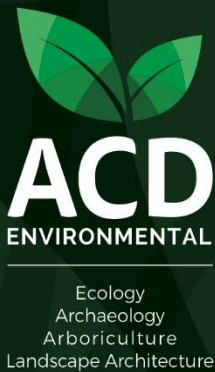


OAKCROFT LANE STUBBINGTON

ARBORICULTURAL IMPACT ASSESSMENT & METHOD STATEMENT

for

PERSIMMON
HOMES



Written By:	T Grayshaw
Checked By:	A Bigg
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1. Executive Summary

- 1.1. The site is currently open fields given to arable use to the south and north of Oakcroft Lane. To the west of the site is Crofton Cemetery and Old Crofton Church. To the south and east of the site there is residential housing accessed from May's Lane & Marks Tey Road. The proposed development consists of 209 residential dwellings.
- 1.2. This report has been revised in May 2020 following revisions to the proposed layout.
- 1.3. This impact assessment is intended to evaluate the direct and indirect effects of the proposed design on the trees on site, and where necessary recommends mitigation.
- 1.4. The development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Adequate protection can be provided to ensure all retained trees are protected throughout development in the form of barriers and/or ground protection.
- 1.5. G13 are a group of Hybrid Black Poplar located on the site boundary. These require management in order to form a sustainable relationship with the proposed development. It is proposed some of the group are removed where the road link is proposed, and also that the group to be thinned by removing weak or leaning trees along with trees that show signs of stem decay. Where individual trees are to be removed for the road link tree planting will be proposed in mitigation.
- 1.6. Excepting G13, all of the A and B category trees are to be retained and protected throughout the development. There is ample scope for tree planting as part of the landscape proposals.
- 1.7. The relationship between the buildings and retained trees is sustainable and does not result in any situations which may result in unreasonable pressure to prune requests from future occupants.
- 1.8. The Arboricultural Method Statement (AMS) has been compiled in conjunction with the Tree Protection Plan (TPP) for the purpose of feasibility and planning, as per Figure 1 of BS5837:2012. These detail any mitigation which will be necessary to ensure the protection of retained trees throughout the development.

2. Introduction

- 2.1. ACD Environmental was instructed in February 2019 to prepare the following Arboricultural Impact Assessment and Method Statement by Persimmon Homes. Reference should be made to the appended Tree Protection Plan (PER21504-03A).
- 2.2. This report has been revised in May 2020 following revisions to the proposed layout.
- 2.3. This Method Statement is to be made available to all operatives on site during the construction process, so that they understand the scope and importance of the measures set out for tree protection. Implementation of the protection methods and other details within this report are integral to ensuring protection for the retained trees.
- 2.4. For details of trees to be retained, and locations and types of special protection methods, reference should be made to the latest revision of Tree Protection Plan (ref: PER21504-03A), which should be displayed prominently on site for all staff to see.
- 2.5. To ensure accuracy and avoid future costly adjustments, the Tree Protection Fence must be set out by a surveyor with all node points being marked clearly on site for the fencing contractor to work to. The autocad version of the Tree Protection Plan is available on request.
- 2.6. This report is based on the recommendations given in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 2.7. Trees on the site are covered by Tree Preservation Orders with the following references:
 - FTPO 80 (1980) – Trees on boundary of southern field (T56 – T88 approximately)
 - FTPO 91 (1986) – Trees on southern boundary of wooded area (see plan)
 - FTPO108 (1987) – Trees on eastern boundary (T92 – T145 approximately)Further details are provided at appendix 3 below.
- 2.8. The controlling authority is Fareham Borough Council who can be contacted at: www.fareham.gov.uk.
- 2.9. Any questions relating to the content of this report should be directed in the first instance to: ACD Environmental, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425 714/07796 832 490, quoting the site address and report reference number.
- 2.10. The following abbreviations have been used throughout this document:
 - Root Protection Area – RPA
 - Construction Exclusion Zone- CEZ
 - Tree Protection Plan – TPP
 - Tree Protection Fencing – TPF

3. Arboricultural Impact Assessment

- 3.1. The site is currently open fields given to arable use to the south and north of Oakcroft Lane. To the west of the site is Crofton Cemetery and Old Crofton Church. To the south and east of the site there is residential housing accessed from May's Lane & Marks Tey Road. The proposed development consists of 209 residential dwellings.
- 3.2. This impact assessment is intended to evaluate the direct and indirect impacts on the trees on the site in relation to the proposed development. Any potential tree impacts are identified as per BS5837:2012 section 5.4, and details are given of proposed mitigation.
- 3.3. Any potentially damaging activities proposed in the vicinity of retained trees are identified, such that mitigation to significantly reduce or avoid this impact can be detailed in the Arboricultural Method Statement and Tree Protection Plan as recommended in BS5837:2012 section 5.4.2.
- 3.4. The development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Adequate protection can be provided to ensure all retained trees are protected throughout the development.
- 3.5. The tree survey for the site is at Appendix 2 of the Tree Report for the site ACD reference PER21504tr.
- 3.6. This assessment is based upon the supplied layout drawing ref: Stubbington Master 20-05-2020.
- 3.7. **Evaluation of impact of proposed tree losses**

G13 are a group of Hybrid Black Poplar located on the site boundary. These require management in order to form a sustainable relationship with the proposed development. It is proposed some of the group are removed where the proposed road link is proposed, and also that the group to be thinned by removing weak or leaning trees along with trees that show signs of stem decay. Although G13 is a category B group, due to the groups landscape value as a whole, many of the individual trees within the group would be classed as category C if they were assessed individually. The removal of weak, leaning or decayed stems from G13 will not diminish the overall landscape value of the group. Where individual trees are to be removed for the road link tree planting is proposed in mitigation.

3.8. Protection for retained trees

BS5837:2012 section 6.2.1. states: 'All trees that are being retained on site should be protected by barriers and/or ground protection (see 5.5) before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. A specification for protective fencing is given on the Tree Protection Plan. This consists of interlocking weld-mesh panels (e.g. heras) well braced by attachment to scaffold

pole uprights driven firmly into the ground. Should any alternative method of barrier construction be proposed, consultation with the project arboriculturist will be obtained to clarify the efficacy of the revised design prior to informing the local planning authority and obtaining their consent.

3.9. New Hard Surfaces within RPAs

It is confirmed there are no new hard surfaces proposed within the RPAs of retained trees.

3.10. Construction within RPAs

It is confirmed there are no buildings proposed for construction within the RPAs of retained trees.

3.11. Shade and future pressure to prune

The site layout has been assessed in terms of shading and future pressure to prune. Given the orientation of the site, and the relationship between the proposed buildings and the retained trees, the juxtaposition is viable for long-term tree retention, and it is considered that shading by trees is unlikely to be a concern to future residents. As a result, it is considered unlikely that there would be any undue pressure to remove trees, or excessively prune from any future occupants.

3.12. Services

It is fundamental to tree protection that infrastructure design is sensitively approached, as trenching close to trees may damage roots and affect tree health and stability. Details of services have not been provided at the time of writing. The Tree Protection Plan, showing the constraints posed by retained trees will be passed to the infrastructure engineers to inform their design, ensuring that all services avoid areas of potential conflict. As per BS5837:2012 Figure 1, once further details become available as part of the detailed/technical design for the site, the TPP and AMS will be revised to incorporate these details for services for inclusion in the Tender documentation.

3.13. Levels and Landscaping

Full details of any changes in ground levels on site remain to be finalised. Any alterations to levels close to trees may damage roots and affect tree health and stability. Unless no-dig methodology is proposed for installation of surfaces within RPAs the original levels in these areas must be noted, retained, and integrated into the engineering design of the site. Landscaping operations within the RPAs of retained trees must be carried out in a sensitive manner and be subject to a detailed method statement and arboricultural supervision.

3.14. **Boundaries**

All plot boundaries will need to be designed, positioned and installed to avoid damage to retained trees. When within RPAs, this will include hand excavation of all post holes, and the lining of any post holes with a non porous membrane to stop leachates from the concrete damaging tree roots.

3.15. **Public Open Space (South)**

It is proposed that the area to the south of the site, in the location of the G18 trees, is to be utilised as public open space. There is an existing public right of way at the north of this area from Marks Tey Road at the east through to Crofton Cemetery at the west. It is proposed that the existing footpath is improved, and a new footpath provided within the G18 group. In order to ensure there is no adverse impact to existing trees this will be installed to a no-dig specification. A schedule of tree surgery works to ensure the G18 trees are reasonably safe is recommended prior to use.

4. Arboricultural Method Statement

**TO BE READ IN CONJUNCTION WITH THE APPENDED TREE PROTECTION
PLAN REFERENCE: PER21504-03A**

4.1. Phasing of operations for tree protection

4.1.1. Implementation of tree protection measures on the site must be carried out in the following order

- 1) Tree removals and tree surgery
- 2) Line of tree protection fence to be set out to node points by surveyor
- 3) Accurate erection of tree protection fence and ground protection
- 4) Site accessible to construction/demolition traffic
- 5) Demolition/site clearance
- 6) Construction
- 7) Removal of tree protection fencing
- 8) Remedial tree surgery (if required)

4.1.2. The above phasing must not be changed without approval from the project arboriculturist and agreement with the Council.

4.2. Restrictions within tree protection areas

4.2.1. Inside the exclusion area of the fencing, the following shall apply:

- No mechanical excavation whatsoever
- No excavation by any other means without arboricultural site supervision
- No hand digging without a written method statement having first been approved by the project arboriculturist.
- No lowering of levels for any purpose (except removal of grass sward using hand tools)
- No storage of plant or materials
- No storage or handling of any chemical including cement washings
- No vehicular access
- No fire lighting

4.2.2. In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees
- No fire shall be lit such that flames come within 5m of tree foliage.

4.3. **Avoiding damage to stems and branches**

- 4.3.1. Care shall be taken when planning site operations in proximity of retained trees to ensure that wide or tall loads, or plant with booms, jibs and counterweights, can operate without coming into contact with retained trees. Such contact can result in serious injury to them and might make their safe retention impossible.
- 4.3.2. Consequently, any transit or traverse of plant in proximity of trees shall be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is at all times maintained. In some circumstances, it may be impossible to achieve this without pruning works known as 'access facilitation pruning'.
- 4.3.3. Access facilitation pruning shall be kept to the barest minimum necessary to facilitate development and shall be carried out in strict accordance with the guidance below (Tree Surgery). Under no circumstances shall construction personnel undertake any tree pruning operations.

4.4. **Tree protection fencing**

- 4.4.1. The Tree Protection Plan (see the latest revision of: PER21504-03A) shows the alignment of Tree Protection Fencing (TPF), which is to be installed prior to any of the following taking place:
- Demolition
 - Plant and material delivery
 - Soil stripping
 - Utility installation
 - Construction works
 - Landscaping
- 4.4.2. Stages for installation of TPF:
- 1) Hand clearance of any vegetation to allow clear working access.
 - 2) Setting out of fencing points
 - 3) Fencing erected
 - 4) Site accessible to demolition/construction traffic
- 4.4.3. To ensure accuracy and avoid future costly adjustments, the Tree Protection Fence must be set out by a surveyor with all node points being marked clearly on site for the fencing contractor to work to.
- 4.4.4. Once erected, all TPF will be regarded as sacrosanct, and will not be removed or altered without prior recommendation by the project arboriculturist and approval of the local planning authority.
- 4.4.5. The typical TPF construction is suitable for areas of high intensity development, and shall comprise of interlocking weld-mesh panels, well braced to resist impacts by attachment to a scaffold framework that is set firmly into the ground. A detailed specification can be found on the TPP.

- 4.4.6. Should any alternative method of barrier construction be proposed, consultation with the project arboriculturist will be obtained to clarify the efficacy of the revised design prior to informing the local planning authority and obtaining their consent.
- 4.4.7. Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence.
- 4.4.8. All weather notices should be erected on the barriers (for example see figure below).



Figure 1: Tree Protection Sign (digital copies available for download at: www.acdenvironmental.co.uk)

4.5. Site storage, parking, welfare facilities

- 4.5.1. The site will require provision for; site storage, contractor parking, welfare facilities, temporary services/drainage, material drop of points, etc.
- 4.5.2. No details of these provisions are available at the time of writing of this report.
- 4.5.3. None of the above provisions will be sited within RPAs of retained trees without the input or the project arboriculturist and the consent of the Local Authority.

4.6. Tree surgery and removal

- 4.6.1. The Tree Protection Plan (PER21504-03A) indicates those trees to be removed with a red cross on the stem. Further trees from within G13 are proposed to thin the group as per details below.
- 4.6.2. G13 is to be thinned by removing weak or leaning trees, along with trees that have damage to the stem or stem decay. Prior to works commencing the project arboriculturist will identify which trees within G13 are proposed for removal by clearly marking trees to be removed with paint.
- 4.6.3. If any further surgery works are proposed, it will be submitted to, and approved by the council before being carried out.
- 4.6.4. All work will be carried out in accordance with BS 3998:2010 Recommendations for Tree Work, industry best practice and in line with any works already agreed with the Council.
- 4.6.5. The tree surgery contractor is responsible for carrying out any relevant health and safety risk assessment, and insurance, prior to any work being carried out.
- 4.6.6. The statutory protection afforded by the Wildlife and Countryside Act and Countryside and Rights of Way Act will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.
- 4.6.7. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either; cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.
- 4.6.8. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

4.7. Soft landscaping within RPAs

- 4.7.1. All landscaping and associated ground preparation within exclusion zones will be carried out sensitively to ensure root damage is mitigated as much as is practicable. At no time is any heavy plant to be used within any protected area. Removal of existing vegetation will be carried out by hand, turf may be removed using a mechanical turf stripper or by hand.

Turfing

- 4.7.2. Stages for turfing gardens and open spaces:

No plant machinery¹ to be used in the area for whatever reason

- 1) Remove TPF to allow access to area.
- 2) Do not reduce any high spots or excavate in any way.
- 3) Existing poor quality turf may be removed with a turf stripper.
- 4) Use good quality top-soil to level any low-lying areas and hollows, and provide a fine tilth to lay turf on. This imported soil must not result in a level increase of more than 100mm in any area.
- 5) Import turves by hand in wheelbarrow
- 6) Lay turves

Planting

- 4.7.3. Should the soil be compacted or have a poor structure which may hinder the development of any new planting, soil decompaction techniques may be used upon consultation with the project arboriculturist.

- 4.7.4. Stages for planting within tree protection areas:

No plant machinery to be used in the area for whatever reason

- 1) Remove TPF to allow access to area.
- 2) Remove existing vegetation by hand, turf may be removed using a mechanical turf stripper.
- 3) Do not reduce any high spots or excavate in any way.
- 4) Import good quality top-soil by hand (with wheelbarrow) into area.
- 5) Level to a depth of no more than 100mm with hand tools
- 6) Dig individual planting pits for each plant by hand (including hedging which must not be trench planted)
- 7) Any mulch should also be imported and spread by hand.

- 4.7.5. No works will be carried out within any protected areas if the soil moisture is of a level likely to allow compaction to occur.

¹ Including rotovators

4.8. Installation of underground services

4.8.1. If for whatever reason installation within RPAs is required the project arboriculturist and local authority must be notified prior to any tree protection barrier removal and the following details adhered to.

4.8.2. Stages for installing services within tree protection areas:

No plant machinery to be used in the area for whatever reason

- 1) Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
 - 2) Remove just enough tree protection fencing to allow access to area and facilitate trenching.
 - 3) Remove any surface vegetation or existing hard surfaces using hand tools.
 - 4) Excavate the trench using hand tools only, keeping to minimum dimensions required.
 - 5) Roots below 25mm should preferably be retained, however if required can be cut cleanly using secateurs or hand saw.
 - 6) Roots over 25mm diameter will be retained and kept damp by covering with hessian (re-wetted as required).
 - 7) Feed in services.
 - 8) Back fill trench with 200-300mm depth of excavated soil, or a mixture of excavated and imported top-soil (to BS3882:2015), firming down with heels
 - 9) Repeat step 7 until trench is filled.
 - 10) Re-erect tree protection fencing as per approved plan.
- 4.8.3. An alternative to the method of excavation above, for trenching within RPA's, is by using an 'air-spade' or similar. This tool utilises compressed air to remove soil from around tree roots causing minimal damage and can be run off a typical site compressor. ACD can provide details of contractors supplying air-spade services if required.
- 4.8.4. Alternatively, trenchless technology such as thrust boring can be used in some instances and is particularly effective as it can pass directly under the tree, at a depth which is likely to avoid almost all impact on roots of the subject tree. As no access/thrust pits will be located within the RPAs of the subject trees, the need for arboricultural supervision is limited.
- 4.8.5. Reference can be made to National Joint Utilities Group publication Volume 4 (NJUG Vol4) for guidance, but any approach must be approved by the project arboriculturist.

4.9. Installation of boundary fencing within protected areas

4.9.1. Stages for installing wooden fence posts:

No plant machinery to be used in the area for whatever reason

- 1) Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
- 2) Remove TPF to allow access to area.
- 3) Dig post holes using hand tools, avoiding damage to the protective bark covering larger roots. Roots smaller than 25mm diameter may be pruned back using either secateurs or a hand saw, leaving a clean cut.
- 4) Damage or severance of roots above 25mm diameter must be avoided. If roots of this size are discovered, the hole should be relocated. If there are a large number of such roots it may be necessary to relocate the hole by half a fence panels length and adjust the fence panels accordingly.
- 5) Line hole with non porous lining, for example durable polythene bag.
- 6) Insert post and fill post hole with concrete to ground level.
- 7) Trim polythene to ground level

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Director of Arboriculture
11 March 2019
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