

Joseph Swift
Mid Sussex District Council
Oaklands
Oaklands Road
Haywards Heath
West Sussex
RH16 1SS

15 December 2023
Our ref: MDJAC-23.008-REB-01A

Dear Joseph,

RE: Residential development of 55 dwellings with vehicular and pedestrian access, car parking, open space, play space, landscaping, and all other associated works at Land South of Hanlye Lane, Longacre Crescent, Cuckfield, West Sussex.

I have now been made aware of the formal consultation comments made by the Mid-Sussex District Council Tree Officer, Ms Irene Fletcher, following the production of our Arboricultural Impact Assessment and Preliminary Method Statement, which was submitted with the above application. The comments made relate primarily to the impact of the proposed access road on specific trees. The formal comments are quoted below from Ms Irene Fletcher's email to you on 12 December 2023, for ease of reference:

1. *'T16 – 20 are TPO trees and also veteran trees, therefore advice I previously quoted from 'Ancient Woodland, Ancient Trees and Veteran Trees: Advice for Making Planning Decisions' GOV.UK 14/1/22, applies re distance required from development. BS 5837 2012 advises no construction, including hard standing within RPAs of veterans.'*
2. *'All of the trees affected are also Cat A or B and are a constraint to development. They are mature trees, therefore any incursions into RPAs are significant as they are more susceptible to damage.'*
'I am concerned about crown lifting to accommodate the road, which, again has more major implications for veteran trees.'
3. *'The works are also contrary to Policy DP37 of the Mid Sussex District Plan 2014 – 2031, which seeks to protect aged and veteran trees.'*
4. *'I remain concerned about the proximity of plots 50 and 51 which will be heavily shaded by the trees, placing them under future pressure for pruning, as well as the impacts, above.'*
5. *'One tree and 3 groups of trees are to be removed, including a cat B group of protected Scots pines. Is there no way to accommodate these within the development?'*
6. *'Landscape plans indicate a significant proportion of Betula pubescens. This tree is not typical of the area, although it is likely to tolerate the soil. The AIA refers to the site being dominated by oak, and I would expect to see more of a substantial proportion of oaks within the landscape plans, also field maples could be used more extensively than the Betulas. If the protected Scots Pines are to be lost, then I would expect to see*

these replaced with same within the landscape plans. Amelanchier is not a native species, although I have no objection to this within private spaces.'

7. *'Whilst private amenity spaces are not of concern to me, I would suggest that lavenders, phlomis and rosemary are not well suited to the heavy, wet clay soil. Great care will be required selecting a suitable meadow mix tolerant of the soil and conditions.'*

I therefore provide my comments on the above points in turn below.

1. POINTS 1 – VETERAN TREE IDENTIFICATION

'T16 – 20 are TPO trees and also veteran trees, therefore advice I previously quoted from 'Ancient Woodland, Ancient Trees and Veteran Trees: Advice for Making Planning Decisions' GOV.UK 14/1/22, applies re distance required from development. BS 5837 2012 advises no construction, including hard standing within RPAs of veterans.'

- 1.1. I carried out my baseline site visit and tree survey in late January 2023. At this time, four mature English oaks (T16, T17, T19 and T20) were found to exist along the southern boundary of the northern field of the site, immediately adjacent to the Public Right of Way (PRoW). All four of these trees were assessed as Category A specimens, based on their apparent size, quality, and landscape merits, in accordance with British Standard BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

- 1.2. The lack of clear and obvious features observed to suggest that these trees were anything other than large and mature examples of their species resulted in the trees being defined as mature and the notional 15m Root Protection Area (RPA) was applied. Consequently, there was no requirement to take account of the current Standing Advice in relation to veteran trees for these specimens at that time.

However, the submitted Tree Protection Plan (TPP) includes a 15m ancient woodland buffer zone, shown by orange hatching in the south-east corner of the site, as is required by the Standing Advice, which therefore demonstrates acknowledgement of the Standing Advice in general terms.

- 1.3. I have undertaken a supplementary site visit to assess these four trees in more detail, specifically in relation to the appeal-validated Recognition of Ancient, Veteran and Notable Trees (RAVEN-2) methodology (Forbes-Laird, 2023). I have appended my assessments to this letter for the avoidance of doubt.
- 1.4. In summary, three of the four trees (T16, T19 and T20) are categorised as 'Notable' by the RAVEN-2 methodology. None of these trees display Primary Features (extensive decay, extensive hollowing, senescence, or retrenchment), and display less than six Secondary Features, as detailed on the individual assessments provided. As such, these trees do not meet the criteria to be termed veterans within the context of the proposed re-development of the site, and so the notional RPA recommended by BS5837:2012 is considered to be sufficient in these instances.
- 1.5. Despite the above, it is clear that the trees have the potential to become veterans in the future and that they would be extremely valuable assets within the landscape of the site should it be re-developed.
- 1.6. Conversely, dieback and retrenchment within the canopy of the fourth tree (T17) became evident during my supplementary visit, owing to broadleaved trees being in leaf at that time, which was not the case in January 2023. Moreover, this visit also revealed at least two wood decay fungi fruiting at the tree's base. Accordingly, this specimen does exhibit both Primary and Secondary Features

required by RAVEN-2 and as such, has now been re-classified as a veteran. The constraints posed by this tree have now been increased to a radius of 15x the trunk diameter, or a 5m offset from the tree's canopy, whichever is greatest.

- 1.7. Discussions around amendments to the layout as a result of the new constraints posed by T17 are currently underway.

2. POINT 2 – SUSCEPTIBILITY TO DAMAGE

'All of the trees affected are also Cat A or B and are a constraint to development. They are mature trees, therefore any incursions into RPAs are significant as they are more susceptible to damage.'

- 2.1. The additional assessments referred to above demonstrate that all but one of the trees in question (T17) are indeed mature, but have not yet attained veteran status owing to a lack of veteran features. Consequently, the Standing Advice does not apply to trees T16, T19 and T20.
- 2.2. Section 7.4 of BS 5837:2012 discusses permanent hard surfacing within the RPAs of retained trees and recommends that ***'where permanent hard surfacing within the RPA is considered unavoidable, site-specific and specialist arboricultural and construction design advice should be sought to determine whether it is achievable without significant adverse impact on trees to be retained.'***
- 2.3. Further recommendations made within Section 7.4.2 of BS5837:2012 can be summarised as:
 - Hard surfacing design should not require excavation into the soil, or the lowering of soil levels, other than the removal, using hand tools, of any turf layer or surface vegetation;
 - The structure of the hard surfacing should be designed to avoid localised compaction by evenly distributing the loading over the track width;
 - New permanent hard surfacing should not exceed 20% of any existing unsurfaced area within the RPA;
 - Where permeable surfacing is to be used, a geotextile membrane should be incorporated at the base of the construction to help prevent pollution and contamination to the underlying soil; and
 - Hard surfacing should be resistant to or tolerant of deformation by tree roots and as such, should incorporate a minimum distance of 500mm from the base of the tree.
- 2.4. Accordingly, the section of hard surfacing proposed within the RPA of T16 is to be of a permeable nature, installed using a 'no-dig' three-dimensional cellular confinement system, inclusive of a suitable geotextile membrane. The use of such a system will ensure compliance with the design recommendations set out within Section 7.4.2 of BS5837:2012 by avoiding the need for excavation, reducing the likelihood of localised soil compaction, and protecting the underlying soil structure. Moreover, it represents approximately 10% of the tree's RPA, and thus complies with the recommended 20% maximum incursion, and affords a clearance of approximately 7.5m from the base of the tree.
- 2.5. Consequently, it has been demonstrated that, despite the susceptibility of damage to mature trees, the methods are both feasible and appropriate in this case, and I am confident that no lasting adverse impacts will arise, subject to compliance with a detailed method statement, which can be secured by planning condition.

3. POINT 2 – IMPACT OF CROWN LIFTING OPERATIONS

'I am concerned about crown lifting to accommodate the road, which, again has more major implications for veteran trees.'

- 3.1. The proposed crown lifting of retained trees affects those individuals located along the eastern boundary of the site, within W51. This woodland is not designated as ancient, and the individual trees, whilst mature, are unlikely to meet the RAVEN-2 criteria to be deemed veteran.
- 3.2. Moreover, the canopy line shown on the submitted TPP is illustrative in nature and based on the topographical survey provided. As such, it is entirely possible that crown lifting will not be necessary for all specimens along the eastern boundary of the site.
- 3.3. Where such pruning is required, its impacts can be minimised by adhering to the recommendations set out within Section 7.6 of British Standard BS3998:2010, which states: ***'Crown lifting should be avoided or minimized in mature or old trees, if possible, since it can increase the probability of stem failure. If it cannot be avoided, it should preferably involve the removal of secondary branches or branch shortening rather than removal of branches back to the stem, provided that the desired clearance can thereby be achieved. The choice of these options should take account of factors such as the size, growth-potential, branching habit and shade tolerance of the tree.'***
- 3.4. A more detailed specification for pruning, including identification of individual trees and the extent of pruning required to each, can be drawn up and included as part of a detailed arboricultural method statement, which can be secured by planning condition. Further opportunities to minimise pruning exist as part of the discussions that are intended to take place on site as part of a pre-commencement meeting.
- 3.5. In any event, I remain confident that significant detrimental impacts caused by pruning can be avoided or minimised successfully through collaboration between myself, the chosen arboricultural contractor (TBC) and Ms Irene Fletcher.

4. POINT 3 – COMPLIANCE WITH POLICY DP37 OF THE MID SUSSEX DISTRICT PLAN 2014-2031

'The works are also contrary to Policy DP37 of the Mid Sussex District Plan 2014 – 2031, which seeks to protect aged and veteran trees.'

- 4.1. I understand that this statement refers primarily to the RPA incursions for the mature English oak (T16) on the southern boundary.
- 4.2. Having demonstrated that this tree is not yet of veteran status, but that it is a crucial and valuable asset with the landscape, my view is that this statement is not relevant in the context of aged and veteran trees.
- 4.3. The remaining elements of Policy DP37, which include the incorporation of important trees, woodlands and hedgerows into the design of new developments, prevention of damage to root systems, and the provision of appropriate protection measures throughout the development process, do however, remain valid.
- 4.4. The submitted arboricultural impact assessment and preliminary method statement, together with this document, set out the measures to be taken to ensure that adverse impacts on the current tree stock will be minimised and avoided.

5. POINT 4 – PROXIMITY OF PLOTS 50 AND 51 TO T16

'I remain concerned about the proximity of plots 50 and 51 which will be heavily shaded by the trees, placing them under future pressure for pruning, as well as the impacts, above.'

- 5.1. The pre-application comments made previously appeared to have misunderstood paragraphs 5.4.3 – 5.4.6 of the submitted arboricultural report. The report does not state that prospective purchasers will enjoy the close proximity or shade cast by the mature English oak (T16), but rather, it suggests that the benefits of retaining this valuable asset may outweigh the shading of the southern elevation (the shadow pattern of T16 is shown below) and result in an aesthetically pleasing view through the southern windows. The rear gardens and rear elevations of these properties will be unaffected by the shade cast by the retained tree.
- 5.2. Once these plots become occupied by incoming residents, Mid Sussex District Council will maintain ultimate control over the extent of any future pruning by virtue of the tree's protected status. As such, it could reasonably resist applications made to prune harshly or unacceptably, or even to remove T16.
- 5.3. Should the need to crown lift the northern canopy of this tree become necessary in the future, it is likely that this could be achieved without causing significantly detrimental impacts through sensitive pruning in compliance with Section 7.6 of British Standard BS3998:2010, as outlined at paragraph 3.3 of the document.

Figure 1: showing the shadow pattern of T16 (bold black arc), which will affect only the southern elevation and driveways of Plots 50 and 51.



6. POINT 5 – REMOVAL OF A GROUP OF PINE TREES (G45)

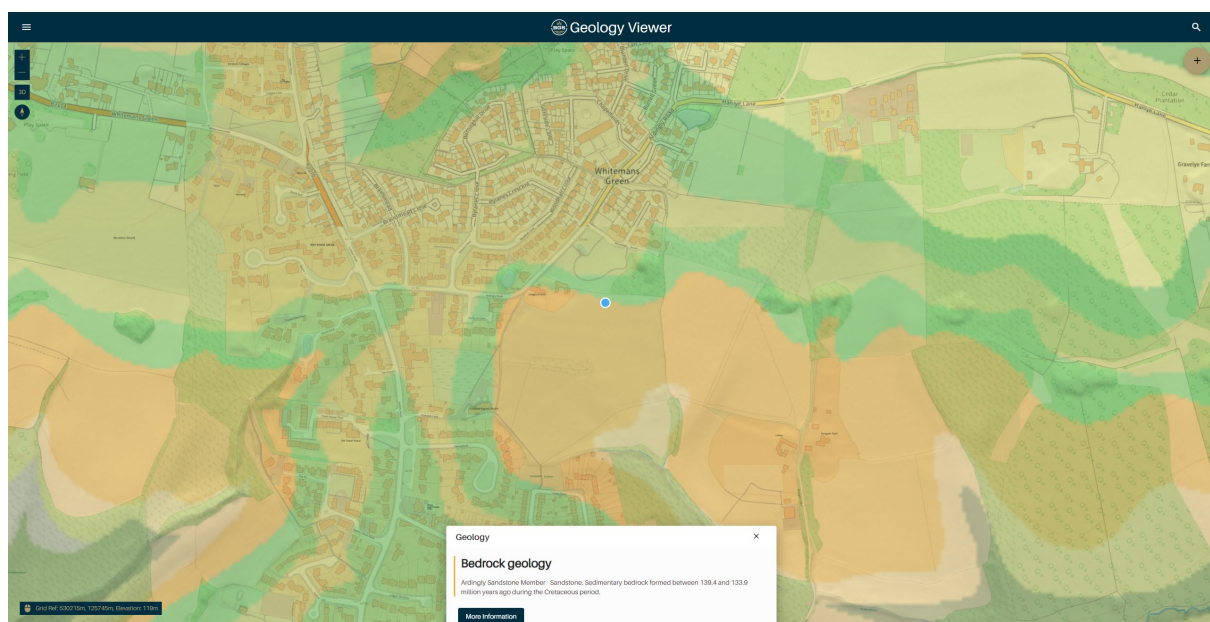
'One tree and 3 groups of trees are to be removed, including a cat B group of protected Scots pines. Is there no way to accommodate these within the development?'

- 6.1. The group of Corsican pine in question (G45) grows broadly centrally within the northern field of the site. The individuals within the group are of mixed quality, with the outermost specimens being suppressed and subjected to significant past storm damage which has resulted in a large stem fracture in one of the specimens on the group's eastern side, and a mutually suppressed and drawn

growing habit more generally throughout the group. Accordingly, should the removal of the two category 'C' trees within the group go ahead on the grounds of proactive arboricultural management to afford additional space for the more established specimens to exploit, the collective group value would be somewhat diminished.

- 6.2. However, I acknowledge that the trees collectively provide a significant landscape feature in views from the PRoW and as such, the larger of the trees within the group merit their protection which is afforded by a TPO.
- 6.3. In order to minimise impacts on the four large oak trees along the southern boundary, which would in my opinion be of greater merit than the retention of the pine trees, whilst simultaneously respecting the constraints and complications associated with other disciplines such as the location of the principal vehicular entrance from Hanlye Lane, refuse vehicle turning circles and tracking across the internal road layout and existing and proposed underground service routes, it is highly unlikely that it will be possible to retain any of the pine trees.
- 6.4. Whilst their removal would doubtless have a negative impact in terms of the amenity value lost through the trees' removal, The National Planning Policy Framework, and the Mid Sussex District Council's own Policy DP37, make it clear that the retention of veteran trees (and in this case, well-established, mature, and native trees with the potential to become veterans in the future), is of critical importance. The retention of the oak trees therefore outweighs the loss of the mediocre quality pine trees in my view.
- 6.5. Retention of many of the individuals within the group is not possible due to the competing needs of the development, and due to the close proximity of proposed structures such as the internal road layout. I have, however, assessed whether it would be possible to retain the single tree that lies outside of the road footprint, adjacent to the rear garden of Plot 16, and provide my comments on this below.
- 6.6. I have referred to the British Geology Survey (BGS) dataset for the area (British Geology Society, 2023), which suggests that there are large sections of predominantly clay soil to the north of the site, and predominantly sandy soils to the south. The trees in question are located broadly on the transition between the two.

Figure 2: screen print of the BGS viewer, showing the trees' approximate location (blue dot).



- 6.7. Pine is one of tree genera where the taproot can be retained into maturity (Roberts, et al., 2006), and it often forms a complex but shallow root system architecture; and this root architecture has been shown to be a major factor in determining anchorage failure during storms in nursery stock (Dorval, et al., 2016). Assuming that these root architecture principles are applied to the trees in question, either by dense clay preventing deep root formation and penetration, or by the need for many shallow roots to provide anchorage within a sandy, friable soil, disruption within the RPAs of these trees would likely occur within 1.5m of the trunk and could foreseeably and reasonably result in an increased likelihood of anchorage failure caused by root damage or loss. Consequently, it is not possible to safely retain any of the trees within the current layout.
- 6.8. Appropriate mitigation for the loss of these trees is already proposed in the form of a continuous green corridor that extends from the northern boundary adjacent to Hanlye Lane, to the PRoW at the southern boundary, as shown on the submitted TPP.
- 6.9. The provision of this area, designated exclusively for 'green' enhancements, will offer several enhancements over the current context, including considerable replacement tree planting, screening of the proposed built form, a net increase in tree numbers and canopy cover, and presumably, inter-connectivity between the mature trees on the north and south boundaries for birds, mammals, and other wildlife which does not currently exist. Such tree planting may include replacement pine trees to replace those lost, or a significant volume of native species which could be deemed beneficial for the biodiversity of the wider area.
- 6.10. In addition, the space available is such that Extra Heavy Standard trees (The British Standards Institute, 2014) could be incorporated to provide immediate visual impact. The details of this element of the scheme could be secured through suitable planning conditions.
- 6.11. The pre-application comments also referred to '**TPO trees to be lost around the access**'. This is in relation to a pine tree along the northern boundary of the site (T12 on all MDJAC documents and plans), which is covered by designation 'T1' of the TPO.
- 6.12. This tree is dying back significantly as is thus of very limited future potential. Notwithstanding these arboricultural issues, retention of this tree in close proximity to the internal road, even if feasible, will result in a foreseeable risk of large branch and/or stem and root plate failure. Such a failure, if it were to occur, has the potential to cause serious injury to users of the road and footpaths within this area of the site, should the development be built out. Given that the site is allocated for residential development and a significant increase in pedestrian and vehicle numbers across the site is to be expected, the retention of this tree is inappropriate.

7. POINT 6 - LANDSCAPING MATTERS

'Landscape plans indicate a significant proportion of Betula pubescens. This tree is not typical of the area, although it is likely to tolerate the soil. The AIA refers to the site being dominated by oak, and I would expect to see more of a substantial proportion of oaks within the landscape plans, also field maples could be used more extensively than the Betulas. If the protected Scots Pines are to be lost, then I would expect to see these replaced with same within the landscape plans. Amelanchier is not a native species, although I have no objection to this within private spaces.'

'Whilst private amenity spaces are not of concern to me, I would suggest that lavenders, phlomis and rosemary are not well suited to the heavy, wet clay soil. Great care will be required selecting a suitable meadow mix tolerant of the soil and conditions.'

- 7.1. Production of detailed landscaping matters are outside of my remit and will be dealt with by an appointed landscape consultant.

- 7.2. However, I agree with Ms Fletcher that *Betula pubescens* would tolerate the existing soil conditions if included within the planting specification for the landscaping improvements. Whilst suitable, it is generally of low arboricultural value being a pioneer species and as such, I agree that the inclusion of oak trees would be of greater benefit to the wider landscape.
- 7.3. The size of the proposed green corridor is such that both oak trees, and pine trees to replace group G45, together with smaller, but moderately-sized at maturity, native trees such as field maple or hornbeam, could be readily implemented.

I trust that my comments provide sufficient clarity on the formal comments made to date, and I would be pleased to assist further should any subsequent queries arise.

Yours sincerely,



Matthew Jones, BSc (Hons), MArborA
Director & Arboriculturist

15 December 2023

REFERENCES

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- The British Standards Institute, 2014. *British Standard BS 8545 'Trees: from nursery to independence in the landscape- Recommendations'*. s.l.:s.n.

APPENDIX 1: VETERAN TREE ASSESSMENT(S)

15 Windsor Close
Southwater
West Sussex
RH13 9XH



Recognition of Ancient, Veteran & Notable Trees –

T16

R A V E N 2

Dia. = 1320mm
Girth = 4.14m

Step One - Age Assessment

Tree should be old relative to others of the same species

Compute age using White Method (use proxy species if necessary): min. 25% of species age required

Step Two - Size Assessment

Tree has very large girth for species*

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*

*e.g. 4.7m for pedunculate oak (1500mm stem dia.)

Step Three - Condition Assessment: Primary Features

At least two of the following should be present (or refer to Step Four)

- ☒ Extensive decay (especially brown rot or exposed stem heartwood in relevant species), 400cm²
- ☒ Extensive hollowing
- ☒ Senescence
- ☒ Retrenchment

Step Four - Condition Assessment: Secondary Features

If no primary features are present, tree requires six secondary features to qualify

If only one primary feature is present, tree requires three secondary features to qualify

- ☒ Large quantity of dead wood in crown, 150mm dia.+
- ☒ Major storm damage, e.g. breakout wounds, broken spars 30cm dia.+
- ☒ Habitat spaces: decay holes and/ or crevices/ branch splits sheltered from direct rainfall
- ☒ Aerial rooting
- ☒ Sap run/ slime flux
- ☒ Water pool
- ☒ Bark loss (exceeding 400cm²) inc. due to lightning strike
- ☒ Fungi (especially notable or protected species)
- ☒ Other epiphytic plants, including ferns & significant presence of lichens or mosses

Step Five - Recognition 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

Relatively old & very large for species and qualifies under either Step Three or Step Four

☒

NOTABLE

Trees approaching veteran status under Steps One or Two

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

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Recognition of Ancient, Veteran & Notable Trees –

R A V E N 2

T17

Dia. = 1035mm

Girth = 3.25m

Step One - Age Assessment

Tree should be old relative to others of the same species

Compute age using White Method (use proxy species if necessary): min. 25% of species age required

Step Two - Size Assessment

Tree has very large girth for species*

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*

*e.g. 4.7m for pedunculate oak (1500mm stem dia.)

Step Three - Condition Assessment: Primary Features

At least two of the following should be present (or refer to Step Four)

- ☒ Extensive decay (especially brown rot or exposed stem heartwood in relevant species), 400cm²
- ☒ Extensive hollowing
- ☒ Senescence
- ☒ Retrenchment

Decay present but not yet extensive.

Step Four - Condition Assessment: Secondary Features

If no primary features are present, tree requires six secondary features to qualify

If only one primary feature is present, tree requires three secondary features to qualify

- ☒ Large quantity of dead wood in crown, 150mm dia.+
- ☒ Major storm damage, e.g. breakout wounds, broken spars 30cm dia.+
- ☒ Habitat spaces: decay holes and/ or crevices/ branch splits sheltered from direct rainfall
- ☒ Aerial rooting
- ☒ Sap run/ slime flux
- ☒ Water pool
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Step Five - Recognition Guide

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E.g. pedunculate oak, 2m stem dia, average site: ca. 460 years old, ca. 50% of species max



VETERAN

Relatively old & very large for species and qualifies under either Step Three or Step Four

☐

NOTABLE

Trees approaching veteran status under Steps One or Two

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Recognition of Ancient, Veteran & Notable Trees –

R A V E N 2

T19

Dia. = 1560mm
Girth = 4.9m

Step One - Age Assessment

Tree should be old relative to others of the same species

Compute age using White Method (use proxy species if necessary): min. 25% of species age required

Step Two - Size Assessment

Tree has very large girth for species*

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*

*e.g. 4.7m for pedunculate oak (1500mm stem dia.)

Step Three - Condition Assessment: Primary Features

At least two of the following should be present (or refer to Step Four)

- ☒ Extensive decay (especially brown rot or exposed stem heartwood in relevant species), 400cm²
- ☒ Extensive hollowing
- ☒ Senescence
- ☒ Retrenchment

Step Four - Condition Assessment: Secondary Features

If no primary features are present, tree requires six secondary features to qualify

If only one primary feature is present, tree requires three secondary features to qualify

- ☒ Large quantity of dead wood in crown, 150mm dia.+
- ☒ Major storm damage, e.g. breakout wounds, broken spars 30cm dia.+
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- ☒ Aerial rooting
- ☒ Sap run/ slime flux
- ☒ Water pool
- ☒ Bark loss (exceeding 400cm²) inc. due to lightning strike
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Recognition of Ancient, Veteran & Notable Trees –

R A V E N 2

Dia. = 1380mm
Girth = 4.33m

T20

Step One - Age Assessment

Tree should be old relative to others of the same species

Compute age using White Method (use proxy species if necessary): min. 25% of species age required

Step Two - Size Assessment

Tree has very large girth for species*

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

*e.g. 4.7m for pedunculate oak (1500mm stem dia.)

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