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Location:
Chapel Garth
Egton Bridge

Report Type:
Arboricultural Survey
Arboricultural Impact Assessment
Arboricultural Method Statement
Tree Protection Plan

Ref:
ARB/AE/1604

Date:
August 2017

Wrens Nest, Underhill, Glaisdale, North Yorkshire. YO21 2PF

Company Registration No: 5515572 VAT No: 89226571

Contents

Appendices

1 Introduction

1.1 This report has been prepared by Andrew Elliott of Elliott Consultancy Ltd on behalf of the applicant.

1.2 Elliott Consultancy Ltd was commissioned to visit the site to inspect the trees and to produce an arboricultural report in accordance with British Standard 5837:2012 'Trees in Relation to Design, Demolition & Construction'. An initial inspection of the trees was undertaken on the 17th August 2017.

1.3 **Scope of the report:**

- This report provides arboricultural information and advice in relation to the proposed extension to the current dwelling within the rear garden as shown within Appendix 7.
- It should be used to guide the construction process in order to minimise potential damage to retained trees.
- Section 4 provides a summary of the design proposals and their impact on the current tree population.
- Sections 5-7 provide a method statement that details all measures recommended for adequate tree protection including any special construction measures to be utilised.
- Within the Arboricultural Tasks Sequence Table (Appendix 3), is a timescale for implementation of these tree works and protective measures in reference to the development period.

1.4 Trees can be protected by Tree Preservation Order or by merit of location within a Conservation Area; advice should be sought from the relevant planning department if such restrictions have been placed on the site.

1.5 **Prior to site works commencing, the Arboricultural Method Statement needs to be passed to the site manager or contractor and used as reference during the development period, with particular attention paid to Sections 5-7, and Appendices 2-7.**

2 Site Information

2.1 Chapel Garth is located within the village of Egton Bridge and is a detached residential dwelling set within mature gardens. Figure 1 shows the extent of the site:

Figure 1: Site extent highlighted

2.2 Tree cover of within the garden is extensive and mature, with significant tree coverage along its eastern and southern boundaries. All trees closest to the potential construction zones have been detailed individually within the survey data, with other (still significant) mature tree cover located further from the proposals which have been detailed within a group assessment.

2.3 Any visibility constraints encountered are noted within the survey data (Appendix 1).

3 Tree Quality Assessment

3.1 BS5837:2012 notes that all trees apart from those with stem diameters <150mm or classified as Category U should be viewed as a site constraint. When inspected, each tree and or group feature is assigned one of four categories that signify how suitable that tree/group would be for retention within any development proposals, and therefore the degree to which it should constrain the site. The four categories are as follows:

3.2.1 **Category A** trees are those of high quality and value, and of a condition whereby they could make a substantial contribution to the site. Such trees should be retained and offered adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012. This means keeping proposed features and alterations to ground levels outside of root protection areas and crown spreads to ensure that trees remain in adequate condition post-development.

3.2.2 **Category B** trees are those of moderate quality and value, and of a condition that still make a substantial contribution to the site. Category B trees should be retained wherever possible and offered adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012.

3.2.3 **Category C** trees are considered to be of low quality and value, or lacking stature, but of an adequate condition to remain in the short-term. These trees can also be retained if required but where they form a significant constraint to development their removal should be considered. Where they are to be retained they should be afforded adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012.

3.2.4 **Category U** trees are of such a condition that any existing value would be lost within 10 years. As a result it is recommended that Category U trees are not considered a constraint for development and are removed prior to construction commencing.

3.3 In addition to the four main categories explained above, each tree/group is assigned a sub-category which signifies its overriding value as determined by the surveyor, which is noted by adding a suffix of 1, 2 or 3 alongside the category letter. 1 signifies that the trees/groups main value is arboricultural e.g. it may be a particularly good example or may be rare. A 2 signifies that the overriding factor was due to the landscape value that the tree/group provides e.g. it may be part of a group feature such as a screen. A 3 indicates that a cultural factor was the overriding value e.g. it may have historical or commemorative importance.

4 Design Proposals and Arboricultural Impact

4.1 This section concentrates on the proposals and how they relate to the current trees within the site. The proposal includes the removal of the current glazed conservatory from the southern end of the building, following which a new two storey extension to the existing building will be constructed – approximately on a similar footprint (as shown within Appendix 7).

4.2 **Potential Conflict 1: Loss of trees due to the construction of the extension.**
No trees are required to be removed to construct the extension.
Mitigation / Countermeasure: No countermeasures or mitigation is required.

4.3 **Potential Conflict 2: Damage to trees due to the proximity of the new extension.**
The location of the proposed extension is not within the Root Protection Area (RPA) of any trees and is located fully within an area of historic hard surfacing and should therefore cause no damage to underlying root tissue.
Mitigation / Countermeasure: No countermeasures or mitigation is required.

4.4 **Potential Conflict 3: Damage to trees due to the construction process.**
During any construction process trees can be damaged due a variety of reasons and construction pressures.
Mitigation / Countermeasure: The trees on site can be protected during the construction process by the agreed construction exclusion zone shown within Appendix 7 which will be fenced off using Heras type panels, securely bolted and braced to prevent movement and resist impact (see Appendix 5).
Access to the site and an area for the storage of materials will be provided on the driveway with adequate room for construction and scaffolding being provided.

4.5 **Potential Conflict 4: Location of utility runs in RPA's.**
Damage can be caused to roots during the installation or replacement of utility runs.
Mitigation / Countermeasure: No new utility runs must be located within any of the retained trees root protection areas. Any works to existing utilities will be undertaken with regard for the retained tree cover and will be in accordance with NJUG (National Joint Utility Group) recommendations.

5 Pre-Development and Site Preparation Works

5.1 Refer to Appendix 3 for stage specific tasks.

5.2 Prior to any further site works the tree protection barrier needs to be erected in order to protect the trees from damage; this must remain in situ during the entire build process. The fencing needs to be erected according to the locations found on the Tree Protection Plan (Appendix 7). The fence specification should be Heras / weldmesh type panels located on feet that are pinned to prevent movement and resist impact (see Appendix 5). All weather notices should be attached to the fencing marked with the following: '*Construction Exclusion Zone - Keep Out*' (a notice is provided within Appendix 4).

6 Tree protection measures during development

6.1 Refer to Appendix 3 for stage specific tasks.

6.2 All ground levels where trees are located should be maintained. Changes to soil levels adjacent to trees can severely affect the trees structural integrity and its ability to gain moisture and nutrients from the surrounding soil. Unavoidable level changes that may affect retained trees, and not already accounted for within this method statement, should be assessed by a qualified arboriculturalist so that any remedial works can be undertaken.

6.3 Building material storage and operations that can contaminate soil, such as cement mixing, must be confined to areas outside the tree protection areas (see appendix 7).

6.4 Fires should not be lit within 5m of the foliage or drip line of the tree. Care should be taken and the fire should not be allowed to become large, and the wind direction noted.

6.5 The trees should not be used to attach notices, cables or other services.

6.6 At the beginning of the construction phase, the site manager will appoint a delegated site representative who shall be responsible for continued checking of the protective fencing to ensure it is compliant with the exclusion zone.

7 Post-Construction Considerations

7.1 Refer to Appendix 3 for stage specific tasks.

7.2 Only once all construction works have been completed can the protective fencing and any ground protection be removed.

Appendix 1: Tree Data

Key to tree survey headings:

- **Tag** – Tree number corresponding to plans & tags
- **Species** –Common name of each tree
- **DBH** – 'Diameter at breast height' in mm taken on stem at 1.5m.
- **Hgt** – Height in metres of each tree
- **Crown spread: North, South, East, West** – Crown spread in metres to x4 cardinal points from centre of stem
- **CH** – Crown clearance from ground to lowest branches
- **EstD** – Estimated dimensions
- **Age** – Age-class of tree: Y = Young, SM = Semi-mature, M = Mature, OM = Over-mature.
- **General observations** – details both Physiological and structural Condition
- **Est Con** – Estimated life expectancy / contribution to the landscape (in years): 0-10, 10-20, 20-40, 40+
- **Recommendations** – Any recommendations that, regardless of land use, require attention.
- **BS. Cat** – Retention category. **A**, **B**, **C**, or **U**. For retained trees **A** being of the highest quality, **C** being the lowest. Category **U** trees for removal regardless of design. Category A, B, & C are given sub-catagories1, 2, & 3 – details of which are shown in appendices.

Tree Survey Data - Chapel Garth, Egton Bridge.

No.	Species	Age	DBH	Stems	Height	Crown Spread				CH	EstD	General Observations	EstCont	BS Cat	Recommendation
						N	S	E	W						
1	Common Lime	M	75	1	20	7	5	6	6	4	Y	Basal epicormic growth limited visibility. Crown in reasonable condition.	40+	A1	No work required
2	Turkey Oak	M	118	1	25	10	8	9	12	6	N	Moderate deadwood in crown (Characteristic of species) - some over adjacent road.	40+	A1	Remove deadwood over road.
3	Sycamore	M	66	1	18	5	5	4	6	3	N	Logs at base limited access and visibility. Crown in reasonable condition.	40+	A1	No work required
4	Common Lime	M	85	1	24	6	6	5	6	4	Y	Logs at base limited access and visibility. Crown in reasonable condition.	40+	A1	No work required
5	Corsican Pine	M	83	1	25	6	5	5	5	15	N	x4 co-dominant stems at 8m - union appears in reasonable condition.	40+	A1	No work required
6	Douglas Fir	M	97	1	28	7	5	5	6	7	N	Small snapped branch at 7m - low target potential.	40+	A1	No work required
7	Sycamore	M	54	1	18	7	6	5	6	2	N		40+	A1	No work required
8	Fir spp	M	59	1	16	3	3	3	3	5	N		40+	A1	No work required
9	Dawn Redwood	SM	42	1	12	5	3	5	3	1	N		40+	A1	No work required

Group Data - Chapel Garth, Egton Bridge.

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
1	Beech Pine spp Lime spp Turkey Oak	Holly Yew Cypress spp	70	20	M	6	Group at southern end of garden - trees 4-8 are also part of this group but highlighted individually due to stature and location closest to construction zone. Evergreen understorey.	No work required	40+	A1

Appendix 2: Photographs

Figure 1: Current conservatory. Tree 9 to left

Figure 2: Looking south towards Group 1

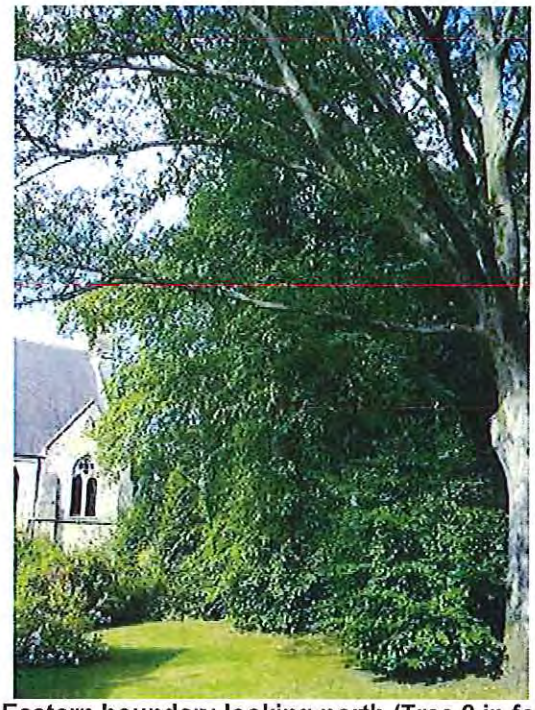


Figure 3: Eastern boundary looking north (Tree 2 in foreground)

Figure 3: Tree 2

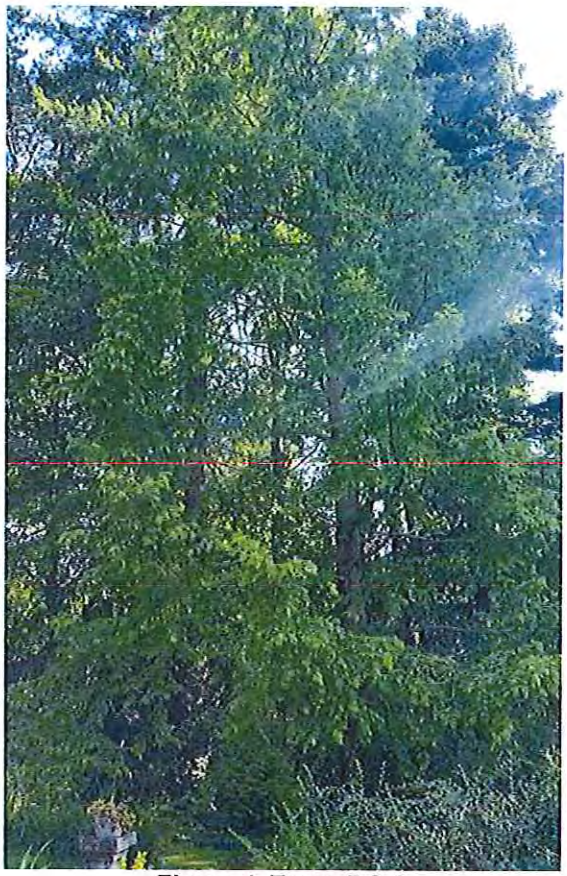
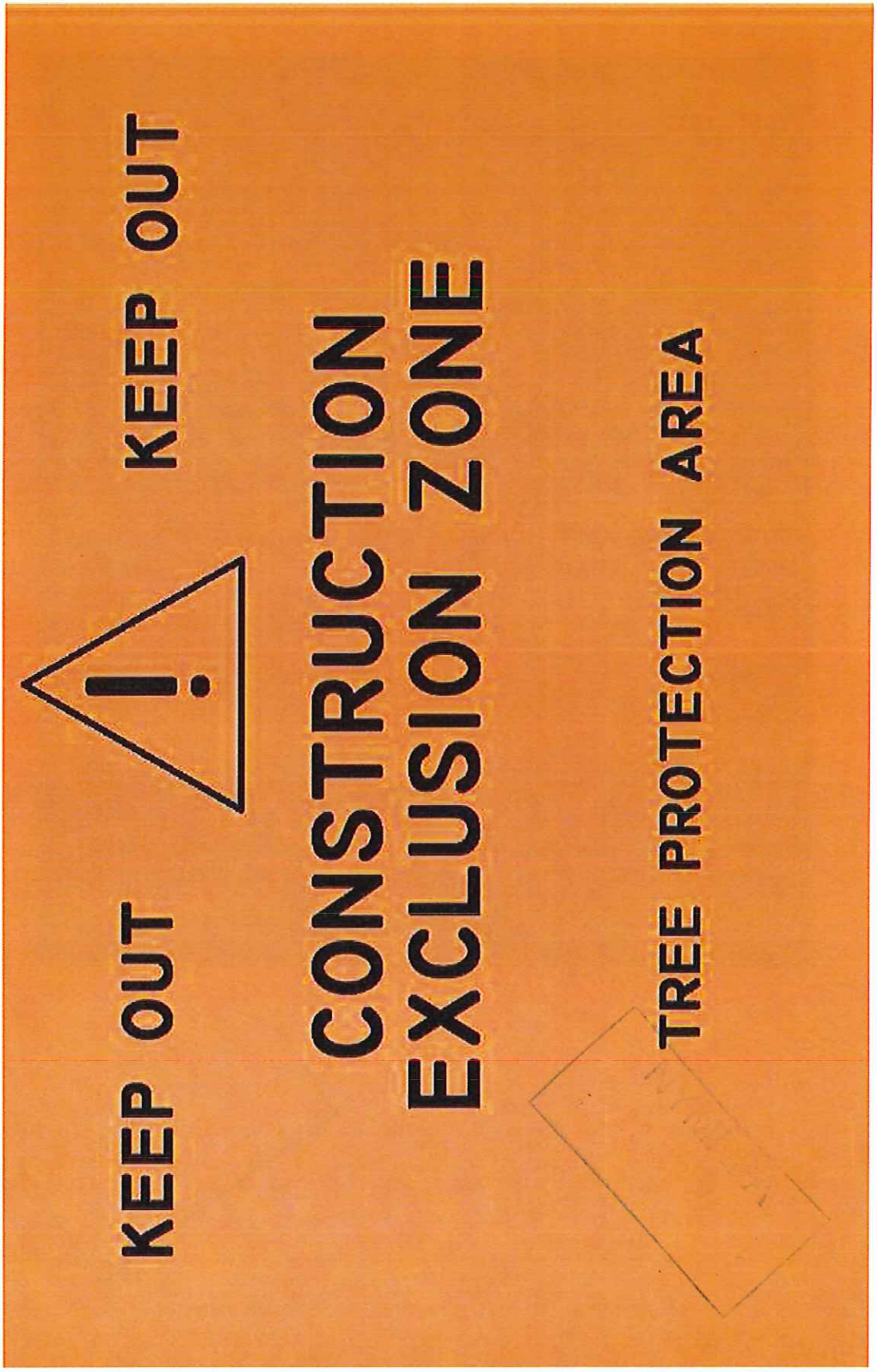


Figure 4: Trees 5 & 6

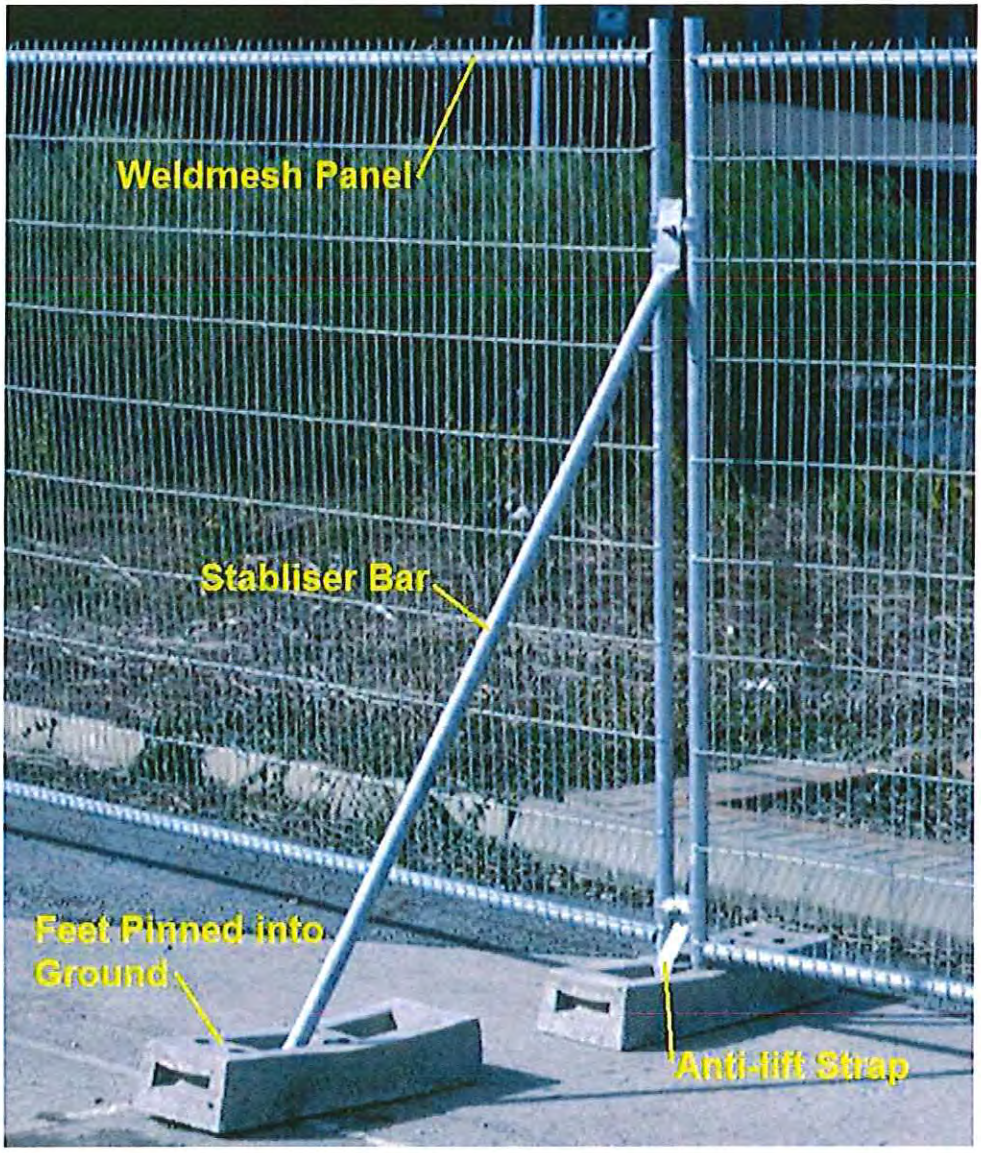
Appendix 3: Arboricultural Tasks Sequence Tables

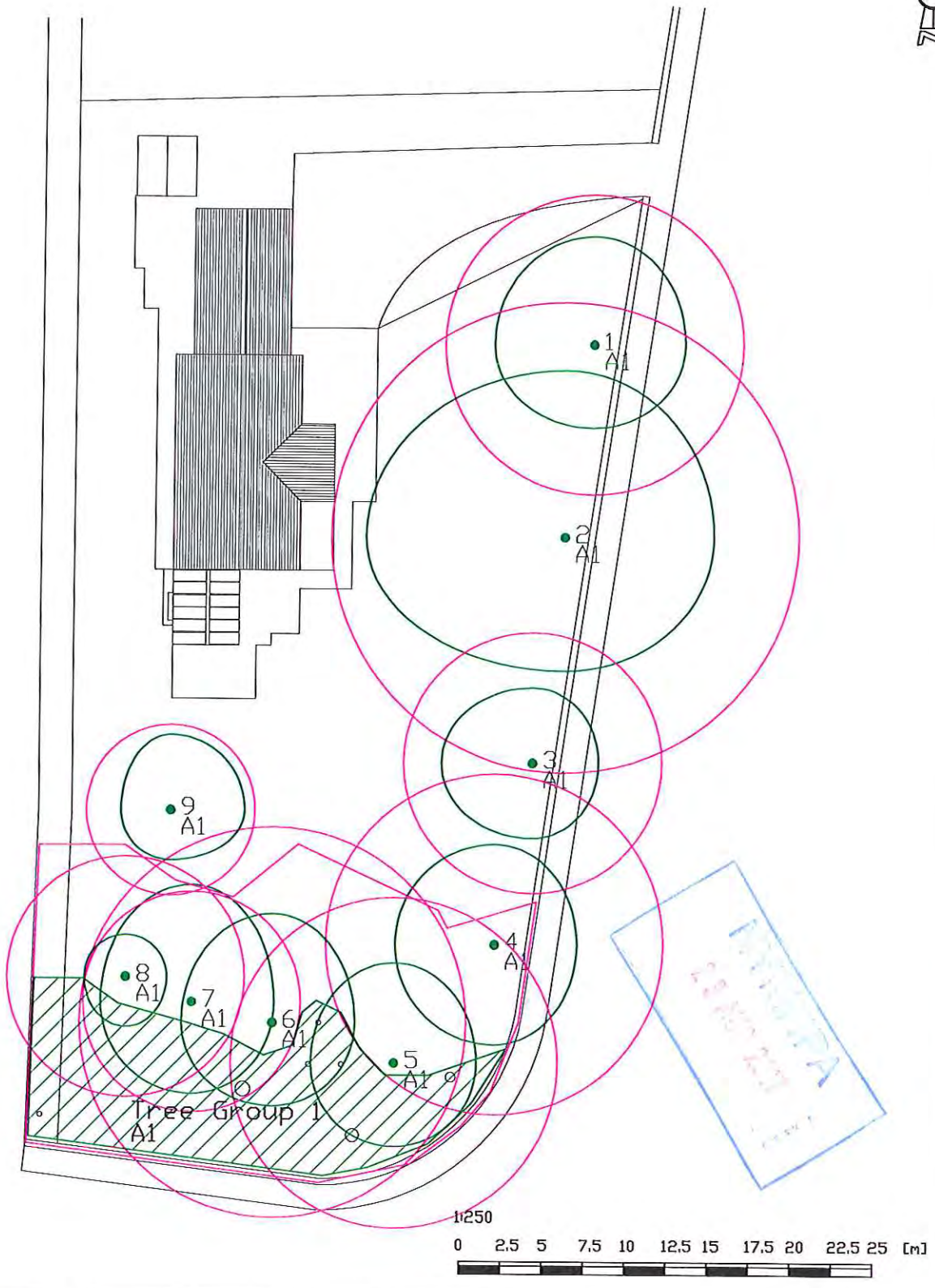
Tree or Group Number	Pre-Demolition & Construction Stage	Construction Stage	Post Construction Stage
All trees.	Adhere to Section 5. Set out and erect protective fencing as per Appendices 8. Attach notice in Appendix 4.	Adhere to specification within Section 6. Monitor integrity of fencing and tree protection area.	Adhere to specification within Section 7. Remove tree protection measures.

Appendix 4: Construction Exclusion Zone Notice



Appendix 5: Protective Fencing Specification





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Tree Position Showing Crown Extents and BS5837 Category A

Tree Position Showing Crown Extents and BS5837 Category B

Tree Position Showing Crown Extents and BS5837 Category C

Tree Position Showing Crown Extents and BS5837 Category U

Root Protection Area - to remain free from disturbance (merged where over-lapping)

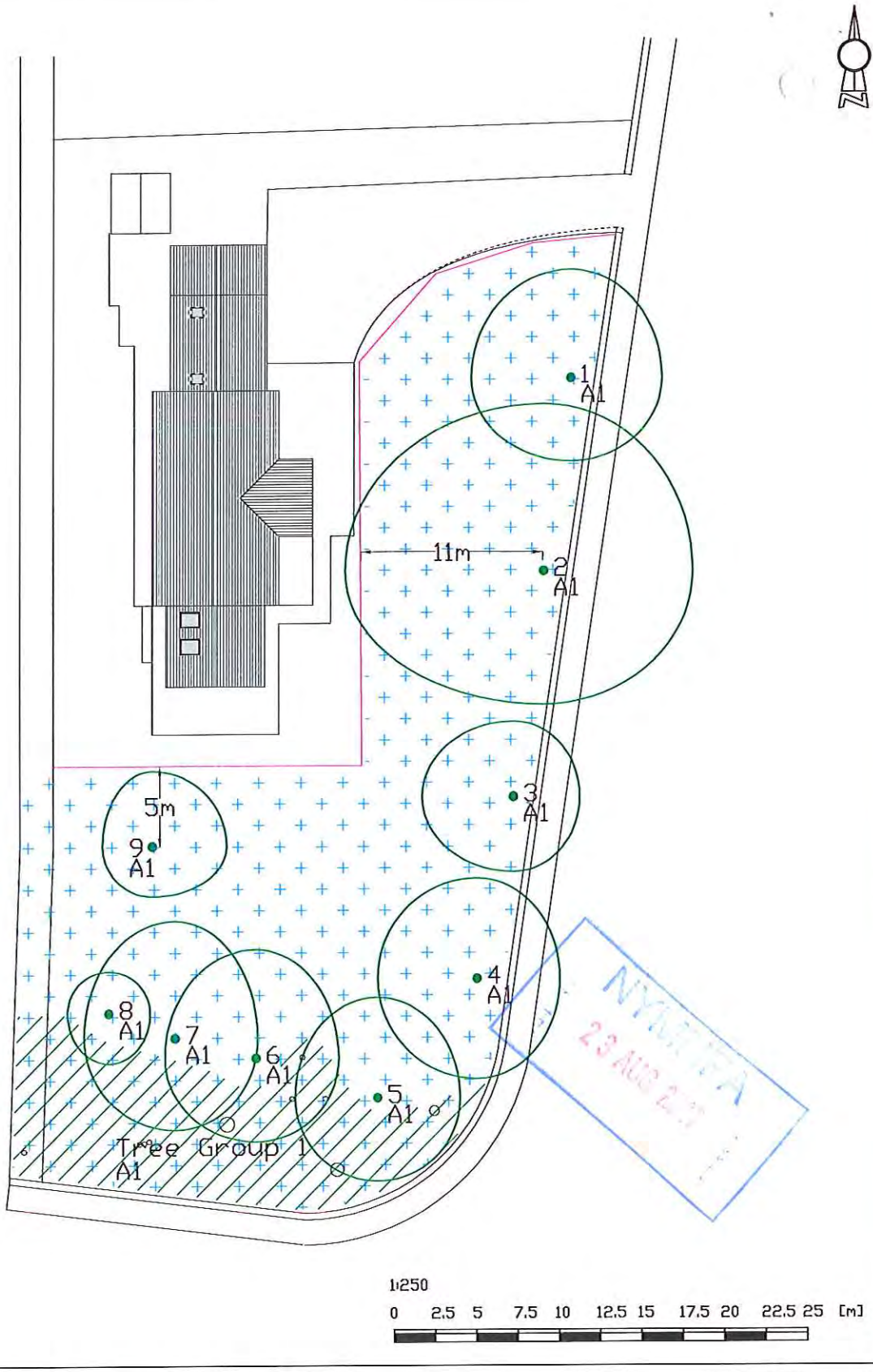
1/G1 Tree/Group Number

A1/B1/C1/U BS5837 Retention Category

Group of Trees

APPENDIX 6

Drawing Title:	Tree Constraints Plan
Project:	Chapel Garth, Egton Bridge
Drawing Number:	ARB/AE/1604/TCP
Date:	August 2017
Scale:	1:250 @ A3



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Tree Position Showing Crown Extents and BS5837 Category A

Tree Position Showing Crown Extents and BS5837 Category B

Tree Position Showing Crown Extents and BS5837 Category C

Tree Position Showing Crown Extents and BS5837 Category U

Group of Trees

Tree Protection Fenceline

Construction Exclusion Zone

1/G1 Tree/Group Number

A1/B1/C1/U BS5837 Retention Category

APPENDIX 7

Drawing Title:	Tree Protection Plan
Project:	Chapel Garth, Egton Bridge
Drawing Number:	ARB/AE/1604/TPP
Date:	August 2017
Scale:	1:250 @ A3