

# BS 5837: 2012 Arboricultural Survey & Impact Assessment

|               |                                             |                            |                                |
|---------------|---------------------------------------------|----------------------------|--------------------------------|
| Site Address: | 10 Shepley Road<br>Huddersfield<br>HD4 6XW  | Client:                    | Kathy Mansaf                   |
| Report Ref:   | SRH01-24                                    | Report Date &<br>Revision: | 14th March 2024<br>Revision: 1 |
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## Terms of Reference

Key Tree Solutions has been commissioned by Kathy Mansaf, to undertake an arboricultural survey following the British Standard BS 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' (BS5837). This report has been conducted in support of a planning application to demolish the existing building and develop two new detached dwellings in its place. The proposed development layout is shown in the Arboricultural Impacts Plan (AIP) under Appendix: D which indicates the proposal's impact on the existing site trees.

The arboricultural survey was carried out by Laurence Smith, BSc (Hons) Arb, M Arbor A, an Arboricultural Consultant. Laurence has a degree in Arboriculture and a BTEC National Diploma in Forestry and Arboriculture. He is a professional member of the Arboricultural Association with over a decade of experience within the arboricultural industry, initially as an arborist and for the last seven years as a consultant.

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## Summary

The interactive map on the Kirklees Council's website visited on the 15th of March 2024, shows that the site is not located within a CA However the mature Sycamore (T3) has a TPO designation.

The works proposal is to demolish the existing building and re-develop the site with two new detached dwellings.

The development proposal would require the removal of two shrub groups totalling four woody shrubs alongside the removal of one hedge element and one semi-mature tree. In addition, an incursion of 19m<sup>2</sup> is foreseeable within the RPA of the protected Sycamore tree (T3) for the new driveway. This equates to <10% of the total RPA.

The loss of the woody shrubs ground is considered negligible and no recommendation has been given to mitigate against their loss. The loss of the semi-mature tree should be mitigated by planting two new trees within the development proposal.

The hedge feature should be replaced post construction ideally with native or naturalised species. Planting with feathered whips over 1m in height, this feature could be re-instated within five years.

Where the proposed development impacts over the RPA of T2 'no dig' principles should be utilised building up from the existing height without the need for excavation into the soil. The wearing course should be water-permeable with the edges formed using an above-ground peg and board system.

|                                                             |    |
|-------------------------------------------------------------|----|
| Terms of Reference                                          | 2  |
| Summary                                                     | 2  |
| 1 Introduction                                              | 4  |
| 1.1 Arboricultural Report                                   | 4  |
| 1.2 Proposed Works                                          | 4  |
| 1.3 Scope of Works                                          | 4  |
| 2. Methodology                                              | 4  |
| 2.1 General                                                 | 4  |
| 2.2 Spatial Scope                                           | 5  |
| 2.3 Data Gathering                                          | 5  |
| 2.4 Survey                                                  | 6  |
| 2.5 Limitations to Survey                                   | 6  |
| 3. Existing Site Conditions                                 | 7  |
| 3.1 Existing Land Use                                       | 7  |
| 3.2 Existing Trees                                          | 7  |
| 3.3 Site Topography                                         | 7  |
| 3.4 Soil Assessment                                         | 7  |
| 3.5 Statutory Protection                                    | 7  |
| 4. Arboricultural Impact Assessment                         | 8  |
| 4.1 General                                                 | 8  |
| 4.2 Root Protection Areas                                   | 8  |
| 4.3 Utilities and services                                  | 9  |
| 4.4 Scheme Details                                          | 9  |
| 4.5 Arboricultural Impacts and Mitigation                   | 9  |
| 4.6 Preliminary Management Recommendations                  | 10 |
| 4.7 Mitigation Measures                                     | 10 |
| 4.8 Protection For Retained Trees                           | 11 |
| Appendix A: Key & British Standard BS5837:2012 Survey Table | 12 |
| A1. Survey Key                                              | 12 |
| A2. BS5837: 2012 Cascade Chart                              | 13 |
| Appendix B: Arboricultural Survey Data                      | 14 |
| Appendix C: Statutory Protection                            | 15 |
| Appendix D: Site Drawings                                   | 16 |
| Appendix E: Images                                          | 19 |

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# 1 Introduction

## *1.1 Arboricultural Report*

This report comprises an arboricultural survey and an Arboricultural Impact Assessment (AIA). It categorises and reports on the trees within and adjacent to the site boundary along with providing details of the development proposal and how this will impact the arboricultural elements. These impacts have been shown in the Arboricultural Impacts Plan included in Appendix D, which acts as a visual aid for the proposal.

## *1.2 Proposed Works*

The works proposal is to demolish the existing building and re-develop the site with two new detached dwellings.

The proposal's layout has been overlaid with the arboricultural constraints plan to determine the impacts of the works on the existing tree stock.

## *1.3 Scope of Works*

This report presents arboricultural information captured on the 7th of March 2024 by Laurence Smith BSc (Hons) Arb, M Arbor A. The scope of work includes:

- Survey of arboricultural elements potentially impacted by the scheme.
- A map showing any statutory protection which may affect the site.
- Constraints plan to show the location and quality of existing features.
- An Arboricultural Impact Assessment (AIA).
- An Arboricultural Impact Plan (AIP).

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# 2. Methodology

## *2.1 General*

This tree survey has been undertaken and compiled in line with BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations (BS5837). This document contains guidance and recommendations on the relationship between trees and the design, demolition, and construction processes, providing an overview of the principles and procedures to ensure a harmonious and lasting relationship between trees and structures.

BS5837:2012 does not provide explicit parameters for measuring an arboricultural resource's sensitivity, nor does it assess the impact of a proposed development on trees (other than listing the number of trees that would have to be removed or pruned for the undertaking). By using the parameters specified in the British Standard, Arboriculturalists can determine the quality of all trees and other arboricultural features that may be affected by a development.

While the BS categories may be interpreted differently, the cascade chart in BS5837:2012 guides defining a tree's qualities so that the design process can determine how to retain the higher-quality trees.

## *2.2 Spatial Scope*

In some instances, trees may be located outside the site boundary but still have the potential to impact any development, for example, overhanging branches and root protection areas. In these instances, they have been included in the survey. However, some data is likely to have been estimated so as not to trespass. Trees on access routes are not part of this survey unless specifically requested.

## *2.3 Data Gathering*

Data has been collected following BS 5837, as outlined in Appendix A within this report. The tree categorisation method applied by the arboriculturist is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions about which trees should be removed or retained if development occurs.

For a tree to qualify under any given category, it should fall within the scope of that category's definition as defined in Appendix A (categories U, A, B, C) and, for trees in categories A to C, it should qualify under one or more of the three sub-categories (1, 2, 3). Sub-categories 1, 2 and 3 are intended to reflect the arboricultural, landscape and cultural values, respectively.

Trees were recorded as individual specimens and groups. Where trees were recorded as groups, measurements were typically taken from the largest tree within the group. This survey level meets the requirements of BS 5837:2012, which states that "trees growing as groups or woodland should be identified and assessed as such". The British Standard defines the term group as "trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally including for biodiversity (e.g. parkland or wood pasture)".

In all reasonable circumstances, tree diameters were measured via a specialist measuring tape at 1.5m from ground level. Where access was not possible, measurements have been estimated and indicated with an asterisk (\*) on the arboricultural data sheets. The crown spread of the surveyed trees was measured in each of the four cardinal points using a laser distometer or paced out if access was not feasible. This survey level is deemed sufficient by the arboriculturist to establish the extent of the crown spread. All crown spread measurements should be taken from the arboricultural data sheet (Appendix B of this report).

The trees were assessed using the Visual Tree Assessment (VTA) methodology devised by Mattheck and Breloer (1994). VTA is a ground-level visual assessment of a tree, carried out to identify obvious mechanical defects, signs of ill health, potential mechanical failure and the suitability of a tree to a site.

## *2.4 Survey*

The approach to the survey involved a ground-level walk assessment with tree and vegetation locations plotted over the topographical data provided by D & J A Rutledge. No checking of this document was undertaken, and any comments are given on the assumption that this supplied document is correct.

Trees which were not included in the topographic data but had the potential to impact any development have been indicated with an 'X' over the stem on the constraints plan and AIP. These locations have been estimated via a handheld GPS device and aerial photography. Given this lack of topographical data, Key Tree Solutions can not be held responsible for any inaccuracies in asset location.

Survey elements have been prefixed with a descriptive letter which can include Trees (T), Groups (G), Shrub Groups (SG), Woodlands (W) and Hedges (H).

## *2.5 Limitations to Survey*

Where access was permitted, trees were identified and inspected from ground level only and were not climbed. No invasive examination techniques (such as increment boring or internal decay detection) were carried out. As such, no assessment of the internal condition of the wood of these trees can be given.

The tree survey is not intended to be a risk management survey targeting safety-related issues. However, where specific hazards have been identified, these have been recorded, and management recommendations provided and are detailed within the tree survey schedule (see Appendix B of this report).

BS 5837:2012 does not include arguments for or against the development or the removal or retention of trees. Where development is to occur, the standard guides how to decide which trees are most appropriate for retention.

The reliability of the tree locations relates directly to the accuracy of the supplied topographical data, if applicable, available aerial imagery and in-field plotting. As such, tree locations are potentially open to discrepancies, and their exact locations may need verifying.

The report does not comment on the possible effects of trees on neighbouring properties, including in relation to subsidence or heave or with regard to potential hazards presented by trees surveyed.

Trees are living organisms which constantly adapt to their surroundings and are often subject to changes outside human control including harsh or unexpected weather conditions including heavy storms. Changes to groundwater or damage to underground structures may also impact tree health and safety. As such the findings within this report are only valid for twelve months.

While this report aims to highlight any potential issues it cannot guarantee against pest and disease attacks or weather-related failures.

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## 3. Existing Site Conditions

### *3.1 Existing Land Use*

The site is residential with a single dwelling located in the northwestern corner of the plot. The remainder of the site is given over to the garden and landscaping.

### *3.2 Existing Trees*

There are multiple examples of woody vegetation within the site, however, these are predominantly woody shrubs or small ornamental trees. The exception is the mature Sycamore tree (T3) located in the northeastern corner. Other vegetation of note is the two hedgerow features H4 and H8 alongside two minor trees from the neighbouring property located close to the boundary fencing.

### *3.3 Site Topography*

The site has a fall in height from northwest to southeast, with the land falling away beyond the house walls.

### *3.4 Soil Assessment*

No soil assessment was carried out on site by the Arboriculturist. However, baseline data from the British Geological Survey states that the area's underlying bedrock is considered to be comprised of Grenoside Sandstone.

Further information collected from the Cranfield Soil and Agrifood Institute shows that the site is considered to have "Freely draining slightly acid loamy soils with a loamy texture".

Where clay-based soils are present, the ground may be susceptible to volumetric changes resulting from the uptake and release of moisture by tree roots, which may influence any potential foundation development.

### *3.5 Statutory Protection*

Local Planning Authorities (LPAs) have the power to preserve selected trees and woodlands by making Tree Preservation Orders (TPOs). Similarly, special provision is provided to trees located within a Conservation Area (CA) which are not the subject of a TPO. The LPA's powers to do this are provided by the following Act of Parliament and its associated regulations:

- Town and Country Planning Act 1990
- Town and Country Planning (Determination of Appeals by Appointed Persons) (Prescribed Classes) (Amendment) (England) Regulations 2008
- Town and Country Planning (Trees) (Amendment) (England) Regulations 2012

The principal effect of a TPO is to prohibit the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without first obtaining the consent of the relevant local authority. Where works to trees within a CA are proposed, the relevant LPA must first give six

weeks' notification. Unauthorised works on trees protected by a TPO or those within a CA could result in an unlimited fine.

The interactive map on the Kirklees Council's website visited on the 15th of March 2024, shows that the site is not located within a CA. However, the mature Sycamore (T3) has a TPO designation. The results from this search are shown in Appendix C.

Trees should be checked for protected species before work is undertaken where tree works are necessary. While it is outside of the scope of this tree survey to comment on the actual or likely presence of protected animal species, it is against the law to disturb bats or their roosts under the Conservation of Habitat and Species Regulations (2010). Likewise, nesting birds are protected by the Wildlife and Countryside Act (1981) (as amended) and Badgers by the Protection of Badgers Act (1992). If protected species are discovered, works should cease immediately, and Natural England should be contacted for advice.

Alongside these animal protections, landscape features may also be protected under the following acts and regulations.

- The Hedgerow Regulations 1997
- Countryside and Rights of Way Act 2000
- Natural Environment and Rural Communities Act 2006 & Environment (Wales) Act 2016

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## 4. Arboricultural Impact Assessment

### 4.1 General

This report considers the trees adjacent to the proposed works and assesses their condition and suitability for retention. The report is supplemented by the AIP (Appendix D of this report), which presents in graphic form the trees recorded as part of the survey, their specific reference numbers and any impact the proposed development will have upon them.

The arboricultural data sheets within Appendix B of this report cover all the trees recorded as part of this assessment in line with the *BS 5837:2012* guidance.

### 4.2 Root Protection Areas

The Root Protection Area (RPA), as defined in *BS 5837:2012*, is the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability and where the protection of the roots and soil structure is treated as a priority. This area should be protected from disturbance "in order to avoid unacceptable damage to the tree as a result of severance or asphyxiation of the root system".

The recommended minimum area (m<sup>2</sup>) to avoid potentially harmful disturbance has been calculated and entered into the tree schedule (see Appendix B of this report) for all trees. The RPA for each tree has been illustrated on the site plans as a pink dashed circle centred on the tree's stem.

### 4.3 Utilities and services

No information has currently been made available regarding the locations of drainage and underground utility runs.

Any new subsurface utilities should be directed away from or around existing RPAs.

### 4.4 Scheme Details

The proposed works are illustrated on the AIP and are as described in Section 1.3.

### 4.5 Arboricultural Impacts and Mitigation

The proposal's impacts are listed in Table 1, along with recommendations for mitigation.

Table 1.

| Group / Tree No. | Age & Species                                                | Cat. | Removal due to: |       | Mitigation required for |     | Details of how proposed build layout affects trees and recommendations for mitigation.                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------|--------------------------------------------------------------|------|-----------------|-------|-------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                                                              |      | Cons.           | Cond. | Canopy                  | RPA |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| SG2              | Young Laurel & Holly ( <i>Prunus &amp; Ilex</i> )            | C2   | ✓               |       |                         |     | Shrub group with limited landscape value.<br><br>Mitigate with new shrubs in the landscaping.                                                                                                                                                                                                                                                                                                                                                                             |
| T3               | Mature Sycamore ( <i>Acer pseudoplatanus</i> )               | A1   |                 |       |                         | ✓   | Foreseeable incursion over the southern aspect of the RPA. Calculated as 19m <sup>2</sup> or 9% of the total RPA. Development also requires a change in levels.<br><br>Mitigate by developing driveway using no dig principles. Utilising this methodology will naturally increase the levels to prevent the use building up via soil.<br><br>Entirety of the RPA should be protected until the development of the driveway to prevent damages during the building phase. |
| SG3              | Common Box ( <i>Buxus sempervirens</i> )                     | C2   | ✓               |       |                         |     | Shrub group with limited landscape value.<br><br>Mitigate with new shrubs in the landscaping.                                                                                                                                                                                                                                                                                                                                                                             |
| H4               | Semi Mature Leyland Cypress ( <i>Cupressus × leylandii</i> ) | B2   | ✓               |       |                         |     | Retention of the hedge is not considered feasible due to the lack of access around the proposal and the need to install scaffolding.<br><br>Mitigate by re-instating a new hedge feature post construction. This should ideally be comprised of native or naturalised species such as Beech, Holly, Hornbeam, Yew etc.                                                                                                                                                    |

| Group / Tree No.                                                                                                                                                                                                                                                                                                                  | Age & Species                                                               | Cat. | Removal due to: |       | Mitigation required for |     | Details of how proposed build layout affects trees and recommendations for mitigation.                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------|-----------------|-------|-------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                   |                                                                             |      | Cons.           | Cond. | Canopy                  | RPA |                                                                                                                                |
| T5                                                                                                                                                                                                                                                                                                                                | Semi Mature Variegated Holly ( <i>Ilex aquifolium</i> 'Argentea Marginata') | C2   | ✓               |       |                         |     | Tree location is in conflict with the development proposal.<br><br>Mitigate with two new trees within the immediate landscape. |
| <p>Group / Tree No. - ID referenced within the arboricultural survey.<br/> Age &amp; Species - Age classification and common name for specimen.<br/> Cat - BS 5837 category rating.<br/> Removal due to - 'Cons' = Construction. 'Cond' = Condition.<br/> Mitigation required for - Canopy or for RPA (Root Protection Area).</p> |                                                                             |      |                 |       |                         |     |                                                                                                                                |

The impacts of the proposals have been quantified as accurately as possible, given the information available at this time.

The development proposal would require the removal of two shrub groups totalling four woody shrubs alongside the removal of one hedge element and one semi-mature tree. In addition, an incursion of 19m<sup>2</sup> is foreseeable within the RPA of the protected Sycamore tree (T3).

#### 4.6 Preliminary Management Recommendations

The arboricultural data sheets (see Appendix B) show management recommendations for those trees that were identified as requiring management intervention at the time of the survey.

As part of a duty of care, the property owner is responsible for ensuring the health, safety and management of all trees within the boundary. As such, monitoring should be an ongoing process with periodical inspections by a qualified arborist where applicable.

#### 4.7 Mitigation Measures

The loss of the woody shrubs ground is considered negligible and no recommendation has been given to mitigate against their loss.

The hedge feature should be replaced post construction ideally with native or naturalised species. Planting with feathered whips over 1m in height, this feature could be re-instated within five years. Unless a slower-growing species such as Yew are used.

The tree T5 is relatively young and of low landscape value. Despite this, the proposal must make no net loss of arboricultural elements. As such a recommendation for two mitigation trees has been recommended. Selected trees should be compact in form and be able to reach maturity without impacting the proposal. Such species could include Rowan, Magnolia, Cherry, Cornus, Hawthorn etc.

Where the proposed development impacts over the RPA of T2 'no dig' principles should be utilised building up from the existing height without the need for excavation into the soil. The wearing course should be water-permeable with the edges formed using an above-ground peg and board system.

Further details of the methodology for no dig construction should be included within an Arboricultural Method Statement (AMS)

#### *4.8 Protection For Retained Trees*

Trees that are to be retained will require protective measures during the development, typically involving temporary fencing around the RPA securely anchored to the ground. Where this is not possible or practicable, ground protection can be utilised, which is specific to the vehicle's weight.

Where development is to take place within the RPA 'no dig' methodology should be utilised to minimise the impact on the retained trees.

No material storage is permitted within the RPA of retained trees unless confirmed to be acceptable by the consulting arboriculturalist. The exact details and location of protective measures should be included within the AMS however, guidance has been given on the Tree Protection Plan.

Positioning of any site compound, including office, facilities, toilets and storage of materials, should be carefully considered and, where possible, be located away from trees and their associated RPAs.

## Appendix A: Key & British Standard BS5837:2012 Survey Table

### A1. Survey Key

| Column Heading                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID                                       | Each surveyed element has been given a unique reference number as shown on the survey drawings. Each number is prefixed with a letter to represent the element type. (T) Tree, (G) Group, (H) Hedge, (W) Woodland.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Age Class                                | The tree is described as Young, Semi Mature, Early Mature, Mature, Over Mature, Veteran or Dead.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Species                                  | The English common name has been used. In some instances the botanical name is also given in <i>italics</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Height (m)                               | An indication of the tree's height measured in metres.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Stem Diameter (mm)                       | The diameter of the tree stem when measured at 1.5 metres from ground level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Branch Spread (m)<br>N E S W             | The distance the live crown extends in each of the four cardinal directions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| First Main Branch Height (m) / Direction | Height given in meters that the first significant branch extends from the stem and the direction of which it points towards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Canopy Height (m)                        | Height given in metres of the lowest part of the canopy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Vitality                                 | <p>A quick reference guide to the trees overall health and condition. Given as Good, Fair, Poor or Dead</p> <p><b>Good</b> – a tree with little or no obvious physiological defects; leaf density and colour are typical for the species, bud, flower and fruit production are good and there are no signs of dieback at any point throughout the crown.</p> <p><b>Fair</b> – a tree with moderate physiological defects may have some or all of the following factors; leaf density is less than typical for the species, leaf cover is chlorotic, bud, flower or fruit production are deficient, there are signs of minor dieback within the crown, there is a moderate degree of deadwood within the crown.</p> <p><b>Poor</b> – a tree with major or multiple physiological defects; evidence of extensive crown thinning, bud, flower or fruit production is poor or missing, there are signs of advanced dieback throughout the crown, there is extensive or major deadwood throughout the crown.</p> <p><b>Dead</b> – a tree that has died due to either old age, drought, disease, pest infestation, physical damage to the main stem or rooting system, or a combination of these factors.</p> |
| General Observations                     | Narrative comment on the general condition including significant defects and overall appearance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Preliminary Management Recommendations   | Any works recommended in order to minimise risk, improve form or maintain a high value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Estimated Remaining Contribution         | An estimation of how long the feature will contribute to its surroundings in the current landscape context. Recorded in bands of either 10< years, 10> years, 20> years and 40> years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Category Grading                         | The trees are graded to the categories prescribed within BS5837:2012 (U, A, B & C). These letters are suffixed with a number which gives an indication of how the tree sits within the landscape. More information on these values is given in the cascade chart in A2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Root Protection Area Radius (m)          | The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

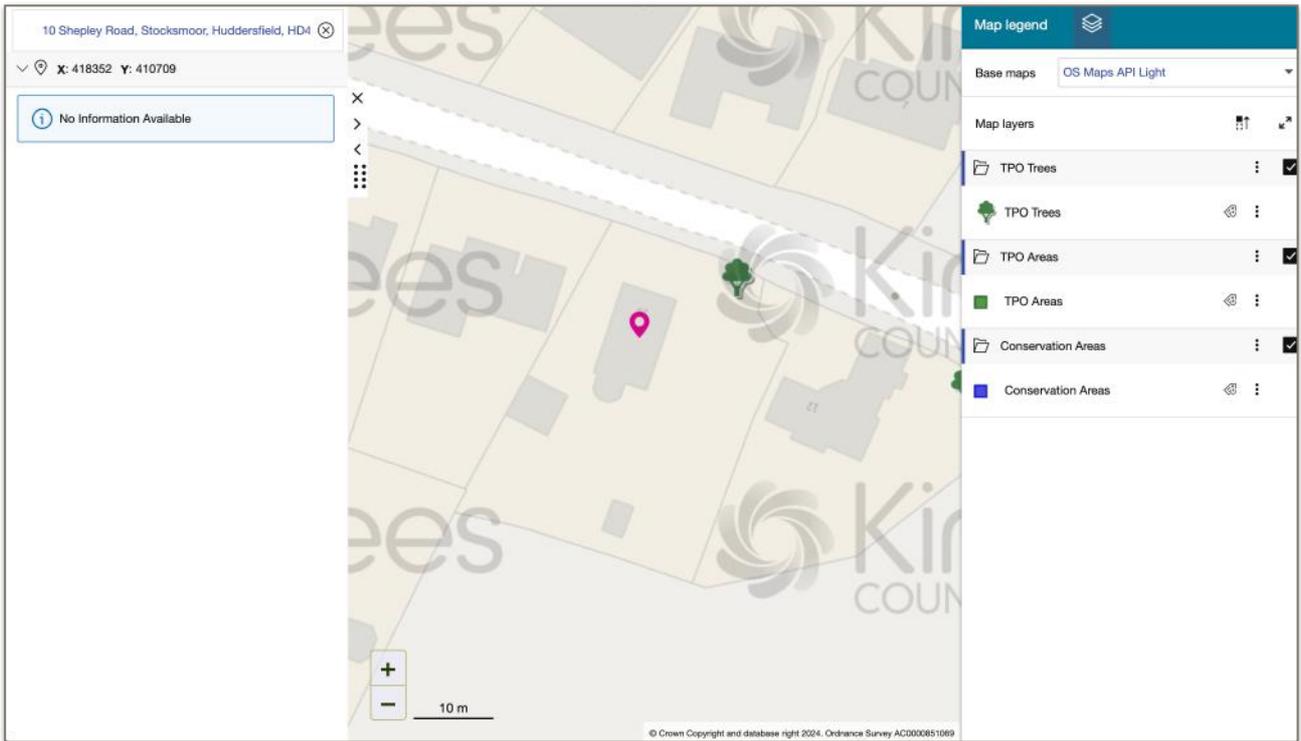
## A2. BS5837: 2012 Cascade Chart

| Trees to be considered for retention                                                                                                                                                  | (1) Mainly arboricultural qualities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (2) Mainly landscape qualities                                                                                                                                                                                                                                    | (3) Mainly cultural values, including conservation.                                                                                   | Identification on plan |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <p><b>Category A</b></p> <p><b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years</p>                                                         | 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) | <b>Light Green</b>     |
| <p><b>Category B</b></p> <p><b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years</p>                                                     | 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                                                                              | <b>Mid Blue</b>        |
| <p><b>Category C</b></p> <p><b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm</p>        | 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                                                                           | <b>Grey</b>            |
| <b>Trees unsuitable for retention</b>                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                        |
| <p><b>Category U</b></p> <p>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.</p> | <ul style="list-style-type: none"> <li>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).</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.</li> <li>Tree infected with pathogens of significant to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</li> </ul> <p><b>NOTE:</b> Category U trees can have existing or potential conservation value which it might be desirable to preserve.</p> |                                                                                                                                                                                                                                                                   |                                                                                                                                       | <b>Red</b>             |

Appendix B: Arboricultural Survey Data

| ID  | Age Class    | Species                                                         | Height (m) | Stem Diameter (mm) | Branch Spread (m) N E S W | First Main Branch Height (m) / Direction | Canopy Height (m) | Vitality | General Observations                                                                                                                                                                                    | Preliminary Management Recommendations                                          | Estimated Remaining Contribution | Category Grading | Root Protection Area Radius (m) |
|-----|--------------|-----------------------------------------------------------------|------------|--------------------|---------------------------|------------------------------------------|-------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------|------------------|---------------------------------|
| T1  | Early Mature | Rowan ( <i>Sorbus</i> sp.)                                      | 7.5        | 200*               | 2, 2, 2, 2                | 2 NW                                     | 2                 | Normal   | A tree located off site displaying reasonable form and vigour.                                                                                                                                          | None                                                                            | 10>                              | C1               | 2.4                             |
| SG2 | Young        | Laurel & Holly ( <i>Prunus</i> & <i>Ilex</i> )                  | 1.5/2      | <75                | 1, 1, 1, 1                | N/A                                      | Ground level      | Normal   | Two ball shaped woody shrubs in the front garden,                                                                                                                                                       | None                                                                            | 10>                              | C2               | 1                               |
| T3  | Mature       | Sycamore ( <i>Acer pseudoplatanus</i> )                         | 13.5       | 690                | 6.5, 7.5, 7.5, 6.5        | 1 E                                      | 2.5               | Fair     | A squat tree with reduced vigour, although health appears acceptable. No signs of dieback. Minor interior deadwood. Generally good structure with one large limb developing from close to ground level. | None                                                                            | 40>                              | A1               | 8.3                             |
| H4  | Semi Mature  | Leyland Cypress ( <i>Cupressus</i> x <i>leylandii</i> )         | 2.5        | 80                 | N/A                       | N/A                                      | Ground level      | Normal   | Managed boundary feature in good condition.                                                                                                                                                             | None                                                                            | 20>                              | B2               | 1                               |
| SG3 | Early Mature | Common Box ( <i>Buxus sempervirens</i> )                        | 1.5        | <75                | 0.5, 0.5, 0.5, 0.5        | N/A                                      | Ground Level      | Normal   | Two woody shrubs pruned to make ball shapes.                                                                                                                                                            | None                                                                            | 10>                              | C2               | 1                               |
| T5  | Semi Mature  | Variegated Holly ( <i>Ilex aquifolium</i> 'Argentea Marginata') | 2.5        | 150                | 1, 1, 1, 1                | N/A                                      | 1                 | Normal   | Tree pruned to form lollipop shape.                                                                                                                                                                     | None                                                                            | 10>                              | C2               | 1.8                             |
| T6  | Early Mature | Red Robin ( <i>Photinia</i> x <i>fraseri</i> 'Red Robin')       | 3.5        | 120                | 1.5, 2, 2, 2              | N/A                                      | 2                 | Normal   | A tall, woody shrub growing in the neighbouring garden, approximately 1 m back from the boundary fence.                                                                                                 | None                                                                            | 10>                              | C2               | 1.4                             |
| T7  | Early Mature | Variegated Holly ( <i>Ilex aquifolium</i> )                     | 4.5        | 270                | 2, 2, 2, 2                | N/A                                      | 1.5               | Normal   | The tree is forming a typical pyramidal shape. The stem is growing against the boundary fencing.                                                                                                        | None                                                                            | 10>                              | C2               | 3.2                             |
| H8  | Early Mature | Lawson's Cypress ( <i>Chamaecyparis lawsoniana</i> )            | 5.5        | 150 ave            | N/A                       | N/A                                      | Ground level      | Normal   | Unmanaged boundary feature which crosses to the southern aspect of both number 10 and number 12.                                                                                                        | Potential to reduce in height to allow more light to penetrate into the garden. | 10>                              | C2               | 1.8                             |

## Appendix C: Statutory Protection



Screenshot 1. A screenshot lifted from the interactive map on the Kirklees Council's website visited on the 15th of March 2024, showing that the site is not located within a conservation area. However, a tree in the north east of the site has a TPO designation.



**KEY - Arboricultural Survey and Constraints Plan**  
(to be read in conjunction with report ref. SRH01-24)

 Tree surveyed by Key Tree Solutions - location of tree centre from topographic survey

 Tree surveyed by Key Tree Solutions - tree location approximated by surveyor

Tree categories (BS 5837:2012)

 Category A Trees

 Category B Trees

 Category C Trees

 Category U Trees

 Root Protection Area (RPA)

Site Location

**10 Shepley Road  
Huddersfield  
HD4 6XW**

Key Tree Solutions  
Rohys Cottage,  
YO61 2QY  
Tel. 07716 638 613  
www.KeyTreeSolutions.co.uk

Job

**BS 5837: 2012 Arboricultural Survey**

Title

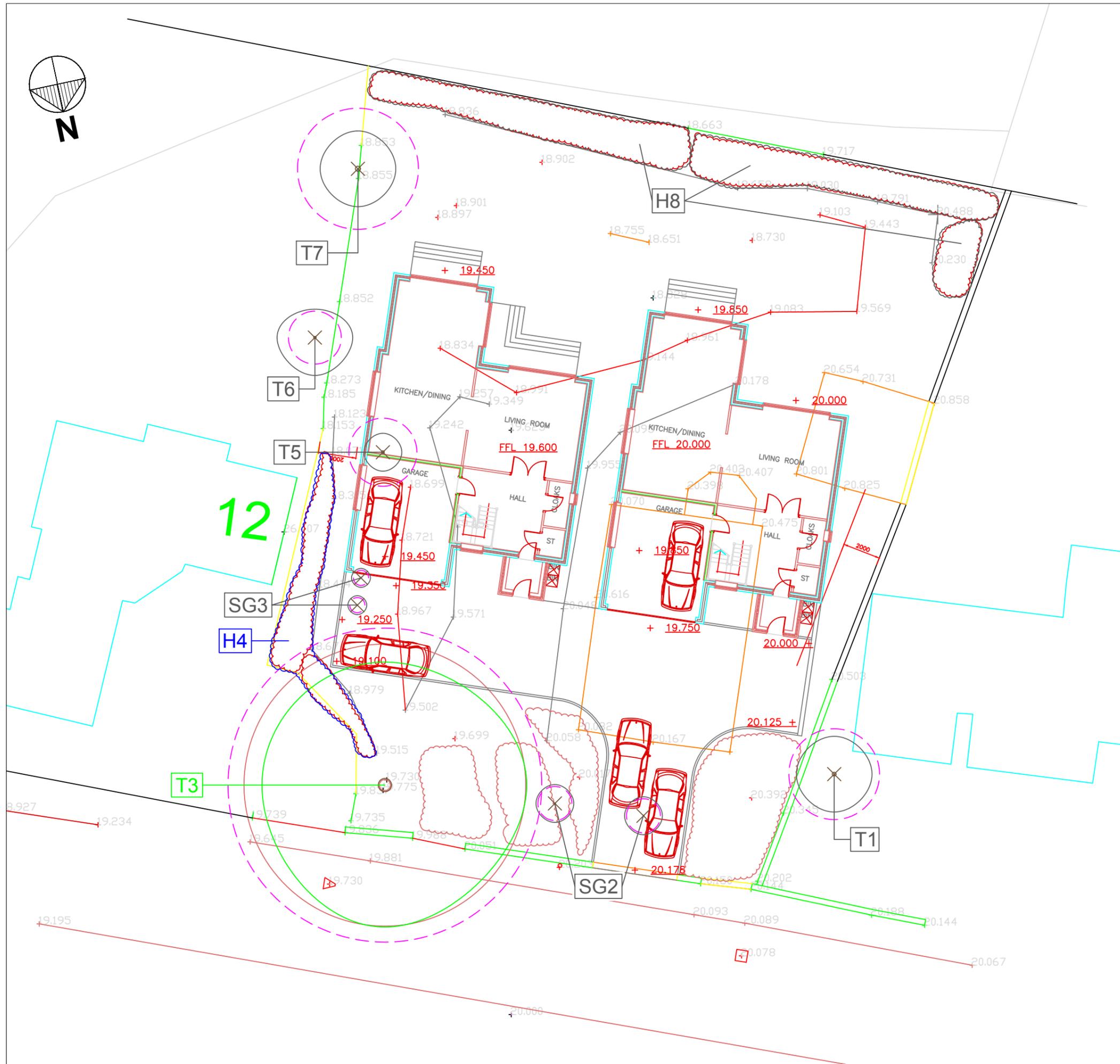
**Appendix D:  
Arboricultural Locations Plan**

Drawn by  
**L Smith**

Date  
**Mar 2023**

Scale @ A3  
**1:200**

Drg. no.  
**1/3**





**KEY - Arboricultural Survey and Constraints Plan**  
(to be read in conjunction with report ref. SRH01-24)

○ Tree surveyed by Key Tree Solutions - location of tree centre from topographic survey

⊗ Tree surveyed by Key Tree Solutions - tree location approximated by surveyor

Tree categories (BS 5837:2012)

○ Category A Trees

○ Category B Trees

○ Category C Trees

○ Category U Trees

--- Root Protection Area (RPA)

A foreseeable incursion of 19m<sup>2</sup>. This equates to 9% of the total RPA (215.4m<sup>2</sup>).

Site Location

**10 Shepley Road  
Huddersfield  
HD4 6XW**

Key Tree Solutions  
Rols Cottage,  
YO61 2QY  
Tel. 07716 638 613  
www.KeyTreeSolutions.co.uk

Job

**BS 5837: 2012 Arboricultural Survey**

Title

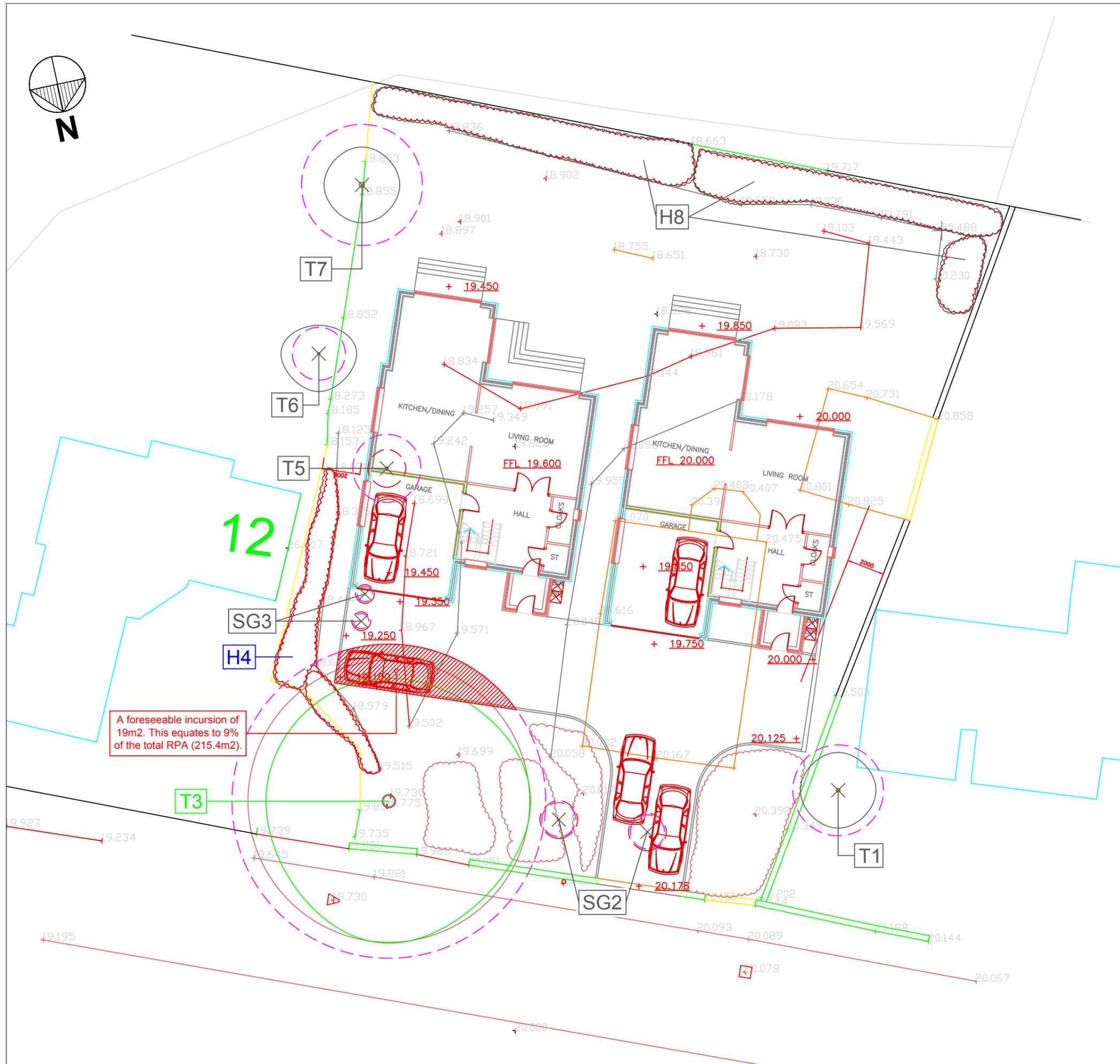
**Appendix D:  
Arboricultural Impacts Plan (AIP)**

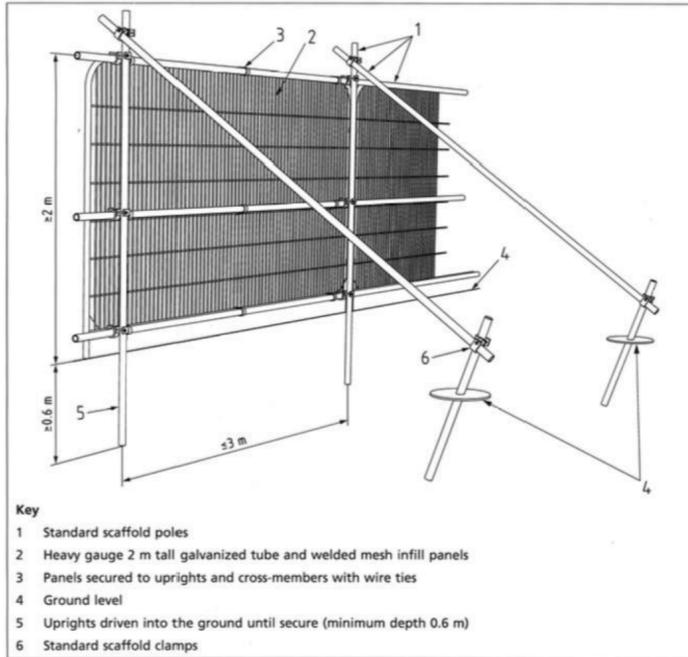
Drawn by  
**L Smith**

Date  
**Mar 2023**

Scale @ A3  
**1:200**

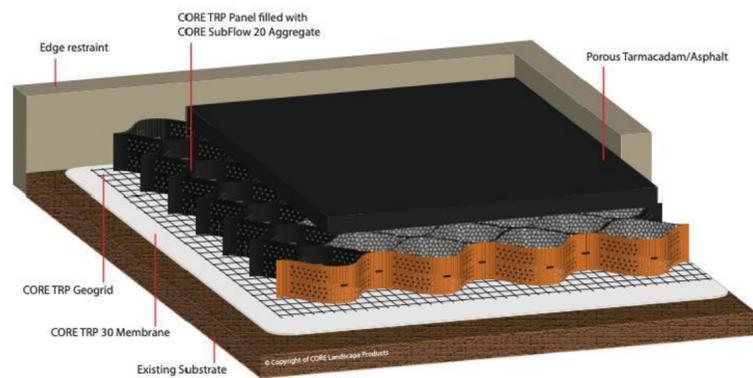
Drg. no.  
**2/3**





- Key**
- 1 Standard scaffold poles
  - 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
  - 3 Panels secured to uprights and cross-members with wire ties
  - 4 Ground level
  - 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
  - 6 Standard scaffold clamps

**Specification for tree protection fencing**

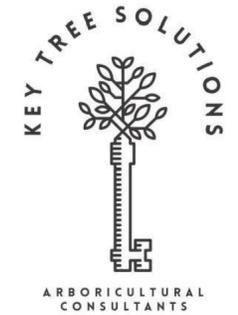


**Specification for no dig construction**



Minimum range of no dig construction within the RPA. This is considered feasible given the impact is <10% of the total RPA.

Potential new tree planting locations



**KEY- Arboricultural Survey and Constraints Plan**  
(to be read in conjunction with report ref. SRH01-24)

- Tree surveyed by Key Tree Solutions - location of tree centre from topographic survey
- Tree surveyed by Key Tree Solutions - tree location approximated by surveyor

**Tree categories (BS 5837:2012)**

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees
- Root Protection Area (RPA)
- Tree Protection Fencing
- Potential new tree planting locations
- No-dig construction

|                                                                      |                                                                                                       |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Site Location<br><b>10 Shepley Road<br/>Huddersfield<br/>HD4 6XW</b> | Key Tree Solutions<br>Roly's Cottage,<br>YO61 2QY<br>Tel. 07716 638 613<br>www.KeyTreeSolutions.co.uk |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|

|                                                   |
|---------------------------------------------------|
| Job<br><b>BS 5837: 2012 Arboricultural Survey</b> |
|---------------------------------------------------|

|                                                      |
|------------------------------------------------------|
| Title<br><b>Appendix D:<br/>Tree Protection Plan</b> |
|------------------------------------------------------|

|                            |                         |                            |                        |
|----------------------------|-------------------------|----------------------------|------------------------|
| Drawn by<br><b>L Smith</b> | Date<br><b>Mar 2023</b> | Scale @ A2<br><b>1:200</b> | Drw. no.<br><b>3/3</b> |
|----------------------------|-------------------------|----------------------------|------------------------|

Appendix E: Images



**Figure 1.** T1 located to the west of the proposed development site.



**Figure 2.** Shrub Group SG2 in the foreground with the mature Sycamore T3 in the background.



**Figure 3.** Hedge feature H4 with SG3 to the right of the image.



**Figure 4.** T5 with T6 and T7 behind.



**Figure 5.** H8 running along the southern boundary.