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**ARBORICULTURAL IMPLICATIONS ASSESSMENT
FOR
PROPOSED HOUSE**

AT

**23 HURST ROAD
HASSOCKS
WEST SUSSEX
BN6 9NJ**

BY

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**Our ref: J48.60
26th June 2024**

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1. INTRODUCTION

- 1.1 Broad Oak Tree Consultants Ltd. received instructions from Mr. G. Baker to undertake an inspection of trees located on and immediately adjacent to the site referred to as No. 23 Hurst Road, Hassocks, West Sussex, BN6 9NJ. 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 demolition of the existing garage and its replacement with a residential dwelling utilising the existing footprint, extended to the rear and including a lower ground floor level. The existing drive and crossover will be retained with a new permeable surface replacing the existing gravel. Details of the proposals will have been submitted by Gould Baxter.
- 1.3 The trees were inspected on 21st June 2024 by Tim Laddiman, BSc.(Hons) M.I.C.For. M.Arbor.A., Chartered Arboriculturist and Principal Consultant of Broad Oak Tree Consultants Ltd.
- 1.4 At the time of reporting it is understood that the Oak tree in the front garden and in the neighbours' garden are covered by Tree Preservation Order, No. 0004, 2015.
- 1.5 Site investigation information has also been supplied indicating that soils comprise sand to circa 1.7m depth, below which clay is present to depth. A copy of the supplied borehole cross section logs from around the garage area are included in Appendix 6.

2. GENERAL SITE DESCRIPTION

- 2.1 No. 23 is a detached house with a large detached garage with room over located on the south side of Hurst Road with an in/out drive and extensive gravel parking. To the north of the house and garage the lawned front garden is level, with ground levels falling away to the rear of the garage and beyond, with a levelled area of lawn to the rear of the house. Levels then step down further after a raised tree covered bank. To the rear of the garage are sheds and vegetable borders/planters.
- 2.2 Within the lawned front garden is a large mature Oak tree, with Beech hedging bounding the pavement and young through to mature Conifers along the western boundary. To the western boundary to the rear of the garage are several young Cypress hedges, with a range of young through to mature trees on the lower garden bank.

3. SCOPE OF TREE SURVEY

- 3.1 All trees and shrubs of 75mm diameter or more at 1.5m above ground level within and adjoining the main proposed site area were included in the survey.
- 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-T15 inclusive. Tree numbers, together with BS recommended colour coding of condition, have been added to the Tree Constraints Plan, our drawing no. J48.60/03 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. Separate detailed tree survey sheets are 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 nine individual trees and six small groups/hedges were inspected, ranging from young Cypress hedges of less than ten years of age, through to a mature Oak of 200+ years of age. The Oak (T2), the subject of the Tree Preservation Order (TPO) is regularly reduced on a circa seven year cycle forming a dense crown with vigorous regrowth.

6.2 The Beech hedges G1 and G4 are regularly maintained, with some maintenance of the young Cypress hedges G9 and G10.

6.3 Trees T5-T8 represent two phases of evergreen screen planting with no subsequent maintenance. All four appear in ailing health, with the causes unconfirmed but possibly related to moisture stress from the very hot and dry summer of 2022.

6.4 The Oak T3 in the adjoining garden is a visual feature and also covered by the TPO but was observed to have extensive lower stem decay to the south and decay fungi, possibly *Ganoderma spp.* present. The tree is potentially at risk of collapse over the road but its condition has not been confirmed. A limited lifespan has resulted in the C/U BS Category, despite its visual presence.

6.5 Trees G12-T15 appear in good health with G12 and T14 forming prominent visual features to the south.

6.6 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	T2, G12, T14	3
C	G1, G4, T5, T6, G9, G10, T11, G13, T15	9
C/U	T3	1
U	T7, T8	2
	TOTAL	15

6.7 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 C/U** Trees that would be included in category C but have structural faults, areas of decay, etc. that require more detailed investigations or climbing inspections to ascertain whether or not they can be safely retained. Groups that include dead/dying/dangerous individuals.
- 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 in Appendix 3 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.

ARBORICULTURAL IMPLICATIONS ASSESSMENT

8. REDEVELOPMENT PROPOSALS

- 8.1 The proposals are for the demolition of the existing garage and its replacement with a residential dwelling utilising the existing footprint, extended to the rear and including a lower ground floor level. The existing drive and crossover will be retained with a new permeable surface replacing the existing gravel. Details of the proposals will have been submitted by Gould Baxter.
- 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. J48.60/04 in Appendix 4. This indicates trees for retention and measures to protect trees in accordance with BS5837:2012 requirements.

9. TREES FOR REMOVAL – SAFETY/SHORT LIFESPAN

- 9.1 Based on the tree inspections the young Western Red Cedars T7 and T8 are recommended for removal. T7 is in decline and T8 is likely to be dead within the next two to three years. Both are inappropriately located for their growth potential in relation to the adjoining property if they were healthy.
- 9.2 The removal of these two declining trees will not impact on public visual amenity/landscape and as BS Category U trees they are not of planning relevance.
- 9.3 The two trees are indicated for removal on safety/short lifespan grounds with red dashed crown outlines on the Tree Protection Plan.

10. POTENTIAL IMPACT OF PROPOSALS ON TREES

- 10.1 No trees require removal for the proposed redevelopment. Only a short section of low hedge, mainly non-native Cherry Laurel, to the rear requires removal. This is too small for inclusion in a BS 5837:2012 tree survey and of no planning relevance.
- 10.2 The new house reuses the existing garage footprint, with the existing foundations having restricted root presence from the Oak T2 and the Cypress T6.
- 10.3 The soil test information provided (included in Appendix 6) has indicated that the soils are sands to circa 1.7m depth. As these will be free draining the trees will not have significant radial root spreads, as this would represent a waste of effort if soils are not retaining incoming water. It is anticipated that root systems will have developed more vertically to find the ground water at and within the underlying clay interface. As such the risk of root damage occurring from the excavation of the house foundations, below those of the existing garage footings, will be much less than in a typical soil where anticipated lateral root development would be present.
- 10.4 With the planting beds to the south retained there will be no change in circumstances for trees G12-T15. Similarly, the boundary screening and small trees G9, G10 and T11 will not be affected.

- 10.5 Replacement of the loose gravel section of the existing drive with a bound porous surface will not have a negative impact on tree roots or hydrology. The loose gravel will be scraped off and the new surface laid with no requirement for excavation. Edging will be formed by either timber or aluminium peg and board.
- 10.6 No cut back of existing tree canopies will be required and there will be no adverse impacts on the new house from the crown of the Oak T2. This is cut back on a regular cycle (permitted by the Council under the TPO Regulations) and this would continue, with no reason extra pressures for more radical surgery would arise.
- 10.7 Overall the potential impacts on retained trees are considered minimal and should not represent any grounds for a refusal based on arboricultural matters.

11. TREE PROTECTION MEASURES – FENCING

11.1 *Location of fencing*

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

11.2 *Design of fencing*

- 11.2.1 Protective fencing and ground protection measures to be installed at locations specified prior to commencement of any demolition works. 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.

- 11.2.2 Examples of the fencing specification and signage required are included in Appendix 5.

11.3 *Timing of fencing*

- 11.3.1 Protective fencing is to be erected prior to commencement of demolition 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. Any tree felling will need to be undertaken prior to fence installation to minimise risks to operatives. All tree surgeons’ vehicles will be kept outside the indicated protection zones utilising existing areas of hard standing and drive.

11.4 *Additional precautions*

- 11.4.1 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.

12. SITE OPERATIONS AND MATERIALS STORAGE

- 12.1 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.
- 12.2 The various areas of existing hard surfacing and parking provide storage space for machinery, materials and temporary welfare/office units.
- 12.3 As this is a small scale development the requirement for storage space is minimal and materials will be delivered on an “as and when” needed basis in appropriate quantities for the space available.

13. SERVICES/DRAINAGE/SOAKAWAYS

- 13.1 Where possible, existing services should be utilised. If this is not practical, then new service runs will need to enter the site outside indicated RPAs for traditional trenching installation.
- 13.2 If it is necessary for services/drainage to be brought in within a tree RPA, the trench will need to be hand excavated or air spaded to avoid damaging tree roots. Any excavations within indicated tree RPAs will be undertaken to the requirements of NJUG Volume 4 “Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees” and supervised by an Arboricultural Consultant.

14. ARBORICULTURAL METHOD STATEMENT

- 14.1 A separate Arboricultural Method Statement is not considered necessary for this site as risk to trees are minimal. Details of the protective fencing specification, timing and location are indicated on the Tree Protection Plan, which can be referred to in a specifically worded condition.

15. SUMMARY

- 15.1 The proposed replacement house does not require any tree removals or tree surgery works. Two young trees are recommended for removal due to declining health whether or not the proposals go ahead.
- 15.2 Reuse of the existing garage footprint minimises potential root impacts. Due to the site geology the deep Sands present will have affected root system morphology and roots are anticipated to be at depth, rather than traditionally spread laterally, further limiting any potential impacts.

- 15.3 Robust tree protection measures are proposed, in accordance with BS 5837:2012 recommendations, to ensure the trees are not adversely affected.
- 15.4 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 demolition and construction works.

Tim Laddiman
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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
<p>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</p>	<ul style="list-style-type: none"> • 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 <p>NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree.)</p>			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	
<p>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)</p>	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
<p>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)</p>	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
<p>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.</p>	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	Beech	<2.5	Multi	<75	1	0.5	0.5	0.5	Y	0+	Good	40+	C2	Maintained hedge	
T2	Common Oak	15	1	1400	8	8.5	10	7	M	2+	Good	20-40	B2	Three stems from 2.6m. Crown lifted in past and regularly reduced. Dense vigorous regrowth from previous cut points. 1mx50cm partially occluded basal wound to SE with surface decay	
T3	Common Oak	19	1	c1000	8	4	5	c7	M	2+	Unconfirmed	<10-20	C/U1	No basal inspection. Large decayed wound to S from ground level to 2m. Decay fungi present.	
G4	Beech	<2.5	Multi	<75	<1.5	<1	<1	<1	Y	0+	Good	20-40	C2	Maintained hedge	
T5	Monterey Cypress	18	1	900	6	5.5	5	c6	M	3+	Poor	10-20	C1	Twin stemmed at 1.5m. Multi-stemmed <3m. Slight lean to E. Extensive fine deadwood. Thinning crown	

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							
T6	Monterey Cypress	14	1	c1000	3	5	4	c6	M	2+	Poor	10-20	C1	Crowded. Fine dieback and deadwood in crown. Multi-stemmed from 1.5m. Possible Corineum Canker	
T7	Western Red Cedar	12	1	210	2	2.5	2.5	c3	Y	0.6+	Poor	<10	U	Crowded. Drawn up. Crown thinning	
T8	Western Red Cedar	14	1	250	1.5	3	2.5	c3	Y	1+	Poor	<10	U	Thin crown. Declining health	
G9	Lawson Cypress	<3	1	<75	<1	<1	<1	<5	Y	0+	Good	20-40	C2	Evergreen screen	
G10	Lawson Cypress	<3	1	<100	<1	<1	<1	<5	Y	0+	Unconfirmed	20-40	C2	Evergreen screen	
T11	Hazel	5	Multi	200	4	3.5	3	c2	SM	1+	Unconfirmed	20-40	C2	Densely multi-stemmed from ground level. Cut back to E and S	
G12	2no Atlas Cedar	<22	1	<700	<12	<9	<5	<7	M	1.5+	Good	20-40	B2	Forming one crown. Minor deadwood	
G13	Beech	<19	1	<400	<6	<4	<5	<6	SM	1+	Fair	20-40	C2	Overgrown hedge elements. Crowded. One ivy clad	
T14	Copper Beech	20	1	620	9.5	7	7	5	M	0+	Good	20-40	B2	Becoming crowded to NW	
T15	Wild Cherry	7	1	200	5	3	2.5	1	Y	2+	Fair	20-40	C2	Crowded	

APPENDIX 2

APPENDIX 3

TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAs)
AT
23 HURST ROAD, HASSOCKS, WEST SUSSEX BN6 9NJ

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	Beech	C2	<75	<0.9	<2.5
T2	Common Oak	B2	1400	15*	707*
T3	Common Oak	C/U1	c1000	c12	c452
G4	Beech	C2	<75	<0.9	<2.5
T5	Monterey Cypress	C1	900	10.8	366
T6	Monterey Cypress	C1	c1000	c12	c452
T7	Western Red Cedar	U	-	-	-
T8	Western Red Cedar	U	-	-	-
G9	Lawson Cypress	C2	<75	<0.9	<2.5
G10	Lawson Cypress	C2	<100	<1.2	<5
T11	Hazel	C2	200	2.4	18
G12	2no Atlas Cedar	B2	<700	<8.4	<222
G13	Beech	C2	<400	4.8	<72
T14	Copper Beech	B2	620	7.4	172
T15	Wild Cherry	C2	200	2.4	18

*RPA capped at 707m²

J48.60
June 2024

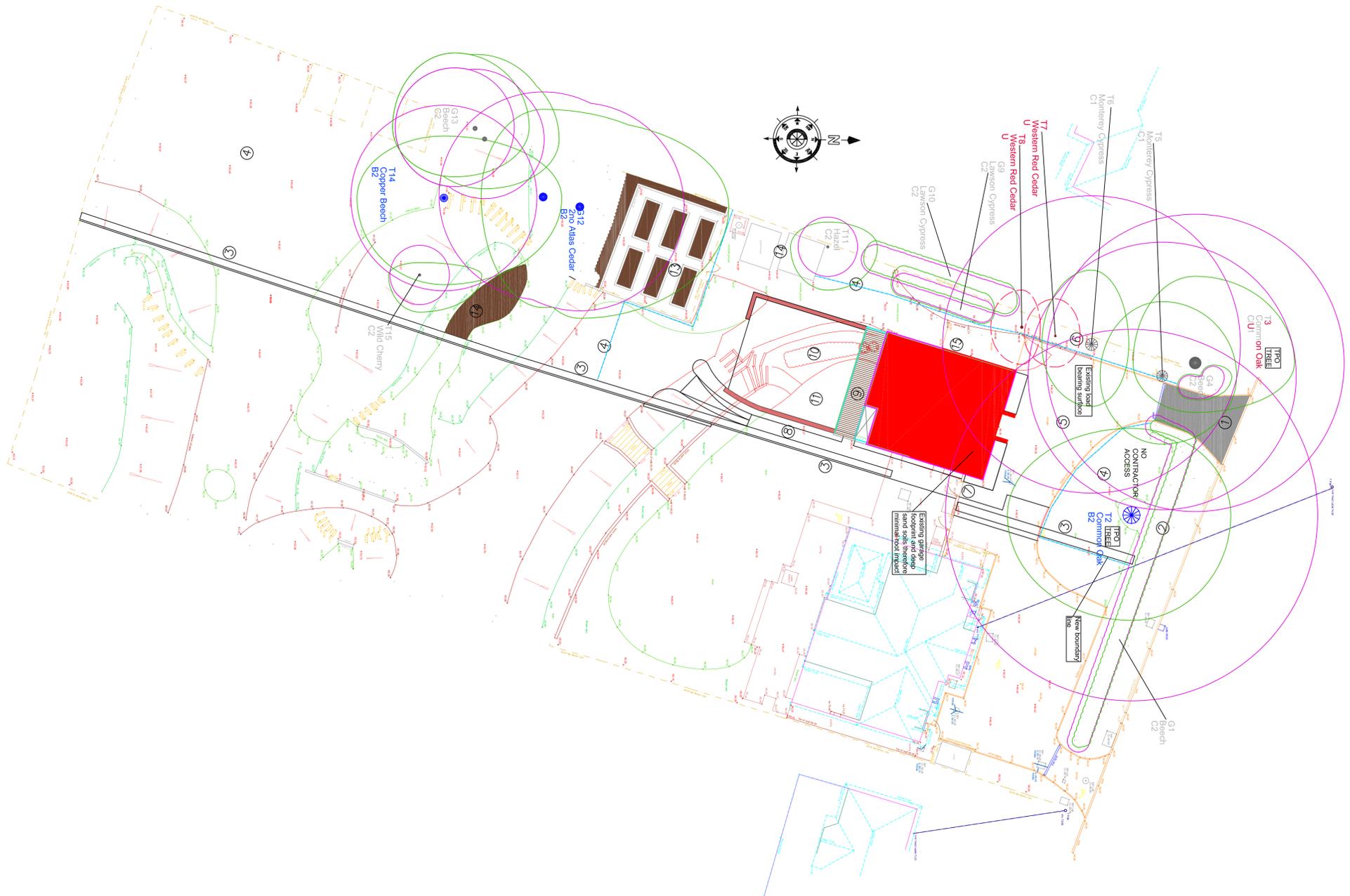
APPENDIX 4

**23 HURST ROAD
 HASSOCKS
 WEST SUSSEX
 BN6 9NU**

TREE PROTECTION PLAN

G1 - T15	Tree numbers
BS Category of Condition	
0	BS Condition A
T2	BS Condition B
T5	BS Condition C
T7	BS Condition U
	Crown spread
	BS Calculated root protection areas
	Tree to be removed for safety/short lifespan
	Trees to be removed for development
	Protective fencing location
	Ground protection

TREE PROTECTION INFORMATION
 Protective fencing and ground protection measures to be installed at common sense and in accordance with the specification of any arboriculture works.
 Protective fencing to comprise: wide mesh panels securely fixed to a minimum height of 1.8m. The fence shall be made of a continuous barrier. Feet to be pinned to the ground with road purpose scabbard bars or signs to be attached to every 5m panel detailing "TREE ROOT PROTECTION ZONE - KEEP OUT" or similar wording, in accordance with fig. 2 or fig. 3 of section 6.2 of BS5837:2012.
 Ground protection measures to comprise a single thickness of side building scaffold boards over a 100mm gravel. For vehicular access, interlocking metal/plastic road plates will need to be used.
 Buildings in proximity to protective fencing areas to be demarcated by machinery painting walls onwards onto the ground. For machinery access, interlocking metal/plastic road plates will need to be used.
 Storage or disposal of any soil, building materials, machinery, fuel or waste residues of any description.
 Siting of any temporary structures of any description including site office, parking facilities, port-a-loo, storage compounds or temporary hard standing areas.
 Excavations, soil/lift stripping, retaining/overlays of existing levels or surfacing/ground conditions of any other description.
 Location of temporary drainage, water supplies or any other temporary machinery or vehicles of any description.
 No use, movement or parking of any machinery or vehicles of any description.
 Adversely, no firm shall be within 20m of the trunk of any trees or the centre line of any hedgerow to be retained.
 All services to be installed to the requirements of NUGS Volume 4 Guidelines for the Planning, of Utility Apparatus in Proximity to Trees. Any runs within retained tree root protection areas to either be bored/rod or any other method approved by the Arboricultural Consultant.



APPENDIX 5

BS5837:2012: FENCING SPECIFICATIONS

Figure 2 Default specification for protective barrier

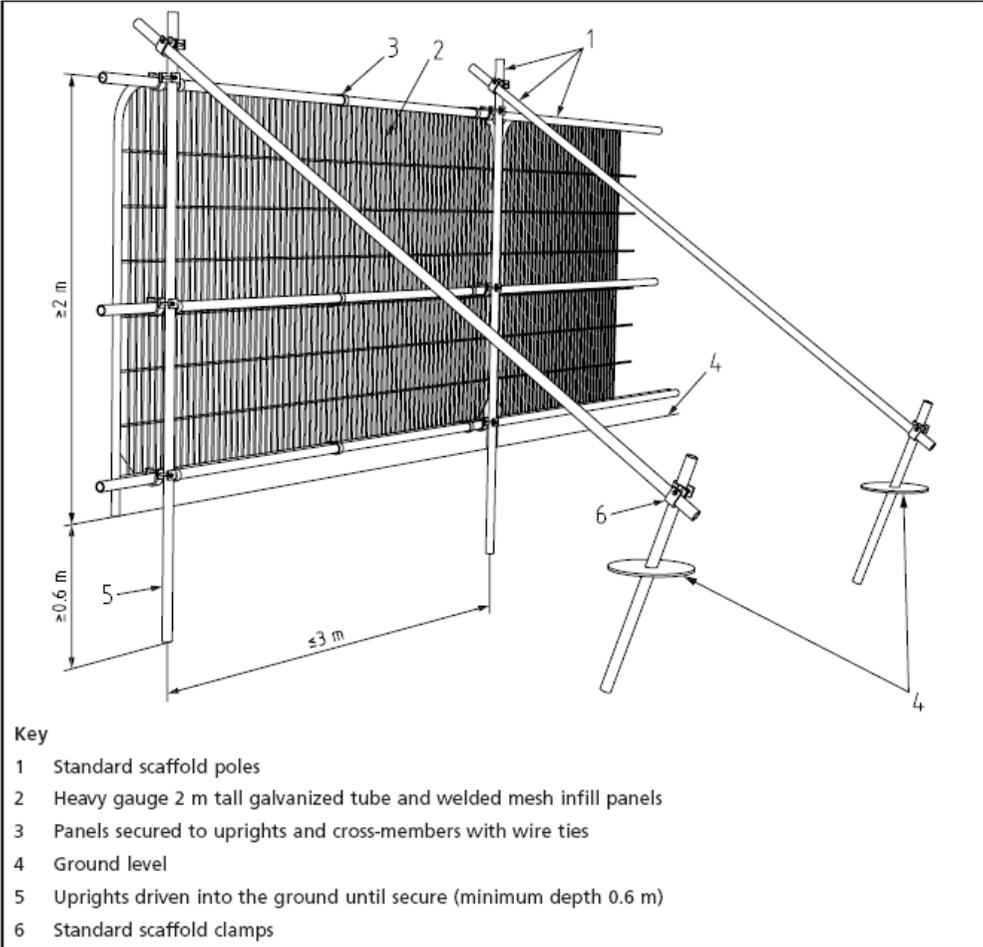
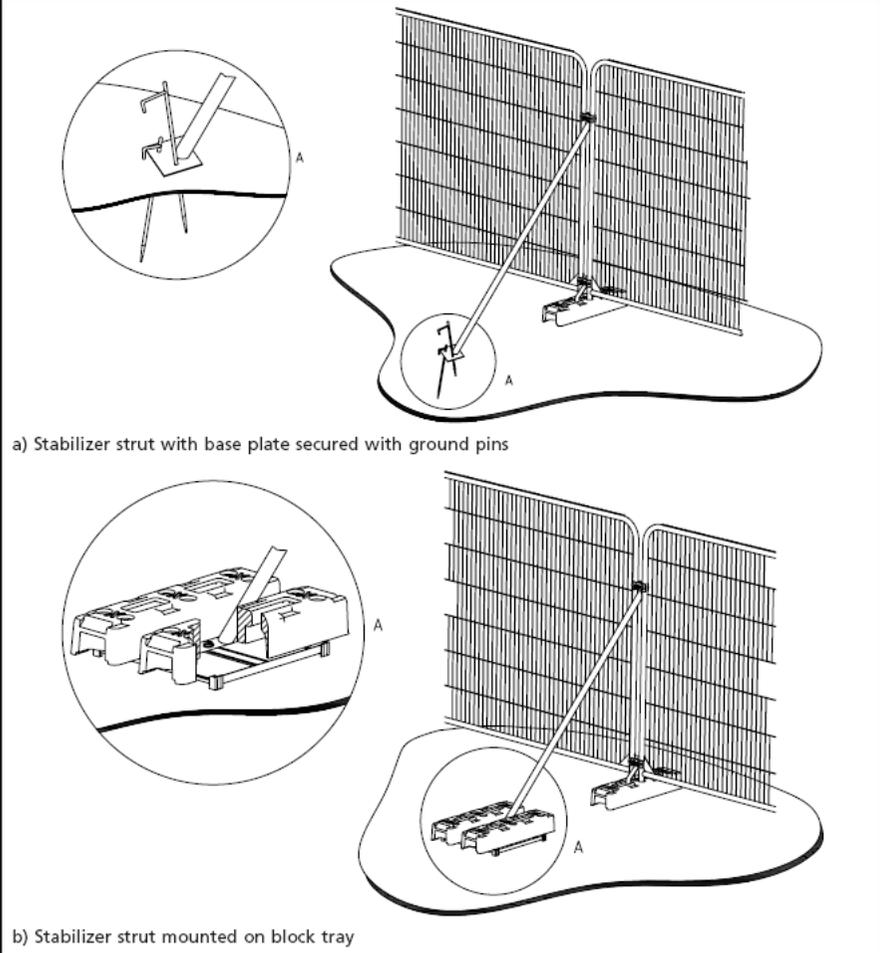


Figure 3 Examples of above-ground stabilizing systems



EXAMPLE OF FENCING SIGNAGE



APPENDIX 6

EXCAVATION METHOD

Hand Auger - 100mm

TEST HOLE LOG

JOB NO. 6005J

CLIENT

Gould & Company

SITE LOCATION 23 Hurst Road, Hassocks

O.S. REFERENCE TQ 297 156

DATE 28.01.99

Water Strikes

T.H. No. 2

T.H. No. 1

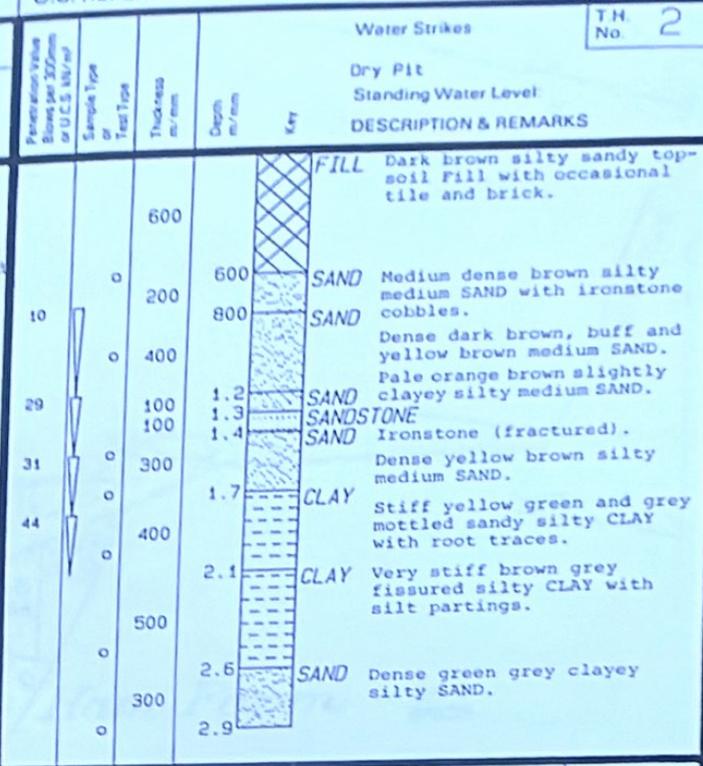
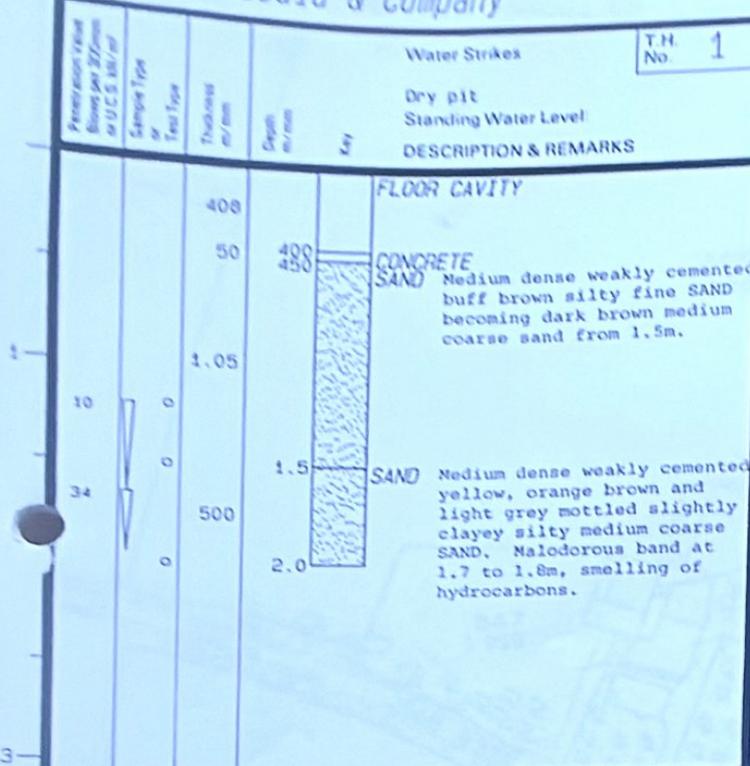
Water Strikes

Dry pit
Standing Water Level:

DESCRIPTION & REMARKS

Dry Pit
Standing Water Level:

DESCRIPTION & REMARKS



T.H. No. 3

Water Strikes

Dry Pit
Standing Water Level:

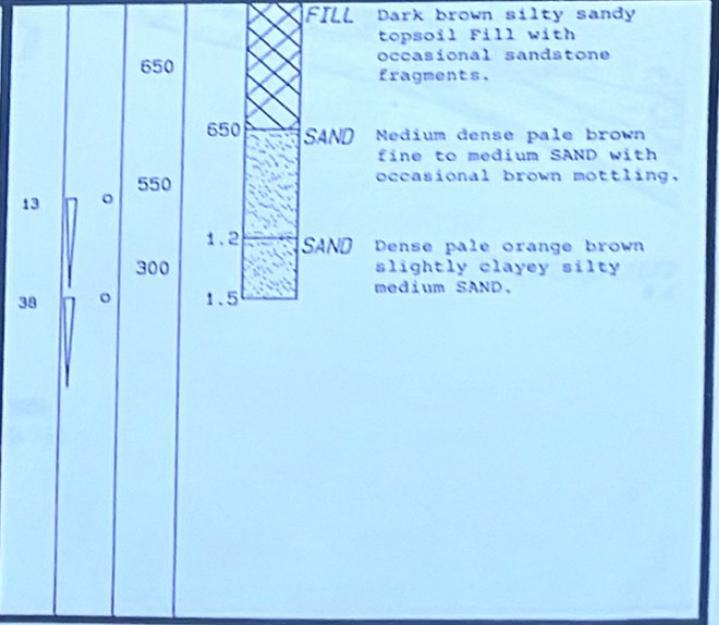
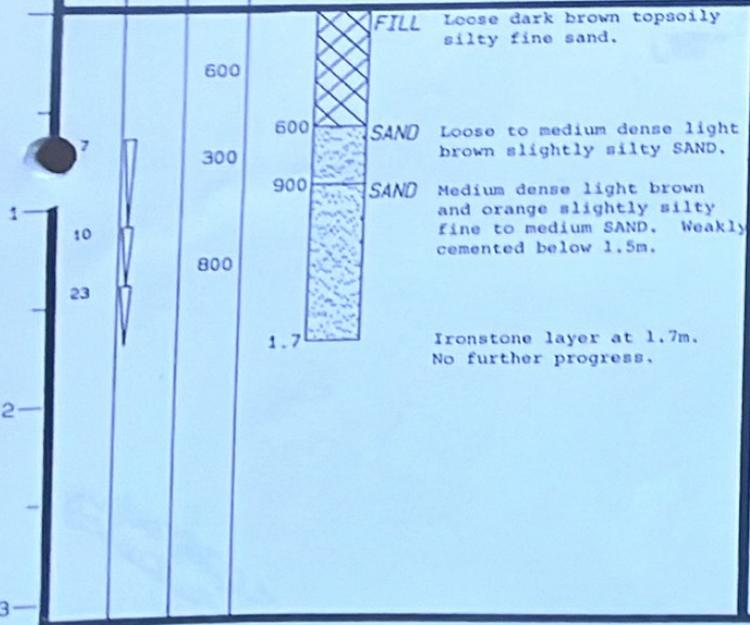
DESCRIPTION & REMARKS

T.H. No. 4

Water Strikes

Dry Pit
Standing Water Level:

DESCRIPTION & REMARKS



- ▽ PERTH PENETRATION TEST
- DISTURBED SAMPLE
- ⊕ BULK SAMPLE
- ⊗ WATER SAMPLE

- ▼ STANDARD PENETRATION TEST
- UNDISTURBED SAMPLE
- ⊥ U.C.S. = UNCONFINED COMPRESSION STRENGTH BY HAND PENETROMETER MEASURED IN kN/m²
- ∇ VANE TEST COHESION GIVEN IN kN/m²

Engineer
RDD

SAMPLE DEPTHS ARE DRAWN TO SCALE