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energy farm

# SUNNICA ENERGY FARM 

EN010106
8.46 Arboricultural Impact Assessment Report

Planning Act 2008
Infrastructure Planning (Examination Procedure) Rules 2010


Planning Act 2008

## Infrastructure Planning

(Examination Procedure) Rules 2010

## Sunnica Energy Farm

Arboricultural Impact Assessment Report

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## 1 Introduction

### 1.1 Purpose of this assessment

1.1.1 This Arboricultural Impact Assessment report (AIA) considers the likely direct and indirect arboricultural impacts required to facilitate the Scheme. A reasonable worst case has been assumed for the purposes of this assessment and it is likely that in practice tree loss and impacts could be significantly reduced.
1.1.2 This report includes tree constraints information in relation to the nature and potential level of constraint posed by existing trees within the assessment area (hereafter referred to as the Scheme). This has been determined via desk study information supplemented by site walkovers where feasible and a detailed tree survey of key areas where arboricultural impacts are considered most likely.
1.1.3 A site wide consideration of arboricultural impacts including the likely extent of tree loss is included along with a Precautionary Arboricultural Method Statement (PAMS) report addressing generic tree protection measures for works carried out in relation to the Scheme which will be developed into a detailed Arboricultural Method Statement post consent (pursuant to the CEMP).
1.1.4 This builds on the preliminary information provided in the Tree Constraints Report [APP-101].

## 2 Methodology

### 2.1 The Scheme Survey

2.1.1 The tree constraints assessment of the Scheme has been based on Ordnance Survey base mapping, the National Tree Map (NTM) data set and walk-over review assessment for accessible areas. The extent of the Scheme is identified as the Order limits found within Appendix A of this report.
2.1.2 The walk-over tree constraints assessment of the Scheme was undertaken over intermittent dates including $10^{\text {th }}$ to $12^{\text {th }}$ December 2018, $7^{\text {th }}$ to $9^{\text {th }}$ January, $28^{\text {th }}$ to $29^{\text {th }}$ May, $3^{\text {rd }}$ to $4^{\text {th }}$ July, $6^{\text {th }}$ September 2019, $14^{\text {th }}$ June 2021 and December 2022.
2.1.3 A walk-over review of accessible areas was carried out to verify the general results of the desk top study, to map areas of trees of likely higher value and to identify those trees of low stature and large stem diameters which would not be afforded a suitable buffer zone using the assessment methodology based on tree height (which could apply to veteran trees afforded a high priority in the planning process). Full access was available to the main sites and cable routes were generally considered from publicly accessible land.
2.1.4 Approximate tree height and canopy spread information taken from the NTM data set was used in conjunction with walk-over assessments to identify trees likely to be of higher value and to allow an assessment of the typical approximate nature and spatial constraints associated with trees. A notional buffer zone has been added around each tree to illustrate the maximum likely area of significant constraint associated with above ground (tree canopies) and below ground (tree roots) parts of trees.
2.1.5 The buffer is based on a large data set of trees surveyed in detail by AECOM which cross references recorded tree heights against stem diameter ranges, as discussed below. Stem diameter is the key metric used to determine the Root Protection Area (RPA - the notional key area of tree root development important for tree health and stability) and this approach allows for the calculation of an estimated stem diameter for each tree or group derived from tree height information recorded in the NTM data set. This buffer zone is intended as highlevel guidance only, based on our experience surveying trees and attempts to illustrate and account for the potential approximate area of constraint around each tree (which may be greater than the canopy spread shown in the NTM data). Table 1 illustrates the buffer zone applied to tree features of different height ranges.

Table 1: Buffer Zones Determined Via Tree Height

| Tree Height <br> Range | Buffer Zone <br> (Radius) |
| :--- | :--- |
| $0-5 \mathrm{~m}$ | 3.6 m |
| $5-10 \mathrm{~m}$ | 6.0 m |
| $10-15 \mathrm{~m}$ | 9.6 m |
| $15-20 \mathrm{~m}$ | 12.6 m |
| $20-25 \mathrm{~m}$ | 14.4 m |
| $25-30 \mathrm{~m}$ | 15.0 m |
| $>30 \mathrm{~m}$ | 15.0 m |

2.1.6 In addition to the above process, an assessment of aerial photography using Google Earth was carried out to identify those trees and tree groups likely to be of the greatest significance where walk-over survey access was not possible and to fill any anomalies in the NTM data set. This assessment incorporated an assessment of tree height, canopy width, shadow and location and the relative importance of trees is based upon the discretion of the surveyor (experienced in undertaking tree surveys to BS 5837). Google Street View was also utilised on an ad hoc basis where feasible to provide additional verification of the assessment process.
2.1.7 Section 4.6.1 of BS5837 recommends that RPAs are capped at $707 \mathrm{~m}^{2}$ and this is equivalent to a circle with a radius capped at 15 m for each individual tree and therefore the buffer zone is capped at this radius around the largest trees within the study area.
2.1.8 The assessment results and information in relation to statutory and non-statutory designations such as Conservation Areas, Tree Preservation Orders and designated Ancient Semi Natural Woodland have been incorporated into the Tree Constraint Assessment Plans, included as Appendix A.
2.1.9 The assessment excludes lower hedgerow features (such as formally maintained or low stature hedgerows below circa 5 m in height), and these are considered as part of Chapter 8: Ecology and Nature Conservation Assessment [APP-040].

### 2.2 Detailed Tree Surveys

2.2.1 The tree survey of those areas of the Scheme where the potential for significant arboricultural impacts is greatest has been based on a combination of Ordnance Survey Base Mapping, aerial imagery and the NTM dataset. Trees have been plotted indicatively with reference to GPS positions, Site features and publicly available aerial photography. As such all positions must be considered to be indicative only and the relative distances of features must be measured out on the Site. A Tree Constraints Plan of the Site is contained within Appendix A of this report.
2.2.2 The survey was otherwise conducted in accordance with the general principles of BS5837:2012 Trees in relation to design, demolition and construction Recommendations (BS5837).
2.2.3 The initial fieldwork was undertaken between August 2021 and July 2022, during which time dimensional data and observational information were collected. A diameter tape measure was used to measure stem diameters where feasible. The fieldwork informing this report has comprised a preliminary, non-intrusive, visual survey undertaken from ground level with the specific intention of evaluating the quality and benefits of trees on the Site.
2.2.4 Where further inspection is deemed appropriate to ascertain the condition of the tree or other arboreal features, this has been identified within the preliminary management recommendations. Average dimensions or dimensional ranges have occasionally been used, where appropriate, to best describe features.
2.2.5 The tree categorisation process recommended by BS5837:2012 is summarised in the Tree Survey Schedule of the Site included as Appendix B.

Table 2: BS5837:2012 Tree Categorisation process
Category
Definition

| A | High quality, minimum of 40+ years remaining contribution |
| :--- | :---: |
| B | Moderate quality, minimum of 20+ years remaining contribution |
| C | Low quality, minimum of $10+$ years remaining contribution |
| $U$ | Unsuitable for retention, <10 years remaining contribution |
| 1 | Arboricultural value |
| 2 | Landscape value |
| 3 | Conservation or cultural value |
| 3 | National Legislation, Policy and Guidance |

### 3.1 Trees and the Planning Process

3.1.1 The National Planning Policy Framework (NPPF) seeks to ensure that new development is sustainable and underlines the importance of Green Infrastructure, of which trees form an integral part. This encompasses a recognition of the importance of trees in relation to the management of air, soil and water quality along with other associated ecosystem services and climate
change adaption. The NPPF also seeks to achieve the protection and enhancement of landscapes and a net gain in biodiversity. Finally, it specifically identifies veteran and ancient trees and woodland as a highly valuable and irreplaceable habitat.
3.1.2 'BS5837:2012 Trees in relation to design demolition and construction Recommendations (BS5837)' provides a framework which sets out how trees should be considered in this context and also explicitly applies to development where planning consent is not required.
3.1.3 BS5837 recommends that a tree survey is undertaken to identify the quality and benefits of trees and the spatial constraints associated with them. This is then used to produce a Tree Constraints Plan showing the above and below ground constraints associated with trees. This drawing is used to inform the design process and to allow the retention of good quality trees where appropriate.
3.1.4 An AIA is then developed to identify the likely direct and indirect impacts of a proposed development, and plans are prepared to identify trees to be removed or retained and to illustrate how retained trees are to be protected.

### 3.2 Trees and Risk in the Context of Development

3.2.1 Tree owners/managers have a legal duty to prevent foreseeable harm. It is generally accepted that this duty can be fulfilled by undertaking proactive inspections of significant trees to identify obvious defects and by taking appropriate remedial action or gaining further advice as appropriate.
3.2.2 The tree surveys carried out as the basis of this report has been primarily for planning purposes, focusing on the quality and benefits of the trees and is not specifically designed to assess the safety of trees within the Scheme.
3.2.3 The Construction (Design and Management) Regulations (2015) states that developers and contractors have responsibilities for health and safety as a result of their actions. Should trees be left in an unstable or hazardous condition the Health and Safety Executive (HSE) could seek to prosecute those responsible along with the potential for further Civil claims for damages.
3.2.4 Full consideration must be given to the presence of species protected under the Wildlife and Countryside Act (1981 - as amended), the Countryside Rights of Way Act (2000) and the Conservation of Habitats and Species Regulations (2017). In particular, the presence of bats and nesting birds. It is recommended that wherever possible, significant tree/hedge works take place outside of the typical bird nesting season of March to September.
3.2.5 Any tree surgery recommendations contained within this report are to be undertaken in accordance with BS3998: 2010 Tree work - Recommendations (BS3998) by suitably qualified and insured contractors. Significant pruning works are best undertaken when trees are dormant or outside periods of high functional activity to reduce the overall impact on energy available to the tree for growth and processes. In general, the optimum period for works is between November to February and July to August (subject to the presence of protected species) when the tree is less active and better placed to respond to wounding and a reduction in leaf area.
3.2.6 The Hedgerows Regulations (1997) protect agricultural or countryside hedgerows which meet the requirements of an 'important hedgerow'. These include a minimum length of 20 m (or meets another hedge at each end) and a minimum age of at least 30 years. A wide range of other ecological and archaeological/heritage features can constitute an important hedgerow. Powers in relation to hedgerows are contained within the DCO.
3.2.7 The DCO disapplies the need for a felling licence as may otherwise be required by the Forestry Commission, in light of the proposals in the Framework CEMP and OLEMP.

### 3.3 National Policy for Energy

3.3.1 The National Policy Statement for Energy Infrastructure documents EN-1, EN-3 and EN-5 (2011) set out the national policy for energy infrastructure in relation to planning and design.
3.3.2 In terms of trees, document EN-1 draws reference to Ancient Woodland and Veteran Trees. Section 5.3.14 details that: 'Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. Planning Inspectorate should not grant development consent for any development that would result in its loss or deterioration unless the benefits (including need) of the development, in that location outweigh the loss of the woodland habitat. Aged or 'veteran' trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. This does not prevent the loss of such trees where the Planning Inspectorate is satisfied that their loss is unavoidable. Where such trees would be affected by development proposals the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why.'
3.3.3 The Department of Business, Energy and Industrial Strategy (BEIS) consulted upon a review of energy National Policy Statements (NPS) with consultation closing in November 2021. The draft NPS have been reviewed and there are no substantive changes in relation to arboriculture.

### 3.4 Local Policy Context

3.4.1 The Scheme is located within two local authority districts. These are West Suffolk Council and East Cambridgeshire District Council.
3.4.2 The relevant council websites each contain guidance on how the authority expects to see trees considered in relation to development and design. The relevant policies referring to trees are outlined in separate headings within this section according to the local authority district.

### 3.5 East Cambridgeshire District Council Local Plan (2015)

3.5.1 Policy ENV 7: Biodiversity and geology
'Development proposals where the main aim is to conserve biodiversity will be permitted; and opportunities to incorporate biodiversity into new development will be supported.

All development proposals will be required to:
Article I. Protect the biodiversity and geological value of land and buildings and minimise harm to or loss
of environmental features, such as trees, hedgerows, woodland, wetland and ponds.

Article II. Provide appropriate mitigation measures, reinstatement or replacement of features and/or
compensatory work that will enhance or recreate habitats on or off site where harm to
environmental features and habitat is unavoidable; and
Article III. Maximise opportunities for creation, restoration, enhancement and connection of natural habitats as an integral part of development proposals.'

### 3.6 East Cambridgeshire District Council Natural Environment Supplementary Planning Document (SPD, Adopted 24 September 2020)

3.6.1 Policy SPD.NE8: Trees and Woodland
'Development proposals should be prepared based on the overriding principle that:
(a) the existing tree and woodland cover is maintained, improved and expanded; and
opportunities for expanding woodland are actively considered and implemented where practical and appropriate to do so.

Existing Trees and Woodland
Planning permission will only be granted if the proposal provides evidence that it has been subject to adequate consideration of the impact of the development on any existing trees and woodland found on-site (and off-site, if there are any trees near the site, with 'near' defined as the distance comprising 12 times the stem diameter of the off-site tree). If any trees exists on or near the development site, 'adequate consideration' is likely to mean:
(a) the completion of a British Standard 5837 Tree Survey and, if applicable,
(b) an Arboricultural Method Statement, Impact Assessment and Tree Protection Plan.

Where the proposal will result in the loss or deterioration of these irreplaceable assets (as defined by the NPPF):
(c) ancient woodland; and/or
(d) the loss of aged or veteran trees found outside ancient woodland
permission will be refused, unless, and on an wholly exceptional basis, the need for and benefits of the development in that location clearly outweigh the loss and a suitable compensation strategy exists.

Where the proposal will result in the loss or deterioration of a tree protected by a Tree Preservation Order or a tree within a Conservation Area, then permission will be refused unless:
(e) there is no net loss of amenity value which arises as a result of the development; or
(f) the need for, and benefits of, the development in that location clearly outweigh the loss.

Where the proposal will result in the loss of any other tree or woodland not covered by above, then the council will expect the proposal to retain those trees that make a significant contribution to the landscape or biodiversity value of the area, provided this can be done without compromising the achievement of good design for the site.

## Mitigating for loss of Trees and Woodland

Where it is appropriate for higher value tree(s) (category A or B trees (BS5837)) and/or woodland to be lost as part of a development proposal, then appropriate mitigation, via compensatory tree planting, will be required. Such tree planting should:
(g) take all opportunities to meet the six Tree Planting Principles (refer to Section 7.6 of this report); and
(h) unless demonstrably impractical or inappropriate, provide the following specific quantity of compensatory trees:
Table 3: Tree Replacement Table extracted from East Cambridgeshire District Council Natural Environment - Supplementary Planning Document (SPD, Adopted 24 September 2020)

| Trunk diameter (mm) at 1.5m above <br> ground of tree lost to development | Number of replacement trees required, per <br> tree lost* |
| :---: | :--- |
| $75-200$ | 1 |
| $210-400$ | 4 |
| $410-600$ | 6 |
| $610-800$ | 9 |
| $810-1000$ | 10 |
| $1000+$ | 11 |

* replacement based on selected standards $10 / 12 \mathrm{~cm}$ girth at 1 m

New Trees and Woodland
Where appropriate and practical, opportunities for new tree planting should be explored as part of all development proposals (in addition to, if applicable, any necessary compensatory tree provision).

Where new trees are proposed, they should be done so on the basis of the six Tree Planting Principles. Proposals which fail to provide practical opportunities for new tree planting will be refused.

Planting schemes should include provision to replace any plant failures within five years after the date of planting. Planting of trees must be considered in the context of wider plans for nature recovery which seeks to increase biodiversity and green infrastructure generally, not simply planting of trees, and protecting / enhancing soils, particularly peat soils.

Tree planting should only be carried out in appropriate locations that will not impact on existing ecology or opportunities to create alternative habitats that could deliver better enhancements for people and wildlife, including carbon storage.

Where woodland habitat creation is appropriate, consideration should be given to the economic and ecological benefits that can be achieved through natural regeneration. Any tree planting should use native and local provenance tree species suitable for the location.

## Management and Maintenance

In instances where new trees and/or woodlands are proposed, it may be necessary for the Council to require a tree/woodland management plan and/or appropriate developer contributions to be provided, to ensure provision is made for appropriate management and maintenance of the new trees and/or woodland.

Carbon Sequestration Implications of Proposals
The net increase or decrease in tree cover as a consequence of a development will be a material consideration in the decision-making process in terms of the carbon sequestration consequences of the proposal. Considerable weight in favour of a proposal will be given where the net situation is a considerable increase in tree cover (and hence the positive and significant contribution to carbon sequestration). Where the net situation is a loss of trees, weight against a proposal will be given as a consequence of the loss of carbon sequestration, with the degree of weight dependent on the scale of net loss.

### 3.7 Forest heath and St Edmundsbury Local Plan Joint Development Management Policies document (2015)

3.7.1 Policy DM13: Landscape Features
'Development will be permitted where it will not have an unacceptable adverse impact on the character of the landscape, landscape features, wildlife, or amenity value.

All proposals for development should be informed by, and be sympathetic to, the character of the landscape.

All development proposals should demonstrate that their location, scale, design and materials will protect, and where possible enhance the character of the landscape, including the setting of settlements, the significance of gaps between them and the nocturnal character of the landscape.

Developers/applicants will be required to submit, where appropriate, landscaping schemes with applications for planning permission and for the approval of reserved matters.

Where any harm will not significantly and demonstrably outweigh the benefit of the proposal, development will be permitted subject to other planning considerations.

However, it is essential that commensurate provision must be made for landscape mitigation and compensation measures, so that harm to the locally distinctive character is minimised and there is no net loss of characteristic features.

Where this is not possible development will not be permitted.'
The policies provide an insight into the value afforded to trees and woodland in the planning process and how the local authorities expect impacts on trees and proposed new planting to be managed.

## 4 General Arboricultural Principles

### 4.1 General Principles

4.1.1 Trees are dynamic living organisms which provide essential benefits to society and the wider environment. Any proposed development with the potential to impact on trees must take into consideration the value of trees on site, the impact of any proposed activity along with any potential future conflicts on a site. Suitable measures to safeguard retained trees or mitigate the loss of trees (to be removed) will need to be fully considered.
4.1.2 Tree branches and roots frequently grow across site boundaries and off-site trees can pose a significant constraint and should be carefully considered when assessing the developable space within a site.

### 4.2 Below ground constraints

4.2.1 Below ground tree roots and the soil environment in which they grow need to be protected if the tree is to be retained. Trees grow in association with fungi and other soil organisms which are of key importance to tree health. Roots are essential for anchorage, the uptake of water and nutrients, and the storage of energy (carbohydrates) for the future growth and function of the tree.
4.2.2 Roots can be damaged by physical severance or wounding (e.g. following excavation of the soil) which can lead to the development of decay and a decline in vitality and/or instability.
4.2.3 Raising the soil level can bury tree roots at a depth where suitable conditions for growth are less available. Toxic materials discharged into the soil (such as cement-based aggregates, fuel and chemicals) can lead to root death and dysfunction. Soils can be compacted to levels inhospitable to tree growth with even a single pass of machinery, regular pedestrian traffic or the storage of plant and materials. Relieving compaction can be problematic and may require costly remedial works. Changes in drainage/water levels can also have significant longterm impacts for tree health.
4.2.4 The effects of these incursions may take many years to manifest, with a resulting decline in amenity value and potentially the death or failure of the tree. It should
be noted that older trees are particularly sensitive to damage and changes in conditions.
4.2.5 The RPA is a notional area considered to be the minimum zone that must be protected to avoid any adverse impacts on retained trees. This area is deemed to be particularly important for tree stability, growth, function and health. However, roots may extend far greater distances, with the distribution of the root system relating directly to the availability of suitable conditions for growth (namely oxygen, water and nutrients). It is generally accepted that tree roots are predominantly located in the upper 1000 mm of soil; however, roots may develop at deeper levels where conditions allow.
4.2.6 The default position must be that all development, including any associated services will occur outside the RPAs of retained trees. Where this is unavoidable, it may be appropriate to use special measures to install structures, services or surfacing within RPAs which allow the protection of roots and soil structure which are essential for tree growth and keep any incursion to a minimum.
4.2.7 Further steps to improve or increase the useable rooting area available to the tree may also be required.
4.2.8 Further guidance on tree protection measures in relation to the Scheme are identified in the PAMS report contained within Appendix C.

### 4.3 Soils

4.3.1 On shrinkable clay soil, tree growth can lead to the differential movement of structures as moisture is removed from the soil during the growing season. Soils must be carefully assessed, and any foundations must be installed following the recommendations of National House Building Council (NHBC) Standards Chapter 4.2: Building Near Trees (2021) to avoid potential future damage. Where trees which predate existing structures are to be removed, this can result in heave as the soils are re-wet.
4.3.2 The advice of a suitably qualified engineer must be obtained to inform any potential issue of heave. Specific advice in relation to this issue is beyond the scope of this report.

### 4.4 Above ground constraints

4.4.1 Tree stems and branches can restrict available space on a site. Damage or wounding (including excessive pruning) can significantly reduce the amenity contribution of the tree and may lead to the development of dysfunction and decay, with significant long-term implications for tree health. The future impact of existing trees should be carefully considered, including individual species characteristics (such as potential future size, fruit fall, shade etc.) and how the tree will interact with any proposed development and future land use. Annual tree growth can lead to direct damage if stems/branches (or roots) come into physical contact with structures and this must also be taken into consideration.

## 5 Statutory and Non-Statutory Designations

5.1.1 Following searches of the Scheme area performed in 2019 and updated in 2022, statutory designations including Conservation Areas and Tree Preservation Orders (TPOs) affecting trees within or immediately adjacent to the Scheme are highlighted in the Tree Constraints Plans in Appendix A.
5.1.2 Conservation Areas are present within the Scheme at Freckenham (Freckenham Conservation Area) and at Exning (Exning Conservation Area) as shown on sheet 18 of the Tree Constraints Plan. The Conservation Areas are limited to highway sections of the Order limits only and are not present within the main solar sites or the proposed cable routes.
5.1.3 Two TPOs are located within the Scheme at land south of Worlington (West Suffolk Council) and the beech avenue at Chippenham Road, east of Snailwell (East Cambridgeshire District Council) as shown on sheet 6 and sheet 14 of the Tree Constraints Plan.
5.1.4 A small number of trees subject to TPO are located just outside the Scheme boundary at land at Freckenham (West Suffolk Council) as shown on sheet 18 of the Tree Constraints Plan.
5.1.5 The Woodland Trust Ancient Tree Inventory contains a database of recorded ancient or veteran trees. The findings from the interactive mapping tool indicate the presence of a veteran sycamore (Acer pseudoplatanus) in land to the northwest of Burwell. This tree was not found during the walkover assessment of the area identified in the Woodland Trust inventory however any proposed works in this area should be subject to a more detailed assessment to identify the precise location of this tree and to confirm its veteran status. However, several trees with veteran characteristics were identified during the walkover and detailed tree survey which are identified in the accompanying Tree Constraints Plans contained in Appendix A of this report. These include trees: T130, T133, T134, T136, T137, T138, T139, T141, T143, T144, T147, T164, T216, T218, T223 and T225. Trees have been classified as ancient or veteran based on their size (at least mature for the species) and the presence and extent of significant habitat features associated with veteran or ancient trees such as extensive decay, dead wood habitat and crown retrenchment.
5.1.6 Veteran trees are considered to be an irreplaceable resource and should be retained and protected. The NPPF and current standing advice from Natural England and the Forestry Commission states that development affecting veteran trees should be refused unless justification is wholly exceptional. Veteran trees require a buffer equivalent to $15 \times$ stem diameter (at 1.5 m ) or the canopy spread +5 m (whichever is greatest) and this has been applied to all veteran tree features identified via the detailed tree surveys.
5.1.7 Following an assessment of the Magic Map resource, no Sites of Special Scientific Interest (SSSIs) or designated Ancient Woodland areas are located directly within the Scheme. Non-statutory designation search results on Magic Map identified designated 'deciduous woodland', 'traditional orchard' and 'wood pasture and parkland'. These non-statutory designations do not require specific
consent prior to tree works but are likely to be taken into consideration by the LPA when reviewing the DCO Application.

## 6 Detailed Tree Survey Findings:

6.1.1 The detailed tree survey included 352 tree features on land at Burwell, north of Snailwell, south and east of Chippenham and south and west of Worlington. Surveyed trees comprised a wide range of species including: hybrid black poplar (Populus x canadensis), white poplar (Populus alba), oak (Quercus sp.), Scots pine (Pinus sylvestris), common beech (Fagus sylvatica), Corsican pine (Pinus nigra), common ash (Fraxinus excelsior), crack willow (Salix fragilis), apple (Malus domestica), field maple (Acer campestre), hawthorn (Crataegus monogyna), blackthorn (Prunus spinosa), sycamore (Acer pseudoplatanus), elm (Ulmus sp), elder (Sambucus nigra) and aspen (Populus tremula).
6.1.2 Surveyed trees ranged from poor to good in condition and from young to mature in life stage. As summarised by Table 4 the majority of surveyed trees were considered to be of moderate or low quality although a substantial number of high and very low quality trees were also identified.
6.1.3 Sixteen likely veteran or ancient trees were identified at land north of Snailwell and south of Worlington and these features represent the greatest arboricultural constraints within the survey area.
6.1.4 The tree avenue to the south of Chippenham Hall is part of the Registered Park and Garden and is understood to have been formed of a double line of beech trees. The majority of beech trees in this area are no longer present and the linear tree group that remains is largely informal and formed of pine, ash, thorn and other mixed broadleaved species including some semi-mature and early mature beech. A small number of mature beech are still present which may have formed part of the original avenue feature.

Table 4: Number of Trees of Each Quality Category ${ }^{1}$

| Category | Number of tree features |
| :---: | :---: |
| A | 57 |
| B | 162 |
| C | 107 |
| Total | 26 |

6.1.5 Further summary information on wider tree cover as identified via site walkover and desk study assessment is identified in the Tree Constraints Report [APP101].

[^0]
## 7 Arboricultural Impact Assessment:

### 7.1 The Scheme

7.1.1 A comprehensive description of the Scheme is provided in Chapter 3 of the ES [REP2-023].

### 7.2 Purpose

7.2.1 This impact assessment sets out the reasonable worst-case scenario of likely arboricultural impacts associated with the Scheme.
7.2.2 A brief summary of trees to be removed, tree works, and incursions for tree features subject to detailed tree survey are detailed within Table 5 below. Canopy areas to be removed have also been recorded (rounded up to the nearest $50 \mathrm{~m}^{2}$ ).

Table 5: Summary of Removals, Incursions and Pruning (Detailed Tree Survey)

| Impact | Category A | Category B | Category C | Category U |
| :---: | :---: | :---: | :---: | :---: |
| Tree features to be removed to facilitate the Scheme | W94 (part), W112 (part), W255 (part), W256 (part) | G10 (part), G21 (part), G81 (part), G111 (part), G118, G206 (part), G243 (part), G247 (part), H249 (part), H251 (part), T335, T337, | G9 (part), T44, G82 (part), G119 (part), G196 (part), H197 (part), T219, G248 (part), T336, | G102, T228, |
| Total canopy area removed $\mathrm{m}^{2}$ | $2450 \mathrm{~m}^{2}$ | $3300 \mathrm{~m}^{2}$ | $1350 \mathrm{~m}^{2}$ | $300 \mathrm{~m}^{2}$ |
| Total | 4 part woodland groups | 2 individual trees, 1 tree group, part of 7 tree groups, part of 2 hedgerows | 3 individual trees, part of 5 tree groups, part of 1 hedgerows. | 1 individual tree, 1 tree group |

Total canopy area $\quad 7400 \mathrm{~m}^{2}$

Trees/groups which may require some incursion into their 0
$0 \quad$ T60, T131, T132
construction
exclusion zone

| Total | $\mathbf{0}$ | $\mathbf{3}$ individual trees | $\mathbf{0}$ | $\mathbf{0}$ |
| :--- | :---: | :---: | :---: | :---: |
| Trees/groups to be <br> pruned under <br> arboricultural <br> supervision | 0 | T332 |  | 0 |
| Total | $\mathbf{0}$ | $\mathbf{1}$ individual tree | $\mathbf{0}$ | $\mathbf{0}$ |

7.2.3 A brief summary of trees to be removed, tree works, and incursions related to trees assessed via high level desk study/walkover are detailed within Table 6 below. Canopy areas have been rounded up to the nearest $50 \mathrm{~m}^{2}$.

Table 6: Summary of Removals, Incursions and Pruning (High Level Tree Assessment)

| Impact | Likely <br> Category A | Likely Category B | Likely Category C | Likely Category U |
| :--- | :---: | :---: | :---: | :---: |
| Tree features at risk <br> of removal to <br> facilitate the Scheme <br> (canopy area in $\mathrm{m}^{2}$ ) | $150 \mathrm{~m}^{2}$ | $5200 \mathrm{~m}^{2}$ | $2900 \mathrm{~m}^{2}$ |  |
| Total canopy area <br> to be removed |  | 8250 |  |  |
| Tree features at risk <br> of pruning to <br> facilitate the Scheme | - | 1 tree |  |  |

## Total

1 tree

### 7.3 Summary of Arboricultural Impacts

7.3.1 Tree removals are illustrated on the Tree Protection and Removal Plans (TPRP) included as Appendix D. These are presented as a reasonable worst case and will be further reviewed and reduced where feasible as part of the detailed design process and this is secured as a commitment in the FCEMP
[EN010106/APP/6.2].
7.3.2 Six individual trees, two tree groups, part of four woodland groups, part of 12 tree groups and part of three hedgerow features are to be removed to facilitate the Scheme. This includes four part woodland groups of high quality (Category A), two individual trees, one tree group, part of seven tree groups and part of two hedgerows of moderate quality (Category B), three individual trees, part of five tree groups and part of one hedgerow of low quality (Category C) and one individual tree and one tree group which are unsuitable for retention for more than 10 years (Category U).
7.3.3 These Category $U$ trees are not suitable for long-term retention and their removal is justified regardless due to pre-existing condition and proximal land use.
7.3.4 In addition as a reasonable worst case the Scheme would require the removal of up to $150 \mathrm{~m}^{2}$ of likely high quality tree cover, $5200 \mathrm{~m}^{2}$ of likely moderate quality tree cover and $2900 \mathrm{~m}^{2}$ of likely low quality tree cover. In practice this extent of loss is likely to be reduced with the application of design refinements and careful working methodologies such as those set out in the PAMS included as Appendix C.
7.3.5 In total $7400 \mathrm{~m}^{2}$ of trees subject to detailed survey would be removed and $8250 \mathrm{~m}^{2}$ of trees assessed via walkover and desk study would be removed and this gives a combined total canopy cover which would be removed to facilitate the Scheme of $15650 \mathrm{~m}^{2}$ (1.565ha).
7.3.6 Circa $47 \%$ of all tree canopy cover to be removed has been subject to detailed survey with $53 \%$ assessed via desk study and walkover review (where feasible). The relative percentage of surveyed trees to be removed has been substantially
reduced due to design changes and commitments secured via the FCEMP [EN010106/APP/6.2].
7.3.7 The loss of lower growing and managed hedgerows is considered via Chapter 8: Ecology and Nature Conservation Assessment [APP-040] and is excluded from this Impact Assessment. No important hedgerows are to be removed.
7.3.8 In practice it is likely that tree loss and impacts could be significantly reduced. A detailed tree survey for all areas of the Scheme where trees are at risk of impact will be undertaken in advance of commencement. An updated assessment of arboricultural impacts and mitigation along with a detailed Arboricultural Method Statement will then be submitted to the Local Planning Authorities for agreement in advance and this is a commitment in the FCEMP [EN010106/APP/6.2] secured as part of the draft DCO [REP2-012].
7.3.9 All of the trees to be removed are on or within the Order limits boundary.
7.3.10 Of the trees to be removed one individual tree and part of two tree groups which have been subject to a detailed tree survey are protected by a TPO to the south of Worlington. An additional two trees protected by TPO at Chippenham Road and a third tree not subject to a TPO are also to be removed to facilitate the proposed cable route and associated access (which utilises an existing farm access to minimise tree removals). The design has been developed to minimise the loss of trees however the loss of these trees cannot be avoided if the current Scheme design is to be achieved. In relation to trees south of Worlington, these trees are located adjacent to a public right of way and tree loss will impact on the amenity of users of the route, however more broadly the tree line is set well back from other well used areas and is largely screened from the nearest roads via roadside hedgerows and field boundary trees. The potential for these trees to be retained will be reviewed as part of the detailed design process and this is secured as a commitment in the FCEMP [EN010106/APP/6.2].
7.3.11 Impacts to trees which form part of the tree avenue within the Registered Park and Garden of Chippenham Hall will be avoided, either by micrositing the Scheme works around them, or through implementing HDD.
7.3.12 No trees within County Wildlife Sites (CWS) are to be removed to facilitate the Scheme.
7.3.13 No veteran or ancient trees are to be removed and the retention and protection of any unidentified veteran trees is a commitment in the FCEMP
[EN010106/APP/6.2] secured via the draft DCO [REP2-012].

### 7.4 Tree Works to Facilitate the Scheme

7.4.1 $\quad$ Tree removals and tree pruning works to facilitate the Scheme are detailed in the Tree Survey Schedule included as Appendix B. Tree works should be completed before any other work begins on the Site.
7.4.2 One individual moderate quality tree (subject to TPO at Chippenham Road) is to be pruned to facilitate the Scheme.
7.4.3 T332 (moderate quality) at Chippenham Road would be crown lifted to 4 m to the north and east to provide a clearance of vehicle oversail for the use of the existing access point for construction access.
7.4.4 T227 (low quality) could be pollarded to $10-12 \mathrm{~m}$ to address structural defects which would represent an unacceptable risk following the change in use of adjacent land. These works are justified to promote the long term survival of the tree but will be avoided and the area within falling distance of the tree will be protected as a fenced exclusion zone.
7.4.5 Two trees (T219 - Category C, and T228 Category U) are to be felled due to their condition in proximity to the development. However, these trees could also be retained as standing deadwood monoliths where feasible to provide habitat features.
7.4.6 One semi mature chestnut (Aesculus species) which has not been subject to a detailed tree survey may require pruning following a review of available desktop information. This is considered likely to be a moderate quality feature and is located in a central traffic island at Freckenham within the Freckenham Conservation Area. The tree is to be cut back by approximately 1 m to the west to allow an oversail of construction traffic. This extent of pruning will not have a significant negative impact on the long-term health or amenity value of the tree and lower canopy will likely regenerate following pruning. Pruning of the lower crown of the tree is also likely to be required to maintain a reasonable clearance of the highway into the future, regardless of the Scheme.
7.4.7 Tree removals within groups proposed for part-removal should be carried out under arboricultural supervision, ensuring the trees to be removed are uniquely identified and agreed prior to felling operations. The remaining trees shall then be re-inspected by an appointed site arboriculturist to determine their suitability for retention and any additional pruning or management requirements and/or the removal of deadwood as necessary.
7.4.8 All tree pruning works are to follow the principles of BS3998: 2010 Treework Recommendations. These works must be carried out by suitably qualified and insured contractors, the Arboricultural Association provides a list of contractors who meet these requirements.
7.4.9 Should the requirement for additional tree works be identified, this will be discussed with an appointed arboriculturist and no works will be undertaken without the consent of the relevant LPA.

### 7.5 Incursions within the RPA or Canopy Spread

7.5.1 A very small area of the RPA of T60 (moderate quality) is subject to an incursion for a proposed access route. Where the access route cannot be re-routed to avoid the RPA it will be achieved using a three dimensional raft or tile system installed without excavation. T60 (pine) has a high canopy on its northern side which provides ample crown clearance for access with no requirement for pruning.
7.5.2 The proposed access route and cable route which is positioned to the north of the Chippenham Park avenue will be achieved without tree loss. There is an existing
hard standing access route which will be utilised for access where feasible, should any widening be required within an RPA it will be achieved without excavation using a three dimensional raft or tile system installed without excavation and will maintain a minimum 1 m from any tree stem position. The cable will be routed to avoid RPAs and where this is not possible (to be determined via detailed design) it will be installed via Horizontal Directional Drilling (HDD) or equivalent at a minimum depth of 1.5 m (final depth to be confirmed at detailed design taking into account soil type and tree species), with insertion and retrieval pits located outside of RPAs.
7.5.3 All proposed drainage is shown indicatively on the Tree Protection and Removal Plan and will be positioned to avoid the area of constraint associated with retained trees. This will be secured as a commitment in the Framework CEMP [EN010106/APP/6.2].
7.5.4 No other incursions have been identified at this stage however in practice some tree features identified for removal may be retained with an acceptable impact and be subject to an RPA incursion managed by tree protection measures and a careful working methodology. This will be reviewed following additional detailed tree surveys and confirmation of the final design and in advance of the commencement of works on site.
7.5.5 Unavoidable temporary access within RPAs for construction will be achieved using ground protection to protect soil structure and avoid any requirement for excavation.

### 7.6 The Future Impact of Retained Trees

7.6.1 The future impact of retained trees in conjunction with the Scheme and future use of the Site has been considered.
7.6.2 Retained trees will require periodic inspection to assess their structural condition and safety. Occasional removal of dead wood or other remedial works to address significant defects may be required in areas of frequent access. This is unlikely to be overly onerous and will be the responsibility of the tree owner.
7.6.3 All tree works recommended as a result of the preliminary tree surveys, considered trees in the context of the present use of the Site (i.e. prior to development proposals) in the Detailed Tree Survey Schedule (Appendix B). Where these works are not superseded by proposed tree removal, they should be actioned.
7.6.4 Tree clearance to facilitate access for the Scheme will provide a reasonable clearance for construction and this will form the framework for a clearance during operation which can be maintained on an ad hoc basis. This will not be overly onerous and will not result in future pressure to remove retained trees.
7.6.5 Retained trees have the potential to cast shade on solar panels and may impair their function and output. The design has been developed so that trees are generally set well back from the position of solar arrays to reduce or avoid this issue.
7.6.6 Shading arcs equivalent to tree height and formed of a radius from northwest to due east have been plotted on the Tree Constraints Plan (Appendix A) and the Tree Protection and Removal Plan (Appendix D). Shading arcs show the typical extent of likely shading from trees throughout the day (as the sun moves from east to west in a southerly orientation) but do not illustrate areas subject to constant shade. Shading from deciduous trees will be reduced in winter (when the sun is lowest in the sky and the extent of shade is greatest) following leaf fall.
7.6.7 Shading arc radii are based on detailed tree survey height estimates, NTM LiDAR heights and estimated heights determined via desk study and this is included on the Tree Constraints Plan and Tree Protection and Removal Plan. This illustrates that no solar arrays will be subject to significant shading at the time of construction.
7.6.8 Trees will increase in height over time as they mature, however the heights of those trees which are already mature are less likely to be subject to substantial increases.
7.6.9 To address future shading potential as trees mature, a 30 m shading arc has been applied to all tree features to identify areas for more detailed assessment, the mature shading arc has then been adjusted in those areas with potential to impact on solar array positions to reflect the assumed mature height of the given species of tree. Mature heights are determined using data provided in Table 3 of NHBC Chapter 4.2 (2022) (Ref 14).
7.6.10 Solar arrays potentially affected by the maximum anticipated mature height of trees (based on the tallest growing species identified) include blocks: W08, W15, $\mathrm{E} 12, \mathrm{E} 13, \mathrm{E} 14, \mathrm{E} 15, \mathrm{E} 19, \mathrm{E} 20, \mathrm{E} 21, \mathrm{E} 24, \mathrm{E} 26, \mathrm{E} 27, \mathrm{E} 29, \mathrm{E} 30$ and E31. It is recognised that most groups of trees are formed of mixed species and will not uniformly achieve the maximum heights proposed which are based on an assumed worst case, tree growth will also be influenced by growing conditions including climate, soil and exposure.
7.6.11 Due to the extent of the offset between solar arrays and retained trees, and the general maturity of retained tree groups bordering solar array areas, this is not considered to be likely to result in future pressure to fell or remove trees to address shading impacts. The panels require at least three hours of unshaded daylight to function at required levels and due to the partial nature of shading in all cases (limited to specific times of day as the sun moves across the sky and generally reduced in winter due to leaf fall for deciduous tree species) shading over time is not anticipated to be a significant issue.

### 7.7 Tree Protection

7.7.1 Retained trees are vulnerable to damage from construction activities which can include physical damage to stems and branches following impacts with plant. Root severance following trenching, root death or dysfunction following damage to soil structure (caused by the movement of people or machinery on unsurfaced ground) or via the spillage of materials toxic to tree health.

[^1]RPAs/canopy spreads, these areas are referred to as CWZs and require measures such as the use of ground protection and arboricultural supervision.
7.7.3 Tree protection measures are considered in the PAMS contained within Appendix C of this report. This includes proposed measures for other tree related impacts such as for protected species (e.g. birds, bats and badger). A detailed Arboricultural Method Statement will be required which will set out the phasing of site operations, the finalised tree protection measures for a proposed development (including exclusion zones) and to provide detail on how sensitive elements of work are to be achieved in proximity to retained trees. This will be secured through the Framework Construction Environmental Management Plan (FCEMP) in Appendix 16C of this Environmental Statement [EN010106/APP/6.2].

### 7.8 Tree Planting

7.8.1 Where trees are to be removed due to a conflict with proposals in relation to the Scheme, mitigation planting is likely to be required to ensure a continuity of tree cover for the Scheme and to address any negative impact on local amenity and landscape character. Consideration should be given to the reasonable provision of space for new tree planting to off-set any necessary tree loss.
7.8.2 Soil structure in areas for new planting will need to be maintained and may require protection during operation of the proposed development to ensure reasonable conditions for future tree growth are available.
7.8.3 New planting should consider the existing species mix present on site in relation to both arboricultural and ecological considerations. New planting also offers an opportunity to increase the species and age class diversity for a given area which can boost the resilience of the local tree stock in relation to pests, disease and climate change as well as providing a greater range of amenity and other benefits. New planting will be secured through the Outline Landscape and Ecological Management Plan (OLEMP).
7.8.4 New trees should be planted in accordance with the guidance set out in BS8545:2014 Trees: from nursery to independence in the landscape Recommendations (BS8545) and with the minimum distances from new structures, services and surfacing set out in Table A. 1 of BS5837.

## 8 Summary and Conclusion

8.1.1 This AIA report identifies the likely arboricultural impacts of the Scheme and a reasonable worst case has been assumed.
8.1.2 Six individual trees, two tree groups, part of four woodland groups, part of 12 tree groups and part of three hedgerow features are to be removed to facilitate the Scheme. This includes four part woodland groups of high quality (Category A), two individual trees, one tree group, part of seven tree groups and part of two hedgerows of moderate quality (Category B), three individual trees, part of five tree groups and part of one hedgerow of low quality (Category C) and one individual tree and one tree group which are unsuitable for retention for more than 10 years (Category U).
8.1.3 These Category $U$ trees are not suitable for long-term retention and their removal is justified regardless due to pre-existing condition and proximal land use.
8.1.4 In total $7400 \mathrm{~m}^{2}$ of tree canopy cover subject to detailed survey is to be removed as a reasonable worst case.
8.1.5 In addition as a reasonable worst case the Scheme would require the removal of up to $150 \mathrm{~m}^{2}$ of likely high quality tree cover, $5200 \mathrm{~m}^{2}$ of likely moderate quality tree cover and $2900 \mathrm{~m}^{2}$ of likely low quality tree cover ( $8250 \mathrm{~m}^{2}$ in total). In practice this extent of loss is likely to be reduced with the application of design refinements and careful working methodologies such as those set out in the PAMS included as Appendix C.
8.1.6 In practice it is likely that tree loss and impacts would be significantly reduced and detailed tree surveys for all areas of the Scheme where unsurveyed trees are at risk of impact would be undertaken in advance of detailed design and construction and the results, including an updated assessment of arboricultural impacts and mitigation along with a detailed Arboricultural Method Statement, will be submitted to the Local Planning Authorities for agreement in advance and this is a commitment in the Framework CEMP [EN010106/APP/6.2] secured as part of the draft DCO [REP2-012].
8.1.7 Of the trees to be removed one individual tree and part of two tree groups are subject to a TPO at land south of Worlington and two trees subject to a recently served TPO are located at Chippenham Road (east of Snailwell). The design has been developed to minimise tree loss where possible however the loss of these trees cannot be avoided if the current Scheme design is to be achieved. The potential for these trees to be retained will be reviewed as part of the detailed design process and this is secured as a commitment in the FCEMP
[EN010106/APP/6.2].
8.1.8 No trees are to be removed from the tree avenue which forms part of the Registered Park and Garden at Chippenham Hall.
8.1.9 No trees within County Wildlife Sites are to be removed to facilitate the Scheme.
8.1.10 No veteran or ancient trees are to be removed and the retention and protection of any unidentified veteran trees is a commitment in the Framework CEMP
[EN010106/APP/6.2] secured via the draft DCO [REP2-012].
8.1.11 One unsurveyed tree likely to be of moderate quality (located within the Freckenham Conservation Area) and one moderate quality surveyed tree subject to TPO (at Chippenham Road) are to be pruned to facilitate construction access. This level of pruning will not have a significant negative impact on the health or amenity value of these trees.
8.1.12 One surveyed low quality tree could be pollarded to address structural defects to manage its condition in association with the proposed change in land use however the pruning (which would otherwise help to prevent the collapse and of the tree and would promote its long term survival) will be avoided and a fenced exclusion zone with no access or development activity is to be established around the tree (within falling distance).
8.1.13 A proposed access route will incur within the outer RPA of a moderate quality tree to the south of Worlington and where it cannot be adjusted to avoid the RPA of this tree it will be installed without excavation or compaction.
8.1.14 In advance of construction a detailed tree survey of all areas of potential tree impacts will be carried out and this is a commitment in the Framework CEMP [EN010106/APP/6.2].
8.1.15 Tree protection measures are considered in the PAMS contained within Appendix C of this report. A detailed Arboricultural Method Statement will be prepared to set out the phasing of site operations, the finalised tree protection measures for a proposed development, and to provide detail on how sensitive elements of work are to be achieved in proximity to retained trees. This will be secured through the CEMP in Appendix 16C of this Environmental Statement [EN010106/APP/6.2].
8.1.16 Where trees are to be removed due to a conflict with proposals in relation to the Scheme, mitigation planting will be delivered to ensure a continuity of tree cover for the Scheme and to address any negative impact on local amenity and landscape character, this will be secured through the OLEMP.

## References

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Ref. 3 HMSO (1981). The Wildlife \& Countryside Act 1981. HMSO, London.
Ref. 4 HMSO (2000). Countryside and Rights of Way Act 2000. HMSO, London.
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Ref. 6 DECC (2011) National Policy Statement for Electricity Networks Infrastructure (EN-5), Available at: https://www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure [Date Accessed: March 2021].
Ref. 7 National Planning Policy Framework. Ministry of Housing, Communities and Local Government. Available at: https://www.gov.uk/guidance/national-planning-policy-framework
Ref. 8 East Cambridgeshire District Council (2015). East Cambridgeshire Local Plan Adopted April 2015. Section 6.8.
Ref. 9 East Cambridgeshire District Council (2020). Natural Environment Supplementary Planning Document (SPD). Adopted September 2020
Ref. 10 Forest Heath and St Edmundsbury Local Plan; Joint Development Management Policies Document. February 2015. Section 4.
Ref. 11 British Standards Institution (BSI), BS5837:2012. Trees in relation to design, demolition and construction - Recommendations. BSI

Ref. 12 British Standards Institution (BSI), BS3998:2010. Tree work - Recommendations. BSI

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Ref. 14 National House Building Council (NHBC) Standards, (2021). Chapter 4.2: Building Near Trees
Ref. 15 National Joint Utilities Group (NJUG) Volume 4, Issue 2, (2007). NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.
Ref. 16 National Tree Safety Group (NTSG), 2011. Common sense risk management of trees. Forestry Commission.
Ref. 17 Natural England and The Forestry Commission (2022) Ancient woodland, ancient trees and veteran trees: protecting them from development https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences

## Appendix A Tree Constraints Plans






















Appendix B Detailed Tree Survey Schedule

| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G1* | Crack Willow (Salix fragilis), | 15 | 500 | 4.5 | 4.5 | 4.5 | 4.5 | n/a | n/a | Good | EM-M | Good - Fair | Unable to fully access, main stems at approx.4.5m distance from road. |  |  | 20+ | B2 |
| G2* | Aspen (Populus tremula), Crack Willow (Salix fragilis) | 11 | 250 | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good | SM | Good - Fair | Planted row at arable field boundary, established north of boundary drainage ditch. <br> Planted row of aspen dominated single row at field boundary, some suppression of growth from crack willow groups at south where proximal. |  |  | 20+ | B2 |
| G3* | Crack Willow (Salix fragilis), | 13 | 400 | 4 | 4 | 4 | 4 | n/a | n/a | Good | EM-M | Good - Fair | Unable to fully access, main stems positioned at 4 m distance from road edge. |  |  | 20+ | B2 |
| G4* | Crack Willow (Salix fragilis) | 12 | 400 | 4.5 | 4.5 | 4.5 | 4.5 | n/a | n/a | Good | M | Fair | Unable to fully access. Co-dominant forms, ivy clad with mutual development suppression. |  |  | 10+ | C2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G5* | Hawthorn (Crataegus monogyna), Crack Willow (Salix fragilis), Aspen (Populus tremula) | 11 | 150 | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good | SM | Good - Fair | Unable to fully access. Co-dominant forms, ivy clad with mutual development suppression. |  |  | 10+ | C2 |
| G6* | Sycamore (Acer pseudoplat anus), Crab Apple (Malus sy/vestris), Damson (Prunus domestica) | 10 | 150 | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good | SM | Good - Fair | Co-dominant sycamore with fruit tree understorey. |  |  | 10+ | C2 |
| G7* | Sycamore (Acer pseudoplat anus) | 11 | 150 | 3.5 | 3.5 | 3.5 | 3.5 | n/a | n/a | Good | SM | Fair | Mutually suppressed forms. |  |  | 10+ | C2 |
| G8* | Sycamore (Acer pseudoplat anus) | 9 | 150 | 2 | 2 | 2 | 2 | n/a | n/a | Poor | SM | Fair - Poor | In decline from proximal no current target value |  |  | <10 | U2 |
| G9* | Sycamore (Acer pseudoplat anus) | 12 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Fair | Co-dominant forms, mutually suppressed. |  | Fell in part as per TPRP. | 10+ | C2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \hline \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G10* | Sycamore (Acer pseudoplat anus) | 15 | 500 | 7 | 7 | 7 | 7 | n/a | n/a | Good | EM-M | Good - Fair | Unable to fully access, bordering both sides of field boundary ditch, co-dominant mutually suppressed forms throughout. |  | Fell in part as per TPRP. | 20+ | B2 |
| T11* | Aspen (Populus tremula) | 14 | 600,500 | 1 | 1 | 1 | 1 |  | 3.5 | Good | M | Poor | Unable to access. Strongly weighted towards (low occupancy) road, ivy clad and potentially propped by neighbouring trees. | Consider fell Subject to tree ownership |  | <10 | U1 |
| T12* | Norway <br> Maple <br> (Acer platanoides <br> ) | 10 | 310 | 2.5 | 2.5 | 2.5 | 2.5 |  | 2.5 | Fair - Poor | EM | Fair | In decline, leaf chlorosis and minor deadwood throughout. |  |  | <10 | U1 |
| G13* | Sycamore <br> (Acer <br> pseudoplat <br> anus) | 14 | 500 | 5 | 5 | 5 | 5 | n/a | n/a | Good | EM-M | Good | Unable to access. Codominant forms outside substation compound boundary. |  |  | 20+ | B2 |
| G14* | Weeping Willow (Salix X chrysocom <br> a), Crack <br> Willow <br> (Salix fragilis), Sycamore (Acer pseudoplat | 16 | 750 | 8 | 8 | 8 | 8 | n/a | n/a | Good | M | Good - Fair | Unable to access. Main stems set back from road edge at approx. 12 m . |  |  | 20+ | B2 |



| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G19* | Crack Willow (Salix fragilis) | 22 | 900 | 9 | 4 | 6 | 6 | n/a | n/a | Good | M | Good - Fair | Large prominent trees with mutual development suppression. Unable to fully access, ivy clad multi stem unions at base, minor deadwood throughout. |  |  | 20+ | B2,3 |
| G20* | Sycamore (Acer pseudoplat anus) | 13 | 500 | 4 | 4 | 4 | 4 | n/a | n/a | Good | M | Good - Fair | Unable to fully access, ivy clad forms. |  |  | 20+ | B2,3 |
| G21* | Crack <br> Willow <br> (Salix <br> fragilis), <br> Weeping <br> Willow <br> (Salix X <br> chrysocom <br> a), <br> Sycamore (Acer pseudoplat anus) | 18 | 800 | 7 | 7 | 7 | 7 | n/a | n/a | Good | M | Good - Fair | At adjacent side of ditch from road, dominated by large crack willow with minor deadwood throughout, remainder of group mutually suppressed. |  | Fell in part as per TPRP. | 20+ | B2 |
| T22* | English Elm (Ulmus procera) | 6 | 100 | 1.5 | 1.5 | 1.5 | 1.5 |  |  | Dead | Y | Dead | Dead tree. |  |  | <10 | U1 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T23* | $\underset{s p)}{\mathrm{Elm}}$ (Ulmus | 14 | 700 | 7 | 7 | 7 | 7 | 3.0/E | 1 | Good | M | Good - Fair | At adjacent side of ditch, unable to fully access. |  |  | 20+ | B1,3 |
| T24* | Sycamore (Acer pseudoplat anus) | $9$ | 200 | 2 | 2 | 2 | 2 |  |  | Good | SM | Good - Fair | Unable to access. |  |  | 10+ | C1 |
| G25* | Goat <br> Willow <br> (Salix <br> caprea), <br> Hawthorn <br> (Crataegus <br> monogyna), <br> Elder <br> (Sambucus nigra), Elm <br> (Ulmus sp) | 6 | 150 | 2 | 2 | 2 | 2 | n/a | n/a | Good | EM | Fair | Denotes field boundary, unable to access. |  |  | 10+ | C2 |
| G26* | Crack Willow (Salix fragilis), Hawthorn (Crataegus monogyna) | 6 | 150 | 2 | 2 | 2 | 2 | n/a | n/a | Good | EM | Good - Fair | Unable to fully access, denotes boundary. |  |  | 10+ | C2,3 |
| T27* | Hawthorn (Crataegus monogyna) | 7 | 250 | 2.5 | 2.5 | 2.5 | 2.5 | 1.0/S | 1 | Good | EM | Good | Unable to fully access. |  |  | 10+ | C1 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \hline \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G28* | Goat Willow (Salix caprea) | 6 | 150 | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good | EM | Fair | Denotes field boundary, unable to access. |  |  | 10+ | C2 |
| T29* | Lawson Cypress (Chamaecy paris lawsoniana ) | 13 | 450 | 3 | 3 | 3 | 3 |  |  | Good | M | Good - Fair | Unable to fully access, at adjacent side of ditch, ivy clad main stem. |  |  | 10+ | C1,2 |
| G30* | Elder <br> (Sambucus nigra), <br> Lawson <br> Cypress <br> (Chamaecy paris <br> lawsoniana ) | 8 | 150 | 1.5 | 1.5 | 1.5 | 1.5 | n/a | n/a | Fair - Poor | EM | Fair - Poor | Both in decline, cypress with larger stem at adjacent side of ditch, no target value. |  |  | <10 | U2 |
| T31* | Unknown | 6 | 800 | 2 | 2 | 2 | 2 |  |  | Dead | M | Dead | Ivy clad monolith, no target value. |  |  | <10 | U1,3 |
| G32* | Ash (Fraxinus excelsior) | 1 | 900 | 7 | 7 | 7 | 7 | n/a | n/a | Good - Fair | M | Fair | Main stems at approx.6m distance roadside of ditch Unable to fully inspect. Ivy clad main stems and inner crowns, minor deadwood throughout. Weighted from mutual suppression. | Sever ivy (< 12 months) |  | 20+ | B2,3 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G33* | Ash (Fraxinus excelsior) | 13 | 450 | 5 | 5 | 5 | 5 | n/a | n/a | Good | M | Good - Fair | Unable to fully access, at adjacent side of ditch. |  |  | 20+ | B2 |
| G34* | Goat <br> Willow <br> (Salix caprea), Hawthorn (Crataegus monogyna), Elder (Sambucus nigra), Elm (Ulmus sp) | 6 | 150 | 2 | 2 | 2 | 2 | n/a | n/a | Good | EM | Fair | Denotes field boundary, unable to access. |  |  | 10+ | C2 |
| G35* | Ash (Fraxinus excelsior) | 17 | 500 | 6 | 6 | 6 | 6 | n/a | n/a | Good | M | Good - Fair | Co-dominant forms with collective landscape value. |  |  | 20+ | B2 |
| G36* | Field Maple (Acer campestre) | 10 | 500 | 3 | 3 | 3 | 3 | n/a | n/a | Good | M | Good - Fair | Unable to fully access, majority of group below overhead powerline. |  |  | 10+ | C1,2 |
| T37* | Ash (Fraxinus excelsior) | 13 | 800 | 7 | 7 | 7 | 7 | 3.0/S | 2.5 | Good | M | Good - Fair | Ivy clad main stem and inner crown, multi stem from 1.5 m height. |  |  | 20+ | B1,3 |


| Tree <br> ID | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy <br> Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G38* | Ash <br> (Fraxinus excelsior), Crack Willow (Salix fragilis), Aspen (Populus tremula), Sycamore (Acer pseudoplat anus) | 6 | 600 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Fair | EM | Fair | Unable to access, comprising of suppressed or structurally weighted forms. |  |  | 10+ | C2 |
| T39* | Crack Willow (Salix fragilis) | 22 | 900 | 7 | 7 | 7 | 7 |  | 5 | Good | M | Fair | Dominant tree within group, some failed branches throughout, lapsed pollard. | Consider re pollard above previous points |  | 20+ | B1,2 |
| T40* | White Poplar (Populus alba) | 16 | $\begin{array}{\|l\|} \hline 500,400,3 \\ 50 \end{array}$ | 6 | 6 | 6 | 6 |  | 4 | Good - Fair | M | Fair | Unable to fully inspect, dense ivy at base. Multi stem from base. Multiple branch failures throughout, slightly sparse canopy. | Remove hanging branch over road (Asap) |  | 10+ | C1,2,3 |
| T41* | Crack Willow (Salix fragilis) | 16 | $\begin{array}{\|l} \hline 600,600,5 \\ 00,450 \end{array}$ | 5 | 5 | 1 | 4 |  | 1 | Good | M | Fair | Multi stem union at 1 m , cyclically cleared from proximal power line at east side, remaining form west weighted. |  |  | 10+ | C1,2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T42* | Scots Pine (Pinus sy/vestris) | 13 | 640 | 4 | 5 | 4 | 5 | 5.0/S | 5 | Good | M | Good | Dense ivy cover 0-5m. Several yellow patches on lower stem with black staining. Minor crown sparsity. Previous crown lifting over arable field to south east. |  |  | 20+ | B1 |
| T43* | Scots Pine (Pinus sy/vestris) | 12 | 440 | 7 | 0.5 | 5 | 3 |  | 5 | Poor | EM | Poor | Ivy cover 0-3m. Significant dieback of eastern crown with large deadwood. Western crown in good condition. Low traffic area on boundary of arable field. | Undertake safety survey if land frequency increases. |  | 10+ | C1 |
| T44* | Hawthorn (Crataegus monogyna) | 4 | 130 | 3 | 3 | 3 | 3 |  | 0 | Good | EM | Good | No access to base. Unlikely to be subject to TPO |  | Fell | 10+ | C1 |
| T45* | Common Oak (Quercus robur) | 7 | 300 | 3 | 5 | 5 | 2 | 1.5/N | 0 | Good | SM | Good | Previous heavy clearance pruning from footway to north west. |  |  | 20+ | B2 |
| T46* | Common Oak (Quercus robur) | 10 | $\begin{aligned} & 210,200,2 \\ & 00,180 \end{aligned}$ | 6 | 4 | 4 | 5 | 1.0/N | 2 | Good | SM | Fair | Multiple stems from ground level. A number of large longitudinal stem wounds to north west. Minor to moderate wound wood development. Previous crown lifting to south east over footway. |  |  | 10+ | C1 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T47* | Common Oak (Quercus robur) | 10 | 310,250 | 5 | 3 | 4 | 4 | 2.5/NW | 2.5 | Good | SM | Good | Previous crown lifting over footway and livestock field. |  |  | 20+ | B1 |
| T48* | Common Oak (Quercus robur) | 8 | 200,220 | 5 | 0.5 | 2 | 5 | 1.7/N | 2.5 | Good | SM | Fair | Two stems from ground level. A number of large longitudinal stem wounds to north west. Minor to moderate wound wood development. |  |  | 10+ | C2 |
| T49* | Common Oak (Quercus robur) | 10 | 230,170 | 1 | 3 | 2 | 5 | 6.0/W | 2.5 | Good | SM | Fair | Two stems from ground level. A number of large longitudinal stem wounds to north west. Good wound wood development. Previous crown lifting to south east over footway. |  |  | 10+ | C1,2 |
| T50* | Common Oak (Quercus robur) | 10 | 230,270 | 4 | 1 | 3 | 5 | 5.0/SE | 2 | Good | SM | Good | Ivy covered 0-9m. Previous crown lifting over footway and livestock field. |  |  | 20+ | B2 |
| T51* | Scots Pine (Pinus sy/vestris) | 13 | 350 | 5 | 3 | 4 | 4 | 1.3/SE | 2.5 | Good | SM | Good | Good landscape value. Individually of moderate value. |  |  | 20+ | B1,2 |

# Preliminary 

 Managemen Comments| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T52* | Austrian Pine (Pinus nigra) | 20 | 1160 | 7 | 7 | 7 | 7 | 1.6/S | 0 | Good | M | Fair | Prominent tree. Hazard beam limb to north west with the tip of the branch resting on the ground. Two stems from 2 m with tight included union and minimal adaptive growth. But with upright form and natural bracing. Low traffic area in arable field. Good landscape value. |  |  | 20+ | B1,2 |
| T53* | Austrian <br> Pine (Pinus nigra) | 16 | 520 | 5 | 6 | 6 | 5 | 8.0/SW | 2 | Good | EM | Good | Good landscape value. Collectively of high value as part of row of black pine. |  |  | 40+ | A2 |
| T54* | Scots Pine (Pinus sy/vestris) | 8 | 210 | 2 | 1 | 5 | 0.1 |  | 6 | Dead | SM | Dead | Recently dead tree. Low traffic area. | Consider fell if land frequency increases. |  | <10 | U |
| T55* | Scots Pine (Pinus sy/vestris) | 12 | 310 | 2 | 3 | 4 | 3 | 7.0/E | 1 | Good | SM | Good | Minor form suppression from adjacent trees |  |  | 20+ | B2 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| T56* | Scots Pine (Pinus sy/vestris) | 8 | 410,310 | 1 | 6 | 5 | 5 | 7.0/E | 0 | Good | EM | Fair | Minor form suppression from adjacent trees. Second smaller stem has previously failed at 4 m with large stub remaining. Several other smaller tear out wounds in crown. Main stem in good physiological condition. |  |  | 20+ | B2 |
| T57* | Hybrid black poplar (Populus x canadensis ) | 20 | 1220 | 10 | 9 | 12 | 9 | 1.4/NE | 0 | Good | M | Good | Prominent tree. DBH measured a 1.2 m . A number of large over extended limbs but in low traffic area. |  |  | 20+ | B1,2 |
| T58* | Field Maple (Acer campestre) | 13 | 550 | 5 | 6 | 6 | 4 | 0.3/S | 1 | Good | M | Good | DBH measured at 0.2 m . Multiple stems/limbs from 0.4 m . Previous crown lifting over field to north east. |  |  | 20+ | B1,2 |
| T59* | Hybrid black poplar (Populus x canadensis ) | 24 | $\begin{aligned} & \hline 1060,540, \\ & 850,770 \\ & \hline \end{aligned}$ | 12 | 12 | 14 | 10 | 4.0/SE | 4 | Good | M | Fair | Prominent in group. Four stems from 1 1.6m. Numerous large tear out wounds in crown including a large cavity on the main (largest) stem at 6 m to the north east. Several animal holes visible. Low traffic area in arable field. | Undertake safety survey if land frequency increases. |  | 20+ | B1,2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| T60* | Scots Pine (Pinus sy/vestris) | 14 | 690 | 7 | 4 | 7 | 7 | 10.0/SE | 4 | Good | M | Good | Good landscape value. Previous major crown lifting. Several tear out wounds in crown. |  |  | 20+ | B1,2 |
| T61* | Scots Pine (Pinus sy/vestris) | 13 | 500 | 4 | 6 | 6 | 2 | 5.0/S | 5 | Good | EM | Good | No access to base. Good landscape value. Previous crown lifting over access road. |  |  | 20+ | B1,2 |
| T62* | Scots Pine (Pinus sy/vestris) | 12 | 330 | 2 | 2 | 2 | 3 | 5.0/NW | 5 | Fair | SM | Good | No access to base. Previous crown lifting over access road. Moderate form suppression. Minor crown dieback. |  |  | 10+ | C1,2 |
| T63* | Scots Pine (Pinus sylvestris) | 6 | 270 | 6 | 0.1 | 4 | 0.1 |  | 3 | Good | SM | Poor | No access to base. Partially failed main stem at 5 m with hazard beam fracture. Stem is hung up in understory but still alive. Low traffic area in arable field. | Consider fell if land frequency increases. |  | <10 | U1 |
| T64* | Scots Pine (Pinus sy/vestris) | 12 | 320 | 1 | 2 | 8 | -4 |  | 5 | Good | SM | Poor | No access to base. Significant lean to east over access road. Previous heavy crown lifting. Low traffic area in arable field. | Undertake safety survey if land frequency increases. |  | 10+ | C1 |



| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy <br> Spread <br> (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| T70* | Hybrid black poplar (Populus x canadensis ) | 26 | 1100,430 | 8 | 10 | 10 | 10 | 4.0/N | 1 | Good | M | Good | Significant landscape feature. Two stems from base with tight included union. However smaller stem has previously failed at 5 m . Several large tearout wounds in crown and a number of animal holes visible. |  |  | 20+ | B1,2 |
| T71* | Common Oak (Quercus robur) | 8 | 1290 | 10 | 10 | 12 | 10 | 1.7/S | 0 | Good | M | Good | Significant landscape value. Multiple stems/limbs from 1.7m. Moderate deadwood but in low traffic arable field. |  |  | 40+ | A1,2 |
| T72* | Common Oak (Quercus robur) | 10 | 410,310 | 7 | 6 | 7 | 6 | 2.0/E | 0 | Good | SM | Good | Good landscape value. |  |  | 20+ | B1,3 |
| T73* | Hybrid black poplar (Populus x canadensis ) | 26 | $\begin{aligned} & 710,970,5 \\ & 40,850 \end{aligned}$ | 9 | 9 | 11 | 10 | 1.6/SW | 4 | Good | M | Good | Multiple stems from 02 m with good to fair unions. A number of overextended limbs but in low traffic arable field. Significant landscape value. |  |  | 20+ | B1,2 |
| T74* | White Poplar (Populus alba) | 12 | 500 | 0.5 | 0.5 | 0.5 | 0.5 |  |  | Fair | EM | Fair | Monolithed at 12m. |  |  | 10+ | C1 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \hline \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| T75* | Sycamore (Acer pseudoplat anus) | 14 | 500 | 7 | 5 | 7 | 6 | 2.5/NW | 1.5 | Good | M | Good | No access to base. Two stems from 1.7 m but with limited visibility of union. Individually of moderate value. |  |  | 20+ | B1,2 |
| T76* | Beech (Fagus sy/vatica) | 11 | 250 | 3 | 3 | 4 | 3 |  | 2 | Fair | SM | Good | No access to base Minor upper crown dieback with moderate form suppression. Individually of low quality. |  |  | 10+ | C2 |
| T77* | Common Oak (Quercus robur) | 12 | 450 | 6 | 6 | 5 | 6 | 4.0/NW | 2 | Good | SM | Good | No access to base. Dense ivy cover 0-6m. Individually of moderate quality. |  |  | 20+ | B1,2 |
| T78* | Sycamore (Acer pseudoplat anus) | 12 | $\begin{aligned} & \text { 230,300,1 } \\ & 80 \end{aligned}$ | 5 | 5 | 5 | 3 | 2.0/S | 0 | Good | EM | Good | Limited access to base. |  |  | 20+ | B1 |
| T79* | Sycamore (Acer pseudoplat anus) | 12 | 320 | 4 | 4 | 4 | 4 | 1.0/S | 0 | Good | SM | Good | No access to base. |  |  | 20+ | B1 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| T80* | Common Oak (Quercus robur) | 15 | 750 | 10 | 8 | 10 | 6 | 5.0/NW | 4 | Fair | M | Good | Limited access to base. Moderate inner crown sparsity. Good landscape value. |  |  | 20+ | B1,2 |
| G81* | Scots Pine (Pinus sy/vestris) | 15 | 450 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | EM | Good Dead | Limited access to bases. Avenue of Scots pine. Varying condition with a number of dying or dead trees within. Low traffic area on boundary of arable field. Subject to TPO. | Consider fell dead/dying trees if land frequency increases. | Fell in part as per TPRP. | 20+ | B2 |
| G82* | Common Oak <br> (Quercus robur), <br> Hawthorn (Crataegus monogyna), Blackthorn (Prunus spinosa), Elm (Ulmus sp) | 10 | 300 | 4 | 4 | 4 | 4 | n/a | n/a | Good | Y-SM | Good | Limited access to bases. Dense group on boundary of arable field. Subject to TPO. |  | Fell in part as per TPRP. | 10+ | C1,2 |
| G83* | Elm (Ulmus sp), <br> Hawthorn (Crataegus monogyna), Elder (Sambucus nigra), Scots Pine (Pinus sy/vestris) | 12 | 400 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | Y-EM | Good Dead | Limited access to bases. Several dead/dying trees within group. Low traffic area on boundary of arable field. | Consider fell dead/dying trees if land frequency increases. |  | 20+ | B2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G84* | Blackthorn (Prunus spinosa), Elm (Ulmus sp), Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 5 | 130 | 2 | 2 | 2 | 2 | n/a | n/a | Good | Y-SM | Good | Understory group. |  |  | 10+ | C2 |
| G85* | Scots Pine (Pinus sy/vestris) | 15 | 500 | 5 | 5 | 5 | 5 | n/a | n/a | Good | EM | Good | Limited access to bases. Avenue of pine trees. Several dead/dying trees within group. Low traffic area on boundary of arable field. | Consider fell dead/dying trees if land frequency increases. |  | 20+ | B2 |
| G86* | Scots Pine (Pinus sy/vestris) | 16 | 500 | 5 | 5 | 5 | 5 | n/a | n/a | Good | EM | Good | Limited access to bases. Avenue of pine. Varying condition with a number of dying or dead trees within. Low traffic area on boundary of arable field. | Consider fell dead/dying trees if land frequency increases. |  | 20+ | B1,2 |
| G87* | Scots Pine (Pinus sy/vestris), Common Oak (Quercus robur), Elder (Sambucus nigra) | 16 | 500 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | $\begin{aligned} & \hline \text { SM- } \\ & \text { EM } \end{aligned}$ | Good Dead | Mixed group. Limited access to bases. Varying condition with a number of dying or dead trees present. Low traffic area on boundary of arable field. | Consider fell dead/dying trees if land frequency increases. |  | 20+ | B1,2 |
| G88* | Common Oak (Quercus robur), Hawthorn (Crataegus monogyna), Elm (Ulmus sp), Elder (Sambucus nigra) | 16 | 500 | 6 | 6 | 6 | 6 | n/a | n/a | Good - Dead | Y-EM | Good Dead | Pine, limited access to bases. Mixed group in varying condition with a number of dying or dead trees present. Low traffic area on boundary of arable field. Good landscape value. | Consider fell dead/dying trees if land frequency increases. |  | 20+ | B1,2 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy <br> Spread <br> (N) | Canopy <br> Spread <br> (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| G89* | Common Oak (Quercus robur), Scots Pine (Pinus sy/vestris) | 15 | 440 | 5 | 5 | 5 | 5 | n/a | n/a | Good | $\begin{aligned} & \text { SM- } \\ & \text { EM } \end{aligned}$ | Good | Avenue of 5 scots pine. Good landscape value. Adjacent to access tracks. |  |  | 20+ | B1,2 |
| G90* | Common Oak (Quercus robur), Hawthorn (Crataegus monogyna) | 6 | 130 | 2 | 2 | 2 | 2 | n/a | n/a | Good | Y-SM | Good | Limited access to bases. Previous heavy clearance pruning from footway to north west. Circa 5 trees $<200 \mathrm{~mm}$ dbh. |  |  | 10+ | C2 |
| G91* | Common Oak (Quercus robur) | 10 | 200 | 4 | 4 | 4 | 4 | n/a | n/a | Good | SM | Fair | Multiple stems from ground level. A number of large longitudinal stem wounds to north west. Minor to moderate wound wood development. Previous crown lifting to south east over footway. |  |  | 10+ | C2 |
| G92* | Common Oak (Quercus robur) | 10 | 230 | 4 | 4 | 4 | 4 | n/a | n/a | Good | SM | Fair | A number of large longitudinal stem wounds to north west. Minor to moderate wound wood development. Previous crown lifting to south east over footway. Three trees at 210400 mm dbh. |  |  | 10+ | C2 |
| G93* | Common Oak (Quercus robur), <br> Scots Pine (Pinus sylvestris), Hawthorn (Crataegus monogyna) | 8 | 450 | 5 | 5 | 5 | 5 | n/a | n/a | Good | $\begin{array}{\|l\|} \hline \text { SM- } \\ \text { EM } \end{array}$ | Good | Mix of oak and pine with squat form. Good landscape value. Five trees @0-210mm dbh. Four trees @410600 mm dbh. |  |  | 20+ | B1,2 |


|  | Preliminary |  | Works to |
| :--- | :--- | :--- | :--- | Preirminary

Management Comments


Proposed
Proposed
Development

| $\begin{array}{l}\text { Faciintate } \\ \text { Proposed } \\ \text { Development }\end{array}$ | $\begin{array}{l}\text { Remaining } \\ \text { Contribution }\end{array}$ |
| :--- | :--- |
| Fell in part as | $40+$ |

Fell in part as

| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W94 | Common Oak <br> Quercus robur), <br> Sycamore (Acer pseudoplat anus), Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 18 | 900 | 8 | 8 | 8 | 8 | n/a | n/a | Good - Dead | Y-M | Good Dead | Ash, norway maple, blackthorn. Limited access to bases. Significant woodland group with numerous mature oak trees present. Subject to TPO. |  | Fell in part as per TPRP. | 40+ | A1,2 |
| G95* | Austrian Pine (Pinus nigra), Field Maple (Acer campestre), Hawthorn (Crataegus monogyna), White Poplar (Populus alba) | 20 | 700 | 7 | 7 | 7 | 7 | n/a | n/a | Good | SM-M | Good | Overstory of pine and white poplar with understory of hawthorn and field maple. Good landscape value. |  |  | 20+ | B1,2 |
| G96* | Scots Pine (Pinus sylvestris), Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 16 | 600 | 6 | 6 | 6 | 6 | n/a | n/a | Good - Dead | EM-M | Good Dead | Limited access to bases. Row of Scots pine with hawthorn and elder understory. Several dead trees within group. Previous crown lifting over arable field and access road. |  |  | 20+ | B1,2 |
| G97* | Blackthorn (Prunus spinosa), Elder (Sambucus nigra) | 6 | 100 | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good | No access to bases. Dense group. |  |  | 10+ | C2 |


| Tree ID | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G98* | Blackthorn (Prunus spinosa), Scots Pine (Pinus sy/vestris) | 13 | 430 | 5 | 5 | 5 | 5 | n/a | n/a | Good | $\begin{array}{\|l\|} \hline \text { SM- } \\ \text { EM } \end{array}$ | Good | No access to bases. Dense understory of blackthorn with pine overstory. |  |  | 20+ | B1,2 |
| G99* | Blackthorn (Prunus spinosa), Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 7 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good | $\begin{array}{\|l\|} \hline \text { SM- } \\ \text { EM } \end{array}$ | Good | No access to bases. Dense group. One dead stem within group circa 5 m tall with 300 mm stem diameter. - 40 trees $75-200 \mathrm{~mm}$ dbh. |  |  | 10+ | C2 |
| $\begin{array}{\|l\|} \hline \text { G10 } \\ 0^{*} \end{array}$ | Blackthorn (Prunus spinosa), Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 6 | 100 | 3 | 3 | 3 | 3 | n/a | n/a | Good | $\begin{array}{\|l\|} \hline \text { SM- } \\ \text { EM } \end{array}$ | Good | No access to bases. Dense group. |  |  | 10+ | C2 |
| $\begin{aligned} & \text { G10 } \\ & 1^{*} \end{aligned}$ | Blackthorn (Prunus spinosa), Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 7 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Dead | Y-M | Good Dead | No access to bases. Dense group. One dead stem within group circa 7 m tall with 350 mm stem diameter. - 20 trees $75-200 \mathrm{~mm}$ dbh. |  |  | 10+ | C2 |
| $\begin{array}{\|l\|} \hline \text { G10 } \\ 2^{*} \end{array}$ | Pine (Pinus sp) | 7 | 450 | 1 | 1 | 1 | 1 | n/a | n/a | Dead | EM | Dead | Two dead stems one previously failed at 4 m and the other at 8 m . Low traffic area. |  | Fell | <10 | U |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { G10 } \\ & 3^{*} \end{aligned}$ | Blackthorn (Prunus spinosa) | 3 | 100 | 1 | 1 | 1 | 1 | n/a | n/a | Good | SM | Good | No access to bases. Dense group. |  |  | 10+ | C2 |
| $\begin{aligned} & \hline \text { G10 } \\ & 4^{*} \end{aligned}$ | Scots Pine (Pinus sylvestris), Blackthorn (Prunus spinosa), Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 16 | 500 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Fair | $\begin{array}{\|l\|} \hline \text { SM- } \\ \text { EM } \end{array}$ | Good | Row of Scots pine overstory with hawthorn, elder and blackthorn understory. Good landscape value. |  |  | 20+ | B1,2 |
| $\begin{aligned} & \hline \text { G10 } \\ & 5^{*} \end{aligned}$ | Scots Pine (Pinus sylvestris), Austrian Pine (Pinus nigra), Hawthorn (Crataegus monogyna), Blackthorn (Prunus spinosa) | 18 | 700 | 6 | 6 | 6 | 6 | n/a | n/a | Good | SM-M | Good | A row of predominantly Scots pine and black pine providing significant landscape value. |  |  | 40+ | A1,2 |
| $\begin{aligned} & \hline \text { G10 } \\ & 6^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna) | 6 | 200 | 4 | 4 | 4 | 4 | n/a | n/a | Good | EM | Good | Limited access to bases. Collectively of moderate value. |  |  | 20+ | B2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { G10 } \\ & 7^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna) | 6 | 100 | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good | Understory group. |  |  | 10+ | C2 |
| $\begin{aligned} & \text { G10 } \\ & 8^{*} \end{aligned}$ | Scots Pine (Pinus sy/vestris), Hawthorn (Crataegus monogyna) | 9 | 250 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-EM | Good | Understory group. Collectively of moderate quality. |  |  | 20+ | B2 |
| $\begin{aligned} & \text { G10 } \\ & 9^{*} \end{aligned}$ | White Poplar (Populus alba) | 14 | 900 | 6 | 6 | 6 | 6 | n/a | n/a | Good | EM-M | Good | Row of recently topped white poplar. |  |  | 20+ | B2 |
| $\begin{array}{\|l\|l\|} \hline \text { G11 } \\ 0^{*} \end{array}$ | White Poplar (Populus alba), Hawthorn (Crataegus monogyna) | 15 | 420 | 5 | 5 | 5 | 5 | n/a | n/a | Good | SM | Good | Limited access to bases. Predominantly semi mature white poplar. |  |  | 20+ | B2 |
| $\begin{aligned} & \mathrm{G} 11 \\ & 1^{*} \end{aligned}$ | Scots Pine (Pinus sy/vestris), Maritime Pine (Pinus pinaster), Hawthorn (Crataegus monogyna) | 12 | 400 | 4 | 4 | 4 | 4 | n/a | n/a | Good | SM | Good | Plantation group of pine with scattered understory of hawthorn. Provides good landscape value. Average spacing of 1.5m. - 30 trees 75200 mm dbh and 40 trees $210-400 \mathrm{~mm}$ dbh in a 30 m strip. |  | Fell in part as per TPRP. | 20+ | B2 |


| $\begin{aligned} & \hline \text { Tree } \\ & \text { ID } \\ & \hline \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| $\begin{array}{\|l\|} \hline \text { W11 } \\ 2^{*} \end{array}$ | Beech (Fagus sylvatica), Wild Cherry (Prunus avium), Sycamore (Acer pseudoplat anus), Hawthorn (Crataegus monogyna) | 22 | 800 | 7 | 7 | 7 | 7 | n/a | n/a | Good - Dead | Y-M | Good Dead | Norway maple, black pine, lime, elder, ash, Elm. Mixed woodland group providing significant landscape value. Trees in varying condition including a number of dead/dying trees adjacent to road. | Undertake detailed tree safety survey adjacent to road. (<3 months) | Fell in part as per TPRP. | 40+ | A1,2 |
| $\begin{aligned} & \text { G11 } \\ & 3^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Sycamore (Acer pseudoplat anus) | 6 | 100 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Dead | Y-SM | Good Dead | No access to bases. Dense understory group. One dead tree within group circa 7m tall and 300mm dbh. 30 trees @75-200mm dbh. |  |  | 10+ | C2 |
| $\begin{aligned} & \text { G11 } \\ & 4^{*} \end{aligned}$ | Sycamore (Acer pseudoplat anus) | 14 | 450 | 6 | 6 | 6 | 6 | n/a | n/a | Good - Dead | $\begin{aligned} & \hline \text { SM- } \\ & \text { EM } \end{aligned}$ | Good Dead | No access to bases. Several dead/dying trees within group. Adjacent to road. | Undertake detailed tree safety survey of trees adjacent to road. (<3 months) |  | 20+ | B2 |
| $\mathrm{H} 115$ | Hawthorn (Crataegus monogyna) | 4 | 70 | 2 | 2 | 2 | 2 | n/a | n/a | Good | Y | Good | Recently planted hawthorn hedge. |  |  | 10+ | C2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \hline \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { G11 } \\ & 6^{*} \end{aligned}$ | Sycamore (Acer pseudoplat anus), Hawthorn (Crataegus monogyna) | 12 | 200 | 4 | 4 | 4 | 4 | n/a | n/a | Fair - Dead | Y-SM | Good Dead | No access to bases. Sycamore showing minor to moderate crown sparsity and dieback with one dead tree in group. | Consider fell dead tree (<3 months) |  | 10+ | C2 |
| $\overline{\mathrm{H} 117}$ | Hawthorn (Crataegus monogyna), Blackthorn (Prunus spinosa), Sycamore (Acer pseudoplat anus), Other | 2 | 100 | 1 | 1 | 1 | 1 | n/a | n/a | Good | SM | Good | Privet. Mixed hedge. 30 trees $75-200 \mathrm{~mm}$ dbh. |  |  | 10+ | C2 |
| $\begin{aligned} & \text { G11 } \\ & 8^{*} \end{aligned}$ | Sycamore (Acer pseudoplat anus) | 14 | 450 | 6 | 6 | 6 | 6 | n/a | n/a | Good | $\begin{aligned} & \hline \text { SM- } \\ & \text { EM } \end{aligned}$ | Good | Ivy covered. Limited access to bases. |  | Fell | 20+ | B1,2 |
| $\begin{array}{\|l\|} \hline \text { G11 } \\ 9^{*} \end{array}$ | Scots Pine (Pinus sy/vestris), Sycamore (Acer pseudoplat anus) | 6 | 130 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Dead | Y | Good Dead | Predominantly planted Scots pine. A number of dead/dying trees within group. Low traffic area adjacent to arable fields. - 40 trees $75-200 \mathrm{~mm}$ dbh per 30 m . |  | Fell in part as per TPRP. | 10+ | C2 |
| $\begin{aligned} & \text { G12 } \\ & 0^{*} \end{aligned}$ | Common Oak (Quercus robur), Hawthorn (Crataegus monogyna), Field Maple (Acer campestre) | 7 | 200 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y | Good | Mixed planted row. 15 trees $75-200 \mathrm{~mm}$ per 30 m . |  |  | 10+ | C1,2 |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
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| $\begin{aligned} & \mathrm{G} 12 \\ & 1^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur), Apple (Malus sp), Hybrid black poplar (Populus x canadensis ) | 11 | 210 | 4 | 4 | 4 | 4 | n/a | n/a | Good | Y-SM | Good | Limited access to bases. Circa 25 trees <210mm dbh. |  |  | 10+ | C2 |
| $\begin{aligned} & \text { G12 } \\ & 2^{*} \end{aligned}$ | Scots Pine (Pinus sy/vestris) | 15 | 450 | 5 | 5 | 5 | 5 | n/a | n/a | Good | EM | Good | Avenue of Scots pine. Good landscape value. Several dead/dying trees within group. Low traffic area on boundary of arable field. | If land frequency increases consider fell dead/dying trees. |  | 20+ | B1,2 |
| $\begin{aligned} & \hline \text { G12 } \\ & 3^{*} \end{aligned}$ | Austrian Pine (Pinus nigra), Scots Pine (Pinus sy/vestris), Hybrid black poplar (Populus x canadensis | 20 | 740 | 7 | 7 | 7 | 7 | n/a | n/a | Good - Dead | SM-M | Good Dead | Row of predominantly black pine providing significant landscape value. A number of dead/dying trees within group. Low traffic area. | Consider fell dead/dying trees if land frequency increases. |  | 40+ | A1,2 |
| $\begin{aligned} & \text { G12 } \\ & 4^{\star} \end{aligned}$ | Austrian <br> Pine (Pinus <br> nigra), <br> White <br> Poplar <br> (Populus <br> alba), Field <br> Maple <br> (Acer <br> campestre), <br> Hawthorn <br> (Crataegus <br> monogyna) | 22 | 800 | 7 | 7 | 7 | 7 | n/a | n/a | Good | EM-M | Good - Fair | A row of predominantly black pine providing significant landscape value. |  |  | 40+ | A1,2 |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy <br> Spread <br> (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{G} 12 \\ & 5^{*} \end{aligned}$ | Field Maple (Acer campestre), Hawthorn (Crataegus monogyna), White Poplar (Populus alba), Austrian Pine (Pinus nigra) | 18 | 450 | 6 <br>  <br>  <br>  <br>  | 6 <br>  <br>  <br>  <br>  | 6 | 6 <br>  <br>  <br>  <br>  | n/a | n/a | Good | $\begin{array}{\|l\|l\|} \hline \text { SM- } \\ \text { FM } \end{array}$ | Good | Scots pine. Mixed group providing good landscape value. |  |  | 20+ | B1,2 |
| $\begin{aligned} & \hline \text { G12 } \\ & 6^{*} \end{aligned}$ | Austrian <br> Pine (Pinus nigra), <br> Hawthorn (Crataegus monogyna), Hybrid black poplar (Populus x canadensis ), Elder (Sambucus nigra) | 20 | 750 | 7 | 7 | 7 | 7 | n/a | n/a | Good | EM-M | Good | Scots pine. Predominantly a row of early mature to mature black pine providing significant landscape value. Scattered understory of hawthorn and elder. |  |  | 40+ | A1,2 |
| $\begin{aligned} & \mathrm{G} 12 \\ & \mathrm{l}^{*} \end{aligned}$ | Austrian Pine (Pinus nigra), Hawthorn (Crataegus monogyna), Hybrid black poplar (Populus $x$ canadensis | 20 | 840 | 6 | 6 | 6 | 6 | n/a | n/a | Good | EM-M | Good | Predominantly a row of early mature to mature black pine providing significant landscape value. Scattered understory of hawthorn. |  |  | 40+ | A1,2 |
| $\begin{aligned} & \hline \text { G12 } \\ & 8^{*} \end{aligned}$ | Scots Pine (Pinus sylvestris), Hawthorn (Crataegus monogyna), Fir (Abies sp), <br> European Larch (Larix decidua) | 13 | 440 | 5 | 5 | 5 | 5 | n/a | n/a | Good | SM | Good | Mixed species group. Good landscape value. Best location for 30 m buffer. 25 trees $<200 \mathrm{~mm}$ dbh. 5 trees $210-400 \mathrm{~mm}$ dbh. 1 tree $>410-600 \mathrm{~mm}$ dbh. |  |  | 20+ | B2 |


| Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: |
| Consider fell dead/dying trees if land frequency increases. |  | 40+ | A2 |
|  |  | 40+ | A3 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \hline \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T132 | Ash (Fraxinus excelsior) | 14 | 600 | 6 | 8 | 6 | 8 | 3.0/W | 2.5 | Fair | EM | Poor | No access to base due to barbed wire. Moderate crown sparsity of upper northern crown. Minor crown sparsity surrounding. Dessicated fungal fruiting bodies on second order limb south at circa 3.5 m at third to fourth order limb union. High likelihood of failure for circa $50 \%$ of crown. | Consider extensive crown reduction/ pollard if land use changes. |  | 20+ | B3 |
| T133 | Ash (Fraxinus excelsior) | 28 | 1500 | 11 | 9 | 10 | 11 | 7.0/N | 2 | Good | A | Good | Potentially ancient due to girth. No access to base due to barbed wire. Dense ivy from circa $2 m$ obstructing view. Significant volumes of major deadwood in crown, likely previous significant limb shedding. Leaf density and branching pattern normal. Small cavities visible with good woundwood. Hung up deadwood visible. Significant tree, dominant landscape feature. |  |  | 40+ | A1,2,3 |
| T134 | Ash (Fraxinus excelsior) | 16 | 1100 | 2 | 9 | 6 | 9 | 0.5/N | 2 | Good | V | Fair | No access to base due to barbed wire. Co to sub-dominant with neighbouring ash north. Significant buttress development, circa 2.6 m in diameter. Cavity at base north, decay of inner wood, significant adaptive growth of stem. Leaf density and branching pattern normal. <br> Previous second order stem failure east at circa $4 m$, significant deadwood. Veteran tree on this basis. Retained, stub circa 2 mx 350 mm . |  |  | 40+ | A3 |


| Preliminary <br> Management <br> Comments | Works to <br> Facilitate <br> Proposed <br> Development | Estimated <br> Remaining <br> Contribution | Category |
| :--- | :--- | :--- | :--- |
| Consider <br> sever ivy <br> month |  | $20+$ | B1,2 |
| Consider <br> sever ivy <br> month $)$ |  | $40+$ | A3 |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T139 | Ash <br> (Fraxinus excelsior) | 23 | 1000 | 8 | 6 | 7 | 7 | 4.0/SW | 2 | Fair | V | Fair | No access due to barbed wire. Dense ivy across main stem and branch scaffold severely limiting visibility. - Apical eastern crown with significant gap, likely previous limb failure. Minor crown sparsity. Dessicated, likely Inonotus hispidus, at base. Unknown point of attachment. Part failure of crown likely. Previous failure of main stem at circa 8 m , wound circa 700 mm in diameter, significant decay visible. | Consider sever ivy (<1 month) |  | 40+ | A3 |
| T140 | Ash (Fraxinus excelsior) | 14 | 850 | 1 | 5 | 5 | 5 | 1.0/S | 2 | Good | M | Fair | No access due to barbed wire. Dense ivy across main stem and branch scaffold limiting visibility. - <br> Crown apices with dieback, showing significant stags head, leaf density and branching pattern immediately below normal. Assessment of nonfiscal quality requires removal of ivy. Veteran tree on the basis of significant deadwood from stags head, with good future longevity likely by crown vitality. | Consider sever ivy (<1 month) |  | 40+ | A3 |
| T141 | Ash (Fraxinus excelsior) | 8 | 1000 | 6 | 6 | 7 | 1 | 5.0/SW | 3 | Fair | V | Fair | No access to base due to barbed wire. Significant ivy establishment obstructing visibility of stem and branch scaffold. - Previous stem failure at circa 7 m . Ivy entirely shrouding main stem. Second order limb at circa 4 m supporting entire live crown. Likely functional unit. Veteran tree on this basis. Stump at base to immediate south. | Consider sever ivy (<1 month) |  | 40+ | A3 |


| Preliminary <br> Management <br> Comments | Works to <br> Facilitate <br> Proposed <br> Development | Estimated <br> Remaining <br> Contribution | Category |
| :--- | :--- | :--- | :--- |
| Consider <br> create <br> monolith at <br> 5m. (When <br> funds allow) |  | $<10$ | U1 |
|  |  | $40+$ |  |
| Create pollard/ <br> monolith to <br> approx 8m and <br> sever ivy. (<1 <br> month) |  |  |  |
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| $\begin{aligned} & \hline \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T144 | White Willow (Salix alba) | 28 | 1480 | 7 | 7 | 7 | 7 | 7.0/W | 6 | Good | A | Good | Limited access to base due to barbed wire. Stem measured above significant swelling at 1.5 m north. Significant ivy establishment across main stem and second order limbs. <br> Deadwood throughout crown, normal for species and age. Good crown form and leaf density. Ancient based on 1432 mm stem girth parameters for crack willow. | Consider sever ivy (< 12 months) |  | 40+ | A3 |
| T145 | Hawthorn (Crataegus monogyna) | 5 | 300 | 2 | 2 | 1 | 2 |  | 1 | Poor | M | Fair | No access to base due to barbed wire. Dense ivy almost entirely shrouding live crown. Removal of ivy likely to facilitate recovery. | Consider sever ivy (< 1 month) |  | 10+ | C1 |
| T146 | Hawthorn (Crataegus monogyna) | 3 | 250 | 3 | 1 | 1 | 1 | 1.5/N | 1.5 | Dead | EM | Poor | One live epicormic limb to base. Likely dead due to ivy dominance. |  |  | $<10$ | U |
| T147 | Ash (Fraxinus excelsior) | 23 | $\begin{aligned} & \hline 850,1000, \\ & 450 \end{aligned}$ | 12 | 6 | 6 | 6 | 6.0/N | 7 | Fair | A | Fair | Potentially ancient due to girth. No access to base due to barbed wire and vegetation. Apical crown dieback of northern crown, surrounding crown vitality normal. Major deadwood in crown, atypical for species and age. Sever ivy to enable epicormic development of lower crown. Three stems arising from stool. Minor bark inclusion. Apical crown with | Consider sever ivy to enable epicormic development of lower crown (< 12 months) |  | 20+ | B3 |


| $\begin{aligned} & \hline \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | $\begin{aligned} & \text { Life } \\ & \text { Stage } \end{aligned}$ | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T144 | White Willow (Salix alba) | 28 | 1480 | 7 | 7 | 7 | 7 | 7.0/W | 6 | Good | A | Good | Limited access to base due to barbed wire. Stem measured above significant swelling at 1.5 m north. Significant ivy establishment across main stem and second order limbs. <br> Deadwood throughout crown, normal for species and age. Good crown form and leaf density. Ancient based on 1432mm stem girth parameters for crack willow. | Consider sever ivy (< 12 months) |  | 40+ | A3 |
| T145 | Hawthorn (Crataegus monogyna) | 5 | 300 | 2 | 2 | 1 | 2 |  | 1 | Poor | M | Fair | No access to base due to barbed wire. Dense ivy almost entirely shrouding live crown. Removal of ivy likely to facilitate recovery. | Consider sever ivy (< 1 month) |  | 10+ | C1 |
| T146 | Hawthorn (Crataegus monogyna) | 3 | 250 | 3 | 1 | 1 | 1 | 1.5/N | 1.5 | Dead | EM | Poor | One live epicormic limb to base. Likely dead due to ivy dominance. |  |  | <10 | U |
| T147 | Ash (Fraxinus excelsior) | 23 | $\begin{aligned} & \hline 850,1000, \\ & 450 \end{aligned}$ | 12 | 6 | 6 | 6 | 6.0/N | 7 | Fair | A | Fair | Potentially ancient due to girth. No access to base due to barbed wire and vegetation. Apical crown dieback of northern crown, surrounding crown vitality normal. Major deadwood in crown, atypical for species and age. Sever ivy to enable epicormic development of lower crown. Three stems arising from stool. Minor bark inclusion. Apical crown with | Consider sever ivy to enable epicormic development of lower crown (< 12 months) |  | 20+ | B3 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | deviation of branching pattern and high leaf sparsity. Mid to lower crown with normal density. With the exception of secondorder limb north at circa 6 m with dieback. Lack of vitality to preserve life expectancy cause for downgrade. |  |  |  |  |
| T148 | Ash (Fraxinus excelsior) | 23 | $\begin{aligned} & 800,850,1 \\ & 50,250 \end{aligned}$ | 8 | 7 | 5 | 7 | 2.0/N | 2 | Fair | M | Fair | No access to base due to barbed wire and vegetation. Multi stemmed from significant stool. Minor bark inclusions. Crown with moderate sparsity. Dense ivy significantly limiting visibility. Downgraded due to physiological condition. | Consider sever ivy (< 12 months) |  | 20+ | B1,2 |
| T149 | White Willow (Salix alba) | 11 | 300 | 1 | 5 | 3 | 3 | 1.0/E | 2 | Good | SM | Fair | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Lean south, likely light foraging due to suppression by dominant ash north. |  |  | 20+ | B2 |
| T150 | White Willow (Salix alba) | 13 | 400 | 4 | 4 | 2 | 4 | 1.0/N | 2 | Good | SM | Fair | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Minor lean south, becoming codominant with ash east. |  |  | 20+ | B2 |


| T151 | Ash (Fraxinus excelsior) | 19 | 1000 | 6 | 6 | 6 | 6 | 0.1/W | 1.5 | Fair | OM | Fair | No access to base due to barbed wire and vegetation. Ivy establishment across stem limiting visibility. Significant deviation in branching pattern, apical crown dieback, moderate crown sparsity. Epicormic lower crown formation, unlikely sufficient considering size of total crown volume. Downgraded due to physiological condition. |  | Development | 20+ | B1,2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T152 | Ash (Fraxinus excelsior) | 18 | 800 | 5 | 5 | 5 | 5 | 7.0/NE | 4 | Dead | M | Poor | Significant dead tree. | Consider create monolith at approx 6m. (< 1 month) |  | <10 | U1 |
| T153 | Ash (Fraxinus excelsior) | 8 | 200 | 1 | 1 | 1 | 1 | 0.5/E | 0.5 | Poor | SM | Poor | No access to base due to barbed wire and vegetation. Dead crown, epicormic flushing at base. Likely cause of ash dieback. | Consider fell and remove arisings. (<3 months) |  | <10 | U |
| T154 | Ash (Fraxinus excelsior) | 8 | 190 | 3 | 3 | 3 | 3 | 2.0/N | 1.5 | Dead | SM | Poor | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Over 95\% crown dieback, minor stem epicormic development. | Consider fell and remove arisings. (<3 months) |  | <10 | U |


| Preliminary <br> Management <br> Comments | Works to <br> Facilitate <br> Proposed <br> Development | Estimated <br> Remaining <br> Contribution | Category |
| :--- | :--- | :--- | :--- |
| Consider <br> create <br> monolith at <br> approx. 5m. <br> 3 months) |  | $<10$ | U |
|  |  | $10+$ | C1,2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \hline \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T159 | Ash (Fraxinus excelsior) | 6 | 150 | 0.5 | 0.5 | 0.5 | 0.5 |  |  | Poor | SM | Dead | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Significant crown dieback. Likely cause of ash dieback. | Consider fell and remove arisings. (<3 months) |  | <10 | U |
| T160 | Hawthorn (Crataegus monogyna) | 4 | 100 | 2 | 1 | 1 | 1 |  | 0 | Good | SM | Good | No access to base due to barbed wire and vegetation. Establishing in understory at boundary. |  |  | 10+ | C1 |
| $\overline{T 161}$ | Ash (Fraxinus excelsior) | 12 | 350 | 5 | 5 | 5 | 5 | 2.0/S | 2 | Good | SM | Good | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Leaf density and branching pattern normal. | Consider sever ivy (<3 months) |  | 20+ | B1,2 |
| T162 | Hawthorn (Crataegus monogyna) | 5 | 75 | 3 | 3 | 3 | 3 |  | 0 | Fair | SM | Good | No access to base due to dense brambles, forming shroud over crown. | Consider Cut back brambles. (< 12 months) |  | 10+ | C1,2 |
| T163 | Hawthorn (Crataegus monogyna) | 5 | $\begin{aligned} & \hline 90,140,12 \\ & 0 \end{aligned}$ | 3 | 2 | 2 | 2 | 0.5/N | 0.5 | Fair | SM | Good | Multistemmed from ground level. Contact wounding partially and fully occluded. Dead young hawthorn to immediate south. |  |  | 10+ | C1,2 |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T164 | Ash (Fraxinus excelsior) | 15 | 840 | 6 | $9$ | 5 | 6 | 3.0/S | 1 | Good | V | Fair | Veteran tree. Open cavity at base west, significant adaptive swelling with minor peripheral woundwood. Cavity $900 \mathrm{~mm} \times 900 \mathrm{~mm}$. Second order limb east with significant hollowing visible with multiple cavity openings. Good peripheral woundwood. Good crown vitality, branching pattern and leaf density normal. Hung up deadwood. |  |  | 40+ | A3 |
| T165 | Ash (Fraxinus excelsior) | 19 | 760 | 9 | 8 | 9 | 5 | 5.0/S | 4 | Good | M | Good | Minor twig dieback in crown. Major dead limb west at circa 8 m . Shedding collars with varying levels of occlusion. |  |  | 40+ | A2 |
| T166 | Ash (Fraxinus excelsior) | 17 | 590 | 8 | 8 | 8 | 8 | 3.5/E | 2 | Fair | M | Good | Minor leaf sparsity, branching pattern normal. No obvious signs or symptoms of ash dieback. Dense brambles at base limiting inspection. |  |  | 20+ | B1,2 |
| T167 | Ash (Fraxinus excelsior) | 22 | 890 | 10 | 10 | 10 | 4 | 4.0/N | 2 | Good | M | Good | Locally dominant, significant leaf density for species. Normal volume of deadwood within crown. |  |  | 40+ | A1,2 |


| Tree ID | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | $\begin{aligned} & \text { Life } \\ & \text { Stage } \end{aligned}$ | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T168 | Ash (Fraxinus excelsior) | 20 | 530 | 8 | 8 | 3 | 7 | 4.0/N | 2 | Good | M | Good | Dominant to neighbouring ash west. Good leaf density for species. Major deadwood, normal for species and age. |  |  | 40+ | A2 |
| T169 | Ash (Fraxinus excelsior) | 17 | $\begin{aligned} & \hline 360,280,4 \\ & 30 \end{aligned}$ | 7 | 7 | 0.5 | 10 | 1.0/E | 2 | Good | EM | Fair | Structurally suppressed by ash east. Multistemmed from stool, minor bark inclusion. Cavity north at circa 3m, likely woodpecker hole. Fruiting bodies on limb central to crown, likely Daldinia concentrica. |  |  | 20+ | B1,2 |
| T170 | Ash (Fraxinus excelsior) | 17 | $\begin{aligned} & \hline 330,110,1 \\ & 30,110 \end{aligned}$ | 0.5 | 4 | 1 | 5 | 4.0/W | 3 | Good | SM | Fair | No access to base due to field layer. Multistemmed from ground level. Structurally suppressed. Good leaf density. Major deadwood in crown, likely due to suppression. |  |  | 20+ | B1,2 |
| T171 | Ash (Fraxinus excelsior) | 11 | $\begin{aligned} & \hline 180,180,1 \\ & 10 \end{aligned}$ | 2 | 1 | 4 | 6 | 3.0/N | 2 | Good | SM | Poor | Significant stem failure from tree south has removed northern crown to approx 4 m . Stem hung up, circa $10 \mathrm{~m} \times 500 \mathrm{~mm}$. |  |  | 10+ | C1,2 |
| T172 | Ash (Fraxinus excelsior) | 19 | $\begin{aligned} & \hline 300,430,6 \\ & 00 \end{aligned}$ | 1 | 8 | 7 | 5 | 1.0/N | 2 | Poor | M | Poor | Primary stem failure north at circa 1.5 m , barber-chair type failure. Stem east dead. Surrounding stems with moderate sparsity, no deviation in branching pattern. Dense ivy across now dominant stem. Deadwood in crown. | Consider sever ivy (< 12 months) |  | 20+ | B2,3 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T173 | Ash (Fraxinus excelsior) | 18 | 500 | 2 | 5 | 10 | 9 | 3.0/E | 3 | Good | M | Good | Codominant in canopy. Minor deadwood throughout crown, normal for species. Dense ivy across mid stem limiting visibility. |  |  | 20+ | B1,2 |
| T174 | Ash (Fraxinus excelsior) | 15 | $\begin{aligned} & \hline 310,350,3 \\ & 00,280,30 \\ & 0,290 \end{aligned}$ | 8 | 7 | 8 | 8 | 0.1/SW | 2 | Good | EM | Fair | Two trees in proximity. Dense brambles preventing access. No obvious stool formation. Minor bark inclusions. Minor deadwood in crown, typical of species. Collars with likely previous limb failures showing dysfunction of exposed wood, no woundwood formation. |  |  | 20+ | B2 |
| T175 | Ash (Fraxinus excelsior) | 12 | 230,250 | 1 | 6 | 6 | 6 | 3.0/E | 2 | Good | SM | Fair | No access due to dense brambles. Two trees in immediate proximity. Tree southeast subdominant. |  |  | 10+ | C1,2 |
| T176 | White Willow (Salix alba) | 15 | 400,400 | 4 | 10 | 8 | 8 | 1.0/S | 1 | Good | EM | Poor | No access. Codominant from circa 1 m , significant bark inclusion. Locally dominant. |  |  | 10+ | C1,2 |

eliminary Management Comments

Facilitate Proposed Development

Remaining Contribution

| Tree ID | Species | Estimated Height (m) | Stem <br> Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T177 | Apple <br> (Malus sp) | 12 | 350 | 4 | 4 | 4 | 4 | 2.0/N | 0.5 | Good | EM | Good | No access, within dense bramble/boundary scrub. Good leaf density and branching pattern. |  |  | 20+ | B1,2 |
| T178 | White Willow (Salix alba) | 10 | 250 | 1 | 2 | 1 | 2 | 5.0/W | 5 | Fair | SM | Fair | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Dead ivy covered stem to immediate south of base, circa $6 \mathrm{~m} \times 100 \mathrm{~m}$. |  |  | 10+ | C1,2 |
| T179 | White Willow (Salix alba) | 20 | 900 | 2 | 8 | 10 | 5 | 2.0/E | 4 | Good | M | Fair | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Minor tip dieback in crown. Majority of crown with normal branching pattern and leaf density. Significant landscape feature. |  |  | 40+ | A2 |
| T180 | Hawthorn (Crataegus monogyna) | 5 | $\begin{aligned} & \hline 200,200,2 \\ & 20 \end{aligned}$ | 4 | 4 | 2 | 1 | 0.1/S | 1 | Fair | EM | Fair | Dense ivy concealing crown. Three stems arising from ground level, no obvious stool, minor bark inclusions. Contact wounding to stems, cavity with decay, little to no peripheral woundwood formation. | Consider sever ivy (<3 months) |  | 10+ | C1,2 |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underset{1^{*}}{\mathrm{G} 18}$ | Hawthorn (Crataegus monogyna), Blackthorn (Prunus spinosa), Elder (Sambucus nigra), | 4 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-SM | Good | Boundary group, dense ivy throughput. Rose species present. - privet. - Density higher north. Likely average of one tree a metre approx @75200 range. |  |  | 10+ | C2 |
| $\begin{aligned} & \mathrm{G}_{2^{*}} \end{aligned}$ | Elder <br> (Sambucus nigra) | 6 | 100 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Intermittent sparse group in understory. Circa five trees @75200 range. |  |  | 10+ | C1,2 |
| $\begin{aligned} & \hline \text { G18 } \\ & 3^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna) | 6 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Dense brambles throughout. Circa three trees @ 75-200 range. | Consider sever ivy ( |  | 10+ | C1,2 |
| $\begin{aligned} & \hline \text { G18 } \\ & 4^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna) | 6 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | No access to base due to barbed wire and vegetation. Ivy establishment across stem significantly limiting visibility. Dense bramble throughout. | Consider sever ivy |  | 10+ | C1,2 |
| $\begin{aligned} & \text { G188 } \\ & 5^{*} \end{aligned}$ | White <br> Willow (Salix alba), Common Alder (Alnus glutinosa) | 30 | 400 | 6 | 6 | 6 | 6 | n/a | n/a | Good - Fair | $\begin{array}{\|l\|} \hline \text { SM- } \\ \text { EM } \\ \hline \end{array}$ | Good - Fair | No access to base due to watercourse. <br> Viewed from east only. One tree every circa 4 m . Stand density likely to have caused high top height to diameter ratios. Significant landscape feature. Considered high future potential. |  |  | 40+ | A2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { G18 } \\ & 6^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Other | 5 | 150 | 2 | 2 | 2 | 2 | n/a | n/a | Fair - Poor | Y-SM | Fair - Poor | Group of ten hawthorn, well spaced. Majority with moderate crown sparsity. Vigorous growth of field layer at bases. |  |  | 10+ | C2 |
| G18 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 5 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Established west of water course. Dense bramble. | Consider cut back brambles. (< 12 months) |  | 10+ | C2 |
| $\begin{aligned} & \hline \text { G18 } \\ & 8^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Other | 5 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Established to the east and west of water course. |  |  | 10+ | C2 |
| $\begin{aligned} & \hline \text { G18 } \\ & 9^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 6 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Poor | Y-SM | Good Poor | Likely remnant of field margin hedgerow. Elder declining, typical of species. Estimated 27 trees. |  |  | 10+ | C1,2 |
| $\begin{aligned} & \text { G19 } \\ & 0^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), | 6 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-SM | Good | Sparse understory to ash. Estimated 16 features. |  |  | 10+ | C2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy <br> Spread <br> (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { G19 } \\ & 1^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Field Maple (Acer campestre), Hazel (Corylus avellana), Ash (Fraxinus excelsior) | 11 | 300 | 4 | 4 | 4 | 4 | n/a | n/a | Good | Y-SM | Good | Beech, wayfaring tree, buckthorn, elder. Dense boundary scrub with overstory of ash, hazel and field maple. X6 overstory trees. |  |  | 20+ | B2 |
| $\begin{aligned} & \mathrm{G19} \\ & 2^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Field Maple (Acer campestre), Hazel (Corylus avellana), Ash (Fraxinus excelsior) | 11 | 300 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-SM | Good | Beech, wayfaring tree, dogwood, elder, privet. Dense boundary scrub with overstory of ash, hazel and field maple. |  |  | 20+ | B2 |
| $\begin{aligned} & \hline \text { G19 } \\ & 3^{*} \end{aligned}$ | Elder <br> (Sambucus nigra), Hawthorn (Crataegus monogyna), | 4 | 150 | 1 | 1 | 1 | 1 | n/a | n/a | Poor - Dead | EM | Fair - Poor | Sparse severely declining group of three elder and one hawthorn. |  |  | <10 | U2 |
| H194 | Other, <br> Blackthorn <br> (Prunus spinosa), Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 3 | 150 | 1 | 1 | 1 | 1 | n/a | n/a | Good | Y-SM | Good | Estimated one tree every 500 mm . Dense managed hedgerow. Privet and midland hawthorn present. |  |  | 10+ | C1,2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { G19 } \\ & 5^{*} \end{aligned}$ | Apple (Malus sp), <br> Common Oak (Quercus robur), Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 4 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-SM | Good | Field margin scrub. Estimated one tree every 3 m . |  |  | 10+ | C1,2 |
| $\begin{array}{\|l\|} \hline \text { G19 } \\ 6^{*} \end{array}$ | Silver Birch <br> (Betula <br> pendula), <br> Common <br> Oak <br> (Quercus <br> robur), <br> Elder <br> (Sambucus nigra), <br> Hawthorn <br> (Crataegus <br> monogyna) | 6 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-SM | Good | Field margin tree belt at canopy closure. Estimated one tree every 1 m . Plum and wild cherry present. |  | Fell in part as per TPRP. | 10+ | C1,2 |
| $\mathrm{H} 197$ | Damson (Prunus domestica), Wild Cherry (Prunus avium), Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 3 | 150 | 1 | 1 | 1 | 1 | n/a | n/a | Good | Y-SM | Good | Managed hedgerow, western boundary to tree belt. Privet present. |  | Fell in part as per TPRP. | 10+ | C2 |
| $\begin{aligned} & \text { G19 } \\ & 8^{*} \end{aligned}$ | Elder <br> (Sambucus nigra), Hawthorn (Crataegus monogyna) | 6 | 150 | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good | No access to barbed wire. Scrub group, inherent value of forage and habitat. |  |  | 10+ | C2 |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | $\begin{aligned} & \text { Life } \\ & \text { Stage } \end{aligned}$ | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{G19} \\ & \text { G** }^{*} \end{aligned}$ | Ash (Fraxinus excelsior), Field Maple (Acer campestre), Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 8 | 300 | 4 | 4 | 4 | 4 | n/a | n/a | Good | Y-SM | Good | No access due to cattle. Viewed at distance south. Three overstory trees. Remaining scrub boundary 75-200 range with approx. one tree per metre. |  |  | 20+ | B2 |
| $\begin{aligned} & \text { G20 } \\ & 0^{*} \end{aligned}$ | Elder <br> (Sambucus nigra), Crack Willow (Salix fragilis), | 6 | 100 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y | Good | Wayfaring tree, dogwood, Dense thicket, canopy closure stage, no access. Dogwood and elder dominant. Very high density. Estimated to be one tree every 500 mm . |  |  | 10+ | C2 |
| $\begin{aligned} & \text { G20 } \\ & 1^{*} \end{aligned}$ | Elder <br> (Sambucus nigra), <br> White <br> Willow <br> (Salix alba), Willow (Salix sp), Hawthorn (Crataegus monogyna) | 12 | 200 | 5 | 5 | 5 | 5 | n/a | n/a | Good | Y-SM | Good | Dense field margin scrub, no access. Buckthorn present. Inherent value as habitat and forage. Likely one tree every 1.5 m . |  |  | 10+ | C1,2 |
| $\begin{aligned} & \text { G20 } \\ & 2^{*} \end{aligned}$ | Ash (Fraxinus excelsior), Other, Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 16 | 450 | 8 | 8 | 8 | 8 | n/a | n/a | Good | Y-EM | Good | No access due to cattle and dense field layer. Viewed at distance. Five ash trees. Approx x 20 hawthorn and elder 75-200 range. Crown spread and branching pattern normal. |  |  | 20+ | B1,2 |


| Preliminary | Works to | Estimated | Category |
| :--- | :--- | :--- | :--- |
|  | Fact |  |  | Preliminary

Management Comments

Facilitate Proposed Development

| $\begin{aligned} & \hline \text { Tree } \\ & \text { ID } \\ & \hline \end{aligned}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{G} 20 \\ & 3^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna) | 8 | 200 | 4 | 4 | 4 | 4 | n/a | n/a | Good | Y-SM | Good | Intermittent field margin group, likely remnant hedgerow. 25 trees @ 75-200 range. |  |  | 10+ | C1,2 |
| $\begin{aligned} & \hline \text { W20 } \\ & 4^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Wild Cherry (Prunus avium), <br> Beech (Fagus sylvatica), Ash (Fraxinus excelsior) | 18 | 400 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Dead | Y-SM | Good Dead | No access, mixed conifer and broadleaved woodland. Sycamore and Pinus spp. Present. Symptoms of ash dieback visible. |  |  | 20+ | B1,2,3 |
| $\begin{aligned} & \hline \text { G20 } \\ & 5^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), | 5 | 200 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Established as wood pasture. Few individuals with minor crown dieback. |  |  | 10+ | C1,2 |
| $\begin{aligned} & \hline \text { G20 } \\ & 6^{*} \end{aligned}$ | Black <br> Walnut <br> (Juglans nigra), Wild Cherry (Prunus avium), Common Oak (Quercus robur), Ash (Fraxinus excelsior) | 10 | 400 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Dead | Y-SM | Good Dead | Beech, hornbeam, hawthorn, hazel, elder, plum. field maple, blackthorn. cherry laurel in tree guard. <br> 2.1 m gap in row, 3 m between rows. 6 rows. Ash with significant symptoms of ash dieback. Sample plots: Row - 190, 160, 190, 200, 130, 120. Row 220, 230, 180, 130, 130, 60. Very north of group with trees missing from first 5 rows. Row 1 two trees, row 2-5 four trees. |  | Fell in part as per TPRP. | 20+ | B2 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T207 | Common Oak (Quercus robur) | 14 | 430 | 3 | 5 | 1 | 6 | 3.5/SW | 3.5 | Good | EM | Good | Single stemmed tree, ivy covers entirety of trunk. Minor deadwood. Previous pruning wounds on South at 0.5 m . Situated along footpath, bordering arable fields |  |  | 20+ | B1,2 |
| T208 | Common Oak (Quercus robur) | 14 | 390,470 | 6 | 1 | 5 | 5 | 3.5/N | 3.5 | Good | EM | Good | Single stemmed with ivy covering entirety of main stems. Minor deadwood. Situated along footpath, bordering arable fields |  |  | 20+ | B1,2 |
| T209 | Common Oak (Quercus robur) | 17 | 880 | 9 | 2 | 5 | 8 | 1.0/NE | 3.5 | Good | M | Good | Ivy cover to 0-13m. Minor crown suppression from adjacent trees. Prominent in group |  |  | 20+ | B1,2 |
| T210 | Common Oak (Quercus robur) | 17 | 810 | 5 | 5 | 7 | 5 | 4.0/SW | 5 | Good | M | Good | Ivy from 0-15m. Minor crown suppression from tree adjacent to the north. |  |  | 20+ | B1,2 |
| T211 | Scots Pine (Pinus sy/vestris) | 18 | 500 | 1 | 4 | 4 | 6 | 3.0/W | 0.5 | Good | M | Good | Slight easterly lean bias. Previous pruning. Minor deadwood |  |  | 20+ | B1,2 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy <br> Spread <br> (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T212 | Common Oak (Quercus robur) | 7 | $\begin{array}{\|l} \hline 270,240,1 \\ 80,200 \end{array}$ | 2 | 2 | 2 | 2 | 2.0/N | 2.5 | Good | SM | Fair | Previous pruning. Wound bleeding, black exudate. Previous lateral wounds located on western aspects of Codominant stems. Substantial occlusion on wounds. Sound tested with sounding mallet $=$ normal density |  |  | 10+ | C2 |
| T213 | Common Oak (Quercus robur) | 17 | 1350 | 10 | 10 | 10 | 10 | 3.0/SW | 1.5 | Good | M | Good | Minor deadwood. Previous pruning. Ivy from $0-14 \mathrm{~m}$. Prominent tree, significant landscape and good example for species |  |  | 40+ | A1,2,3 |
| T214 | Common Oak (Quercus robur) | 14 | 750 | 7 | 7 | 7 | 7 | 3.0/SW | 2.5 | Good | M | Good | Previous pruning on Eastern aspect. Good example of species. Significant landscape value |  |  | 40+ | A1,2 |
| T215 | Common Oak (Quercus robur) | 8 | 420,370 | 4 | 4 | 4 | 4 | 1.0/S | 3.5 | Good | EM | Good | Co dominant stem. 200 mm diameter wound on northern aspect. Substantial occlusion. |  |  | 20+ | B1,2 |
| T216 | Hybrid black poplar (Populus x canadensis ) | 22 | 1520 | 10 | 10 | 10 | 10 | 1.0/SW | 0.5 | Good | V | Good | Veteran tree. Minor deadwood. <br> Woodpecker holes with possible bat roost potential. |  |  | 40+ | A1,2,3 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T217 | Hybrid black poplar (Populus x canadensis ) | 21 | $\begin{aligned} & \hline 800,730,6 \\ & 90 \end{aligned}$ | 10 | 10 | 10 | 10 | 0.5/NW | 3 | Fair | OM | Fair | Moderate abundance of minor deadwood. Mainly at stem tips. Moderate foliage density. Multi stemmed. |  |  | 10+ | C2 |
| T218 | Hybrid black poplar (Populus x canadensis ) | 21 | $\begin{aligned} & \hline 830,600, \\ & 610,790,7 \\ & 50 \end{aligned}$ | 10 | 10 | 10 | 10 | 0.5/SW | 3 | Poor | V | Poor | Veteran tree. Bracket fungi, presumed Polyporus squamosus. Large cavities and previous limb failure. Multi stemmed, possible bat roost potential. Bird nest present. Moderate abundance of minor deadwood at tips of branches. |  |  | 40+ | A1,2,3 |
| T219 | Hybrid black poplar (Populus x canadensis ) | 23 | 1600\# | 10 | 10 | 10 | 10 | 0.5/SE | 0.5 | Fair | OM | Poor | Multi stemmed, tightly formed compression forks. Crown dieback. Inaccessible at base. |  | Fell, consider creating monolith at 56 m | 10+ | C2 |
| T220 | Scots Pine (Pinus sylvestris) | 14 | 410 | 7 | 1 | 2 | 2 | 7.0/N | 4 | Good | SM | Fair | Wound with in grown barbed wire at 0.5 west on stem. Low to moderate occlusion. Previous pruning. Northern lean bias. Piling works 1m East of trunk. |  |  | 10+ | C2 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T221 | Scots Pine (Pinus sylvestris) | 10 | 410 | 7 | 1 | 3 | 3 | 9.0/N | 6 | Good | SM | Fair | Wound at base 0.5 m south. Northern lean bias. |  |  | 10+ | C2 |
| T222 | Scots Pine (Pinus sy/vestris) | 14 | 450 | 7 | 1 | 3 | 4 | 5.0/NW | 4 | Good | SM | Fair | Northern lean bias. Unable to access base. Full, balanced and healthy crown |  |  |  | B2 |
| T223 | Hybrid black poplar (Populus x canadensis ) | 20 | $\begin{aligned} & \hline 800,700,7 \\ & 00,700 \end{aligned}$ | 15 | 1 | 1 | 1 | 0.5/NW | 0.5 | Poor | V | Poor | Veteran tree. Major stem failure on 3 of 4 codominant stems. |  |  | 40+ | A1,2,3 |
| T224 | Hybrid black poplar (Populus x canadensis ) | 20 | $\begin{aligned} & \hline 310,200,4 \\ & 70,540,54 \\ & 0,460 \end{aligned}$ | 8 | 8 | 8 | 8 | 0.5/E | 5 | Poor | OM | Poor | Low foliage density and significant dieback. Multi stemmed, compression fork unions. | Consider fell If land use changes |  | <10 | U2 |
| T225 | Hybrid black poplar (Populus x canadensis ) | 22 | 650,650 | 8 | 8 | 8 | 8 | 5.0/SW | 6 | Poor | V | Fair | Veteran tree. Major stem failure forming Imbalanced crown. Dieback. Low levels of foliage in crown. Epicormic growth on stem. |  |  | 40+ | A1,2,3 |


| $\begin{aligned} & \hline \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T226 | Hybrid black poplar (Populus $x$ canadensis ) | 23 | $\begin{aligned} & \hline 380,650,6 \\ & 50,650,40 \\ & 0,250 \end{aligned}$ | 7 | 7 | 7 | 7 | 4.0/NW | 5 | Good | OM | Fair | Potentially reaching its life expectancy. Multi stemmed with close unions. Minor deadwood in crown. |  |  | 10+ | C1,2 |
| T227 | Hybrid black poplar (Populus x canadensis ) | 21 | $\begin{aligned} & \hline 850,750, \\ & 650 \end{aligned}$ | 9 | 9 | 9 | 9 | 0.5/N | 5 | Good | OM | Fair | Potentially reaching its life expectancy Longitudinal crack along $\times 1$ Co dominant stem. Bat and bird roost potential. | Consider create pollard at $10-12 \mathrm{~m}$ to reduce the risk of collapse or fence off the tree within falling distance as an exclusion zone | Fence off the tree (area within falling distance) as an exclusion zone on safety grounds. | 10+ | C1,2,3 |
| T228 | Hybrid black poplar (Populus x canadensis ) | 21 | 1170 | 8 | 8 | 8 | 8 | 0.5/N | 7 | Poor | OM | Poor | Potentially reaching end of its safe life expectancy. Previous failure on southeastern aspect. Wound $0-6 \mathrm{~m}$ on stem. Woundwood occluding leaving substantial posts. Dieback in crown. | Consider fell If land use changes | Fell, consider creating monolith at 7 m | <10 | U2,3 |
| T229 | Holly (Ilex aquifolium) | 8 | 450 | 3 | 3 | 3 | 1 | 1.0/S | 4 | Fair | M | Fair | Unbalanced crown, likely pruned on western aspect. Pruning/flailing wounds on western aspect. Small leaves and stunted growth. Tree within hedgerow, unable to fully access base. |  |  | 10+ | C2,3 |
| T230 | Sycamore (Acer pseudoplat anus) | 10 | 400 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5/SE | 4 | Good | SM | Good | Ivy 0-8m on stem. Tree within hedgerow. Unable to fully access base. |  |  | 20+ | B1,2 |


| $\begin{array}{\|l} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy <br> Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T231 | Elm (Ulmus $s p)$ | 18 | 600 | 5 | 6 | 8 | 8 | 3.5/NE | 5 | Good | M | Good | Ivy 0-12m. Low level dieback in crown. Unable to fully access base. |  |  | 20+ | B2 |
| T232 | Elm (Ulmus $s p)$ | 12 | 500 | 5 | 3 | 8 | 2 | 3.0/N | 4 | Dead |  | Dead | Unable to access base. High density ivy $0-10 \mathrm{~m}$. Eastern lean bias. | Consider fell If land use changes |  | <10 | U3 |
| T233 | Elm (Ulmus $s p)$ | 14 | 600 | 6 | 4 | 6 | 4 | 3.0/W | 3 | Good | M | Good | Ivy 0-6m. Minor dieback in crown. Unable to fully access base. |  |  | 20+ | B1,2 |
| T234 | Sycamore (Acer pseudoplat anus) | 13 | 400 | 4 | 4 | 4 | 4 | 4.0/SW | 5 | Good | EM | Good | High density ivy, 012m. Unable to access base and visibility poor. |  |  | 20+ | B1,2,3 |
| T235 | Sycamore (Acer pseudoplat anus) | 15 | 350,350 | 6 | 6 | 6 | 6 | 3.0/W | 5 | Good | M | Good | Unable to fully access base, visibility poor. High density ivy, 0.513 m on main stems. Co dominant stems. |  |  | 20+ | B1,2,3 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T236 | Beech (Fagus sy/vatica) | 13 | 450 | 5 | 5 | 5 | 5 | 3.5/N | 4 | Poor | M | Good | Low density of foliage. High volume of dieback. High density ivy, 0-10m. Unable to access base, poor visibility. | Consider fell If land use changes |  | <10 | U3 |
| $\begin{aligned} & \hline \text { G23 } \\ & 7^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur) | 8 | 200 | 1 | 1 | 1 | 1 | n/a | n/a | Good | Y | Good |  |  |  | 10+ | C1,2 |
| $\begin{array}{\|l\|} \hline \text { G23 } \\ 8^{*} \end{array}$ | Common Oak (Quercus robur), Hawthorn (Crataegus monogyna) | 14 | 400 | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good | Previous pruning causing minor crown suppression on western aspects. |  |  | 20+ | B1,2 |
| $\begin{aligned} & \text { G23 } \\ & 9^{*} \end{aligned}$ | Common Oak (Quercus robur) | 8 | 400 | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good | Previous pruning on eastern aspect causing crown suppression. Lateral wounds on western aspect with substantial occlusion. Three trees all between 210400mm range. |  |  | 10+ | C2 |
| $\begin{aligned} & \mathrm{G} 24 \\ & 0^{*} \end{aligned}$ | Common Oak (Quercus robur) | 6 | 500 | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-EM | Good - Fair | Deadwood in crown. Western crown suppression, likely cause - flailing and pruning. X1 @ 200400 range, x2 410-600 range. Multi stemmed. |  |  | 10+ | C2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { G24 } \\ & 1^{*} \end{aligned}$ | Scots Pine (Pinus sy/vestris) | 17 | 600 | 5 | 5 | 5 | 5 | n/a | n/a | Good | SM-M | Good - Fair | Strongly ivy clad. Unable to access base. Nesting birds present. |  |  | 10+ | B3 |
| $\begin{aligned} & \text { G24 } \\ & 2^{*} \end{aligned}$ | Scots Pine (Pinus sy/vestris) | 20 | 550 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | SM-M | Good Dead | Majority semi-mature pine. |  |  | 10+ | C2 |
| $\begin{aligned} & \hline \text { G24 } \\ & 3^{*} \end{aligned}$ | Stone Pine (Pinus pinea), Cedar of Lebanon (Cedrus libani), Hawthorn (Crataegus monogyna) | 25 | 800 | 7 | 7 | 7 | 7 | n/a | n/a | Good - Dead | Y-M | Good Dead | Majority of trees in good condition. Landscape and agricultural value. |  | Fell in part as per TPRP. | 20+ | B1,2 |
| $\begin{aligned} & \hline \text { G24 } \\ & 4^{*} \end{aligned}$ | Common Oak (Quercus robur), Scots Pine (Pinus sylvestris) | 14 | 400 | 6 | 6 | 6 | 6 | n/a | n/a | Good-Fair | SM | Good - Fair | Pines heavily leaning. Cavity in main stem of one pine. Previous pruning and probable mechanical damage to stem. |  |  | 10+ | C2 |
| $\begin{aligned} & \mathrm{G} 24 \\ & 5^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna) | 5 | 500 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | Y-M | Good - Fair | Least valued area, however still of moderate importance. |  |  | 20+ | B1,2 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{G} 24 \\ & 6^{*} \end{aligned}$ | Elm (Ulmus sp), Scots Pine (Pinus sylvestris), Poplar (Populus $s p)$ | 24 | 800 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | $\begin{array}{\|l\|} \hline \text { SM- } \\ \text { OM } \end{array}$ | Good Dead | Sporadically spaced and mixed sp. Band of trees offering valuable screening for reservoir. High density of understorey species. |  |  | 40+ | A1,2,3 |
| $\begin{aligned} & \mathrm{G} 24 \\ & 7^{*} \end{aligned}$ | Scots Pine (Pinus sy/vestris), Poplar (Populus $s p)$ | 24 | 800 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead |  | Good Dead | Majority pine with occasional poplar. |  | Fell in part as per TPRP. | 20+ | B1,2 |
| $\begin{array}{\|l\|} \hline \text { G24 } \\ 8^{*} \end{array}$ | Hawthorn (Crataegus monogyna) | 4 | 300 | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM-M | Good | Scrub with 8 trees. |  | Fell in part as per TPRP. | 10+ | C2,3 |
| $\mathrm{H} 249$ | Norway <br> Maple <br> (Acer <br> platanoides <br> ), <br> Sycamore <br> (Acer <br> pseudoplat <br> anus), Elm <br> (Ulmus sp), <br> Hawthorn <br> (Crataegus <br> monogyna) | 3 | 110 | 1 | 1 | 1 | 1 | n/a | n/a | Good | M | Good | X2 hedgerows either side of farm track. Dense, mainly gap less hedge. Likely flailed/pruned frequently. High density ivy throughout. Visibility to stem bases poor. |  | Fell in part as per TPRP. | 20+ | B1,2,3 |


| $\begin{array}{\|l\|} \hline \text { Tree } \\ \text { ID } \end{array}$ | Species | Estimated Height (m) | Stem Diameter (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline \text { G25 } \\ 0^{*} \end{array}$ | Elm (Ulmus sp) | 12 | 600 | 6 | 6 | 6 | 6 | n/a | n/a | Good | M | Good | High density of ivy @ $80 \%$ of tree. Unable to fully access base. |  |  | 20+ | B1,2 |
| $\mathrm{H} 251$ | Sycamore (Acer pseudoplat anus), Hawthorn (Crataegus monogyna), Elm (Ulmus $s p)$ | 3.5 | 110 | 1 | 1 | 1 | 1 | n/a | n/a | Good | Y-M | Good | Dense hedgerow, mainly gapless. Likely pruned/flailed frequently. Two hedgerows either side of a farm track. High density ivy throughout. Visibility to stem bases poor. |  | Fell in part as per TPRP. | 20+ | B2,3 |
| $\begin{array}{\|l\|} \hline \text { W25 } \\ 6^{*} \end{array}$ | Maple <br> (Acer sp), <br> Dogwood <br> (Cornus <br> sanguinea <br> Dogwood), <br> Beech <br> (Fagus <br> sylvatica), <br> Ash <br> (Fraxinus <br> sp) | 25 | 650 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | Y-M | $\begin{aligned} & \text { Good - } \\ & \text { Dead } \end{aligned}$ | Mixed plantation with two distinct ages between semi mature and mature. Self set younger trees. Evenly spaced, dense understorey and ground flora. Tree guards present. Unable to gain full access due to dense vegetation. |  | Fell in part as per TPRP. | 40+ | A1,2,3 |
| $\begin{array}{\|l\|} \hline \text { W25 } \\ 7^{*} \end{array}$ | Maple <br> (Acer sp), <br> Hawthorn <br> (Crataegus <br> monogyna), <br> Ash <br> (Fraxinus <br> sp), <br> Common <br> Oak <br> Quercus <br> robur) | 25 | 800 | 10 | 10 | 10 | 10 | n/a | n/a | Good - Dead | Y-M | Good Dead | Mainly mature, mixed woodland. Separated from young plantation woodland to the east by a 5 m ride. Dense understorey, unable to fully access. |  |  | 40+ | A1,2,3 |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First <br> Significant <br> Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { W25 } \\ & 8^{\star} \end{aligned}$ | Maple <br> (Acer sp), <br> Birch <br> (Betula sp), <br> Dogwood <br> (Cornus <br> sanguinea <br> Dogwood), <br> Common <br> Oak <br> (Quercus <br> robur) | 15 | 350 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | Y | Good - <br> Dead | Young plantation woodland with low density spacing in the eastern half. High density spacing on the western half. Unable to fully access, dense scrub. |  |  | 20+ | B1,2,3 |
| T259 | Lombardy Poplar (Populus nigra `Italica') & 18 & 650 & 3 & 4 & 3 & 3 & 1.0/W & 5 & Good & EM & Good & Tight unions & & & 20+ & B1,2 \\ \hline T260 & \begin{tabular}{l} Grey \\ Poplar \\ (Populus canescens) \end{tabular} & 12 & 400 & 5 & 3 & 5 & 4 & 1.0/S & 0 & Good & SM & Fair & North lean bias. Unbalanced crown & & & 10+ & C2 \\ \hline \[ \bar{T} 261 \] & \begin{tabular}{l} Grey \\ Poplar (Populus canescens) \end{tabular} & 8 & 200 & 4 & 2 & 4 & 3 & 3.0/W & 4 & Good & SM & Fair & North lean bias & & & 10+ & C2 \\ \hline \end{tabular} \begin{tabular}{\|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & Stem Diameter (mm) & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & \begin{tabular}{l} Canopy \\ Spread \\ (W) \end{tabular} & First Significant Branch (m) & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T262 & Crab Apple (Malus sylvestris) & 10 & 360 & 5 & 5 & 5 & 5 & 1.0/S & 3 & Fair & EM & Good & Epicormic growth on main stem & & & 20+ & B2 \\ \hline T263 & Beech (Fagus sylvatica) & 18 & 810 & 9 & 9 & 9 & 9 & 1.0/N & 5 & Good & M & Fair & Tight and congested unions between \(1-5 \mathrm{~m}\). Main union at \(2 \mathrm{~m}, \mathrm{v}\) shaped with exuding liquid down stem. Unions do not show signs of active separation. Minimal natural bracing in crown & & & 40+ & A2 \\ \hline T264 & Ash (Fraxinus excelsior) & 12 & \[ \begin{array}{|l|} \hline 500,400, \\ 400,400 \\ \hline \end{array} \] & 8 & 8 & 8 & 8 & 1.0/S & 3 & Good & M & Fair & Multi stemmed from base. Tight, congested unions between 0.5-2m. No sign of active separation & & & 20+ & B2 \\ \hline T265 & Elder (Sambucus nigra) & 4 & 90\# & 1 & 1 & 1 & 1 & 1.0/N & 1 & Good & Y & Good & & & & 10+ & C2 \\ \hline T266 & Hawthorn (Crataegus monogyna) & 6 & 150\# & 3 & 3 & 3 & 3 & 1.0/W & 1 & Good & SM & Good & & & & 10+ & C2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & Stem Diameter (mm) & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T267 & Beech (Fagus sylvatica) & 15 & 760,450 & 8 & 8 & 10 & 10 & 1.0/W & 1 & Good & M & Good & Natural bracing in crown & & & 40+ & A2 \\ \hline T268 & Lombardy Poplar (Populus nigra 'Italica') & 12 & 150\# & 1 & 1 & 1 & 1 & 5.0/N & 5 & Dead & SM & Dead & & Consider fell If land use changes & & <10 & U3 \\ \hline T269 & Beech (Fagus sylvatica) & \[ 16 \] & 790 & 8 & 8 & 8 & 8 & 1.0/S & 4 & Good & EM & Good & Slight east lean bias. Previous pruning at 5 m eastern side & & & 40+ & A1,2 \\ \hline T270 & Beech (Fagus sylvatica) & 18 & 800 & 8 & 8 & 8 & 8 & 3.0/S & 3 & Good & M & Good & & & & 40+ & A1,2 \\ \hline T271 & Beech (Fagus sylvatica) & 12 & 500,300 & 8 & 4 & 6 & 7 & 2.0/S & 4 & Good & EM & Fair & Co dominant stems fused at multiple points. Crown suppression to south west. Asymmetric form & & & 20+ & B2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & Stem Diameter (mm) & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T272 & Beech (Fagus sylvatica) & 18 & \[ \begin{array}{|l} \hline 860,420,4 \\ 00 \end{array} \] & 10 & 10 & 10 & 10 & 1.0/S & 1 & Good & M & Good & Tight, congested unions between 1-4m. Natural bracing apparent within crown & & & 40+ & A1,2 \\ \hline T273 & Hawthorn (Crataegus monogyna) & 6 & 150\# & 3 & 3 & 3 & 3 & 1.0/E & 1 & Good & SM & Good & & & & 10+ & C2 \\ \hline T274 & Beech (Fagus sylvatica) & 16 & \[ \begin{aligned} & \hline 300,350,2 \\ & 00, \\ & 300,200,3 \\ & 00 \end{aligned} \] & 9 & 9 & 9 & 9 & 2.0/E & 2 & Good & M & Fair & Multi stemmed from base, not typical of species Stems naturally bracing in places & & & 20+ & B2 \\ \hline T275 & Crab Apple (Malus sylvestris) & 8 & \[ \begin{array}{|l} \hline 200,200, \\ 200, \\ 250,200, \\ 200, \\ 200,250 \# \\ \hline \end{array} \] & 6 & 7 & 7 & 8 & & 3 & Fair & M & Fair & Epicormic growth on mains stems. Unidentified bracket fungus at 4 m , eastern aspect & & & 20+ & B2 \\ \hline T276 & Beech (Fagus sylvatica) & 14 & 450 & 10 & 5 & 8 & 6 & 2.0/W & 3 & Good & EM & Fair & Northern lean bias & & & 20+ & B2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T277 & Beech (Fagus sylvatica) & 14 & 35 & 1 & 8 & 6 & 4 & 1.0/W & 3 & Good & EM & Fair & Southern lean bias & & & 20+ & B2 \\ \hline T278 & Beech (Fagus sylvatica) & 16 & 430 & 5 & 5 & 5 & 5 & 2.0/S & 0 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T279 & Beech (Fagus sylvatica) & 14 & 430 & 5 & 5 & 5 & 5 & 3.0/N & 0 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T280 & Beech (Fagus sylvatica) & 18 & 620 & 5.5 & 5.5 & 5.5 & 5.5 & 2.0/N & 1 & Good & M & Good & & & & 40+ & A1,2 \\ \hline T281 & Beech (Fagus sylvatica) & 15 & 360\# & 5 & 5 & 5 & 5 & 5.0/N & 5 & Good & EM & Good & Inaccessible, Ione beech in group of mostly ash & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T282 & Beech (Fagus sylvatica) & 16 & 450 & 5 & 5 & 5 & 5 & 2.5/NW & 2 & Good & EM & Fair & Tight forks with adaptive swelling, upright. & & & 20+ & B1,2 \\ \hline T283 & Beech (Fagus sylvatica) & 15 & 480 & 5 & 7 & 6 & 7 & 4.5/N & 1 & Good & EM & Fair & Tight fork at 2.5m, & & & 20+ & B1,2 \\ \hline T284 & Beech (Fagus sylvatica) & 17 & 900 & 7 & 7 & 7 & 7 & 2.0/S & 1 & Good & M & Good & 3 stemmed from 1 m but fused, tight forks, unable to measure separately, upright form, some natural bracing & & & 40+ & A1,2 \\ \hline T285 & Scots Pine (Pinus sylvestris) & 14 & 450 & 4 & 4 & 4 & 4 & 5.0/W & 5 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T286 & Ash (Fraxinus excelsior) & 19 & \[ \begin{aligned} & \hline 460,350, \\ & 380, \\ & 360,180, \\ & 180 \end{aligned} \] & 7 & 7 & 7 & 7 & 3.0/N & 3 & Good & M & Fair & Coppice derived & & & 20+ & B1,2 \\ \hline \end{tabular}  \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned} \] & Species & Estimated Height (m) & Stem Diameter (mm) & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & First Significant Branch (m) & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T292 & Beech (Fagus sylvatica) & 16 & 560\# & 7.5 & 7.5 & 7.5 & 7.5 & 2.0/N & 1 & Good & EM & Good & Inaccessible & & & 40+ & A1,2 \\ \hline T293 & Beech (Fagus sylvatica) & 16 & 450 & 6 & 6 & 6 & 6 & 4.0/S & 1 & Good & EM & Fair & & & & 20+ & B1,2 \\ \hline T294 & Scots Pine (Pinus sylvestris) & \[ 12 \] & 230 & \[ 3 \] & 1.5 & 2.5 & 1.5 & 3.5/E & 2 & Dead & SM & Dead & Dead standing tree adjacent to track & Consider fell if land use changes & & <10 & U1 \\ \hline T295 & Beech (Fagus sylvatica) & 17 & 440 & 5 & 5 & 5 & 5 & 2.0/N & 0 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T296 & Beech (Fagus sylvatica) & 17 & 490 & 5.5 & 5.5 & 5.5 & 5.5 & 4.0/S & 1 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & First Significant Branch (m) & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T297 & Beech (Fagus sylvatica) & 14 & 410 & 5 & 5 & 5 & 5 & 2.5/E & 0 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T298 & Beech (Fagus sylvatica) & 16 & 430 & 5 & 5 & 5 & 5 & \[ \begin{array}{|l|} \hline \text { 2.0/S, } \\ \text { 2.0/NW } \\ \hline \end{array} \] & 2 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T299 & Beech (Fagus sylvatica) & \[ 16 \] & 390,390 & \[ 5 \] & 6 & 7 & 5 & 5.0/E & 3 & Good & EM & Poor & Acute tight fork with extensive included bark from 0.5 to 1.5 m & & & 10+ & C1,2 \\ \hline T300 & Beech (Fagus sylvatica) & 16 & 490 & 6 & 6 & 6 & 6 & 2.5/N & 1 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T301 & Beech (Fagus sylvatica) & 16 & 400 & 5 & 5 & 5 & 5 & 2.5/E & 1 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l} \hline \text { Tree } \\ \text { ID } \end{array} \] & Species & Estimated Height (m) & Stem Diameter (mm) & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T302 & Beech (Fagus sylvatica) & 14 & 490 & 6 & 6 & 6 & 6 & 3.5/W & 1 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T303 & Scots Pine (Pinus sylvestris) & 12 & 250\# & 1 & 1 & 1.5 & 1.5 & 8.0/W & 8 & Dead & SM & Dead & Dead standing tree adjacent to track & Consider fell if land use changes & & <10 & U1 \\ \hline T304 & Beech (Fagus sylvatica) & 15 & 450\# & 5 & 5 & 5 & 5 & & 0 & Good & EM & Good & Inaccessible & & & 20+ & B1,2 \\ \hline T305 & Beech (Fagus sylvatica) & 15 & 560,500 & 7 & 7 & 7 & 7 & 3.0/S & 0 & Good & EM & Fair & Tight fork at 1.5m, semi mature beech 3 m to south east & & & 20+ & B1,2 \\ \hline T306 & Beech (Fagus sylvatica) & 15 & 490 & 7 & 7 & 7 & 7 & 3.5/NW & 0 & Good & EM & Fair & Tight fork at 3m, seams and expansion bark cracks on lower stem & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T307 & Beech (Fagus sylvatica) & 15 & 540 & 7 & 7 & 7 & 7 & 2.0/W & 0 & Good & EM & Good & Pock marked lower stem, possibly associated with felted beech scale, & & & 40+ & A1,2 \\ \hline T308 & Beech (Fagus sylvatica) & 15 & 370 & 4 & 5 & 5 & 5 & 2.5/N & 1 & Good & EM & Good & Upright form & & & 20+ & B1,2 \\ \hline T309 & Beech (Fagus sylvatica) & 16 & 800 & 7.5 & 7.5 & 7.5 & 7.5 & 2.0/S & 0 & Good & M & Fair & Tight fork from 0.5m with fused stems to 2 m , slight swelling, upright form, & & & 40+ & A1,2 \\ \hline T310 & Beech (Fagus sylvatica) & 16 & 590 & 6 & 6 & 6 & 6 & 4.0/E & 0 & Good & EM & Good & & & & 40+ & A1,2 \\ \hline T311 & Beech (Fagus sylvatica) & 17 & 450 & 5 & 5 & 5 & 3.5 & 4.0/E & 0 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{aligned} & \hline \text { Tree } \\ & \text { ID } \end{aligned} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T312 & Beech (Fagus sylvatica) & 14 & 530 & 6 & 7 & 7 & 7 & 3.0/S & 3 & Good & EM & Poor & Main fork with split at 5 m , tight fork at 2.5 m . Branch wound on upper side of limb to West at 4 m with decay, no targets, within woodland. Lower stem wound with good woundwood to north & & & 10+ & C1,2 \\ \hline T313 & Beech (Fagus sylvatica) & 19 & 580 & 7 & 7 & 7 & 7 & 1.0/W & 0 & Good & M & Good & & & & 40+ & A1,2 \\ \hline \[ \overline{T 314} \] & Beech (Fagus sylvatica) & 15 & 450\# & 4 & 5 & 5 & 5 & 2.5/N & 1 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T315 & Scots Pine (Pinus sylvestris) & 11 & 300\# & 3.5 & 1 & 4 & 1 & 4.0/E & 4 & Dead & SM & Dead & Dead standing tree adjacent to track & Consider fell if land use changes & & \(<10\) & U1 \\ \hline T316 & Beech (Fagus sylvatica) & 16 & 440\# & 4 & 4 & 4 & 4 & 2.0/S & 0 & Good & EM & Good & Not fully accessible & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & First Significant Branch (m) & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T317 & Beech (Fagus sylvatica) & 15 & 430\# & 5 & 5 & 5 & 3 & 2.0/N & 0 & Good & EM & Good & Inaccessible & & & 20+ & B1,2 \\ \hline T318 & Beech (Fagus sylvatica) & 16 & \[ \begin{aligned} & 330,310, \\ & 250, \\ & 220 \end{aligned} \] & 5 & 5 & 5 & 5 & 2.0/S & 1 & Good & EM & Good & Multi stemmed from 0.5 m , tank to south with pipes and unprotected hole presenting a trip hazard & & & 20+ & B1,2 \\ \hline T319 & Beech (Fagus sylvatica) & 14 & 650 & 7 & 7 & 7 & 7 & 2.0/S & 0 & Good & M & Fair & & & & 40+ & A1,2 \\ \hline T320 & Beech (Fagus sylvatica) & 14 & 520 & 6 & 5 & 5 & 5 & 2.5/N & 1 & Good & EM & Good & Girdling root to north, 75 mm diameter & Carefully expose (by hand) and sever girdling root to north & & 20+ & B1,2 \\ \hline T321 & Beech (Fagus sylvatica) & 14 & 460 & 4 & 5 & 5 & 5 & 1.0/S & 0 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & Stem Diameter (mm) & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & \begin{tabular}{l} Canopy \\ Spread (W) \end{tabular} & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T322 & Beech (Fagus sylvatica) & 16 & 820 & 8 & 8 & 8 & 8 & 3.0/W & 0 & Good & M & Good & & & & 40+ & A1,2 \\ \hline T323 & Beech (Fagus sylvatica) & 19 & 690,490 & 9 & 9 & 6 & 9 & 1.5/S & 1 & Good & M & Good & Possible bundle planting & & & 40+ & A1,2 \\ \hline T324 & Beech (Fagus sylvatica) & 15 & 450\# & 5 & 5 & 5 & 5 & & 0 & Good & EM & Good & Inaccessible & & & 20+ & B1,2 \\ \hline T325 & Beech (Fagus sylvatica) & 17 & \[ \begin{aligned} & \text { 550,880, } \\ & 470 \end{aligned} \] & 9 & 9 & 10 & 7 & 3.0/W & 0 & Good & M & Good & 3 stemmed from 0.5m & & & 40+ & A1,2 \\ \hline T326 & Beech (Fagus sylvatica) & 19 & 890 & 8 & 8 & 8 & 8 & 3.0/SW & 0 & Good & M & Fair & Tight fork from 2.53.5 m , upright form, adaptive swelling, some natural bracing in crown. Crown impact wounds with good woundwood. Large diameter deadwood over woodland & & & 40+ & A1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{aligned} & \hline \text { Tree } \\ & \text { ID } \end{aligned} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T327 & Beech (Fagus sylvatica) & 16 & 680 & 7 & 7 & 7 & 8 & 2.0/N & 0 & Good & M & Fair & 100 mm limb failure stub at 4 m , storm damage in crown to east with good woundwood & & & 40+ & A1,2 \\ \hline T328 & Beech (Fagus sylvatica) & 15 & 250\# & 4 & 4 & 4 & 4 & 3.0/N & 1 & Good & SM & Good & Inaccessible, beech in group of mostly ash & & & 20+ & B1,2 \\ \hline T329 & Scots Pine (Pinus sylvestris) & \[ 11 \] & 240 & 3.5 & 1 & 1 & 1 & 4.0/E & 4 & Dead & SM & Dead & Dead standing tree adjacent track & Consider fell if land use changes & & <10 & U1 \\ \hline T330 & Beech (Fagus sylvatica) & 14 & 430 & 6 & 4 & 6 & 4 & 1.5/N & 0 & Good & EM & Good & & & & 20+ & B1,2 \\ \hline T331 & Beech (Fagus sylvatica) & 16 & 490\# & 5 & 5 & 5 & 5 & & 1 & Good & EM & Good & Not accessible & & & 20+ & B1,2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline Tree ID & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T332 & Beech (Fagus sylvatica) & 6 & 520 & 4.5 & 4.5 & 4.5 & 4.5 & 2.5/S & 1 & Good & EM & Fair & Small cavity to north at 1.3 m , stubbed pruning cuts to north and west, tight fork at 3 m , upright form. & & Crown lift to north and east to provide a clear height of 4 m & 20+ & B2 \\ \hline T333 & Beech (Fagus sylvatica) & 6 & 380 & 5 & 4 & 4 & 4 & 2.0/E & 1 & Good & SM & Fair & Old wound at base to south with good woundwood, stubbed pruning cuts to West for highway clearance. & & & 20+ & B2 \\ \hline T334 & Beech (Fagus sylvatica) & 6 & 500 & 5 & 5 & 5 & 5 & 2.0/S & 1 & Good & EM & Good & & & & 20+ & B2 \\ \hline T335 & Beech (Fagus sylvatica) & 6 & 420 & 4 & 3.5 & 4 & 4 & 2.5/S & 1 & Good & SM & Good & & & Fell & 20+ & B2 \\ \hline T336 & Beech (Fagus sylvatica) & 6 & 270 & 2.5 & 2.5 & 2.5 & 2.5 & 2.0/N & 1 & Good & SM & Fair & & & Fell & 10+ & C2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & Stem Diameter (mm) & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & First Significant Branch (m) & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline T337 & Beech (Fagus sylvatica) & 6 & 380 & 6 & 4 & 6 & 6 & 2.0/E & 0 & Good & SM & Good & & & Fell & 20+ & B2 \\ \hline T338 & Beech (Fagus sylvatica) & 6 & 510 & 6 & 3 & 6 & 6 & 2.5/N & 1 & Good & EM & Fair & & & & 20+ & B2 \\ \hline T339 & Beech (Fagus sylvatica) & 6 & 440 & 4 & 4 & 4 & 4 & 2.5/N & 1 & Good & EM & Good & & & & 20+ & B2 \\ \hline \[ \begin{aligned} & \hline \text { G34 } \\ & 0^{*} \end{aligned} \] & Hawthorn (Crataegus monogyna), Lombardy Poplar (Populus nigra 'Italica'), Common Oak (Quercus robur), Blackthorn (Prunus spinosa), English Elm (Ulmus procera) & 7 & <150\# & 2 & 2 & 2 & 2 & n/a & n/a & Good - Dead & Y-SM & Good Dead & Contains scattered dead trees & & & 10+ & C2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \\ \hline \end{array} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline \[ \begin{aligned} & \hline \text { G34 } \\ & 1^{*} \end{aligned} \] & Hawthorn (Crataegus monogyna) & 6 & <150\# & 3 & 3 & 3 & 3 & n/a & n/a & Good & Y-SM & Good & & & & 10+ & C2 \\ \hline \[ \begin{aligned} & \hline \text { G34 } \\ & 2^{*} \end{aligned} \] & Ash (Fraxinus excelsior) & \[ 16 \] & <500\# & 8 & 8 & 8 & 8 & n/a & n/a & Good & EM-M & Good & & & & 20+ & B2 \\ \hline \[ \begin{array}{|l|} \hline \text { W34 } \\ 3^{*} \end{array} \] & \begin{tabular}{l} Crab Apple \\ (Malus \\ sylvestris), \\ Ash \\ (Fraxinus \\ excelsior), \\ Hazel \\ (Corylus \\ avellana), \\ Beech \\ (Fagus \\ sylvatica), \\ Hawthorn \\ (Crataegus \\ monogyna), \\ Willow \\ (Salix \\ sp),Blackth orn (Prunus spinosa) \end{tabular} & 12 & <400\# & 5 & 5 & 5 & 5 & n/a & n/a & Good - Dead & Y-M & Good Dead & Presumed naturally regenerated woodland & & & 10+ & C2,3 \\ \hline \[ \begin{array}{|l|} \hline \text { W34 } \\ 4^{*} \end{array} \] & Silver Birch (Betula pendula), Ash (Fraxinus excelsior), Blackthorn (Prunus spinosa), Hawthorn (Crataegus monogyna) & 18 & <500\# & 8 & 8 & 8 & 8 & n/a & n/a & Good - Dead & SM-M & Good Dead & Presumed naturally regenerated woodland & & & 20+ & B1,2,3 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline \[ \begin{aligned} & \text { W34 } \\ & 5^{*} \end{aligned} \] & Hawthorn (Crataegus monogyna), Blackthorn (Prunus spinosa), Crab Apple (Malus sylvestris) & 12 & <400\# & 6 & 6 & 6 & 6 & n/a & n/a & Good - Dead & Y-M & \begin{tabular}{l} Good - \\ Dead \end{tabular} & Presumed naturally regenerated woodland & & & 10+ & C2,3 \\ \hline \[ \begin{aligned} & \hline \text { W34 } \\ & 6^{*} \end{aligned} \] & Crab Apple (Malus sylvestris), Hawthorn (Crataegus monogyna), Blackthorn (Prunus spinosa), Beech (Fagus sylvatica), Ash (Fraxinus excelsior) & 10 & <250\# & 3 & 3 & 3 & 3 & n/a & n/a & Good - Dead & Y-M & Good Dead & Presumed natural regeneration of mainly understorey species & & & 10+ & C2,3 \\ \hline \[ \begin{aligned} & \mathrm{G} 34 \\ & 7^{*} \end{aligned} \] & Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) & 6 & <150\# & 3 & 3 & 3 & 3 & n/a & n/a & Good & Y-SM & Good & & & & 10+ & C2 \\ \hline \[ \begin{aligned} & \text { G34 } \\ & 8^{*} \end{aligned} \] & Hawthorn (Crataegus monogyna) & 6 & <150\# & 3 & 3 & 4 & 3 & n/a & n/a & Good & Y-SM & Good & & & & 10+ & C2 \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline \[ \begin{array}{|l|} \hline \text { Tree } \\ \text { ID } \end{array} \] & Species & Estimated Height (m) & \begin{tabular}{l} Stem \\ Diameter \\ (mm) \end{tabular} & Canopy Spread (N) & Canopy Spread (S) & Canopy Spread (E) & Canopy Spread (W) & \begin{tabular}{l} First \\ Significant \\ Branch (m) \end{tabular} & Canopy Clearance (m) & Physiological Condition & Life Stage & Structural Condition & Condition Comments & Preliminary Management Comments & Works to Facilitate Proposed Development & Estimated Remaining Contribution & Category \\ \hline \[ \begin{array}{|l|} \hline \text { W34 } \\ 9^{*} \end{array} \] & Scots Pine (Pinus sylvestris), Beech (Fagus sylvatica), Larch (Larix sp) & 15 & <350\# & 4 & 4 & 4 & 4 & n/a & n/a & Good - Dead & \[ \begin{array}{|l|} \hline \text { SM- } \\ \text { EM } \end{array} \] & Good Dead & Predominantly Scots pine and semi mature, bramble, elder, Cornus and thorn understorey & & & 20+ & B2 \\ \hline \[ \begin{array}{|l|} \hline \text { W35 } \\ 0^{*} \\ \hline \end{array} \] & \begin{tabular}{l} Ash \\ (Fraxinus excelsior), Silver Birch (Betula pendula), Lombardy Poplar (Populus nigra `Italica') |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \& 18 \& <400\# \& 6 \& 6 \& 6 \& 6 \& n/a \& n/a \& Good - Fair \& \[

$$
\begin{aligned}
& \hline \text { SM- } \\
& \text { EM }
\end{aligned}
$$
\] \& Good - Fair \& Line of Lombardy poplar to south, mostly birch to north \& \& \& 20+ \& B2 <br>

\hline \[
$$
\begin{array}{|l|}
\hline \text { W35 } \\
1^{*}
\end{array}
$$

\] \& | Ash |
| :--- |
| (Fraxinus excelsior),S ilver Birch (Betula pendula) | \& 18 \& <400\# \& 6 \& 6 \& 6 \& 6 \& n/a \& n/a \& Good - Dead \& \[

$$
\begin{aligned}
& \hline \text { SM- } \\
& \text { EM }
\end{aligned}
$$
\] \& Good Dead \& Some ash with dieback, predominantly ash group, no beech other than those plotted separately \& \& \& 20+ \& B2 <br>

\hline $$
\begin{aligned}
& \text { G35 } \\
& 2^{*}
\end{aligned}
$$ \& Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) \& 8 \& <300\# \& 3 \& 3 \& 3 \& 3 \& n/a \& n/a \& Good - Fair \& Y-M \& Good - Fair \& Dense group of scrub, inaccessible \& \& \& 10+ \& C2 <br>

\hline $$
\begin{aligned}
& \text { G35 } \\
& 3^{*}
\end{aligned}
$$ \& Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) \& 8 \& <300\# \& 3 \& 3 \& 3 \& 3 \& n/a \& n/a \& Good - Fair \& Y-M \& Good - Fair \& Dense group of scrub, inaccessible \& \& \& 10+ \& C2 <br>

\hline
\end{tabular}

| $\begin{aligned} & \hline \text { Tree } \\ & \text { ID } \\ & \hline \end{aligned}$ | Species | Estimated Height (m) | Stem <br> Diameter <br> (mm) | Canopy Spread (N) | Canopy Spread (S) | Canopy Spread (E) | Canopy Spread (W) | First Significant Branch (m) | Canopy Clearance (m) | Physiological Condition | Life Stage | Structural Condition | Condition Comments | Preliminary Management Comments | Works to Facilitate Proposed Development | Estimated Remaining Contribution | Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { W35 } \\ & 4^{*} \end{aligned}$ | Scots Pine (Pinus sylvestris), Beech (Fagus sylvatica), L arch (Larix sp) | 15 | <400\# | 5 | 5 | 5 | 5 | n/a | n/a | Good - Dead | $\begin{aligned} & \text { SM- } \\ & \text { EM } \end{aligned}$ | Good Dead | Predominantly Scots pine and semi mature, bramble, elder, Cornus, thorn understorey. Scattered beech <400mm diameter, all larger beech plotted individually. |  |  | 20+ | B2 |
| $\begin{aligned} & \text { W35 } \\ & 5^{*} \end{aligned}$ | Hawthorn (Crataegus monogyna), Silver Birch (Betula pendula),A sh (Fraxinus excelsior) | 14 | <400\# | 4 | 4 | 4 | 4 | n/a | n/a | Good - Fair | Y-M | Good - Fair |  |  |  | 20+ | B2 |

## Key to Abbreviations Used in the Detailed Survey Schedule

| Ref No | Specific identification number given to each tree or group. $\mathrm{T}=$ Tree $/ \mathrm{H}=$ Hedge/G=Group/W=Woodland. |
| :---: | :---: |
| Species | Common name followed by botanical name shown in italics |
| RPA | Root Protection Area (As defined by BS5837) |
| Stem diameter | Diameter of main stem, measured in millimetres Av / Average: <br> at 1.5 m above ground level.  <br> (MS $=$ Multi-stem tree measured in accordance <br> with BS5837 Annexe C) indicates an average |
| Spread | The width and breadth of the crown. Estimated <br> on the four compass points in metres. measured dimension <br> for the group or |
| Crown clearance | The estimated height (in metres) above ground level of the lowest significant branch attachments. |
| \# | Estimated dimensions |
| * | Indicates estimated position of tree (not indicated on topographical survey). |
| Category | Categorisation of the quality and benefits of trees on Site as per Table 1 and 2 of BS5837:2012. <br> 1=Arboricultural quality/value <br> 2=Landscape quality/value <br> $3=$ Cultural quality/value (including conservation) |
|  | $A=H i g h$ quality/value $40 y$ rs + (light green). <br> B=Moderate quality/value 20yrs+ (mid blue) <br> C=Low quality/value min $10 y \mathrm{ys} / \mathrm{stem}$ diameter less than 150 mm (grey). <br> U=Unsuitable for retention (dark red). |
| Life stage | Young (Y): Newly planted tree 0-10 years. <br> Semi-Mature (SM): Tree in the first third of its normal life expectancy for the species (significant potential for future growth in size). <br> Early Mature (EM): Tree in the second third of its normal life expectancy for the species (some potential for future growth in size) <br> Mature (M): Tree in the final third of its normal life expectancy for the species (having typically reached its approximate ultimate size). <br> Over Mature (OM): Tree beyond the normal life expectancy for the species. <br> Veteran (V): Tree which is of interest biologically, aesthetically or culturally because of its condition, size or age. |
| Structural condition | Good: No significant structural defects <br> Fair: Structural defects which can be resolved via remedial works. <br> Poor: Structural defects which cannot be resolved via remedial works. <br> Dead: Dead. |
| Physiological condition | Good: Normal vitality including leaf size, bud growth, density of crown and wound wood development. <br> Fair: Lower than normal vitality, reduced bud development, reduced crown density, reduced response to wounds. <br> Poor: Low vitality, low development and distribution of buds, discoloured leaves, low crown density, little extension growth for the species. <br> Dead: Dead <br> Fair/Good = Indicates an intermediate condition <br> Fair - Good = Indicates a range of conditions (e.g. within a group) |
| Preliminary management recommendations | Works identified during the tree survey as part of sound arboricultural management, based on the current context of the Site (where relevant reference has been made to tree management based on the potential future context of the site). |

## Appendix C Precautionary Arboricultural Method Statement

## 1 Precautionary Arboricultural Method Statement (PAMS)

1.1.1 This document provides the Precautionary Arboriculture Method Statement for the Scheme. Should consent be granted the appointed contractor will produce a detailed Arboricultural Method Statement, this will be secured through the CEMP. All site personnel must be made fully aware of its contents and the implications for work they may be involved in. All elements of the detailed Arboricultural Method Statement must be adhered to in full. No changes may take place to the content or application of the detailed Arboricultural Method Statement without the prior written approval of the Arboriculturist.

### 1.2 Order of operations

1. Formal appointment of an arboriculturist and LPA notification of tree related impacts
2. Confirmation of preliminary tree works by the appointed Arboriculturist (where required)
3. Notification and consent of tree works with relevant landowner and/or LPA (where required)
4. Pre-commencement site meeting
5. Preliminary tree works
6. Scheme briefing for site personnel
7. Programme of site monitoring
8. Installation of protective fencing as advised by the appointed Arboriculturist
9. Construction operations including installation or diversion of services in proximity to trees under arboricultural supervision
10. Site signed off on agreed completion of significant development works
11. Dismantling of tree protection measures

### 1.3 Preliminary tree works and tree related impacts

1.3.1 Prior to any works taking place, a pre-construction tree survey will be undertaken and the status of trees to be pruned or removed (if required) and a written summary of the anticipated tree related impacts must be compiled by the appointed site Arboriculturist. This should be accompanied by a tree works specification which identifies trees to be felled or pruned to facilitate the Scheme.
1.3.2 The findings of this work will be included within an Arboriculture Report, which will be accompanied by an Arboricultural Method Statement which will set out mitigation and protection measures to be undertaken. The findings and recommendations of these will be taken into account by the appointed contractor.
1.3.3 Any required tree works are to be completed by suitably qualified and insured contractors and must take place before protective fencing is installed and any site works begin.
1.3.4 All tree works must be carried out in line with the principles of BS3998: 2010 Tree work - recommendations will be conducted in such a way that no damage is caused to any tree to be retained. Any appointed tree works contractor must avoid disturbance, such as the production of ruts, on unmade ground.
1.3.5 Tree clearance works should be reviewed within the Order limits in advance and where feasible trees be retained and protected. Consideration should also be given to the potential for trees to be coppiced or formalised into managed hedgerows as an alternative to removal.
1.3.6 Where part of a tree group is to be removed, or, where extensive tree removals are required which could leave retained trees exposed; retained trees must be subject to a walkover assessment by the appointed Arboriculturist to determine the suitability and stability of retained trees and to advise on any additional pruning or removals required to address any loss of companion shelter.
1.3.7 If further additional tree works are deemed to be required during the development, the advice of the appointed Arboriculturist is to be obtained.
1.3.8 Following provision of the detailed Arboricultural Method Statement, prior to the commencement of any tree works a survey for protected species (including nesting birds, bats and badgers) is to be undertaken. If evidence of any protected species is discovered the advice of the appointed Ecological Clerk of Works must be obtained. This may include further pre-commencement survey and obtained a mitigation licence for the proposed works. Vegetation clearance will be undertaken in advance of construction and at an appropriate time of year (ideally between September and February, concordant with the requirements for avoidance of nesting birds).
1.3.9 Where reasonably practicable, vegetation clearance works will be undertaken outside the bird breeding season, which is generally between March and August inclusive. Where this is not reasonably practicable, an ecologist will inspect all areas of vegetation prior to clearance, and clearance will only be undertaken subject to the instruction and requirements of the ecologist to protect any birds and their nests;

### 1.4 Scheme briefing for site personnel

1.4.1 The appointed Arboriculturist is responsible for ensuring that all personnel are made fully aware of the constraints posed by retained trees in relation to the Scheme and the measures in place to ensure that they are protected, including having full on-site access to the detailed Arboricultural Method Statement .
1.4.2 It is good practice for the appointed Arboriculturist to be involved in the Scheme briefing to ensure all constraints and tree protection measures are clearly understood by site construction workers.
1.4.3 A Tool Box Talk shall be provided to the site personnel to highlight the need for safe driving of plant and working within the defined corridor to ensure that the risk of accidents and resulting potential damage to trees not covered by tree protection measures are significantly reduced. A copy of the detailed Arboricultural Method Statement must be available in the designated Scheme main office at all times.

### 1.5 Site monitoring

1.5.1 An auditable system of site monitoring shall be established to guide contractors on site to ensure that tree protection measures are implemented and adhered to.
1.5.2 This includes site visits by the appointed Arboriculturist to confirm the correct installation of protective fencing, to oversee sensitive elements of works within the Root Protection Areas (RPAs) of retained trees, to review the suitability and stability of retained sections of tree groups following removals and to sign off the Scheme when works are completed and tree protection fencing can be dismantled.

### 1.6 Installation of tree protection fencing

1.6.1 In advance of tree protection fencing installation, RPA measurements of retained trees shall be confirmed by the appointed Arboriculturist. The final position of fencing must be confirmed on site by the Arboriculturist and will align with the arrangement of protection measures on the final Tree Protection and Removal Plan
1.6.2 The default position as set out by BS 5837:2012 is that retained trees must be protected from construction operations with the erection of robust protective fencing positioned on the outer edge of the RPA or crown spread (whichever is greatest). In accordance with Natural England and The Forestry Commission guidance (2018), RPAs shall be increased for proximal veteran trees as confirmed by the Arboriculturist.
1.6.3 All site operations will be restricted to the area outside of tree protection fencing and this area will form a Construction Exclusion Zone (CEZ) unless agreed otherwise. Protection measures will be installed around the RPA or canopy spread of retained tree features.
1.6.4 The area inside the fence and any additional tree protection measures will be sacrosanct and must not be removed or altered without the prior approval of the Arboriculturist. Any damage to tree protection measures must be reported immediately.
1.6.5 Tree protection fencing shall be constructed with robust vertical and horizontal scaffold framework with weldmesh panels (e.g. Heras or equivalent) firmly attached in accordance with BS 5837:2012 Figure 2. Vertical support poles and bracing poles must be located with care to avoid underground utility services and will be sited to avoid the structural roots of retained trees. Where driven supports are inappropriate or impractical, panels will be footed in block trays or equivalent.
1.6.6 Alternative equivalent robust and immovable fencing specification including site hoarding will also be appropriate. Suitable all-weather signage will be fixed to fencing to notify site staff and visitors of the construction exclusion zone and its purpose.
1.6.7 When entering and exiting the Scheme, the fencing contractor must avoid the production of ruts on unmade ground. Protective fencing and ground protection shall stay in place until all construction operations are completed and removal is agreed with the Arboriculturist.

### 1.7 Ground Protection

1.7.1 In general, tree protection fencing will ensure an effective CEZ is maintained for all retained trees. This will be positioned as set out in the final Tree Protection and Removal Plan.
1.7.2 Where the Scheme requires unavoidable access within the RPA of a retained tree, fit for purpose ground protection must be in place which is sufficient to protect the structure of the soil from damage based on the heaviest anticipated load. This must be installed prior to the commencement of any development activity in proximity to retained trees on the Site and be signed off by the Arboriculturist. No top soil stripping will be permitted within RPAs.
1.7.3 As set out in section 6.2.3.3 of BS5837:2012, the following ground protection measures will be appropriate if deemed necessary by the Site Arboriculturist:
1.7.4 Suitable ground protection for pedestrian only access will comprise a single thickness of appropriate boarding/ matting set on a compressible layer of 100 mm of woodchip or sharp sand on a geotextile separation layer
1.7.5 Pedestrian operated plant up to two tonnes in weight would require the use of a proprietary ground protection system (such as Ground Guards, Eki mats, Eve Trakway or equivalent) set on a minimum depth of 150 mm woodchip or sharp sand
1.7.6 Heavier loads will require ground protection to an engineering specification in conjunction with arboricultural advice.
1.7.7 As a guide, the threshold beyond which root development is significantly affected is a bulk density ranging from 1.4 g per $\mathrm{cm}^{3}$ for clay soils, to $1.75{\mathrm{~g} \mathrm{per} \mathrm{cm}^{3} \text { for }}^{\text {for }}$ sandy soils.
1.7.8 The existing hard surfacing will act as suitable ground protection where present and must be retained in situ unless otherwise approved by the Arboriculturist.
1.7.9 Tree protective measures shall stay in place until all construction operations are completed and removal is agreed with the appointed Arboriculturist.

### 1.8 Movement of Vehicles and People and the Movement and Operation of Machinery

1.8.1 Construction works and in particular the use of machinery must be carefully coordinated to avoid damage to retained trees. A banksman must be in place for any operations which occur within 5 m of any part of a retained tree. Protective fencing will be in place to ensure tree canopies and root systems are fully protected during the main construction works.
1.8.2 Fencing can be set back at a later stage to facilitate more sensitive works such as the installation of services in proximity to retained trees (where relevant) which will be carried out following approval by the Arboriculturist; by pedestrian only access utilising fit for purpose ground protection as detailed in Section 10.8 (under the supervision of the Arboriculturist).

### 1.9 Site organisation, storage and mixing of materials

1.9.1 The location of site compounds and storage areas will be agreed in advance with the Arboriculturist.
1.9.2 Before any work begins the outer fence for compounds and stockpile sites will be set out and the Site Arboriculturist will confirm the position of fencing to ensure adjacent retained trees are fully protected.
1.9.3 The storage and mixing of materials and any re-fuelling shall take place at least 5 m from the RPA of any retained trees and also take into account any potential for run off. Where this is an issue measures such as bunding with robust impermeable polythene sheeting and sandbags must be put in place to prevent accidental run off reaching the rooting zone of retained trees.
1.9.4 No changes in ground level are permitted within the RPA of a retained tree unless specifically agreed in advance with the Arboriculturist and captured in the detailed Arboricultural Method Statement.
1.9.5 No fires shall take place within an RPA or within 5 m of any part of a retained tree. No signs, cables or other items are to be attached to any part of a retained tree (with the exception of approved ecological habitat mitigation features).

### 1.10 General principles for the management of tree roots

1.10.1 Where agreed by the Site Arboriculturist, excavation by hand tools or compressed air takes place within a RPA the following principles will apply:
1.10.2 Individual or small groups of roots less than 25 mm in diameter will be retained where possible but can be severed with a sharp tool such as secateurs or pruning saws to leave a clean-cut end (ideally 100 mm back from the face of the excavation to account for future regrowth) where they pose an obstruction.
1.10.3 Where roots are encountered which are larger than 25 mm in diameter or where significant groups of smaller roots are found, the advice of the Site Arboriculturist must be sought to decide an appropriate course of action.
1.10.4 Roots must only be exposed for the minimum period possible. In the interim period any exposed roots (including the face of any excavation within an RPA) must be completely covered with dampened hessian sacking (which may require ongoing re-wetting) to avoid drying out and exposure to light. Backfill for excavations should ideally utilise the parent material and must not be significantly compacted.

### 1.11 Installation of New Access Trackways within RPAs

1.11.1 In order to maintain a growing environment which is able to support the long-term growth of trees, and to avoid the requirement for an excavated subbase (which would result in root severance). Any new surfacing within RPAs where required should be built on top of existing ground levels (using no-dig techniques) and its construction should be engineer designed, adapted to the intended gross vehicle weight. This can be achieved using a proprietary 3D raft or tile system such as Cellweb, ArborRaft or equivalent.
1.11.2 All new installed surfacing should allow a minimum 0.5 m distance from the base of trees. Any edging within RPAs must be installed without excavation and can utilise pinned methods including proprietary systems such as StableEDGE or equivalent such as a kerb cast directly into the raft.
1.11.3 Installation within RPAs should be supervised by the appointed Arboriculturist. All machinery and construction activity should be positioned either on ground protection or outside of the RPAs of retained trees at all times to prevent root disturbance. The new surface must be rolled out. Machinery must reach towards retained trees and work backwards to reduce any potential for damage to stems or branches of retained trees. No access onto unprotected soft ground within an RPA will be permitted.

### 1.12 Earthworks

1.12.1 Any required earthworks shall be positioned outside the RPA or canopy spread (whichever is greatest) of retained trees as confirmed by the Arboriculturist. Where earthworks are required within the RPA or canopy of retained trees, the Arboriculturist will be consulted and a methodology agreed prior to any works being carried out.
1.12.2 Where the movement of any part of any plant is required within 5 m of any part of a retained tree a banksman will supervise the operation. If additional tree works are required these will be discussed in advance with the Arboriculturist.
1.12.3 Where non-structural fill involving only small increases (up to 200 mm ) in ground level is required (such as to tie in to existing levels), this will be agreed with the Arboriculturist in advance and achieved using free draining inert granular material only (such as sharp sand or free draining topsoil) which must not be significantly compacted (e.g. light hand tamping only).

### 1.13 Installation of tree protection fencing, security fencing and CCTV footings in proximity to retained trees

1.13.1 New CCTV footings and security fencing positions will be adjusted to avoid the canopy spread or RPA (whichever is greatest) of retained trees as confirmed by the Arboriculturist.
1.13.2 Where fencing positions or footings within RPAs are unavoidable, the appointed Arboriculturist shall be notified in advance. Where relevant, positions will be as far from retained trees as possible and the footing will be the smallest dimensions feasible (which could include the use of screw piles or equivalent). The excavation will be dug by hand or vacuum excavator under the supervision of the Arboriculturist and where significant roots are encountered the footing location will be micro-sited locally to avoid the requirement for significant root pruning as fully as possible.
1.13.3 Where uncured concrete is to be applied, this will be the driest mix feasible and the excavation will be lined with an impermeable membrane to prevent leaching into soil.

### 1.14 Removal of existing services

1.14.1 Where existing services are to be removed or diverted; the default position is that redundant cabling must be winched out from an access/ inspection chamber located outside of an RPA or left in situ.
1.14.2 The final methodology for utility removals will be developed and agreed with the Utility Contractor and appointed Arboriculturist.
1.14.3 Where sewers/ drainage pipes are to be decommissioned within the RPA of a retained tree, pipe work will be sealed off and will not be removed via excavation within the RPA of a retained tree. Redundant pipe work can be filled with an inert material or if confirmed to be fully watertight may be filled with foamed concrete applied from an access point located outside the RPA of all retained trees. Concrete must be managed in accordance with this PAMS.

### 1.15 Diversion and installation of services (including cables) within RPAs

1.15.1 The default position is that all diverted or new services be located outside of the RPA of retained trees. Where it is not feasible to fully avoid the RPA of retained trees, the final methodology for utility diversion will be developed and agreed with the Utility Contractor and Arboriculturist.
1.15.2 Where possible new or diverted utilities will be installed using trenchless techniques. Where possible, it may be acceptable for shallow service runs to be installed via hand excavation where significant tree roots can be retained and worked around.

### 1.16 Use of trenchless techniques

1.16.1 Where possible cables will be installed using trenchless methods within or near the RPA of retained trees. Insertion and retrieval pits must be located outside of the RPA of retained trees. The depth of the run must be at least 1.5 m below ground level (taking into account tree species and soil type) and should be located as far from the tree as possible. The mole must be lubricated with water only.
1.16.2 Installation must follow the principles set out in the National Joint Utilities Group (NJUG) Vol 4: Guidelines for the planning, installation, and maintenance of utility apparatus in proximity to trees (issue 2) and BS5837 Section 7.7.

### 1.17 Trenching techniques

1.17.1 Where new cables must be positioned within the RPA of a retained tree and cannot be installed via trenchless methods, the Arboriculturist shall be notified in advance.
1.17.2 Where possible services shall be installed following the principles set out in the National Joint Utilities Group (NJUG) Vol 4: Guidelines for the planning, installation, and maintenance of utility apparatus in proximity to trees (issue 2).
1.17.3 Hand digging may be employed to achieve shallow surface runs which can be positioned to avoid significant tree roots (greater than 25 mm diameter). The
excavation will be located as far from the stem of the tree as possible and must be carried out by hand (ideally using compressed air such as an Air Spade and soil vacuum) under the supervision of the appointed Arboriculturist.
1.17.4 Protective fencing will be set back to facilitate localised access to facilitate this work (following the prior approval of the Arboriculturist) and to allow a maximum working space of 0.5 m on either side of the trench location. Pedestrian only access will be permitted, and ground protection measures will be employed with fencing positioned immediately adjacent to restrict any further access into RPAs.
1.17.5 Excavation will be supervised by the Site Arboriculturist who will be on hand to advise on the management of any roots encountered and to ensure the approved tree protection methodology is fully adhered to. Roots smaller than 25 mm in diameter can be cut with a clean sharp tool where they pose an obstruction.
1.17.6 Should significant roots (larger than 25 mm diameter or large clumps of smaller roots) be encountered these will be retained and wrapped in dampened hessian to prevent drying out and pipes will be routed around them wherever possible. If significant roots are encountered which cannot be feasibly worked around and retained the Site Arboriculturist will advise on appropriate next steps.
1.17.7 All spoil/ arisings from excavation will be placed onto ground protection boards to prevent compaction, ground level changes and to assist in removal or reinstatement. Backfill is to utilise the excavated parent material where feasible, applied to restore the soil profile to its original structure (i.e. topsoil will be installed last) and must be lightly hand tamped only.
1.17.8 Following service installation within RPAs, ground protection will be removed, and the original position of protective fencing will be reinstated under supervision of the Arboriculturist.

### 1.18 Soft landscaping works

1.18.1 Where new soft landscaping is proposed within the RPA of retained trees the Arboriculturist shall be notified in advance and the following principles must be observed:
1.18.2 Soil levels must be maintained at existing levels, not more than a maximum of 200 mm of free draining topsoil is to be added to ground within the RPA of retained trees and this must avoid the area immediately around the stem base of existing trees (minimum offset of 0.5 m ).
1.18.3 No rotovating of the soil will be permitted within RPAs, any excavation for new planting must be hand dug by pedestrian only contractor access. Where significant tree roots are present during excavation for new planting, positions of new plants will be adjusted to avoid root damage.
1.18.4 Soil must be backfilled to match the original soil profile and backfill must not be significantly compacted but can be heeled in layers of $300-400 \mathrm{~mm}$.
1.18.5 Any plant or machinery must be positioned outside of RPAs or be sited on fit for purpose ground protection which must be agreed in advance with the Arboriculturist.

### 1.19 Dismantling of tree protection measures

1.19.1 All protective fencing and ground protection must remain in place until all significant scheme works have been completed and approval has been obtained from the Arboriculturist.

### 1.20 Contact details in relation to arboricultural works

Scheme Manager:
Appointed Arboriculturist:
Local Planning Authority Tree Officer(s):

To be confirmed
To be confirmed
To be confirmed

## Appendix D Tree Protection and Removal Plans























[^0]:    ${ }^{1}$ See Table 2 for definitions of each quality category.

[^1]:    7.7.2 The default position is that the RPA and Canopy spread of trees to be retained will form an effective Construction Exclusion Zone (CEZ), secured with robust fencing where no access will be permitted. Where access is necessary within

