

# Arboricultural Method Statement

## Protected Status Of Trees

Trees may be legally protected, this may either be in the form of a Tree Preservation Order (TPO) or that the trees are located within a Conservation area. In addition some tree felling may require a felling licence from the Forestry Commission.

Potentially large penalties may be enforced for illegally carrying out works on protected trees. It is recommended that checks are made before any works are undertaken and no work should commence until permission has been granted. Please note that there are a number of exemptions from the requirement to obtain a felling licence including land on which full planning permission has been granted by the local authority, however this exemption does not cover land where only outline planning permission has been granted, or on land which has been allocated for residential development within local authority urban and local development plans.

AllAboutTrees has been able to ascertain with South Tyneside Council (the Local Planning Authority) on Wednesday 25th March 2015 there are no restrictions protecting the trees on the site. The site is not within a Conservation area and there are no TPOs imposed on any trees within the site.

## Tree Works

The first arboricultural works on site will be the removal of all the conflicting trees (trees 1-21, hedge 1 & 2, and group 1 and part of group 2) which are identified on the Tree Protection Plan (TPP) by the broken black ring surrounding the tree centre and referred to in appendix 1 of this report.

The stumps may either be ground out using a stump grinding machine or removed as part of the ground excavation works.

## Protective Barrier Erection

The protective barriers are to be erected prior to the commencement of site works including demolition, soil stripping or movement, bringing onto site of materials, supplies or machinery. Tree works can be undertaken prior to the erection of the barriers.

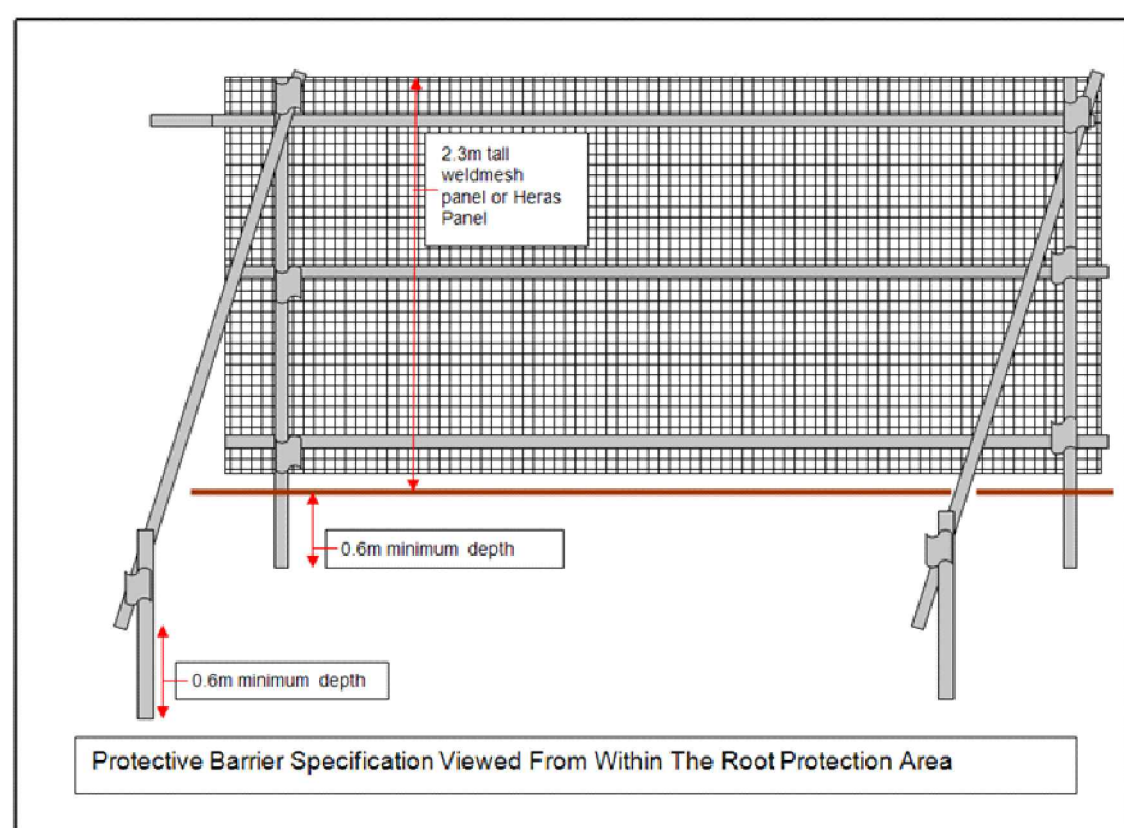
The barriers must be erected in the position indicated on the Tree Protection Plan (TPP) by the dark blue line and be constructed as per the following specification.

The barriers should be considered essential and should not be removed or altered without prior recommendation by an Arboriculturalist and approval of the local planning authority.

The barrier should consist of a vertical and horizontal framework of scaffold tubing which is adequately braced to resist impacts. The vertical scaffold tubes need to be placed at a distance not exceeding 3m apart. The weldmesh or Heras panels need to be 2.2m tall and are securely attached to the scaffold framework with wire or scaffold clamps. The wire or scaffold clamps should be secured on the inside of the barrier to avoid easy dismantling. Panels on rubber or concrete feet are not resistant to impact and should not be used.

No fixing shall be made to any tree and all possible care must be taken to prevent damage to tree roots when locating the posts.

All types of barriers must be firmly attached to prevent movement by site personnel or vehicles and all weather signs with the wording "Construction exclusion zone- keep out" should be attached.



## Location of Site Compound & Storage Areas

The contractor's site compound, storage & parking areas must be located outside of the root protection areas (RPAs) of the retained trees.

All site storage areas, especially cement mixing and washing points for plant and vehicles must also be situated outside of the root protection areas (RPA). Where there is a possible risk of polluted water runoff heavy duty plastic sheeting and sand bags must be used to contain spillages and contamination.

## Drainage Runs/ Underground Services

It is assumed that the existing service runs will be exploited where possible, but if new works are required it is important that they comply with the National Joint Utilities Group (NJUG) 'Guidelines for the planning, installation, and maintenance of utility services in proximity to trees' and BS 5837:2012. The excavation of open trenches by machine will be unacceptable within the protective zone of any of the retained trees.

Wherever possible, services should be routed outside of any retained trees RPA. When this is not possible apparatus should be routed together in a common duct and any inspection chambers sited outside the RPA.

Acceptable techniques for the laying of services in order of preference are:

- Trenchless**- by use of thrust boring or similar techniques. The pit excavations for starting and receiving the machinery should be located outside of the root protection area. To avoid root damage, the mole should run at a depth of at least 600mm.
- Use of external lubricants on the mole other than water (eg oil or bentonite) should be avoided.

Method	Trenchless Solutions For Installation Of Underground Services			Applications	Not suitable for
	Accuracy (MM)	Bore (A) diameter (MM)	Maximum subterranean length (M)		
Microtunnelling	<20	100 to 300	40	Gravily-fall pipes, deep apparatus, watercourse roadway under crossings	Low-cost projects due to relative expense
Surface launched directional drilling	±100	25 to 1200	150	Pressure pipes, cables including fibre optic	Gravily fall pipes, e.g. drains and sewers (B)
Pipe ramming	±150	150 to 2000	70	Any large-bore pipes and ducts	Rocky and other heavily obstructed soils
Impact moling (C)	±50 (D)	30 to 180 (E)	40	Gas, water and cable connections, e.g. from street to property	Any application that requires accuracy over distances in excess of 5m.

- (A) Dependent upon strata encountered  
 (B) Pit-launched directional drilling can be used for gravity fall pipes up to 20m in subterranean length  
 (C) Impact moling (also known as thrust-bore) generally requires soft, cohesive soils.  
 (D) Substantial inverse relationship between accuracy and distance  
 (E) Figures given relate to single pass: up to 300mm bore achievable with multiple passes

If trenchless insertion is not feasible the alternatives are detailed below in order of preference.

- Broken trench**- by using hand dug trench sections together with trenchless techniques. It should be limited to practical access and installation around or below the roots. The trench must be dug by hand (see following comments re continuous trenching) and only be long enough to allow access for linking to the next section. The open sections should be kept as short as possible.

- Continuous trench**- the trench is excavated by hand and retains as many roots as possible. The surface layer is removed carefully and hand digging of the trench takes place. No roots over 2.5cm diameter or clumps of smaller roots (including fibrous) should be severed. The bark surrounding the roots must be maintained. Cutting of roots over 2.5cm diameter should not be attempted without the advice of a qualified Arboriculturalist.

If roots have to be cut, a sharp tool (defined as spade, narrow spade, fork, breaker bar, secateurs, hand saw, post hole shoveller, hand trowel) should be used.

## Backfilling

Reinstatement of street works must comply with the code of practice New Roads and Streetworks Act 1991 (Specification for the reinstatement of openings in highways), but where tree roots are involved backfilling should be carefully carried out to avoid direct damage to retained roots and excessive compaction of the soil around them.

The backfill should incorporate an inert granular material mixed with top soil or sharp sand (not builders sand) around the retained roots. This will allow a measure of compaction for resurfacing whilst creating an aerated zone around the roots.

Roots and in particular fine roots, are vulnerable to desiccation on exposure to air. The roots are at greatest risk when there are rapid fluctuations in the air temperature around them (especially winter diurnal temperatures). It is vitally important that the roots are covered with sacking whilst the trench is open. The sacking should be removed once the trench is backfilled.

## Arboricultural Supervision

The following programme of supervision is proposed to assist in the preservation and protection of the retained trees during all aspects of the proposed development.

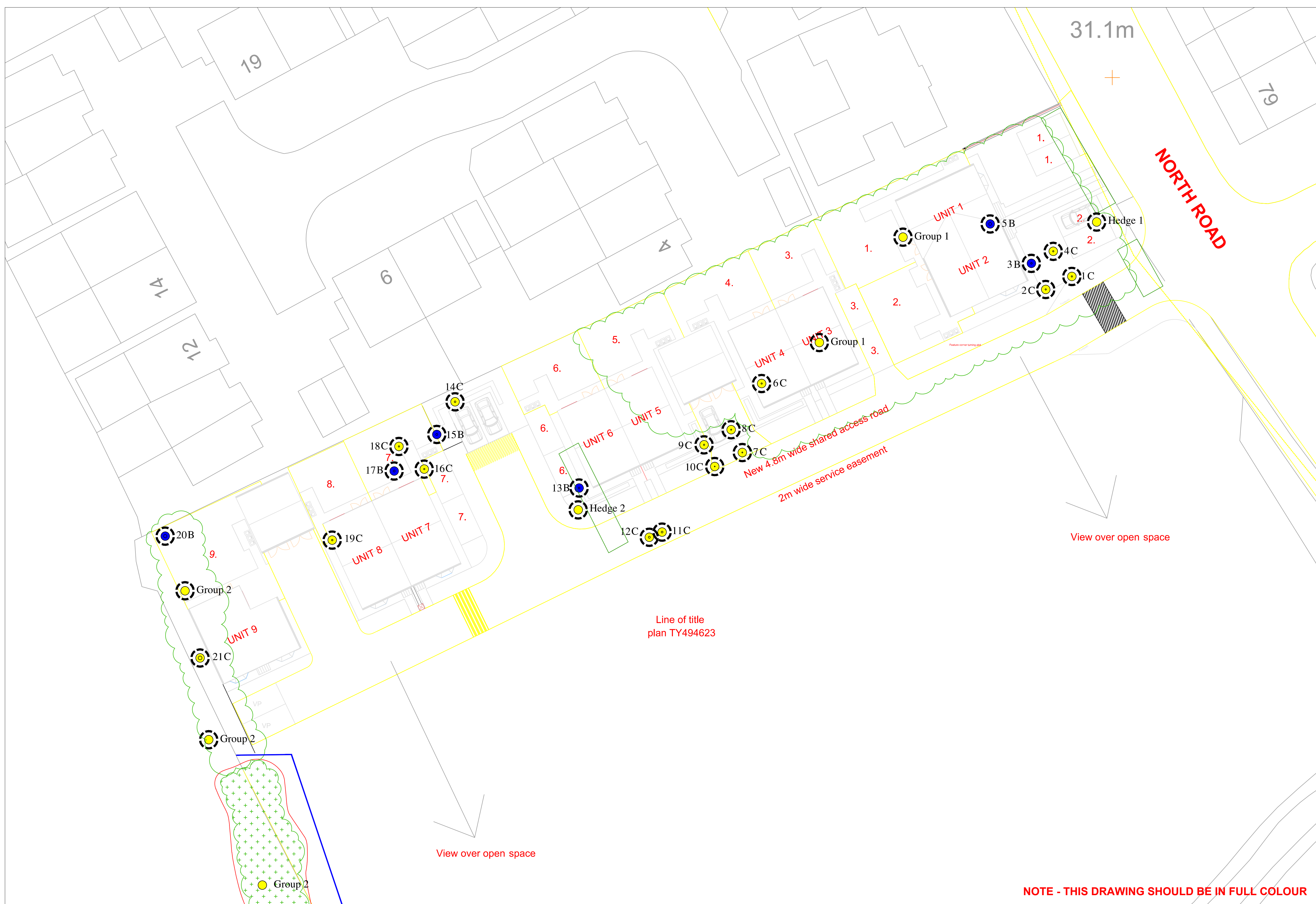
The supervision arrangements must be sufficiently flexible to allow for the supervision of all sensitive works as they occur. The Arboricultural Consultant's initial role is to liaise with the developer and the council to ensure that the appropriate protective measures are in place before any works commence on site and once the site is active monitor compliance with the Arboricultural conditions and advise on any tree problems that may arise.

Action	Programming	Extent of supervision	Nature of supervision
Pre-commencement meeting with site manager & Council tree officer	Before any site activity commences	Meeting on site	Site meeting & letter or email confirming results of meeting distributed to relevant parties
Tree works meeting with arboricultural contractor	Prior to commencement of tree works	Review any updates to the proposal	Confirm extent of tree works and protective barrier position
Tree works undertaken	Before any plant enters site or demolition/construction work commences.	Meeting on site to confirm tree works specification and method of working	Site meeting & letter or email confirming results of meeting distributed to relevant parties
Finalising tree protection barrier installation and other tree protection measures		Confirm position of the protective barriers and any other tree protection measures have been installed and comply with the Tree Protection Plan (TPP)	Provide photographs indicating completed tree protection
Removal of protective barriers and other tree protection measures	Once construction activities have finished	Meeting with contractor for briefing before removal commences	Site meeting & letter or email confirming results of meeting distributed to relevant parties

## Site Management

It is the developer's responsibility to ensure that the details of the Arboricultural method statement and any agreed amendments are known and understood by all relevant site personnel. Copies of the agreed documents must be kept on site at all times and the site manager or other appropriate person must brief all personnel who could impact the trees on the specific tree protection requirements.

This should form part of the site induction procedure and be written into the appropriate site management documents.



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The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

**Key:**

- Tree Number
- Tree Crown True Shape (Shaded Light Green)
- Predicted Future Growth Of Canopy (Shaded Dark Green & Surrounding Current Crown Shape)
- Trees To Be Removed (Broken Black Ring Surrounding Centre)
- Tree Quality Assessment (Centre Colours As Below)
- Green Centre = High Quality (Denoted By Letter A)
- Blue Centre = Moderate Quality (Denoted By Letter B)
- Yellow Centre = Low Quality (Denoted By Letter C)
- Red Centre = Unsuitable To Retain (Denoted By Letter U)
- BS Root Protection Area As Shown By The Red Circle Around The Tree
- Tree / Woodland Groups
- Hedgrows
- Position Of Protective Barrier

Institute of Chartered Foresters  
Registered Consultant

Arboricultural Method Statement  
Tree Protection Plan (AMS TPP)

Retained Trees Shown On Proposed  
Layout With Protective Measures Indicated

The Former School Kitchens, North Road,  
Boldon Colliery  
For  
Blake Hopkinson Architecture

AllAboutTrees Ltd  
Arboricultural & Ecological Consulting  
Chartered Arboriculturalists & Environmentalists  
The Old School, Quarry Lane,  
Butterknowle, Co. Durham, DL13 5LN  
Tel 0191 379494 01388 529200  
email info@allabouttrees.co.uk www.allabouttrees.co.uk

Drawn at Durham Office By TA Checked by AW  
Scale 1:200 at A0 Date 25.03.15

Registered Chartered  
Arboricultural Consultants  
-Planning & Development  
-Urban Forestry  
-Ecological Consultants

Drawing Ref. Revision  
AMS  
TPP -

**NOTE - THIS DRAWING SHOULD BE IN FULL COLOUR**