

**Construction
Environmental
Management Plan**

**Land North of
Arborfield Road,
Shinfield,
Reading
RG2 9FY**

**Prepared for
Bellway Homes Ltd**

by

**Stuart Michael
Associates Limited**

August 2024



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1.0 INTRODUCTION

- 1.1 Stuart Michael Associates Limited (SMA) has been appointed by Bellway Homes Limited (Thames Valley) to develop a Construction Environmental Management Plan (CEMP) for the site on Land North of Arborfield Road, Shinfield, Reading (**Drawing 7233.001** refers).
- 1.2 This CEMP summarises the proposed construction methods and sequencing. It also outlines measures that will be taken to minimise the impact of construction on the surrounding area.
- 1.3 This Construction Environmental Management Plan (CEMP) shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development. The approved CEMP shall be implemented prior to any works being carried out on site, and shall be maintained throughout the course of the development.
- 1.4 A Construction Traffic Management Plan report has also been prepared under separate cover.
- 1.5 This CEMP should be read in conjunction with the Site Logistics Plan and Construction Route Plans enclosed within this report.

Scope of Report

- 1.6 This CEMP has been developed to take into account the checklist details provided by WBC, together with matters considered of relevance to the development. These include, but are not limited to:
- (i) Storage of plant and materials;
 - (ii) Provision of boundary hoarding;
 - (iii) Protection of the aquatic environment in terms of water quantity and quality;
 - (iv) Details of proposed means of dust suppression and noise mitigation;
 - (v) Details of measures to prevent mud from vehicles leaving the site during construction;
 - (vi) Details of any site construction office, compound and ancillary facility buildings;
 - (vii) Lighting on site during construction;

- (viii) Piling techniques including types of piling rig and earth moving machinery;
- (ix) Measures to ensure no on site fires during construction;
- (x) Monitoring and review mechanisms;
- (xi) Implementation of the CEMP through an environmental management system;
- (xii) Appointment of a Construction Liaison Officer;

.The approved CEMP shall be implemented and adhered to throughout the construction period.

1.7 This CEMP summarises the proposed safe coordinated systems of work construction methods and sequencing. It also outlines measures that will be taken to minimise the impact of construction on the local environment and on the surrounding area.

1.8 The CEMP has been prepared to demonstrate that the Developer and or their Agents are aware of their roles, duties and responsibilities with respect to the Construction (Design Management) Regulation 2015 and in particular Part 3 Regulation 8 General duties. Construction will be undertaken in a manner that secures the health and safety of any person affected by the project.

2.0 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

2.1 This statement has been developed by SMA and will be adopted by the Main Works Contractor. Any revisions to this plan shall be agreed, approved by the Build Director and recorded. This Statement shall be a live document, which shall be continuously reviewed to take into account additional environmental information encountered during the detailed design and construction phase. It shall allow for the inclusion of any further conditions and amendments that arise from the granting of consents or legitimate concerns of Third Parties.

2.2 All personnel and sub-contractors working on the project shall perform their duties in accordance with the requirements of the statement. The Site Team shall report regularly to the Area Build Manager on the status and effectiveness of its implementation.

Programme of Construction Works

2.3 It is anticipated that the build out period for the whole site could be up to 5 years, which will be constructed in a number of phases, with approximately 50 dwellings constructed a year.

2.4 The programme of works will consist of the following;

- Enabling works comprising perimeter fencing/security provisions, site compound, site clearance, ground investigation, initial service works and access works;
- Sub infrastructure works, ground works and foundations;
- Construction of superstructures; and
- External works such as car parking and landscaping.
- Ecology Mitigation

Hours of Work

2.1 Construction operational hours will be between 08:00 to 18:00 from Monday to Friday and 08:00 to 13:00 on Saturday. No construction work will be undertaken on Sundays or bank holidays. Deliveries shall not take place outside 08:00 to 18:00 hours from Mondays to Fridays, and there shall be no deliveries at any time on Saturdays, Sundays, bank holidays or public holidays.

Construction Director

2.2 The Construction Director shall be responsible for:

- Compound Checks;
- Ensuring the required consents are in place before work starts;
- Ensuring environmental and waste requirements are included on requisitions and in subcontracts and orders;
- Ensuring oil, including diesel is stored in properly bunded tanks / drip trays;
- Ensuring Waste Transfer Notes / Special Waste Consignment Notes are checked;
- Reporting incidents and non-conformances;
- Liaising with statutory authorities and the Main Works Contractor as required and ensuring records of communication (including verbal communication) are kept. Statutory authorities should always be accompanied on site visits;
- Ensuring employees and subcontractors receive Induction Training, as appropriate;

Storage of plant and materials

- 2.3 Separate temporary compound area will be located within the site. These secure, hardstanding places will include an area for cabins, storage and car parking (see **Drawing 7233.003**). Due to the size of the development, it is likely that additional local storage areas could be provided, in line with the phasing of the development, to reduce the movement of plant and materials around the site. Details of additional storage areas, if required, would be identified at a future stage, to be agreed with in consultation by the local planning authority.
- 2.4 The size of the compound is subject to change as the requirements of the project progress.

Programme of works

- 2.5 A Programme of Works Phasing plan is provided at **Appendix 1**. This provides an indicative phasing plan that is subject to change, as the programme demands.

Provision of boundary hoarding

2.6 Enabling works for each phase will comprise perimeter fencing/security provisions. The construction and maintenance of fencing and hoardings will be carried out to an acceptable condition to prevent unwanted access to the construction site, to provide noise attenuation, screening, and site security where required. This will include the need to provide viewing points at relevant locations, if appropriate the use of different types of fencing:

- Painting the side of hoardings facing away from the site, and to keep them free of graffiti or posters;
- Providing site information boards with out of hours contact details, 24 hour telephone number (for comments/complaints), community information, information on the works programme, details of site managers contact details, at key locations *and*;
- Displaying notices on site boundaries to warn of hazards on site such as deep excavations, construction access, etc.

2.7 Clear sight lines will be maintained around hoardings and fencing with no hidden corners in order to avoid, where reasonably practicable, opportunities for anti-social behaviour and crime and to ensure safety of vehicles. Footways of adequate width to facilitate pedestrian flows will be provided with signs provided to facilitate safe access around the site boundary. Adequate lighting will be installed, as necessary, near hoardings.

2.8 Fencing and hoarding will, as far as is reasonably practicable, be located such that it does not damage sensitive habitats, trees or hedgerows. The location of the boundary hoarding is shown of **Drawing 7233.003**.

2.9 A detailed tree protection plan and report has been prepared by Aspect and a copy is provided at **Appendix 2**. This provides a detailed schedule and details of measures to be undertaken.

Ecology

2.10 The following paragraphs provide details of measures to mitigate the impact of construction activities on wildlife within the development site. This information is based upon the planning submission produced by EPR.

- 2.11 The Site mostly comprises of willow scrub, mixed scrub, grassland, ditches and arable habitat. The majority of the Site is made up of an arable field and it is the habitat of the lowest biodiversity.

Trees, Hedgerows and Wildlife Corridors

- 2.12 To avoid accidental damage to the retained trees and hedgerows during site clearance and construction activities, buffer zones around trees and hedgerows will be implemented and secured by protective fencing as per the Tree Protection Plan (**Appendix 2** refers). Retained wildlife corridors around the edges of the Site will also be fenced off and kept clear of materials and machinery to ensure that wildlife can continue to move through the landscape.
- 2.13 The hedgerows are in good condition but are managed as they form the boundary of the arable field. Hedgerow loss has been minimised and the retained hedgerows will be buffered from development and enhanced. Any removal of sections of hedgerow to facilitate the construction of roads etc. will be compensated for through the creation of new hedgerows and/or management of existing hedgerows
- 2.14 There are three ditches on Site, two ditches have been created for drainage to the east of the site, and a further ditch to the south east is a natural ditch. The Site design that retains, buffers, and enhances the natural ditch. Any removal of the created ditches will be compensated through the creation of new ditches and enhanced with aquatic vegetation.
- 2.15 Areas of grassland, willow and mixed scrub offers suitable habitat for a variety of species. Within the development these scrub areas, will be retained and enhanced where possible. Any loss of scrub will be compensated for.

Badgers

- 2.16 Badgers and occupied setts are protected by the Protection of Badgers Act 1992. It is an offence to cruelly treat, kill or take Badgers, and it is also illegal to intentionally or recklessly damage or disturb a badger sett whilst it indicates signs of current use by a Badger.
- 2.17 The Site offers limited habitats suitable to support Badgers including areas for locating setts, such as scrub habitats and cropland for foraging. The site was systematically searched for evidence of badgers and no field signs were recorded. For full survey results please see Badger Technical Note (EPR,2024).

- 2.18 All pits, excavations or tanks will be securely covered overnight to prevent Badgers and other wildlife from falling in and being injured or trapped. Retained wildlife corridors will be fenced off and kept free of any obstructions to Badger movement, and any existing gaps under fencing will be retained.

Bats

- 2.19 Bats and their roosts are legally protected under the Habitats Regulations 2017.
- 2.20 The Site offers habitats suitable to support bats, such as the scrub habitats, hedgerows, buildings, and cropland, for roosting, commuting, and foraging.
- 2.21 The Buildings within the Site both underwent a building inspection on the 27th of March. The buildings were considered to have low suitability for roosting bats due to the missing/slipped tiles present.
- 2.22 A survey was undertaken on the 27th of March. One tree within the Site was identified as PRF M, meaning it could support multiple bats. The tree is an Oak tree on the edge of mixed scrub habitat. The tree is to be retained within the development so at this time no further surveys are required.
- 2.23 Emergence surveys were undertaken on the 22nd of May 2024. No bats were seen emerging from the buildings. There are also opportunities to enhance the Site for bats, for example by improving connectivity of hedgerows and providing integrated bat boxes in new buildings.
- 2.24 To minimise the effects of disturbance on the bat assemblage using the habitats at the Site during construction, standard pollution prevention measures to minimise dust, noise and vibration will be implemented, and sensitive lighting will be used in the vicinity of foraging and commuting areas around the edges of the Site.

Breeding Birds

- 2.25 Nesting birds are afforded protection under the Wildlife and Countryside Act 1981 (as amended). To avoid harm to nesting birds, the clearance of vegetation above 50cm in height will therefore be undertaken outside of the nesting season where possible, which is considered to run from March to August inclusive.
- 2.26 Any clearance which needs to take place during the nesting season will be immediately preceded by a check for evidence of nesting birds by a suitably experienced ecologist. Should a nest be found, the area will be cordoned off

with a 3 to 5m clearance zone (depending on the species and location of the nest), and no works will take place in this area until the young have fledged.

- 2.27 Standard pollution prevention measures to minimise dust, noise and vibration will also be implemented, to reduce disturbance to breeding birds.
- 2.28 The Site offers habitats suitable to support birds, such as the scrub habitats, hedgerow, and cropland, for nesting, and foraging. Birds may be using these features on Site during the breeding period.

Reptiles

- 2.29 The Site offers habitats suitable to support reptiles, such as the boundaries between the vegetated habitats and the barer ground, and the scrubby areas around the ditches which may have increased suitability for Grass Snakes.
- 2.30 Reptile surveys should be carried out between April-September during days with no rain and temperatures between 9-18°C. Reptile surveys were carried out during April, May and June 2024. No reptiles were found during the surveys. For full survey results please see Reptile Technical Note (EPR,2024)
- 2.31 All reptiles are protected under the Wildlife & Countryside Act 1981 (as amended) from intentional killing and injury. As such, clearance of the Site will take place in a precautionary manner according to the prescriptions set out in a Reptile Method Statement, and a Toolbox Talk will be provided to all personnel involved with the works. Any reptiles found during these works will be relocated to a designated area on the eastern edge of the Site, a safe distance from the works.

Protection of Watercourses and the aquatic environment in terms of water quantity and quality

- 2.32 There are existing ditches on the eastern and southeast corner of the site (**EPR report refers**). The following activities give rise to potential risks to water course contamination. The proposed mitigating measures against this have been identified.

Deliveries

- 2.33 Care will be taken during deliveries, particularly when fuels and hazardous materials are being handled. All deliveries are to be supervised by a responsible person so that storage tank levels are checked before delivery to prevent overfilling and that the product is delivered to the correct tank. Contingency

plans are to be agreed and suitable materials available should any incident occur. All employees are to be briefed on the actions that are required in the event of a spillage.

Storage

- 2.34 Materials used in construction operations, such as oil, chemicals, cement, lime, cleaning materials and paint have the potential to cause serious pollution. All fuel, oil and chemical storage must be sited on an impervious base and secured. Leaking or empty oil drums must be removed from the site immediately and disposed of via a licensed waste disposal contractor. The contents of any tank are to be clearly marked on the tank, and a notice displayed requiring that valves and trigger guns be locked when not in use.

Security

- 2.35 All valves and trigger guns are to be protected from vandalism and unauthorised interference and turned off and securely locked when not in use. Any tanks or drums are to be stored in a secure container or compound, which is to be kept locked when not in use. Bowsers should be stored within site security compounds when not in use.

Silt

- 2.36 Water containing silt is never to be pumped directly into watercourses or surface water drains. Silty water can arise from excavations, exposed ground, stockpiles, plant and wheel washing.

Excavations

- 2.37 Measures are to be taken to prevent water from entering excavations. This could be by the use of cut-off ditches to prevent entry of surface water and well point dewatering or cut-off walls for ground water. Personnel and/or plant are not to disturb water in the excavation. The means of dewatering excavations in the event there is ingress is to be agreed with the project manager.

Spoil Heaps

- 2.38 Spoil heaps are to be located and configured in a way that will avoid the risk of contamination of drainage ditches and located away from existing residential dwellings.

Plant and wheel washing

- 2.39 As necessary vehicle wheels will be washed down with a jet wash prior to exit from site.

Dealing with Silty water

- 2.40 Adequate provision for dealing with silty water is to be agreed in advance. Any planned discharges off the site will require prior approval with the appropriate authorities.

Refuelling

- 2.41 Care will be taken during the refuelling of plant to avoid potential spillage. Mobile plant is to be refuelled in a designated area, preferably on an impermeable surface away from any drains or watercourses. A spill kit is to be available in this location. Hoses and valves are to be checked regularly for signs of wear and turned off and securely locked when not in use. Diesel pumps and similar equipment are to be placed on drip trays to collect minor spillages. These should be checked regularly and any accumulated oil removed for disposal.

Concrete

- 2.42 Concrete is highly alkaline and corrosive and can have a serious impact on watercourses. It is essential to take particular care with all works involving concrete and cement. Suitable provision is to be made for the washing out of concrete mixing plant or ready mix concrete lorries so that washings do not flow into any drain or watercourse or seep underground.
- 2.43 In the event of a spillage on site, the material must be contained (using an absorbent material such as sand or soil or commercially available booms). All spillages are to be reported to the Project Manager.

Measures to Control Dust, Noise and Vibration during the Construction Period

- 2.44 A key issue to consider is the creation of dust during construction. To restrict dust, a number of measures will be implemented.
- 2.45 It is not expected that large amounts of dust will be emitted. However, the contractor will be expected to be aware of high winds which may cause dust to be carried into the neighbouring area.

- 2.46 In dry weather, water suppression will be used to dampen down dust and prevent dust from migrating to neighbouring properties. Equally during winter conditions gritting will be carried out by the contractors. Water suppression methods will include the maintenance of applying water to spoil heaps, road sweeping to keep the dust construction traffic routes on site to a minimum and where necessary the use of water cannons to produce mist to reduce the spread of dust onto neighbouring properties.
- 2.47 Unwanted materials will be loaded to a waste skip as soon as practicable, so that a good standard of housekeeping is maintained. Netting attached to the harass fence will also act as a barrier.
- 2.48 For the purposes of enabling a prompt start on site vehicular access would be required from 7.30am The construction site will be operational between 08:00 and 18:00 from Monday to Friday and 08:00 to 13:00 on Saturdays. Any potential noise and vibration would be during this period and kept to a minimum as far as possible. No work will be carried out on Sundays or Bank or National Holidays.
- 2.49 The potential environmental impacts associated with constructing vehicle movements are to be addressed through the strategy by way of:
- Minimising traffic movements where practicable;
 - Minimising fuel consumption through the use of local materials and sub-contractors;
 - Implementing noise and dust reduction strategies throughout the construction process.

Details of measures to prevent mud from vehicles leaving the site during construction

- 2.50 Roads will be kept free of debris and dirt as necessary, by sweeping or hosing down.

Details of any site construction office, compound and ancillary facility buildings

- 2.51 A temporary main compound area will be located within the site, this is subject to change as the requirements of the site construction change over the buildout.
- 2.52 The compound area includes an area for cabins for use as the construction office, storage and car parking.

Piling techniques including types of piling rig and earth moving machinery

- 2.53 Ground investigations will be undertaken prior to the commencement of works on site and will inform the Foundation / Piling Works Risk Assessment which will define the appropriate piling methods and foundation design to mitigate risk. All piling methods will be agreed with in consultation with the local Planning Authority. Earth movements will be carefully monitored whilst piling is taking place.

Lighting on site during construction

- 2.54 Site lighting and signage will be provided to enable the safety and security of the construction sites. It will be at the minimum luminosity necessary and use low energy consumption fittings. Where appropriate, security lighting will be provided. Precautions will be taken to avoid shadows cast by the site hoarding on surrounding footpath and roads.
- 2.55 Lighting will also be designed, positioned and directed so as not to unnecessarily intrude on adjacent buildings, ecological receptors, structures used by protected species and other land uses to prevent unnecessary disturbance, interference with local residents and passing motorists. This provision will apply particularly when working during times of the year when natural daylight is reduced during the agreed site working hours.
- 2.56 During winter months, individual plots shall be lit within the units, to maintain work production. This will not have any adverse impacts on existing residential properties. For each phase/area significant impacts will be identified, the contractor will develop and implement lighting strategy to reduce and prevent unnecessary disturbance.
- 2.57 When not in use all nonessential and security lighting will be switched off. Inspections will be undertaken to ensure the construction lighting is not impacting nearby receptors.

Measures to ensure no on site fires during construction

- 2.58 There will be no fire or burning of materials on the site. The project manager and construction liaison officer will ensure that all staff and contractors will be made aware and adhere to this.

- 2.59 The site and associated accommodation and welfare facilities will have in place appropriate plans and management controls to prevent fires.

Monitoring and review mechanisms

- 2.60 Weekly meetings will be held with the Main Project Contractor, Environmental Local Planning Authority Inspectors and Construction Liaison Officer to inspect, review, monitor and audit the CEMP to determine effectiveness of, and compliance with, environmental control measures and how any necessary corrective action will take place.
- 2.61 Monitoring of the site in line with the CEMP will be carried out throughout the project. The site manager will be responsible for maintaining this and implementing the CEMP on site.

Implementation of the CEMP through an environmental management system

- 2.62 The development of the CEMP will commence during the early stages of a project. It will be a live document that is regularly updated and revised to take account of new information, changing external factors and feedback from review. The CEMP should evolve through the life of a project containing the information and level of detail that is relevant to a particular stage. The CEMP will be implemented in accordance with environmental impacts guidance contained within BS EN ISO 14001.

Details of the excavation of materials and the subsurface construction methodology

- 2.63 The contractor will excavate material and construct subsurface infrastructure in accordance with the agreed design proposals. The appointed contractor will provide a method statement in due course providing details on how the works will be undertaken.

Appointment of a Construction Liaison Officer

- 2.64 The site Manager is to ensure that concerns of neighbours are aired and resolved. The site managers contact details will be provided on information boards surrounding the site.

Environmental Risk Assessments of potentially damaging construction activities;

2.65 The Contractor is required to comply with all relevant legislation for the construction phase of the project. This shall include but is not limited to the following:

- Conservation of Habitat and Species Regulations 2017
- Control of Pollution Act (COPA) 1974
- Countryside and Rights of Way Act (England and Wales) 2000
- Environmental Protection Act 1990
- Water Resources Act 1991
- Wildlife and Countryside Act 1981
- Hazardous Waste (England and Wales) Regulations 2005
- List of Wastes (England) Regulations 2005

2.66 In addition to the above the Contractor will refer to CIRIA Environmental Good Practice on Site C502 and Environmental Agency Pollution Prevention Guidance notes.

2.67 All activities undertaken on site will be subject to an Environmental Risk Assessment to be carried out by the Contractor or Subcontractor. Environmental Risk Assessment will be undertaken by trained staff following an approved procedure which will:

- Identify the significant environmental impacts that can be anticipated
- Assess the environmental risks from these impacts
- Allocate responsible person for auctioning required control measures
- Identify the control measures to be taken and re-calculated the risk
- Report where an inappropriate level of residual risk is identified so that action can be taken through design changes, re-scheduling of work or alternative methods of working to reduce the risk to an acceptable level.

2.68 The results of an Environmental Risk Assessment and its residual risks are considered acceptable where, using all reasonable endeavours, the severity of outcome is reduced to the lowest practical level, the number of risk exposures are minimised, all reasonably practical mitigation measures have been taken; and the residual risk rating is reduced to a minimum.

2.69 The findings of the Environmental Risk Assessment, and in particular the necessary controls, will be explained to all operatives before the commencement of the relevant tasks using an agreed instruction format.

3.0 SUMMARY AND CONCLUSION

- 3.1 This report sets out the overall framework for the Construction Environment Management Plan (CEMP), for the site at Arborfield Road, Shinfield (**Drawing 7233.001** refers) to be constructed by Bellway Homes Limited.
- 3.2 This CEMP summarises the proposed safe coordinated systems of work construction methods, protection of the environment, habitat and biodiversity.
- 3.3 The CEMP has been prepared to demonstrate that the Developer and or their Agents are aware of their roles, duties and responsibilities with respect to the Construction (Design Management) Regulation 2015 and in particular Part 3 Regulation 8 General duties. Construction will be undertaken in a manner that secures the health and safety of any person affected by the project.
- 3.4 Contact details of the Site Manager have not yet been agreed, however these details will be provided in due course.
- 3.5 In view of the above it is considered that this Construction Environmental Management Plan and the ongoing monitoring and management of the construction process satisfies the requirements of the planning conditions.
- 3.6 It is acknowledged that small variations to the CEMP may be necessary as development progresses and the phasing programme may change as a result. It is proposed that this would be addresses through an 'Open Book' approach. In this event, updated plans and drawings would be provided to WBC for their consideration and approval.

DRAWINGS



KEY:

-  SECURITY/SITE BOUNDARY FENCING
 TREE PROTECTION FENCING

GATE SET BACK TO
ALLOW HGV TO WAIT
OFF CARRIAGEWAY

2.4m x 120m
VISIBILITY SPLAYS

LOCATION OF EXISTING SITE ACCESS. TO BE
UTILISED UNTIL PERMANENT SITE ACCESS IS
AVAILABLE

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JOB TITLE

LAND NORTH OF ARBORFIELD ROAD, SHINFIELD

DRAWING TITLE

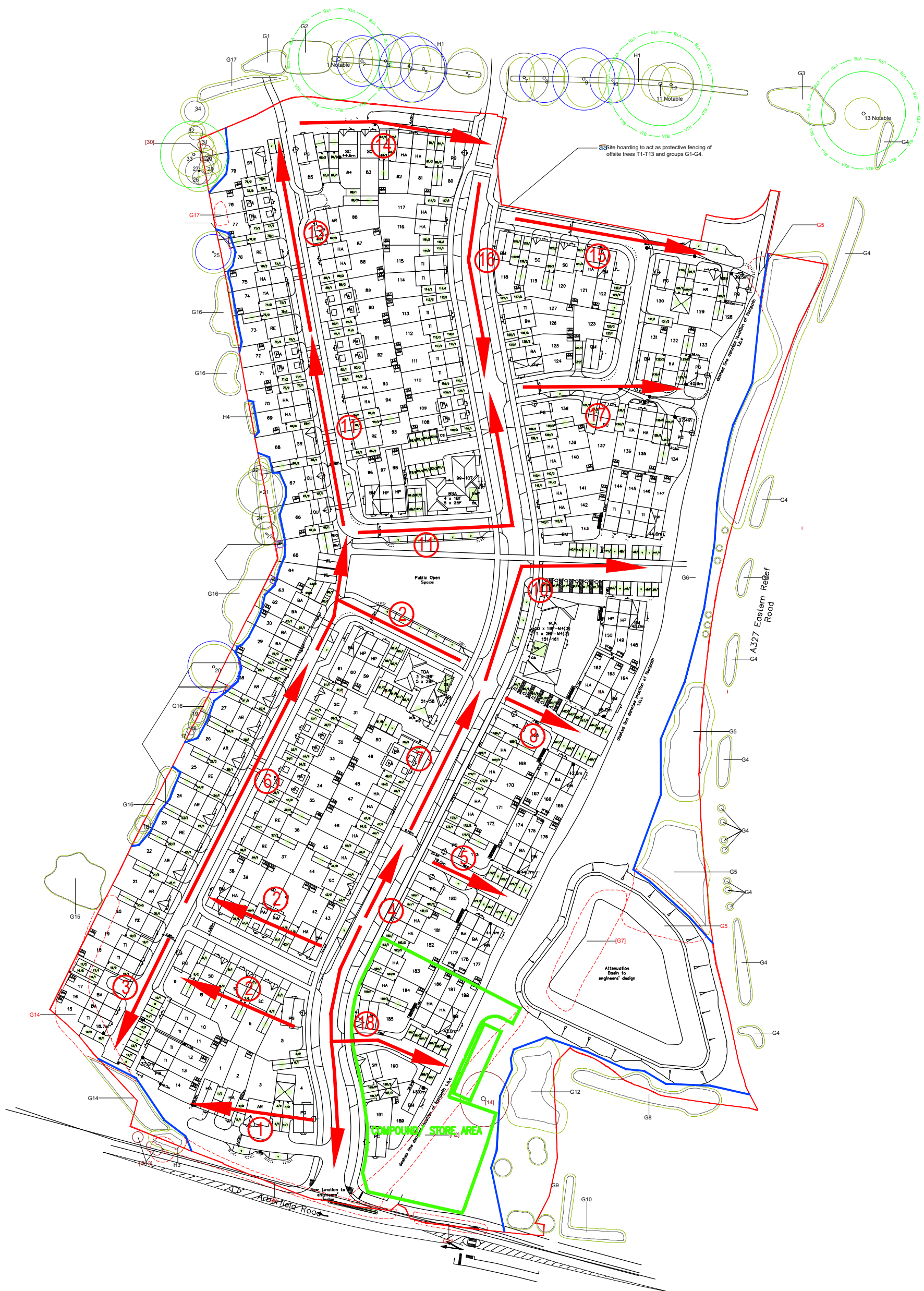
CONSTRUCTION SITE LAYOUT PLAN

A	COMPOUND LOCATION UPDATED	RD	MRO	28.08.24
Rev	Description	Drn	Chk	Date
REVISIONS				
Preliminary	Approval	Tender	Const.	
DRAWING STATUS				
DATE	JULY 2024	DRAWN	JGP	CHECKED
			MRO	ISSUE
DRAWING No.	7233.003	REV	SCALE	1:2000
				© A3

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APPENDICES

APPENDIX 1



PROGRAMME OF WORKS PHASING PLAN

APPENDIX 2

Land North of Arborfield Road,
Shinfield

Arboricultural Impact Assessment

August 2024
12017_AIA.001

Project Details	
Client:	Bellway Homes Limited (Thames Valley)
Project:	Land North of Arborfield Road, Shinfield
Report Title:	Arboricultural Impact Assessment
Project Number:	12017
File Reference:	12017_AIA.001
Date:	23/08/2024

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Limitations
This assessment has been prepared in respect of the proposed development and should not be interpreted as a report on tree health and safety. Reasonable effort has been made to identify visible defects whilst undertaking the tree survey; trees are, however, prone to natural failure without warning therefore no guarantee can be made as to the absolute safety of any of the trees surveyed. Aspect's opinion of tree condition and structural potential is therefore valid for a limited period of 12 months from the date of inspection. Validity is assumed in the absence of inclement weather and no change to the trees' existing context. Reliance should not be given to comments made in respect of other disciplines i.e. landscape, ecology or civil engineering without first consulting an appropriate expert.

Liability
This report has been prepared for the exclusive use of the commissioning client and unless otherwise agreed in writing by Aspect Arboriculture Ltd. no other party may use or rely on the contents of the report. No liability is accepted by Aspect Arboriculture Ltd. for any use of this report, other than for the purposes for which it was originally prepared and provided. No warranty, express or implied, is made as to the advice in this report. The content of this report is partly based on information provided by third parties. Unless otherwise stated, information obtained from any third party has not been independently verified by Aspect Arboriculture Ltd.

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Appendix B	Tree Survey Schedule	12017 TS 01
Appendix C	Tree Protection Plan	12017 TPP 01
Appendix D	Tree Survey Methodology	12017 TSM 01

Executive Summary

- i) **Introduction:** Aspect Arboriculture are commissioned by Bellway Homes Limited (Thames Valley) to prepare an Arboricultural Survey and Impact Assessment relating to the proposed residential development of Land North of Arborfield Road, Shinfield.
- ii) **Proposals:** The proposals comprise a 'Full planning application for the erection of new dwellings, open space, landscaping, supporting infrastructure and associated works.'
- iii) **Surveys:** The site was surveyed by Aspect in May 2024 following the guidance contained within BS5837:2012. Copies of the tree survey information are available within appendices A and B.
- iv) **Statutory Designations:** Background checks reveal that the site does not occur within a Conservation Area and that no trees within influence of the site are afforded protection by a Tree Preservation Order.
- v) **Arboricultural Impact:** Based on the proposed layout, the arboricultural impact amounts to the removal of a single tree of individual distinction, the clearance of two tree groups and one agricultural hedgerow, and the additional partial clearance of a further three tree groups and lapsed agricultural hedgerow. Of the proposed removals one of each of the tree groups and hedgerows have been recognised as BS5837:2012 category U owing to the overwhelming level of dead components throughout, and their clearance would be recommended irrespective of any development proposals. Landscape Proposals (submitted separately) have been prepared which seek to compensate for these losses and enhance the long-term amenity of the setting. A preliminary tree protection drawing is appended to this document that demonstrates the deliverability of safeguarding measures for retained trees. Conclusions drawn against the Framework, Wokingham Borough Council and Shinfield Parish council's development control policies, conclude that on balance, the principle of the proposed development can be supported from the arboricultural perspective, subject to the provision of replacement planting and the adoption of safeguards during construction.

1 Introduction

1.1 Background & Proposals

- 1.1.1 Aspect Arboriculture are commissioned by Bellway Homes Limited (Thames Valley) to prepare an Arboricultural Survey and Impact Assessment relating to the proposed residential development of Land North of Arborfield Road, Shinfield.
- 1.1.2 The proposals comprise a 'Full planning application for the erection of new dwellings, open space, landscaping, supporting infrastructure and associated works.'

1.2 Purpose of the Report

- 1.2.1 This report documents the quality and value of existing trees on the application site and what, if any, constraint they impose on the development proposals. By reference to the baseline tree survey, it evaluates the direct and residual effect of the final scheme proposals and provides a review of mitigation and enhancement measures. The baseline arboricultural survey can be reviewed at Appendix A and B.

1.3 Site Overview

- 1.3.1 The application area falls within the administrative control of Wokingham Borough Council, comprising c.7ha of agricultural land situated directly north of Arborfield Road. The wider area has been subject to noticeable change over the past decade; with the introduction of the Shinfield Eastern Relief Road (opened October 2017), which runs adjacent to the application area's eastern boundary, and the adjoining Phase 1 of the Cutbush residential development to the north. Abutting the entirety of the site's western periphery are the private residential curtilages associated with Oatlands Road.
- 1.3.2 Wokingham Borough Council's Local Plan Update: Revised Growth Strategy Consultation (Nov 2021-Jan 2022), was prepared to seek views on an updated approach to managing development across the borough until 2037/38. Section 5.0 Strategic Development Locations, para 5.19; identifies the land north of Arborfield Road, Shinfield, for 191 new dwellings.
- 1.3.3 As a consequence of the application area's existing agricultural usage, the extant tree assemblage is confined to the site boundaries. Accordingly, public appreciation is currently limited to views from the surrounding highways and the private residential curtilages of Oatlands Road. Notwithstanding this, following completion and occupancy of Phase 1 of the Cutbush development, access and readily available views of the trees within the application area's northern boundary are anticipated to be enhanced.

1.4 Existing Tree Stock

- 1.4.1 The survey provides a record of the extant tree cover by way of thirty-four trees of individual distinction, seventeen groups of trees, and four hedgerows. They have all been considered in full during the design stages of the project per the guidance provided within BS5837:2012.
- 1.4.2 The application site's northern boundary contains a number of moderate and high-quality trees which collectively provide a positive contribution towards the amenity of the area. Throughout this cohort there are three English Oak¹ of particular significance. All three are considered to be large examples of their species, especially in comparison to their companions. Accordingly, they are recognised as notable trees with the capability of developing future veteran status, satisfying the criteria to warrant the highest BS5837:2012 classification; category A. Whilst the trees do not currently benefit from protection under a TPO, the proposed layout design has progressed under the presumption the designation should or will be enforced; as a precautionary measure to realise this, a Veteran Tree Buffer, fifteen times the stem diameter has been applied to the trees.
- 1.4.3 Also, of particular importance is a False Acacia², situated outside of the site's western boundary under third party ownership. Considered to be a good example of its type, recognised for an established form and visual prominence, it also satisfies the criteria to warrant BS5837:2012 category A.
- 1.4.4 The northern perimeter cohort contains a further seven English Oak³ of secondary importance. They provide a positive contribution to the setting and verdant nature of the field boundary and are capable of long-term retention, although lacking the special quality necessary to attract the highest classification. They are accordingly afforded BS5837:2012 category B.
- 1.4.5 An additional single Sycamore and Atlas Cedar⁴ have also been recognised for their positive contribution to the area. As with the aforementioned False Acacia, they too are situated outside of the application area's western boundary under third party ownership. They provide a maturity to the setting and possess all the attributes necessary to qualify for BS5837:2012 category B.
- 1.4.6 The remaining assemblage offers little by way of individual merit. Comprising low quality trees in varying states of decline and of reduced future potential, unremarkable domestic and highway buffer plantings, low quality self-set specimens, and parcels of colonising scrub. In the main, they represent inferior examples of their type and are considered to be of only transient value by virtue of their limited contribution to the setting, subsequently warranting category C only.

¹ T1 English Oak, T11 English Oak and T13 English Oak

² T33 False Acacia

³ T2 English Oak, T3 English Oak, T4 English Oak, T5 English Oak, T8 English Oak, T9 English Oak and T10 English Oak

⁴ T20 Sycamore and T25 Atlas Cedar

- 1.4.7 There are two individual trees, two groups of trees and a hedgerow⁵ which are incompatible with the existing setting. T30, G7, G13 and H2's reduced outlook and significant, irreversible decline, and T14's serious, irremediable structural defect due to partial collapse, warrant BS53837:2012 category U. Subsequently, their removal is recommended irrespective of any development proposals.

2 Statutory Designations

2.1 Conservation Area

- 2.1.1 Background checks have confirmed that the site does not occur within a Conservation Area (Wokingham Borough Council, cited July 2024). Accordingly, the amenity value of the trees is not elevated to preserving or enhancing any unique or distinctive interest linked to the setting.

2.2 Tree Preservation Orders

- 2.2.1 Background checks have confirmed that the site is not influenced by a Tree Preservation Order (Wokingham Borough Council, cited July 2024). However, whilst no trees are currently afforded protection by a TPO, it is considered that a number of the assemblage situated throughout the application area's northern boundary do fulfil the criteria to be so. Accordingly, the iterative process has been informed as if these trees were already protected.

3 Policy Review

3.1 The National Planning Policy Framework

- 3.1.1 The NPPF (December 2023) provides planning policy guidance at a National level. Paragraph 136 of the Framework sets out aspirations to secure increased tree cover within new developments, comprising both new tree planting, and the retention of existing trees where possible: *'Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible'*.
- 3.1.2 Building upon paragraph 136, the Framework also considers that *'decisions should contribute to and enhance the natural and local environment by: recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland' (para 180b).'*
- 3.1.3 In respect of Veteran Trees and Ancient Woodland, paragraph 186c requires that development proposals award particular consideration to these features, stating that

⁵ [T14] Crack Willow, [T30] Laburnum, [G7] Elder, Elm, Hawthorn, [G13] Elm and [H2] Elder, Elm, Hawthorn

‘development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists’.

- 3.1.4 Lastly, paragraph 186d also emphasises the benefit that can be secured through the provision of public access to, and resultant appreciation of, retained tree cover, stating: *‘...opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can... enhance public access to nature where this is appropriate’.*

3.2 Wokingham Borough Council

- 3.2.1 In terms of development control at a local level, Wokingham Borough Council has a statutory obligation to ensure adequate provision is made for the preservation of trees through Section 197 of the Town and Country Planning Act (1990). The Adopted Core Strategy Development Plan Document (adopted January 2010) within the Wokingham Borough Local Development Framework, the Adopted Managing Development Delivery Local Plan (adopted February 2014) within the Wokingham Borough Development Plan and the Shinfield Parish Neighbourhood Plan (adopted January 2017) are understood to be the Council’s current primary development control documents; from the Core Strategy Policies CP1 and CP3, from the Local Plan Policies CC03 and TB21 and from Shinfield Parish Neighbourhood Plan Policies 2 and 6 set out the Council’s tests considered relevant to trees in the context of development (relevant parts reproduced below).

- 3.2.2 **Policy CP1:** Sustainable Development:

‘Planning permission will be granted for development proposals that:

- 1) Maintain or enhance the high quality of the environment.’*

- 3.2.3 We consider trees to be a reasonable inclusion because they add to the high quality of the site’s environment.

- 3.2.4 **Policy CP3:** General Principles for Development:

‘Planning permission will be granted for proposals that:

- a) Are of an appropriate scale of activity, mass, layout, built form, height, materials and character to the area together with a high quality of design without detriment to the amenities of adjoining land users including open spaces or occupiers and their quality of life;*
- c) Have no detrimental impact upon important ecological, heritage, landscape (including river valleys) or geological features or water courses.*
- d) Maintain or enhance the ability of the site to support fauna and flora including protected species.’*

3.2.5 Policy CC03: Green Infrastructure, Trees and Landscaping:

'2. Development proposals should demonstrate how they have considered and achieved the following criteria within scheme proposals:

a) Provide new or protect and enhance the Borough's Green Infrastructure networks, including the need to mitigate potential impacts of new development

d) Protect and retain existing trees, hedges and other landscape features

e) Incorporate high quality, ideally, native planting and landscaping as an integral part of the scheme.

3. Development proposals which would result in the loss, fragmentation or isolation of areas of green infrastructure will not be acceptable.'

3.2.6 Policy TB21: Landscape Character

'2. Proposals shall retain or enhance the condition, character and features that contribute to the landscape.'

3.2.7 Policy 2: General Design Principles

'In new residential developments, provision of an appropriate mix of size, built form and garden size, including style, design and character, will be supported in order to provide variation within a scheme, as long as this respects local distinctiveness and creates safe and sustainable environments. This can be achieved through the use of locally distinctive materials, differing layouts and positioning of dwellings, and the retention of existing trees, and provision of new trees, within new gardens and in the public realm.

Development proposals should demonstrate how they have considered and achieved the following criteria within the scheme proposals:

5) Provision of appropriately high quality and high specification sustainable landscape works and tree planting, particularly at settlement boundaries, in the public realm and along designated green routes and green route enhancement areas (existing and proposed;

7) Design of road and service layouts to ensure the sustainable retention, where appropriate, of existing landscape features, including trees and historic landscape features, and to allow space for new sustainable landscape works without the need for maintenance and upgrades to services damaging landscape works, as they mature.'

3.2.8 Policy 6: Trees, Hedgerows and Woodland

'New build development will be supported where it can be demonstrated that:

- 1) *Hedgerows which are appropriate for retention, as determined by the assessment of a survey of affected hedgerows to be carried out by the developer, due to their age or ecological value or in order to screen other development or land use, will have a buffer zone of sufficient width to ensure that the value provided by that hedgerow (as determined by the survey) is adequately preserved. Any buffer zone will be measured from the central stem of the hedge and will be comprised, usually on both sides, of soft landscaping that excludes any residential curtilage;*
- 2) *Habitats of Principal Importance in England (Section 41 Habitats under the Natural Environment and Rural Communities Act (2006)), which are appropriate for retention and which are shown to have significant ecological importance as determined by the assessment of a survey of affected habitats to be carried out by the developer, will have a buffer zone of sufficient width to preserve the ecological value (as determined by the survey). This will be comprised of soft landscaping that excludes any residential curtilage. Where habitats meet the description of a section 41 Habitat type and are being retained but do not currently support significant ecological value, the developer should, where possible, put forward proposed management or other enhancement measures to improve the future ecological value of that habitat;*
- 3) *Ancient Woodlands, Local Wildlife Sites and ponds which are appropriate for retention, as determined by the assessment of a survey of affected woodlands, wildlife sites or ponds to be carried out by the developer, will have a buffer zone of sufficient width to preserve the ecological value of that feature. For Ancient Woodlands, buffers should normally be of a minimum 15m width in accordance with Natural England's Standing Guidance for Ancient Woodlands, except where surveys identify the need for additional width to address a particular sensitivity, or where an alternative width can be justified under paragraph 118 of the NPPF. The optimal composition of buffers will vary depending on the feature being protected, but for Ancient Woodland will normally include an element of native woodland and scrub planting that grades into other habitats such as tall flower-rich grasslands, which excludes any residential curtilage;*
- 4) *All buffer zones should consist of appropriate native species and where appropriate should be designed in such a way as to encourage public access and enjoyment of the zone and with appropriate provision for its maintenance.'*

3.2.9 It is acknowledged that Wokingham Borough Council's current Local Plans, the Core Strategy and Managing Development Delivery Plans, were designed to manage development until 2026. The Local Plan Update: Revised Growth Strategy Consultation (Nov 2021-Jan 2022), was prepared to seek views on an updated approach to managing development across the borough until 2037/38. Section 5.0 Strategic Development Locations, para 5.19; identifies the land north of Arborfield Road, Shinfield, for 191 new dwellings (illustrated within Figure 1 overleaf).

3.2.10 Figure 1: Appendix D: South of the M4 SDL.



4 Arboricultural Impact

4.1 Tree Removals⁶

4.1.1 Trees are recommended for removal where: a) it is necessary and unavoidable to site development within proximity to them, such that they cannot be confidently retained in the long-term as living features, and/or b), where the amenity value will be significantly reduced as a result of the proposals, particularly if already of a low retention priority.

4.1.2 The extent of tree loss necessary to accommodate the proposed development is detailed within Table 1 (below). Removals can be quantified as a single tree of individual distinction, the clearance of two tree groups and one agricultural hedgerow, and the additional partial clearance of a further three tree groups and lapsed agricultural hedgerow.

4.1.3 **Table 1: Net Tree Removals by BS5837 Category.**

Category A	Category B	Category C
None	None	T15 Lime
		G5+Δ
		G11+
		G14+Δ
		G17+Δ
		H3+Δ

+ Denotes assemblage of three or more species (refer to appendix B)

Δ Denotes partial removal of tree group

4.1.4 Not included within Table 1 above are G7⁷ and H2⁸. Whilst their removal is required to implement the proposed development, clearance is recommended irrespective of any proposals on account of their significantly diminished outlook as an arboricultural feature owing to the overwhelming level of standing dead components occurring throughout.

⁶ All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

⁷ [G7] Young to Semi Mature Elder, Elm and Hawthorn

⁸ [H2] Young to Semi Mature Elder, Elm and Hawthorn

4.1.5 In addition to the trees and hedgerow detailed in paragraph 4.1.4, there are a further two individual trees and one group of trees that have been recognised as BS5837:2012 category U⁹. In the case of T30 and G13, clearance is proposed on account of a significant irreversible level of decline, whilst T14's state of partial collapse is considered irremediable; therefore, their removal is recommended regardless of any development proposals.

4.1.6 The removals detailed within Table 1 are necessary to make efficient use of the site. Where clearance is unavoidable, the layout design has focused on young to semi mature, unremarkable, or low-quality trees that provide limited contribution to the amenity or appearance of the setting. It will therefore be possible to compensate for their loss through the provision of replacement planting of a comparable scale and assemblage.

4.2 Vulnerable Trees

4.2.1 The development proposals unavoidably necessitate minor works within the RPAs of two trees and a group of trees; comprising small areas of excavation to facilitate the construction of garage footings, and the introduction of new above soil hard surfacing to form a base for proposed cycle stores. In all instances the extent of RPA encroachment is considered negligible and within acceptable limits for the trees to tolerate. Where RPA incursions are unavoidable, effective strategies to safeguard trees during construction are proposed to manage the effect on their root systems; these are described in more detail below and illustrated within appendix C, the type and extent of encroachment is detailed within Table 2 below.

4.2.2 **Table 2:** RPA encroachments by type and extent.

Tree No.	Supervised Excavation (m ² /%)		Above Soil Surfacing (m ² /%)	
T20	2.0	0.7%	-	-
T25	0.2	0.2%	-	-
G16	<0.1	N/A	7.5	N/A

4.2.3 Where excavation is required within the RPAs of T20, T25 and G16 they are particularly small areas on the periphery of the RPAs where the presence of large diameter roots is not expected. Furthermore, there is available land conducive to root growth contiguous with the RPA that far exceeds the footprint of excavation required. Notwithstanding this, it is recommended that all excavation works are undertaken sensitively under direct arboricultural supervision. The preferred method of excavation is to utilise compressed air via an Air Spade. This approach will minimise the risk of damage and allow for all rooting material to be exposed prior to making any decision regarding severance, as per guidance set out within BS5837:2012 clause 7.2, or retaining within the undisturbed RPA. Under this scenario the excavations are considered to be achievable without any undue concern for the future health, vitality or stability of the trees.

⁹ [T14] Crack Willow, [T30] Laburnum and [G13] Elm

4.2.4 Where proposed new hard surfacing is to be introduced above the existing soil profile, a cellular confinement system (CellWeb or similar) is an appropriate and robust solution for founding the new hard surface. This approach will prevent RPA compaction and minimise requirements for excavation, precluding the associated risk of root severance.

4.2.5 Where trees are to receive new hard surfacing, it is recommended that installation is carried out in conjunction with decompaction and soil improvement measures. Decompaction should occur within the areas contiguous to the RPA and during the subsequent growing season, the retained portion of RPA should receive a one-off soil drench application to apply key nutrients. These measures are considered prudent for promoting future root development.

4.3 Pruning Works¹⁰

4.3.1 To provide sufficient working room to facilitate construction of garages and cycle stores along the western boundary it will be necessary to crown lift the eastern canopies of T20, T21, T25 and G16. The exact extent of pruning should be determined onsite; however, it is anticipated to amount to the shortening of secondary branches only and to be achievable without detriment to their health or amenity value. Pruning works should be undertaken in accordance with section 7.6 (for crown lifting) of BS3998:2010, by a competent tree contractor.

4.3.2 Although not required to accommodate the proposals, it is recommended that dead branches are removed from the canopies of the retained trees where oversailing areas of high use (within the applicant's control). This will help mitigate the risk of future tree related hazards emerging and associated apprehension. Pruning works should be undertaken in accordance with section 7.3 (for removal of deadwood) of BS3998:2010, by a competent tree contractor.

4.4 Protective Barriers

4.4.1 It will be important to protect retained trees' above-ground structures and underlying RPAs from damage during construction. To achieve this, tree protection barriers should be erected prior to the commencement of any works in the locations illustrated with a blue line within the appendix C and consist of the default specification set out within BS5837:2012 clause 6.2.2.

4.4.2 It will be necessary to relocate tree protection barriers to a secondary position when installing proposed new features within the RPAs of T20, T25 and G16. Where this is necessary secondary positions are illustrated within appendix C with a dotted pink line.

¹⁰ All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

4.5 Compensation Replanting

- 4.5.1 The principle of tree removal generates a requirement for replacement planting, which has been recognised during the design stage. Accordingly, the proposed layout has been designed to provide opportunities for incorporating new and replacement trees throughout the site.
- 4.5.2 The submitted Planting Plan sets out an approach that compensates for the tree removals and further enhances throughout areas of open space along the site's northern, eastern and southern boundaries, and within a central play area. Throughout these spaces large canopy bearing species can be readily introduced without concern regarding their ultimate size and associated residual pressure at maturity.
- 4.5.3 Within the proposed residential parcel, areas available to receive tree planting are unavoidably slightly more restricted. Throughout this part of the development planting will generally occur as tree lined streets or within incidental pockets of soft landscaping; comprising species suitable for the setting that soften the built form and create a verdant street scene, commensurate to NPPF aspirations.

5 Conclusions

- 5.1.1 Pursuant to Wokingham Borough Council's Policy requirements, the proposals have been informed by a survey of the existing tree stock using the guidance provided at BS5837:2012.
- 5.1.2 The impact of the proposed development on trees has been reduced as far as is practical to ensure an efficient use of the site. Where tree removal is unavoidable, the layout design has focused on the clearance of young to semi mature, low-quality trees that can be compensated for with new plantings of comparable scale and assemblage.
- 5.1.3 Planting proposals are provided that seek to introduce a greater canopy area than that to be removed that will strengthen and enhance the existing boundary tree cover and soften the development with the introduction of tree lined streets.
- 5.1.4 A preliminary scheme for safeguarding retained trees has been prepared which relies on the use of standard barrier techniques and appropriate construction methodologies and mitigation measures. The application of these provides a high degree of technical confidence that the proposals will not result in harm to the site's important tree cover and ensure long term retention.
- 5.1.5 In conclusion, it is considered that the principle of the proposed development responds appropriately to the arboricultural constraints. The retention and future protection of the site's most important arboricultural assets is evident, pursuant to Wokingham Borough Council and Shinfield Parish Council's Policies CP1, CP3, CC03, TB21, 2 and 6, and the Framework. Therefore, on balance the proposals can be supported from the arboricultural perspective.

6 Recommendations

- 6.1.1 A detailed Arboricultural Method Statement supported by 1:500 scale technical drawings should be prepared which expand on appendix C, this could be secured by Condition. Details of proposed levels and service routes should be included; a scheme for auditing tree protection and subsequent reporting to the Council should feature explicitly throughout.

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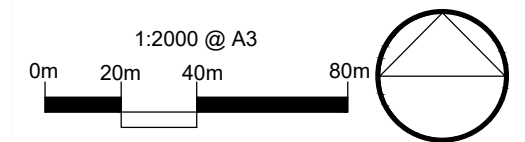
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APPENDICES

APPENDIX A

TREE CONSTRAINTS PLAN (12017 TCP 01 Rev A)



KEY:

- | | |
|---|--------------------|
|  | Site Boundary |
|  | Tree Numbers |
|  | Tree Canopies |
|  | Category 'U' Trees |
|  | Category 'A' RPA |
|  | Category 'B' RPA |
|  | Category 'C' RPA |
|  | Shading Arc |
|  | Veteran Buffer |

Note: Trees 1-13, 23, 24, 26, 27, 32, 34, groups G1-G3, G15, G16 and hedgerow H1 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 3064-Land North of Arborfield Road (PS) REV B.dwg).

Note: The RPA footprint for Trees 13, 15, 17 and 18 have been displaced to allow for the effect of the adopted highway and existing building foundations. The surface area of the RPA has not been reduced.



REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

aspect arboriculture

TITLE

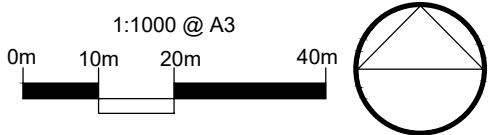
Land North of Arborfield Road, Shinfield
Tree Constraints Plan

CLIENT

Bellway Homes Limited (Thames Valley)

SCALE 1:2000 @ A3	DATE AUG 2024	DRAWN JH
DRAWING NUMBER 12017 TCP 01 Rev A (Overview)		REVISION A

Based on: 3064-Land North of Arborfield Road (PS) REV B.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Shading Arc
 - Veteran Buffer

Note: Trees 1-13, 23, 24, 26, 27, 32, 34, groups G1-G3, G15, G16 and hedgerow H1 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 3064-Land North of Arborfield Road (PS) REV B.dwg).

Note: The RPA footprint for Trees 13, 15, 17 and 18 have been displaced to allow for the effect of the adopted highway and existing building foundations. The surface area of the RPA has not been reduced.



REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

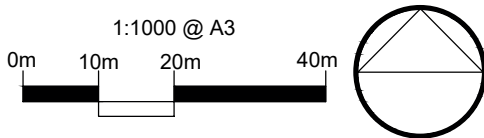
aspect arboriculture

TITLE
Land North of Arborfield Road, Shinfield
Tree Constraints Plan

CLIENT
Bellway Homes Limited (Thames Valley)

SCALE 1:1000 @ A3	DATE AUG 2024	DRAWN JH
DRAWING NUMBER 12017 TCP 01 Rev A (1/2)	REVISION A	

Based on: 3064-Land North of Arborfield Road (PS) REV B.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Shading Arc
 - Veteran Buffer

Note: Trees 1-13, 23, 24, 26, 27, 32, 34, groups G1-G3, G15, G16 and hedgerow H1 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 3064-Land North of Arborfield Road (PS) REV B.dwg).

Note: The RPA footprint for Trees 13, 15, 17 and 18 have been displaced to allow for the effect of the adopted highway and existing building foundations. The surface area of the RPA has not been reduced.



REV	DATE	NOTE	Drawn	Chk'd

aspect arboriculture

TITLE
Land North of Arborfield Road, Shinfield
Tree Constraints Plan

CLIENT
Bellway Homes Limited (Thames Valley)

SCALE 1:1000 @ A3	DATE AUG 2024	DRAWN JH
DRAWING NUMBER 12017 TCP 01 Rev A (2/2)	REVISION A	

Based on: 3064-Land North of Arborfield Road (PS) REV B.dwg

APPENDIX B

TREE SURVEY SCHEDULE (12017 TS 01)

**BS 5837:2012 Tree Schedule: Land North of Arborfield Rd,
Shinfield**

BS5837:2012 Tree Survey: Explanation of Survey Criteria

Sequential reference number cited on all aspect drawing.													e.g.: young, semi-mature, early-mature, mature or over-mature			Area around tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of roots and soil structure is a priority. *The RPA has been manipulated to allow for various site features, i.e. roads, structures or changes in levels. Please refer to the Tree Constraints Plan for these changes.		
Height and Crown spread measured to the nearest half meter; # denotes where this is estimated.													Category prefix A-C denotes arboricultural quality, decreasing from A (high) to C (low); Subcategories 1, 2 and 3 highlight associated arboricultural (1), landscape (2) and ecological (3) qualities.			Category U trees are those in such a condition that they cannot be realistically retained as living trees in the current context for the long term.		
Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)			
				N	E	S	W	radial										
		Measured to the nearest 10mm; # denotes estimated diameter where access is not possible.							e.g.: above-average, average, below average or dead		General observations, i.e. defects, preliminary management recommendation, presence of pests/disease, perceived significance.							
Colour band key:		Category A Category B Category C Category U																
							Height of first significant branch and/or canopy					e.g.: good, indifferent, poor, or hazardous						

Colour band key:

Category A
Category B
Category C
Category U

The following survey should not be interpreted as a report on tree health and safety. Aspect's opinion of tree condition and structural potential is valid for a limited period of 12 months from the date of inspection. Validity is assumed in the absence of inclement weather and no change to the trees existing setting.

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
1	English Oak	1205	12	6.5	5.25	5.5	4		3	1.75	Notable	Below Average	Poor	Previously heavily reduced Large cavity in northern aspect of trunk, extensive hollowing within with suspected fire damage Large diameter deadwood throughout crown Prominent boundary feature Recommend PICUS investigation to determine extent of dysfunctional wood Considered to be of Notable status with capability of developing into Veteran, high arboricultural value	A12	14.4 18.1 VTB
2	English Oak	740 oi	12	8.25	3.75	7.5	7.25		2.5	2.5	Early Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Mutually suppressed and cohesive with companions Moderate example of species Moderate collective value	B12	9
3	English Oak	790 oi	15.5	9.5	5.75	10.25	9.5		2.5	2.5	Early Mature	Below Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Slightly sparse crown for species Average internal deadwood with large diameter in lower crown Mutually suppressed and cohesive with companions Moderate example of species Moderate collective value	B12	9.6
4	English Oak	970 oi	16.5	12.5	6.75	11.5	8.75		3.5	2.5	Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Mutually suppressed and cohesive with companions Prominent boundary feature Moderate example of species	B12	11.7
5	English Oak	690 oi	16	7.75	7.75	8.25	5.5		2	1.5	Early Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Mutually suppressed and cohesive with companions Moderate example of species Moderate collective value	B12	8.4
6	English Oak	635	12	9	6.25	7.5	7.5		2	1.75	Early Mature	Below Average	Indifferent	Above average internal deadwood Mutually suppressed and cohesive with companions Sparse crown for species Dieback to upper crown Tip dieback Appears to be in a state of decline Low arboricultural quality	C1	7.5
7	English Oak	735 oi	14	7.5	3.75	8.5	6.5		3.5	3	Early Mature	Below Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Mutually suppressed and cohesive with companions Above average internal deadwood Sparse crown for species Dieback to upper crown Appears to be in a state of decline Low arboricultural quality	C1	8.7
8	English Oak	730 oi	16	7.25	7.25	9.75	5.25		2.25	2	Early Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Mutually suppressed and cohesive with companions Moderate example of species Moderate collective value	B12	8.7

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
9	English Oak	930	17	7.75	8.25	10	7.25		3.25	4	Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Mutually suppressed and cohesive with companions Above average internal deadwood Occasional large diameter deadwood in lower crown Previous pruning to lower crown to crown lift Moderate example of species Moderate collective value	B12	11.1
10	English Oak	670 oi	15	7.25	6	7.75	5		2.25	2.25	Early Mature	Below Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Slightly sparse crown for species Mutually suppressed and cohesive with companions Moderate collective value	B2	8.1
11	English Oak	1250	13	6.75	4	6.25	6.75		3.5	3	Notable	Below Average	Poor	Extensive burring on all aspects of trunk Previous unsympathetic pruning to crown Minor impact damage to surface roots Extensive dieback to crown Epicormic growth in lower crown forms bulk of live crown Areas of bark staining on northern and western aspects of trunk Considered to be of Notable status with capability of developing into Veteran, high arboricultural value	A12	15 18.8 VTB
12	Hybrid Black Poplar	440 350 390	20	6.25	7.75	4.25	3.25		3	1.75	Early Mature	Average	Poor	Multi stemmed from ground level, unions tight and included to c.1.5m Leans east from ground level Low arboricultural quality	C1	8.1
13	English Oak	1315 oi	9.5	5.75	6#	5.75	6.75		2	2.5	Notable	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Squat canopy form Minor dieback to tips Average internal deadwood with large diameter in lower crown Extensive burring on all aspects of trunk Minor cavities between buttress flares Considered to be of Notable status with capability of developing into Veteran, high arboricultural value	A12	15 19.7 VTB
14	Crack Willow	3*700 1000 #	14	9.75	9#	10.25	8.25		1.5	0	Over Mature	Average	Hazardous	Clad and obscured by Ivy, unable to thoroughly inspect Partially collapsed at base Multi stemmed from c.1m Hazardous structural condition, unsuitable for retention	U	N/A
15	Lime	400#	13#					4.5#	1#	1#	Early Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Stem inaccessible due to dense understory Radial crown measurement due to restricted access Situating within roadside verge Unremarkable example of species	C1	4.8
16	Tree of Heaven	150 2*130 #	5.5					3.25	0.5	2.5	Semi Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Ornamental planting Previously topped Unremarkable example of species	C12	3.9

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
17	Sycamore	2*100#	5					2#	1.5#	1.5#	Semi Mature	Average	Indifferent	Partially obscured by bramble, unable to thoroughly inspect Stem inaccessible due to dense understory Appears self set Low arboricultural quality	C12	1.8
18	Sycamore	130#	6#					3#	1.5#	1.5#	Semi Mature	Average	Indifferent	Partially obscured by bramble, unable to thoroughly inspect Stem inaccessible due to dense understory Appears self set Low arboricultural quality	C12	1.5
19	Walnut	200#	5#					3#	1.75#	2#	Semi Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Unsympathetic pruning to crown Low arboricultural quality	C12	2.4
20	Sycamore	3*450#	16					8	3#	3#	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Appears to be multi stemmed from c.1m Moderate example of species	B1	9.3
21	Crack Willow	450 2*320 #	10.5					8.75	3.5	0.5	Early Mature	Average	Poor	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Structure appears typical for species within current context	C1	7.8
22	Buddleia	5*100#	5					4	0.5	0.5	Semi Mature	Average	Indifferent	Stem inaccessible due to dense understory Appears to be situated on site boundary Low arboricultural quality	C12	2.7
23	Lawson Cypress	350#	10					4.25	1.5#	1.5#	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Structure appears typical for species within current context Unremarkable example of species	C1	4.2
24	Lawson Cypress	320	10					5.25	1.5#	1.5#	Semi Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Structure appears typical for species within current context Unremarkable example of species	C1	3.9
25	Atlas Cedar	520#	12					7.5	2.5#	1	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Structure appears typical for species within current context Moderate example of species	B1	6.3
26	False Acacia	200#	8	3#	6.25	3#	0.5#		3.75	1.5	Semi Mature	Average	Poor	Clad and obscured by Ivy, unable to thoroughly inspect Inaccessible, offsite within neighbouring residential land Leans east from ground level Low arboricultural quality	C1	2.4

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
27	False Acacia	280 250 120 80 #	11					7.25	1.75	1.5	Semi Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Inaccessible, offsite within neighbouring residential land Low arboricultural quality	C1	4.8
28	False Acacia	170 135	9.5	4.25	5.25	3	1.5#		1.75	1.5	Semi Mature	Average	Indifferent	Situated on site boundary Low arboricultural quality	C12	2.7
29	False Acacia	155	9.5	3.25	4.75	3	1#		0.25	1	Semi Mature	Average	Indifferent	Situated on site boundary Low arboricultural quality	C12	1.8
30	Laburnum	2*160 300 oi	6	3	4	3#	0.5		2#	3	Early Mature	Below Average	Poor	Clad and obscured by Ivy, unable to thoroughly inspect Inaccessible, offsite within neighbouring residential land Leans east from ground level Extensive dieback to crown Unsympathetic pruning to lower crown Unlikely to offer long term contribution	U	N/A
31	False Acacia	135	6	4#	4.25	2.25	1#		1.5	1	Semi Mature	Average	Indifferent	Low arboricultural quality	C12	1.5
32	False Acacia	100 180 #	9	4#	3.5	1#	2#		3	4#	Semi Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Low arboricultural quality	C12	2.4
33	False Acacia	1000#	16					8#	2#	5.25 over site	Mature	Average	Indifferent	Clad and obscured by Ivy, unable to thoroughly inspect Inaccessible, offsite within neighbouring residential land Well balanced radial crown and scaffold structure Good example of species	A1	12
34	False Acacia	300#	9					5	1.5	1.75	Semi Mature	Average	Indifferent	Partially obscured by bramble, unable to thoroughly inspect Stem inaccessible due to dense understory Radial crown measurement due to restricted access Unremarkable example of species	C1	3.6
G1	Leyland Cypress	220 av	6 av					3.25 av	0.5 av	0.5av	Semi Mature	Average	Indifferent	Parcel of Leyland Cypress to west of PROW Limited access due to dense understory Structures appear typical for species within current context Unremarkable collection	C12	2.7
G2	Field Maple Yew Holly Blackthorn Hazel Cherry Laurel Hawthorn English Oak	420 av	11.5 av					5 av	2 av	3 av	Semi Mature	Average to Below Average	Indifferent to poor	Limited access due to dense understory Components predominantly clad and obscured by Ivy, unable to thoroughly inspect Partially clad and obscured by Bramble Structures appear typical for species within current context Cohesive collection of established specimens and self set scrub Oak components appear to be in decline Unremarkable collection	C12	5.1

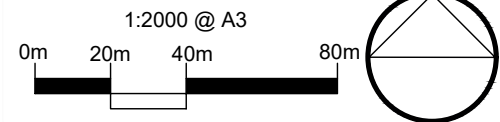
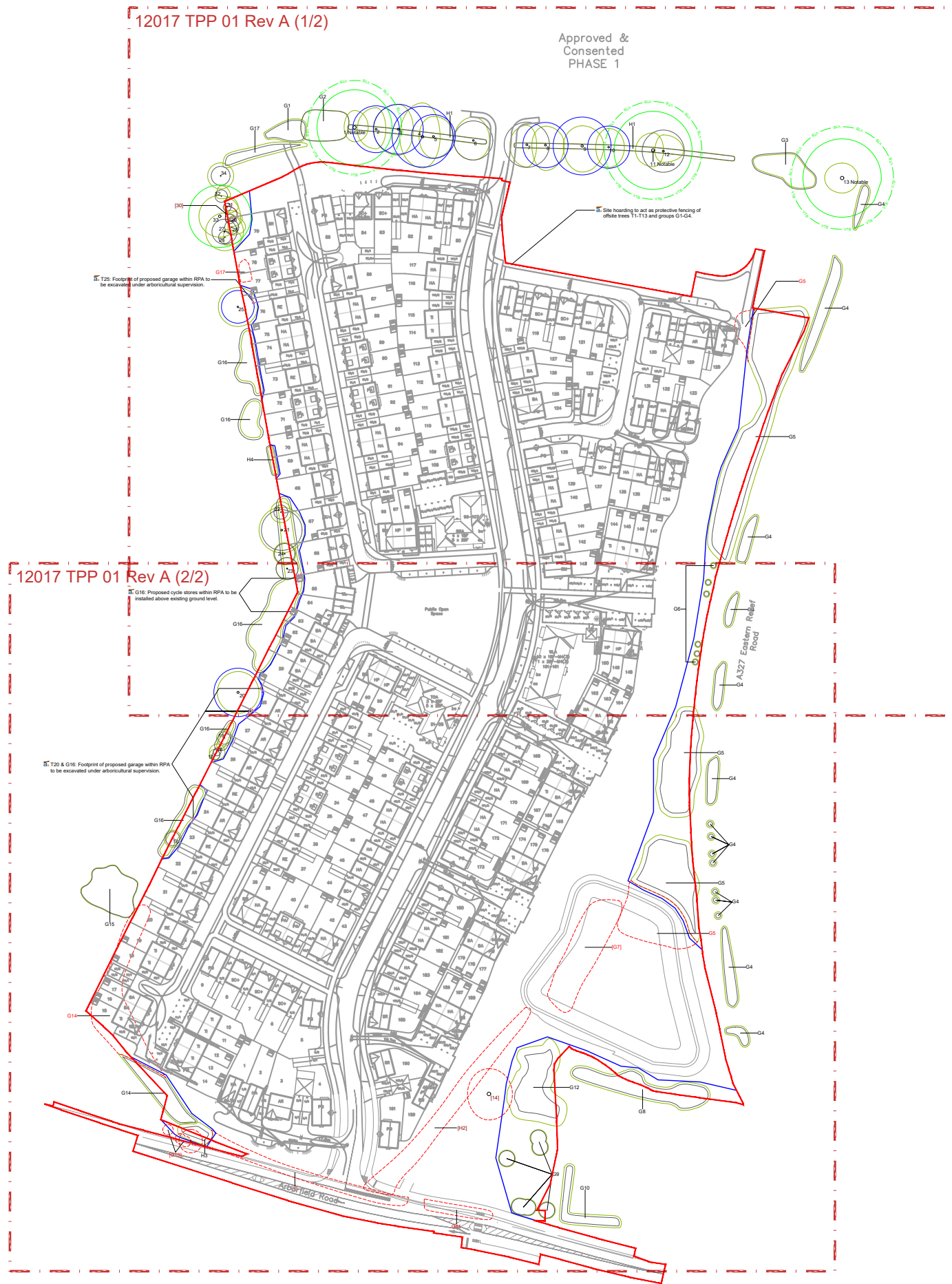
Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
G3	English Oak Field Maple Hawthorn	610 max	8 max					6.75 max	2 av	2 av	Semi Mature to Early Mature	Average to Below Average	Indifferent to Poor	Components predominantly clad and obscured by Ivy, unable to thoroughly inspect Partially clad and obscured by Bramble Parcel of lapsed hedgerow components and 1no. early mature English Oak Unremarkable collection	C12	7.2
G4	Blackthorn Cherry Field Maple Hazel Rowan	75 av	4 av					1.5 av	0.5 av	0.5 av	Young	Average	Indifferent	Intermittent collection of highway buffer plantings Structures appear typical for species within current context Unremarkable collection	C12	0.9
G5	Alder Crack Willow Goat Willow Hawthorn White Willow	160 av	9 av					3.5 av	1 av	1 av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Cohesive collection of highway buffer plantings with self set scrub understory Limited access due to dense understory Occasional standing dead occurring throughout Structures appear typical for species within current context Collection appears to be both on and offsite Unremarkable collection	C12	1.8
G6	Alder	65 max	5.5 max					1.25 max	0.5 av	0.5 av	Young	Average	Indifferent	Collection of young Alder Unremarkable collection	C12	0.9
G7	Elder Elm Hawthorn	145 av	6 av					2.5av	1 to 3	0.5 to 3.5	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Collection composed of predominantly dead Elm with occasional Hawthorn and Elder Limited access due to dense understory Components predominantly clad and obscured by Ivy and Bramble, unable to thoroughly inspect	U	N/A
G8	Apple Blackthorn Cherry Plum Elder Hawthorn	100# av	6 av					2 av	0.5 av	0.5 av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Limited access due to dense understory Components predominantly clad and obscured by Ivy, unable to thoroughly inspect Partially clad and obscured by Bramble Intermittent collection of scrub Unremarkable collection	C12	1.2
G9	Ash	2*180# av	10 av					3.25 av	2 av	2 av	Semi Mature	Average to Below Average	Indifferent to Poor	Parcels of self set Ash Limited access due to dense understory Components predominantly clad and obscured by Ivy, unable to thoroughly inspect Partially clad and obscured by Bramble Structures appear typical for species within current context Unremarkable collection	C12	3

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
G10	Blackthorn Cherry Plum Hawthorn Leyland Cypress	100# av	5 av					2 av	0.5 av	0.5 av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Cohesive collection lining access track, appears to be offsite Limited access due to dense understory Components predominantly clad and obscured by Ivy, unable to thoroughly inspect Partially clad and obscured by Bramble Unremarkable collection	C12	1.2
G11	Elder Elm	90 av	6 av					3 av	0.5 av	1 av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Cohesive collection of scrub and lapsed hedgerow components lining site boundary Limited access due to dense understory Components predominantly clad and obscured by Ivy, unable to thoroughly inspect Partially clad and obscured by Bramble Beginning to interfere with overhead utilities Unremarkable collection	C12	1.2
G12	Crack Willow	250# av	12.5 av					6 av	1# av	1# av	Semi Mature	Average to Below Average	Indifferent to Poor	Limited access due to dense understory Components predominantly clad and obscured by Ivy, unable to thoroughly inspect Partially clad and obscured by Bramble Occasional standing dead occurring throughout Collection composed of predominately low value individuals	C12	3
G13	Elm	150# av	5 av					2 av	0.5 av	0.5 av	Semi Mature	Dead	Hazardous	Collection of dead Elm Failed components within	U	N/A
G14	Buddleia Elder Hawthorn Hazel Plum Privet	75 av	4 av					1.5 av	0.5 av	0.5 av	Young	Below Average to Below Average	Indifferent to Poor	Limited access due to dense understory Partially clad and obscured by Bramble Dense collection of scrub and Bramble Unremarkable collection	C12	0.9
G15	Apple Norway Maple Purple Plum	350# max	12# max					4# av	1# av	1# av	Semi Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect Surveyed from a distance Collection of domestic ornamental plantings Unremarkable collection	C12	4.2

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
G16	Beech															
	Elaeagnus															
	Hawthorn															
	Pear															
	Privet															
	Rowan															
	Silver Birch															
	Cherry plum	150# av	6# av													
	Got willow															
	Buddleia	400# max	10# max					4# av	1# av	1#av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Inaccessible, offsite within neighbouring residential land, unable to thoroughly inspect	C12	1.8 av
	Sycamore													Parcels of domestic ornamental plantings		4.8 max
	English Oak													Unremarkable collection		
	Lawson Cypress															
	Elder															
	Copper Beech															
	Holly															
	Japanese Maple															
	Ceanothus															
G17	Blackthorn															
	English Oak	75 max	4.5 max					1.75 max	0.5 av	0.5 av	Young	Average	Indifferent	Parcel of cohesive colonising scrub	C12	0.9
	Field Maple													Unremarkable collection		
H1	Blackthorn															
	Cherry Laurel													Partially maintained hedgerow spanning both sides of stream		
	Elder	75 av	2 av					1 av	0.5 av	0.5 av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Occasionally intermittent	C12	0.9
	Hawthorn													Occasional self set specimen within		
	Hazel													Unremarkable collection		
H2	Holly															
	Elder															
	Elm	75# av	5.5 max					1.5 av	0.5 av	0.5 av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Intermittent collection of lapsed hedgerow components	U	N/A
H3	Hawthorn													Very high level of dead Elm components within		
	Blackthorn															
	Elm															
H4	Field Maple	75# av	4 av					2.5 av	0.5 av	0.5 av	Young to Semi Mature	Average to Below Average	Indifferent to Poor	Previously maintained field boundary hedgerow	C12	0.9
	Hawthorn													Unremarkable collection		
	Hazel															
	Cherry Laurel	120# av	3 av					1 av	0.5 av	0.5 av	Semi Mature	Average	Indifferent	Maintained domestic hedgerow	C12	1.5
H5	Hawthorn													Unremarkable collection		
	Cherry Laurel															

APPENDIX C

TREE PROTECTION PLAN (12017 TPP 01 Rev A)



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Veteran Buffer
 - Trees to be Removed
 - Tree Protection Barrier
 - Tree Protection Barrier (2nd Position)
 - Supervised Excavation
 - Above Soil Surfacing

Note: Trees 1-13, 23, 24, 26, 27, 32, 34, groups G1-G3, G15, G16 and hedgerow H1 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 3064-Land North of Arborfield Road (PS) REV B.dwg).

Note: The RPA footprint for Trees 13, 15, 17 and 18 have been displaced to allow for the effect of the adopted highway and existing building foundations. The surface area of the RPA has not been reduced.



Client: Bellway Homes Limited

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

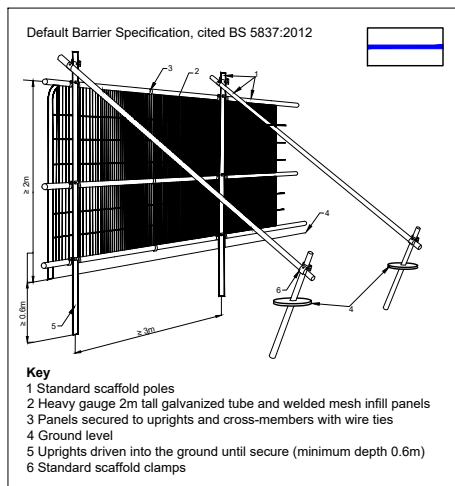
aspect arboriculture

TITLE
Land North of Arborfield Road, Shinfield
Tree Protection Plan

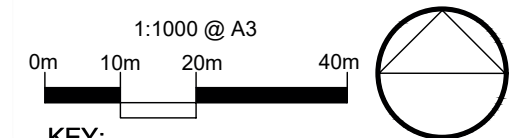
CLIENT
Bellway Homes Limited (Thames Valley)

SCALE 1:2000 @ A3	DATE AUG 2024	DRAWN JH
DRAWING NUMBER 12017 TPP 01 Rev A (Overview)	REVISION A	

Based on: 022307-BEL-TV-01 - 07.08.24.dwg



Approved &
Consented
PHASE 1



KEY:

- | | |
|---|---|
|  | Site Boundary |
|  | Tree Numbers |
|  | Tree Canopies |
|  | Category 'U' Trees |
|  | Category 'A' RPA |
|  | Category 'B' RPA |
|  | Category 'C' RPA |
|  | Veteran Buffer |
|  | Trees to be Removed |
|  | Tree Protection Barrier |
|  | Tree Protection Barrier
(2nd Position) |
|  | Supervised Excavation |
|  | Above Soil Surfacing |

Note: Trees 1-13, 23, 24, 26, 27, 32, 34, groups G1-G3, G15, G16 and hedgerow H1 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 3064-Land North of Arborfield Road (PS) REV B.dwg).

Note: The RPA footprint for Trees 13, 15, 17 and 18 have been displaced to allow for the effect of the adopted highway and existing building foundations. The surface area of the RPA has not been reduced.



REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

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TITLE

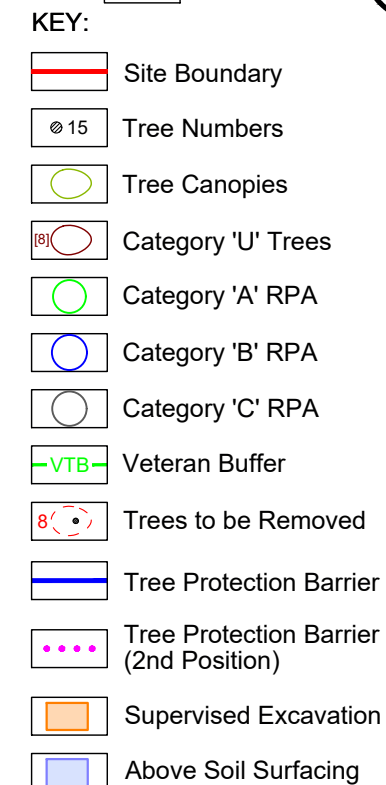
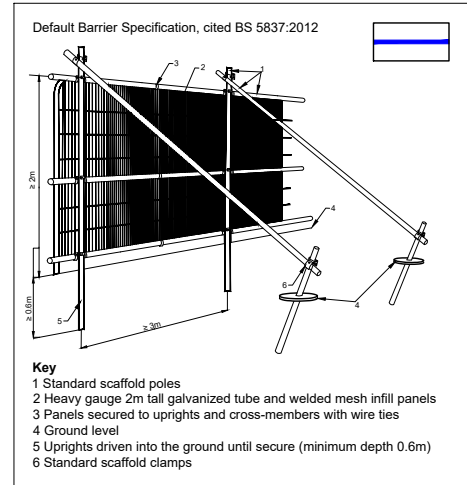
Land North of Arborfield Road, Shinfield
Tree Protection Plan

CLIENT

Bellway Homes Limited (Thames Valley)

SCALE 1:1000 @ A3	DATE AUG 2024	DRAWN JH
DRAWING NUMBER 12017 TPP 01 Rev A (1/2)		REVISION A

Based on: 022307-BEL-TV-01 - 07.08.24.dwg



Note: Trees 1-13, 23, 24, 26, 27, 32, 34, groups G1-G3, G15, G16 and hedgerow H1 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 3064-Land North of Arborfield Road (PS) REV B.dwg).

Note: The RPA footprint for Trees 13, 15, 17 and 18 have been displaced to allow for the effect of the adopted highway and existing building foundations. The surface area of the RPA has not been reduced.



REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

aspect arboriculture

TITLE

Land North of Arborfield Road, Shinfield
Tree Protection Plan

CLIENT

Bellway Homes Limited (Thames Valley)

SCALE 1:1000 @ A3	DATE AUG 2024	DRAWN JH
DRAWING NUMBER 12017 TPP 01 Rev A (2/2)		REVISION A

Based on: 022307-BEL-TV-01 - 07.08.24.dwg

APPENDIX D

TREE SURVEY METHODOLOGY

Tree Survey Methodology

The tree survey is a form of Visual Tree Assessment undertaken during May 2024. Tree locations are identified via a topographical survey; locations of any trees excluded from the topographical survey were plotted on site. The purpose of the survey is to record information about trees on or adjacent to the site to inform design options. In keeping with clause 4.4 of BS5837: 2012 'Trees in Relation to Design, Construction and Demolition', the survey provides a record of the following parameters:

Tree Numbers: all individual trees are sequentially numbered. Groups of trees, woodlands and hedgerow are also sequentially numbered with a corresponding prefix relevant to their type e.g. G, W or H respectively; the identification of trees as woodland, groups of trees or within hedgerows is undertaken where appropriate. The identification of trees as individuals within collections has been made where it is considered sensible to make such a differentiation.

Species: listed by common name

Stem Diameter: given in millimetres and obtained by measuring single/multiple stems at 1.5m using a diameter tape in accordance with Annex C within BS5837:2012. Diameters of inaccessible trunks are estimated and provided with the suffix '#'.

Tree Heights: determined using a clinometer and measured to the nearest 500mm. Heights are estimated where specific triangulation is not achievable and by reference to measured trees nearby (provided with the suffix '#').

Crown Spreads: measured at cardinal points using a Leica Disto™ laser distance measurer. Measurements were recorded to the nearest 250mm. Inaccessible crown spreads are estimated based on measured canopies nearby and provided with the suffix '#'

Crown Clearance: The height of the first significant living branch and/or canopy (as appropriate) is recorded using a Leica Disto™ laser distance measurer to inform vertical ground clearance. Crown clearance may be higher or lower than the first significant branch. Estimated clearances are provided with the suffix '#'. Height of first significant branch will be provided where considered advantageous to make the distinction.

Life Stage – The age of trees, groups of trees, hedges and woodlands are defined as follows:

- Young (within the first 1/4th of life expectancy)
- Semi-mature (within the second 1/4th of life expectancy)
- Early Mature (within the third 1/4th of life expectancy)
- Mature (within the fourth 1/4th of life expectancy)
- Over Mature and Veteran (exceeding normal life expectancy)
- Veteran (significantly exceeding normal life expectancy)

Physiological and structural condition: physiological condition defined as follows; good, above average, average, below average, poor or dead. Structural condition is defined as: good, moderate, indifferent, poor or hazardous.

Comments: further observations were recorded where necessary i.e. details regarding defects, preliminary management recommendations, presence of pest/disease and perceived significance.

BS5837 Category: pursuant to BS5837:2012 section 4.5 and cascade chart for tree quality assessment (refer to reproduced Table 1 overleaf). Trees qualifying under a given category (A-C and U) and any appropriate subheading (1-3) are considered to fall within the scope of that category's definition.

Estimated Remaining Contribution. Described` as a guideline only and in terms of years: <10, 10+, 20+ and 40+ relevant to category U, C, B and A respectively. This information is not provided on the tree schedule to avoid conclusions based upon 'life expectancy'.

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

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