



BS5837 Tree Surveys - Mapping - Plans – Reports
Tree Opportunities & Constraints Plans
Arboricultural Impact Assessments
Tree Protection Plans
Arboricultural Method Statements
Tree Condition & Management Surveys
Woodland Management
AutoCAD Technicians

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Steeton, West Yorkshire

Site Location

Stonecroft, Wortley Village
Barnsley, S35 7DB

Task

British Standard 5837 *Trees in relation to design, demolition and construction* (2012)
Tree Survey & Arboricultural Impact Assessment

To Inform

Increase height of front and rear gable to allow for addition 1st floor accommodation, insert new window and door openings and enlargement of rear terrace area

For

CODA Studios Ltd

Report Date

30 July 2026

Surveyor/Document Author

Ross Cannon NDF, Tech Cert (Arbor A)

Glossary of Terms

Arboriculture

Cultivation/management of primarily urban individual or tree groups for landscape, amenity and green infrastructure, undertaken by an 'arborist'

BS5837

British Standard 5837 *Trees in relation to design, demolition and construction recommendations* – 2012 provides recommendation and guidance for arboriculturists, architects, builders, engineers and landscape architects regarding planning for the management, protection and planting of trees in the vicinity of structures

Tree Quality Categorization

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. Colour coded on plans red (Cat U - unsuitable for retention), green (Cat A - high quality), blue (Cat B - moderate) and grey (Cat C - low)

Stem

Principal above ground component(s)/trunk that supports branches and canopy

Root Protection Area (RPA)

Layout design tool indicating the minimum area around a retained tree deemed to contain sufficient roots and rooting volume (soil) to maintain trees viability and where protection of the roots and soil structure is treated as a priority. Calculated by stem diameter x 12 producing a radius measurement centred on the stem

Canopy

Above ground branches and leaves

Tree Constraints Plan (TCP)

Existing site showing tree locations, quality category, root protection areas, canopy spread, possibly canopy shade cast and tree data schedule

Arboricultural Impact Plan (AIP)

Proposed site plan (utilities in/out, buildings and landscaping) overlaid onto TCP highlighting impact of development through tree removal, pruning and planting

Tree Protection Plan/Arboricultural Method Statement

Plan showing location and type of tree protection measures to reduce impact of development to minimum and order of/methodology/supervision of works to/close to retained trees

Report Limitations

Trees/Arboricultural Features were inspected using the 'Visual Tree Inspection' methodology (Mattheck). No decay detection equipment was used. Methodology of survey is in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendation and is not a tree hazard, tree risk or subsidence/subsidence potential survey. Trees are living and dynamic structures subject to extreme weather, physical, chemical and biological changes that can quickly have an impact on a tree's condition and its growing environment. As such, even with robust tree inspections unforeseen changes, hidden defects and resulting structural failures can occur. All trees have a tolerance to the expected weather at a site they have grown in, but even then, healthy defect free trees can still fail

Tree condition comments/survey data only relate to the day the tree was inspected; this report is valid for one year from the date given on the front page under normal weather conditions and site conditions.

A re-appraisal is recommended after a significant weather event, such as but not limited to severe winds, extremes in temperature, floods and drought not normal for the area, an outbreak of a virulent pest or disease which the author cannot foresee, pruning or works recommended that are not undertaken to British Standard 3998:2010 or to the specification recommended in the report, if groundwork operations/level changes or use are/have been undertaken, that we are not aware of, within the vicinity of the trees that could alter their rooting environments, such as but not limited to underground utility work that doesn't meet the recommendations in NJUG 10 or British Standard 5837:2012 or their successors, significant change in on or off-site conditions, such as, but not limited to adjacent tree/building removal, ground/surface water alteration

Horizontal and vertical measurements were taken using laser rangefinder, estimated where limited access dictates

Maps and plans are for illustrative purposes only to inform site design and planning requirements. Any document or plan is for the instructing client only; any third-party relying on those does so entirely at their own risk

Plans, information & data received is presumed to be accurate, no responsibility will be taken for unknown inaccuracies provided/received

No soil assessment has been undertaken in relation to built structure, existing or proposed

Trees are just one part of the planning process. The conclusions of this document/plan are in the opinion of the tree surveyor/document author and are considered to be acceptable, but clients must be aware that the local planning authority may take an alternative view and can refuse permission

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Summary

A British Standard 5837 Trees in relation to design, demolition and construction survey was undertaken at Stonecroft, Wortley, S35 7DB

Five individual trees were recorded, all mature beech or sycamore of moderate retention quality

The proposal is to undertake alterations to the existing dwelling - *increase height of front and rear gable to allow for addition 1st floor accommodation, insert new window and door openings and enlargement of rear terrace area*

The proposed design has been undertaken with consideration to the existing/adjacent trees

- No trees need to be removed in order to enable the development
- No trees need to be pruned in order to enable the development, although pruning will be required in future decades, this would occur to the existing dwelling regardless of development
- A proposed decking area into the root protection areas of the recorded trees will be supported on ground screws. This very minimal ground alteration will have no detrimental impact on the root protection areas

It is considered the proposed development can be undertaken without detriment to the recorded trees

Two plans have been produced and can be found in Appendix 1

- Plan 1 of 2 – Tree Constraints Plan showing current site and trees
- Plan 2 of 2 – Arboricultural Impact Plan showing proposed site and trees

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1. Survey Background

1.1 Instruction

CODA Studios Ltd

1.2 Site Location

Stonecroft, Wortley, S35 7DB - see also TCP

1.3 Plans/Information Received

3446 Coda Studios

1.4 Tree Survey Date & Weather Conditions

2 July 2026. Weather provided no limitations

1.5 Site Limitations at Survey

Trees viewed from within the site and highway to west

1.6 Brief Site Appraisal

Rectangular domestic plot orientated approximately east/west. Existing vehicle access to east. Dwelling to central and eastern side of plot. Mature trees to west of plot and in adjacent gardens to north west and south west

1.7 Brief Appraisal of Tree Stock

Mature trees in typical domestic garden. Previous management, some pruning and canopy size reductions. Trees growing in limited rooting area/soil volume. Canopy conditions sparse/sub-optimal in July 2026, assume drought summer conditions. Trees have collective amenity value

1.8 Existing Site Ground Conditions

Known utilities. Drains/utilities to west of current dwelling, orientated in a north/south direction. Road/built structure to east and west is assumed to have prevented/reduced tree rooting to the underside of these features therefore RPAs are off set (but accurate in area) to account for this

2. Tree Constraints – Generic Considerations

See TCP (Plan 1 of 2) including tree survey data in Appendix 1

2.1 Above Ground Constraints Tree Trunk and Canopy

The trees current canopy spread is marked on plans to aid site design. Consideration needs to be made to the following pre-development:

- Mature height and spread
- Species characteristics such as evergreen or deciduous, honeydew (sap) drip, fruit fall
- Shade potential
- Potential incompatibilities between layout and trees proposed for retention
- Working/access space needed for construction phase
- Protection of tree canopies from machinery impact or scaffold clearance
- Infrastructure requirements- easements, lighting, solar collectors, CCTV

2.2 Below Ground Constraints Root Protection Area (RPA)

The RPA is plotted on plans as a circle, but where pre-existing site conditions are considered to have altered the rooting area a polygon has been produced, see section 1.8 above

The default position is that proposed structures/ground alterations/utilities should be located outside the RPA's of retained trees unless a sound arboricultural judgement can be made to support an incursion taking in to account pre-development ground conditions, tree type, age, ability to tolerate change

If utility operations within the RPA are proposed consideration should be given to Volume 4, Street Works UK Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (updated on 12/01/2026). See - <https://streetworks.org.uk/resources/publications/>

3. Proposed Development

See AIP (Plan 2 of 2) in Appendix 1.

The proposed development involves alterations to the existing dwelling - *increase height of front and rear gable to allow for addition 1st floor accommodation, insert new window and door openings and enlargement of rear terrace area*

4. Arboricultural Impact Assessment

Table 1 Impact of Proposed Development

	Impact/Work Required	BS5837 Tree Quality Category			
		U	A	B	C
1	Items* to be REMOVED to enable development	-	-	-	-
2	Items* to be PRUNED to enable development	-	-	-	-

4.1 Presence of Tree Preservation Orders/Conservation Areas

Online mapping at <https://www.barnsley.gov.uk/barnsley-maps/tree-preservation-orders-map/> indicates the recorded trees are the subject of a Tree Preservation Order (TPO), but not within a Conservation Area. This information however should be viewed as a snapshot in time and at the caveats of that webpage. Clients & contractors should make their own search prior to undertaking any works at their own risk

4.2 Above Ground Impacts

Removals & Pruning

- No trees need to be removed in order to enable the development
- No trees need to be pruned in order to enable the development, although pruning will be required in future decades, this would occur to the existing dwelling regardless of development
- Pruning in the future can be undertaken following recommendations in British Standard 3998 *Tree Work Recommendations* without detriment to the health, longevity or the amenity of the area. As the trees are the subject of a TPO the local planning authority retain control over any tree management (as current). Previous pruning works have been undertaken without any apparent detriment to the trees amenity value
- Contractor access is available from the existing hard surfaced drive to the east
- No pruning is required for scaffold clearance
- No pruning is required for machinery/crane access

Shade from Retained Trees (see blue shade arcs on TCP)

- There are no additional shade issues between the current and proposed
- The applicant already deals with this and is accepting of the positives (shade/cooling in summer) and negative (shade/lack of sunlight in summer) aspects

Species Specific/Seasonal Nuisance from Retained Trees

- Leaf, seed and twig fall may accumulate on the proposed. As such roof lines and outside infrastructure may require clearing and cleaning at more regular intervals than elsewhere. The applicant already deals with this and considers it normal property maintenance
- Sycamore additionally deposit's a sticky substance due to the actions of aphids, this can accumulate on windows and outside infrastructure which may require clearing and cleaning at more regular intervals than elsewhere. The applicant already deals with this and considers it normal property maintenance

4.3 Below Ground Impacts

- No trees need to be removed in order to enable the development
- The proposed updates do not alter the footprint or foundation of the current dwelling
- An existing raised patio, path and utility route between the trees and current/proposed will likely have acted as additional root barriers
- The existing path will be retained and used for access without any additional impact on potential rooting areas than already found
- Utilities in and out of site will use existing without any additional groundworks
- A proposed decking area into the root protection areas of the recorded trees will be supported on ground screws. This very minimal ground alteration will have no detrimental impact on the root protection areas. Products include (but not limited to)

<https://www.groundscrewcentre.co.uk/case-studies/diy-millboard-duospan>

These can be installed by pedestrian operated machinery or from a mini-digger attachment. A pedestrian operated machine will have no ground impact. A mini-digger will need to traverse on some temporary ground protection, such as wooden ply boards (to reduce any ground compaction) if on the current grass area/within unsurfaced RPAs

4.4. Site Photographs

North west of current dwelling, looking south.
Yellow line shows existing utility route and path.
Paths retained during proposed updates



South west of current dwelling, looking north west.
Yellow line shows existing utility route.
Proposed decking on screw piles would go from the raised area (outside current back door) extending to the left of this picture.
Note current canopy clearance between existing and trees to allow for dwelling updates



5. Conclusions

- The impact of the proposed development is low/none

6. Recommendations

1. Retention of tree@treeplan.co.uk as Project Arborist to liaise with architect and applicant
2. See section 7 below on generic tree protection measures

7. Generic Tree Protection Methodology

This is of a generic/preliminary nature to inform client, contractors and local planning authority of requirements and achievability.

7.1 Project Arborist

Normally instructed as a planning condition. Any tree related enquiry should be directed to them to ensure trees are considered throughout development

7.2 Requirements to Protect Retained Trees

- Physical protection – by the use of protective fencing to limit or prevent the physical impact on above ground tree parts or below ground rooting areas
- Site management – by detailing suitable methods for activities where they may influence trees which may include arboricultural supervision or precautionary techniques

7.3 Tree Ground Protection – Generic Precautions

These general precautions must be followed within protected RPAs (unless in footprint of development) of retained trees during the construction phase:

- No soil disturbance, including compaction
- No change in the soil level, by excavation, stripping or filling unless controlled and agreed
- No redirection of surface water runoff into or out of the RPA
- No temporary buildings, sheds, or offices, without prior discussion
- No storage of materials or fuel
- No dumping of materials, whether into a skip or onto the ground
- No fires within 10m of the RPA or tree canopy, whichever is greater
- No refuelling of mechanical equipment
- No storage or mixing of cement or washing of cement mixers within or uphill of the RPA
- Follow the guidance contained within the National Joint Utilities Group Volume 4 (NJUG 4) if installing underground services inside or other excavation in the RPA of a tree

7.4 Temporary Tree Protective Fencing During Groundworks and Build

Protective fencing should be erected around any retained trees peripheral RPA where possible. The area inside this fence line becomes the 'Construction Exclusion Zone' (CEZ) and should follow the line shown on a Tree Protection Plan. Fencing will prevent construction activity that could cause damage occurring close to retained trees. No plant, equipment or vehicles should operate within the CEZ. Paragraph 6.2.2 and Fig. 2 & 3 of BS5837 details the appropriate fencing specification

7.5 Temporary Ground Protection (within RPAs) to enable build access

Should be capable of supporting any traffic without distorting or compacting of underlying soil/ Paragraph 6.2.3.3 of BS5837

- a) pedestrian movements only – single thickness scaffold boards placed either on top of driven scaffold frame, so as to form a suspended walkway or on top of 100mm depth of woodchip laid on to a breathable geotextile membrane
- b) up to a gross weight of 2t ground protection boards on top of 150mm depth of woodchip laid on top of a geotextile membrane
- c) >2t/wheeled or tracked requires proprietary engineered specification in liaison with Project Arborist

7.6 Excavation Within RPA's of Retained Trees (NJUG 4)

- Roots of 25mm diameter or less should be moved to one side of the excavation or be cut back with a sharp tool, such as secateurs, leaving as small a wound as possible, except where they occur in clumps
- Roots greater than 25mm in diameter to be retained. These must be wrapped in damp hessian to prevent damage and desiccation but removed prior to backfilling
- Installation of new surfacing/footing should take place as soon as possible after excavation to reduce the time roots will be exposed

This list is not exhaustive and will obviously reflect the needs of any consent.

Appendix 1. Tree Data Schedule & Tree (x2) Plans

Ref.	Tree Type	Height (m)	Stem Diam (mm)	North (m)	East (m)	South (m)	West (m)	Crown Clearance (m)	First Branch (m)	Age Class	Health	Comment	Management	Retention Category
T1	Beech	15	800	6.5	6.5	6.5	6.5	2	2.5	Mature	Good	Off-site, not fully inspected, wall displaced to west	None	B
T2	Beech	15	870	8	4	8	10	2.5	2.5	Mature	Fair	Upright stem, structural branches and canopy weight biased to west, previous pruning, canopy sparser than normal	None	B
T3	Sycamore	14	560	6	7	4	5	3.5	4	Mature	Good	Upright stem, canopy weight biased to north east, former rope swing constricting stem to north at 4m	Remove/cut away constricting rope where possible	B
T4	Sycamore	17	700	4.5	6	7.5	5.5	3.5	3.5	Mature	Good	Upright form, previous pruning, no root buttress' evident so assume historic ground level raising, previously 'topped' at 10m	None	B
T5	Beech	15	940	7.5	7	8.5	8	2	3	Mature	Fair	Wall displaced to west, normal form, canopy sparser than normal	None	B

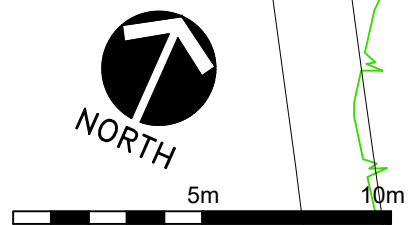
- Plan 1 of 2 – Tree Constraints Plan showing current site and trees
- Plan 2 of 2 – Arboricultural Impact Plan showing proposed site and trees

Current Site

RPA's offset but accurate in area to reflect built structure/presumed root barriers

Existing utility runs, raised patio and concrete footpaths

RPA's offset but accurate in area to reflect built structure/presumed root barriers



Item Reference Number
Common Name
BS 5837 Retention Category

Stem Location & Diameter
Root Protection Area (RPA)
Canopy Spread

BS 5837 Retention Category Colour

- Category A - Tree of High Quality
- Category B - Tree of Moderate Quality
- Category C - Tree of Low Quality
- Category U - Tree Unsuitable for Retention

Notes:
Tree Locations approximate, plotted with GPS and laser rangefinder from known points on OS Base Plan



Approximate sweep of shade cast by trees in midsummer, plotted as per description in BS5837: 2012

"An indication of potential direct obstruction of sunlight can be illustrated by plotting a segment, with a radius from the centre of the stem equal to the height of the tree, drawn from due north-west to due east, indicating the shadow pattern through the main part of the day."

PLAN 1 OF 2

Scale 1:200@ A3

Plan Title Tree Constraints Plan
(Trees and current site)

Site Stonecroft, Wortley
Date July 2026

tree@treeplan.co.uk

For planning purposes only, check all measurements on site
Read in colour & with associated report. Copyright.
BS5837 Tree Survey 2 July 2026

Proposed Site

Item Reference Number
Common Name
BS 5837 Retention Category

Stem Location & Diameter
Root Protection Area (RPA)
Canopy Spread

BS 5837 Retention Category Colour

Category A - Tree of High Quality

Category B - Tree of Moderate Quality

Category C - Tree of Low Quality

Category U - Tree Unsuitable for Retention

Notes:
Tree Locations approximate, plotted with GPS and laser rangefinder from known points on OS Base Plan

AM PM

Approximate sweep of shade cast by trees in midsummer, plotted as per description in BS5837: 2012

"An indication of potential direct obstruction of sunlight can be illustrated by plotting a segment, with a radius from the centre of the stem equal to the height of the tree, drawn from due north-west to due east, indicating the shadow pattern through the main part of the day."

RPA's offset but accurate in area to reflect built structure/presumed root barriers

Planning Proposal
Increase height of front and rear gable to allow for addition 1st floor accommodation, insert new window and door openings and enlargement of rear terrace area

Decking/patio to be supported on screw piles
Existing footpath to remain

Existing footpath to remain, patio raised

RPA's offset but accurate in area to reflect built structure/presumed root barriers



5m 10m

PLAN 2 OF 2

Scale 1:200@ A3
Plan Title Arboricultural Impact Plan (Trees and proposed site)
Site Stonecroft, Wortley
Date July 2026

tree@treeplan.co.uk

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