEN 1795
197


BOWEN 1756
Tunbridge Wells
E. Grinstead
Medway R.
Waterdown Forest
St. Leonards
Horsham
Forest
Ashdown Forest
Rotherfield
Cuckfield
Consfold
Ouse R.
Buxtead
Rother R.
Adur R.
Twineham
Warbleton
Ditchling
Stenning
Waldron
Bramber
Lewes
New Shoreham
Brighthelmston
Cackmore R.
Hailsham
198


KITCHIN 1750
Green
R
E.Grinsted
Ifield
Rusper
Crawley
Boldbrook
Forrest Row
Wells
Surrey Hill
Withyham
Buckhurst
Eridge
W.Hoathly
Horsham
Broadhurst
Slaugham
Danhill Str.
Rotherfield
Cuckfield
Lindfield
Bolney
W.Grinsted
Newick
Buxtead
Twineham
Waldron
Woodmancote
Chailey
Lit.Horstead
Ditchling
E.Hoathly
Bramber
Piecombe
Ouse R.
Chittingley
Poynings
Stammer
Ringmer
Ryme
Lewes
New Shoreham
Glynd
Firl
Iford
Arlington
Rotting
dean
Aldfriston
199

BUDGEN 1724

Duddles Well
Danhill Street
Nutley
HUND.
Mickers hatch
Old Land
Courtland
Blackven
OF
Hornf
Marshals
Handhill
Sheffield
RUSHMONDEN
Fletching
Bats br
Mareſheld
Six Wents
Oakferrers
Marſheld Forge
Pilts down
Barkham
Shortbridge
Uckfield
Rocks
Copwood
Newick
Chailey bridg
Eades
Shunsbr
Isfield
Nenrick Pla P.
Isfield
Easterns brr.
Isfield bridg
Part of Rushmonden Hundred
Barcombe Cross
Bevern bridge
Bolnock
Fletching Com
Nenrick green
Gold bridg
Walſhes
ROTHERFIELD
Parſonage
Brook house
Strood
Shadwell
Stone Mill
Claygates
Pinehurſt
Skipers
Rocks
Huggets Furnace
Ashen Down
Leaphens bridg
HUND.
Hadlow down
Hadlow
Parſonage
Totcaſe Oak
Chimneys
Buxſtead
Buxſtead Pl.
Buxſtead bridg
Hemſtead
LOXFIELD
Pounſly
Hylands
Verſfeld bridg
Gatcheuſe
Harings
OF
Frantfield
Ridgwood Common
Poſſingworth
Blackboys Green
Waldron
Brownings
DORSET
Little Horſtead
Horſtead Place
New P.
Flats br.
Herringdale
Scallow
bridg
Crockſtead Green
Sandhill
Shoſmith Green
Barnet Wood
Whily
HUND.
Bentley Park
Parſonage
200

MORDEN 1695

O F

R T

East Grinsted

Imberhurn

Lovell Cross

Barlugh Arches

Crabbet

Worth

Forest

Tilgate

Rudgwick

Warnham

Horsham

Chesworth

Leonards Forest

Nuthurst

Hitchingfield

Slinfold

Stamerham

Neland

Tyes

Gravely

Wakehurst

Ardingleigh

Balcombe

Worth

Crawley

Rusper

Ifield Court

Ifield

Farhurst

Rudgwick

Barbugh

Rossey

Leonards

Slaugham

Cuckfield

Berstly

Horsted Keynes

THE REGNI

Hamsell

Broadhurst

Allidown

Forest

Nutley

Hartfield

Withyham

Stonland Park

Hamsell bridg

Rotherfield

Crowborough hill

Hayfield

PEVENSEY RAPE

Hardley Beacon

Pownsley

Heathfield

Waldern

Crockstead

Blackhasse

Framfield

Harlings

Buckhurst

Hyndall

Marshall

Helmsdale

Sheffield

Fletching

Ludham

Wivelsfield

Charleigh

Hickstead

Hamsell

Homsey Street

LEWES RAPE

Kymere

Dicklding

Plumpton

Mountharry

Lewes

Offham

Cliffe

Glyne

Southram

Firle

Ludley

Selmston

Berwyke

Alciston

Middleton

Winton

Willington

Erlington

Wetton

Chickman

Ripe

Chalton

Laughton

Laughton place

Stenham

Marling

Clayerham

Peven

Ditchling

Patcham

Falmer

Withdeane

Hadhurst

Brighthelmston

Ovingdean

Radmell

Rottingdean

Terring

Newhaven

Piddinghoe

Tarring Neville

Iford

Kingston

Swanborough

Bishopstone

Seaford

Bramber

Shipley

Knepp Castle

W. Grinsted

Farhurst

Tirnham

Chiltington

Ashurst

Warminghurst

Eton

Wiston

Washington

Steyning

Bramber

Castle

Buttolph

Findon

Clapham

Broadwater

Sompting

Northlamins

Broadwater

Patcham

Ringmer

Barcombe

Bentley

Streetham

Edburton

Truly

Scale

Poynings

Pyecombe

Clayton

Plumpton

Wanniger

Hamsey

Offham

Cliffe

Glyne

Southram

Firle

Ludley

Selmston

Berwyke

Alciston

Middleton

Winton

Willington

Erlington

Wetton

Chickman

Ripe

Chalton

Laughton

Laughton place

Stenham

Marling

Clayerham

Peven

Ditchling

Patcham

Falmer

Withdeane

Hadhurst

Brighthelmston

Ovingdean

Radmell

Rottingdean

Terring

Newhaven

Piddinghoe

Tarring Neville

Iford

Kingston

Swanborough

Bishopstone

Seaford

Bramber

Shipley

Knepp Castle

W. Grinsted

Farhurst

Tirnham

Chiltington

Ashurst

Warminghurst

Eton

Wiston

Washington

Steyning

Bramber

Castle

Buttolph

Findon

Clapham

Broadwater

Sompting

Northlamins

Broadwater

Patcham

Ringmer

Barcombe

Bentley

Streetham

Edburton

Truly

Scale

Poynings

Pyecombe

Clayton

Plumpton

Wanniger

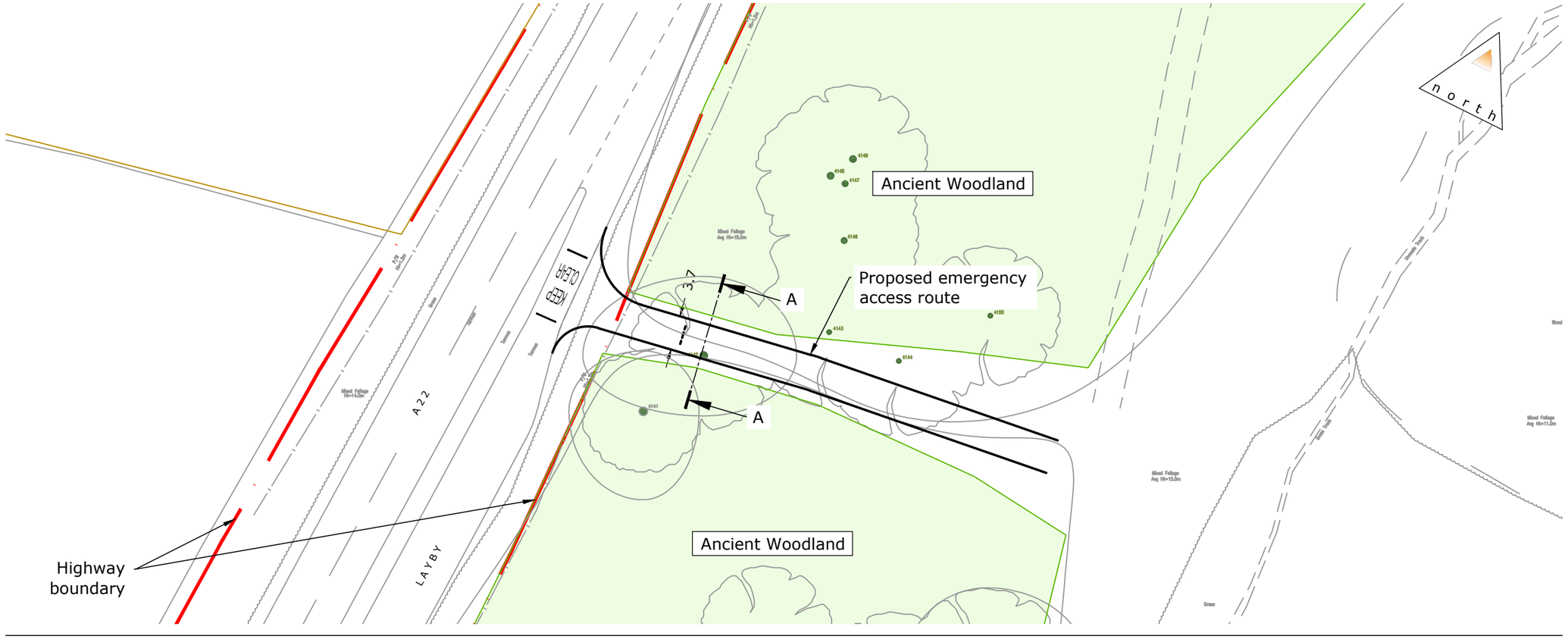
Hamsey


SPEED 1610
Forest
Ashdown Forest
PEVENSEY RAPE
LEWES RAPE
Lewes
Brighthem
Pevensey Mershe
202

Birchide
Waterdowne
Forest
Ashdowne
forest
Hodleygh
Ardingligh
Wadehurst
Tisehurst
Rocherffeld
Argese hill
Echinghm
Bexhillm
Mayfelde
Burwash
Horsted
canes
Nutley chapel
Mareffeld
Lynfold
Cottesford
Catsfield
Fletching
Buckfeld
Brighteling
Wenilffeld
Newick
Ifelde
Vekfeld
Ffingherfl
Hothfelde
Chaley
Valderne
Dallington
Framfelde
Warbleto
Street
E: Hothlygh
Bishops
wood
Horsted
Bymere
Dichmge
Clayton
Chiltington
Barkhm
Vertwode
Chetinglig
Plumton
Woking
Picombe
Hamfey
Laughton
Chauto
Hellingligbe
Haylshm
Malling
Kingsmere
Ripe
Michelhm
THE DOWNES
Stammer
Lewes
Pacehm
Arlington
W: Ham
Gline
Fawmere
Kingsto
Forle
Selmesto
Foymgton
Preston
Hewe
Isforde
Ouingden
Bedinghm
Alfiston
Bexwick
Welmyngton
Pemley
Radmill
Roeingden
Geuyngton
SAXTON 1579
203

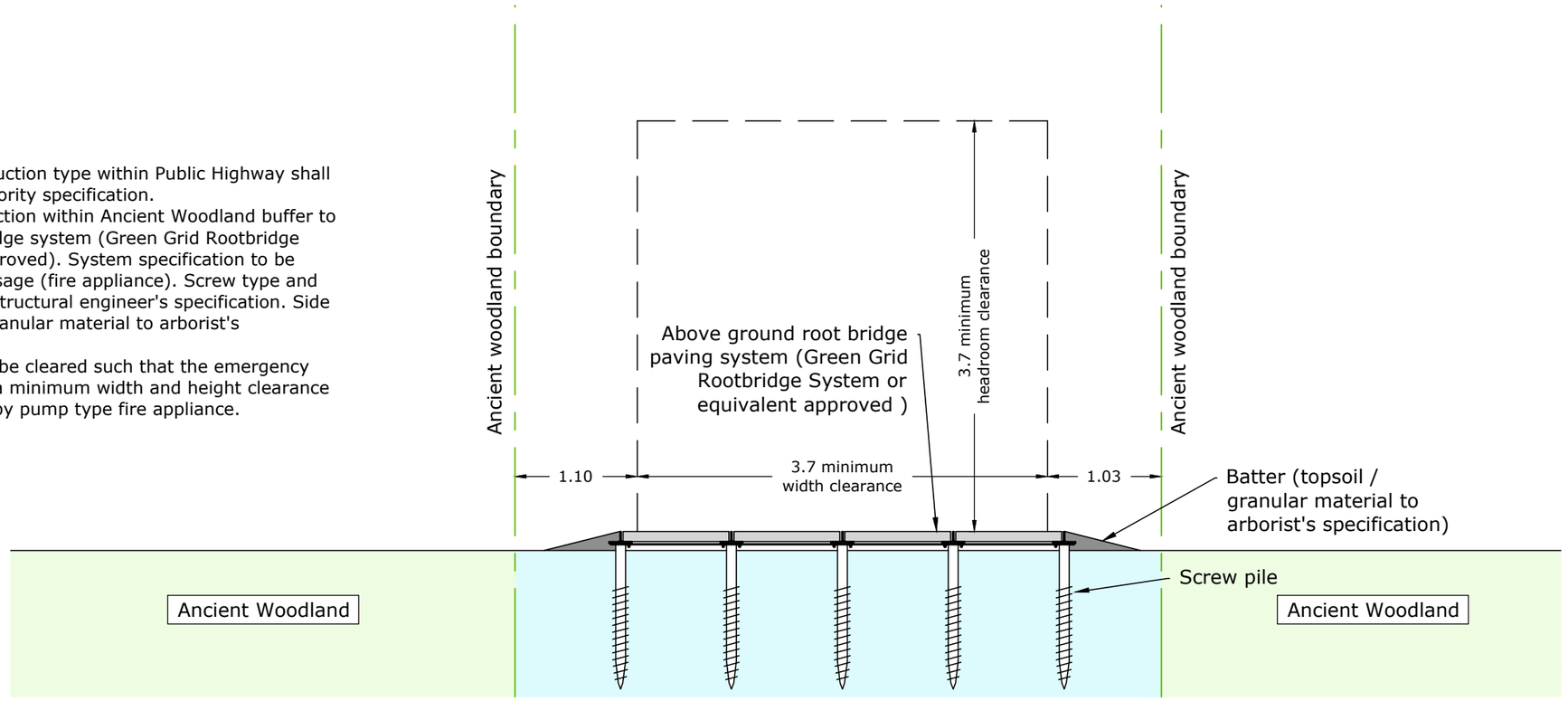
JFL 23

SECTIONAL DETAILS SHOWING
DESIGN OF PROPOSED EMERGENCY ACCESS



Notes:

1. Emergency access construction type within Public Highway shall be to Local Highway Authority specification.
2. Emergency route construction within Ancient Woodland buffer to be above ground root bridge system (Green Grid Rootbridge System or equivalent approved). System specification to be suitable for heavy duty usage (fire appliance). Screw type and spacing to be subject to structural engineer's specification. Side batters to be topsoil or granular material to arborist's specification.
3. Tree Clearance: Trees to be cleared such that the emergency route is maintained with a minimum width and height clearance of 3.7 metres for access by pump type fire appliance.



Cross section 'A - A'

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motion

84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Cargo Works
1-2 Hatfields
London
SE1 9PG

T: 020 8065 5208

www.motion.co.uk

Project:
Downlands Farm, Uckfield

Title:
Proposed Emergency Route Cross Section Details

Scale: 1:500 (@ A3)

Drawing: 2001061-109

Revision:

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