FRANK WRIGHT TREE CONSULTANCY

Arboricultural Impact Assessment and Tree Protection Method Statement

for

Land adjacent to 185 Cheadle Road, Cheddleton

Prepared by

Frank Wright

HNDFor, Tech Cert Arb.

7 April 2019

Ref: FWTC/250/AIA

Aboricultural Report

Site: Land adjacent to 185 Cheadle Road, Cheddleton
Instructed by: haus ltd.
Report by: Frank Wright
Date: 7 April 2019

Summary

This report has been undertaken to assess the arboricultural implications of the proposed development at land adjacent to 185 Cheadle Road, Cheddleton.

The development itself will not require the removal of any trees. Recommendations have been made in this report which will restrict site working procedures during construction in order to safeguard retained trees.

Trees are a material consideration in the planning process. Having assessed the proposals, the environmental impact of the development is found to be acceptable and in accordance with the principles of the National Planning Policy Framework and Staffordshire Moorlands District Council local planning policy, in terms of trees.

Frank Wright
7 April 2019

Contents:

Summary 2

Section 1 – Introduction 4

1.1 Purpose of this Report 4
1.2 Methodology 4
1.3 Limitations 4
1.4 Statutory Controls 5

Section 2 – Site Survey and Assessment 6

2.1 Site Description 6
2.2 Soil Analysis 6
2.3 Appraisal of Tree Cover 6

Section 3 – Site Development 7

3.1 The Proposal 7
3.2 Tree Removal 7
3.3 Safeguarding Retained Trees 7
3.4 Services and Sight-lines 7
3.5 Post Development Pressures 8
3.6 Detailed Summary of Impact 8

Section 4 – Conclusions 9

Appendix 1 BS5837 Tree Survey
Appendix 2 Tree Constraints Plan
Appendix 3 Tree Protection Plan
Appendix 4 Tree Protection Method Statement

Section 1 – Introduction

1.1 Purpose of this Report

1.1.1 This report has been undertaken to assess the arboricultural implications of the proposed development at land adjacent to 185 Cheadle Road, Cheddleton. The report has been produced following a survey of all the trees in proximity to the site that may be affected by the proposals.

1.1.2 The report makes recommendations for tree protection during construction and may be used to support a planning application to Staffordshire Moorlands District Council for development.

1.2 Methodology

1.2.1 The tree survey at appendix 1 is based on the recommendations made in the British Standard BS5837:2012 “Trees in relation to design, demolition and construction - Recommendations”. The constraints have been measured against the Land Survey supplied by AGT Surveys Limited ref. 2196-2.

1.2.2 Throughout the report, reference is made to the tree constraints plan detailing the root protection areas for all trees which are to be retained. The tree constraints plan can be found at appendix 2. The tree protection plan can be found at appendix 3.

1.2.3 The trees have been given a reference number. Individual trees are identified by a reference T(n) and groups of trees by reference G(n). The numbers correspond to the tree survey plans appended to this report.

1.3 Limitations

1.3.1 The tree survey was undertaken from ground level using binoculars where necessary. The survey is for the purposes of the report only and does not form a full safety assessment. All heights are estimated, but provide a satisfactory degree of accuracy for planning purposes.

1.3.2 The contents of this report are based on my site observations and information supplied by haus ltd, on whose accuracy I have relied. Conclusions are based on published arboricultural texts along with my own observations and experience in arboriculture.

1.3.3 The positions of trees shown on the tree constraints plan and the tree protection plan have been plotted against topographical drawings if provided by the client.

1.4 Statutory Controls

1.4.1 One or more of the trees discussed in this report are covered by a tree preservation order, restricting any pruning or felling work. The client is advised to speak with the council prior to removing any trees, or undertaking any tree work recommended in this report.

1.4.2 Trees are a material consideration in the planning process and the application will be assessed against the local planning authority's policies and development guidance outlined in table 1 below.

Policy document	Policy criteria
SMDC Local Plan Policy NE2	The Council will protect existing trees, woodlands and hedgerows, in particular, ancient woodland, veteran trees and ancient or species-rich hedgerows from loss or deterioration
Design principles for development SPG	New dwellings should make use of existing landscape features to enhance design
SMDC Tree Strategy 2.2.6	The Council will not normally grant planning permission for development proposals which directly or indirectly threaten trees or woodlands of significant amenity

Table 1: Policy considerations

Section 2 – Site Survey and Assessment

2.1 Site Description

2.1.1 The application site is located to the south of the village of Cheddleton, approximately 8 miles to the northeast of Stoke on Trent in Staffordshire.

2.1.2 The development site measures approximately 0.12 hectares and is L shaped, extending back 70m from the western boundary and 35m along the rear boundary to the east. There are some minor level changes as the site slopes to the east and some man made changes as a result of previous excavations.

2.1.3 There is no formal vehicular access at present and the A520 runs alongside the western boundary. There are residential properties to the north and south, and large residential gardens to the east and south. The boundaries to the site are comprised of hedges, walls and wire fencing and there is managed grass across the whole area.

2.1.4 There are no public rights of way across the site.

2.2 Soil Analysis

2.2.1 The National Soil Resources Institute soilscape viewer reveals a freely draining slightly acid loamy soil suited to neutral and acid pastures and deciduous woodlands. The soil has low fertility.

2.3 Appraisal of Tree Cover

2.3.1 The largest tree on the site is an early mature copper beech tree - Fagus sylvatica purpurea (T1). The tree was exhibiting reasonable health at the time of inspection. It is set back from the public highway, reducing the tree's public amenity value.

2.3.2 There is some younger planting along the eastern boundary (T4 & T5); however, these trees are struggling to establish due to much larger off-site trees (T2 & T3). These trees have negligable public amenity value.

2.3.3 To the southwest of the site is an off-site mature horse chesnut - Aesculus hippocastanum (T6). This tree has high public amenity value, being situated immediately to the east of the A520 public highway which runs through the village.

Section 3 – Site Development

3.1 The Proposal

3.1.1 This application is for construction of a detached dwelling with a new access from the A520, Cheadle Road. The development will benefit from associated parking and landscaping.

3.2 Tree Removal

3.2.1 The development proposal has been designed following a detailed tree survey and full analysis of the arboricultural constraints relating to the site. No trees will require removal to facilitate the project.

3.3 Safeguarding Retained Trees

3.3.1 Root protection areas and canopy spreads have been measured in accordance with BS 5837:2012. Trees in relation to design, demolition and construction. – Recommendations and are shown at appendix 2. There is a minimal encroachment of the eastern elevation of the proposed building into the RPA of tree T1, totalling 5.5m2. This is a minimal incursion of 2.4% and will have no impact on the tree. The building has been carefully positioned to sit comfortably adjacent to the tree, avoiding pressure for significant pruning work in the future.

3.3.2 Minor pruning to T1 may be necessary to provide clearance over the balcony; however, it is within the ability to tolerate this without impacting on its health. An exact specification in accordance with the British Standard 3998 can be prepared on completion of the development and can be controlled by a planning condition if deemed necessary by Staffordshire Moorlands District Council.

3.3.3 As with all trees in proximity to development, there remains a risk that trees could be damaged by construction processes. In order to ensure the protection of the trees on the site, a tree protection plan and method statement have been prepared at appendices 3 and 4 of this report. This will involve installing protective fencing to prevent access to areas of the site during development.

3.4 Services and Sight-lines

3.4.1 Trenches for underground services will be constructed in accordance with the guidance provided in the National Joint Utilities Guidance document NJUG 4. No service shall be positioned closer than 1m to the tree stem. Further details can be found at appendix 4.

3.4.2 Given that there will be no significant increase to the volume of traffic accessing the site, sight lines are not considered to be relevant to any trees that may be affected.

3.5 Post Development Pressures

3.5.1 The proposed building has been designed around the retained trees, ensuring that the relationship is acceptable and will not cause future conflict. Accordingly, there will not be post-development pressures to heavily prune or remove trees in the future.

3.6 Detailed Summary of Impact

Trees which can be successfully incorporated into the development	
T1, T2, T3, T4, T5, T6	Within the application site, successful retention of trees relies on the implementation of the tree protection recommendations made in this report. Although the applicant cannot be responsible for trees outside the site, tree protection has been specified to ensure the protection of encroaching roots and branches.
Trees to be removed to facilitate development	
none	
Trees to be removed regardless of development	
none	

Table 3: Summary of Impact

Section 4 – Conclusions

4.1 No trees are removed to facilitate this proposal.

4.2 Subject to the implementation of the tree protection plan at appendix 3 and the tree protection method statement at appendix 4, the development may be constructed without adversely affecting retained trees.

4.3 The development successfully integrates into the existing landscape demonstrating that local planning policy and the principles of the National Planning Policy Framework have been satisfied.

Appendix 1 BS5837 Tree Survey

FRANK WRIGHT TREE CONSULTANCY

Site: Land adjacent to 185 Cheadle Road, Cheddleton

Client: haus ltd.

Arboricultural Surveyor: Frank Wright

Ref: FWTC\250\TSS

Survey Date: 15 March 2019

This tree survey schedule is based on recommendations of BS5837:2012. All trees were inspected from ground level only, with binoculars where necessary. Measurements have been estimated for offsite trees and trees which cannot be accessed due to dense undergrowth/obstructions. Please note that this is not a safety survey, but an assessment of the trees' ability to tolerate construction. You are advised to contact the local planning authority before carrying out any recommended tree work as their approval may be necessary. Where further inspection is recommended, this should be carried out within 3 months of the date of this report, unless otherwise stated. Results of further inspections may have a bearing on grading and life expectancy.

Notes:

Ref: Tree reference number - (T)ree, (G)roup of trees

Ht: Height (m)

Dia: Stem diameter (cm) measured at 1.5m from ground level. * indicates multi stemmed tree (individual measurements available on request).

For groups, the largest stem diameter has been recorded, along with the total number of stems where practical. ^ indicates an estimated measurement.

Crown Spread: Crown spread (m) from trunk (cardinal points - N, E, S, W)

Life stage: NP- Newly planted; Y-Young; SM- Semi Mature; EM-Early Mature; M-Mature; V-Veteran

Life expectancy: Estimated remaining contribution (years)

Grade: In accordance with BS5837:2012 Trees in relation to design, demolition and construction - Recommendations

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Ref.	Species	Ht	Dia (cm)	Crown spread (N,E,S,W)	Crown height	First branch	Observations	Recommended works	Age class	Life exp.	Grade
T1	Fagus sylvatica	17	70	7.5, 8.5, 10, 7.5	3	3.5-NW	Fence wire occluded into trunk to east.	Minor pruning to the western edge of the canopy may be required, but a detailed assessment may be made on completion of development	EM	40+	B
T2	Acer pseudoplatanus	17	45	11, 6, 4, 7	3	3-N	Offsite tree; Ivy; Asymmetric due to adjacent tree; Squirrel damaged	Remove 2 damaged branches growing to NW at 4m and 5m above ground level	EM	40+	C
T3	Fagus sylvatica	20	100^	11, 9, 11, 11	6	4-NW	Offsite tree, not closely inspected; Significant deadwood and squirrel damaged branches; Large wound at base of tree to west.	Remove deadwood; advise full inspection	M	40+	A
T4	Prunus cerasifera	7	19*	4, 3, 3.5, 3	1	0-360	Occluded fence wire		MA	20+	C
T5	Malus sylvestris	4	10*	2.5, 2, 1, 0	2	2-NE	Damaged lower trunk; suppressed		Y	10+	C
T6	Aesculus hippocastanum	17	79	4, 7, 8, 7	3	5-SW	Large wounds on main trunk occluding well		M	40+	B

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Appendix 2 Tree Constraints Plan

Tree Schedule

Tref	Species	Age Class
T1	Fagus sylvatica	EM
T2	Acer pseudoplatanus	EM
T3	Fagus sylvatica	M
T4	Prunus cerasifera	MA
T5	Malus sylvestris	Y
T6	Aesculus hippocastanum	M

Proposed Tree Work

Tref	Species	Works Required
T2	Acer pseudoplatanus	Remove 2 damaged branches growing to NW at 4m and 5m above ground level
T3	Fagus sylvatica	Remove deadwood; advise full inspection

Tree Working Procedures

All tree work to be undertaken by a competent tree surgeon and in accordance with British Standard 3998 recommendations.

Checks shall be made with the local planning authority prior to undertaking any tree work to ensure that the trees are not protected or that the relevant permissions have been granted.

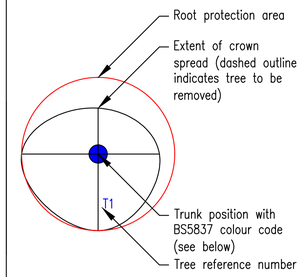
Excavations within the root protection area of trees to be undertaken using hand tools only taking care not to damage roots. No root over 25mm shall be cut without prior approval of an arboriculturist.

Bats and their roosts and wild birds and active nests (including nests under construction) are protected by wildlife legislation. If it is considered that the tree work may impact on any of these, work should be stopped immediately and advice sought from Natural England



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Trees have been surveyed in accordance with the British Standard BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. Each tree has been categorised by an arboriculturist in accordance with the Table 1 cascade chart for tree quality assessment, with consideration given to amenity, ecological and historic value as well as future potential.



- BS5837 category A tree
- BS5837 category B tree
- BS5837 category C tree
- BS5837 category U tree

TREE CONSTRAINTS PLAN

Project Information

Construction of new dwelling with new access and associated parking and landscaping

at

185 Cheadle Road, Cheddleton

This plan has been recreated from Land Survey ref – 2196–2 created by AGT Surveys Limited with permission from Ms Frances Forward, haus ltd.

Drawn:	Scale:	#:
FW	1:200	
Plot size:	Date:	Status:
A1	2019–04–07	

FRANK WRIGHT TREE CONSULTANCY

5 Old Priory Mews
Victoria Road
Bishops Waltham
Hampshire
SO32 1NJ

Drawing:	Rev:
FWTC/250/TCP	A

All dimensions to be checked onsite and against construction plans.
This drawing is to be used for tree protection matters only and must not be relied upon for engineering, layout or construction design, including demolition, building, landscaping and service location.

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Appendix 3 Tree Protection Plan

Tree Working Procedures

All tree work to be undertaken by a competent tree surgeon and in accordance with British Standard 3998 recommendations.

Checks shall be made with the local planning authority prior to undertaking any tree work to ensure that the trees are not protected or that the relevant permissions have been granted.

Excavations within the root protection area of trees to be undertaken using hand tools only taking care not to damage roots. No root over 25mm shall be cut without prior approval of an arboriculturist.

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Tree Schedule

Tref	Species	Age Class
T1	Fagus sylvatica	EM
T2	Acer pseudoplatanus	EM
T3	Fagus sylvatica	M
T4	Prunus cerasifera	MA
T5	Malus sylvestris	Y
T6	Aesculus hippocastanum	M

Proposed Tree Work

Tref	Species	Works Required
T2	Acer pseudoplatanus	Remove 2 damaged branches growing to NW at 4m and 5m above ground level
T3	Fagus sylvatica	Remove deadwood; advise full inspection

Tree Protection

Temporary fencing shall form the construction exclusion zone (CEZ) around all retained trees.

Fencing shall consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated on the tree protection plan. The vertical tubes should be spaced at a maximum interval of 3 m and stabilised with diagonal posts, secured by pins driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the pins to avoid underground services and to avoid contact with structural roots.

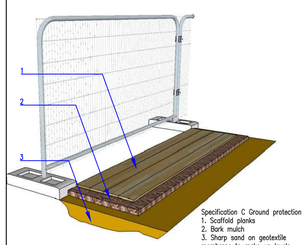
Care shall be taken for the duration of the development to ensure that fencing is rigid at all times. Laminated signs saying 'Tree Protection Zone – Keep Out' shall be attached to fence panels. No fencing shall be moved without the prior approval of an arboriculturist.

Ground Protection

Temporary ground protection shall be installed over the root protection area to provide access for site operatives and necessary equipment. This should be design to withstand the required loading without being distorted or causing compaction of underlying soil.

The ground protection will need to be designed by the project engineer to ensure it is suitable for the site and to support operatives and their equipment, but might comprise the following:

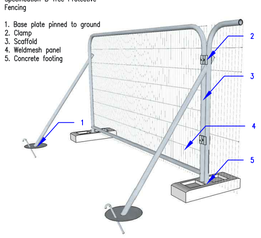
For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane. Again, care should be exercised when locating the vertical posts to avoid underground services and to avoid contact with structural roots.

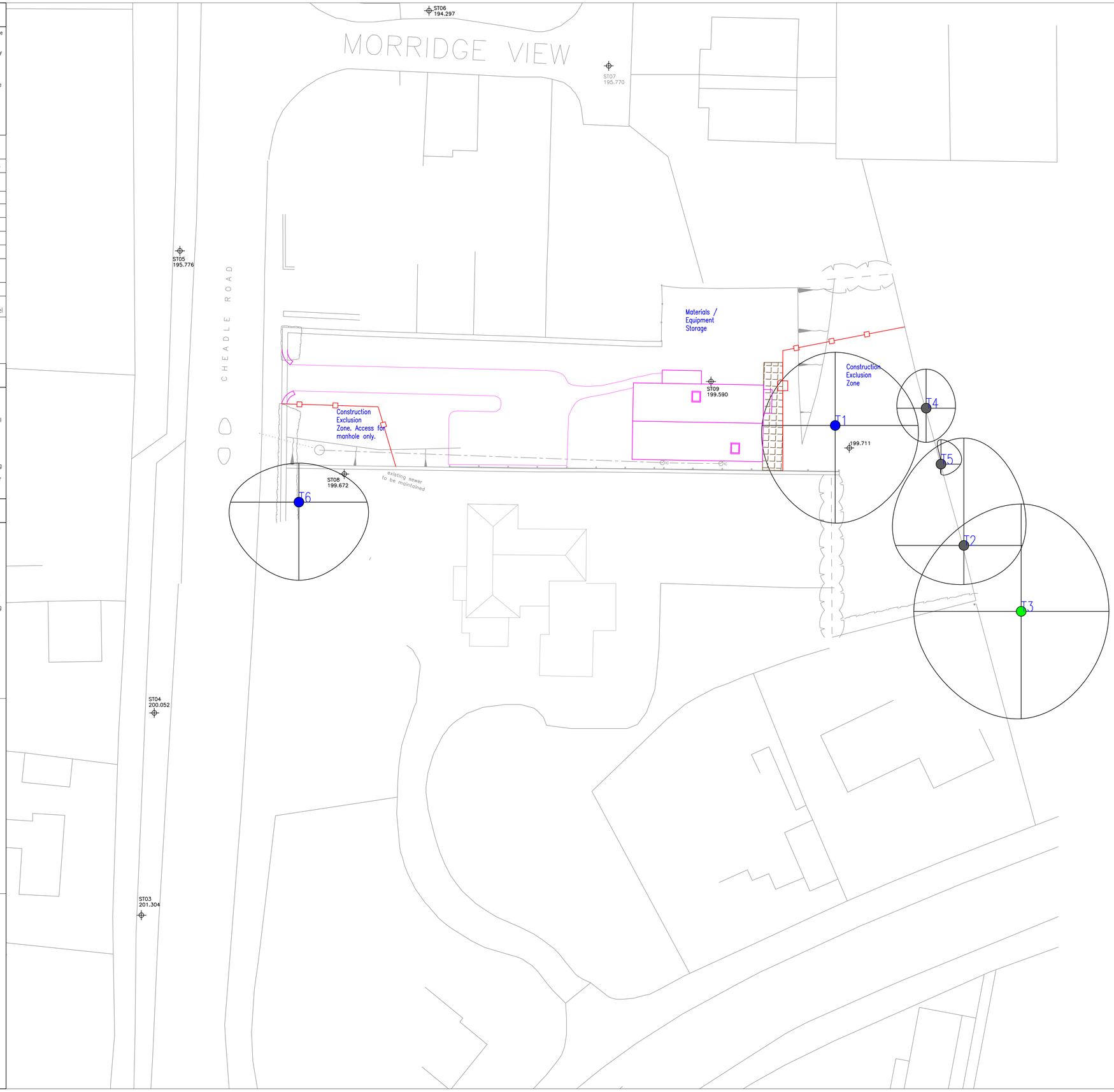


Specification C Ground protection
1. Scaffold planks
2. Bark mulch
3. Sharp sand on geotextile membrane to make up levels

Specification B Tree Protective Fencing

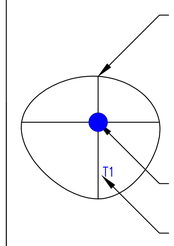
1. Base plate pinned to ground
2. Clamp
3. Scaffold
4. Weldmesh panel
5. Concrete footing





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Trees have been surveyed in accordance with the British Standard BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. Each tree has been categorised by an arboriculturist in accordance with the Table 1 cascade chart for tree quality assessment, with consideration given to amenity, ecological and historic value as well as future potential.



Extent of crown spread

Trunk position with BS5837 colour code (see below)

Tree reference number

Footprint of proposed development

Ground protection (where applicable – see inset)

Tree protective fencing (see inset)

BS5837 category A tree

BS5837 category B tree

BS5837 category C tree

BS5837 category U tree

TREE PROTECTION PLAN

Project Information

Construction of new dwelling with new access and associated parking and landscaping

at

Land adjacent to 185 Cheadle Road, Cheddleton

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All dimensions to be checked onsite and against construction plans.
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Appendix 4 Tree Protection Method Statement

Tree Protection Method Statement

Site: Land adjacent to 185 Cheadle Road, Cheddleton
Client: haus ltd.
Prepared by: Frank Wright
Date: 7 April 2019

Contents

1. Introduction
2. Phasing
3. Tree surgery
4. Biosecurity
5. Tree protection
6. Installation of services
7. General site working procedures
8. Briefing, supervision and mitigation

1. Introduction

1.1. This method statement details tree protection measures required during the development at land adjacent to 185 Cheadle Road, Cheddleton. The method statement is to be read in conjunction with the associated tree protection plan ref FWTC/250/TPP.

1.2. Working methodologies contained in this report have been designed to ensure the protection of trees. The methods and materials specified will also need to be approved by a suitable engineer and project manager before commencing any work onsite.

1.3. It remains the responsibility of the construction manager to ensure that the recommendations in this report are implemented. This method statement must be made available to all construction personnel.

1.4. If there are any queries relating to tree protection please contact Frank Wright Tree Consultancy.

2. Phasing of Work

2.1. Development shall proceed as follows:

2.2. Tree surgery work, as outlined in the tree survey schedule FWTC/250/TSS.

2.3. Installation of temporary tree protective fencing and ground protection to form the construction exclusion zone in accordance with section 4 of this report.

2.4. Construction phase - all tree protection measures maintained for the full duration of this phase and not altered unless with the agreement of the appointed arboriculturist.

2.5. Fencing removed by hand on completion of construction, once materials and equipment have been removed from the site, prior to the implementation of soft landscaping.

3. Tree Surgery

3.1. All tree surgery will be completed in accordance with the management recommendations in the tree survey at appendix 1.

3.2. All tree work to be undertaken by a competent tree surgeon and in accordance with British Standard 3998 recommendations.

3.3. Checks shall be made with the local planning authority prior to undertaking any tree work to ensure that the relevant permissions have been granted.

3.4. Bats and their roosts and wild birds and active nests (including nests under construction) are protected by wildlife legislation. If it is considered that the tree work may impact on any of these, work should be stopped immediately and advice sought from an ecologist.

4. Biosecurity

4.1. In order to prevent the spread of pests and disease, biosecurity shall be observed in accordance with current industry guidance.

4.2. As far as reasonably practicable, soil and debris shall be removed from boots, clothing, ropes, tools and plant before leaving the site.

4.3. Proper off-site vehicle wash down and disinfection facilities shall be used before and after tree works.

4.4. When working with known infected vegetation, all debris shall be kept separate from other brash and shall not be used for mulch, firewood or other forestry products. Infected material shall not be removed from site without a movement licence. It shall be disposed of by deep burial or incineration at a licensed handling facility.

4.5. After working on an infected tree, or a tree is suspected of being infected, all equipment will be sterilised with a suitable approved steriliser before moving on to the next tree.

5. Tree protective fencing

5.1. Temporary tree protective fencing, ground protection and trunk protection to be erected in accordance with the British Standard 5387:2012 and as shown on the tree protection plan FWTC/250/TPP. Fencing shall form the construction exclusion zone (CEZ) around all retained trees.

5.2. Fencing shall consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated on the tree protection plan. The vertical tubes should be spaced at a maximum interval of 3 m and stabilised with diagonal posts, secured by pins driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the pins to avoid underground services and to avoid contact with structural roots.

5.3. Care shall be taken for the duration of the development to ensure that fencing is rigid at all times. Laminated signs saying “Tree Protection Zone – Keep Out” shall be attached to fence panels. No fencing shall be moved without the prior approval of an arboriculturist.

5.4. Temporary ground protection shall be installed over the root protection area to provide access for site operatives and necessary equipment. This should be designed to withstand the required loading without being distorted or causing compaction of underlying soil.

5.5. The ground protection will need to be designed by the project engineer to ensure it is suitable for the site and to support operatives and their equipment, but might comprise the following:

5.6. For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane. Again, care should be exercised when locating the vertical posts to avoid underground services and to avoid contact with structural roots.

6. Installation of services

6.1. Wherever possible, underground services shall be located outside the tree root protection areas.

6.2. If this is not possible, installation shall be installed in accordance with the National Joint Utilities Guidance document NJUG 4. No service shall be positioned closer than 1m to the tree stem.

6.3. Within the root protection area, all excavation shall be undertaken using an airspade to ensure roots are not damaged. Exposed roots shall be covered in hessian sacking and kept damp until the trench is backfilled.

6.4. Services shall be inserted through the root system, allowing for future root expansion.

6.5. The trench shall be backfilled with an inert granular material and top soil mix.

7. General Site Working Procedures

7.1. The construction exclusion zone (CEZ) shall be considered sacrosanct at all times during the development and fencing shall not be moved without the approval of an arboriculturalist.

7.2. All building materials including chemicals, fuel, cement and equipment will need to be positioned away from the CEZ. The existing area to the west of the house provides an appropriate space for material storage.

7.3. There shall be no ground level changes or mechanical cultivation within the CEZ.

7.4. No fires shall be lit in a position where flames can reach any part of a tree.

7.5. Should significant dust enter the CEZ, the root protection area and tree shall be hosed down.

7.6. No notices shall be attached to trees with nails.

7.7. In the event that roots are discovered during any ground excavations, they shall be cut back cleanly using a pruning saw or secateurs, to a growth point where possible. No root over 15mm shall be cut without prior approval of the appointed arboriculturist.

8. Briefing, Supervision and Mitigation

8.1. All site personnel will be briefed on the importance of maintaining the tree protective fencing.

8.2. In the event that the tree protective requirements outlined in this report are breached, the appointed arboriculturist will assess the impact of the incident and to recommend remedial works which may include tree work and soil improvement. The local authority shall be notified accordingly.

8.3. If it becomes evident that the recommendations made in this report are not practical for the purposes of construction, an alternative arrangement will need to be approved by an arboriculturist. Prior approval shall also be required by Staffordshire Moorlands District Council.