

LAND TO EAST OF HOOK LANE WESTERGATE

TREE REPORT

(Tree survey and
constraint advice)

ACD
ENVIRONMENTAL

Ecology
Archaeology
Arboriculture
Landscape Architecture



BARRATT
HOMES

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1.0 Executive Summary

- 1.1. This report provides survey information about the trees on the site to the east of Hook Lane, Westergate, West Sussex, in accordance with the recommendations of BS5837:2012 Trees in relation to design, demolition and construction. This is to identify the quality and value of existing trees on site, allowing decisions to be made as to the retention or removal of trees in the case of any development.
- 1.2. Twenty-four trees, eight groups and three hedgerows were included within the survey. Two of these were graded as category A, eight as B and sixteen as C.
- 1.3. There are six individual trees of category U which could be removed as good arboricultural practice.
- 1.4. Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a category C and U will not usually be retained where they would impose a significant constraint to development. Category U trees are often in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.

2.0 Introduction

- 2.1. ACD were instructed by Barratt Homes in March 2016, to survey and categorize the trees on the land to the east of Hook Lane, Westergate, in accordance with the British Standard¹. The survey includes all trees with a stem diameter greater than 75mm stem diameter at a height of 1.5m that are on site or close enough to pose a potential constraint to development.
- 2.2. Individual trees, groups of trees and hedgerows have been assessed for their quality and benefits within the context of proposed development. The quality of each tree, or group of trees has been recorded by allocating to it one of four categories. A tree reference plan is provided in order to assist with the design of site layouts.
- 2.3. This report provides the data and advice outlined in the British Standard only. It must not be substituted for a tree risk assessment. Detailed tree inspection including decay mapping, aerial inspection, soil analysis, etc. was not undertaken. If further detailed inspection is deemed necessary, then it will be made clear within this report.
- 2.4. The Tree Reference Plan is based on the supplied topographical ground survey, ref: 36WZ001A_NTS, by Siteline, dated February 2016.
- 2.5. The controlling authority is Arun District Council, who can be contacted at: Arun District Council, Civic Centre, Planning Services, Maltravers Road, Littlehampton, BN17 5LF, Tel: 01243 863141.
- 2.6. Any questions relating to the content of this report should be directed in the first instance to: ACD Environmental, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425714, quoting the site address and report reference number.

¹ BSI, 2012. *BS5837 Trees in relation to design, demolition and construction- Recommendations*, London: British Standards Institute.

3.0 Scope and Method of Survey

- 3.1. The survey schedule can be found at Appendix 2.
- 3.2. The survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.
- 3.3. No discussions took place between the surveyor and any other party.
- 3.4. The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. The prefix G has been used to indicate a group of trees, and H for hedges. Stem locations within groups may be estimated, and indicative of canopy only.
- 3.5. The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the VTA tree assessment method².
- 3.6. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions. All estimated dimensions are noted in the schedule comments.
- 3.7. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.
- 3.8. Tree heights were measured with a clinometer, or estimated in relation to those measured with the clinometer. If individual tree heights are of particular concern, for example in shading calculations, then they are measured using a clinometer.
- 3.9. Trunk diameters were measured or, where inaccessible, estimated. Single stemmed trees are measured at 1.5m above ground level.

² Mattheck, C. & Breloer, H., 1998. *The Body Language of Trees: A Handbook for Failure Analysis*. London: H.M.S.O.

3.10. Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. For the canopies of groups of trees, the maximum radius for each compass point is measured (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).

4.0 Discussion

4.1. For individual details of the subject trees see the survey at appendix 2.

4.2. The site comprises the residential dwelling Oakdene and the existing pasture to the rear. It covers just over 3 hectares, and can be seen ringed in blue on the aerial photograph below.



Figure 1: Survey area ©Google Earth

4.3. No soil assessment was carried out at the time of survey. According to the British Geological Survey online viewer, the bedrock geology is described as: London clay formation - clay, silt and sand.

- 4.4. Tree Preservation Order TPO/AL/1/14 covers four trees within the survey area: T1, T4, T5 and T6: all English oak (*Quercus robur*). The site is not within a conservation area.
- 4.5. Two of the trees included in the survey are category A. These are both oak trees with high individual quality and landscape value. Both are subject to protection under the TPO.
- 4.6. Five individual trees and three groups are category B: those that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and minor storm damage). Of these, the oak T5 is subject to protection under the TPO.
- 4.7. There are eleven individual trees and five groups that are category C: either due to their low inherent value due to low overall physiological vigour, or structural faults, or their diameter is less than 150mm at 1.5m above ground level.
- 4.8. Whilst the category C oak T1 is covered by the TPO, the obvious basal decay brings into question its retention within any development. Given its location close to the highway, it has been downgraded to C and it is our opinion that it should not present a constraint.
- 4.9. Where there are category C trees near the boundaries of the site, it is recommended that these are retained where they have landscape value as screening.
- 4.10. There are six trees of category U which could be removed as good arboricultural practice as part of any development.
- 4.11. The below ground constraints posed by the trees are represented by root protection areas (RPAs) and shown on the Tree Reference Plan. The RPA of a tree is calculated as advised by the British Standard. For a tree growing in an apparently unconstrained rooting environment a circular RPA is shown. When constraints to root growth appear to be present the RPA is adjusted to reflect the likely root growth pattern.



Figure 2: TPO category C Oak T1

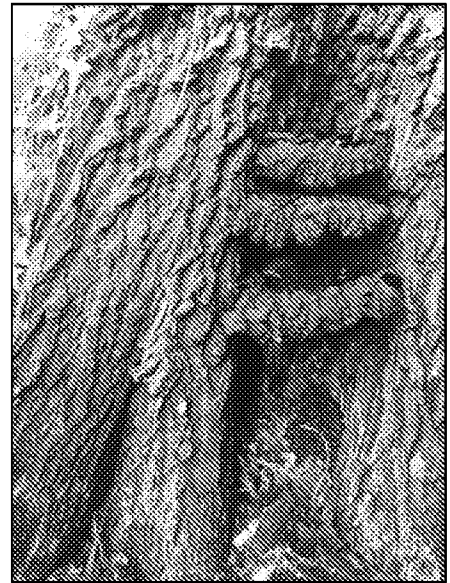


Figure 2: Fungal fruiting bodies on T1



Figure 3: Cat A TPO Oak T6 viewed from field to east

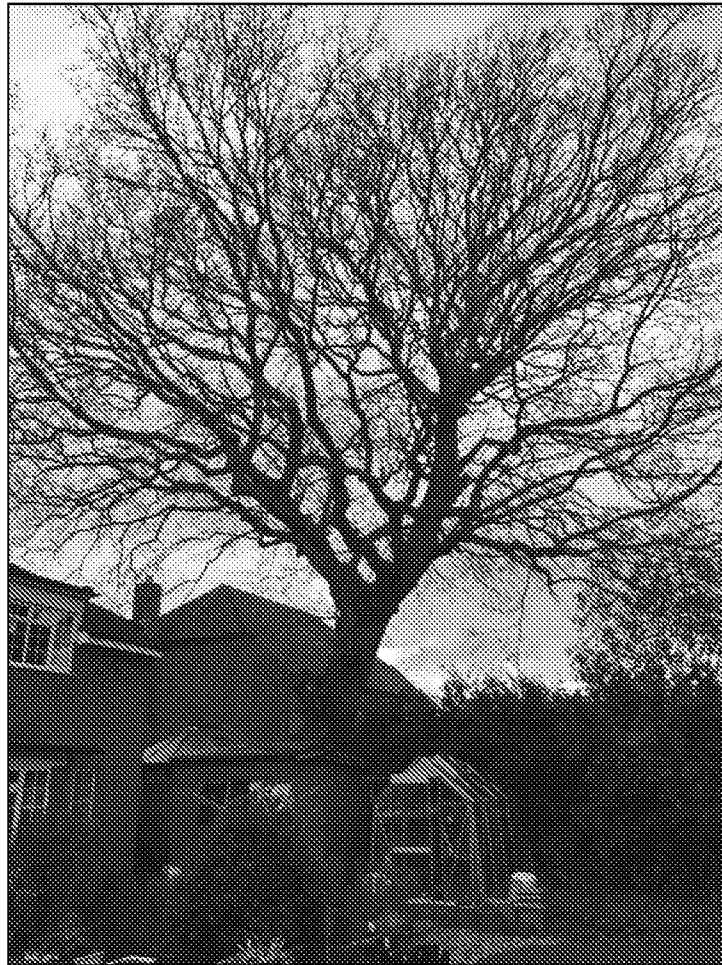


Figure 4: Category A TPO Oak T4



Figure 5: Southern field boundary

5.0 Recommendations

- 5.1. Trees of category A and B should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a category C are of a low value and will not usually be retained where they would impose a significant constraint to development. Category U trees are in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.
- 5.2. The British Standard states in section 5.1.1, that the constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognized that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development, or to justify its substantial modification. However, care should be taken to avoid misplaced tree retention. Attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.
- 5.3. If the retention of higher category tree would prejudice an otherwise satisfactory design, incorporating replacement planting may provide appropriate mitigation (space for replacement trees must be included within the layout).
- 5.4. Trees can be a development constraint both below and above the ground:
 - 5.4.1. Below ground: root protection areas indicate an area that contains a minimum rooting volume to ensure the survival of the tree. This area of ground should be taken into account within the site layout, such that it can be left undisturbed during demolition and construction by excluding activity from the area using protective barriers.
 - 5.4.2. Tree roots can be easily damaged through root severance. For example: the excavation required for level changes, or the laying of strip foundations. They can also be damaged inadvertently through soil compaction that causes asphyxiation of

roots. These factors can lead to a decline in overall vigour, die back or even whole tree death.

5.4.3. Above ground: tree constraints presented by the canopy and the psychological effects of tree proximity to dwellings (such as shading, perceived threat of tree failure, etc.) must also be considered during layout design. This will involve optimising site layout and building room use to avoid the end-user becoming resentful of the trees, and seeking excessive pruning or even tree removal. This is especially a consideration with trees located on southern boundaries.

5.4.4. Preferably, conflicts between proposed structures and RPAs and tree canopies should be 'designed out' through the careful positioning of any built form. It is therefore advisable that any design layouts are drafted in close collaboration with ACD to ensure that any trees that are highlighted for retention can be realistically integrated into the design.

5.5. Surgery may be required in order to allow trees to be retained close to structures, to allow access for construction or for future site traffic, or in the interests of the future health and safety of the trees and users of the site. Detailed recommendations for surgery can be provided once a final site layout is agreed, and it is determined which trees are to be retained. All surgery should comply with BS3998³ or more recently accepted arboricultural good practice.

5.6. Under the Hedgerows Regulations⁴ it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Local planning authority permission is required before removing hedges that are at least 20 metres (66 feet) in length, more than 30 years old and contain certain species of plant. The authority will assess the importance of the hedgerow using criteria set out in the Regulations. Hedgerows in areas covered by a historic landscape characterisation are often protected on the basis of historic importance and their wildlife value.

5.7. As some trees on the site are protected by a Tree Preservation Order (TPO), consent for any required works to protected trees should be obtained from the local planning

³ BSI, 2010. *BS3998- Recommendations for Tree Work*, London: British Standards Institute.

⁴ Hedgerows Regulation 1997, SI No: 1160.

authority prior to being carried out. Consent is not required for urgent work to dead or dangerous trees, but the local planning authority should be given at least five days' notice of the intended works. Consent is not required to work on TPO trees if that work is consented as part of a full planning application. Replacement trees may be required for any protected trees that are felled. If the site is in a conservation area, six weeks' notice of works to all trees should be given.

- 5.8. A landowner has a duty of care⁵ to ensure that reasonable steps are taken to ensure the safety of others entering their land. There is a special responsibility to ensure the safety of children, who may be unaware of danger. Reasonably frequent inspections of trees with potential to cause harm, by a competent person, together with implementation of any recommendations, should ensure compliance with the legislation regarding tree safety.
- 5.9. Notice must also be taken that it is an offence⁶ to disturb a nesting bird or roosting/breeding bat. Further advice, particularly if bats are discovered during tree work should be obtained from ACD.

Mark Welby Tech Cert (ArborA), Dip Arb (RFS), FArborA
Director & principal arboriculturist
15 March 2016



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⁵ Occupiers' Liability Act (1957 and 1984)

⁶ Wildlife and Countryside Act (Anon., 2000) & Countryside and Rights of Way Act (Anon., 1981)

Appendix 1: Tree Categories Explained

BS5837:2012 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
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years		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, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
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 150mm		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 with material conservation or other cultural value
		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

CLIENT: Barratt Homes
 SITE: Land to east of Hook Lane, Westergate
 DATE: March 2016

SURVEYOR: M Welby Tech Cert (ArborA), Dip Arb (RFS), FarborA

TAGGED? No

Appendix 2: Tree Survey Schedule

No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Quercus robur (Common Oak)	17(5)	910(1)	As shown on plan	M	10+	Large ivy clad tree with three separate instances of fruiting bodies for what appears to be <i>Inonotus dryadeus</i> . Associated basal swelling. Limited safe useful life expectancy.	C1
T2	Crataegus monogyna (Hawthorn)	6(1.5)	200(3)	As shown on plan	M	10+	Small with limited current landscape value. Diameter is estimated average.	C1
T3	Magnolia (Magnolia)	3.5(0.5)	150(1)	As shown on plan	EM	10+	Small garden ornamental. Diameter estimated.	C1
T4	Quercus robur (Common Oak)	16(2)	1130(1)	As shown on plan	M	40+	Slight swelling at base but sound when tapped. Epicormic growth on lower stem. No obvious defects. Growing between shed and fence, close to house. Mature form, previously reduced but now regrown. Various scattered wounds.	A1
T5	Quercus robur (Common Oak)	12(1)	1020(1)	As shown on plan	M	20+	Heavily ivy clad. Fruiting body of what appears to be <i>Inonotus dryadeus</i> between western buttresses. All buttresses appear sound when tapped. Broadly spreading crown. Recommendations: Sever ivy at base if retained.	B1
T6	Quercus robur (Common Oak)	16(3)	1030(2)	As shown on plan	M	40+	Large spreading tree with no obvious defects. Crown break at 3.5m with somewhat congested scaffold limbs emitting from this point. Healthy upper crown. Overall good condition.	A1

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems); HT (crown): Tree height in m (crown clearance in m); Life stage: Y: Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)); SM: Semi mature (recently planted and yet to attain mature stature, up to 25% of attainable age); EM: Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age); M: Mature (full height, crown spread, seed bearing, over 50% of attainable age); OM: Over mature (full size, die-back, small leaf size, poor growth extension); FSB: First significant branch (% compass bearing); ERC: Expected remaining contribution in years: <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment); BS Category: Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

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 DATE: March 2016

SURVEYOR: M Welby Tech Cert (ArborA), Dip Arb (RFS), FARborA
 TAGGED? No

No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
G7	X Cupressocyparis leylandii (Leyland Cypress)	13(2)	400(1)	As shown on plan	M	20+	Diameter is estimated average. Group of three stems growing on boundary. Western most stem has tight union at 1m. Slightly suppressed by adjacent oak. Compost heap around some stems.	C1
T8	Picea abies (Norway Spruce)	9(2)	200(1)	As shown on plan	EM	20+	No obvious significant defects. Small with limited current landscape value. Inaccessible: diameter estimated.	C1
G9	Prunus lusitanica (Portugal Laurel),Laurus nobilis (Bay),Chamaecyparis lawsoniana (Lawson Cypress),Acer palmatum (Japanese Maple),Corylus avellana (Hazel)	4.5(0)	200(1)	As shown on plan	EM	10+	Diameter is estimated average. Group of small garden trees and shrubs.	C1
T10	Betula pendula (Silver Birch)	10(1)	300(1)	As shown on plan	M	20+	No obvious significant defects. Moderate quality and value. Off-site and inaccessible: diameter estimated.	B1
T11	Sambucus nigra (Elder)	3(0.5)	200(1)	As shown on plan	M	10+	Self-seeded. Low quality and value. Diameter estimated.	U
T12	Sambucus nigra (Elder)	3(0.5)	200(1)	As shown on plan	M	10+	Self-seeded. Low quality and value. Diameter estimated.	U
H13	Prunus spinosa (Blackthorn)	1.5	-	As shown on plan	-	-	Clipped boundary hedge	-
H14	Crataegus monogyna (Hawthorn),Sambucus nigra (Elder)	4	-	As shown on plan	-	-	Mixed hedge	-
G15	Sambucus nigra (Elder)	4(0.5)	200(1)	As shown on plan	M	10+	Low quality and value. Diameter is estimated average.	C1

Notes: Dia (stem): trunk diameter in mm at 1.5m above ground level (number of stems) | HT (crown): Tree height in m (crown clearance in m) | Life stage: Y: Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)); SM: Semi mature (recently planted and yet to attain mature stature, up to 25% of attainable age); EM: Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age); M: Mature (full height, crown spread, seed bearing, over 50% of attainable age); OM: Over mature (full size, die-back, small leaf size, poor growth extension); | FSB: First significant branch (% compass bearing) | ERC: Expected remaining contribution in years: <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment); BS Category: Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions

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CLIENT: Barratt Homes
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 DATE: March 2016

SURVEYOR: M Welby Tech Cert (ArborA), Dip Arb (RFS), FARborA
 TAGGED? No

No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T16	Crataegus monogyna (Hawthorn)	8(1)	250(1)	As shown on plan	M	10+	Small with limited current landscape value. Inaccessible: diameter estimated.	C1
G17	Acer pseudoplatanus (Sycamore)	16(2)	650(1)	As shown on plan	M	20+	Off-site and inaccessible: diameter estimated. Group of 5 stems. One large central stem. Overall moderate landscape value. No obvious defects.	B1
T18	Acer campestre (Field Maple)	8(2)	350(1)	As shown on plan	M	20+	Poor shape and form. Small with limited current landscape value. Off-site and inaccessible: diameter estimated.	C1
G19	Acer campestre (Field Maple)	14(2)	600(1)	As shown on plan	M	20+	No obvious significant defects. Fair quality with some landscape value. Off-site and inaccessible: diameter estimated. Old field boundary group	B1
G20	X Cupressocyparis leylandii (Leyland Cypress)	20(2)	900(1)	As shown on plan	M	20+	No obvious significant defects. Fair quality with some landscape value. Off-site and inaccessible: diameter estimated.	B2
T21	Quercus robur (Common Oak)	14(2.5)	650(1)	As shown on plan	M	10+	Ivy on stem. Unbalanced crown shape. Inaccessible: diameter estimated.	C1
T22	Cupressus macrocarpa (Monterey Cypress)	12(4)	850(1)	As shown on plan	M	10+	Poor shape and form. Scattered deadwood. Inaccessible: diameter estimated. Previously topped	C1
T23	Fraxinus excelsior (Ash)	14(2)	700(1)	As shown on plan	M	20+	Off-site and inaccessible: diameter estimated. Growing on boundary. Elder growing at base. Fencing nailed to. Relatively poor structure but no obvious significant defects.	B1

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | HT (crown): Tree height in m (crown clearance in m) | Life stage: Y: Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)); SM: Semi mature (recently planted and yet to attain mature stature, up to 25% of attainable age); EM: Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age); M: Mature (full height, crown spread, seed bearing, over 50% of attainable age); OM: Over mature (full size, die-back, small leaf size, poor growth extension); | FSB: First significant branch (% compass bearing) | ERC: Expected remaining contribution in years: <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment) | BS Category: Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions

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No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T24	Cupressus macrocarpa (Monterey Cypress)	10(0)	1200(1)	As shown on plan	M	<10	Off-site and inaccessible: diameter estimated. Badly storm damaged. Recommendations: Remove tree prior to development.	U
T25	Acer campestre (Field Maple)	14(2)	500,300(2)	As shown on plan	M	20+	Inaccessible: diameter estimated. Boundary tree with localised decay typical for such and old specimen. Ivy on stem but no significant defects.	B2
T26	Salix fragilis (Crack Willow)	14(2)	500,400(2)	As shown on plan	M	<10	Leaning North. Cavity at base. Recommendations: Remove stem overhanging site back to boundary	U
T27	Acer campestre (Field Maple)	7(2)	300,150,300(3)	As shown on plan	M	10+	Boundary tree with three stems and one old failed fourth stem. Decay at base with obvious instability at base.	C3
T28	Salix fragilis (Crack Willow)	14(6)	450(1)	As shown on plan	M	20+	No obvious significant defects. Broken branches in crown. Off-site and inaccessible: diameter estimated.	B1
T29	Quercus robur (Common Oak)	12(2)	530(1)	As shown on plan	M	10+	Heavily leaning north. Opening at 1.5m (north) with exudations leaking down stem. Bark crack emanating from the opening. Supporting failed section of adjacent willow. Crown architecture indicates previous windthrow and subsequent growth correction. Wet ground to rear of lean could predispose to further movement.	C1
T30	Salix fragilis (Crack Willow)	11(0)	800(1)	As shown on plan	M	<10	Off-site and inaccessible: diameter estimated. Large failed tree with regrowth becoming established, but likely poorly attached. Recommendations: Remove/cut back to stump prior to development	U

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems); HT (crown): Tree height in m (crown clearance in m); Life stage: Y: Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)); SM: Semi mature (recently planted and yet to attain mature stature, up to 25% of attainable age); EM: Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age); M: Mature (full height, crown spread, seed bearing, over 50% of attainable age); OM: Over mature (full size, die-back, small leaf size, poor growth extension); FSB: First significant branch (% compass bearing); ERC: Expected remaining contribution in years: <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment); BS Category: Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

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SURVEYOR: M Welby Tech Cert (ArborA), Dip Arb (RFS), FARborA
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No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T31	Populus nigra 'Italica' (Lombardy Poplar)	13(6)	650(1)	As shown on plan	M	<10	Off-site and inaccessible: diameter estimated. Heavily reduced with decay in stem	U
T32	Chamaecyparis lawsoniana (Lawson Cypress)	7(1)	100(1)	As shown on plan	SM	10+	Small with limited current landscape value.	C1
G33	X Cupressocyparis leylandii (Leyland Cypress)	11(1)	450(1)	As shown on plan	M	10+	Poor shape and form. Low quality and value. Off-site and inaccessible: diameter estimated. Previously cut back by utility company- exposing stems.	C1
G34	Crataegus monogyna (Hawthorn), Sambucus nigra (Elder), Acer campestre (Field Maple)	7(0.5)	250(1)	As shown on plan	M	10+	Diameter is estimated average. Various understorey of average individual quality. Isolated trees of varying quality and form- not a continuous hedge/screen.	C2
H35	Crataegus monogyna (Hawthorn)	2	-	As shown on plan	-	-	Boundary hedge rooted on far side of seasonal ditch. Brambles from the site side of the ditch are becoming dominant in places. Recommendations: Sever brambles on site side of ditch.	-

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems); HT (crown): Tree height in m (crown clearance in m); Life stage: Y: Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)); SM: Semi mature (recently planted and yet to attain mature stature, up to 25% of attainable age); EM: Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age); M: Mature (full height, crown spread, seed bearing, over 50% of attainable age); OM: Over mature (full size, die-back, small leaf size, poor growth extension); FSB: First significant branch (% compass bearing); ERC: Expected remaining contribution in years: <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment); BS Category: Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

Appendix 3: Tree Reference Plan

BDWS20440-01



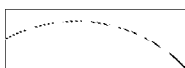
How to use this plan

This plan follows the recommendations of BS5837:2012 and provides sufficient information for designers to interpret the constraints presented by the trees on and around the site. If there are any questions about how to correctly interpret the details shown, then ACD should be contacted on 01463425714 or mail@acdenv.co.uk

This plan is for design use. Before making a planning application, ACD should assess the impact of the layout and draft a full arboricultural impact assessment (AIA)

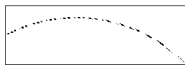
Designers should seek to retain all A & B category trees, and work within the constraints posed by them, as the LPA will expect their retention. C category trees should not be a material constraint trees and may be removed to facilitate development. However, their retention should be sought where practical, but the scheme need not be designed around them.

Developable area



Root protection area (RPA) for A & B category trees

The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. BS5837:2012 advises that default position is that structures & surfaces are located outside this area. However, where there is an overriding justification for construction within the RPA, technical solutions might be available that prevent damage to the tree(s). It is essential that you contact ACD to discuss any proposals within this area before finalizing a design.



RPA for C category trees

Note: Future growth area

Any layout design should only site small non-habitable buildings (garages, cycle stores, etc) within 2 m of tree canopies. In addition to providing space or the tree's growth, this also allows for the working and access space needed for the construction of the buildings. In some instances it may be viable to carry out some pruning but his often raises objections from LPAs and therefore ACD should be consulted on any proposals to prune, or site buildings in this area, before finalising any design

Shading

The design should also avoid unreasonable obstruction of light, by siting buildings so that only flank walls and/or non-habitable dual aspect rooms are close to retained trees. Gardens should be orientated to provide some shade free areas during the day.

Tree categories



A category tree- high quality



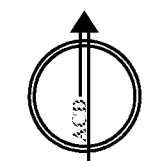
B category tree- moderate quality



C category tree-low quality



U category tree- less than 10 years useful life



The original of this drawing was produced in colour- a monochrome copy should not be relied upon.



Rev	Date	Details	Drawn
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BARRATT
HOMES

scheme: Land to east of Hook Lane
Westergate, West Sussex

client: Barratt Homes

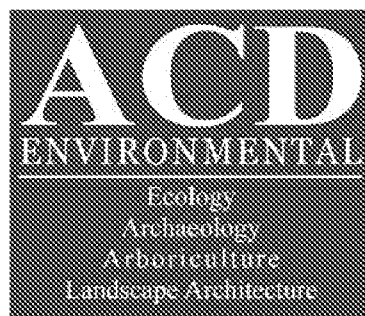
drawing: Tree Reference Plan

date: March 2016

scale: 1:500@A1

dwg no: BDWS20440-01

drawn: MW checked: AJB



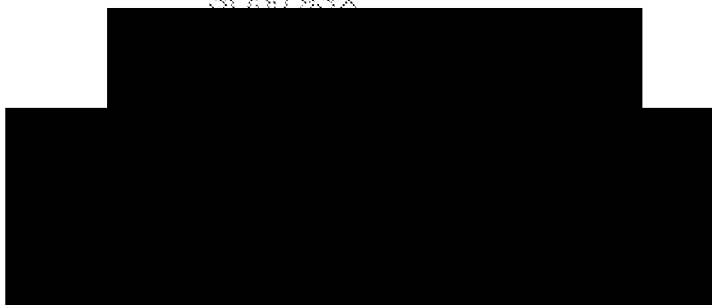
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