



Broad Oak Tree Consultants Limited
Laurel House, Burwash Road, Broad Oak, Heathfield, East Sussex
TN21 8SS Tel: 01435 862444 office@broadoaktrees.co.uk



**ARBORICULTURAL IMPLICATIONS ASSESSMENT
FOR
PROPOSED EXTENSION**

AT

**BARROW HILL FARM
BARROW HILL
HENFIELD
WEST SUSSEX
BN5 9DN**

BY

**Tim Laddiman
BSc.(Hons) M.I.C.For. M.Arbor.A.
Chartered Arboriculturist**

**Our ref: J66.92
24th June 2025**

CONTENTS

Page No.

1.	INTRODUCTION	1
2.	GENERAL SITE DESCRIPTION	1
3.	SCOPE OF TREE SURVEY	1
4.	DATA COLLECTION	1
5.	RISK ASSESSMENT – INFORMATIVES	2
6.	RESULTS OF TREE INSPECTIONS	3
7.	BS CALCULATED ROOT PROTECTION AREAS (RPAs)	4
ARBORICULTURAL IMPLICATIONS ASSESSMENT		
8.	DEVELOPMENT PROPOSALS	5
9.	POTENTIAL IMPACT OF PROPOSALS ON TREES	5
10.	TREE PROTECTION FENCING	5
11.	SITE OPERATIONS AND MATERIALS STORAGE	6
12.	SERVICES/DRAINAGE/SOAKAWAYS	6
13.	ARBORICULTURAL METHOD STATEMENT	6
14.	SUMMARY	7

APPENDICES:

1. EXPLANATORY SHEETS, TREE INSPECTION SHEET
2. TREE CONSTRAINTS PLAN, DRAWING NO. J66.92/01
3. TREE PROTECTION PLAN, DRAWING NO. J66.92/02
4. EXAMPLES OF FENCING SPECIFICATION AND SIGNAGE

1. INTRODUCTION

- 1.1 Broad Oak Tree Consultants Ltd. received instructions from Mr & Mrs Hayward to undertake an inspection of trees located on and immediately adjacent to the site referred to as Barrow Hill Farm, Barrow Hill, Henfield, West Sussex, BN5 9DN. The purpose of the inspection was to produce a base inventory of the tree stock and an Arboricultural Implications Assessment of redevelopment proposals.
- 1.2 The proposals are for the construction of a two storey extension to the west and north of the existing kitchen, together with internal alterations, and the construction of a new retaining wall and steps/access path to the west of the extension. Details of the proposals will have been submitted by Gould Baxter, Architects and others.
- 1.3 The trees were inspected on 5th June 2025 by Tim Laddiman, BSc.(Hons) M.I.C.For. M.Arbor.A., Chartered Arboriculturist and Principal Consultant of Broad Oak Tree Consultants Ltd.

2. GENERAL SITE DESCRIPTION

- 2.1 Barrow Hill Farm is a detached residential property set in to sloping ground on the south side of Barrow Hill with areas of garden surrounding and dense hedging/shrubs to the north and west.
- 2.2 The site opens out to the west/southwest with various outbuildings and an extensive vehicle parking area, with an access drive to the south. Adjoining to the northwest and southeast are further residential properties.

3. SCOPE OF TREE SURVEY

- 3.1 All trees and shrubs of 75mm diameter or more at 1.5m above ground level were included in the survey. This included trees immediately adjacent to the site.
- 3.2 For the offsite trees estimates of location, dimensions and condition had to be made.

4. DATA COLLECTION

- 4.1 All trees were inspected from the ground and no climbing or specialist investigations were undertaken. Only those trees within the site boundary could be basally inspected, with the structural integrity of the trees located outside the site unconfirmed. Each tree was inspected to the requirements of Section 4.4 "Tree Survey" of BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations".

- 4.2 The tree survey followed the numbered sequence from G1 to G7 inclusive. Tree numbers, together with BS recommended colour coding of condition, have been added to the Tree Constraints Plan, our drawing no. J66.92/01 in Appendix 2. This drawing also includes crown spreads based on four compass points and BS calculated root protection areas.
- 4.3 The following categories of information were obtained for each tree. A separate detailed tree survey sheet is attached in Appendix 1, together with comprehensive explanatory sheets which cover the details of the categories listed below.
- (1) Tree reference number
 - (2) Species
 - (3) Height in metres
 - (4) Stem count
 - (5) Stem diameter or equivalent in millimetres
 - (6) Branch spread in metres
 - (7) Age class
 - (8) Height of crown clearance in metres
 - (9) Physiological condition
 - (10) Estimated remaining contribution in years
 - (11) Category grading
 - (12) Structural condition
 - (13) Preliminary management recommendations
- 4.4 Within the assessment of physiological condition and remaining contribution, a visual inspection of each tree was undertaken to assess the crown and stem for any weak structures, deadwood, hollows, forks or other defects that might affect its stability and safety. The base of each tree was also visually inspected, together with tapping and probing, to search for signs of root lifting, bark death or decay. Where stems were heavily ivy clad, no full assessment of structural integrity could be undertaken. Clearance of the ivy would be necessary for confirmation of tree condition.

5. RISK ASSESSMENT - INFORMATIVES

- 5.1 Although the potential risk to someone passing beneath a tree when the tree or part of it fails is relatively remote, the risk is present. This increases significantly in areas of consistent and regular usage on a year round basis, such as footpaths, gardens and roadways. Where static structures exist, the risks become constant and an assessment is made as to whether complete or partial failure of a tree could potentially cause physical damage to such structures.
- 5.2 Within the scope of any tree survey it is a fact that not all risks of stem or crown failure can be covered, particularly in relation to freak occurrences of weather when even healthy trees can suffer stem snap or windblow. There is also a well known propensity for mature trees to occasionally shed limbs for no discernible reason, even on calm days. Although relatively rare, limbs may occasionally be shed and this should be acknowledged as a risk that cannot entirely be mitigated.

6. RESULTS OF TREE INSPECTIONS

- 6.1 A total of six groups/hedges and one individual tree were inspected, all of which have been planted in the last 40 years as part of various ongoing landscaping schemes. The majority have been planted to provide screening from neighbours and presumably the road, as road use has increased, with evergreen species in the majority.
- 6.2 The evergreen hedges G1, G2, G6 and G7 have been well maintained (recently lapsed for G1) to produce high but very dense visual screens. G3 is less well maintained and comprises inter-competing evergreen shrubs and emergent deciduous species of shrubs and trees.
- 6.3 The decorative two Japanese Maples forming G4 are suffering from intense inter-tree/shrub competition and will not prosper.
- 6.4 The largest entity is T5 Ornamental Cherry, a multi stemmed mature tree (for its species), displaying slight crown thinning and stem wounds, with a limited future lifespan.
- 6.5 Of the trees inspected, the following is a breakdown of the various numbers of trees and groups in each BS Category.

BS Category	Tree No.	Sub Total
A	-	-
B	-	-
C	G1, G2, G3, G4, T5, G6, G7	7
U	-	-
	TOTAL	7

6.6 *Interpretation of table*

- Category A** Retention most desirable. Of high quality and value and in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).
- Category B** Retention desirable. Of moderate quality and value and in such a condition as to make a significant contribution (a minimum of 20 years is suggested).
- Category C** Could be retained – of low quality and value. Poor crown form, heavily asymmetric, large numbers of similar species/size. Currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested) or young trees with a stem diameter below 150mm.
- Category U** Trees for removal. Dead/dying/dangerous trees due to structural defects, fungal decay or root plate uplift. Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

7. BS CALCULATED ROOT PROTECTION AREAS (RPAs)

- 7.1 To provide an indication of the critical areas of root plate necessary for tree survival and longevity, BS 5837:2012 requires the calculation of RPAs for trees in the BS Categories A, B and C. Calculations are not made for Category U trees which will require removal on safety grounds within 10 years.
- 7.2 The table below has been calculated using the measured stem diameters and the formula as described in Section 4.6 in BS 5837:2012. These are represented as basic circles on the Tree Constraints Plan. Where buildings, walls, services and hard surfacing exist within the indicated RPAs it is likely that the architecture of root systems will have been affected. Foundations to walls and buildings can completely obstruct root development, depending on their depth and the nature of the underlying soils. In the absence of detailed site investigations the indicated RPA circles should be used for guidance only within any redevelopment proposals.

Tree no.	Species	BS Category	Stem diameter or calculated equivalent (mm.)	BS calc. radial equiv. root protection area (m.)	BS calc. total RPA (m ²)
G1	Holly, Pyracantha	C2	<150	<1.8	<10
G2	Cypress	C2	<150	<1.8	<10
G3	Cherry Laurel, Hazel, Rhus, Mixed Shrubs	C2	<200	<2.4	<18
G4	2no Japanese Maple	C2	<100	<1.2	<5
T5	Ornamental Cherry	C1	400	4.8	72
G6	Cherry Laurel	C2	<120	<1.4	<6
G7	Cypress, Laurel	C2	<150	<1.8	<10

ARBORICULTURAL IMPLICATIONS ASSESSMENT

8. DEVELOPMENT PROPOSALS

- 8.1 The proposals are for the construction of a two storey extension to the west and north of the existing kitchen, together with internal alterations, and the construction of a new retaining wall and steps/access path to the west of the extension. Details of the proposals will have been submitted by Gould Baxter, Architects and others.
- 8.2 The supplied proposed site layout produced by Gould Baxter has been used as the base for the Broad Oak Tree Consultants Ltd. Tree Protection Plan, drawing no. J66.92/02 in Appendix 3. This indicates measures to protect trees in accordance with BS5837:2012 requirements.

9. POTENTIAL IMPACT OF PROPOSALS ON TREES

- 9.1 No trees require removal for the proposals.
- 9.2 No trees require surgery works for the proposals.
- 9.3 The proposals do not impact on any tree/shrub RPAs.
- 9.4 Provided the trees and shrubs are appropriately protected during the works there are no grounds for a refusal based on arboricultural matters.

10. TREE PROTECTION FENCING

10.1 *Location of fencing*

- 10.1.1 The Tree Protection Plan indicates the proposed location of protective fencing based on the calculated tree protection areas and space available.

10.2 *Design of fencing*

- 10.2.1 Protective fencing to comprise weldmesh panels securely fixed together with scaffold ties set within rubber/plastic feet to form a continuous barrier. Feet to be pinned to the ground with road pins/short scaffold bars or panel joins back braced. Waterproof signs to be attached to every 5th panel declaring "TREE ROOT PROTECTION ZONE – KEEP OUT" or similar wording. Fencing to be constructed in accordance with Fig 3 of Section 6.2 of BS5837:2012.
- 10.2.2 Examples of the fencing specification and signage required are included in Appendix 4.

10.3 *Timing of fencing*

- 10.3.1 Protective fencing is to be erected prior to commencement of site works and remain in place until completion of construction. The location and suitability of the fencing can be confirmed to the local authority by an arboricultural consultant prior to commencement of construction.

10.4 *Additional precautions*

- 10.4.1 Potentially injurious materials such as fuels, oils, chemicals and cement will be stored at least 20m from any stem, or in a bunded storage vessel. No fires will be lit within 5m of the drip line of any retained tree. No level changes will occur, either raising or lowering within the protected areas. A list of these additional precautions are included on the Tree Protection Plan.

11. SITE OPERATIONS AND MATERIALS STORAGE

- 11.1 Details of site zoning cannot be specified by an Arboriculturalist as these are commonly determined by contractors on the basis of Health & Safety Assessments. However, the robust protective fencing will define the remaining site space available for storage and operations.
- 11.2 The extensive surfaced parking area to the southwest of the house, adjoining outbuildings, can readily accommodate contractors' vehicles and materials, skips etc. with no risk to any trees.
- 11.3 Only a small excavator will require access for the excavation of the bank for the extension and retaining wall, after which most materials will be moved in by wheelbarrow/foot with minimal risks to the trees and shrubs on the upper banks.

12. SERVICES/DRAINAGE/SOAKAWAYS

- 12.1 Based on the supplied layout, any new services, drainage or soakaway alignments should be located outside root protection areas. If incursion into the protective areas of retained trees is unavoidable, then the routing should be obtained either by hand tool excavation or air spade, supervised by an arboricultural consultant. Any works within the protective areas will need to be undertaken to the requirements of NJUG Volume 4 "Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees".

13. ARBORICULTURAL METHOD STATEMENT

- 13.1 Section 6.1 "Arboricultural Method Statement" of BS5837:2012 indicates that an Arboricultural Method Statement is only required if operations/access are required within the RPA of retained trees. Therefore, provided the Tree Protection Plan is adhered to, there is no requirement for an Arboricultural Method Statement and there should not be any conflicts between retained trees and the proposals.

14. SUMMARY

- 14.1 The proposals will not require any tree removal or tree surgery works and will not impact on any tree RPAs. As such there are no grounds for a refusal based on arboricultural matters.
- 14.2 Robust tree protection measures are proposed, in accordance with BS 5837:2012 and pressures on protected areas will be minimal given the level changes and extensive areas of existing surfacing available for vehicles and materials.
- 14.3 The Tree Protection Plan can be referred to as an approved drawing or in a specifically worded Condition to ensure that the retained trees are appropriately protected during the construction works.

Tim Laddiman
Chartered Arboriculturist
Broad Oak Tree Consultants Ltd.

APPENDIX 1

TREE SURVEY EXPLANATORY SHEET

Height	in metres (estimated where ground uneven or access restricted).
Stem count	number of stems
Stem diameter	in mm. at 1.5m. above ground level.
Branch spread	radial spread in metres at four main compass points (estimated where no access).
Age class	Young - Y Semi Mature - SM Mature - M Over mature - OM Veteran - V
Height of crown clearance	in metres. Normally range of heights of outer branches above ground level, e.g. 2-4m.
Physiological condition	Good, Fair, Poor, Dead, Variable
Estimated remaining contribution	in years e.g. less than 10, 10-20, 20-40, 40+
Category grading	see attached sheet
Structural condition	comment on presence of defects, decay, crown form, past management, deadwood, other features worthy of note. N.B. If trees are ivy clad, no full structural assessment will have been possible.
Preliminary management recommendations	requirements of further investigations, works necessary to alleviate potential hazards based on current setting and levels of access. NB: Works that may be necessary in relation to development are not included here

CASCADE CHART FOR TREE QUALITY ASSESSMENT

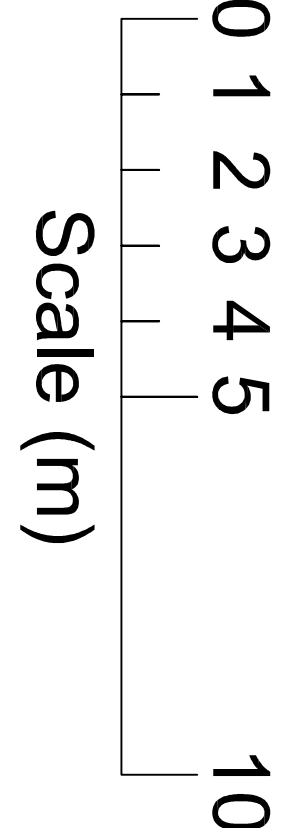
TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	- Trees that have a serious, irremediable, 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 (i.e. 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 (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree.)			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 a condition as to be able to make a substantial construction (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups 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 (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those 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 because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodland, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. 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 the 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 a stem diameter below 150mm.	Trees not qualifying in higher categories	Trees present in groups or woodland, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits	GREY
NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation				

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G1	Holly, Pyracantha	<4	Multi	<150	<1	<2	<1.5	<1.5	SM	0+	Good	40+	C2	Maintained hedge	
G2	Cypress	<3.5	1	<150	<1	<1.5	<1.5	<1	Y	0+	Good	40+	C2	Maintained hedge	
G3	Cherry Laurel, Hazel, Rhus, Mixed Shrubs	<7	Multi	<200	<2	<2	<2	<2	M	0+	Good	40+	C2	Intercompeting trees and shrubs	
G4	2no Japanese Maple	<3.5	Multi	<100	<1	<2	<2.5	<2	Y	0+	Fair	20-40	C2	Heavily crowded and overtopped	
T5	Ornamental Cherry	7	Multi	400	c5	4.5	6	5.5	M	1+	Fair	10-20	C1	Multi-stemmed <1m. Crowded. Slight crown thinning. Wounding and decay in several stems	
G6	Cherry Laurel	<2.5	Multi	<120	<2	<1	<1	<1	SM	0+	Good	40+	C2	Maintained hedge	
G7	Cypress, Laurel	<3	1	<150	<1	<1	<1	<1	Y	1.4+	Good	40+	C2	Maintained hedge	

APPENDIX 2

1000 JOURNAL OF CLIMATE

- The root protection areas have been calculated using the measured stem diameters and the formula as described in Section 4.6 in SSSSR3, 2012. The RPA orders should be used for design only within any redevelopment proposals.



APPENDIX 3

TREE CONSTRAINTS PLAN

- G1 - G7 Tree numbers
- BS Category of Condition
- BS Condition A
 - BS Condition B
 - BS Condition C
 - BS Condition U
- Crown spread
- BS Calculated root protection areas
- Tree to be removed for safety short lifespan
- Tree to be removed for development
- Protective fencing location
- Ground protection

TREE PROTECTION INFORMATION
Protective fencing and ground protection measures to be installed at commencement of any demolition works.

Protective fencing to comprise a continuous line of 2m high timber posts with 100mm x 100mm rubberplastic feet to form a continuous barrier. Fences to be pinned to the ground panel joints (not back braced). Waterproof signs to be attached to every 5th panel detailing 'TREE ROOT PROTECTION' and 'No Excavation or Groundworks'.

Fencing to be constructed in accordance with fig. 2 of fig. 3 of section 6.2 of BS5837:2012.

Ground protection measures to comprise a single thickness of side cutting siltable layer laid onto a geotextile. For machinery access, interlocking metalplastic road plates will need to be used.

Buildings in proximity to protective fencing areas to be determined by the Arboricultural Consultant. The fenced protection zones around retained trees, hedges and shrubbery are to be regarded as sacrosanct and are not to be excavated and to occur within these areas.

Storage or deposit of any soil, building materials, machinery, fuel or waste residues of any description.

Siting of any temporary structures of any description, temporary car parking facilities, porta-toos, storage compounds or temporary hard standing areas.

- Excavations, soil/stump stripping, removal of existing trees or alterations to existing trees or surface/ground conditions of any other description.

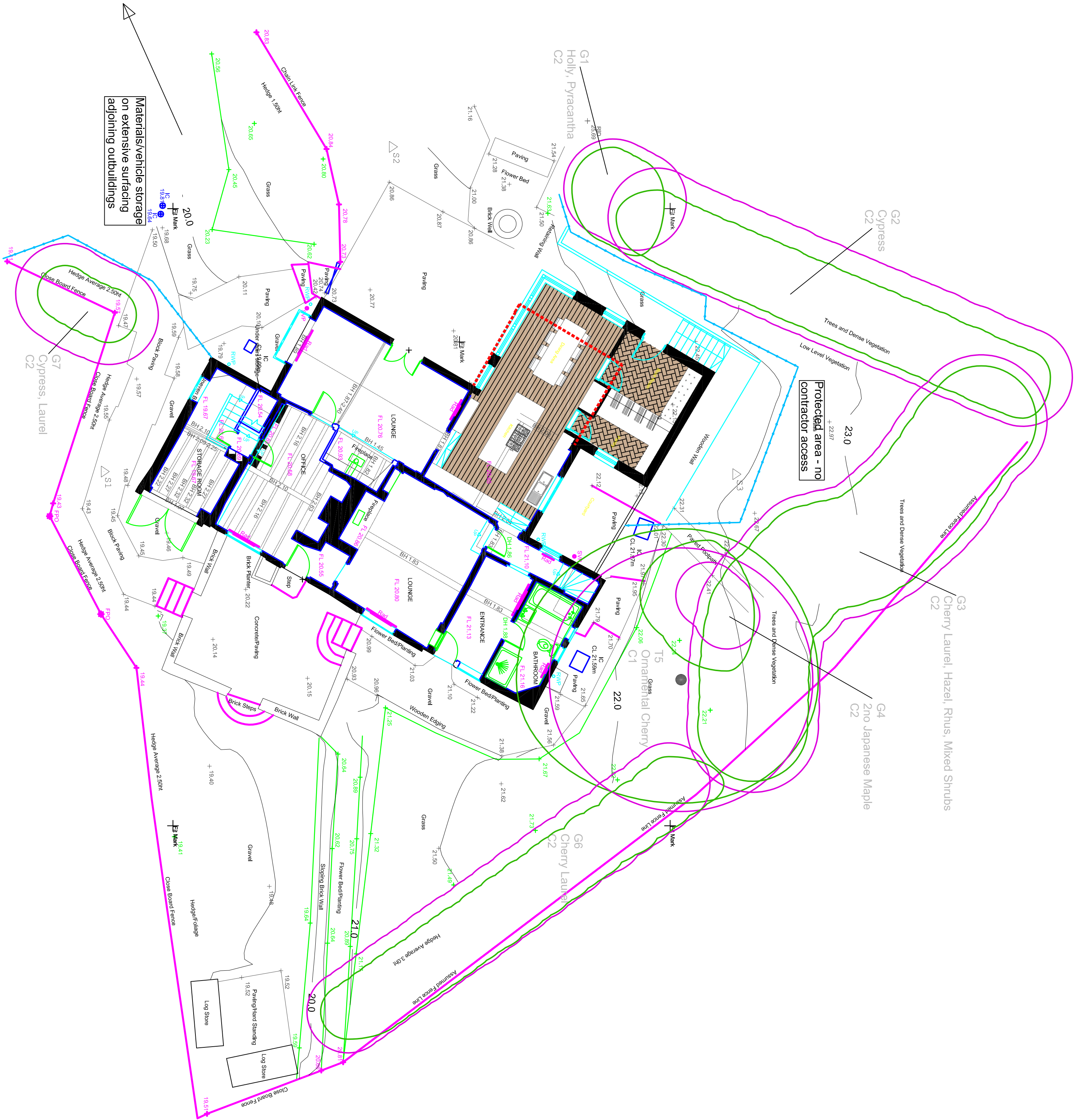
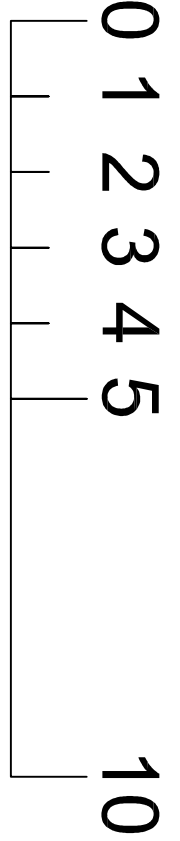
- Location of temporary drainage, water supplies or any other temporary underground services.

- No use, movement or piling of any machinery or vehicles of any description.

- Additionally, no trees shall be felled within 20m. of the trunks of any trees or the reserve line of any hedgerow to be retained.

All services to be installed to the requirements of NUG Volume 4 (Access to Trees and Shrubs) and NUG Volume 5 (Protection of Trees and Shrubs). Any work to be carried out shall be supervised by the Arboricultural Consultant.

- Additionally, no trees shall be felled within 20m. of the trunks of any trees or the reserve line of any hedgerow to be retained.



APPENDIX 4

BS5837:2012: FENCING SPECIFICATIONS

Figure 2 Default specification for protective barrier

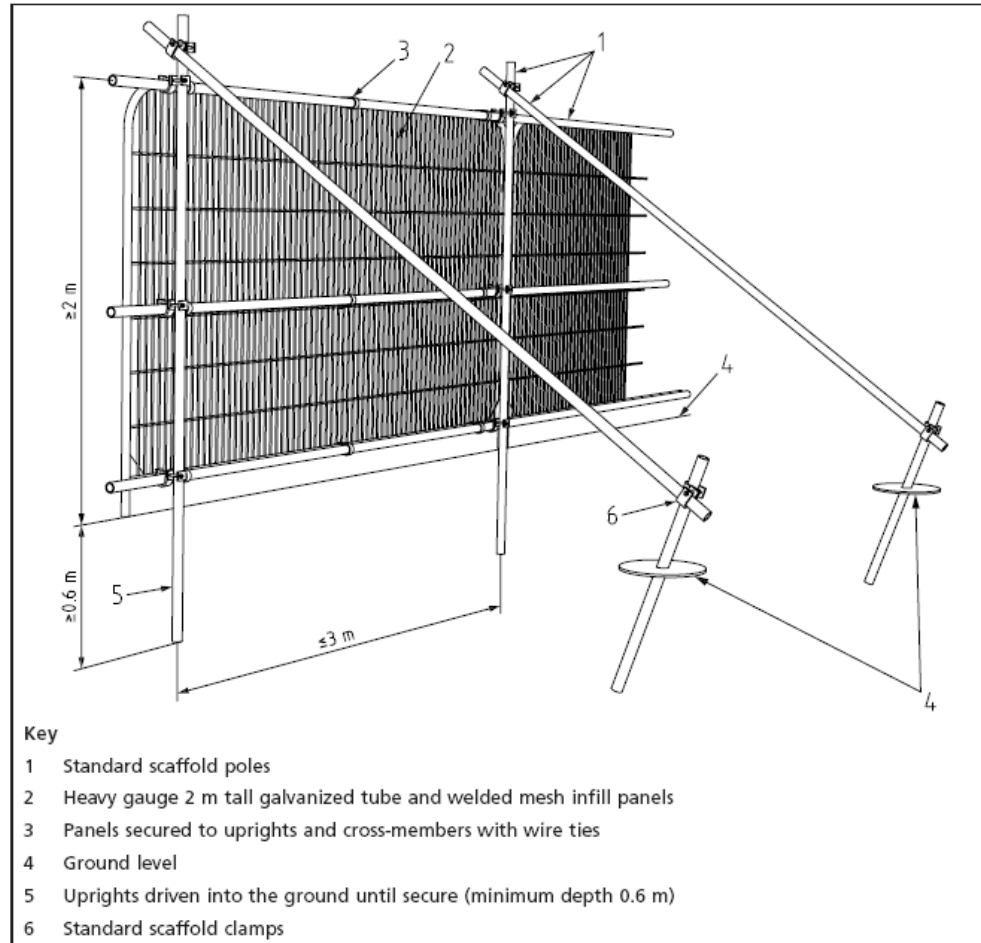
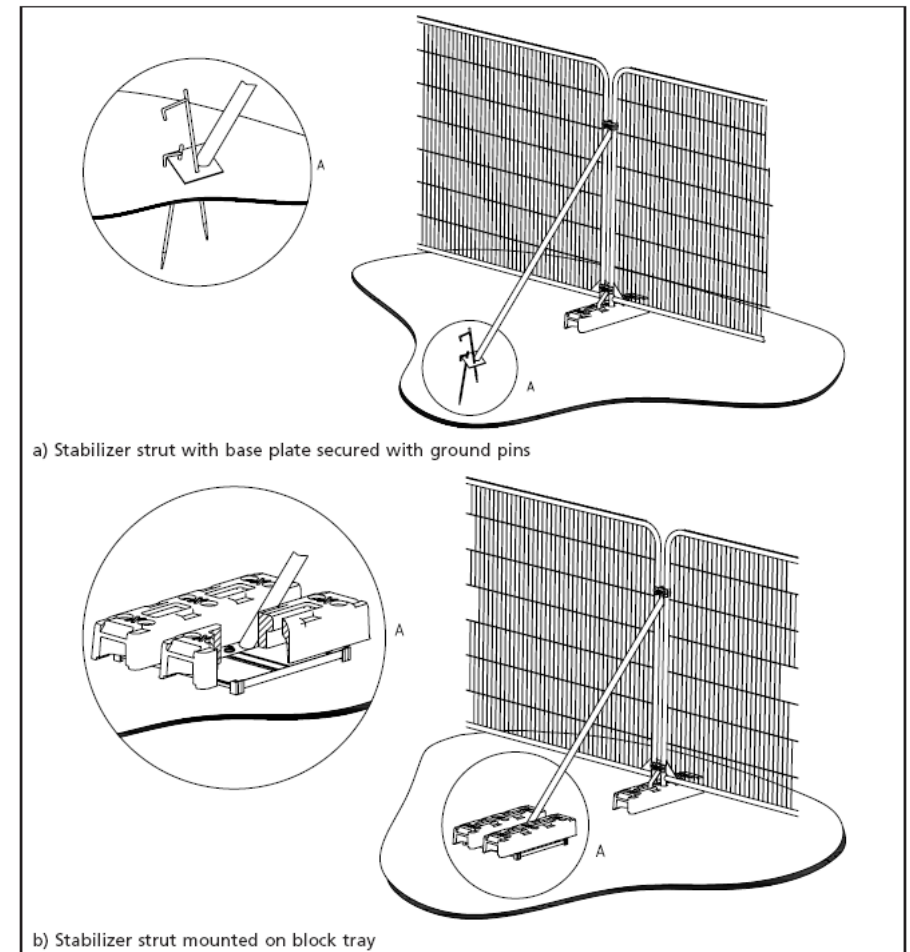


Figure 3 Examples of above-ground stabilizing systems





**PROTECTIVE FENCING.
THIS FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT**



**TREE PROTECTION AREA
KEEP OUT!**

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION
ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY