Client No: 13346/56175

Newland Homes Limited

PRE-DEVELOPMENT TREE SURVEY AND CONSTRAINTS

LAND NORTH OF COLLIN LANE, WILLERSEY

Date: 22nd September 2017

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1.0 INTRODUCTION

1.1 I am Ken Sheppard, *MICFor, FArborA, DipArb (RFS), Tech Cert (ArborA), CUEW.* I am a senior Arboricultural Consultant with Tree Maintenance Limited. I have 30 years experience in arboriculture; I am a Fellow of the Arboricultural Association and a Chartered Arboriculturalist through the Institute of Chartered Foresters. I am also a qualified Professional Tree Inspector as assessed by the industry lead body Lantra.

1.2 In accordance with quotation 13346/55972 dated 6th September 2017. I Have been instructed Mrs C Sheppard of Newland Homes Limited to:

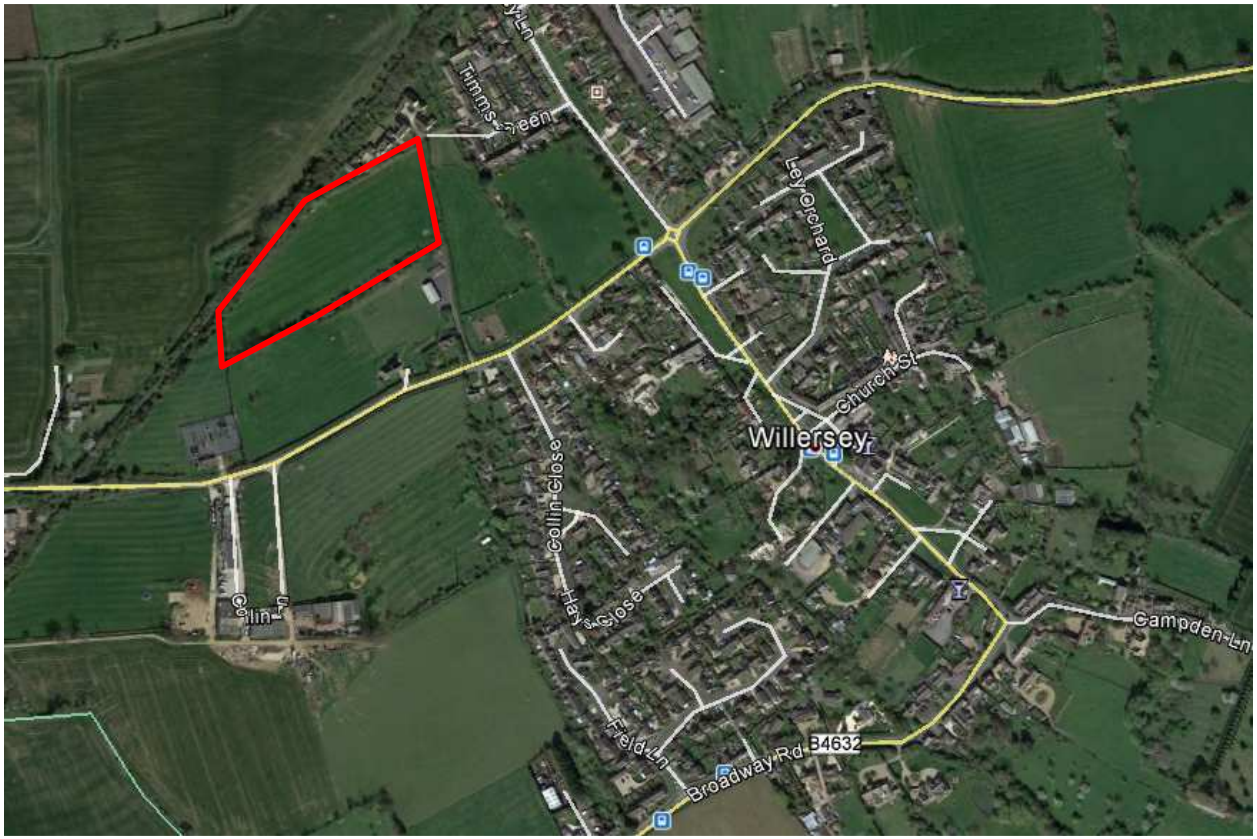
- Attend land north of Collin Lane, Willersey and to carry out a tree survey in accordance with section 4.4 of British Standard 5837 Trees in relation design, demolition and Construction – Recommendations 2012 (BS 5837:2012)
- Provide a schedule of findings
- Using and relying upon the accuracy of Existing Site Plan BMW/2315/001.provide a Tree Survey and constraints Plan showing the position, crown spread dimensions and grade of each tree surveyed and Root Protection Areas calculated in accordance with section 5.2 British Standard 5837: 2012.
- Provide information in electronic format.

2.0 SITE DESCRIPTION

2.1 The site is located on the north western edge of Willersey Village being one of a series of paddock fields located between Collin Lane and The Quinary and is accessed from field gates to the east corner.

2.2 The site is typically flat and surrounded by mixed native hedges and tree groups of moderate to low quality. The Quinary and disused railway line form the northern boundary, with further paddock fields to the east, south and west.

Figure 1. Site Location (red outline)



3.0 METHOD AND DEFINITIONS

3.1 Trees have been surveyed using the Visual Tree Assessment method expounded by Mattheck and Breloer (The body language of trees, DoE Booklet Research into Amenity Trees No. 4, 1994 and Mattheck, Updated Field Guide for Visual tree Assessment 2007). It is a preliminary assessment from ground level using binoculars to inspect crown features where necessary. Suspected defects have been subject to cursory ground level investigation using a light steel probe and/or soft faced mallet. Where considered necessary further investigations may recommended within the Survey Schedule.

3.2 **Tree No.** Trees are identified with sequentially numbered metal tags. Where possible these are installed at 1.5-2 metres on the North side of the trunk. Numbers are recorded within the schedule and shown on Tree Survey and Constraints Plan 13346/56175 included at Appendix 2. Groups, woodlands and hedges are not numbered on site but are marked on the plan. Trees are marked (Y) yes or (N) no on the tree number column on the survey schedule to indicate if they were tagged or not, as access allowed.

3.3 **Species.** Both common and botanical names are given. Botanical names are *italicised. Sp.* after the genus name indicates that genus only has been identified. (Yes), (No) or (TBC,(to be confirmed)) beneath the botanical name indicates if the tree or group are protected by a Tree Preservation Order (TPO) or located within a Conservation Area. Private Covenants and land charges will not be investigated.

3.4 **Age Class.** This is a best predicted assessment considering the tree species together with its environment.

NP	**New Planting**	Recently planted young trees capable of easy relocation.
Y	**Young**	Newly established trees of less than ¼ life expectancy
SM	**Semi mature**	Established trees between ¼ but less than ⅓ predicted life expectancy
MA	**Middle Aged**	Trees within ⅓ and ⅔ predicted life expectancy
M	**Mature**	Trees over ⅔ predicted life expectancy with limited potential for future growth
OM	**Over mature**	Towards end of normal life expectancy and showing some signs of decline
V	**Veteran**	Over mature trees which have significant cultural, landscape or biological interest

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3.5 **Number of Stems.** Identifies the number of vertical stems assessed and recorded. Up to 10 individual trunks are recorded followed by ranges 10-20 or more than 20 trunks or stems. (E) Indicates that all measurements are estimated, (M) indicates diameters are measured

3.6 **Measurements.** Where trees are located offsite or in inaccessible locations within the site, all measurements will be estimated and a 'best available' assessment made. Trees shown using estimated data will be marked as paragraph 3.5

3.6.1 **Trunk diameters**. Measured using a metric diameter tape which provides an average stem diameter in millimetres. Trees are measured at 1.5 metres above ground level including those with more than one trunk (up to 5 stems are recorded). Where trees have more than 5 stems all stems are measured but only the mean average stem diameter and numbers of stems are recorded. (BS 5837: 2012 Section 4.6). On sloping ground all measurements are taken on the uphill side of the trunk but below bulges and flares where these would significantly distort the measurements. Measurements are rounded up to the nearest 10mm. Trees within a group are awarded a single trunk measurement of the largest tree measured within the group.

3.6.2 **Tree Height**. Measured with an optical measuring device to ensure consistency where a clear view can be made otherwise heights are estimated to the nearest metre.

3.6.3 **Branch Spread.** Measured and rounded up to the nearest metre. For individual trees these are recorded in the four compass point directions from the centre of the trunk. Groups are recorded to the maximum canopy extent in each of the four compass point directions.

3.6.4 **Height and Direction of First Branch.** Estimated in metres from ground level and expressed in the main four compass point directions.

3.6.5 **Height of Crown Above Ground Level**. This is estimated in metres to the lowest point in the four cardinal compass point directions. Trees with extensive basal growth or drooping crowns may be recoded as a zero height.

3.7 **Physiological Condition**. An assessment of the tree's overall health (ability to resists strain) which affects its ability to tolerate changes such as, climate, local environment and colonisation by pests and diseases. The assessment is based on bud density and distribution, leaf size and colour, crown density, annual extension and wound closure compared with similar species within the locality.

G	**Good**	A tree with a fully functioning biological system showing evidence of strong sustained growth.
F	**Fair**	A tree with fully functioning biological system showing evidence of continuing growth which has the potential to improve or decline depending on environmental conditions and future management.
P	**Poor**	A tree with a biological system of limited functionality and declining health, unlikely to recover but which may remain in a moribund state for a significant period of time.
D	**Dead**	A tree which lacks any significant live tissue or functioning biological systems

3.8 **Structural Condition**. Relates to the physical condition of a tree including its roots, trunk, branch unions and limbs. It is an overall assessment of bio mechanical strength based on visible defects or defect indicators identified at the time of the survey.

G	**Good**	No significant structural defects
F	**Fair**	Structural defects which can be improved or removed through moderate remedial tree surgery or other management practices
P	**Poor**	Significant structural defects which cannot be alleviated through moderate tree surgery or other management practices

3.9 **Observations and Comments**. Provides specific descriptive and analytical comments on the tree and its environment. These are likely to be of assistance at later stages of the design process in determining suitability of trees for retention, tree protection requirements and necessary management works. It will identify major observable defects and signs of ill health.

3.10 **Useful Life Expectancy.** A best assessment given the tree's environment, health and structural condition at the time of the survey. This estimate does not take into account the possible effects of future development on the trees health and longevity. The trees are assessed as being within the broad bands of <10, 10-20, 20-40 or 40+ years.

3.11 **BS Category.** Based on the above information trees are classified into one of the following categories as defined in section 4.5 and Table 1 of BS 5837:2012. Trees may be given one or more sub categories however this does not increase the value of the tree but indicates identifiable attributes. Where trees cannot be fully assessed due to access they will be awarded they highest possible grade they could reasonably achieve but may be reviewed following access being obtained and trees being re-surveyed at a later date.

Category and identification Colour on plan	**1. Mainly arboricultural values**	**2. Mainly landscape values**	**3. Mainly cultural values**
U (red)			
Trees of such a condition that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years	• Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse including those which will become unviable after the removal of other category U trees (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 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 might be desirable to preserve*		
A (green)			
Trees of high quality with an estimated life expectancy of at least 40 years	Trees that are a particularly good example of their species, especially if rare or unusual, essential components of groups	Trees, groups or woodlands of particular visual importance as arboricultural or landscape features	Trees, groups of trees or woodlands of significant conservation, historical or other value (e.g. veteran or wood pasture

	or of formal or semi-formal features (e.g. the dominant or principle trees within an avenue)		
B (blue)			
Trees of moderate quality with a remaining life expectancy of at least 20 Years	Trees which may be in the A category but are downgraded due to their impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such they are unlikely to be suitable for retention for beyond 40 years; trees lacking the special quality necessary to merit category A designation	Trees that are 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 identifiable conservation or other cultural benefits
C (grey)			
Trees of low quality with an estimated 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 any greater collective landscape value ; and/or trees offering low or only temporary /transient landscape benefits	Trees with no material conservation or other cultural value

3.12 **Recommendations**. Are those required for reasons of health and safety which a prudent owner may wish to carry out. If necessary further investigation works may be recommended to ascertain the extent and implications of suspected major defects. Works necessary to facilitate development have not been included as part of this exercise but will form part of a comprehensive schedule of works included within the draft arboricultural implications assessment and final arboricultural method statement (if required). Specified works should be completed within the designated time frame to ensure compliance with owner/occupiers general duty of care. All works should be completed in accordance with British Standard 3998: Tree work – recommendations 2010 by a suitably competent, qualified and insured arboricultural contractor.

3.13 **Priority.** For specified works and are the reasonable recommended time frames in which work should be reasonably completed in order to comply with the general duty of care or obtain further data to guide the design process.

U	**Urgent**	Indicates works that are and relate to imminently dangerous trees or tree parts and should be completed without delay.
1, 3, 6, 12	**Months**	A guide in which non urgent works should be completed. Most re-inspection works should be completed within 1-3 months in order to guide the design process.
ABA	**As Budgets Allow**	Non urgent works; mainly for cultural future management.
N/A	**Not Applicable**	No works specified at the time of survey.

4.0 SOILS AND DRAINAGE

4.1 Basic soil information has been obtained using the Cranfield University web site and provides a broad overview of the soils within the general locality. Soil data © Cranfield University (NSRI) and for the Controller of HMSO 2014 (www.landis.org.uk).

4.2 The soils are likely to consist of Lime-rich loamy and clayey soils with impeded drainage but of high fertility.

4.3 At the time of the site survey the site was well drained and free of areas ofwaterlogging or ponding; however, cattle had caused come compaction around the base of the trees.

4.4 As there is a clay element to the soil it may be prone to volumetric change as a result of past, present and future vegetation. Soil will require further consideration as part of the engineering assessment if future indirect damage is to be avoided.

5.0 TREE CONSTRAINTS

5.1 **Primary Constraints**.

5.1.1 Below ground constraints (Root Protection Areas (RPAs)) are shown on the tree Survey and Constraints Plan 13346/56175 (Appendix 2). This is the minimum area which should remain undisturbed and protected from construction activity. At this stage it is represented as a circle centred on the trunk of each tree. Groups of small trees are shown with root protection areas 1 metre outside the plotted canopy; groups of large trees are based on the largest stem diameter within the group to ensure sufficient space has been provided. As a default position, construction, services and working space should not be required within the RPAs of retained trees.

5.1.2 Subject to assessment by the project arboriculturalist, the shape of the RPA may be changed providing adequate protection can be provided to the root system to meet the existing and long term biological requirements of the tree. Any new hard surfacing or structures should not generally exceed 20% of any unsurfaced ground within the RPA. Where hard surfacing or structures must be proposed within the RPA they should be designed to completely avoid or at least require minimal excavation. Foundation designs should consider the use of surface mounted slabs or ground beams with pile, pad or cantilevered supports. New hard surfaces should be designed with a porous surfaces and sub base. Levels of these surfaces must be taken into account at the outset as it will require an increase in final floor levels and damp proof courses.

5.1.3 The size and shape of the RPAs will be considered during the Arboricultural Implications Assessment. Consideration will be given to the likely shape and extent of the root system which may have been influenced by past or existing site conditions. Consideration will also be given to the likely tolerance of the particular tree to root disturbance, damage and general construction pressures.

5.1.4 Where trees are to be retained as part of the new layout, all efforts should be made retain existing levels and avoid the installation of services within their RPAs. This would remove the added cost of specialist installation methods and supervision during installation. Service installation, level changes and landscaping details within the RPA of retained trees require careful consideration as cumulative effects of seemingly minor construction operations can have a significant detrimental effect on the health and longevity of retained trees.

5.1.5 Detailed information on soil type, structure, site topography and drainage will be of assistance when determining and justifying changes to RPAs. The draft and final Tree Protection Plan (TPP) will show the required protected area shown as a polygon, as opposed to a circle. This might include temporary site huts as part of the protection and could have implications for the layout, implementation and traffic plan.

5.2 Secondary Constraints

5.2.1 The future growth of retained trees must be considered at the design stage if future pressure to inappropriately prune or remove the retained tree/s is to be avoided. This is of particular importance where trees are young, semi mature and middle aged as these trees will have the greatest potential for further growth. Trees 624, 625 and group 9, if retained, require additional space for future growth beyond that currently shown for crown spreads and RPAs, as part of the design.

5.2.2 Tree 622 is a large specimen with large end loaded limbs and extensive storm damage. Although located off site it could be a nuisance depending on the future use of the area. Ideally, parking and amenity space should not be located within the canopy spread of this tree in order to avoid future complaints and to reduce risk of injury and damage.

5.2.3 Obstruction of sun and daylight. Sunlight obstruction has been crudely estimated on the tree constraints plan. It is represented by a grey segment the height of the tree from east through north to south west, centred on the trunk of the tree. This depicts the approximate area of shade from May to September between 10.00am to 6.00pm daily. Detailed sunlight and daylight obstructions were not requested at the time of the instruction but can be provided subject to agreement of costs. Given the size of the trees, shading is not considered a significant constraint.

5.2.4 Construction requirements. At this stage no information has been provided regarding the layout, method and phasing of construction. Ideally site offices, permanent and temporary access, material storage, contractor parking, working space and scaffolding should be provided without encroaching on the RPA of retained trees.

5.2.5 Consideration will need to be given of the positioning of new underground services, which should be located outside the RPA of retained trees if specialist installation methods are to be avoided. New hard surface installation may be possible within the RPA of retained trees, however, this will need to be of a ‘no dig’ construction method using a porous sub base and wearing surface. Depending on the load exerted, some form of three dimensional load suspension system may be required to prevent ground compaction.

6.0 PLANNING CONSIDERATIONS

6.1 It has been confirmed by Cotswold District Council that trees within the site are not protected by a Tree Preservation Order and are not located within a Conservation Area.

6.2 There is no requirement to notify or gain consent for works carried out prior to the granting of planning consent.

7.0 WILDLIFE ISSUES

7.1 Bats. Under current legislation it is an offence to 'intentionally or recklessly disturb a bat' or 'damage, destroy or block access to the resting place of any bat' (Countryside and Rights of Way Act 2001 and further strengthened by other legislation). Where work is being carried out and bats are present, or if the tree is a known roost, consultation must be made with the Statutory Nature Conservation Organisation, Natural England on 0845 6003078 or at www.naturalengland.org.uk. A European Protected Species Habitat Regulations Licence is likely to be required. Work to trees with the potential for roosting bats is best done from late August to early October. March through to April is also suitable although this may conflict with nesting birds (see below).

7.2 Birds. It is an offence under section 1 of The Wildlife and Countryside Act 1981 (as amended) to kill, injure or take any wild bird; intentionally or recklessly disturb any wild bird or take, damage or destroy the nest of any wild bird while it is in use or being built. Therefore work likely to disturb nesting birds should be avoided from late March to August.

7.3 All trees requiring work should be evaluated prior to work starting as part of a normal on-site risk assessment. If a bird or bat issues are suspected then the tree works will be suspended and further advice from our office should be sought.

8.0 LIMITATIONS

8.1 This report has been compiled as a preliminary assessment of the current health and condition of trees within and immediately adjacent to the site. It provides guidance on their suitability for retention when considering future development. This is an initial survey and no detailed tree inspection or invasive investigation to confirm suspected defects has been carried out. Where this is considered necessary, it will be highlighted in recommendations

8.2 It is a data collection exercise from which broad constraints advice is provided. It is not an Arboricultural Implications Assessment of the scheme nor full or detailed safety survey. The assessment considers the trees only within their existing setting and does not consider any future development requirements.

8.3 Due to the changing nature of trees – and possibly other site circumstances – the dimensions given within this report are limited to a two year period after which time a resurvey of trees will be required. Observations relating to health and condition of the tree are valid on the day of the survey and could possibly change between the survey and submission of a Planning Application. The project arborist must be notified by client if any significant changes are to have occurred.

8.4 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer occasional damage under only average weather conditions. A lack of recommended work does not imply that a tree will never suffer damage. This report could be invalidated if any alterations are made to the site that could change the conditions as seen at time of inspection.

8.5 Under certain circumstances, roots can affect existing foundations, drains and other underground services. These issues are beyond the scope of instruction and have not been addressed by this report. Whilst comments relating to built structures and soil data appear any opinion expressed is qualified as that of a competent arboriculturalist and should be confirmed by an appropriately qualified professional.

Signed:

Ken Sheppard. MICFor. F.Arbor.A. Dip. Arb. (RFS) Tech. Cert. (Arbor.A.) CUEW.
Senior Arboricultural Consultant

DATE: 26th September 2017

9.0 REFERENCES

British Standard 5837:2012
Trees in relation to demolition design and construction – Recommendations

British Standard 3998:2010
'*Recommendations for Tree Work*'

Diagnosis of ill-health in trees.
Strouts & Winter. DOE/HMSO. 1994.

Principles of Tree Hazard Assessment and Management.
Lonsdale. DETR/HMSO. 1999.

Tree Roots in the Built Environment
Robert, Jackson & Smith. HMSO 2006

The Body Language of trees.
Mattheck & Breloer. DOE/HMSO. 1994.

Updated Field Guide for Visual Tree Assessment.
C. Mattheck. Karlsruhe Research Centre. 2007

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APPENDIX 1. TREE SURVEY SCHEDULES

TREE SURVEY	
Client: Newland Homes Limited	Site: Land North of Collin Lane
Date: 22nd September 2017	Consultant: Ken Sheppard
Tagged: Yes	Weather: Clear and Fine.

Tree No. (Tagged Yes /No)	Species Common Name *(Botanical name)* (Legal Protection)	Age Class	No. of Stems (Measured (M) / Estimated (E))	Stem Diameter	Height (M)	Crown Spread (M) N	E	S	W	Ht. & Direct. 1st Branch (M)	Crown Height (M) N	E	S	W	Physiological Condition	Structural Condition	Observations and comments	Useful life Expectancy.(Yrs.)	BS Category	Recommendations	Priority	RPA Radius (M) (RPA (m2))
621 (N)	Common Ash *(Fraxinus excelsior)* (TBC)	M	1 (E)	450	15	6	6	4	7	5S	5	5	4	5	P	P	Boundary edge tree. Off site tree. Low visual amenity value. Hedge line tree. Road North side. Compaction at base north side. Roots severed North side. Old pruning wounds on trunk occluded. Crown density reduced. Epicormics in crown. Major deadwood in crown. Small sparse leaves. Tree in decline.	<10 yrs	U1	Fell to ground level.	12	5.4 (91)
622 (N)	White Willow *(Salix alba)* (TBC)	OM	1 (E)	800	17	10	11	3	10	5S	5	3	3	4	G	P	Boundary edge tree. Off site tree. Unable to verify health and condition due to dense Ivy on trunk and vegetation at base. Ivy on trunk and throughout crown. Branch tearout wounds. Broken hanging branches. Deadwood and stubs in crown. Large end loaded limb(s) North side. Large end loaded limb(s) East and West side. Major deadwood in crown.	10 to 20 yrs	C1 +2	Re-inspect following provision of agreed safe access.	3	9.6 (289)

Tree No. (Tagged Yes /No)	Species Common Name *(Botanical name)* (Legal Protection)	Age Class	No. of Stems (Measured (M) / Estimated (E))	Stem Diameter	Height (M)	Crown Spread (M)				Ht. & Direct. 1st Branch (M)	Crown Height (M)				Physiological Condition	Structural Condition	Observations and comments	Useful life Expectancy.(Yrs.)	BS Category	Recommendations	Priority	RPA Radius (M) (RPA (m2))
						N	E	S	W		N	E	S	W								
623 (Y)	Common Hawthorn *(Crataegus monogyna)* (TBC)	MA	8 (M)	100	6	3	4	1	3	6	1	1	1	1	G	F	Boundary edge tree. Hedge line tree. Multi stemmed at ground level with included bark. Crown shape distorted. Tight forks with included bark.	10 to 20 yrs	C1	No works required at time of survey.	N/A	3.3 (36)
624 (Y)	Common Ash *(Fraxinus excelsior)* (TBC)	M	4 (E)	440 450 210 200	16	5	5	4	3	2N	4	4	4	4	G	F	Boundary edge tree. Growing on slope. Hedge line tree. Over head service present. Ivy on trunk. Crown shape distorted. Previously pollarded. Crown reformed	20 to 40 yrs	B1 +2	No works required at time of survey.	N/A	8.3 (217)
625 (N)	Common Ash *(Fraxinus excelsior)* (TBC)	MA	1 (E)	500	17	6	7	5	6	5N	3	6	5	5	G	F	Boundary edge tree. Hedge line tree. Unable to verify health and condition due to restricted access. Epicormics on trunk. Multi stemmed from 3 metres .	20 to 40 yrs	B1 +2	No works required at time of survey.	N/A	6 (113)
626 (Y)	Common Ash *(Fraxinus excelsior)* (TBC)	MA	6 (M)	240	13	6	7	6	6	3E	3	6	6	5	F	F	Boundary edge tree. Growing on slope. Hedge line tree. Compaction at base north side. Major deadwood in crown. Epicormics in crown. Large end loaded limb(s) East side. Multi stemmed at 1 metre.	10 to 20 yrs	C1	Remove major deadwood.	12	7.0 (156)

Tree No. (Tagged Yes /No)	Species Common Name *(Botanical name)* (Legal Protection)	Age Class	No. of Stems (Measured (M) / Estimated (E))	Stem Diameter	Height (M)	Crown Spread (M)				Ht. & Direct. 1st Branch (M)	Crown Height (M)				Physiological Condition	Structural Condition	Observations and comments	Useful life Expectancy.(Yrs.)	BS Category	Recommendations	Priority	RPA Radius (M) (RPA (m2))
						N	E	S	W		N	E	S	W								
627 (Y)	Field Maple *(Acer campestre)* (TBC)	M	1 (E)	540	9	6	7	2	4	1E	3	2	2	3	G	F	Boundary edge tree. Hedge line tree. Part of linear group. Growing on slope. Compaction at base north side. Ivy on trunk and throughout crown. Minor decay in lower trunk. Large end loaded limbs east side.	20 to 40 yrs	B1	Sever Ivy at base and remove 300mm section of stems to reduce regrowth. Allow to die off. Reduce lateral limbs to leave branches not less than 5 metres long from centre of trunk.		6.4 (131)

Group No.	Species (Common name)	Age Class	No. of Trees	Average Stem Diameter	Height (M)	Average Crown Height (M)	Condition		Observations and comments	Useful life Expectancy.(Yrs.)	BS Category	Recommendations	Priority (Months)	Root Protection Area (M) (Beyond group outline)
							Physiological	Structural						
Grp. 1	Ash, Elder, Hawthorn, Willow	S M M A	40 +	200	4	0	G	G	Boundary edge feature. Growing on edge of ditch. Hedge well maintained field boundary.	20 to 40 yrs	B1	If retained, consider hedgerow managment as part of landscape proposals.	N/A	1

Group No.	Species (Common name)	Age Class	No. of Trees	Average Stem Diameter	Height (M)	Average Crown Height (M)	Condition		Observations and comments	Useful life Expectancy.(Yrs.)	BS Category	Recommendations	Priority (Months)	Root Protection Area (M) (Beyond group outline)
							Physiological	Structural						
Grp. 2	Blackthorn, Hawthorn, Hazel, Elm	M A M	40 +	150	4	0	F	F	Boundary edge feature. Hedge. Road North side. Overrun with bramble with significant gaps.	20 to 40 yrs	C1	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1
Grp. 3	Maple	M A	5	220	9	1	G	F	Linear feature. Boundary edge feature. Multi stemmed at ground level with included bark. Crown shape distorted due to group pressure. Major deadwood in crowns.	20 to 40 yrs	B1 +2	No works required at time of survey	N/A	1
Grp. 4	Blackthorn, Ash	Y S M	20 to 30	100	5	0	P	P	Boundary edge feature. Mainly bramble with occasional young developing Ash.	10 to 20 yrs	U1	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1
Grp. 5	Hawthorn	M A	3	300	9		G	F	Boundary edge feature. Linear feature. Over head service. Multiple trees with tight forks and included bark. 3 Mature trees with mainly bramble and some blackthorn under storey.	10 to 20 yrs	C1	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1

Group No.	Species (Common name)	Age Class	No. of Trees	Average Stem Diameter	Height (M)	Average Crown Height (M)	Condition		Observations and comments	Useful life Expectancy.(Yrs.)	BS Category	Recommendations	Priority (Months)	Root Protection Area (M) (Beyond group outline)
							Physiological	Structural						
Grp. 6	Hawthorn	M	20 to 30	200	4	1	F	P	Boundary edge feature. Hedge type group. Unable to verify health and condition due to vegetation. Former hedge, growing on bank. Bramble covered with significant gaps.	10 to 20 yrs	C1	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1
Grp. 7	Hawthorn	M A M	40 +	180	6	1	F	F	Boundary edge feature. Growing on slope. Hedge. Over grown, poorly maintained hedge with gaps, extensively colonised by bramble.	10 to 20 yrs	C1	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1
Grp. 8	Blackthorn, Maple, Elm	Y S M	40 +	100	6	0	F	F	Scrub group of mainly Blackthorn. Multiple dead Elms.	10 to 20 yrs	C1	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1
Grp. 9	Ash, Maple	M	5 to 10	200	10	2	G	F	Boundary edge feature. Linear feature. Ivy on trunks and throughout crowns. Multiple trees with tight forks and included bark. Crown shape distorted. Minor deadwood in crowns.	20 to 40 yrs	B1 +2	Sever Ivy at ground level, remove 300mm stem section and allow to die off.	N/A	2

Group No.	Species (Common name)	Age Class	No. of Trees	Average Stem Diameter	Height (M)	Average Crown Height (M)	Condition		Observations and comments	Useful life Expectancy.(Yrs.)	BS Category	Recommendations	Priority (Months)	Root Protection Area (M) (Beyond group outline)
							Physiological	Structural						
Grp. 10	Hawthorn	M	5 to 10	230	11	1	G	F	Boundary edge feature. Linear feature. Multiple trees with tight forks and included bark. Ivy on trunks and throughout crown. Crown shape distorted due to group pressure. Over grown reverted hedge trees.	20 to 40 yrs	B1 +2	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1
Grp 11	Hawthorn	M A S M	30 to 40	160	4	1	F	F	Boundary edge feature. Hedge. Linear feature. Multiple trees with tight forks and included bark. Suppressed, poorly maintained hedge with significant gaps.	10 to 20 yrs	C1	If retained, consider hedgerow managment as part of landscape proposals.	ABA	1
Grp. 12	Elm	Y	10 to 15	200	8	2	D	P	Trees dead.	<10 yrs	U1	Fell to ground level	12	-
Grp. 13	Maple	M	2	350	12	1	G	F	Boundary edge feature. Ivy on trunks. Multi stemmed at ground level with included bark. Crown shape distorted. Minor deadwood in crowns.	20 to 40 yrs	B1 +2	No works required at time of survey	N/A	1

APPENDIX 2. TREE SURVEY AND CONSTRAINTS PLAN 13346/56175

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LAND AT COLLIN LANE, WILLERSEY
TREE SURVEY AND CONSTRAINTS PLAN

SCALE @ A1 : 1 : 500

DATE : 27/09/2017

MAP FILENAME 13346/56175

This plan must be read and reproduced in colour.
Based on existing site plan BMW/2315/001.

N

Legend

Crown Spread

Root Protection Area

Shading Arc

Category 'A'

Category 'B'

Category 'C'

Category 'U'

0 80m