55 HIGH STREET, HAMPTON, MIDDLESEX, TW12 2SX

TREE CONDITION SURVEY, ARBORICULTURAL IMPLICATIONS ASSESSMENT AND PROTECTION RECOMMENDATIONS

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- **Description of Tree Categories in BS 5837(2012)**
- **Tree Condition Survey Schedule**
- **Tree Condition Survey Plan Drawing Number 464/01**
- **Tree Protection Fence Drawing Number 464/02**

Frontispiece: Aerial View of 55 High Street Hampton (courtesy of Google Earth Pro) dated 5th August 2024

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 Arboricultural Association guidance notes. We employ the Quantified Tree Risk Assessment (QTRA) system (ref. 3) to assess tree health/potential hazards, and we hold QTRA licence number 1271.

1.2 **Appointment, Description, and Objectives.** We were appointed by Justine and Nick Blanchard on the recommendation of JACKSON OCONNOR ARCHITECTURE on 4th December 2024 to complete a survey of trees located in the rear garden of 55 High Street Hampton and within the vicinity of adjacent properties at 53, 53a and 57 High Street and along a footpath to the rear of 55 High Street. 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 during and after the construction of a proposed single storey extension. We assessed the trees 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 11th December 2024 in overcast dry weather. The tree positions were plotted by offsets and laser from known points to the rear of 55 High Street, from fencelines and from Google Earth mapping. We measured the tree's diameters at breast height (DBH) with a tape measure although with trees T2, T5 and T6 we could only estimate their girths as we did not have access to these gardens. 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. 4) techniques to assess the tree's health and stability. The tree positions are shown on our drawing number 464/01.

1.4 **Context**. All the surveyed trees, apart from Tree T1, are outside the rear garden. The survey site is located in the CA12 Hampton Village conservation area administered by the local authority the London Borough of Richmond. We are not aware of any tree preservation orders locally although consent must be obtained for treeworks in a conservation area under section 211 of the Town and Country Planning Act 1990. We list recommended treeworks in the survey schedule displayed in the appendix to this report and on our attached survey drawing nr. 464/01. The site is located at Ordnance Survey grid reference TQ141697.

1.5 **Soils, Drainage, and Site Extents.** The Cranfield University Soilscape maps (ref. 5) indicate that the soils are designated with Soilscape 22: Loamy soils with naturally high groundwater. 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 extent for the survey area including the trees outside the ownership boundary of 55 High Street, Hampton including the tree RPAs (some estimated) is 0.08 hectares.

1.6 **Timescale and Disclaimer.** The contents of this survey are valid for eighteen months from the last survey date of 11th December 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. We were unable to survey the basal areas of tree T2, T5, and T6.

2.0 TREE CONDITION SURVEY REVIEW AND ARBORICULTURAL IMPLICATIONS ASSESSMENT WITH RECOMMENDATIONS

2.1 Tree References T1 (Sargents Cherry-*Prunus sargentii*) -T6 (Silver Birch-*Betula pendula*)

Image 1: Tree T1 Sargents Cherry

Tree T1 is a young garden Cherry tree that is not protected so can be felled if required. However, this tree can be retained and protected with the tree protection fence specified on drawing nr. 464/01. We recommend branch reduction of this tree by approximately 0.5metres in all directions prior to the commencement of construction works to limit potential branch damage by site machinery such as mini diggers and by required scaffolding.

Tree T2 is a substantial Beech tree located in the garden of number 53 High Street (see image 2 below). We estimated the diameter at breast height as 800mm and the crown spread dimensions are shown on the survey schedule. The height and crown spreads were estimated with a laser and by footpaces. This tree's Root Protection Area may extend into the garden of 55 High Street albeit by a minor amount. We suggest that a tree protection fence as detailed on drawing nr. 464/02 is erected 1.5metres from the existing fence boundary also to protect the shrubbery along the south boundary of the rear garden as well as limiting any compaction of tree T2's root mass.

Image 2: Looking to south west from 55 High Street rear garden to tree T2 in garden of 53 High Street

2.1 Tree References T1 (Sargents Cherry-Prunus sargentii) -T6 (Silver Birch-Betula pendula) Continued

Trees T3 and T4 are substantial, well foliaged Yews. Tree T3 is located along a footpath behind the rear fence to 55 Hight Street. Tree T4 is the larger of the two Yews and is located on the verge of an access road to garage units. The east and south crown spreads of these trees are overshadowing the summer House and is likely to overshadow it further in the future. Crown reduction may be desired by the property owners at a future date although this does not affect the main building extension proposal. Their RPAs and crowns will be protected by the specified tree protection fence as shown on drawing nrs. 464/01 and 464/02.

Image 3: View of rear garden looking north west with pond and summer house visible with trees T3 and T4 to the rear

Trees T5 and T6 are located in the neighbouring garden to 57 High Street and will not impact on the extension proposal for 55 High Street. We were not able to measure their diameters at breast height and they were estimated. These trees were included in the survey for reference.

Image 4: Tree T5 Laburnum in rear garden of 57 High Street

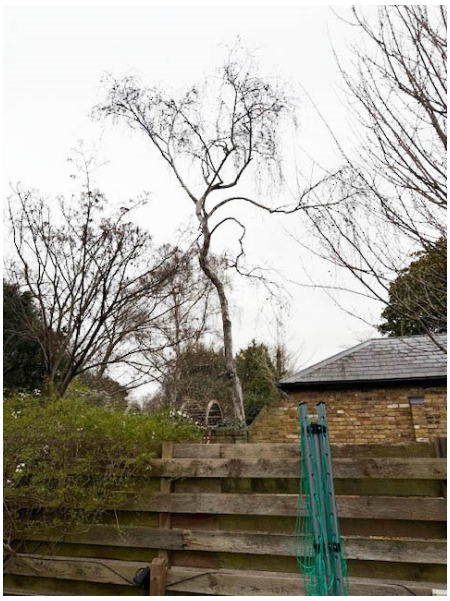


Image 5: Tree T6 Silver Birch with an uneven crown shape in rear garden to 57 High Street

2.2 Summary and Recommendations:

1. **We assert that the proposed building extensions can be constructed without causing harm to the Root Protection Area of trees T1-T6** 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 construction exclusion zones as shown on our drawing nr. 464/01 and the detailed tree protection fence shown on our drawing nr. 464/02.

2. **We recommend minor treeworks to reduce the crown of tree T1** prior to the start to the start of construction work to avoid damage to the branch structure. Treeworks must be completed by a competent and qualified arborist, preferably on the register of approved arborists held by the Arboricultural Association. Treeworks should be completed between September and February to avoid the bird nesting season or trees inspected for bird nests at other times of the year.

3. **A construction arboricultural method statement that reflects the recommendations in our report 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 tools to avoid damage to any fibrous roots that may be present. The method statement and phasing of the construction works must be agreed with and understood by the appointed building contractor.

4. **The building foundations must be designed to comply with the NHBC standards for Building near trees contained in section 4.2 of the standard for 2025**. (ref.5) No excavated soil or hardstandings must be deposited behind the tree protection fence and must be exported offsite if unsuitable for reuse on site. For example, decent quality topsoil (ref. 6) could be incorporated into the renewed garden.

5. **This report can be used as a reference and accompaniment for a planning application to The London Brough of Richmond.**

Appendix:

- **Description of Tree Categories in BS 5837(2012)**
- **Tree Condition Survey Schedule**
- **Tree Condition Survey Plan Drawing Number 464/01**
- **Tree Protection Fence Drawing Number 464/02**

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) 2025
Reference 6: BS 3882: Specification for Topsoil and Requirements for Use 2015. Published by British Standards Institute.

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	• 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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			See Table 2
	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

55 High Street Hampton Middlesex Tree Condition Survey Schedule. Survey dated 11th December 2024. Tree Reference Numbers Correspond to the GDA Drawing Nr. 464/01

Ref.	BS5837 Category	Species (Latin & common name)	Height	Stem Diameter	Canopy Spread North East South West	Crown Clearance Height	First Branch Direction	Age Class	Physiological Condition	Structural Condition	Vigour	Estimated Remaining Contribution	RPA Area	RPA Radius	Descriptions and Recommendations
T1	C2 msx2	Prunus sargentii (Sargeants Cherry)	7m	145mm; 70mm	2N 2E 2S 2W	1.5m	South	Young	Fair	Fair	NV	20-40 Years	10m²	1.8m	Well structured crown with upright branch structure. Small compression fork at base. Crown reduction by 0.5m prior to construction works recommended to avoid branch damage.
T2	A2	Fagus sylvatica purpurea (Copper Beech)	18m	800mm	6N 5.5E 7S 7W	9m	North	Mature	Good	Good	NV	40+ Years	290m²	9.6m	Beech opens out to seven scaffolds at 6m. Well structured crown. Well maintained. Bird nest in top third. Not possible to measure girth or base examination. DBH Estimate only.
T3	B2	Taxus baccata (Yew)	14.5m	450mm	5N 5E 4.5S 6.5W	1.5m	North	Mature	Good	Fair	NV	40+ Years	92m²	5.4m	Well foliaged Yew. Will need branch reduction to south east in future where it is growing over summer house roof. Ivy starting to creep up trunk.
T4	B2	Taxus baccata (Yew)	14m	625mm	6N 7E 6.5S 6W	1.5m	West	Mature	Good	Fair	NV	40+ Years	177m²	7.5m	Well foliaged Yew outside next to fence corner outside rear garden.
T5	C2	Betula pendula (Siver Birch)	12m	250mm	2N 2E 2.5S 2W	6m	South	Early Mature	Fair	Poor	NV	10-20 Years	28m²	3m	Poor irregular crown with dead branches. Crown cleaning and dead wood removal required
T6	C2 msx2	Laburnum anagyroides (Golden Chain Tree)	11m	250mm; 210mm	2.5N 4E 2.75S 3W	1.8m	West	Mature	Fair	Poor	NV	20-40 Years	48m²	3.9m	Tight compression fork at base. Leans to south and east.

Note 1: The tree basal DBH diameter is calculated using the formulae in section 4.6 of BS5837 (2012) & as illustrated in figure C1 of BS 5837.

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.

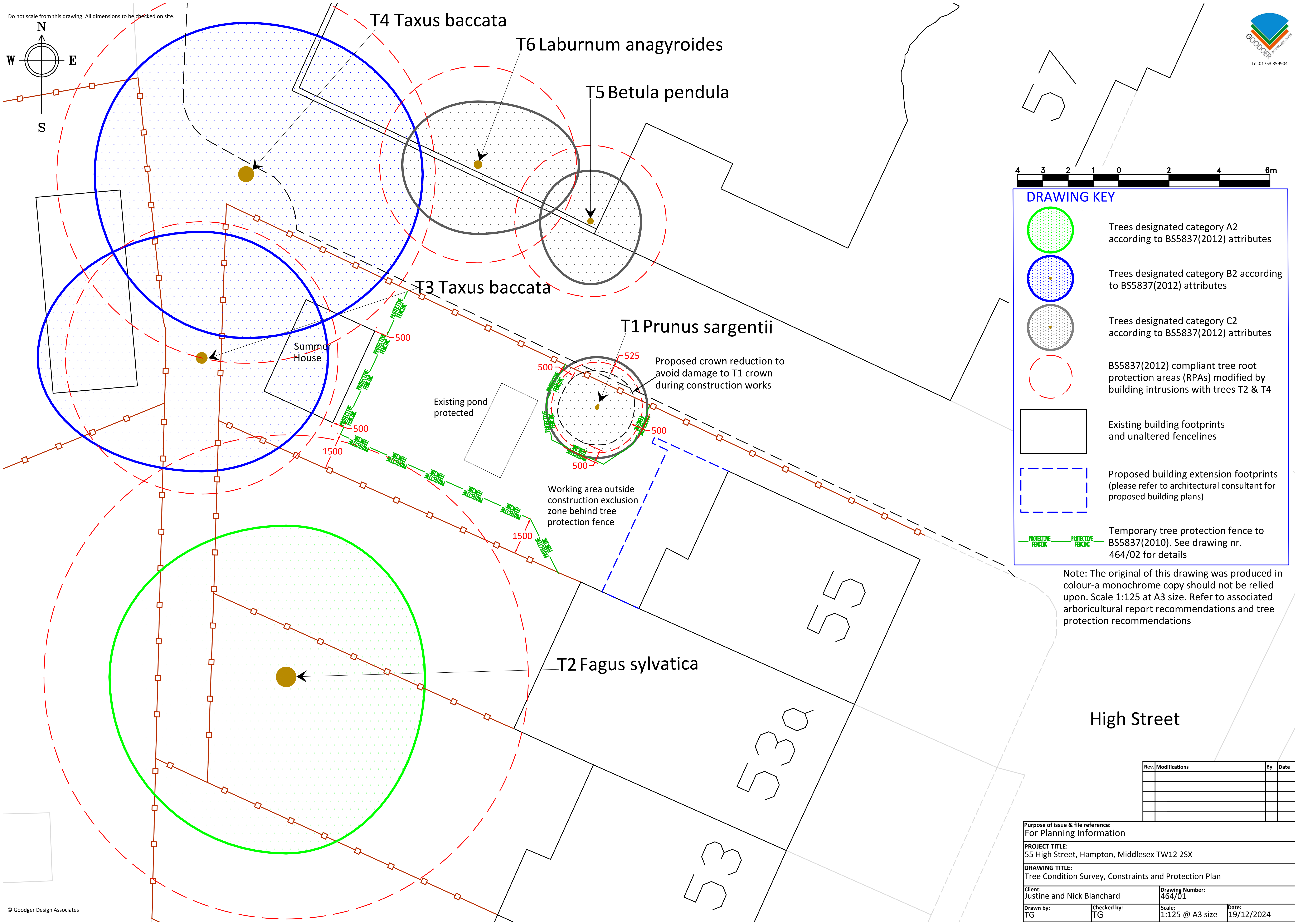
Note 3: DBH (Stem Ø)= Diameter of tree at breast height taken at approximately 1.5 metre height from ground level. Msx2=multistemmed specimen with two stems.

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.



Do not scale from this drawing. All dimensions to be checked on site.
N
W
E
S
T4 Taxus baccata
T6 Laburnum anagyroides
T5 Betula pendula
T3 Taxus baccata
Summer House
T1 Prunus sargentii
525
500
500
500
500
500
1500
1500
Proposed crown reduction to avoid damage to T1 crown during construction works
Existing pond protected
Working area outside construction exclusion zone behind tree protection fence
T2 Fagus sylvatica
55
53a
53
High Street
Tel:01753 859904
4 3 2 1 0 2 4 6m
DRAWING KEY
Trees designated category A2 according to BS5837(2012) attributes
Trees designated category B2 according to BS5837(2012) attributes
Trees designated category C2 according to BS5837(2012) attributes
BS5837(2012) compliant tree root protection areas (RPAs) modified by building intrusions with trees T2 & T4
Existing building footprints and unaltered fencelines
Proposed building extension footprints (please refer to architectural consultant for proposed building plans)
Temporary tree protection fence to BS5837(2010). See drawing nr. 464/02 for details
Note: The original of this drawing was produced in colour-a monochrome copy should not be relied upon. Scale 1:125 at A3 size. Refer to associated arboricultural report recommendations and tree protection recommendations

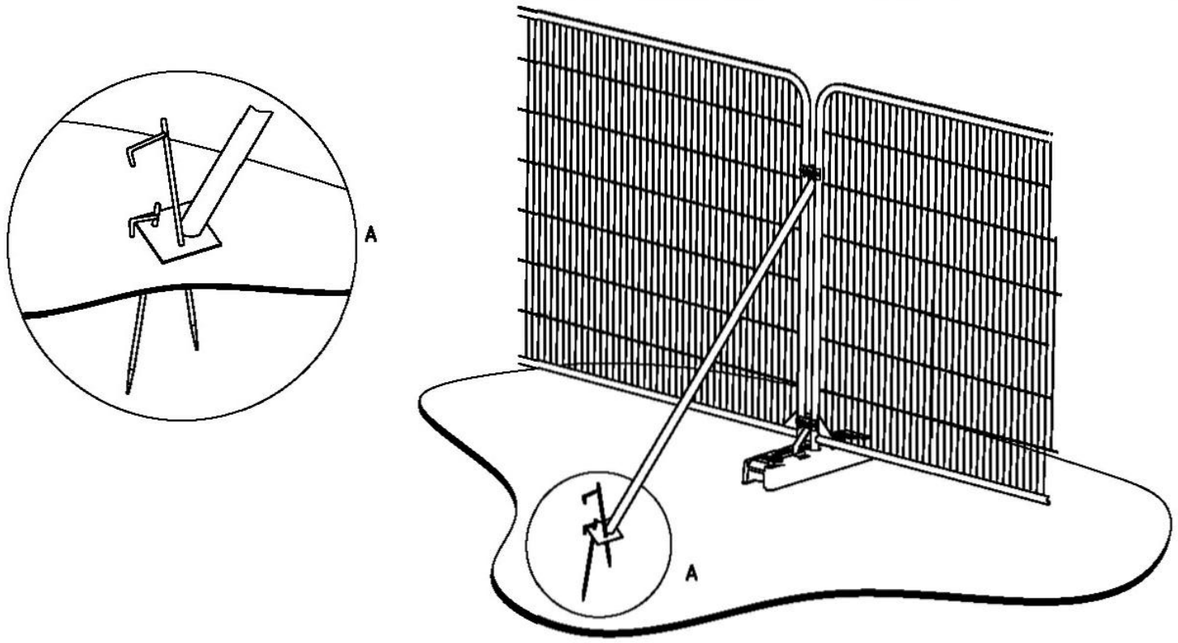
Rev.	Modifications	By	Date

Purpose of issue & file reference: For Planning Information	
PROJECT TITLE: 55 High Street, Hampton, Middlesex TW12 2SX	
DRAWING TITLE: Tree Condition Survey, Constraints and Protection Plan	
Client: Justine and Nick Blanchard	Drawing Number: 464/01
Drawn by: TG / Checked by: TG	Scale: 1:125 @ A3 size / Date: 19/12/2024

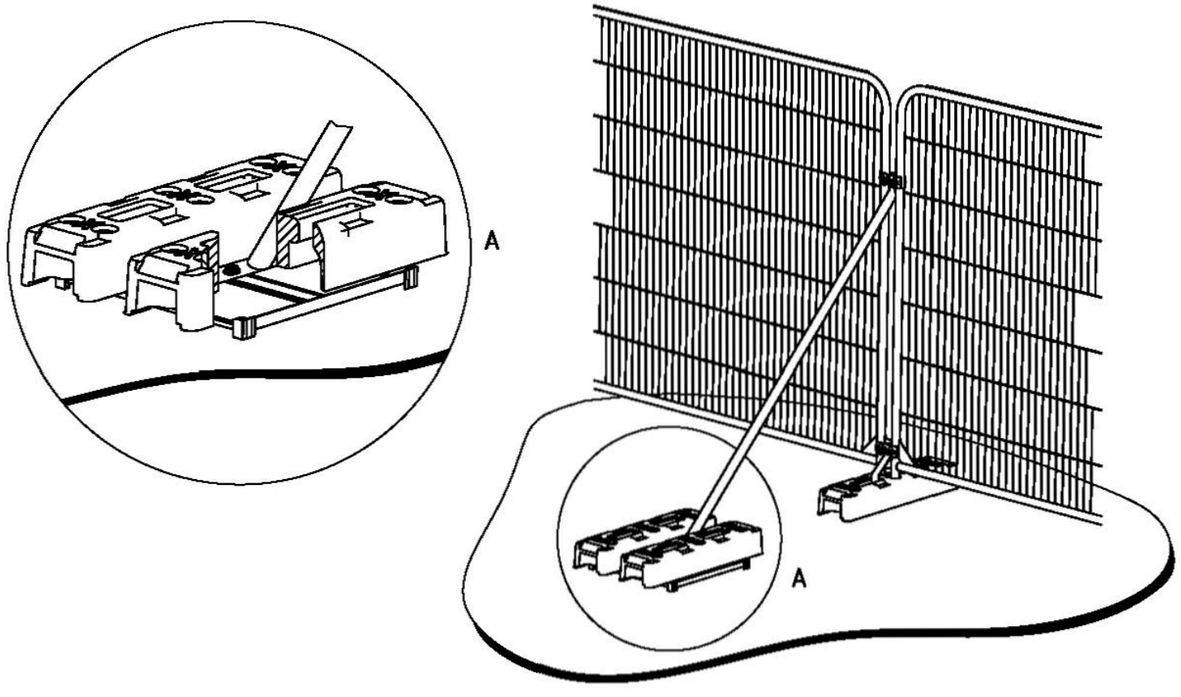
Do not scale from this drawing. All dimensions to be checked on site.

GOODGER design associates
Tel:01753 859904

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

Note: Option a) will be appropriate for this site depending on ground conditions

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. 464/01 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 at 5 metre intervals 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 accompanying arboricultural report for further details and recommendations.

Tree Protection Area

KEEP OUT

Do **not** move this fence

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECT 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

Typical Sign to indicate construction exclusion zone behind tree protection fence must be fixed to fence.

Rev.	Modifications	By	Date

Purpose of issue & file reference: For Planning Information			
PROJECT TITLE: 55 High Street, Hampton, Middlesex TW12 2SX			
DRAWING TITLE: Proposed Tree Root and Canopy Protection Fence to BS5837(2012)			
Client: Justine and Nick Blanchard		Drawing Number: 464/02	
Drawn by: TG	Checked by: TG	Scale: Not applicable	Date: 18/12/2024