# Arboricultural Method Statement in connection with redevelopment at Reading Golf Club, Emmer Green, Reading RG4 8SQ 

Prepared by<br>Jonathan Fulcher DipArb FArborA

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Report Reference: D2218AMSv2
Report Date: 9th February 2023

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## Arboricultural Method Statement

This Arboricultural Method Statement (AMS) has been prepared as a means of compiling all the current information on tree issues into one document that will be available throughout the development process. This AMS directly refers to the relevant Planning Conditions, providing the local authority with an effective legal reference if problems arise during the implementation phase of the development. It will be supplemented by additional details as they become available.

## Summary

This document is an Arboricultural Method Statement relating to the tree issues for the proposals at Reading Golf Club, Kidmore End Road, Emmer Green, Reading RG4 8SQ.

The following table summarises the operations covered in this document and the scheduling that must be applied:-

| Scheduling | Operation | Reference location |
| :---: | :---: | :---: |
| Before any construction equipment arrives on site | Tree works. | See 2.4 and Appendix 5 and plans AC1, AC2 and AC3 |
|  | Installation of protective fencing. | See 2.2.1, 2.2.2 and Appendices 2 and 2a and plans AC1, AC2 and AC3 and AC02 |
| During demolition | Installation of protective fencing. Special measures for demolition / surface removal | See 2.2.1, 2.5.1, 2.5.2 and 2.5.3, <br> Appendices 2 and 2a and plan AC02 |
| During construction | Relocation / installation of protective fencing. | See 2.2, 2.5.1, 2.5.2 and 2.5.3, <br> Appendices 2 and 2a and plans AC1, AC 2 and AC 3 |
|  | Installation of temporary ground protection. | See 2.3 and Appendix 3 and plans AC1, AC2 and AC3 |
|  | Retention of protective fencing. Retention of ground protection. | See 2.2 and 2.3 |
|  | Installation of surfacing. | See 2.7 and plans AC1, AC2 and AC3 |
| After all construction activity completed | Removal of protective fencing. Removal of ground protection. | See 2.2 and 2.3 |

## IMPORTANT REMINDERS

- Damage to the roots of protected trees is an offence and could lead to enforcement action
- There should be no disturbance at all within root protective zones
- Arboricultural supervision is essential
1.1 Purpose of this Arboricultural Method Statement: This is a reference document prepared to address the conditions applied by the planning permission dated 31 st March 2022 (Reading Borough Council ref: 211843) and to support the 'Reserved Matters' application, drawing together the information relevant to managing the tree issues on the site. It sets out details where they are available, and establishes principles where details are to follow.


### 1.2 Details of Consent and description of development:

| Location of <br> Development | Reading Golf Club, Kidmore End Road, Emmer Green, <br> Reading RG4 8SQ |
| :--- | :--- |
| LA Reference | 211843 |
| Description of <br> Development | Outline planning application, with matters reserved in <br> respect of appearance, for demolition of the existing <br> clubhouse and the erection of a new residential scheme <br> (c3 use) to include affordable housing and public open <br> space at the former Reading Golf Club |

### 1.3 Development contacts:

| Architect | ECE Architecture <br> 64-68 Brighton Road <br> WORTHING <br> BN11 2EN <br> Contact: Michael Pirrie / Nick Francis <br> Telephone: 01903248777 <br> E-mail: MPirrie@ecearchitecture.com <br> E-mail: NFrancis@ecearchitecture.com |
| :---: | :---: |
| Applicant | Vistry Thames Valley 550 Oracle Parkway <br> Thames Valley Park <br> READING <br> RG6 1PT <br> Contact: Caroline Belmont - Planning and Design <br> Manager <br> Telephone: 01256674154 <br> E-mail: Caroline.Belmont@vistry.co.uk |

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| Agent | Pegasus Group <br> 21 Ganton Street <br> London <br> W1F 9BN |
| :--- | :--- |
|  | Contact: Esme Omeara - Planner <br> Telephone: 020 3897 1115 <br> E-mail: Esme.Omeara@pegasusgroup.co.uk |
| Arboricultural <br> consultant | Alderwood Consulting Limited <br> 1 Peartree Road <br> SOUTHAMPTON <br> SO19 7GU |
|  | Contact: Jonathan Fulcher <br> Telephone: 02380 444612 / 07736230057 <br> E-mail: jonathan@alder-wood.co.uk |

### 1.4 Local authority contacts:

| Local Authority | Reading Borough Council |
| :--- | :--- |
|  | Planning, Development and Regulatory Services |
|  | Civic Offices |
|  | Bridge Street |
|  | READING |
|  | RG1 2LU |
|  | Planning Case Officer: Matthew Burns |
|  | Telephone: 0118 937 3787 |
|  | E-mail: Matthew.Burns@reading.gov.uk |
|  | Natural Environment Officer: Sarah Hanson |
|  | Telephone: 0118 937 3787 |
|  | E-mail: Sarah.Hanson@reading.gov.uk |

### 1.5 Planning condition relating to trees:

1.5.1 There is one condition specifically relating to trees. This is Condition 17 of the outline planning consent, and it is given verbatim in full below:

| Condition 17 | No development shall commence on site (including demolition <br> or preparatory works) until an Arboricultural Method <br> Statement and Tree Protection Plan in accordance with the <br> relevant recommendations of appropriate British Standards or <br> other recognised Codes of Good Practice for all existing trees <br> that are not shown as being removed on the approved |
| :--- | :--- |


|  | lrawings, both within and adjacent to the site, has been <br> submitted to and been approved in writing by the Local <br> Planning Authority. This shall include amendments to <br> protection measures as required as a result of build phases and <br> details of foundations for all properties within the Zones of <br> Influence of retained and new trees (as defined by NHBC). The <br> development shall not be carried out other than in accordance <br> with the approved Arboricultural Method Statement and Tree <br> Protection Plan. |
| :--- | :--- |
| Reason | In order to ensure that appropriate protection is given to <br> trees of amenity value within and adjacent to the site in <br> accordance with Policy EN14 of the Reading Borough Local <br> Plan 2019. |

1.6 Other conditions: A number of other conditions (7, 10, 12, 14, 34, 41, 47, 48 and 49) exclude tree removal and tree protection from their 'No development ... shall commence...' prohibition, so that tree removal and protection installation are not prerequisites for compliance with those conditions.
1.7 Informatives: Informative 9 is a reminder that:

Only tree works included within the approved Tree Survey/Arboricultural Method Statement are approved by virtue of this consent. Any other works to trees subject to a Tree Preservation Order or to Conservation Area status will require submission of a tree works application or Section 211 Notice respectively.
This Informative is noted and any proposals for tree works in addition to those in the approved Tree Survey will follow the appropriate administrative procedures.
1.8 Tree information: The outline application was supported by a comprehensive tree schedule and 'Arboricultural \& Planning Integration Report' by Arbortrack Systems Ltd report ref: jwmb/rpt8/rgc/P1 dated 3rd November 2021, all in accordance with the recommendations in BS5837:2012. This report is referred to in the O/L consent at Condition 5 - Approved Plans \& Documents, along with tree constraints and protection plans. The report identified trees proposed for removal and a schedule of those is attached at Appendix 5. The report identified tree root protection areas and indicated the locations of temporary tree protection measures, with indicative specifications. The tree protection plan and the recommendations below are based on the report and tree schedule information, revised as appropriate to comply with the $\mathrm{O} / \mathrm{L}$ consent condition 17.
1.9 Council comments: The previous edition of this AMS ref: D2218AMS dated 27.9.22 was submitted to Reading Borough Council and their Natural Environment Officer commented on it in her memo of $22^{\text {nd }}$ December 2022 to the planning case officer (the NEO memo). The comments relating to

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arboricultural elements have been addressed in this revised and amended AMS, with revised site plans in addition.

## 2 DETAILED SPECIFICATIONS

### 2.1 Tree protection plans

2.1.1 Outline application plan: The preliminary tree protection plan in support of the outline application indicated the locations and types of measures for the protection of retained trees. The plan demonstrated that retained trees could be protected to sufficient and acceptable standard without significant harm.
2.1.2 Reserved matters application plan - demolition phase: The tree protection plan in support of the reserved matters application and Condition 17 is based on the MJA Consulting 'Proposed Levels \& Drainage Strategy - Sheet 1' drawing no. 6452-MJA-SW-XX-DR-C-001 revision P2 dated 18/08/2022. This drawing has been used because it has the site layout superimposed on the topographical survey showing where existing buildings, surfaces and landscape features lie in relation to the proposed layout. This allows the proposals for temporary tree protective measures for the demolition phase to take account of existing structures and surfaces. The MJA Consulting Drawing has been annotated with the location and type of temporary tree protective measures and a copy is attached as plan AC002. Tree numbers given are as set out in the approved tree schedule and preliminary tree protection plan.
2.1.3 Reserved matters application plan - construction phase: The tree protection plan in support of the reserved matters application and Condition 17 is based on the ECE Architecture 'Site Layout' plan drawing number: 6960-061 Revision L dated 31/1/23 and presented in three sheets. The three sheets have been annotated with the location and type of temporary tree protective measures and copies are attached as plans AC1, AC2 and AC3. Tree numbers where given are as set out in the approved tree schedule and preliminary tree protection plan. Note: The location of tree protection measure is not everywhere the same as shown on the outline application plan, but adapted to make practical sense e.g. for relating temporary fencing to setting out elements such as house and road locations.
2.1.4 Council comment: The NEO memo noted difficulties in distinguishing tree protection annotations on the previous plan. This has largely been overcome with the use of the three sheets covering the whole site, plans AC1, AC2 and AC3, which has allowed finer detail in the annotations and more clarity on the location of various tree protection measures.
2.2.1 Specification for tree protective fencing - demolition phase: The location of the fencing is shown on the annotated site layout plan AC002 by diamond red hatching enclosed by a dashed red line. The location of the fencing takes account of the need for access round the trees for the process of demolition and surface removal and therefore comes closer to trees in some places than the BS5837 recommended distances. Where this occurs, other protective measures, as detailed below at 2.5.1, 2.5.2 and 2.5.3, will be used to bring tree protection up to the appropriate standard. The fencing will be erected prior to any demolition activity and retained in the positions shown until the completion of demolition. The fencing indicated in the outline application submissions was to the standard recommended in BS5837:2012 i.e. a driven braced scaffold pole framework with plywood facings or preformed galvanised steel mesh panels ('Heras' or similar) of at least 2 m in height securely attached to the driven braced framework. A specification is given at Appendix 2. An alternative specification is given at Appendix 2a. This alternative specification satisfies the BS requirements of excluding demolition activity, being appropriate to the degree and proximity of work taking place near the retained trees and being installed in a fashion that makes it difficult to move easily. The alternative fence specification may be used throughout for tree protection. The position of the fencing shall be altered only with agreement from Reading Borough Council.
2.3 Council comment: The NEO memo confirmed that the tree protection zones during demolition were acceptable.
2.3.1 Specification for tree protective fencing - construction phase: With the demolition phase completed, tree protection measures including temporary tree protective fencing will be moved / erected to provide fencing for the construction phase. The location of the fencing is shown on the annotated site layout plans AC1, AC2 and AC3 by diagonal red hatching enclosed by a dashed red line. The location of the fencing takes account of the need for pedestrian access round the proposed buildings and therefore comes closer to trees in some places than the BS5837 recommended distances. Where this occurs, other protective measures, as detailed below, will be used to bring tree protection up to the appropriate standard. The fencing will be erected prior to any development activity and retained in the positions shown until the completion of development. The fencing indicated in the outline application submissions was to the standard recommended in BS5837:2012 i.e. a driven braced scaffold pole framework with plywood facings or preformed galvanised steel mesh panels ('Heras' or similar) of at least 2 m in height securely attached to the driven braced framework. A specification is given at Appendix 2. An alternative specification is given at Appendix 2a. This alternative specification satisfies the $B S$ requirements of excluding

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construction activity, being appropriate to the degree and proximity of work taking place near the retained trees and being installed in a fashion that makes it difficult to move easily. The alternative fence specification may be used throughout for tree protection. The position of the fencing shall be altered only with agreement from Reading Borough Council.
2.3.2 Council comments: The NEO memo commented on the specification in Appendix 2a and asked for clarity on the use of that specification in relation to RPAs and what would happen to the concrete post bases on completion. This Appendix 2a specification will not be use where temporary fencing is within RPAs - plot 1, opposite plots $31 / 48$, opposite plots $44 / 45$, plots $63 / 64$, plot 76 , opposite plot 90 , plot 96 , opposite plot 98 , opposite plots $112 / 113 / 114$, plots $162-173$, plot 174, plot 180, plots $181 / 182$, plots $184 / 185$. In these locations the Appendix 2 specification will be used. Where the Appendix 2a specification is used, the block foundations for the posts will be removed when the fencing is removed and the levels made good with clean topsoil, as part of the landscape phase.
2.3.3 Boundary / site security fencing: The temporary tree protective fencing specification, either specification, may be used for site boundary and security fencing. Plans AC1, AC2 and AC3 indicate the location of the temporary tree protective fencing extended to provide site security fencing, so that in places the protected trees appear to be excluded from the site by virtue of the location of the fencing. The use of the fencing as site security fencing does not compromise tree protection.

### 2.4 Temporary ground protection

2.4.1 Ground protection: Temporary ground protection will be installed between the protective fencing, or the boundary fencing and the edge of the foundation excavations as required at the locations indicated on plans AC1, AC2 and AC3. This will allow pedestrian access for construction and the movement of small amounts of building materials. The ground protection will also act as a base for scaffolding if such access is required. The ground protection shall be as recommended in BS 5837 i.e. it shall be scaffold planks, or plywood sheets at least 15 mm thick, laid butt-jointed over a geotextile membrane installed on a layer of pulverised bark or similar laid on the existing ground surface i.e. with no significant excavation. Details have already been previewed in the outline application submissions and are attached to this AMS at Appendix 3 for the avoidance of doubt. The minimum areas where these measures apply are the protection zones as indicated on the attached plans AC1, AC2 and AC3 by diamond hatching enclosed by a red dashed line. (See also 2.6 .2 below.)

### 2.5 Schedule of tree removals

2.5.1 Tree removals: The grant of outline consent accepted the removal of trees as identified in the Arbortrack Arboricultural \& Planning Integration Report. The schedule of tree removals is given at Appendix 5. This schedule includes trees that have fallen in storm Eunice in February 2022, since the Arbortrack report. All felling works will be in accordance with BS 3998:2010 Tree Work Recommendations. Trees proposed for removal are shown on the annotated layout plans AC1, AC2 and AC3.
2.5.2 Removal of vegetation not trees: There is vegetation other than trees on site and some of this is proposed for removal e.g. the conifer hedge at the back west edge of the existing parking at the Kidmore End Road end of the site and returning along the south side of the site access along the north side of the site. For the purposes of formal tree controls, this is a hedge, with no individual tree elements within it and managed as a hedge by regular pruning and trimming. Hedges are exempt from control by TPOs. Pruning / trimming would not require a TPO tree work application to and consent from the Council and removal similarly does not require a TPO application to the Council. Removal is accepted in principle by the grant of planning permissions, and there are matters of expediency e.g. nesting birds that may make it desirable to remove the hedge in a specific window of opportunity. It would be prudent to advise the Council when such works were proposed as a courtesy, but not in order to get consent.

### 2.6 Details of general arboricultural matters

2.6.1 Demolition - buildings / structures within RPAs: Parts of the south elevations of the existing clubhouse and associated buildings are within or close to RPAs of trees T81-T85 just outside the south site boundary. The demolition of such structures in the areas indicated on plan AC002 will use a 'top down, pull back' process where the plant removing the superstructure sites within the existing building footprint and pulls all arisings back into the footprint, with the arisings and muck away out to the north outside RPAs. For those parts of the foundations within RPAs, these will be broken up using hand tools that may include pneumatic chisels, with arisings removed by hand. The ground will be made good and up to level with non-compactable granular material and finished with good quality topsoil. Replacement buildings are outside these RPAs. A similar process applies to smaller structures e.g., low walls, hard landscape features within RPAs.
2.6.2 Removal of existing surfaces within RPAs: Where there are existing surfaces within RPAs as indicated on plan AC002, they act as ground protection and may continue to do that for the demolition / construction phases as long as

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they are retained. Where surfaces within RPAs are removed, they shall be broken up using using hand tools that may include pneumatic chisels, with arisings removed by hand. There shall be no excavation into previously undisturbed ground. Where such areas are proposed to be replaced with surfacing, the provisions of 2.7.1 below and Appendix 4 apply. Where such areas are returned to landscaping, levels shall be made good with a granular non-compactable material and finished with good quality topsoil.
2.6.3 Removal of existing drainage provisions within RPAs: There are large drainage inspection chambers within the RPAs of trees T83-T85 in the areas indicated on plan AC002. The drainage in this area will be decommissioned. Current good site practice requires that these installations are removed. It is highly likely that plant will be required for this. Such plant will run in to the location on existing surfacing before that is removed and work from that surfacing. Installation removal would preferentially be from the inside out, where structures are broken up from within the space of the inspection chambers either manually using hand tools that may include pneumatic chisels; using a pneumatic chisel attachment on and excavator boom; or by pulling construction elements e.g. preformed drainage rings out from above using an excavator boom; or a combination of these methods. All arisings will be removed from site in the same manner as the demolition arisings. Voids will be filled with compactable material to avoid significant ground settlement, with levels made good with good-quality topsoil.
2.6.4 Storage of materials, concrete mixing, use of fires: The temporary fencing defines the areas available for site access and the storage of non-toxic materials. In addition, the following precautions will be taken:

- There will be no fires on the site without the express permission in writing of the Local Planning Authority
- There will be no storage or mixing of harmful materials e.g. DERV fuel, concrete within 10 m of the trunk of any retained tree
- If concrete is to be mixed within 10 m of any retained tree, it shall be in a watertight bund, with any outfall outside the 10 m exclusion zone


### 2.7 Foundations

2.7.1 Foundations in zones of influence: Condition 17 required details of foundations for all properties within the Zones of Influence of retained and new trees (as defined by NHBC). The locations of foundations meeting the NHBC special requirements for foundations within or close to the zones of influence of trees are shown on the Eastwood Consulting Engineers 'Foundation Zoning Plan - Sheet 1' drawing no. 47313-ECE-XX-XX-DR-S-0001 revision P1 dated 17/08/2022. This drawing, with the foundation specifications, is submitted separately with the reserved matters submissions.

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2.7.2 Use of piles near RPAs: The 'Foundation Zoning Plan' drawing is predicated on soil conditions and the presence of trees insofar as they may influence soil volumes, applying to retained and removed trees. Piling is not required as a consequence of structures proposed within RPAs. In places structures where piling is proposed are close to RPAs of tree proposed for retention - plots 96, 161, 162/173, 180184 and 185. For these structures piling rig access will be from within the structure footprint i.e. outside RPAs. If that is not practicable, temporary ground protection will be installed against the elevations of the structures close to RPAs. The recommendation in BS5837 for wheeled / tracked construction vehicles exceeding 2 tonnes gross weight is a proprietary system to an engineering specification designed to accommodate the likely loading. For example, the 'Euormat' system consists of $8 \mathrm{ft} \times 4 \mathrm{ft}$ HDPE mats or plates with a mat payload up to 80 tones, interlocked to form a uniform protected surface. The mats may be laid on a geotextile which is itself laid over a blinding course of chipped bark to provide a flat surface. The installation and use of such a system, with the temporary tree protective fencing, will limit the risk of harm to retained trees to an acceptable minimum.
2.7.3 Council comments - sleeved piles: The NEO memo refers to sleeved piles in or close to RPAs to avoid concrete coming into contact with roots. For clarification, sleeved piles will be used for any piles within or close to (within $1 \mathrm{~m})$ RPAs e.g. at plots $96,161,162 / 173,180,184$ and 185.
2.7.4 Council comments - zones of influence for trees: The NEO memo referred to the determination of soil plasticity and water demand of each species (retained /proposed) so that the zones of influence of trees and the necessary foundation types could be determined. The foundation design is by Eastwood Consulting Engineers. They say in response:

All foundations on the site have been designed in accordance with the NHBC Standards (Chapter 4.2), and the influence of all surveyed existing and removed trees, as well as all proposed trees, has been taken into account when calculating foundation depths. This is usually considered to be an acceptable approach to obtain building control approval.

Our analysis in accordance with the NHBC standards has found that some plots will need to be piled due to the influence of trees, and such instances are already indicated on the foundation zoning plan. Piling more plots than required by the NHBC standards would lead to increased construction costs and embodied carbon, so we would only recommend that additional plots are piled if there was a specific technical reason to do so. We do not consider the general points about foundations in shrinkable soils which have been made by the planning officer to constitute a reasonable justification for the blanket adoption of piling across the site when the associated cost and sustainability trade-offs are considered. If there are any specific technical issues the planning officer needs us to address to help clear this condition, we would be pleased to do so.

We did not indicate the influence circles of the proposed trees on the foundation zoning plan, as none of the proposed trees cause any of the plots on the site to require piling.

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We can copy the tree circles from our detailed foundation drawings onto the foundation zoning plan if required.

The plasticity of the soil has been assessed for the site by the Geo-Environmental Engineer, and the foundation design has been carried out on the basis that the soil has a high volume change potential.

### 2.8 Surfaces

2.8.1 Special surfacing within root protection areas: The preliminary tree protection plan submitted with the outline application showed special surfacing in places where such surfacing was within root protection areas. The grant of consent accepted the principle of the use of such surfacing. The places where special surfacing in respect of proximity to root protection areas should be used are shown on plans AC1, AC2 and AC3. Surfacing in these places shall be installed in accordance with the indicative specification at Appendix
4. The use of such surfacing may be extended to other location for SUDs purposes as indicated on plans AC1, AC2 and AC3.
2.8.2 Council comments: The NEO memo refers to new surfacing near / within RPAs and has concerns about matching levels and constructions. The principle is that new surfaces within RPAs would be installed using methods that reduce the risk of harm to trees to an acceptable minimum. Typically, this is with the use of an appropriate specification of cellular confinement system. For pedestrian paths not at the back of footways, this is a reasonably straightforward proposition e.g. for the path from the west cul-de-sac outside plot 174. The path levels can change across the area and the finished levels allow for the depth of construction. Any levels changes at the sides of the paths to the original levels can be managed with a batter of topsoil from the edge of the paths back to the original ground level. For pedestrian paths along access roads e.g. south of plot 210, south of plots $162-173$, the plans show the minimum areas where special surfacing construction is proposed. In practical construction terms it may be preferable to use this method of installation for greater lengths of footway, so that if there are levels discrepancies, there is a good length of footway to allow the levels to be adjusted to match.

### 2.9 Services

2.9.1 Street lighting: The locations of the installed street lighting provisions are shown on the MJA Consulting drawing 6452-MJA-SW-XX-DR-C-030 revision 5 dated 05.12.2022. This shows no lighting columns likely to cause significant harm to trees within RPAs.
2.9.2 Drainage: The location of proposed adoptable services - foul and surface water sewers - is shown on the MJA Consulting 'Drainage Strategy - General

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Arrangements' drawing no. 6452-MJA-SW-XX-DR-C-020 dated 19/05/2022. This shows no significant conflict between the proposals and retained trees and no special measures for the installation of such sewers in respect of trees are proposed.

### 2.10 Other structures

2.10.1 Sheds: The plans show sheds in the rear gardens of some plots and in places these are partly within or near RPAs. The sheds will be a low impact structures of wood with preformed panels set on a wooden floor on joists attached to wooden posts set in holes dug by hand. This would effectively be a 'no-dig' specification, with excavations limited to small hand-dug sockets for posts. An alternative base is a cellular confinement system laid over the existing ground with no excavation. Retained trees will be protected during the shed installation by a combination of temporary protective fencing and ground protection.
2.10.2 Walls: The NEO memo refers to retaining walls near / within RPAs. The drawings I have seen are not explicit in respect of indicating which boundary markers are fences and which walls. Wherever such boundary markers (plot separators between plots and between plots and POS) are within RPAs, they shall be fences. Such fences shall be low-impact installations in respect of trees. Wooden support posts shall be inserted in sockets dug by hand at approximately 2 m centres, with the fencing between the posts as preformed panels or cut on site. Any gravel boards will be installed with the underside of the lowest gravel board at ground level.

### 2.11 Other Council comments

2.11.1 Grass verges along road increased: The suggestion is that this has pushed pavements further into RPAs. Surfaces within RPAs have been accepted in principle, provided that special measures for installation are used to keep the risk of harm to retained trees to an acceptable minimum. The plans AC1, AC2 and AC3 indicate where such special surface installation is proposed.
2.11.2 Plots 54-56: The suggestion is that amending these to semi-detached and moving them closer to the south boundary has reduced the usable garden space. The plans suggest that there is still a separation of some 15 m between the rear elevations of the dwellings and the trees, which seems reasonable; and the trees provide a useful screen between the proposed dwellings and the adjacent properties to the south.
2.11.3 Plot 76: The suggestion is that changes have brought the plot and parking closer to the tree. The tree has been shown with temporary protective fencing

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in excess of its RPA on two sides and special measures for surface installation. These are all measures that help to minimise the potential impact of the proposed development on the tree.
2.11.4 Plot 99: The suggestion is that changes have brought the plot closer to trees and their shade. The plot has POS to the front southeast and side southwest and a reasonable separation from trees, which are not unduly dense here. The rear garden is well outside tree canopies and trees provide a useful screen between the proposed dwelling and the adjacent properties to the southwest.
2.11.5 Plots 115 and 117: The suggestion is that changes have brough the plots closer to trees and their crowns overhang the gardens. Of the four trees two are hawthorns which are small and without spreading crowns. The other two are horse chestnut and their crowns overhang plots 115 and 117 to some extent. The orientation of the trees and plots mean that the trees won't be unduly influential on direct sunlight for most of the day and will not cast significant shade past late morning. The relationships appear to be reasonable, and the Council could resist unreasonable applications for TPO tree work.
2.11.6 Plots 137-139: The suggestion is that changes have reduced the lengths of the gardens and brought the plots closer to trees. The trees are hawthorns and not unduly influential on sunlight and daylight and not unduly dominant or likely to be so.

## Appendix 1

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## Brief qualifications and experience of Jonathan Fulcher

1. Qualifications: I hold the City and Guilds Certificate in Arboriculture, and the Royal Forestry Society's Professional Diploma in Arboriculture, which is one of the premier qualifications within the Arboricultural Profession. I am also a Registered Consultant of the Arboricultural Association.
2. Practical experience: I have worked in local government tree management for over twenty years. After cutting my teeth as an arborist at London Borough of Redbridge, I moved to London Borough of Islington where I supervised direct works for three years. I joined New Forest District Council in 1987, where I made and administered Tree Preservation Orders and advised on arboricultural issues relating to planning applications. In 1991, I moved to Poole Borough Council as Senior Arboricultural Officer, leading a small professional team providing a comprehensive arboricultural service to the Council. Duties included arboricultural consultancy on major development proposals, acting as arboricultural witness at Public Inquiries and setting and running tree work contracts. I joined Barrell Treecare as a self-employed arboricultural consultant in March 1998, leaving in early 2003 to become a fully independent consultant. My clients include local and national development companies, schools, public utilities and Local Planning Authorities. From 2003-2008 I was one of a small number of arboricultural consultants appointed by the Department for Communities and Local Government (DCLG) for the determination of Tree Preservation Order application appeals. This function was transferred to the Planning Inspectorate in 2008, when I was appointed as a contracted Inspector for Tree Preservation Order application and High Hedge appeals, serving until 2016.
3. Continuing professional development: I am a Fellow of the Arboricultural Association by examination, and have served the Association as a member of their Local Authority Committee, including one year as committee chair. I have been coorganiser of national seminars on Tree Strategies and Tree Preservation Order Enforcement, and given papers and chaired sessions at the Association's annual conferences. I am currently a member of the Association's Consultants Working Party and interim lead assessor for the Associations Registered Consultants scheme. I keep professionally current through professional reading, subscription to professional journals and by regular attendance at seminars and conferences.

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## Appendix 2 <br> A specification for temporary tree protective fencing



Purpose: Fencing will be installed to protect trees during the development process. Fencing should:

- Exclude construction activity
- Be appropriate to the degree and proximity of work taking place around the retained tree(s)
- Be installed in a fashion that makes it difficult to move easily
- Be maintained to ensure that they remain rigid and complete
- Be installed in the positions agreed with the Local Planning Authority and shown on the fencing plan
Specification: Fencing should satisfy the above criteria. A typical construction is indicated in BS 5837:2012 and illustrated above. The fencing on this site will be to the standard recommended in BS 5837:2012 i.e. a scaffold framework comprising a vertical and horizontal framework, well braced to resist impacts (and see also Appendix 2a), with vertical tubes spaced at a maximum interval of 3 m . On this, weldmesh panels should be securely fixed with wires or scaffold clamps.
Location: The location of the fencing is shown on the annotated site layout plan. The fencing will be erected prior to any demolition or development activity and retained in the positions shown until the completion of development or as required for landscaping and path installation. The position of the fencing shall be altered only with agreement from the Local Planning Authority.

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## Appendix 2a

A specification for temporary tree protective fencing posts


## Appendix 3

A specification for temporary ground protection and scaffolding support


Purpose: Ground protection shall be installed in the locations indicated to protect trees during the development process. Ground protection should:

- Protect roots from compaction, abrasion or other damage during development
- Allow only pedestrian access into the protected area
- Allow the movement of materials by hand only within the area with ground protection
- Allow the installation and use of scaffolding within the area with ground protection
- Be installed in a fashion that makes it difficult to move easily
- Be installed in a fashion that allows it to remain effective for the life of the development
- Be installed in the positions agreed with the Local Planning Authority and as shown on the tree protection plan
Specification: Ground protection should satisfy the above criteria. BS5837:2012 does not illustrate this, but a typical installation is indicated in BS 5837:2005 and illustrated above. The board surfacing may be scaffold planks; or 15 mm plywood sheets; or proprietary ground protection e.g. perforated steel/alloy sheets. The compressible layer shall be at least 50 mm thick and be of chipped bark or composted wood chips or similar organic material and shall be laid to even out localized levels changes.
Location: The location of the ground protection is shown on the annotated site layout plan by diamond hatching. The ground protection will be installed with arboricultural supervision prior to development activity and retained in the positions shown until the completion of development or as required for landscaping and path installation. The position of the ground protection shall be altered only with agreement from the Local Planning Authority.


# Appendix 4 <br> A specification for the installation of special surfacing 

## Method Statement <br> For The Installation of <br> Cellweb Tree Root Protection System

When considering damage to tree roots, in
 applications of vehicular access and parking, the risk of oxygen depletion caused by compaction of subsoil's, site clearance damaging the root source and type of reinforcement are areas which need to be given due consideration.

## Other risk factors are:

- Creating an impermeable surface
- Causing a rise in the water table due to construction
- Increasing ground level
- Contamination of subsoils


## 1. Compaction

When looking at site conditions and use, the following information should be considered to enable a load bearing structure capable of supporting traffic to be proposed:

- Californian Bearing
ratio (CBR) -
Standard test method
for measuring soil
strength
- Soil types
- Water table
- Maximum load (vehicles)
- Acceptable rut depth
- Reinforcement type

Cellweb Cellular Confinement

- Type and Depth of

Clean, angular. Usually 40 mm to 20 mm . engineered infill material
-
2. Dig (site strip)

Site stripping does damage some root structure prior to construction; however, the use of no-dig construction elevates the access road requiring edge protection.

## 3. No dig

3.1. Remove surface Use a suitable herbicide suitable for the specific vegetation vegetation
3.2. Place geotextile Use a Fibretex F4M non-woven Goetextile over the prepared separation filtration layer
3.3. Cellular Confinement System
3.4. Edge restraint sub-grade. Overlap dry joints by 300 mm .
The three-dimensional cell structure, is formed by ultrasonically welding polyethylene (perforated) strips / panels together to create a three dimensional network of interconnecting cells. A high degree of frictional interaction is developed between infill and the cell wall, increasing the stiffness of the system

## 4. Cellular Confinement and Backfill Material.



Expand the Cellweb 2.56 m wide panels to the full 8.1 metre length. Pin the Cellweb panels with staking pins to anchor open the cells and staple adjacent panels together to create a continuous mattress. Infill the Cellweb with a no fines angular granular fill (typically 4020 mm ) within each open cell. The use of cellular confinement reduces the bearing pressure on the subsoil by stabilising aggregate surfaces against rutting under wheel loads. Comparisons between cellular confinement and traditional aggregate and geogridreinforced structures demonstrate a $50 \%$ reduction in construction thickness of the granular material.

## 5. Surfacing Options

## Block Paving:

5.1. Lay second layer of Fibretex F4M Geotextile separation fabric over the infilled Cellweb sections
5.2. Lay sharp sand bedding layer compacted with a vibro-compaction plate to recommended depth.
5.3. Place block paviours as per manufacturer's instructions.

Tarmac:
5.4. Place 25 mm surcharge of the granular material above the Cellweb system and lay the bitumen base and wearing courses.

## Loose Gravel:

5.5. Place second layer of Fibretex F4M Geotextile separation fabric over the infilled Cellweb sections
5.6. Place decorative aggregate to required depth

NOTE: A treated timber edge should be provided to restrict gravel movement.

## Grass Blocks:

5.7. Place second layer of Fibretex F4M Geotextile separation fabric over the infilled Cellweb sections
5.8. Place $50 / 50$ root-zone bedding layer to the required depth
5.9. Lay recycled Duo Block 500 Grass Protection System infilled with 50/50 root-zone mix.
5.10. Seed as per architect's instructions.
(Alternatively, the Grass Blocks may be infilled with gravel.)

Below are illustrations of the correct stapling procedure for joining both edges and ends of panels together.


## Appendix 5

Schedule of tree removals for Reading Golf Club, Emmer Green, Reading Reading Borough Council Ref: 211843

| Tree No | Species |
| :---: | :---: |
| 1 | Himalayan birch |
| 9 | Lime |
| 10 | Lime |
| 21 | Lime |
| 22 | Flowering cherry |
| 23 | Flowering cherry |
| 32 | Oak |
| 33 | Oak |
| 34 | Oak |
| 35 | Oak |
| 37 | Ash |
| 38 | Ash |
| 39 | Cherry laurel |
| 41 | Lilac |
| 42 | Hawthorn |
| 43 | Flowering cherry |
| 44 | Flowering cherry |
| 45 | Wild cherry |
| 46 | Rowan |
| 47 | Wild cherry |
| 48 | Unknown |
| 49 | Hawthorn |


| Tree No | Species |
| :---: | :---: |
| 65 | Variegated holly |
| 66 | Hawthorn |
| 67 | Norway spruce |
| 68 | Norway spruce |
| 69 | Norway spruce |
| 70 | Sorbus sp |
| 71 | Hawthorn |
| 73 | Rowan |
| 94 | Silver birch |
| 95 | Whitebeam |
| 96 | Whitebeam |
| 97 | Downy birch |
| 98 | Myrobalan plum |
| 99 | Whitebeam |
| 100 | Whitebeam |
| 101 | Whitebeam |
| 104 | Rowan |
| 105 | Apple |
| 106 | Whitebeam |
| 107 | Rowan |
| 108 | Swedish whitebeam |


| Tree No | Species |
| :---: | :---: |
| 109 | Apple |
| 111 | Wild cherry |
| 112 | Downy birch |
| 114 | Rowan |
| 115 | Silver birch |
| 116 | Downy birch |
| 135 | Wild cherry |
| 136 | Poplar |
| 137 | Poplar |
| G138 | Mixed broadleaf |
| 139 | species |
| 145 | Crack worn |
| G165 | Oak |
| 166 | Silver birch |
| 167 | Wild cherry |
| 168 | Maple |
| 169 | Wild cherry |
| 170 | Wild cherry |
| 181 | Ash |
| 185 | Oak |

## Appendix 5

Schedule of tree removals for

## Reading Golf Club, Emmer Green, Reading

 Reading Borough Council Ref: 211843| Tree No | Species |
| :---: | :---: |
| G189 | Mixed broadleaf <br> species |
| 190 | Silver birch |
| 191 | Silver birch |
| 192 | Downy birch |
| 193 | Downy birch |
| 194 | Silver birch |
| 197 | Wild cherry |
| 198 | Norway maple |
| 199 | Norway maple |
| 200 | Hawthorn |
| 201 | Norway maple |
| 202 | Myrobalan plum |
| 203 | Cypress |
| 204 | Cypress |
| 206 | Hawthorn |
| 209 | Hawthorn |
| 229 | Wild cherry |
| 247 | Hawthorn |
| 248 | London plane |
| 249 | Crack willow |


| Tree No | Species |
| :---: | :---: |
| 250 | Ash |
| 252 | Hawthorn |
| 253 | Lime |
| 254 | Lime |
| 266 | Myrobalan plum |
| 271 | Downy birch |
| 272 | Ash |
| 273 | Hawthorn |
| 274 | Ash |
| 275 | Horse chestnut |
| 276 | Horse chestnut |
| 277 | Hawthorn |
| 282 | Hawthorn |
| 283 | Hawthorn |
| 285 | Hawthorn |
| 286 | Hawthorn |
| G293 | Hawthorn |
| 296 | Hawthorn |
| 305 | Hawthorn |
| 309 | Downy birch |
| 310 | Thorn sp |


| Tree No | Species |
| :---: | :---: |
| 316 | Unknown |
| 318 | False acacia |
| H25 | Cypress |

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Vistry
Group

Kidmore End Road, Reading
Dirang gite
Details
Site
Layout - Sheet 2



