

3 ARMITAGE COURT,
SUNNINGHILL, BERKSHIRE SL5 9TA

TREE CONDITION SURVEY, ARBORICULTURAL IMPLICATIONS
ASSESSMENT AND PROTECTION RECOMMENDATIONS

February 2024 (March 2024 Update)

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Prepared for
and on behalf of:
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3 Armitage Court
Sunninghill
Berkshire SL5 9TA

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-  **APPENDIX: (All bound into report)**
-  **Description of Tree Categories in BS 5837(2012)**
-  **Tree Condition Survey Schedule**
-  **Tree Condition Survey Plan Drawing Number 447/01A**
-  **Tree Protection Fence Drawing Number 447/02A**

Image 1: Front Cover View of Tree T1 within roadside verge along Armitage Court

1.0 TERMS OF REFERENCE

- 1.1 **Goodger Design Associates (GDA)** is a practice of chartered landscape architects registered with the UK Landscape Institute. We are also members of the Arboricultural Association (AA) and our principal, Toby Goodger is qualified with a TechArborA qualification in arboriculture from Merrist Wood College. Our practice compiles tree condition surveys in accordance with British Standard BS 5837 (2012) (ref. 1) and BS3998 (2010) (ref. 2) and AA guidance notes. We employ the Quantified Tree Risk Assessment (QTRA) system and hold QTRA licence number 1271.
- 1.2 **Appointment, Description, and Objectives.** We were appointed for and on behalf of Roger Gonourie, via P.S. Designs, on 1st February 2024 to complete a survey of a tall Scots Pine tree located within the highway verge of Armitage Court that may impact on a proposed detached garage development. A separate building extension will not impact on any existing trees. Our survey's objective is to assess tree health, to identify their root protection areas and canopy spreads in relation to the existing building to enable the tree's protection within a satisfactory tree protection strategy. We assessed the tree for its quality status noting its BS 5837 categories from A to U, height, diameters at breast height (DBH), branch spreads at the four cardinal points, crown clearance heights/ first branch height, vigour, physiological/structural condition, lifespan, root protection area (RPA) and protection radii. The survey schedule complies with BS 5837: Trees in Relation to Construction 2012 and our recommendations refer to BS 3998: Recommendations for Tree Work 2010.
- 1.3 **Method.** We completed the survey fieldwork over the morning of 5th February 2024 in overcast dry weather. The tree position was plotted by offsets from the house and from Google Earth mapping. We measured the tree's diameters at breast height (DBH) with a tape measure. The four cardinal points were measured with a laser or by footpace. We checked the heights by triangulation with a laser and clear stem heights were measured with a laser or tape measure. The RPA's and the tree protection radii were plotted in response to the DBH measured at 1.5m from ground level based on the formulae stated in clause 4.6 of BS 5837 (2012) and annex C. In addition, we used Visual Tree Assessment (VTA) (ref. 3) techniques to assess the health and stability of the trees.
- 1.4 **Context.** The survey site is not in a conservation area. We believe that a tree protection Order is in force for the survey Scots Pine tree administered by the local authority the Royal Borough of Windsor and Maidenhead. Consent must be obtained from the local authority to carry out treeworks as a treeworks application. Only dead wood and dead branches can be removed without consent. We list recommended treeworks in the survey schedule displayed in the appendix to this report and on our attached survey drawing nr. 447/01. The site is located at Ordnance Survey grid reference SU933674.
- 1.5 **Soils, Drainage, and Site Extents.** The Cranfield University Soilscape maps (ref. 4) indicate that the soils are designated with Soilscape 15: Naturally wet very acid sandy and loamy soils. The soil pHs were not assessed locally although they are likely to be slightly acid with values of between pH6 and pH7.5. The site extents for the survey area only including the tree RPAs are 0.054 hectares.
- 1.6 **Timescale and Disclaimer.** The contents of this survey are valid for eighteen months from the last survey date of 6th February 2024. Each survey takes a snapshot of the present situation. Trees are dynamic and in a constant state of change influenced by environmental/climatic conditions and life cycles. Our recommendations are given in good faith, and we cannot accept responsibility if the recommendations are not implemented, or trees fail where there were not any obvious defects present.

2.0 TREE CONDITION SURVEY REVIEW AND ARBORICULTURAL IMPLICATIONS ASSESSMENT WITH RECOMMENDATIONS

2.1 Tree References T1 (Scots Pine -*Pinus Sylvestris*)

The residents of 3 Armitage Court are planning to have a first floor extension built to their existing house and to have a separate detached garage in the front garden to replace the existing garage that will be repurposed as an additional living space. We were asked to survey the Scots Pine tree located within the highway verge to assess whether it would be impacted on by the proposed garage development and to provide protection details for this tree during the construction works.

Our survey schedule, located in the appendix, and image two below indicates that this, tree T1, is a very tall Scots Pine up to 18metre height with a straight trunk up to a compression fork at 13metres from ground level where a previous bough sheared off approximately five years previously. The tree's crown is contained above the dominant scaffold and the foliage in the crown appears to be healthy although biased in shape to the south and west as shown in images one and two below. Previous Ivy growth on the trunk has been severed and there is dead Ivy foliage on the trunk that is gradually falling away. I do not believe that any treeworks are required to this tree except the possible removal of the dead stub where the previous bough sheared off but only for aesthetic reasons.

The extent of the Root Protection Area for T1 is shown on drawing number 447/01 in the appendix of this report. We assert that the RPA conforms with the standard RPA calculation and that the aggregate roadway make up of Armitage Court would not have provided a barrier to root growth as the tree, being at least 100 years old may have pre dated the metaling of the as the 1898 six inch Ordnance Survey map just shows a track leading up to a single now demolished house called Armitage Court. The RPA has a radius of 8.1metres. The limit of the RPA will be before the proposed site of the detached garage as shown on our drawing nr. 447/01. The north flank of the proposed garage will need to be designed as a retaining wall and to comply with section 4.2 (Building near trees) of the NHBC building standards 2024 (ref. 5) to allow for future growth of tree roots. There will need to be a construction exclusion zone established within the RPA of Tree T1 as indicated on our drawing nr. 447/01 enclosed by the tree protection fence approved within BS5837 as illustrates bon our drawing nr. 447/02.



Image 2: View Looking north from Armitage Court showing Tree T1 and 3 Armitage Court behind the Rhododendron evergreen hedge.

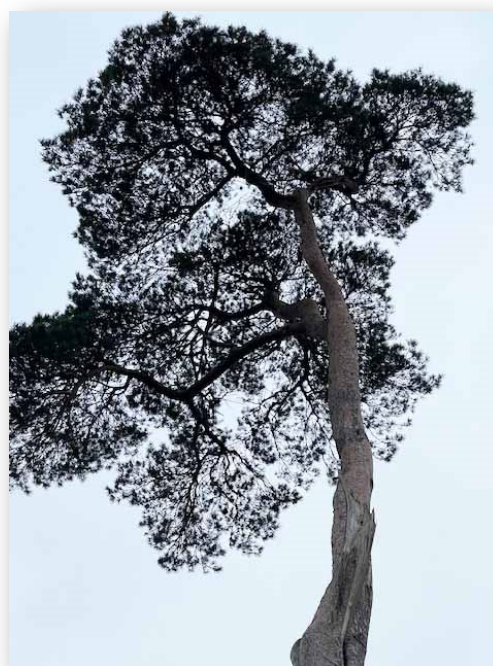







Image 3: Close up view of Tree T1 crown showing bias of growth to south and west and point where previous scaffold bough sheared off.

2.2 Summary and Recommendation

1. This Scots Pine has a very high crown with a substantial dense trunk typical of the species. There were no decay fungal bodies or cavities observed. Although there is a break and compression fork at approximately 13m metres height we believe that this tree is healthy and will continue to contribute to the local landscape.
2. We assert that the proposed garage block can be constructed without causing harm to the Rot Protection Area of tree T1 the Scots Pine subject to the correct tree protection measures being adopted including the erection of the tree protection fence before construction work commences and the establishment of the construction exclusion zone a shown on our drawing nr. 447/01 and the detailed tree protection fence shown on our drawing nr. 447/02.
3. An arboricultural method statement will be necessary and will need to be approved prior to commencement of work, Excavation work close to the limit of the RPA of tree T1 must be completed using hand tool to avoid damage to any fibrous roots that may be present.
4. The outer south wall of the garage must be designed as a retaining wall and must comply with the NHBC standards for Building near trees contained in section 4.2 of the standard for 2024. No excavated soils and hardstandings must be deposited on the construction exclusion zone.
5. Our report can be used as a reference and accompaniment for a planning application to the Royal Borough of Windsor and Maidenhead.

-  **APPENDIX: (All bound into report)**
-  **Description of Tree Categories in BS 5837(2012)**
-  **Tree Condition Survey Schedule**
-  **Tree Condition Survey Plan Drawing Number 447/01A**
-  **Tree Protection Fence Drawing Number 447/02A**

REFERENCES:

- Reference 1: BS 5837: Trees in Relation to Construction 2012. British Standards Institute.
Reference 2: BS 3998: Recommendations for Tree Work 2010. British Standards Institute.
Reference 3: The Body Language of Trees-A handbook for Failure Analysis-Claud Mattheck and Helge Broloer.
Reference 4: Cranfield University /Natural Soil Resources Institute Soils Maps. Available online from LANDIS.
Reference 5: National House Building Council (NHBC) Building Standards chapter 4.2 (Building near Trees) 2024.

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<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 category U trees (e.g. 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, or very low quality trees suppressing adjacent trees of better quality 			See Table 2
	<i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

3 Armitage Court, Sunninghill, Berkshire, Tree Condition Survey Schedule. Survey date 5th February 2024 Tree Reference Number Corresponds to the GDA Drawing Nr. 447/01

Ref.	BS5837 Category	Species (Latin & common name)	Height	Stem Diameter	Canopy Spread North East South West	Crown Clearance Height	Fist Branch Direction	Age Class	Physiological Condition	Structural Condition	Vigour	Estimated Remaining Contribution	RPA Area	RPA Radius	Descriptions and Recommendations
T1	B2	Pinus Sylvestris (Scots Pine)	18m	675mm	3m North, 2.5m East, 4m South, 6m West	14m	West	Mature	Good	Fair	NV	40+	206m ²	8.1m	Tall slender Scots Pine with straight trunk up to with break & compression fork at 13m where former bough sheared off tree. Top crown opens out to two scaffolds at 15m. Regular dense foliage biased to south and west. Base enclosed by Rhododendron hedge to 2m height. Remove dead ivy clinging to trunk. Broken stub could be removed for aesthetic reasons although not necessary for health reasons at present.

(Scots

Note 2: Quality categories A-C & U refer to categories described in table 1 section 4.5 of BS 5837:2012. Subcategories are: (1) Mainly arboricultural values (2) Mainly Landscape Values (3) Mainly Cultural values.

Note 3: DBH (Stem Ø)= Diameter of tree at breast height taken at approximately 1.5 metre height from ground level. MSx inserted after species indicates a multistemmed species and a revised RPA calculation has been applied accordingly.

Note 4: Branch spread or canopy shape is measured along the cardinal points of North(N), East(E), South(S), and West(W) measured from the trunk centre. All measurements are in linear metres unless otherwise stated.

Note 5: The crown clearance height is the approximate distance between the prevailing ground level and first set of overhanging branches in the tree canopy with first branch orientation noted. N=NorthE=EastS=SouthW=West.

Note 6: Age class categories are Young, Semi or Early Mature, Mature Vigour categories are abbreviated as follows: LV= Low vigour NV= Normal vigour HV=High vigour.

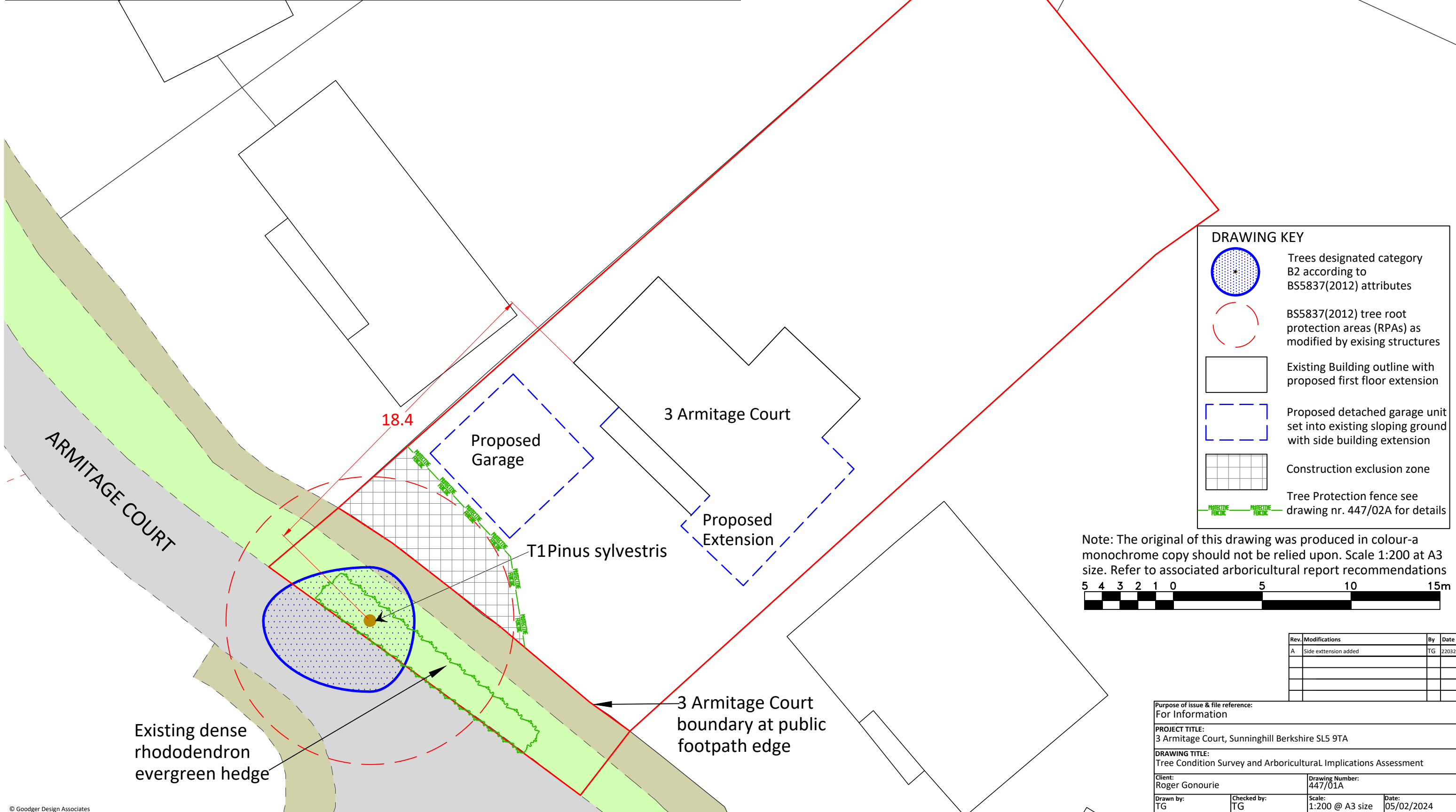
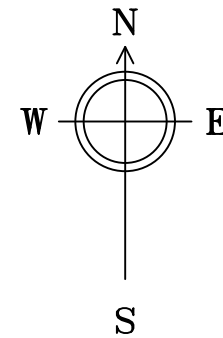
Note 7: RPA is the Root Protection Area measured in m2 around each tree. The root protection radius is measured from the trunk centre. The RPA will be irregular if inhibited by structures/roads. The s+A1:AE10tandard RPAs are also shown.

Do not scale from this drawing. All dimensions to be checked on site.

3 Armitage Court, Sunninghill, Berkshire, Tree Condition Survey Schedule. Survey date 5th February 2024 Tree Reference Number Corresponds to the GDA Drawing Nr. 447/01

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DRAWING KEY

- Trees designated category B2 according to BS5837(2012) attributes
- BS5837(2012) tree root protection areas (RPAs) as modified by existing structures
- Existing Building outline with proposed first floor extension
- Proposed detached garage unit set into existing sloping ground with side building extension
- Construction exclusion zone
- Tree Protection fence see drawing nr. 447/02A for details

Note: The original of this drawing was produced in colour-a monochrome copy should not be relied upon. Scale 1:200 at A3 size. Refer to associated arboricultural report recommendations

Rev.	Modifications	By	Date
A	Side extension added	TG	22/03/24

Purpose of issue & file reference:
 For Information

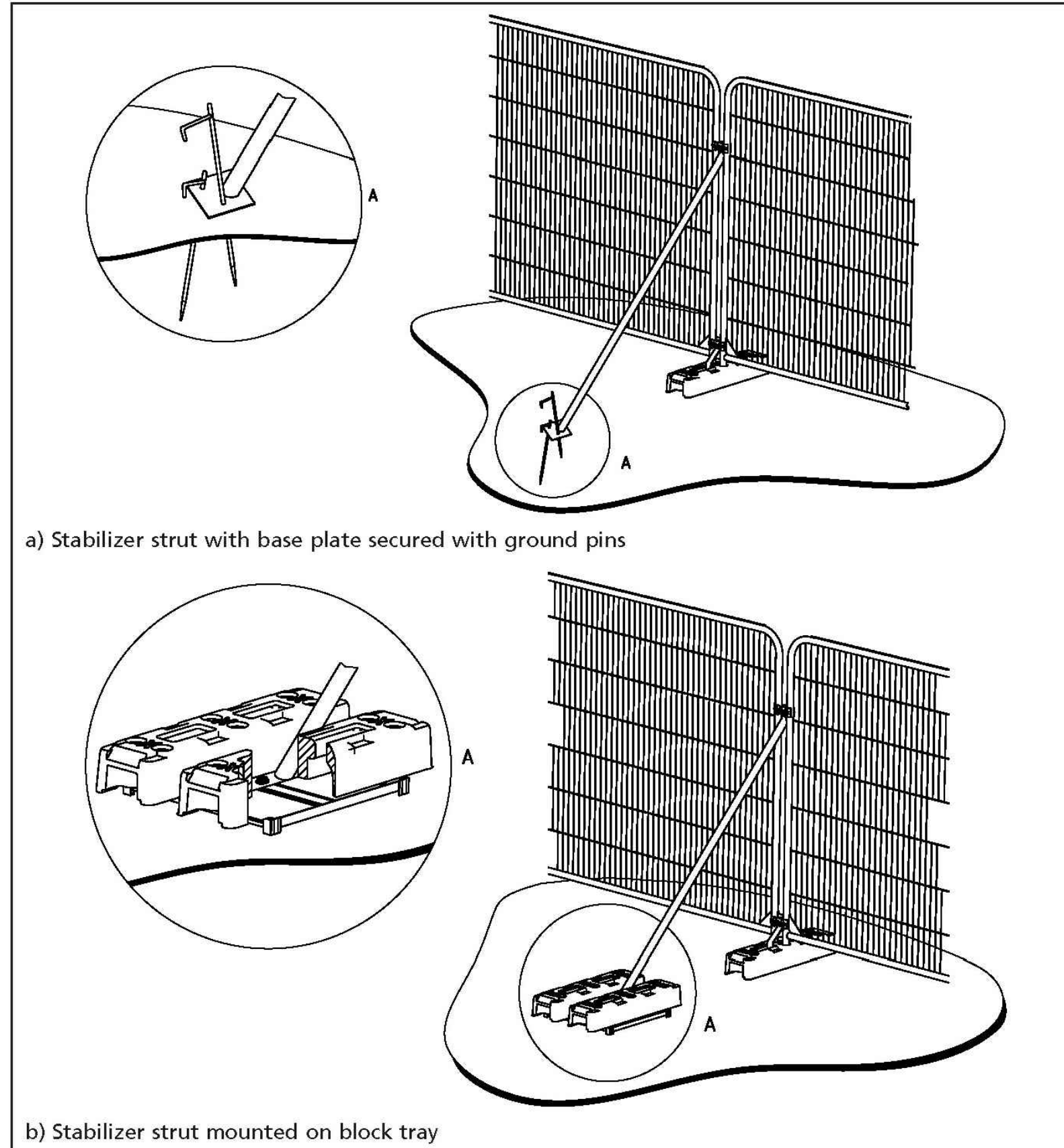
PROJECT TITLE:
 3 Armitage Court, Sunninghill Berkshire SL5 9TA

DRAWING TITLE:
 Tree Condition Survey and Arboricultural Implications Assessment

Client: Roger Gonourie **Drawing Number:** 447/01A

Drawn by: TG **Checked by:** TG **Scale:** 1:200 @ A3 size **Date:** 05/02/2024

Figure 3 Examples of above-ground stabilizing systems



A 2 metre tall 'Heras' movable steel mesh fence with strut and base plate to be erected along line of tree root protection areas marked on drawing nr. 447/01A as per the illustrations opposite extracted from BS 5837(2012).

Operators of 360° excavators/ cranes etc. shall ensure that overhead projecting moving parts (arms or jibs) are kept away from all overhanging branches. Clear warning signs to be installed to warn machinery operators as illustrated.

All protection of existing trees adjacent to works site shall comply with BS 5837: Trees in relation to construction (2012). Any remedial works necessary to be carried by approved contractor to Arboricultural Association's 'Standard Conditions of Contract and Specifications for Tree Works' and in accordance with BS 3998 (2010) Tree work-Recommendations.

Please see in accompanying report for further details and recommendations.



Typical Sign to indicate construction exclusion zone behind tree (and soft landscape area) protection fence must be fixed to fence and easily visible.

Rev.	Modifications	By	Date
A	Drawing numbers updated	TG	22/03/24

Purpose of issue & file reference: For Information			
PROJECT TITLE: 3 Armitage Court, Sunninghill Berkshire SL5 9TA			
DRAWING TITLE: Tree Protection Fence Details			
Client: Roger Gonourie		Drawing Number: 447_02A	
Drawn by: TG	Checked by: TG	Scale: 1:200 @ A3 size	Date: 06/02/2024