FOSTER STREET FARM FOSTER STREET HARLOW

TREE REPORT

(Tree survey and constraint advice)

ACD ENVIRONMENTAL

Ecology
Archaeology
Arboriculture
Landscape Architecture

HASTINGS DEVELOPMENTS LIMITED

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1.0 Executive Summary

1.1. This report provides survey information about the trees on the site at Foster Street Farm, Foster Street, Harlow, 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 the site, allowing decisions to be made as to the retention or removal of trees in the case of any development.

1.2. 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 Hastings Developments Limited, in February 2018, to survey and categorise the trees at Foster Street Farm, Foster Street, Harlow, in accordance with the British Standard[1], 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. Trees 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 a 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 by Survey Solutions, dated 23/09/2013, ref: 13143se-01

2.5. The controlling authority is Epping Forest District Council, who can be contacted at Civic Offices, 323 High Street, Epping, Essex, CM16 4BZ, Tel: 01992 564000.

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 method[2].

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 Recommendations

4.1. 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.

4.2. 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 recognised 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.

4.3. 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).

4.4. 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.

4.5. 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.

4.6. A landowner has a duty of care[3] 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.

4.7. Notice must also be taken that it is an offence[4] to disturb a nesting bird or roosting/breeding bat. Further advice, particularly if bats are discovered during tree work should be obtained from ACD.

Andrew Bigg CertArb (RFS)
Arboriculturist
15 March 2018

[3] Occupiers' Liability Act (1957 and 1984)
[4] 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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7.***		
	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 150mm	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

CLIENT: Hastings Developments Limited
SITE: Foster Street Farm, Foster Street, Harlow
DATE: March 2018

SURVEYOR: A. Bigg

TAGGED? No

No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Acer pseudoplatanus (Sycamore)	9(1)	350,210(2)	2, 4, 4, 4	SM	20+	Tree of moderate landscape value but of reduced quality. Twin-stemmed with tight compression fork.	C2
T2	Acer pseudoplatanus (Sycamore)	8(1)	150,200,250(3)	3, 3, 2, 3	Y	20+	Tree of moderate landscape value but of reduced quality. Triple-stemmed with tight compression forks.	C2
T3	Fraxinus excelsior (Ash)	12(1)	400(1)	4.5, 5, 5.5, 5	SM	20+	Ash tree of reduced quality and value. Heavily ivy-covered, dbh measured over ivy. Growing adjacent to farm access roadway and barn structure.	C2
T4	Acer pseudoplatanus (Sycamore)	14(1)	400,500(2)	5, 5.5, 5, 4.5	SM	20+	Tree of moderate landscape value but of reduced quality. Twin-stemmed with tight compression fork. Growing adjacent to farm access roadway and barn structure.	C2
T5	Acer pseudoplatanus (Sycamore)	12(1)	390,280(2)	5, 5, 5, 4.5	SM	20+	Tree of moderate landscape value but of reduced quality. Twin-stemmed with tight compression fork. Growing adjacent to farm access roadway and barn structure.	C2
T6	Acer pseudoplatanus (Sycamore)	14(1)	470(1)	5, 6.5, 5, 4.5	SM	20+	Tree of moderate landscape value but of reduced quality. Growing adjacent to farm access roadway and barn structure.	C2
T7	Prunus domestica (Damson)	4(1)	150(1)	1, 1, 1, 1	Y	20+	Small domestic fruit trees of limited quality and value. Growing adjacent to farm access roadway and barn structure.	C2
T8	Prunus domestica (Damson)	4.5(1)	200(1)	1.5, 1.5, 1.5, 1.5	SM	20+	Small domestic fruit trees of limited quality and value. Growing adjacent to farm access roadway and barn structure.	C2

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.).| 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.

CLIENT: Hastings Developments Limited
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DATE: March 2018

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No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T9	Fraxinus excelsior (Ash)	14(2)	390,260(2)	6, 6, 6, 6	SM	20+	Ash tree of reduced quality and value, twin-stemmed individual. Growing adjacent to farm access roadway and barn structure.	B2
T10	Fraxinus excelsior (Ash)	10(2)	300(1)	4, 4, 4, 4	Y	10+	Small individual of limited quality and value growing with boundary hedgerow. Dimms given are estimated due to restricted access.	C2
T11	Fraxinus excelsior (Ash)	11(1)	300(1)	4, 4, 4, 4	SM	20+	Small individual of limited quality and value growing with boundary hedgerow. Dimms given are estimated due to restricted access.	C2
T12	Fraxinus excelsior (Ash)	11(0)	300(1)	4.5, 4.5, 4.5, 4.5	SM	20+	Small individual of limited quality and value growing with boundary hedgerow. Dimms given are estimated due to restricted access.	C2
G1	Corylus avellana (Hazel), Crataegus monogyna (Hawthorn)	5 (0)	75	1.5, 1.5, 1.5, 1.5	Y	20+	Mixed species understorey of limited quality and value.	C2
G2	Corylus avellana (Hazel), Crataegus monogyna (Hawthorn)	8(1)	150(1)	2, 2, 2, 2	Y	10+	Continuation of understorey vegetation. However these are not overtopped by establish individuals.	C2
G3	Acer pseudoplatanus (Sycamore), Corylus avellana (Hazel),Fraxinus excelsior (Ash)	9(1)	250(1)	3, 3, 3, 3	SM	20+	Mixed species boundary group of reduced quality due to group pressure however of moderate landscape value. Diameters recorded as an estimated average.	C2
G4	Acer pseudoplatanus (Sycamore), Corylus avellana (Hazel),Fraxinus excelsior (Ash)	7(0)	200(1)	3, 3, 3, 3	Y	20+	Mixed species boundary group of reduced quality due to group pressure however of moderate landscape value. Diameters recorded as an estimated average.	C2
G5	Cupressus × leylandii (Leyland Cypress)	6(0)	50(1)	2, 2, 2, 2	Y	10+	Fast growing non-native conifer species planted as boundary screening.	C2

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.).| 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.

No.	Name	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
G6	Acer pseudoplatanus (Sycamore), Corylus avellana (Hazel),Fraxinus excelsior (Ash)	6(0)	50(1)	2, 2, 2, 2	Y	10+	Mixed species boundary group of reduced quality due to group pressure growing within chainlink fence of sub-station. Diameters recorded as an estimated average.	C2

Appendix 2: Tree Survey Schedule

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.).| 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

PRI21748-01

Head Office
Rodbourne Rail Business Centre
Grange Lane
Malmesbury
SN16 0ES
Tel: 01666 825646

Surrey Office
Courtyard House
Mill Lane
Godalming
GU7 1EY
Tel: 01483 425714

Hampshire Office
Suite 6
Crescent House
Yonge Close
Eastleigh
SO50 9SX
Tel: 02382 026 300

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9 Brownlow Road
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