ARBORICULTURAL METHOD STATEMENT

Arboricultural Method Statement and Protection Plan

(in accordance with BS 5837:2012 - *Trees in relation to design, demolition and construction – Recommendations)*

Site: **land to the west of Station Road in Sturton (nearest postcode DN20 9DW)**

Prepared for: **Charworth Homes**

Date: 7th February 2022

Reference: QU-742-21-EQUANS

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CONTENTS

APPENDICES

Note: A copy of this method statement must be permanently available on site for the duration of development activity

1.0 INTRODUCTION

1.1 The purpose of this method statement is to evaluate the direct and indirect effects of the proposed design/layout and to ensure good practise in the protection of trees during the construction of this development.

1.2 EQUANS Arboricultural Services has been instructed by agent id Architecture, on behalf of client Charworth Homes, to prepare this Arboricultural Method Statement and Protection Plan for the proposed development, based on the recommendations and guidance outlined within the BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

1.3 This method statement should be included as part of the specification and schedule of works and issued to all relevant parties including the building contractor and sub-contractors.

1.4 *Scope of Recommendations and Techniques*

An arboricultural consultant should be appointed by the developer for advice on the tree/hedge management for the site and to attend meetings, as set out within this method statement.

1.5 *Description of Development*

A design/layout has been prepared and made available for the purpose of this AIA. It is proposed to introduce three detached residential dwellings with associated access, driveways, and amenity garden space.

1.6 *Site Description*

The site is located within village of Scawby. Scawby is a village and civil parish in North Lincolnshire situated 2 miles (3 km) south-west from Brigg, and just east from the A15 road, and south from the M180 motorway. Located on the southern fringes of the village, known as Sturton, the site is land that is associated with an existing residential dwelling, Wold View, just off Station Road. Access into the site is via an existing vehicle access drive from Station road that also serves the host dwelling. The site consists of 0.2 hectares (0.5 acres) of redundant domestic land associated with the host dwelling. In a tapering rectangular shape, the site extends approximately 20m north to south (average), and 105m east to west. The surrounding land use is mixed between residential and grazing paddock. Further beyond, the land use is mainly agricultural arable farmland.

1.7 From within the site there is a mixture of shrubs, hedges and scattering of trees. The boundary features are mixed, although hedges being the most dominant. A group of trees dominate the

further western aspect and a post and wire fence line is a dividing boundary between the host property and its neighbour directly south. Centrally within the site, with the exception of a couple of individual trees, the land is laid to grass, a mixture of rough grass and amenity garden space.

2.0 ARBORICULTURAL METHOD STATEMENT (AMS)

2.1 *Pre-Development Tree Work*

Prior to any construction activity taking place the recommended tree/hedge works should be completed.

2.2 *Specification of Tree/Hedge Works*

In accordance with the design/layout tree/hedge works are required as specified to facilitate development (see '2.3 – 'Schedule of Tree Works' below and Appendix "A" - 'Tree Retention and Removal Plan' of the Arboricultural Impact Assessment (AIA). Reference should also be made to the details within the original formal Arboricultural Report and the AIA.

2.3 *Schedule of Tree Works*

KEY	
	Tree to be removed
	Tree identified for remedial work
	No work recommended

Individual Trees:	
T1	Fell
T2	No work recommended (off-site)
T3	No work recommended (off-site)
T4	Fell
T5	Fell

Individual Trees:	
T6	Fell
Groups of Trees:	
G1	Fell
Hedgerows	
H1	Low pollard (between 1m / 1.5m) infill gaps with new plants. Sever ivy at stem bases.

Note: Competent contractors must be appointed. All works should be carried out in accordance with the BS 3998:2010 Tree Work – Recommendations

Note: All tree works must be completed to the satisfaction of the Local Authority Tree Officer before any other works begin

2.4 *Arboricultural Supervision (Pre-Commencement of Development)*

A pre-commencement meeting should be held on site before any site clearance, ground works and construction work begins. This would normally be attended by the site manager, the arboricultural consultant and a local authority ("LA") representative, preferably the Local Authority Tree Officer. In the event that an LA representative declines to be present, the arboricultural consultant should inform the LA in writing of the details of the meeting. This meeting should include the following:

- Inspection of pre-development tree/hedge works to ensure works have been carried out in accordance with the approved specification of works and has been carried out to the correct standards, i.e., BS 3998:2010 '*Tree work – Recommendations'.*
- Any additional tree/hedge works expected outside of the approved specification of works will be agreed and recorded.
- All protection measures detailed in this method statement should be fully discussed so that all aspects of implementation and sequencing are understood by all the parties.
- Any specialist engineered methods should be fully discussed so that all aspects of implementation and sequencing are understood by all the parties.
- The details of the programme of protection and no-dig solution, if required, should be agreed and finalised.
- Any site supervision arrangements between the arboricultural consultant and developer should be agreed and finalised. Including any site visits deemed necessary, by a local authority ("LA") representative.

2.5 ***Installation of Protection Measures***

Hedgerow (H1) will be protected by barriers as described in appendix "A". The positioning of the barriers is also shown in appendix "A". The barriers will form an exclusion zone that will be regarded as sacrosanct. Vertical barriers will be installed as soon as the pre-development tree/hedge work is complete. Once erected the barriers should be regarded as sacrosanct and should not be removed or altered without approval from the LPA. This should be installed as soon as the pre-development tree work is complete.

2.6 The barriers should be fit for the purpose of excluding all construction activity. For this site the barrier should consist of 2m tall, welded mesh panels on rubber or concrete feet joined together using a minimum of two anti-tamper couplers, installed so they can only be removed from inside the fence. The panels should be supported on the inner side by stabiliser struts, which would normally be attached to a base plate secured with ground pins (see Appendix "A"). All weather notices should be securely attached to the barrier with words such as "*Construction Exclusion Zone – KEEP OUT! Removing of moving these barriers may result in a breach of planning conditions*".

2.7 The primary concern for the protection of hedges on this site is to protect, improve and maintain the micro-environment/root system.

2.8 ***Arboricultural Inspection*** *(Protection Measures)*

Once the protective barriers have been installed, prior to any other works taking place on site, all hedge protective measures will be checked and approved in writing by the appointed arboricultural consultant and/or the Local Authority Tree Officer. Arrangements will be made at a convenient time for the arboricultural consultant and/or Local Authority Tree Officer to carry out an inspection of the site.

2.9 *Detail for Specification of Protective Barrier*

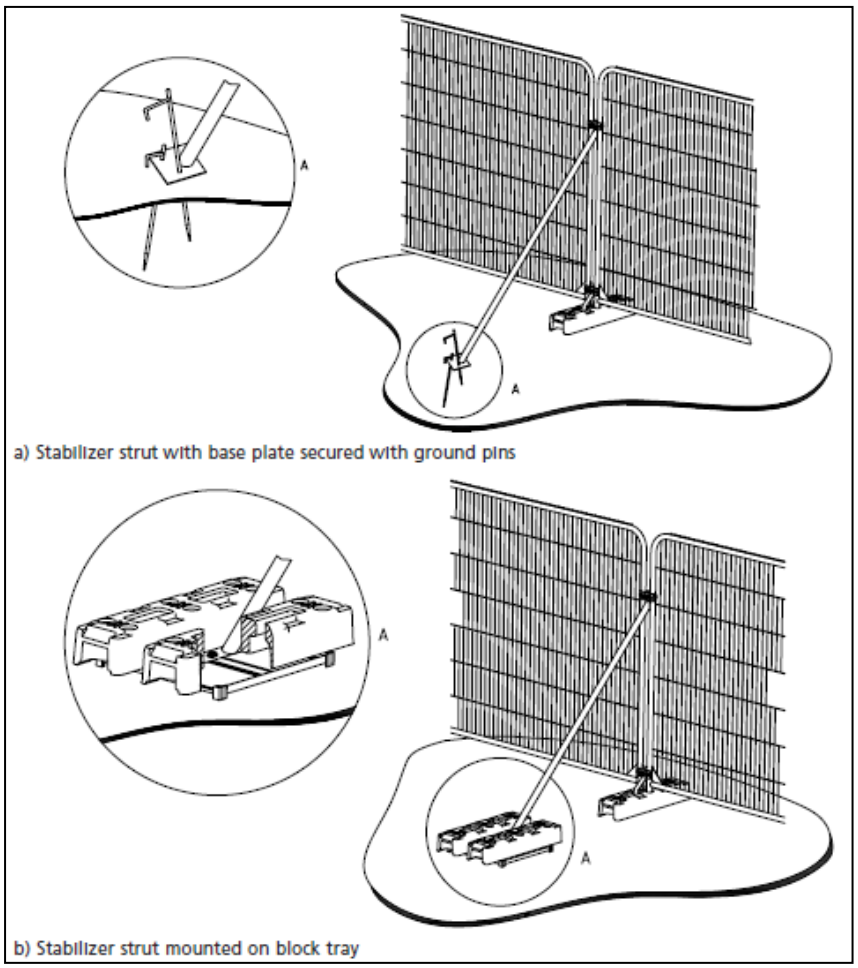

Image source: © The British Standards Institution - *BS 5837:2012 Trees in relation to design, demolition, and construction – Recommendations* – alternative specification for protective barrier

2.10 ***Construction Phase***

Prior to works starting all site personnel including sub-contractors should be inducted in the requirements expected in order to ensure the future health of trees/hedges.

2.11 ***Installation of Services***

When considering development for this site the installation of services must be kept as far as practically possible from the root protection area (RPA) of the retained hedgerow.

2.12 Trenching by conventional means, using a mechanical excavator, inevitably causes root loss, as the bucket easily rips through roots. For services such as foul, surface, electric, gas, BT etc., the most practical solution would be to run all services through one trench. Where encroachment into the RPA cannot be avoided trench-less techniques should be adopted. An alternative would be to hand dig a trench minimising the cutting of roots. Pipes and ducted cables can then be thread through enabling installation with very little damage, provided that the borehole is small and deeper than the main lateral roots.

2.13 In the UK, the usual guidelines for trenching by utility companies are provided by NJUG Volume 4 (previously NJUG 10), which is available to download at http://www.njug.org.uk/publications/. By agreeing to the guidelines to be followed during trenching, all parties are assured that problems can be solved using a common set of criteria. Supervisors from the appointed contractor should direct operatives to follow the agreed practices and it is quite likely that the Local Authority Tree Officer will monitor for compliance.

2.14 *Installation of No-Dig Three-Dimensional Cellular Confinement System*

(also refer to App "A" Tree Protection Plan for No-Dig location)
(also see App "B" Cellweb Installation Guide - PRODUCT DATA SHEET
Geosynthetics Limited Tel: 01455 617 139 Fax: 01455 617 140 Email: sales@geosyn.co.uk)

Step "1" - Ground vegetation should be killed off using a translocated herbicide such as glyphosate. Any sapling regeneration should be removed by hand with the aid of a spade. Any larger woody vegetation should be removed with the aid of a chainsaw, cutting to ground level. To prevent severe oxygen depletion in the soil during decomposition, all dead organic material should be raked off.

Step "2" - Fill in major hollows with sharp sand.

Step "3" - Lay a fibertex F4m non-woven Geotextile directly on to the prepared sub-base, overlapping dry joints by 300mm. This should extend to the area as identified within Appendix "A". This is required to ensure stone fill does not migrate in the soil below.

Step "4" - Lay a 100mm Cellweb onto the geotextile and pin into place to anchor, opening the cells and stapling adjacent panels together to create a continuous mattress. Construct the edging treatment with the use of wooden edging boards attached to pegs driven into the ground. Note: Conventional edge treatment must not be used as this involves excavation and may result in root severance.

Step "5" - Infill the 100mm Cellweb with a clean angular granular stone typically 20mm to 4mm. Note: The infill must not be Mot type 1. The stone infill should be applied by hand to avoid heavy plant damaging the 100mm Cellweb.

Picture - Geosynthetics Limited Tel: 01455 617 139 Fax: 01455 617 140 Email: sales@geosyn.co.uk

2.15 *Installation of No-Dig Three-Dimensional Cellular Confinement System*

Picture - Geosynthetics Limited Tel: 01455 617 139 Fax: 01455 617 140 Email: sales@geosyn.co.uk

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2.16 *Installation of No-Dig Three-Dimensional Cellular Confinement System*

Picture - Geosynthetics Limited Tel: 01455 617 139 Fax: 01455 617 140 Email: sales@geosyn.co.uk

Step "6" - Lay an additional 100mm Cellweb on top of that already laid and pin into place then follow the same steps as described in step "5". This will give the required temporary 200mm depth in order to support construction vehicles.

***Step "7"* - Arboricultural Inspection (Cellweb Installation)**

Once the Cellweb has been installed to the specified total of 200mm depth of Cellweb, prior to the main construction works of the dwelling, within the site, the Cellweb will be checked and approved in writing by the appointed arboricultural consultant and/or the Local Authority Tree Officer. Arrangements will be made at a convenient time for the arboricultural consultant and/or Local Authority Tree Officer to carry out an inspection of the site.

2.17 ***Main Site Construction Works***

Begin the main site works for the construction of the residential dwellings and associated infrastructure. The protective fencing will preserve existing ground conditions, as detailed in the Protection Plan (see Appendix "A"). The protective fencing and the temporary cellweb layer should only be removed once all the construction works are complete.

2.18 ***Construction Phase Complete***

After the main site construction phase is complete the top 100mm layer of cellweb can be removed from the driveway section, leaving a remaining 100mm Cellweb drive; capable of taking cars and light vans. This can now have its final wearing layer applied, of which must be permeable. All final surfaces in Root Protection Areas must be porous. Surfaces can include porous block paving, porous asphalt, loose gravel, grass, and gravel retention systems (e.g., Golpla), resin bound gravel, concrete and astro turf.

2.19 Once all construction activity has finished on site the protective fencing can be removed. Any post development landscape finishes should take into account existing trees and any deep cultivation within the RPA of the trees should be avoided.

2.20 ***Snagging***

During construction activities, should there be a need for any variations to the scheme of tree protection and/or methods and techniques, whether planned or reactive, these variations shall be agreed in writing by the Local Authority Tree Officer.

2.21 During construction activities, in the event of incidents likely to result in the loss of trees that are to be retained then the site manager shall notify the appointed Arboricultural Consultant and LPA Tree Officer of the incident within 48 hours.

2.22 The protective measures will seal off the exclusion zone and preserve the existing ground conditions, as detailed in the Protection Plan (Appendix "A"). The protection measures should only be removed once all construction activities are complete.

3.0 KEY PERSONNEL

A list of the known contact details of the relevant parties is as follows:

Role	Name	Company
Client	James Pearson	Charworth Homes 82 Oswald Road, Scunthorpe, North Lincolnshire, DN15 7PA Email: james.pearson@charworthhomes.co.uk
Agent	Andrew Inch	id Architecture, 2 Alexandra Road, Grimsby, DN31 1RW Tel: 01472 211144 Email: andy.inch@idarchitecture.co.uk
Arboricultural Consultant	Andrew Hudson	EQUANS Arboricultural Consultancy New Oxford House 2 George Street Grimsby North East Lincolnshire DN31 1HB Mob. +44 (0) 07919 304 536 Email. andrew.hudson@engie.com
Local Authority Tree Officer (North Lincolnshire Borough Council)	Andrea Brocklebank	North Lincolnshire Council Environment Officer (Trees and Landscape) Transport, Highways and Environment Directorate of Operations North Lincolnshire Council. 01724 297000 Email: Andrea.Brocklebank@northlincs.gov.uk

4.0 SUMMARY AND PHASING OF WORK

Phased Project Management of Tree Issues Throughout Construction	
Action	**Summary of Detail**
Pre-Development Tree Work – Prior to any construction activity taking place the recommended tree work should take place	As specified within this Arboricultural Method Statement - 'Schedule of Tree Work' pg. 5/6 (2.3) – Works to trees
Arboricultural Supervision – A pre-commencement meeting should be held on site before any of the site clearance, ground works and construction work begins	• Inspection of pre-development tree works to ensure works have been carried out in accordance with the approved specification of works and has been carried out to the correct standards • Any additional tree works expected, outside of the approved specification of works will be agreed and recorded • All tree protection measures detailed in this method statement should be fully discussed so that all aspects of implementation and sequencing are understood by all the parties • The details of the programme of tree protection should be agreed and finalised • Any site supervision arrangements between the arboricultural consultant and developer should be agreed and finalised. Including any site visits deemed necessary, by a local planning authority ("LPA") representative
Installation of Tree Protection Measures - Trees will be protected by barriers and ground protection as described in Appendix "A". The location of the barriers and ground protection is also shown in Appendix "A"	The barriers should be fit for the purpose of excluding all construction activity. Vertical barriers will be installed as soon as the pre-development tree work is complete. Once protection measures are installed, they should be regarded as sacrosanct and should not be removed or altered without approval from the LPA.
Arboricultural Inspection – Tree Protection Measures	All tree protective measures will be checked and approved in writing by the appointed arboricultural consultant and/or the Local Authority Tree Officer.
Installation of Cell-Web – Three-dimensional cellular confinement system for the driveway arrangement	Installation to be in accordance with the methods and techniques described in this method statement and also App "A" Tree Protection Plan
Construction Phase – Once tree protective measures have been formally approved main site construction may begin	• Any variation to tree protective measures needs to be formally agreed. • Any variation to methods/techniques, design/construction needs to be formally agreed. • Any incidents of tree loss during development needs to be reported within 48hrs. • Tree protective measures should be regarded as sacrosanct and should not be removed or altered without approval from the LPA.
Construction Phase Complete	The tree protective measures can be removed and the top layer 100mm cell-web can be removed. Final wearing layer for the access and driveway can be applied. Post development landscape finishes should still consider the trees below ground constraints

Estimated RPA of Hedgerow

Appendix "A"

Hedge Protection

Barriers:

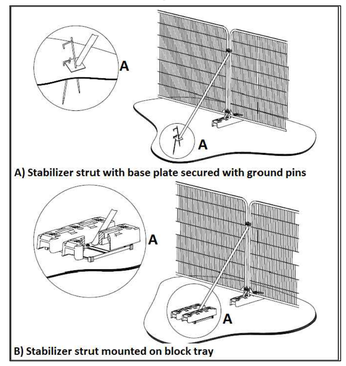
Barriers should be fit for the purpose of excluding construction activity from the root protection (RPA) area. The barriers should remain rigid and complete throughout the demolition/construction phase.

BS 5837: 2012 - Trees in Relation to Design, Demolition and Construction recommends the barrier type specification is commensurate to site circumstances and associated risk of damage within the RPA.

Pre-development site inspection should be carried out by an arboriculturalist or Local Authority Tree Officer to ensure protective measures are to the correct specification and fit for purpose. The Local Planning Authority should be made aware of any amendments.

Protective barriers protect the RPA. Any contamination into these areas such as chemical, petrol, diesel and oil spillage should be avoided. The mixing of cement and use of toxic materials should have a designated area well away from tree barriers

Barrier Specification



Barrier Position

No-Dig Cellweb

Restored Hedgrow

Tree protective measures should be erected before any materials or machinery is brought onto site and before any demolition, development or stripping of soil commences. Once erected, protection measures should be regarded as sacrosanct and should not be removed or altered without approval from the Local Planning Authority and recommendation of an arboriculturalist

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CLIENT	Charworth Homes
PROJECT	Residential Development land west of Station Road in Sturton (DN20 9DW)
TITLE	Tree/Hedge Protection Plan

DRAWN	CHECKED	APPROVED
AH		
DATE	**ORIGINAL SIZE**	**SCALE**
7th February 2022	A1 (594 x 841)	1:150
FILE REF	**DRAWING No.**	**REVISION NO**
AH-EQUANS	TPP01_070222_AH	

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