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Arboricultural Impact Assessment

& Method Statement Report:

1 Castle Hill

Kenilworth

CV8 1NB

REPORT PREPARED FOR:

Michael Ramus Architects

76 Priory Road

Kenilworth

Warwickshire

CV8 1LQ

REPORT PREPARED BY

James Bell

MSc. (Env). Arbor. A. Tech. Cert.

Ref: jwmb/rpt1/1castlehill/AIAAMS

Date: 16th November 2018

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1.0 Introduction

1.1 Purpose & Use of the Planning Integration & Arboricultural Method Statement Report

1.1.1 This impact assessment & method statement report has been prepared for submission to Warwick District Council (WDC) to accompany a planning application for a single storey residential dwelling within the grounds of 1 Castle Hill, Kenilworth, CV8 1NB. The proposals are for a two bedroom bungalow accessed through an existing pedestrian gate/entrance off Castle Hill. Parking will be offsite. This statement is intended to demonstrate the feasibility of construction without harm to the site's retained tree resource. See accompanying material for full building details.

1.1.2 This document lays down the methodology for any proposed works that may have an effect upon the trees in proximity to the proposals. It is essential within the scope of any contracts related to the development proposals that this method statement is observed and adhered to. It is recommended that this document forms part of the work schedule and specification issued to the building contractors and can be used to form part of the contract.

1.1.3 Copies of this document should be available for inspection on site. The developer will inform the local planning authority within twenty-four hours if the designated arboriculturist is replaced.

1.2 Terms of Reference

1.2.1 I am instructed by Mr. C. Edwards of Turlington (International) Ltd to prepare a planning integration & method statement report to accompany a planning application for a proposed single storey residential development within the grounds of 1 Castle Hill, Kenilworth, CV8 1NB with reference to BS5837:2012 Trees in relation to design, demolition & construction-Recommendations (BS5837:2012).

1.2.2 Proposed layout from Michael Ramus Architects, 76 Priory Road, Kenilworth, Warwickshire, CV8 1LQ.

1.3 Development Proposals & Impact Assessment

1.3.1 The proposals are for a two bedroom bungalow with pedestrian access off Castle Hill via an existing gateway. The building foundation will be to a mini piled specification in order to protect any archaeological constraints on site. This will also serve to protect the roots of retained trees 5-8 principally. See Appendix A for layout details. Full details are provided in accompanying material.

1.3.2 No trees will be removed to allow or facilitate development. Works to trees 6-8 & 10 have been approved irrelevant of development: WDC reference W/18/1477/TP.

1.3.3 The majority of site works will take place beyond the notional circular RPAs of retained trees and canopies. Retained trees will be protected through the course of development by fencing to the specification required by BS5837:2012 where necessary and by ground protection as per guidance in section 6.2.3.3 of BS5837:2012 where indicated as a further precaution.

1.3.4 The new footpath to the dwelling and hard standing to the rear will be constructed to a 'No Dig' specification to minimise the possibility of damage to functional retained roots of surveyed trees i.e. 1, 5, 6 & 8. See Appendix E for further guidance.

1.4 Sequence of Works

1.4.1 The sequence of works should be as follows:

- installation of Tree Protection Barrier (TPB) for construction as shown in Appendix A
- laying of ground protection as shown in Appendix A
- main construction inc. footpath & hard standing
- removal of TPB & ground protection
- soft landscaping

1.5 Site Supervision

1.5.1 Site supervision–an individual e.g. the Site Agent, must be nominated to be responsible for all arboricultural matters on site. This person must:

- be present on site for the majority of the time
- be aware of the arboricultural responsibilities
- have the authority to stop any work that is causing, or has the potential to cause, harm to any retained tree
- be responsible for ensuring that all site operatives are aware of their responsibilities toward trees on site and the consequences of the failure to observe these responsibilities
- make immediate contact with the local authority and/or the designated arboriculturist in the event of any tree related problems occurring, whether actual or potential.

1.6 Site Monitoring

1.6.1 The site agent will be responsible for monitoring all arboricultural works, inspecting protective fencing and monitoring any works within exclusion zones. The designated arboriculturist will be available for site visits on a basis to be agreed between client and planning authority when/if appropriate or required. A record of site visits will be maintained for inspection on site and copies forwarded to the developer/agent and to the local planning authority. A certificate of practical completion should be produced for sites deemed by all parties to merit this.

1.6.2 Principal contact information: 1/. James Bell. Arbortrack Systems Ltd. Arboricultural Consultant 07986 122074. 2/. WDC Arboricultural Officer. 01926 456536. 3/. Site agent details to be advised. 4/. Michael Ramus Architects 01926 512400.

1.7 Statement Adoption

1.7.1 It is recommended that, in due course, acceptance of the recommendations in this report is demonstrated by, for example, the architect specifying in writing to the building contractor that tree care conditions apply in execution of the contract, and by an estimate or written undertaking from the contractor to the architect demonstrating that the practical aspects of observation of such recommendations have been priced in.

1.7.2 If conflicts between any part of a tree and the building arise in the course of development these can often be resolved quickly and at little cost if a qualified arboriculturist is consulted promptly. Lack of such care is often apparent quickly and decline and death of such trees can spoil design aims and reflect poorly on the construction and design personnel involved. Trees that have been the recipients of careful handling during construction add considerably to the appeal of the finished development.

2.0 Pre-Development Site Preparation

2.1 Arboricultural Works

2.1.1 See Appendix B for details.

2.2 Preparation of Surfaces

2.2.1 Areas within RPAs potentially requiring ground protection are shown in Appendix A. Ground protection should be fit for purpose as per guidance in BS5837:2012 section 6.2.3.3. The preferred specification is provided by products such as dura base (http://www.terrafirma.gb.com) or eve trakway, which are widely available and approved by many local authorities. Alternatively, treatments provided by InfraGreen Solutions are available: see www.infragreen-solutions.com.

2.3 Installation of Tree Protective Barrier

2.3.1 The TPB must ordinarily be comprised of a vertical and horizontal scaffold framework, braced to resist impacts, with vertical tubes spaced at a maximum level of 3m. On to this weldmesh panels should be securely fixed with wire scaffold clamps: see section 6.2.2 and Figure 2 of BS5837:2012 (Appendix C). Hardboard or marine ply sheets can be used as an alternative to weldmesh panels but these must be firmly fixed to the framework. The location of the TPB is shown in Appendix A.

2.3.2 This TPB is to be erected before any construction work commences on site, is to remain 'in situ' undamaged for the duration of all work or each phase, and is only to be removed once all work is completed. If any work other than preparatory tree work is deemed necessary prior to the erection of fencing the designated arboriculturist should be informed to enable his/her presence to oversee the work being carried out.

2.3.3 The only other exception is the completion of soft landscaping but if any excavations, however minor, are to be carried out as part of soft landscaping within RPAs, an arboricultural assessment must be carried out beforehand and any arboricultural protection measures incorporated. The TPB should carry waterproof warning notices denying access within RPAs.

2.3.4 The Tree Protection Plan in Appendix A illustrates where the protective fencing should be located to form the boundary of the Tree Protection Zone (TPZ). The TPZ is an exclusion zone and suitable steps should be taken to prevent access by pedestrians and vehicles and the storage of any works materials and equipment should be located outside of the TPZ.

2.4 Pre-Development Site Inspection

2.4.1 At the instigation of the client/site agent or WDC, upon erection of the fencing the designated arboriculturist will meet the relevant local authority member on site to check the standard of the work(s). If there are any amendments to the protective fencing these will be agreed at this meeting, confirmed in writing, and undertaken thereafter.

3.0 Development Phase

3.1 General Precautions

3.1.1 No fires shall be made on any part of the site, or within 10m of the furthest extent of the canopy of any tree or group tree to be retained on site or on land adjoining.
3.1.2 No spilling or pouring of fuels, oils, solvents or tar shall be made on any part of the site.
3.1.3 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained.
3.1.4 No spillage or discharge of wet mortar or concrete shall be made on any part of the site.
3.1.5 No storage of materials shall be made within the protective fences.
3.1.6 No breaching or moving of the protective fences shall occur without the approval of the designated arboriculturist.
3.1.7 Alterations in levels within the tree protection fence areas shall be avoided.

3.2 Root Protection Areas

3.2.1 The RPA is a desirable zone of protection around the trees' rooting system and these have been marked on the plan in Appendix A. The RPAs will lie within the TPZ and therefore, be fully fenced off (see Appendix A) unless where appropriate ground protection is offered.

3.3 Site Access, Accommodation & Storage

3.3.1 Many site activities are potentially damaging to trees e.g. material storage, parking, soil compaction and the use of plant machinery. In this latter example particular care is required to ensure that the operational arcs of excavation and lifting machinery, including their loads, do not physically damage trees when in use or in accessing the site.

3.4 Routing & Installation of Services

3.4.1 It is assumed that service runs will be brought in to the site off Castle Hill. Ideally the RPAs of retained trees should be avoided but, if required, any trenches within the RPAs of site trees should be hand-dug and kept as narrow as possible. They should not extend to within 1m from the base of the tree trunk. Exposed roots larger than 25mm in diameter should be retained with their bark intact and when exposed wrapped in dry hessian sacking. A mechanical mole should ideally be used for any section beneath a tree. The mechanical device is sent through the protected area at a depth of no less than 0.6m. Machinery should be selected which can be externally lubricated by water rather than oil etc. The designated arboriculturist should be informed in advance of such operations so that monitoring arrangements can be undertaken.

3.4.2 Where crown interference with mature trees is a possibility, over-ground services will be routed in an alternative direction. In relation to this, any landscaping taking place should accommodate the presence of over-ground services and take mature tree size into account.

3.5 Demolition Measures

3.5.1 n/a

3.6 Changes in Grade

3.6.1 The upper layer of top soil (top 60cm) contains the majority of a tree's roots and if this is disturbed by a change in ground level, serious damage can be caused.

3.6.2 If any significant section of ground level requires rising within RPAs, this should be achieved using coarse, granular material such as pebbles.

3.6.3 If ground levels need to be altered within 1.5 metres of any tree trunk prior agreement must be sought and given by the local authority tree officer.

3.7 Construction Measures

3.7.1 Pedestrian access and hard standing within the RPAs of retained site trees will be constructed to a 'No Dig' specification. See Appendix E and visit www.geosyn.co.uk or www.infragreen-solutions.com for further details.

3.8 Removal of Tree Protective Barrier

3.8.1 The protective fencing may be removed only upon completion of the development phase when all drainage and service runs have been installed and any site machinery has been removed.

3.9 Post Construction Landscaping

3.9.1 Following the development phase, some trees may be subject to either landscaping or seeding beneath their canopy but at this stage the protective fencing will have been removed.

3.9.2 Any approved landscaping works should avoid the changing of ground levels or deep digging. Mechanised cultivation such as tractor-mounted rotovation must not be used within the RPAs of existing trees.

3.9.3 Heavy machinery should not be used in the vicinity of any retained trees.

3.9.4 If herbicides are to be used they should be appropriate to their purpose and not in such a way as to damage any retained trees or vegetation.

3.9.5 Ideally, retained trees should be within a shrub area as this reduces the chances of compaction and disturbance of root systems.

4.0 Summary of Proposed Methods

4.1 Table of Impacts and Mitigation

4.1.1 The table below summarises the main areas where trees could become damaged by the proposed development and the methods that need to be adopted in order to prevent such damage:

Impact	**Mitigation**	**Reference**	**Trees Affected**
Passage of machinery and storage of materials over RPAs	Construction of protective fencing to acceptable standards Ground protection	Sections 2.3 & 3. Fencing spec Appendix C, Tree Protection Plan Appendix A Section 2.2.1	1-G13
Pathway & hard standing construction within RPAs	'No Dig' construction specification	Sections 1.3.4, 3.7.1 7 Appendix E	1, 5, 6 & 8

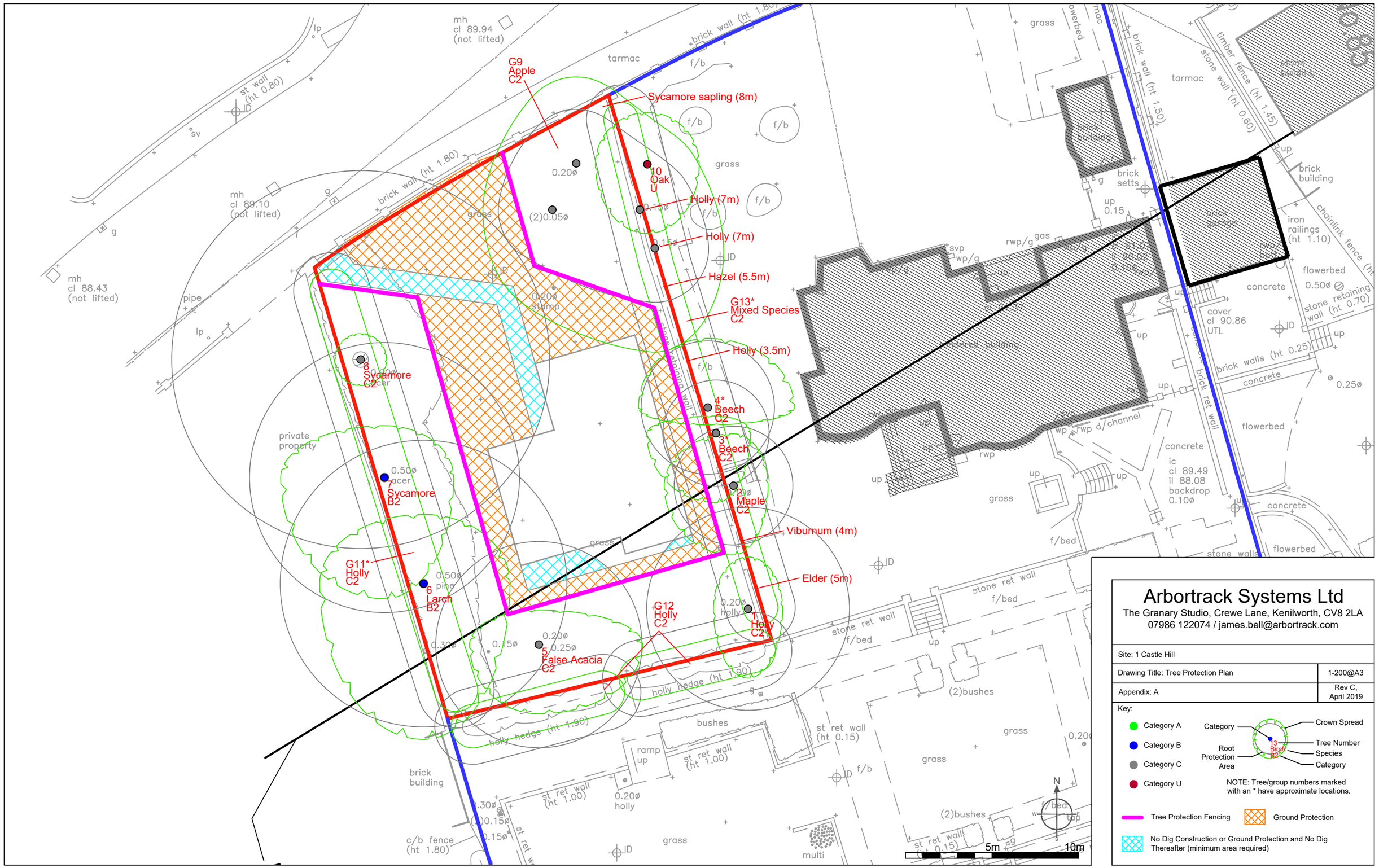
5.0 Completion

5.1 Completion Meeting

5.1.1 Following completion of the approved works on site, the designated arboriculturist will meet with a local authority representative and agree upon any remedial works deemed necessary (if any).

5.1.2 Any works agreed in the above meeting will be confirmed in writing and should be performed to BS3998:2010.

5.1.3 Any work proposed post development should be checked to avoid penalty for performing illegal work on a protected tree.



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Site: 1 Castle Hill	
Drawing Title: Tree Protection Plan	1-200@A3
Appendix: A	Rev C, April 2019

Key:

- Category A
- Category B
- Category C
- Category U

Category — Crown Spread
Root Protection Area — Tree Number — Species — Category
(13 Birch B2)

NOTE: Tree/group numbers marked with an * have approximate locations.

- Tree Protection Fencing
- Ground Protection
- No Dig Construction or Ground Protection and No Dig Thereafter (minimum area required)

Site: 1 Castle Hill, Kenilworth

Date: 6th July 2018

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt1/1castlehill/AIAAMS

Tree No.	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
1	Holly	8	3422	2.5	488	5.9	Mature	Normal	Good	C	2	20+	Ivy smothered Standing @ base of wall
2	Maple, Norway	8	3424	3	286	3.4	Early Mature	Moderate	Fair	C	2	20+	Cut back to east crimson cv Dead sub dominant leader tip in eastern crown; Leyland Cypress to 2m @ base
3	Beech, Common	12	1424	3	256	3.1	Early Mature	Normal	Good	C	2	20+	Bifurcation @ 1m Dying back (lead stem /centre) Lapsed hedgerow feature
4	Beech, Common	12	4154	2.5	321	3.9	Early Mature	Normal	Good	C	2	20+	Lapsed hedgerow feature; laurel hedge @ base
5	False Acacia	18	2464	4	497	6.0	Mature	Normal	Fair	C	2	20+	Included bark in main stem unions One small trunk removed
6	Larch, Hybrid	23	4956	7	690	8.3	Mature	Moderate	Fair	B	2	20+	Broken branches Deadwood in lower crown Ivy smothered; FInv for crown defects; piled new build within 1.5m from trunk edge to west
7	Sycamore	21	3746	12	650	7.8	Mature	Normal	Good	B	2	20+	Ivy smothered Minor deadwood @ 8m to NW over adjoining property

Site: 1 Castle Hill, Kenilworth

Date: 6th July 2018

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt1/1castlehill/AIAAMS

Tree No.	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
8	Sycamore	22	1.5	4	910	10.9	Mature	Normal	Fair	C	2	10+	Dead small lwr brnch to E @ 4.5m Ivy smothered Break out cavity @ 2m to W; remove ivy; bark lesion @ base; trifurcation @ 3.5-4m
G9	Apple, Cultivated	9	5644	1	260	3.1	Early Mature	Normal	Good	C	2	20+	Garden fruit tree Apple & plum Merged crown SD of plum = 7,7,12,22 & 6cm
10	Oak, English	10	3433	4	290	3.5	Early Mature	Poor	Poor	U		<10	Upper crown dead
G11	Holly	8	1.25	0.5	180 #	2.2	Semi-mature	Normal	Good	C	2	20+	Screening
G12	Holly	8	1.25	0.5	186 #	2.2	Early Mature	Normal	Good	C	2	10+	Screening
G13	Mixed Species	7	1	0.5	170 #	2.0	Semi-mature	Normal	Good	C	2	20+	Intermittent screen of hazel, holly & philadelphus, cherry laurel & Leyland Cypress

Site: 1 Castle Hill, Kenilworth

Date: 6th July 2018

Appendix B
Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt1/1castlehill/AIAAMS

Tree No.	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
2	Maple, Norway	8	286	3424	C	2	CL off new dwelling	Cut back to east crimson cv Dead sub dominant leader tip in eastern crown; Leyland Cypress to 2m @ base
3	Beech, Common	12	256	1424	C	2	CL off new dwelling	Bifurcation @ 1m Dying back (lead stem /centre) Lapsed hedgerow feature
4	Beech, Common	12	321	4154	C	2	CL off new dwelling	Lapsed hedgerow feature; laurel hedge @ base
6	Larch, Hybrid	23	690	4956	B	2	DWD Svr Ivy Tip prune branch @ 7m to E by 2m; Further Investigation; approved	Broken branches Deadwood in lower crown Ivy smothered; FInv for crown defects; piled new build within 1.5m from trunk edge to west Recommended husbandry 2
7	Sycamore	21	650	3746	B	2	Svr Ivy	Ivy smothered Minor deadwood @ 8m to NW over adjoining property Recommended husbandry 2

Site: 1 Castle Hill, Kenilworth

Date: 6th July 2018

Appendix B
Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt1/1castlehill/AIAAMS

Tree No.	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
8	Sycamore	22	910	1.5	C	2	Re-pollard @ 3.5-4m (approved)	Dead small lwr brnch to E @ 4.5m Ivy smothered Break out cavity @ 2m to W; remove ivy; bark lesion @ base; trifurcation @ 3.5-4m Recommended husbandry 2
10	Oak, English	10	290	3433	U		Fell (approved)	Upper crown dead Recommended husbandry 2

Appendix B

Notes on Tree Survey Schedule:

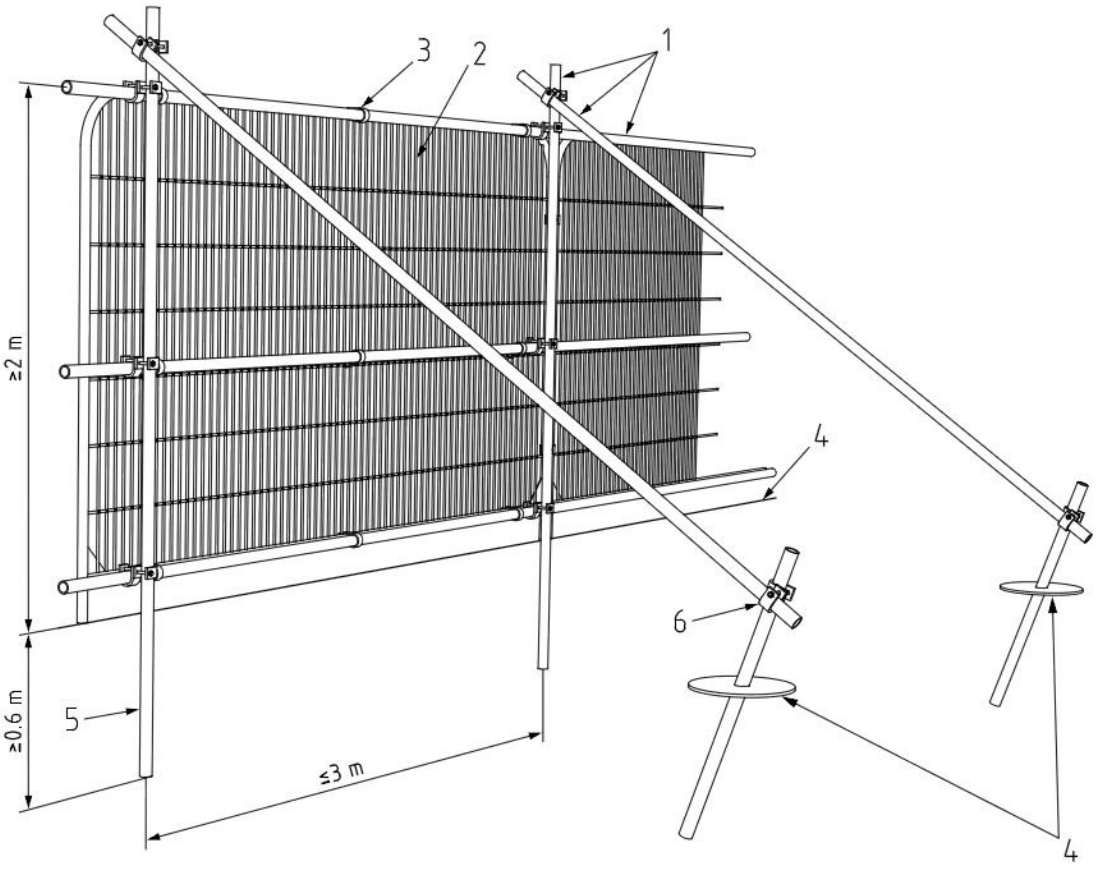
- **Height** describes the approximate height of the tree measured in metres from ground level.
- The **Crown Spread** refers to the crown radius in metres from the stem centre and is expressed as an average of **NSEW** aspect if symmetrical.
- **Ground Clearance** is the height in metres of crown clearance above adjacent ground level.
- **Clear Stem Height** is the distance between trunk base and first branch separation measured in metres.
- **Stem Diameter** is the diameter of the stem measured in millimetres at 1.5m from ground level for single stemmed trees. See section 4.6 for detail of treatment for multistems.
- **Protection Radius** is a radial distance in metres measured from the trunk centre.
- **Growth Vitality** - **Normal** growth, **Moderate** (below normal), **Poor** (sparse/weak), **Dead** (dead or dying tree).
- **Structural Condition** - **Good** (no or only minor defects), **Fair** (remediable defects), **Poor** - Major defects present.
- **B.S. Category** refers to (British Standard 5837:2012 Table 1) and refers to tree/group quality and value; '**A**' - High, '**B**' - Moderate, '**C**' - Low, '**U**' - Unsuitable for Retention.
- **Sub Cat** refers to the retention criteria values where **1** is mainly **arboricultural** qualities, **2** is mainly **landscape qualities** and **3** is mainly **cultural** values including conservation.
- **Useful Life** is the tree's estimated remaining contribution in years.
- **First Significant Branch (FSB)** is the height of the first significant branch above ground level taken at the trunk separation point.

Notes on Recommended Tree Works:

- **1, 2,3** Urgent (ASAP), Standard (6-12 months), Non-Urgent (2-3 years)
- **CB** Cut back to boundary/clear from structure
- **CL#** Crown lift to given height in meters
- **CT#%** Crown Thinning by identified %
- **CCL** Crown clean (remove deadwood/crossing & hazardous branches & stubs)
- **CR#%** Crown Reduce by given maximum percentage (of outermost branch & twig length)
- **DWD** Remove deadwood
- **Fell** Fell to ground level
- **FInv** Further Investigation (generally with decay detection equipment)
- **Pol** Pollard or re-pollard
- **Mon** Monitor ongoing condition (annually by staff/owners & every 2-3 years by consultant). Svr Ivy/Clr Bs Sever Ivy/clear base and re-inspect base/stem for concealed defects

Appendix C Tree Protective Fencing Detail (from BS5837:2012)

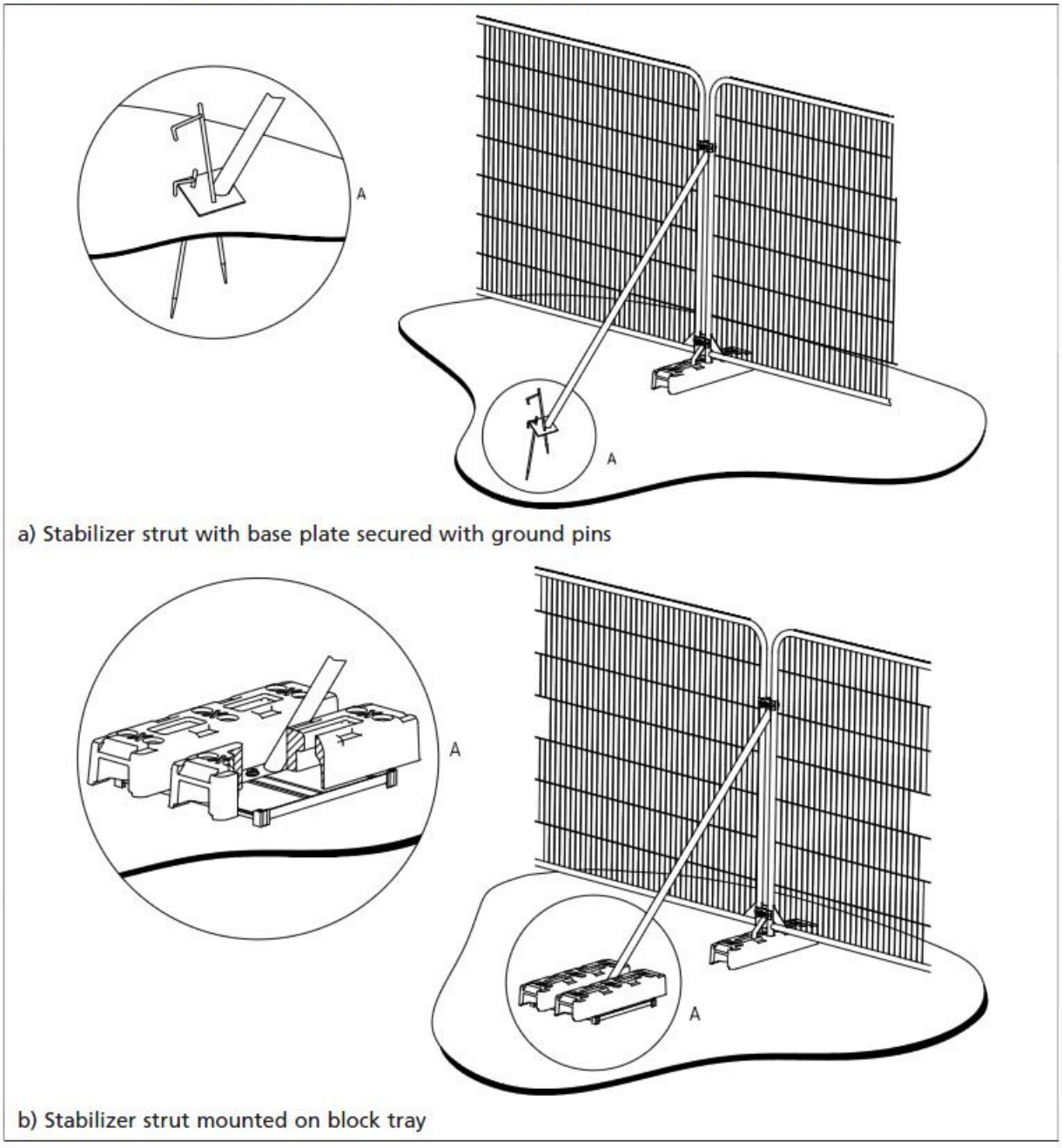
Figure 2 **Default specification for protective barrier**



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

Appendix D

1.0 Glossary of Terms & Abbreviations

Canker	Disease damaged area of a tree, usually caused by fungus or bacteria.
Co-dominant Stem	A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.
Crown Lift	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
Crown reduce	The reduction of a tree's height or spread while preserving its natural shape.
Crown thin	The removal of some of the density of a tree's crown**,** usually 5-25% allowing more light through its canopy and reducing wind resistance.
Deadwood	The removal of all dead, dying and diseased branches from a tree. Also, wood which is dead.
Dieback	Where branches are beginning to show signs of death usually at the tips in the crown.
Epicormic shoots	Small branches that grow in uncharacteristic clusters around the base or the stem of a tree, usually as a result of bad pruning or some other stress factor.
Formative pruning	The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown.
Included bark	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
Pollarding	A method of tree management in which the main trunk of the tree is cut at about 4m, and the resulting branches are then cropped on a regular basis.
Remedial pruning	The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.
Topping	Topping is a form of pruning that removes terminal growth leaving a 'stub' cut end. Topping causes serious health problems to a tree.

2.0 General Guidelines

2.1 All work must be to BS 3998:2010 – Tree work-Recommendations

2.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors, and should be covered by adequate public liability insurance.

2.3 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the consultant's attention immediately.

2.4 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this method statement are carried out under the supervision of the designated arboriculturist.

2.5 It is advisable to have trees inspected by designated arboriculturist regularly. On this site it is recommended that these inspections are made every year.

Appendix E

'No Dig' Construction-Guidance Notes

- Install F4M Geotextile Separation Fabric over cleared levelled ground surface N.B. ensure that existing material is carefully removed and levels altered minimally: infill with salt free sharp sand where necessary.
- The cellular confinement system (e.g.1 x 100 mm 'ProtectaWeb' cellular confinement system subject to site requirements & manufacturer's recommendations) is then laid on the membrane and adjacent panels are stapled together. Place staking pins to maintain 'ProtectaWeb' cells open.
- Panels are then backfilled with 100mm depth of no-fines 20-40mm particle size stone (clean granular fill).
- The construction should ideally be undertaken between May and October when the ground is sufficiently dry to prevent compaction occurring. The sub-base should be flat, that is to say any small hollows should be filled with sharp sand to bring up to surrounding levels.
- The geotextile should be laid out and not trafficked across at any time.
- The 'ProtectaWeb' confinement system should be laid out and worked on as the contractor progresses across the length of the area. The panels are sequentially filled with the no-fines aggregate, each serving as a platform for the next section.
- There is no need at any time for the ground to be crossed by heavy traffic. The particles/gravel pieces are transported from the on site storage area over the freshly-laid confinement system BY WHEELBARROW and installed BY HAND. There will be no trespass on to the root protection area beyond the installation of the confinement system itself.
- The infill can then be rolled to compact the particles and create a tight interlock across the cells. The finished surface can then be laid on top. Again no fines material to be used: porous tarmac is recommended for this site given the level changes that are required.
- New kerb lines may be cast into the ProtectaWeb cells.
- During the main construction phase a wearing course should be placed over the 'Protectaweb' system.
- For technical data on the ProtectaWeb system always refer to the manufactures guidelines for design and implementation.

Further technical advice can be gained from the manufacturer(s): Wrekin Products www.wrekinproducts.com. Contact Roy Partington on 01543 440440 or email roy@wrekinproducts.com