



## **Briefing Note: Arboricultural Impact Assessment**

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August 2023

10445/TEP/RWM

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### **1.0 INTRODUCTION**

- 1.1 This Briefing note has been prepared by FPCR Environment and Design Ltd on behalf of Countryside Sovereign Swindon LLP. It presents the findings of a tree survey at Land at Lotmead Farm, Swindon (hereafter “the site”).
- 1.2 The site has previously been subject to approved Outline planning permission (ref. S/OUT/19/0582) for which a tree survey and arboricultural impact assessment had been conducted by The Environmental Dimension Partnership Ltd (EDP). Please refer to the EDP Findings of Arboricultural Assessment (2019) which formed Appendix 12.3 of the Environmental Statement (Turley, 2019) and was prepared in support of the Outline Application.
- 1.3 A baseline assessment of the arboricultural features of the site has therefore been compiled as part of the Outline application.

#### **Aims**

- 1.4 The aim of the present briefing note is twofold:
  - To provide an updated baseline assessment of the site, due to the age of the data used as part of the Outline Application.
  - To broadly assess the impacts upon trees and hedgerows of proposed amendments to the Drainage Strategy and FRA Addendum of the site.

#### **Associated Documents**

- 1.5 The briefing note should be read in combination with the following accompanying documents:
  - Appendix 8.2 - Tree Survey Plan (10445-T-01 – 10);
  - Appendix 8.3 - Tree Schedule
  - Appendix 8.5 - Tree Retention Plan - Strategic Site Wide Surface Water Drainage Strategy With Green Parameters Plan Overlay (10445-T-26)

## 2.0 SURVEY METHODOLOGY

### BS5837 Categories

- 2.1 Trees have been divided into one of four categories based on Table 1 of BS5837, '*Cascade chart for tree quality assessment*'. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).
- 2.2 Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds. Categories A, B and C are applied to trees that should be of material considerations in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.
- 2.3 **Category (U) – (Red):** Trees which are unsuitable for retention and are 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 within this category are:
- Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.
  - Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.
  - Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low quality trees suppressing adjacent trees of better quality.
  - Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.
- 2.4 **Category (A) – (Green):** Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years with potential to make a lasting contribution. Such trees may comprise:
- Sub category (i) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.
  - Sub category (ii) trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.
  - Sub category (iii) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.
- 2.5 **Category (B) – (Blue):** Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years with potential to make a significant contribution. Such trees may comprise:
- Sub category (i) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
  - Sub category (ii) 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.
  - Sub category (iii) trees with material conservation or other cultural value.

- 2.6 **Category (C) – (Grey):** Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:
- Sub category (i) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
  - Sub category (ii) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary / transient screening benefits.
  - Sub category (iii) trees with no material conservation or other cultural value.

### **Ancient and Veteran Trees**

- 2.7 Veteran trees and Ancient Woodland are important components of the landscape, their importance can be for a number of reasons including that of their ecological, social, cultural and historic value.
- 2.8 Veteran Trees and Ancient Woodlands are material considerations within the planning process and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2021, which defines the terms ancient or veteran tree as:
- '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.'*<sup>1</sup>
- 2.9 Various published methodologies are currently available which, due to the complexity and subjectivity of the process of defining and assessing these trees, often have conflicting definitions. This assessment, and the criteria used for defining ancient/veteran trees and the identification of attributable ancient/veteran features, has been based on a range of currently published guidance and resources.

### **Ancient Tree**

- 2.10 The definition of an ancient tree has been based on Ancient Tree Guide No. 4 (ATF, 2008) which suggest ancient should be used for a tree that:
- 'has passed beyond maturity and is old, or aged, in comparison with other trees of the same species.*
- 2.11 Perhaps most notably, the tree concerned should be very old, relative to others of the same species.
- 2.12 Further to this, in accordance with guidance for use in the Ancient Tree Hunt (Owen & Alderman, 2008), as cited within Lonsdale (2013)<sup>2</sup> an ancient tree is one that has all or most of the following characteristics:
- a) biological, aesthetic or cultural interest, because of its great age;
  - b) a growth stage that is described as ancient or post-mature; or
  - c) a chronological age that is old relative to others of the same species.

Guided by Lonsdale (2013)<sup>6</sup> characteristics a) and b) are mainly based on developmental and morphological criteria whilst characteristic c) relates specifically to chronological age.

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<sup>1</sup> Ministry of Housing, Communities and Local Government. (2021). *National Planning Policy Framework*. London: Ministry of Housing, Communities and Local Government.  
<sup>2,6</sup> Lonsdale, D. (Ed.). 2013). *Ancient and other veteran trees: further guidance on management*. London: The Tree Council.

Developmental characteristics (represented by characteristic b) above) tend to develop with the increasing age of a tree and include:

- A large girth by comparison with other trees of the same species<sup>3</sup>
- Aging and associated decay (leading to hollowing) of the central wood
- Changes in crown architecture (Raimbault, 2006)<sup>4</sup>
- A progressive or episodic reduction in post-mature crown size - 'retrenchment' (Lonsdale 2004; Rust & Roloff, 2002)

In practice calculating the average age / lifespan of a tree is difficult and not always entirely reliable due to a lack of available demographic information. As such, in order to inform the assessment of chronological age, the assessment has made use of stem girth as a guide using the chart provided within Lonsdale (2013) (shown below in figure 1), as well as available historical evidence (mapping etc).

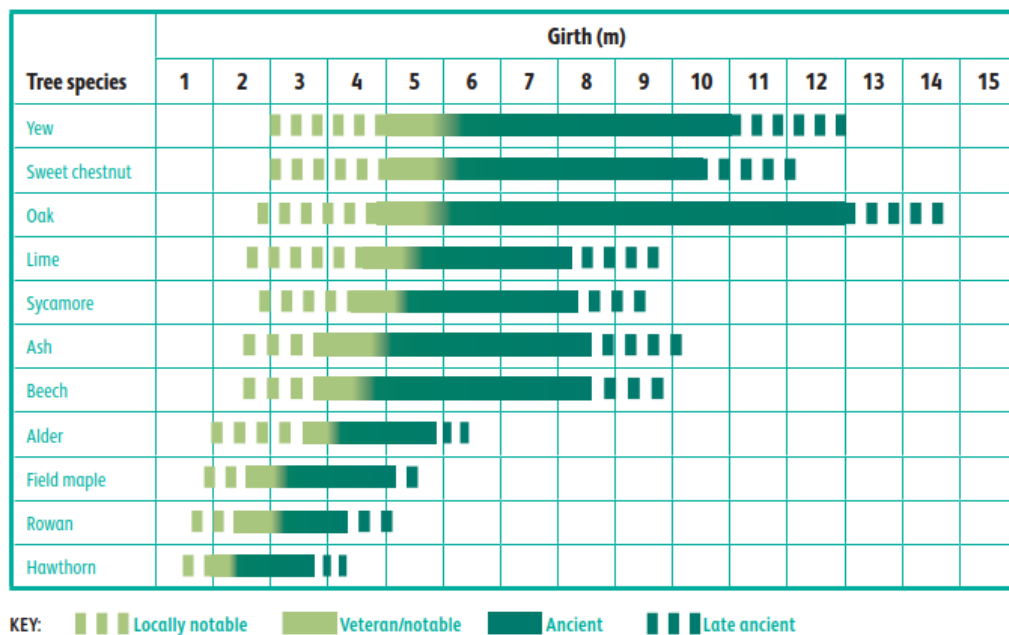


Figure 1: The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)<sup>5</sup>.

### Veteran Trees

- 2.13 The definition of a veteran tree has been based on within Lonsdale (2013) as a tree: *'which has survived various rigours of life and thereby shows signs of ancientness, irrespective of its age'*.
- 2.14 However, for the purpose of the BS5837:2012 assessment, to qualify as a veteran tree, the tree concerned requires a stem girth which is considered large for its species (within the range set out in Fig. 1 above) and shows signs of crown retrenchment and evidence of decay processes in stem, branches or roots such as dead and decaying wood or fungal fruiting bodies of heart-rot (wood decay) species. These trees should also possess significant amounts of dead wood in the crown or fallen about the ground beneath the trees crown.

<sup>3</sup> Woodland Trust, Ancient Tree Forum (2008). Ancient Tree Guide no.4: What are ancient, veteran and other trees of special interest?. Grantham: Unknown. 7.  
<sup>4</sup> Raimbault, P.F. (2006). A basis for morpho-physiological tree assessment. Pro. Seminar, Arboricultural Association/Treework Environmental Practice, Ashton Court, Bristol, UK, 23<sup>rd</sup> & 24<sup>th</sup> March 2006.  
<sup>5</sup> Lonsdale, D. (Ed.). (2013). Ancient and other veteran trees: further guidance on management. London: The Tree Council.

- 2.15 In principle, reference has been made to Owen & Alderman (2008) and Reed, H. (2000). *Veteran Trees: A Guide to Good Management*. English Nature and more recently Lonsdale, D (ed.) (2013) *Ancient and other Veteran Trees: Further Guidance on Management*, The Tree Council & Ancient Tree Forum for guidance on the recognition of both ancient and veteran trees.
- 2.16 Level 3 of the Specialist Survey Method (SSM) of de Berker & Fay (2004)<sup>6</sup> has also been utilised for gathering survey information as this provides a standardised framework for recording characteristic ancient/veteran features.

### 3.0 RESULTS

- 3.1 The tree stock across the site was a good mix of high to low value and quality specimens with a relatively even mix of Category A, high value/quality, Category B, moderate value/quality and Category C, low value/quality trees present. The majority of the tree stock was typical agricultural boundary specimens, generally hedgerows made up the understory then larger outgrown individuals formed the canopy.
- 3.2 The key data ie: height, canopy spread, and diameter has been checked and updated where necessary for all trees across the site.
- 3.3 The significant differences between our assessment and the consultancy company that submitted the outline application, EDP, were the categorisations of veteran trees on site and the total amount of trees surveyed. The previous survey categorised T49, T98, T130 and G150I as veteran trees whereas FPCR have categorised trees: T49, T170 and T294 as veterans. The trees that were not given veteran status by FPCR were deemed to have had insufficient features to qualify as a veteran tree when veteran status was considered. FPCR also surveyed additional trees particularly in the north area of the site due to their location within or close to the red line boundary. The vast majority of the rest of the tree data collected by FPCR was very similar to that of EDP's so therefore the baseline remains ultimately the same.

**Table 1: Summary of Trees by Retention Category**

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable	T43, T98, T123, T130, T131, T144, T187, T208, T226, T229, T232, T243, T263, T286, T295	15	G241	1
Category A (High Quality / Value)	T15, T17, T19, T49, T52, T92, T108, T109, T110, T111, T114, T116, T117, T118, T119, T120, T151, T152, T153, T155, T158, T161, T162, T164, T165, T168, T169, T170, T171, T174, T177, T180, T182, T184, T185, T186, T189, T190, T191, T192, T202, T216, T218, T227, T230, T233, T234, T235, T236, T237, T238, T244, T246, T247, T249, T252, T255, T265, T293, T294, T298, T299, T300, T301, T302, T303, T304, T306	68	G33, G47, G122, G239, G242, G245, G251	7

<sup>6</sup> de Berker, N., & Fay, N. (2004). English Nature Research Report Number 529 – Evaluation of the Specialist Survey Method for Veteran Tree Recording. Bristol: Treework Environmental Practice.

	Individual Trees	Total	Groups of Trees	Total
<b>Category B (Moderate Quality / Value)</b>	T24, T38, T40, T60, T76, T96, T97, T100, T101, T112, T115, T124, T127, T129, T145, T154, T163, T183, T188, T199, T228, T248, T256, T261, T282, T285, T287, T288, T289, T290, T291, T296, T305	33	G4, G7, G14, G21, G22, G32, G35, G39, G41, G42, G51, G53, G55, G61, G63, G64, G65, G72, G74, G82, G84, G91, G93, G103, G105, G106, G113, G125, G128, G132, G133, G146, G148, G150, G167, G172, G175, G178, G179, G200, G206, G210, G213, G217, G240, G257, G258, G264, G271, G275, G278, G283, H3	53
<b>Category C (Low Quality / Value)</b>	T1, T13, T25, T26, T27, T28, T29, T30, T31, T34, T44, T45, T48, T56, T59, T73, T75, T83, T85, T87, T95, T147, T159, T205, T209, T220, T225, T253, T254, T262	30	G9, G10, G23, G36, G37, G50, G54, G57, G62, G66, G67, G69, G77, G78, G79, G86, G89, G90, G94, G99, G104, G149, G160, G166, G173, G176, G193, G195, G197, G203, G231, G250, G260, G267, G272, G273, G274, G276, G277, G279, G280, G297, G307, H2, H5, H6, H8, H11, H12, H16, H18, H20, H46, H52, H68, H70, H71, H80, H81, H88, H102, H107, H121, H126, H157, H181, H194, H196, H198, H201, H204, H207, H211, H212, H214, H215, H219, H221, H222, H224, H259, H266, H268, H269, H270, H281, H292	87

### **Veteran Trees**

- 3.4 For the purpose of affording these trees greater protection the RPA calculation has been calculated in accordance with the guidelines detailed within Ancient and other Veteran Trees: Further Guidance on Management (Lonsdale, D (ed.) (2013). The Tree Council & Ancient Tree Forum. The RPA is defined as a distance equal to 15 times the trees stem diameter, or five metres beyond the canopy, whichever is the greater (Read, 2000).
- 3.5 Where this assessment has identified veteran trees, further survey work of those trees and their communities will be required. From an ecological perspective veteran trees provide a rare and specialist niche habitat and therefore preservation of this habitat is considered highly important. Veteran trees and many of their associated specialised species are becoming increasingly rare within the landscape and therefore some veteran tree landscapes and their associated species are now protected, both nationally and Europe wide through the Natura 2000 Directive.

### **Statutory Constraints**

- 3.6 FPCR have details of two TPOs that apply to trees on site and therefore statutory constraints apply to the development in respect of trees. The TPOs can be detailed as follows:
- 3.7 Copies of both TPOs have been provided within the 10445-T\_AA PHASE 1 report as Appendix C
- 3.8 Prior to any tree surgery and / or felling of protected trees it will be necessary to apply to the relevant local planning authority to gain consent for the works. The granting of full planning permission would override the protection afforded by the Tree Preservation Order to those trees shown as removed to facilitate the proposals within the approved plans.
- 3.9 The site does not sit within a designated Conservation Area.

3.10 Information provided on Tree Preservation Orders and Conservation Areas is accurate to the date of this assessment and cannot be assumed to remain unchanged. The last check was carried out on the 15.08.2023.

- Land at Eastern Villages – dated 3rd June 2014
- Land at Entrance Avenue to Lotmead industrial Estate – dated 29th July 2016

3.11 Prior to any tree surgery and / or felling of protected trees it will be necessary to apply to the relevant local planning authority to gain consent for the works. For more information regarding Conservation Areas and Tree Preservation Orders it is advised that contact is made with the Local Planning Authority's arboricultural officer, or other such relevant person.

#### 4.0 ARBORICULTURAL IMPACT ASSESSMENT

4.1 The drainage strategy has been designed in line with the approved development parameters. Despite the changes to the Drainage Strategy there are no significant differences to the arboricultural impacts..

4.2 The only minor difference is with regards to G113(B), referenced as H113(B) on EDP's plans. This group was updated by FPCR as a small section of the group in the south was missing on EDP's plans, this additional section will require removal due to the proposals.

4.3 The Hydrock drawings show that drainage basin locations are approximately located. Therefore, there is scope to fine tune these designs within the RMA to avoid RPA's where possible.

**Table 2: Summary of Impact on Tree Stock**

	Trees to be Retained	Total	Trees to be Removed in full or part	Total
Category U - Unsuitable	T43, T98, T123, T130, T144, T187, T208, T232, T243, T263, T286, T295,	12	T131, T226, T229, G241	4
Category A (High Quality / Value)	T15, T17, T19, T49, T52, T92, T108, T109, T110, T111, T114, T116, T117, T118, T119, T120, T151, T152, T153, T155, T158, T161, T162, T164, T165, T168, T169, T170, T171, T174, T177, T182, T184, T185, T186, T189, T190, T191, T192, T202, T216, T218, T227, T230, T233, T234, T235, T236, T237, T238, T244, T246, T247, T249, T252, T255, T265, T293, T294, T298, T299, T300, T301, T302, T303, T304, T306, G33, G47, G122, G239, G242, G245, G251	74	T180,	1
Category B (Moderate Quality / Value)	T24, T38, T40, T60, T76, T96, T97, T100, T101, T112, T115, T124, T127, T129, T145, T154, T163, T183, T188, T199, T248, T256, T261, T282, T285, T287, T288, T289, T290, T291, T296, T305, G4, G7, G14, G21, G22, G32, G35, G39, G41, G42, G51, G53, G55, G61, G63, G64, G65, G72, G74, G82, G84, G91, G93, G103, G105, G106, G125, G128, G132, G133, G146, G148, G150, G167, G172, G175, G178, G179, G200, G206, G217, G240, G257, G258, G264, G271, G275, G278, G283, H3	82	T228, G113, G210, G213	4

	Trees to be Retained	Total	Trees to be Removed in full or part	Total
Category C (Low Quality / Value)	T1, T13, T25, T26, T27, T28, T29, T30, T31, T34, T44, T45, T48, T56, T59, T73, T75, T83, T85, T87, T95, T147, T159, T205, T209, T220, T225, T253, T254, T262, G9, G10, G23, G36, G37, G50, G54, G57, G62, G66, G69, G77, G78, G79, G86, G89, G90, G94, G99, G149, G160, G166, G173, G176, G197, G203, G250, G260, G267, G272, G273, G274, G276, G277, G279, G280, G297, G307, H2, H5, H6, H8, H11, H12, H16, H18, H20, H46, H52, H68, H70, H80, H81, H88, H102, H107, H121, H126, H196, H198, H201, H204, H215, H219, H221, H259, H266, H269, H270, H292	99	G67, G104, G193, G195, G231, G260, H71, H157, H181, H194, H207, H211, H212, H214, H222, H224, H268, H281	18

## 5.0 CONCLUSION

- 5.1 In conclusion there is no significant change to impacts associated with the revised drainage proposals compared to that of the original outline application. It should be noted that within the original outline application its states a commitment to a minimum 2:1 replacement for trees and hedgerows that are to be removed.