TREE SURVEY, ARBORICULTURAL IMPACT
ASSESSMENT and METHOD STATEMENT in accordance with BS5837

35 WILBURY ROAD, LETCHWORTH, SG6 4JW

Carried out 22 September 2017

Reference ~ kmf DANIEL 5.10.17 cf

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SITE PLAN ~ 35 WILBURY ROAD, LETCHWORTH

BS5837 ARBORICULTURAL REPORT ~ 22 September 2017
35 Wilbury Road, Letchworth

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BS5837 ARBORICULTURAL REPORT ~ 22 September 2017
35 Wilbury Road, Letchworth

1 *Terms of Instruction*

Cliff Freed on behalf of Mr Dnaiel Martin of 35 Wilbury Road has prepared this report providing an Arboricultural Implication Assessment, Method Statement and Tree Protection Plan. The results detail the tree protection measures required during the proposed construction of a two storey extension and in accordance with recommendations of British Standard BS5837 (2012) ~ Trees in Relation to Construction.

2 General Observations

2.1 It is proposed to build a two storey extension to North West of the existing building.

2.2 The tree survey was carried out on 22 September 2017 on the one tree within the influence of the proposed development, indicated to me on the drawing supplied (No DM/16/20/0S1a). It was inspected on the basis of visual tree assessment from ground level. There is 1 tree within close proximity to the proposed development. The Tree Survey Schedule is contained within this report as Appendix 1 (A1), which details the Arboricultural management recommendations required.

2.3 No other trees on site or neighbouring properties have been included, as they are not effected by the development.

2.4 The criteria for the grading of the trees is detailed in the cascade chart (excerpt from BS 5837:2012 ~ Appendix 4 (A4)).

2.5 The tree is shown on the Tree Protection Plan ~ Appendix A5.

3 *Constraints*

3.1 **Trees** ~ there is 1 tree within close proximity to the proposed development.

3.2 **Access** ~ the access for construction vehicles will use the existing driveway, which is blocked paved.

3.3 **Demolition** ~ there is a minor requirement for demolition associated with the development.

3.4 **Foundation type** ~ in the absence of design information, we have assumed that the foundation type will be standard strip.

3.5 **Services** ~ services will be taken from the existing building.

4 *Assessment of Arboricultural Implications*

4.1 **Tree Removals ~** it is not necessary to remove any trees to achieve the proposed development.

4.2 **Tree work** ~ the canopy SE will overhang the new extension and the crown is too low over the access drive for high vehicles delivery plant and materials. There will also be canopy overhang obstructing scaffolding. Crown to be reduced SE side to ensure future building clearance of 2ms, but beyond that distance, pull back remaining lateral branches and tie back for duration of construction to accommodate scaffolding. These arboricultural management recommendations are detailed in the Survey ~ Appendix 1.

4.3 **Access** ~ the existing shared driveway off Wilbury Road will be the point of access for construction traffic.

4.4 **Root Pruning** ~ no root pruning is necessary as the construction is outside the root protection area.

4.5 **Access for a mobile crane** ~ a mobile crane will not be required for this development.

4.6 **Tree protection fencing** ~ all tree protection shall be erected in accordance with BS5837 (2012) prior to commencement of any ground works. These barriers will be maintained throughout the course of the development and until completion. Movement of plant or vehicle, storage of machinery or materials behind these barriers is prohibited ~ (see diagram of protective fencing in Appendix 3 (A3)). This specification, taken from BS5837 may, with the agreement of the Local Planning Authority Tree Officer, be substituted with Heras fencing. However, this fencing must be secured to ground anchors i.e. scaffold poles driven in the ground and wired.

4.7 **Tree protection plan** ~ based on the survey, we have prepared a Tree Protection Plan (Appendix 5 ~ (A5)) showing tree retention and scope of protective measures. May we recommend that this plan is displayed on site for all contractors for easy accessible reference?

4 Assessment of Arboricultural Implications

4.8 **Services** ~ no details were available regarding proposed service routes, but we advise that all underground services will be placed outside the Root Protection Area of the tree.

4.9.1 **Demolition ~** a narrow two storey section to the side of the house is to be demolished, shown in hatched red on the site plan on page 2. A specification for this is included under item 5.4 of the Method Statement.

4.10 The tree protection plan included in this report is for reference only; it is not to scale and should not be used for that purpose. A scaled plan @1:100 @A3 is included as a PDF attachment.

4.11 **Schedule of protective fencing measurements**

TREE NO.	SPECIES	DISTANCE FOR PROTECTIVE FENCING (in Metres)
T1	Semi-mature Beech	4.44

5 Arboricultural Method Statement

5.1 **Pre development tree work** ~ all pre development tree work as detailed in the Tree Survey Schedule (Appendix 1) to take place as first phase of work, before any ground works or construction, as per BS3998:2010 Recommendations for Tree Work. Any further facilitation pruning for unforeseen circumstances to be agreed with supervising Arborist and Local Authority Tree Officer.

5.2 **Protective fencing** ~ prior to any construction taking place, all construction exclusion zone protective fencing (to the agreed specification), will be installed at the distance shown in schedule at item 4.11. The protective fencing will remain in its original position until completion of construction, when all construction traffic has left site. Protective fencing is shown on the Tree Protection Plan as red dotted lines.

An all weather notice is to be attached to the protective fencing stating 'CONSTRUCTION EXCLUSION ZONE ~ ENTRY STRICTLY PROHIBITED ~ this barrier is designed to protect this tree'

5 .3 **Ground protection** ~ the existing block paved driveway and parking area provides most of the ground protection. However, there will be a need for ground protection within the root protection area to accommodate the installation of the scaffolding. This area is shown on the Tree Protection Plan in purple and should be laid to the following specification. Also refer to diagram at Appendix 4.

> **Ground protection for pedestrian use and scaffolding within the construction exclusion zone (root protection area) denoted by the protective fencing** will consist of a single layer of a recognised geo-fabric, (e.g. Terram) followed by a layer of compressible sharp sand laid to a depth of 50 millimetres, scaffold boards to be laid on top with no significant gaps.

5.4 **Demolition of existing building** ~ the demolition of the small two storey side section will be carried out in a controlled manner, suppressing dust with water where necessary to prevent a build-up of cement dust on the retained tree. No demolition material to be stored within or close enough for cement based products to leach into any Root Protection Areas.

5 Arboricultural Method Statement

5.4 **Site compound** ~ there is sufficient room for storage and temporary buildings on site away from the root protection area.

Storage of cement-based products will be stored and mixed away from the root protection area and **no mixing** on the block paving section immediately adjacent to root protection area due to permeability of this surfacing, to avoid any run off affecting the tree root protection area.

All spoil from excavations and material to be stored away from the root protection area before removal from site.

Fires are not permitted on site.

5.5 **Services** ~ the routing of services should avoid encroachment into the root protection area. However, if installation within the root protection area is required for whatever reason, immediate advice must be sought from supervising Arborist and agreed with Local Authority prior to any excavation or trenching taking place, regarding necessary root pruning and further ground protection measures.

6 Monitoring procedures

A qualified Arborist should regularly monitor this site, from first phase through to completion to ensure protective measures are implemented correctly and maintained and to provide Arboricultural advice and supervision in the event of unforeseen matters relating to the protection of the tree above and below ground level.

Conclusion

I can see no significant constraints to the remaining tree's health with the proposed construction and, with the design, foresee minimal future constraints to the proposed building by direct or indirect damage, due to contact or volumetric change to soil water deficit.

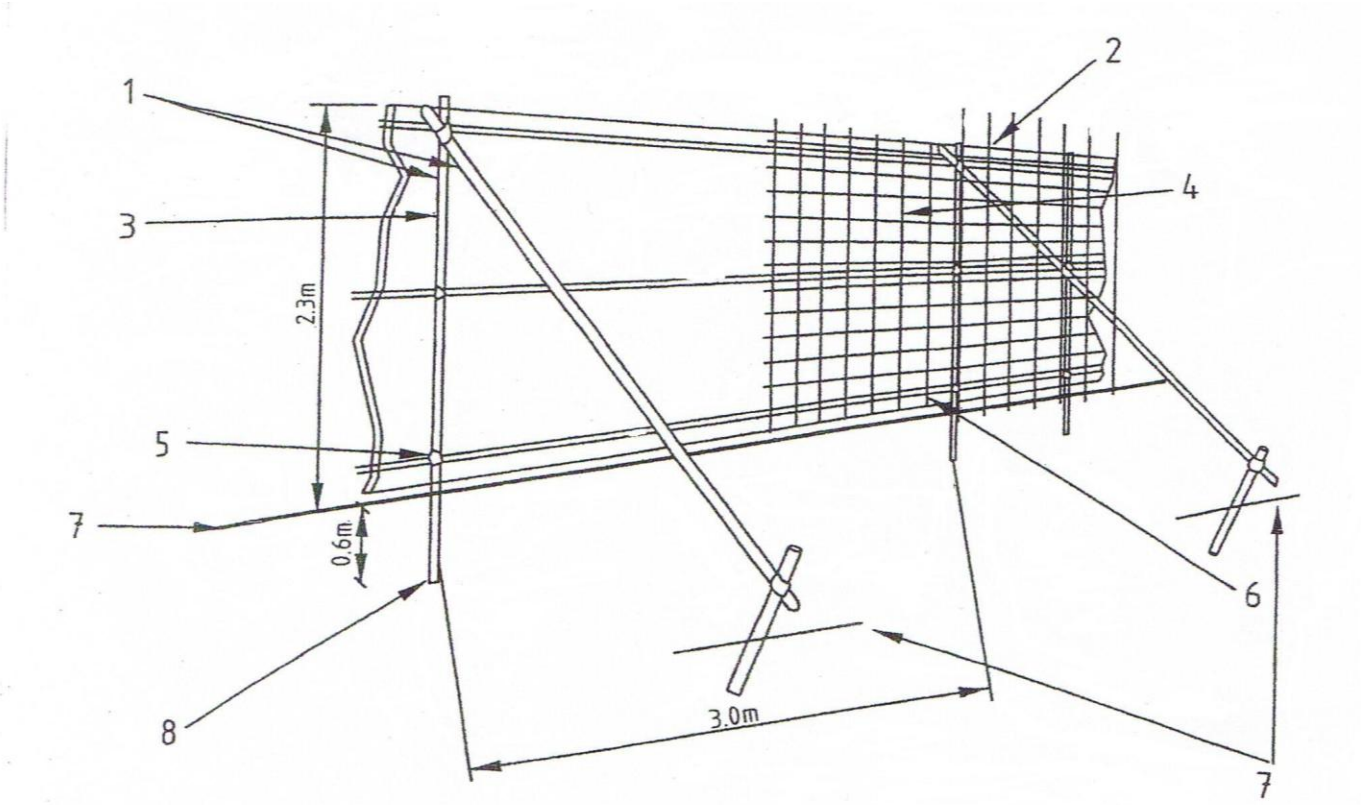
Cliff Freed 6 October 2017
Acacia Tree Surgery Ltd

35 Wilbury Road, Letchworth ~ Appendix 1 ~ Tree Survey Schedule 22nd September 2017

Tree Reference Number	Species	Height in Meters	Stem diameter in millimetres	Branch spread in meters at four cardinal points	Height of crown clearance in meters	Age class	Physiological Condition	Structural Condition	Preliminary management recommendations	Estimated Remaining Contribution - In years	Category Grading
T1	Beech *Fagus sylvatica*	8.5	370	N-5.6 S-6.8 E-6.1 W-6.9	2.5	SM	Fair	Previously crown raised to 3 metres; low lateral branches over the road (below 5 metres).	Reduce crown SW by 1.5 to 2.0ms to provide future building clearance; Raise canopy over drive to 3.0ms; Pull back and temporarily tie branches to accommodate installation of scaffold; remove on completion	20+	B1

Appendix 2 ~ example of protective barrier / fencing for construction exclusion zone

Specification from: BS 5837 2012



1 Standard scaffold poles

2 Uprights to be driven into the ground

3 Panels secured to uprights with wire ties and where necessary standard scaffold clamps

4 Weldmesh wired to the uprights and horizontals

5 Standard clamps

6 Wire twisted and secured on inside face of fencing to avoid easy dismantling

7 Ground level

8 Approx. 0.6 m driven into the ground

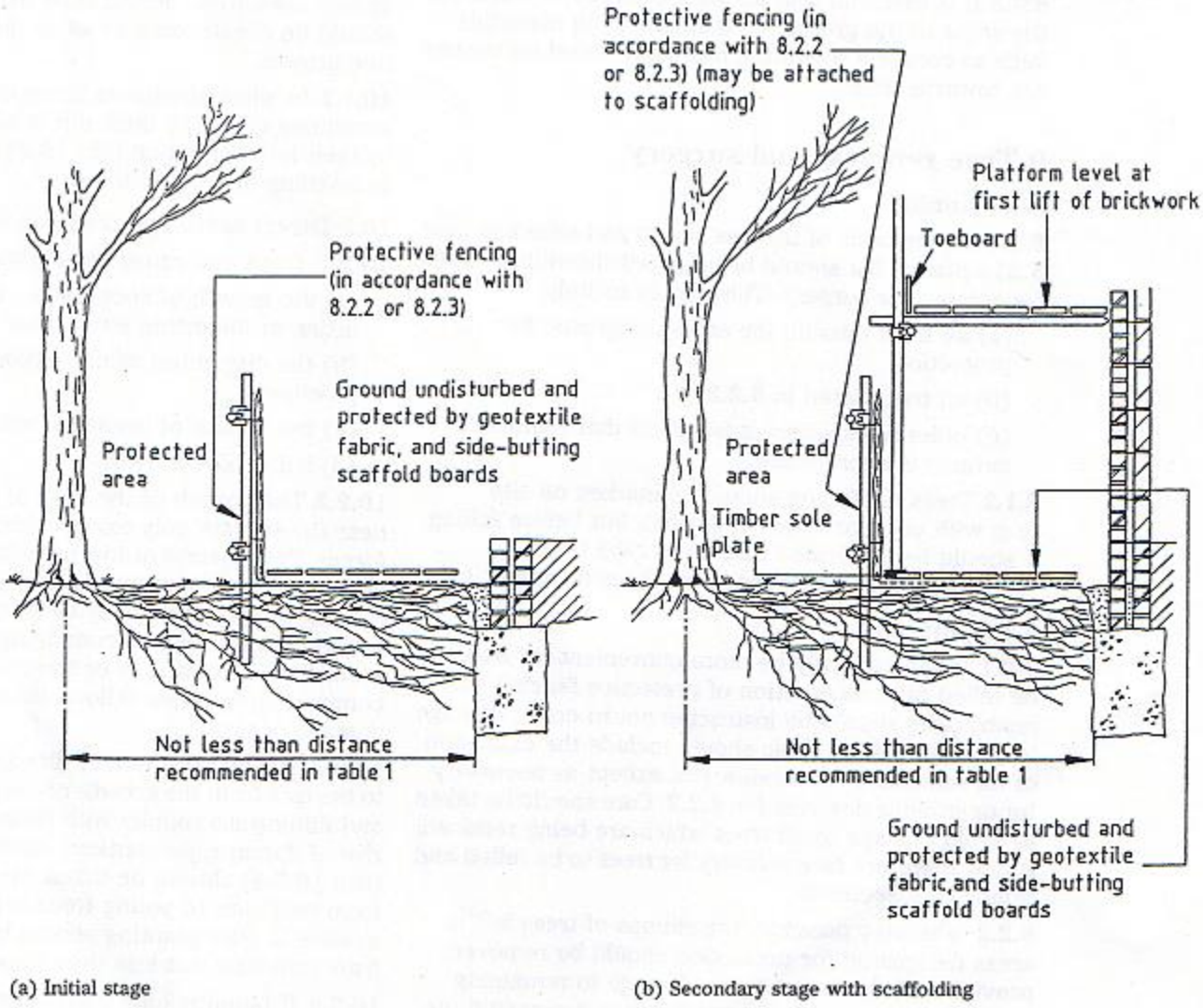
A3 ~ Cascade chart for tree quality assessment

TREES FOR REMOVAL				
Category and definition:	Criteria:			Identification on plan:
Category U ~ those in such a condition that any existing value would be lost within 10years and which should, in current context, be removed for reasons of sound Arboricultural management	• 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 **R** category trees (ie. 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 (eg Dutch elm disease) or very low quality trees suppressing adjacent trees of better quality.			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition:	Criteria ~ subcategories			Identification on plan:
	1 Mainly Arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values including conservation**	
Category A ~ those of high quality and value in such condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	Trees that are particularly good examples for their species, especially if rare or unusual, or essential components of groups, or of formal or semi~formal Arboricultural features eg the dominant and/or principal trees within an avenue;	Trees, group or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance, eg avenues or other Arboricultural features assessed as groups;	Trees, groups or woodlands of significant conservation, historical, commemorative or other value, eg veteran trees or wood pasture;	LIGHT GREEN
Category B ~ those of moderate quality and value in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded due to impaired condition, eg presence of remediable defects including unsympathetic past management and minor storm damage;	Trees present in numbers, usually groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating that they might as individuals but which are not individually essential components of formal or semi~formal Arboricultural features (eg trees of moderate quality within an avenue that includes better A category specimens) or trees situated mainly internally to the site, therefore individually having little visual impact on wider locality.	Trees with clearly identifiable conservation or other cultural benefits.	MID BLUE
Category C ~ those of low quality and value currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested) or young trees with stem diameter below 150mm	Trees not qualifying in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly great landscape value, and / or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits.	GREY

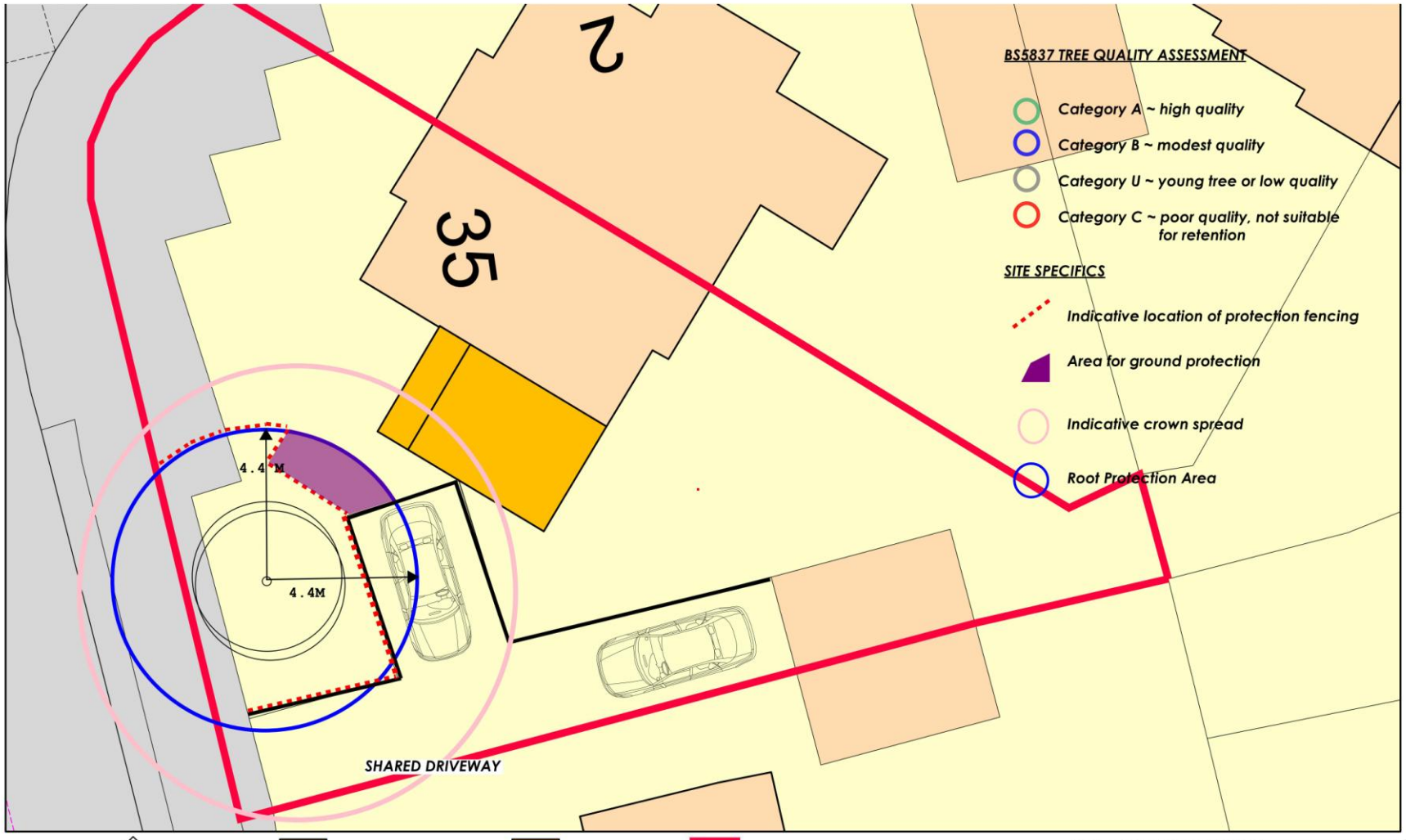
Appendix 4 ~ Scaffold Construction within Root Protection Area

Specification from:

BS 5837 2012



APPENDIX 5 Tree Protection Plan for 35 Wilbury Road, Letchworth, SG6 4JW prepared by Cliff Freed, Acacia Tree Surgery on 22 September 2017



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