Arboricultural Report and Tree Condition Survey for

Proposed Replacement Garage

at

55 Christchurch Avenue,

Sheen,

SW14 7AQ

Prepared for Urban Infill

RUSKINS
TREE CONSULTANCY

A trading name of RG Consultancy Ltd

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Our Ref: 0224-10889
Revised May 2024

Contents

1.0 Introduction

1.1 Acting on instructions received from Urban Infill the property was visited on 28th of February 2023 to undertake a Tree Condition Survey (See Appendix 1). Following preparation of an Arboricultural Report and Tree Survey prepared to inform works to the main house which was recently granted consent 23/3257/HOT. We have now been asked to provide the arboricultural information to support the application for the demolition of the existing garage and construction of a replacement garage. We have been provided with a copy of the plans showing the proposed works and this arboricultural report and updated tree survey has been prepared to provide comment on the arboricultural impact of the proposed works.

1.2 Within this report we will comment on the arboricultural impact of the proposed works on the existing tree resource and any make recommendations for the measures necessary to ensure the protection and long-term retention of the retained trees.

1.3 The tree numbers used in this report refer to the tree numbers used in our Tree Condition Survey.

2.0 Site Description and Description of Proposed Works

2.1 The existing property and proposed works are described in detail elsewhere in this application.

2.2 The property is a sub-divided now semi-detached dwelling, the house is located to the northern boundary of the gardens. The gardens of this property extend to the front and southern flank side of the property. The front highway boundary is formed by a fence and privet hedge with ornamental trees and shrubs along the inside of this boundary.

2.3 The gardens contain a large mature cedar tree T10 which is remote from the proposed works. The southern flank boundary is marked by yew trees T12, T14, a holly T15 and purple leafed plum T16. There is a garage to the south-western corner of the garden. The rear eastern boundary consists of a conifer hedge with a heavily reduced and declining Robinia T17. See Appendix 1 for details

2.4 The property has a pedestrian entrance to the house to the northern end of the front highway boundary and has a vehicle entrance to the detached garage locate to the southern end side of the same boundary.

3.0 Statutory Protection

3.1 The property is located in the Christchurch Road Conservation Area. Due to the Conservation Area status all the trees with a stem diameter in excess of 75mm are subject to protection under the Conservation Area legislation.

3.2 Notwithstanding specific exemptions, in general terms a Conservation Area (CA) prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without submitting 6 weeks prior notification to the local planning authority.

3.3 If on receipt of the treeworks notification the LPA wish to stop works from proceeding then a Tree Preservation Order (TPO) must be served, if 6 weeks pass from the date of submission of the CA tree works notification then providing a TPO has not been served the treeworks can be undertaken (subject to agreement if required from the tree owners). The Conservation Area status does not preclude the presence of Tree Preservation Orders which may also serve to protect the trees.

3.4 The granting of full planning permission that included approved drawings which clearly identifies the tree removals necessary to implement the approved works over-rides the Conservation Area protection. So once planning permission is obtained and all conditions are discharged the trees identified for removal within the planning submission can be felled.

3.5 No tree removals should be undertaken prior to determination of the planning application without re-checking the presence of any statutory protection of the vegetation at this property and if required following the CA notification or TPO Tree Works consent application process.

3.6 Prior to any treeworks or vegetation clearance being undertaken the possible presence of nesting birds or protected species needs to be considered and if necessary specific ecological advice should be sought. Nesting birds and protected species (including bats and their roosts) are protected from disturbance under the Wildlife and Countryside Act 2017 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010.

3.7 Where possible vegetation clearance should be scheduled to be undertaken outside the bird nesting season. The 'Bird Nesting Season' is from March until August (Natural England) and it is recommended that vegetation works (tree or hedge cutting) or site clearance should be done outside of the nesting season. When tree or vegetation clearance work has to be undertaken during the nesting season, a pre-treeworks survey needs to be carried out to check for nesting birds by a competent person.

4.0 Arboricultural Background Information

4.1 Trees provide numerous benefits including visual amenity, bio-diversity value and providing shade and shelter. In urban areas trees are often growing in sub-optimum conditions and under pressure from a number of factors which may impact on their health, longevity and or result in management works.

4.2 The two main possibilities for damage to trees in urban areas and also during and following the construction process are from direct and indirect damage.

- Direct Damage: can be defined as injury resulting from physical contact including contact with machinery or fire, and excavation of the root area.
- Indirect Damage: can be defined as injury resulting from activities that take place near the tree such as level changes, compaction of the soil, or contamination by chemical spillage in proximity to the root plate.

4.3 The risk of damage to the above ground parts of the tree can be addressed through use of physical barriers, restricting working areas and control of the activities near trees. The risk of damage and protection of the largely unseen rooting environment and root system of trees is more difficult to address. For all trees but particularly those growing in urban areas, root growth is not predictable. Tree roots are opportunistic they grow most prolifically in areas where conditions are favourable and will be deflected by natural features and man-made structures, when hostile conditions are encountered root growth will be limited. If growing conditions are uniform this would result in relatively even circular root system.

4.4 Roots grow within the spaces in the soil and when they encounter stones or rocks, or foundations they are deflected, where conditions are hostile roots may stop growing or continue growing more slowly than in better conditions only dividing and proliferating if conditions encountered improve. It is generally agreed that the majority of tree roots, even for a mature tree are found in the top 90cm of the soil and these roots are vulnerable to sudden changes in the rooting environment. These roots absorb the moisture and nutrients needed for growth and contrary to popular belief mature trees in the UK do not have a deep taproot that obtains moisture from great depth.

4.5 An ideal soil for tree root growth is about 50% pore space (in urban areas this is often significantly reduced), these pores, the spaces between soil particles, are filled with water and air. Construction activity can compact the soil and can dramatically reduce the amount of pore space. This not only inhibits root growth and penetration but also decreases oxygen levels within the soil and reduces the available soil moisture that is essential to the growth and function of the existing roots.

4.6 For retained trees it is essential that the structurally important roots will remain undisturbed, these important larger roots radiate outwards from the trunk, they are characterised by being relatively few in number and tapering rapidly from the base of the tree. Even for mature trees they are only 2-3m in length, at this length they are likely to be 2-5cm in diameter and they have lost their rigidity and physical strength. (See Tree Root Systems AAIS 1995).

4.7 To assist with the retention and protection of trees during the planning and construction process the British Standards Institute publish BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. This document gives clear and current best practice recommendations and guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees with structures. Where development is proposed, the standard provides guidance on how to assess the value and quality of trees and to decide which trees are appropriate for retention.

4.8 The BS Categories referred to in this report are described in detail in Appendix 1. In summary the quality of the trees resource is assessed, and the trees are divided into 4 categories based a number of factors including their condition, remaining life-expectancy, landscape, arboricultural and cultural/conservation value, see below.

Category U: Those in such a poor condition that they cannot realistically be retained
Category A: Trees of high quality
Category B: Trees of moderate quality
Category C Trees of low quality

4.9 The BS5837 (2012) also provides information on the protection of trees during the development process. It includes a calculator for Root Protection Areas (RPA) which aims to ensure a sufficient volume of soil and proportion of the root system is protected to maintain the health and vigour and ensure the longevity of the trees.

4.10 The Root Protection Area is not related to the canopy spread of the tree; in simple terms it is an area calculated as a multiple of the trunk diameter. For trees with a trunk diameter in excess of 1250mm the Root Protection Area is capped at a total area of 707m^2. See Attached Tree Survey Plan in Appendix 1 for further details.

4.11 Damage to trees (including their root systems) may impact on their health, stability and or vitality. Damage may result in the partial or complete structural failure of the tree and increases the risk of personal injury. It is therefore essential that if development is permitted this report is read by all parties and the guidelines are followed by the site agent and all contractors, particularly those undertaking groundworks on site.

4.12 Appropriate tree protection measures and appropriately specified, supervised and implemented works can significantly reduce the risk of damage to the retained trees.

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4.14 Appropriate tree protection measures and appropriately specified, supervised and implemented works can significantly reduce the risk of damage to the retained trees.

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5.0 Arboricultural Considerations

5.1 The trees to be removed to allow for the proposed demolition of the existing garage and construction of the replacement garage are identified within the Tree condition survey and shown on the Tree Removals Plan. For ease of reference the vegetation to be removed as shown below on Table 1.

Tree No.	Species	Proposed Works	BS Cat
T6	Yew	Remove to allow for proposed works	B1
T7	Purple leafed-plum	Remove to allow for proposed works	C1
T8	Lawson cypress	Remove to allow for proposed works	C1
T9	Holly	Remove to allow for proposed works	C1

5.2 The trees to be removed are one yew tree T6 BS5837 (2012) Category 'B' (Moderate Quality and 3 ornamental tree T7, T8 and T9 BS5837 (2012) Category 'C' BS5837 (low quality). See Appendix 1 for Tree Condition Survey and Photographs of the vegetation.

5.3 Whilst T6 is categorised as a BS5837 Category 'B' tree, it has a relatively sparse canopy and with regard to its location set back from the boundary its' contribution to the quality of the tree resource within the Conservation Area is considered to be limited.

5.4 The principle of removing trees to allow for an appropriate development is supported in all relevant planning policies, planning guidance and in BS5837 (2012) which states that:

> *5.1.1 The constraints imposed by trees, both above and below ground (see Note to 5.2.1) should inform the site layout design, although it is recognized that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification.*

5.5 I do not consider that any of the trees to be removed are of '*such importance or sensitivity'* to be major constraints on the proposed works or justify its substantial modification'.

5.6 With regard to the condition and location of the vegetation to be removed, and the location of the retained vegetation and the proposed new planting Arbutus, Cornus, Crataegus, Magnolia, and Prunus as outlined in the Replacement Trees Report prepared by the Gardening Club it is our opinion that the proposed removals will not have a significant impact on the character and appearance of the wider Conservation Area.

5.7 The new trees will be planted in suitably specified and prepared planting pits with sufficient soil volume to ensure their long-term future and appropriate maintenance to ensure the trees become successfully established. The proposed new planting gives the opportunity to help mitigate the impact of the proposed tree removals.

5.8 The new planting will have a significant benefit as the majority of the trees on-site are part of the original tree planting associated with the construction of this property. The proposed new tree planting will serve to significant increase the tree species and age-class diversity within this site. This planting also gives the opportunity to secure the long-term future and amenity value of the tree resource within the gardens of this property.

5.9 Providing the proposed demolition and construction works are undertaken following the guidance as outlined in Section 6 of this report, and are supervised by an Arboricultural Clerks of Works, then it is my opinion that the retained trees can be successfully protected during the proposed works.

5.10 To prevent the proposed works impacting on the health, stability or longevity of the retained vegetation the main requirement is the installation of tree protection fencing and temporary ground protection to access the garden. These measures will prevent direct and indirect damage to the vegetation and prevent damage to a sufficient proportion of their rooting environment.

5.11 In Section 6 of this report we have outlined the Tree Protection Measures. Subject to planning, the tree protection measures, can be addressed in detail and secured by use of a standard planning condition.

6.0 Tree Protection Measures

6.1 Subject to planning permission being granted and a contractor being appointed all works on-site will be subject to detailed review and all tree protection measures, detailed specifications and construction methodologies will be reviewed and incorporated with a detailed Arboricultural Method Statement to ensure that the impact on the root system and rooting environment of retained trees is kept to a minimum.

6.2 The tree protection measures will include the erection of suitable barriers and the installation of temporary ground protection

6.3 The main points of note regarding the tree protection measures during the site works are listed below:

- **An Arboricultural Clerk of Works (ACoW) will be appointed to help ensure that the retained trees are considered during the preparation of all external works drawings and are successfully protected during the works.**
- ***Prior to any works commencing on site a meeting will be held with the contractors to discuss the Tree Protection Measures associated with this project.***
- ***Trees identified for removal as per the approved drawings will be clearly marked with spray paint.***
- **Any Trees works including clearance, removal or facilitation pruning will be undertaken by a suitably qualified and insured Arboricultural Contractor.**
- **The Tree Protection Fencing and Temporary ground protection will be installed prior to enabling, demolition, ground works or construction works commencing and will remain in situ during the construction programme.**
- **Prior to any Enabling / Demolition / Construction works commencing the Tree Protection Measures will be inspected by the ACoW.**
- **The Tree Protection / Site Logistics Plan will be on display in the site agent's office.**
- **All works (including Landscaping works) within the fenced-off Tree Protection / Construction Exclusion Zone and as identified on the Tree Protection Plan will be specified to avoid excavation, level changes and damage to the root system of the retained trees. The specifications and construction methodologies for all these works will be reviewed by the ACoW prior to works commencing.**
- **The removal or movement of the Tree Protection Fencing and Temporary ground protection will only be undertaken following discussion with, and receipt of written confirmation from the ACoW.**

6.4 Arboricultural Site Supervision

6.5 To ensure that the construction process is undertaken with minimal disturbance to the retained tree stock, an Arboricultural Clerk of Works (ACoW) will be appointed to undertake regular inspections of the site.

6.6 The Arboricultural Clerk of Works role shall be to:

a. To assess the specification and methodology of the proposed works and ensure these works have the minimum impact on the retained trees.
b. Brief the workers on the necessity to protect the retained trees.
c. To ensure the agreed methodology is followed by direct on-site supervision.
d. To prune roots using clean sharp pruning tools during manual excavation (if necessary).
e. To provide direction on tree protection issues as they arise.
f. To monitor and photograph the works undertaken.

6.7 Prior to site works commencing a site meeting will be held with the site agent and the arboricultural clerk of works and the demolition and ground works contractors. The purpose of this meeting is to brief the site manager and relevant parties on the arboricultural issues to be considered, agree the programme of works and confirm the location tree protection fencing.

6.8 Arboricultural monitoring site visits will be undertaken at regular intervals during the construction process. A mix of scheduled and unannounced site visits will be undertaken, these inspections will serve to identify any damage to the Tree Protection Fencing, poor working practices, potential problems and points of conflict that may impact on the health of the trees. During these visits any proposed works in proximity to trees will be discussed, their impact assessed and recommendations for best practice will be outlined. After each of these visits a copy of the report should be sent to the Local Authority Tree Officer and Client. The remedial action undertaken will be recorded on the next visit.

6.9 To deal with any site questions or issues relating to trees, the Arboricultural Clerk of Works will provide a contact number that will be answered during all the hours of works on site. The Tree Officer will be informed in writing of any issues involving trees.

6.10 Tree Protection Measures

6.11 To prevent the proposals impacting on the health, stability or longevity of the retained trees the main requirement is the installation of suitable Tree Protection Fencing, to protect the above ground part of the trees and Temporary Ground Protection to prevent compaction of the underlying subsoil in some parts of the site. In addition to these measures the retention of the existing hardstanding or installation of temporary ground protection will be required to prevent compaction of the underlying subsoil during demolition and construction works within the Root Protection Areas of retained trees.

6.12 The Tree Protection Fencing and Temporary Ground Protection will be installed as per the Tree Protection Plan See Appendix 1. The proposed fencing specification can be found in Appendix 1.

6.13 Tree protection fencing must be erected prior to any enabling works, demolition, or ground-works commencing, and remain in place throughout construction. The fencing should only be removed only after completion of the construction works.

6.14 Within the fenced off Tree Protection Area;

- No excavation by any means.
- No level changes + or -
- No storage of plant or materials.
- No storage or handling of any chemicals including cement washings.
- No Pedestrian, Machinery or Vehicular Access.
- Underground service routes will be located outside the Fenced off area.

6.15 Clear notices are to be fixed to the outside of the fencing with words such as 'TREE PROTECTION AREA – NO ACCESS OR WORKING WITHIN THIS AREA'. See Appendix 1.

6.16 For the areas of Temporary Ground Protection suitable sheet material or 'No-Dig' hardstanding will be installed prior to works commencing and the detailed site-specific specification for the Temporary Ground Protection will be prepared based on site investigations, soil characteristics and expected traffic prior to works commencing on this site, this specification will be reviewed and approved by the Arboricultural Clerk of Works.

6.17 The site manager, all contractors and other relevant personnel are to be informed of the role of the Tree Protection Fencing and Temporary Ground Protection measures and their importance. A copy of the Tree Protection Plan will be displayed on site at all times during construction.

6.18 Prior to any works commencing on site the Tree Protection Fencing will be erected. Any plant or machinery or site operatives engaged in the works will operate outside the fenced off Tree Protection Areas.

6.19 The location of the site office, welfare facilities, storage area are outside the Root Protection Area (RPA).

6.20 The foundations of the proposed replacement glazed structure to the front of the property will be designed to limit excavation within the Root Protection Area of the Phillyrea T2. T2 will be subject to protection by Tree Protection Fencing and Temporary Ground Protection. During the proposed works T2 will also be subject to mulching and watering during periods of prolonged dry weather to improve its growing conditions

6.21 We have not been provided with any information relating to the proposed drainage or underground services. Ideally the existing services and drainage will be utilised. Prior to works commencing on site the underground services and drainage drawing will be reviewed by the ACoW. If underground services are located within the Root Protection Area of retained trees the works the works will follow the guidelines outlined in NJUG Volume 4 Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2. This guidance recommends works are undertaken following these rules; (with our additional comments in italics).

- **Don't** excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques. (*Preferably using an air-spade to excavate soil to determine the size, location and density of roots within the service route).*
- **Don't** cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer. (or ACoW)
- **Don't** move / use heavy mechanical plant except on hard standing.
- **Don't** store spoil or building material, including chemicals and fuels, within this zone.
- **Do** prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.
- **Do** backfill the trench with an inert granular material and top soil mix. Compact the backfill with care around the retained roots. On non-highway sites backfill only with excavated soil.
- **Do** protect any exposed roots with dry sacking ensuring this is removed before backfilling.
- **Do** notify the local authority tree officer and the tree's owner of any damage.

6.22 Dismantling the tree protection fencing and removal of the ground protection will be required to allow completion of landscaping works. The removal of the tree protection fencing and removal of the ground protection is not an opportunity for machinery to access the previously protected areas. The landscaping works will be subject to a detailed landscaping methodology which will be reviewed by the ACoW prior to any landscaping works commencing on-site.

6.23 During the Landscaping Works no further excavation will be carried out during this process soils levels will not be raised above that existing by greater than 100mm and not at all within 2m of the trunk of retained trees.

- Landscaping within the RPA of retained trees shall be by manual methods only.
- No machinery is to be used for cultivation, removal of soil or additional of soil.
- For laying of turf, the soil will not be rotavated. The soil will be lightly forked, manually hoed and raked to a fine tilthe prior to laying of turf.
- For shrubs or herbaceous beds. Planting shall be by use of hand tools and excavation shall be to the minimum extent required for planting of shrubs etc., on an individual plant by plant basis.
- Bark mulch may be applied to a maximum 75mm depth. No mulch should be piled up against the trunk of retained or newly planted trees.

7.0 Conclusion

7.1 The impact of the proposed removals on the tree resource within the wider area is considered to be limited and can be mitigated by new tree planting. Details on the new planting is outlined in the Replacement Trees Report prepared by the Gardening Club be secured by use of a standard landscaping condition. This condition can also be used to ensure that the new planting establishes successfully, if the trees are over 75mm stem diameter will be protected by virtue of the Conservation Area.

7.4 Provided the site works are undertaken following our guidelines and advice as outlined in this report, it is our opinion that the proposed works can be undertaken without adversely impacting on the root systems, health and long-term future of the retained trees and vegetation.

7.5 The protection of retained trees on this site during the proposed development works can be achieved by following the guidelines outlined in this report and by the preparation of a detailed site-specific Arboricultural Method Statement (AMS) that will be prepared prior to any works commencing on site. The AMS needs to include information on the detailed works methodology which will only be available once a contractor is appointed for the works.

764 The Arboricultural Method Statement will include details of the following:

- All tree protection measures
- Provision of Arboricultural Site Supervision during proposed works
- All temporary works (Site Facilities)
- All works within the Root Protection Areas of the retained trees

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07/05/2024

Appendix 1

Tree Condition Survey

Tree Survey Plan

Photographs

Tree Removals Plan

Tree Protection Plan

Tree Protection Information

Tree Protection Fencing Specification

Tree Protection Fencing Notice

Tree Condition Survey for 55 Christchurch Avenue, Sheen, SW14 7AQ

Prepared for Urban Infill

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TREE CONSULTANCY

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Our Ref: 0223-10824 Rev1
February 2024 Revised March 2024

Tree Condition Survey for 55 Christchurch Avenue, Sheen, SW14 7AQ

1.0 Introduction

This survey has been undertaken following instructions received from Urban Infill, we have been asked to assess the condition of trees located within and close to the boundary of the site. The site was visited in February 2024 and an assessment of the trees and hedgerows was made in accordance with BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations'.

Following preparation of the tree condition survey, we have been provided with a copy of the layout plan for the proposed works. This survey has been updated to reflect the removals necessary to allow for these works.

2.0 Survey Methodology

We have surveyed all the individual trees and groups of trees located within and close to the boundary of the site. The objective of the survey is to collect tree data relevant to the proposed redevelopment of the site and to categorise individual trees or tree groups in accordance with BS 5837 (2012) 'Trees in relation to design, demolition and construction – Recommendations' based on their condition, quality and future potential.

The purpose of the categories within BS5837 2012, is not to determine whether retention of trees is desirable, '*The purpose of the tree categorization method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring*.' (BS5837 2012 Section 4.5.2). This survey should therefore be regarded as an initial appraisal and observations, assessments or recommendations relating to tree protection zones, remedial tree works, protective fencing, foundation design, material specification are beyond the scope of this report.

The location of the trees/ tree groups is shown on the attached drawing. A detailed inspection with respect to decay, defects and hazard is not included.

3.0 Statutory Protection

3.1 The property is located in the Christchurch Road Con*servation* Area. Due to the Conservation Area status all the trees with a stem diameter in excess of 75mm are subject to protection under the Conservation Area legislation. Notwithstanding specific exemptions in general terms, a Conservation Area (CA) prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without submitting 6 weeks prior notification to the local planning authority.

3.2 If on receipt of the treeworks notification the LPA wish to stop works from proceeding then a Tree Preservation Order (TPO) must be served, if 6 weeks pass from submission of the CA tree works notification then providing a TPO has not been served the treeworks can be undertaken subject to agreement from the tree owners. The Conservation Area status does not preclude the presence of Tree Preservation Orders which may also serve to protect the trees.

TABLE 1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (m)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER YC	Description	Proposed Works	BS Cat
T1	Horse chestnut	13	650	1	6	5	4	6	M	P	A/P	0-9	A mature tree growing close to the front highway boundary, to the northern side of the entrance to the property. The trunk of this tree has been reduced to 4m. This large wound is likely to have extensive decay. This tree has a small canopy formed by relatively juvenile growth. There is a metal pipe in the trunk of this tree presumably installed to drain water from the cavity. This tree is considered to have a limited remaining safe useful life-expectancy.	Remove due to poor condition and replace with suitable tree in the final landscaping scheme. Works approved under planning consent 23/3257/HOT	C1
T2	Phillyrea latifolia	8	350, 200, 180	1	4	5	6	5	M	A	A	40+	A mature, evergreen, ornamental, multi-stemmed tree growing to the southern side of the main entrance to the property of the site. This tree has a limited potential for further growth and long remaining life-expectancy.	No Works	B1
T3	Holm Oak	7	180	1	3	3	3	3	SM	A	A	40+	A semi-mature tree growing close to the Christchurch Road boundary. This tree has the potential for further growth and long remaining life-expectancy.	No Works	C1
T4	Holly	4	150	m/s	1.5	2	2	2	M	A	A	20-39	A semi-mature tree growing close to the Christchurch Road boundary. This tree has the potential for further growth and long remaining life-expectancy.	No Works	C1
T5	Holly	11	360	1	5	3	3	3	M	A	A	40+	A mature, suppressed tree with a sparse canopy growing close to the canopy of the cedar T10 corner of the site.	No Works	C1
T6	Yew	10	340, 200	2	5	5	3	4	EM	A	A	40+	An early-mature tree growing close to the Christchurch Road boundary. This tree has a limited potential for further growth and long remaining life-expectancy.	Remove to allow for proposed demolition of existing garage and construction of replacement garage	B1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (m)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER YC	Description	Proposed Works	BS Cat
T7	Purple leafed-plum	10	250, 250	2	5	5	5	6	M	A	A	10-19	A mature twin-stemmed tree growing close to the flank of the detached garage. This tree has a limited remaining safe useful life-expectancy.	Remove to allow for proposed demolition of existing garage and construction of replacement garage	C1
T8	Lawson cypress	8	300	m/s	2	2	2	2	M	A	A	40+	A small mature slow-growing ornamental conifer growing to the southern side of the driveway to the detached garage.	Remove to allow for proposed demolition of existing garage and construction of replacement garage	C1
T9	Holly	7	200, 100, 100, 100, 100, 100	6	3	3	2	2	EM	A	A	40+	An early-mature multi-stemmed tree growing to the rear of the detached garage.	Remove to allow for proposed demolition of existing garage and construction of replacement garage	C1
T10	Cedar	18	780	1	7	8	8	8	M	A	A	40+	A large mature tree growing to the front of the garden. This tree is in reasonable health, with some limited deadwood and a small, damaged hanging branch which should be removed. This tree has a limited potential for further growth and a long remaining life-expectancy.	No Works	A1
T11	Magnolia	2	140	m/s	1	1	1	0	SM	A	A	40+	A small ornamental tree growing within the lawn area	No Works	C1
T12	Yew	11	400	1	5	5	5	5	EM	A	A	40+	A early-mature evergreen tree growing to the southern boundary of the garden. This tree has the potential for further growth and long remaining life-expectancy.	No Works	C3
T13	Holm Oak	9	250	1	2	5	4	4	SM	A	A	40+	A semi-mature evergreen tree growing to the southern boundary of the garden.. This tree has the potential for further growth and long remaining life-expectancy.	No Works	C3
T14	Yew	9	500	1	6	3	5	4	EM	A	A	40+	A early-mature evergreen tree growing to the southern boundary of the garden.. This tree has been managed by regular reduction. It has the potential for further growth and long remaining life-expectancy.	No Works	C2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (m)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER YC	Description	Proposed Works	BS Cat
T15	Holly	9	260	1	4	3	3	4	EM	A	A	40+	A early-mature evergreen tree growing to the southern boundary of the garden. This tree has the potential for further growth and long remaining life-expectancy.	No Works	C3
T16	Purple leafed-plum	8	520	3	3	5	4	5	M	A	A	10-19	A mature, multi-stemmed tree growing close to the southern boundary of the garden. This tree has a limited remaining safe useful life-expectancy.	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (m)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER YC	Description	Proposed Works	BS Cat
T17	Robinia	13	1100	1	5	6	5	6	OM	P	P	0-9	A mature tree growing close to the eastern boundary of the garden. This tree has been heavily reduced, some of the reduced limbs have subsequently died-off. The trunk of this tree has hollowed out with significant decay. The structural integrity of the trunk is severely compromised and despite the reduction works undertaken the trunk is still at risk of failure.	Remove due to poor condition. Replace with suitable tree in the final landscaping scheme. Works approved under planning consent 23/3257/HOT	U
G1	Western Red Cedar	6	275	1	1	1	1	1	SM	A	A	40+	A row of three conifers which have been managed to form a short section of hedge to the northern side of T17	Remove to allow for proposed works. Undertake suitable planting to the rear boundary in the final landscaping scheme. Works approved under planning consent 23/3257/HOT	C3
G2	Western Red Cedar	4	200	m/s	1	1	1	1	SM	A	A	40+	A row of conifers which have been managed to form a short section of hedge to the southern side of T17	Remove to allow for proposed works. Undertake suitable planting to the rear boundary in the final landscaping scheme. Works approved under planning consent 23/3257/HOT	C3
H1	Privet hedge	3	100	m/s	1	1	1	1	EM	A	A	40+	A manage privet hedge to the Christchurch Road boundary. This hedge overhangs the footpath by circa 40cm at around 1.8m above ground and should be cut back to remove this overhang.	No Works	C3

Table 2 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate			Stem Colour 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.			**Red**
	Trees to be considered for retention			
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
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 See Table 2 of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	**Green**
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	**Blue**
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	**Grey**

From BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations

KEY

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (m)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER YC	Description	Proposed Works	BS Cat

Tree No. Tree number identified on copy of Tree Survey Drawing

Species: Common/English name

Hgt (m) Height of tree (measured to nearest whole metre)

Dia @ 1.5m (mm) Diameter of stem/trunk measured at 1.5 metres above ground level (or immediately above the root flare for multi-stemmed trees).

No. of stems Number of stems

CS (m) Crown Spread Maximum branch extent measured at the four compass points

Age Class

Y	Young
SM	Semi-mature
EM	Early mature
M	Mature
OM	Over Mature
V	Veteran

Form

G-Good
A-Average
P-Poor
Dead

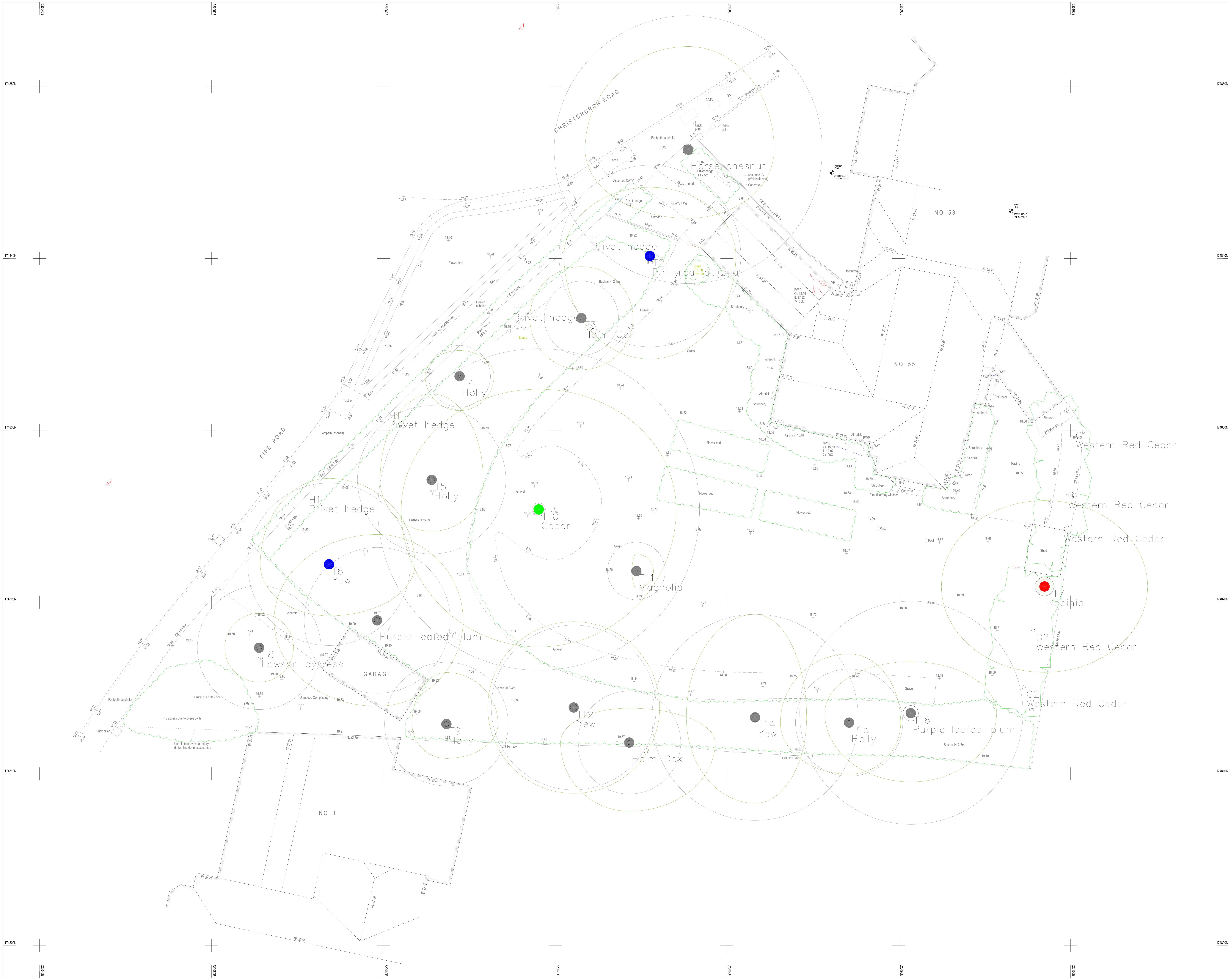
Condition

G-Good
A-Average
P-Poor
Dead

ERCY: Estimated Remaining Contribution in Years

BS Category See Table 1 Cascade chart for tree quality assessment
From BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations

Tree Survey Plan



Orientation

North

Rev No.	Revision Note	Date	Signed

1 5 10

Tree Survey Key

Extent of Tree Canopy
Theoretical Root Protection Area (BS5837)
BS5837 Category (See Below)
Tree Survey Number- BS 5837 Category

G8
Norway spruce

BS 5837 Category

(See Tree Survey for further details)

Category U — Red Stem Disc
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.

Category A — Green Stem Disc
Those of high quality and value: -
in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

Category B — Blue Stem Disc
Those of moderate quality and value: -
those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)

Category C — Grey Stem Disc
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 150 mm.

55 Christchurch Avenue,
Sheen,
SW14 7AQ

Tree Survey Plan
for
Urban Infill

Ruskins Tree Consultancy
01277 849990 info@ruskins-tree-consultancy.co.uk
www.ruskins-tree-consultancy.co.uk

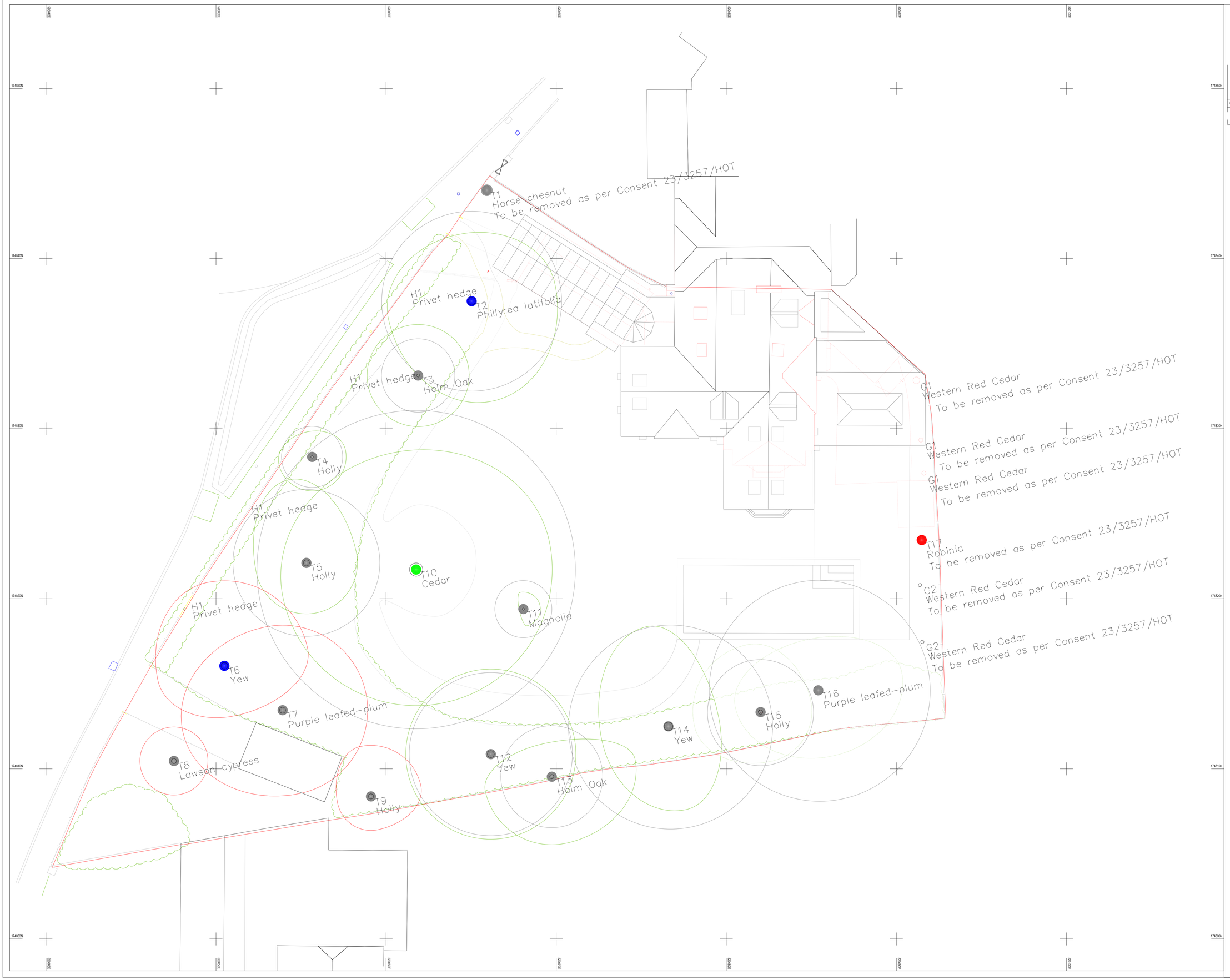
Scale	1 :100 @ A1	Drawn by	PW
Date	01/03/2023	Checked by	JFG
Project No.	0223-10824		
Dwg. No.	TSP-01		

Photographs

Photograph 1 28/02/2023
View from the highway towards the front boundary of the property showing the detached garage.

Photograph 2 28/02/2023
View from the flank garden looking towards the flank and front boundary.
Showing the plum T16 to the LHS of the photograph

Tree Removals Plan



Orientation

North

Rev No.	Revision Note	Date	Signed

1 5 10

Tree Removals Plan Key

G8 Norway spruce — Tree to be retained

G8 Norway spruce — Tree to be removed

Conifers to be removed

Tree Survey Key

G8 Norway spruce
- Extent of Tree Canopy
- Theoretical Root Protection Area (BS5837)
- BS5837 Category (See Below)
- Tree Survey Number- BS 5837 Category

BS 5837 Category

(See Tree Survey for further details)

Category U Red Stem Disc
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those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)

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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 150 mm.

55 Christchurch Avenue,
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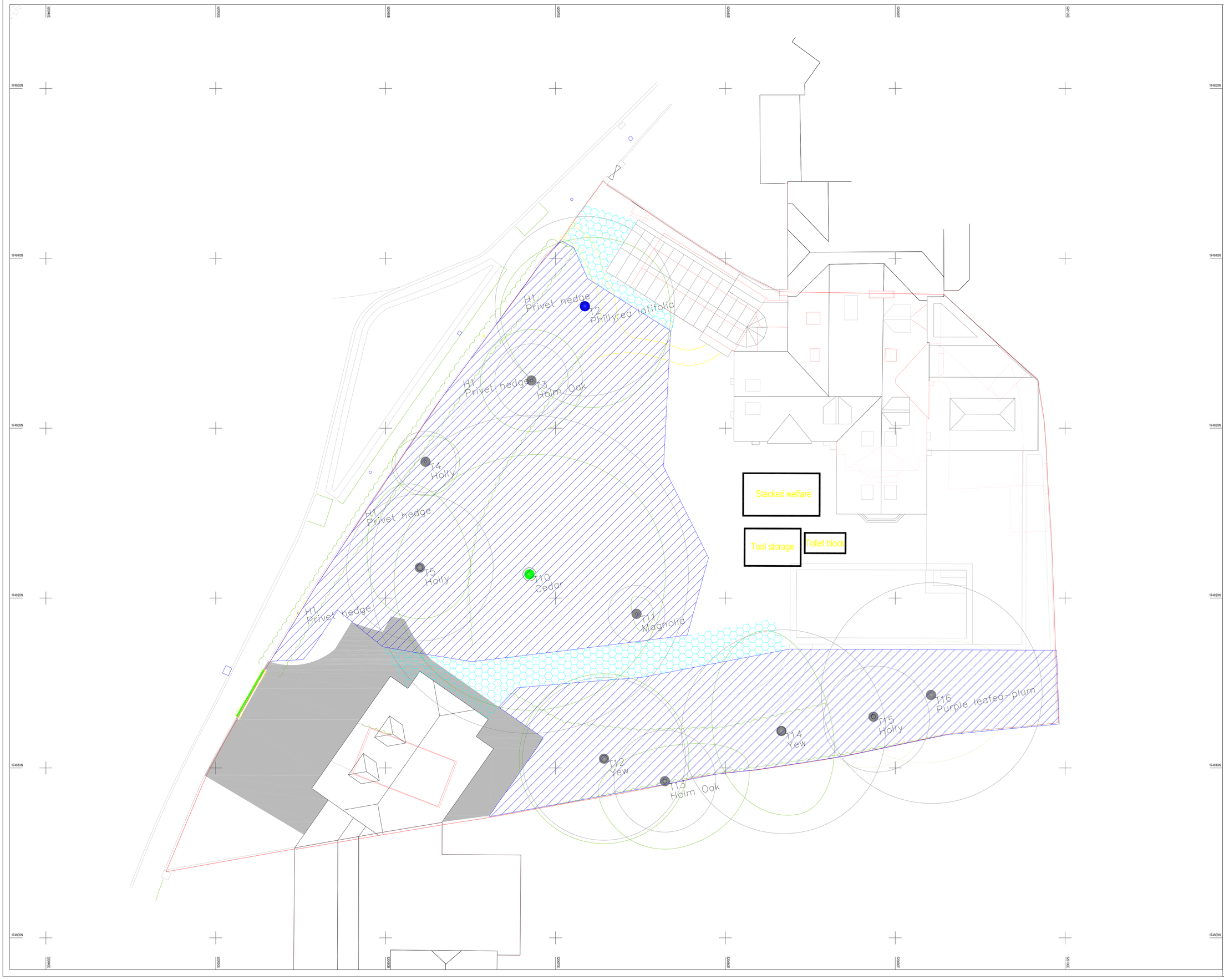
Proposed Garage Works
Tree Removals Plan
for
Urban Infill

Ruskins Tree Consultancy
01277 849990 info@ruskins-tree-consultancy.co.uk
www.ruskins-tree-consultancy.co.uk

Scale	1 :100 @ A1	Drawn by	PW
Date	07/05/2024	Checked by	JFG
Project No.	0223-10824		
Dwg. No.	TRP-01 Rev3		



Orientation

North

Rev No.	Revision Note	Date	Signed

1 5 10

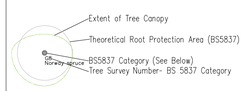
Tree Protection Plan Key

Tree Protection Zone / Construction Exclusion Zone
Fence-off this area prior to any works commencing on site, no access during enabling, demolition works, all works within these areas to follow guidelines as outlined in the Arboricultural Report.

Existing garage, to be demolished to allow for construction of the replacement garage.

Temporary No-Dig Ground Protection using cellular confinment system 'Geoweb' or similar to avoid excavation and prevent compaction. All works within this area to follow guidelines as outlined in the Arboricultural Report. Installation of hardstanding in these areas to be supervised by the Arboricultural Clerk of Works (ACoW).

Tree Survey Key



55 Christchurch Avenue,
Sheen,
SW14 7AQ

Proposed Garage Works
Tree Protection Plan
for
Urban Infill

Ruskins Tree Consultancy
01277 849990 info@ruskins-tree-consultancy.co.uk
www.ruskins-tree-consultancy.co.uk

Scale	1 :100 @ A1	Drawn by	PW
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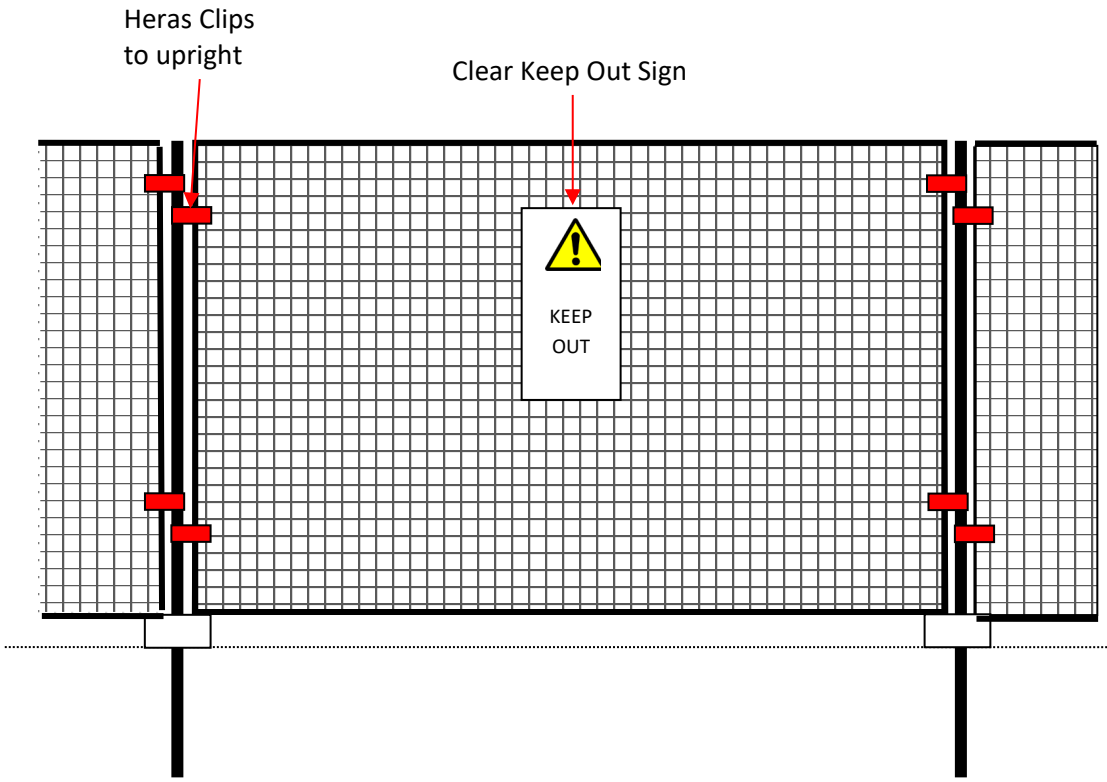
Project No.	0223-10824		
Dwg. No.	TPP-01 Rev3		

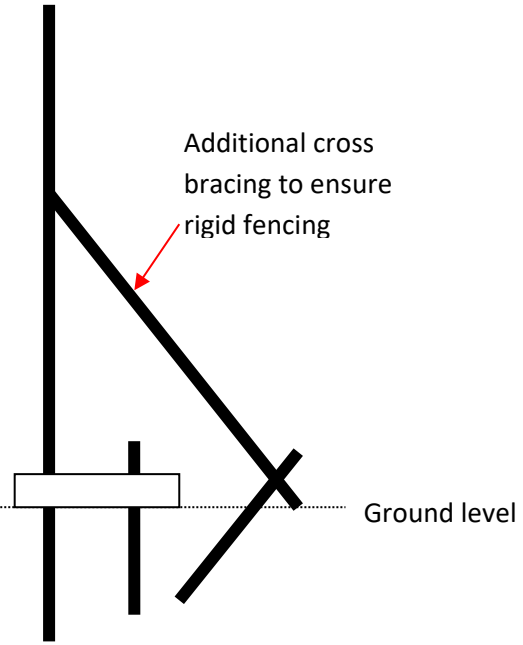
Tree Protection Plan

Tree Protection Fencing Specification

Elevation



Section



Tree Protection Fencing should be erected as per the Tree Protection Plan

With the fencing erected prior to any demolition or enabling works commencing or materials being delivered to site.

If concrete or rubber feet are used these must be pinned to the ground to prevent movement.

TREE PROTECTION AREA

PLEASE KEEP OUT

The trees in this area are protected by Statutory Protection and / or Planning Conditions. Any works in this fenced off area may result in damage to the above ground parts or root system of these trees.

Damage to these trees is a criminal offence and breach of the planning consent and may lead to a criminal prosecution. and / or enforcement action.

Any works in this area must be undertaken as per the Arboricultural Report.

Please contact info@ruskins-tree-consultancy.co.uk **for further information.**