



Arboricultural Method Statement

50 Chestnut Road, Loggerheads, Market Drayton, Shropshire TF9 4BL
Tel: 01630 673216 Mob: 07813 808174 Web: www.oldoaktreecare.co.uk

Three residential properties
Lane End
Penley
Wrexham

For the purpose of specifying the requirements that must be carried out to maximise the protection to trees that are to be retained on, or adjacent to the site before and throughout the construction phase of development.

Commissioned by:

Peter Jones
Owner

Prepared by:

David Bailey
BSc (hons), M.Arbor.A, cert.Arb.(RFS)

Survey date:
20th October 2017

Report date:
27th October 2017

Wrexham County Borough Council Planning Reference: P/2017/0026

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1.0 Aims and Requirements

- 1.1 This Arboricultural Method Statement (AMS) is prepared to ensure retained trees are adequately protected before and throughout the construction phase of the development.
- 1.2 Planning permission P/2017/0026 has been granted to build 3 properties at the site. Condition 15 requires the production of a method statement to protect trees whilst development work is carried out.
- 1.3 An arboricultural report prepared by myself two years ago, dated 14th January 2014, for a different design has been used to grant planning permission for this development. Further confusion has occurred due to an amended design to this document, dated 19th November 2014.
- 1.4 I visited the site on 20th October 2017 after a request from the owner who is developing it. Work has begun on one property with a significant amount of groundwork. The large tree in the middle of the site has been protected using Heras fencing, but other trees designated for retention have not. However, it does not look like significant level changes or vehicular access has occurred in these areas.
- 1.5 I have been asked to prepare a method statement to ensure protection of retained trees and hedges to satisfy condition 15 of the planning permission.
- 1.6 Construction is to take place in two stages. The north-western and south-eastern plots are to be constructed first to provide residential properties for the owner and his family. At a later stage the third plot, to the south-west, will be built.

- 1.7 It is recognised that, sometimes, trees on building sites can be easily and avoidably damaged by construction activity.
- 1.8 This AMS aims to guide planners and contractors in the best way possible to protect trees on the site that are required for retention due to their arboricultural, landscape and wildlife importance or added financial value to the finished development.
- 1.9 A designated person, usually the site foreman, should be made responsible for the seeing through of this method statement. They should understand and be happy with all aspects of the requirements of it, being able to explain the needs of the AMS to all contractors. A copy of the AMS should always be available on site.
- 1.10 Differing amounts of information and explanation will be required for differing trades and areas of work. Obviously, trees present more difficulties to those working on the foundations of buildings, where roots can constrain building work, rather than a plasterer, working inside a new building. However, all need to be aware of the need to not damage trees both directly or indirectly.
- 1.11 Should the correct sequence and manner of operations not be followed, it may result in damage to trees, which could be held as a breach of planning consent with possible legal consequences.
- 1.12 If, at any time, there appears to be a problem with trees or damage is likely to happen to a tree, then the work should not be carried out and the opinion of an arboriculturist sought.

2.0 Some basic useful facts

- 2.1 Trees can be a controversial and problematic issue in construction areas, frequently, because of myths which are often wrong.
- 2.2 Tree roots do not mirror the above ground part of the tree. Roots are unlikely to be found deeper than one metre in the soil as they need oxygen as well as water and nutrients. The roots will spread much further than the crown of the tree, often further than twice the extent of the crown. Roots at distance from the trunk are most usually very thin.
- 2.3 In areas that make rooting difficult such as the urban environment, trees can, and do, adapt their rooting to best utilise whatever resources they can find. This may involve rooting to much deeper depths, or solely in one direction where the most favourable rooting conditions can be found.
- 2.4 A design tool called the root protection area (RPA) is often used to show where, if all other roots were to be lost, an area of rooting could be preserved to ensure the tree has enough rooting area to survive. Although RPAs can sometimes be moved around a little, this rooting area will need to be protected from any damage.

- 2.5 Roots require un-compacted soil where air, water and nutrients can easily be reached. This is why RPAs on a building site are fenced off to prevent any damage to this now small island for which the tree will be reliant upon.
- 2.6 It doesn't take much to compact soil to a point where a tree will find it very difficult to utilise. Just a couple of passes in a vehicle over a rooting area can do this.

3.0 Avoiding damage

- 3.1 The designated person is responsible for the trees on site. They should plan work in a careful and logical manner. Any operation that could damage trees should be carried out in a way so that no damage occurs. If damage is likely and no other method can be used, an arboriculturist should be consulted before the operation takes place.
- 3.2 For the sake of clarity, all trees identified in the report should be treated as being covered by the TPO. In any case, trees to be retained on site will need to be correctly cared for as part of the planning conditions.
- 3.3 Wilfully damaging, cutting down, uprooting or killing a tree protected by a TPO is a criminal offence, carrying a maximum fine of £20 000.
- 3.4 RPAs are to be left alone. No attempt should be made to use them as building stores, parking areas, wash out areas, footpaths or refuse piles.
- 3.5 Should a need to enter an RPA occur, then this should be done by the responsible person or under their supervision.
- 3.6 No trenching should occur within the RPA unless this is done using trenchless techniques. Set off and retrieval pits should be outside of any RPA.
- 3.7 Any fires should be lit at least 10 metres away from the crown of any tree and anything burnt should be done so on a hot fire, to reduce smoke and combust the material more effectively reducing the possibility of noxious fumes for both plants and animals.

4.0 Sequence of events

- 4.1 The order of events should be:
 - 1. Pre-commencement site meeting with arboriculturist
 - 2. Tree Work
 - 3. Setting out of protective fencing
 - 4. Demolition of remaining structures
 - 5. Construction work
 - 6. Removal of protective fencing

5.0 Method Statement

5.1 Pre-commencement site meeting

1. Before any activity takes place on site, a meeting will occur between the site foreman who will be responsible for day to day tree protection, all employees of the construction firm and an arboriculturist. This could be carried out either over the phone or in person.
2. The main points of the conversation should be recorded with explanations of basic tree requirements, root architecture, methods to prevent damage and a run through of the method statement.
3. Pertinent points that should be brought up are outlined below.
4. The legal requirements driving tree protection.
5. Importance of maintaining RPAs and ensuring damage does not occur from compaction or poisoning.
6. Methods of working to ensure tree protection and ease of the operation.
7. Areas for parking, storage of plant, fuel and equipment.
8. Possible unexpected occurrences which may require the advice of an arboriculturist.
9. Contact details for an arboriculturist should be available at all times to construction staff.
10. The pre-commencement site meeting was effectively held on 19th November, when I visited the site. The owner, Peter Jones who is developing the site as a self-build will be the designated person responsible for trees on a day to day basis.

5.2 Tree Work

1. It should be noted that during this stage, no vehicle is to enter the RPA of trees to be retained and should be parked at least 20 metres away from them.
2. The majority of tree work had already been carried out by the time of my visit on 20th October. One tree, 524 a category U willow, remains and should be removed before work begins in this area.
3. Hedges surrounding the property are generally tall and unkept, work is required to bring them back into management.. Some are significantly populated by unsuitable species.

4. On the north -western aspect an overgrown hedge of holly, hazel and hawthorn separate existing houses from the development. This is a useful screen, but these trees are growing higher and are likely to be very difficult to manage. Ownership of the hedge is also unclear. Agreement with the landowners on the other side of the hedge should be reached as to a height which to maintain it, allowing light into neighbouring properties whilst maintaining a screen. A height of 3 metres appears to be useful for this.
5. In the far south-eastern corner lies a number of trees planted as a hedge but now escaping a hedge setting. Most of these trees are unsuitable being spruce. A screen will be required here. The spruce should be removed as well as species such as elder. A hedge of either hawthorn or holly should be replanted or if existing stock is in place, should be coppiced and allowed to resprout to create the desired hedgerow.
6. The hawthorn and holly hedge on the western boundary is a tall, unkempt, but fairly thick. This hedge should be reduced to a height of 2.5 metres to allow easy maintenance and views over it. It may be that trees, such as oaks, are part of the hedge mix and if possible, good specimens could remain uncut to mature into an amenable tree within the hedgerow.
7. This work is to be undertaken by a professional tree surgeon and should comply with BS3998:2010 Tree Work: Recommendations.

5.3 Setting out tree protection

1. Protective fencing should be used to protect areas where access is temporarily forbidden during the construction phase.
2. Before any plant, machinery, site buildings or materials arrive on site, the protective fencing should be installed.
3. The protective fencing should comply to the specifications as set out in BS5837:2012 Trees in relation to design, demolition and construction: Recommendations (Appendix C).
4. The protective fencing should not be removed at any time during the construction process.
5. Should the design need to be altered for site specific circumstances, the approval of the project arboriculturist and LPA will need to be specified in writing. Two stages of fencing is required. The first stage involves protecting trees whilst the north-western and south-eastern houses are built. The second stage will protect the south-western house. The built houses will be occupied at this point.

6. Areas protected by protective fencing are not to be used as storage, parking or waste disposal areas. Run off from washings are not to enter into protective areas.
7. Fencing which protects hedges surrounding the site should be placed at least 2 metres distance from the stems.
8. Photographs of the tree protection should be taken and sent to the project arboriculturist for approval before the next stage begins.

5.4 Demolition work of remaining structures

1. Two structures, an old shed and a brick stand for an oil tank, will need to be demolished. Part of these structures are within RPAs.
2. Work will need to be done by hand or by machine under the guidance of a banksman.
3. A shed in the north-western corner of the plot needs to be removed. The protective fencing will wholly protect the RPA of 526 but the shed is within the RPA of the hedge behind.
4. The shed should be picked up by a grab arm from a large digger. The grab arm or buckets are not to dig into the ground or compact it from forced contact. Of more importance, the grab arm should not come into contact with the crown of the tree. Where items are hard to reach or will involve damage to trees, they should be removed by hand. A banksman is to supervise this operation.
5. The brick stand will need to be demolished by hand. To make total removal easier and protect roots some 18mm thick shuttering board could be placed on the ground to protect it from falling bricks.
6. Some old building materials are found on site, close to tree 526. It is unlikely that machinery will be able to pick up this material and should it try could collapse piles into, or through, protective fencing. These materials will need to be removed by hand.

5.5 Construction Work

1. The main construction work can now begin. During the building work, builders vehicles are to be parked well away from RPAs. Protective fencing is not to be moved to create parking. A parking area is shown in Appendix A.

2. All deliveries are to drop stores at a storage area away from the RPA. Deliveries are not to attempt to drop materials in any RPA. A storage area is shown in Appendix A.
3. A mixing area is to be designated at least 10 metres away from the RPA. All mixing of materials should take place here to prevent run off or washing contaminating the RPA of trees. A mixing area is shown in Appendix A.
4. The mixing area is to have an impermeable floor. A 200mm high bund is to be constructed around it to prevent any run off contaminating the soil.
5. A two phased protective fencing system is to be used as work on two houses will be completed first with work to the last house making the final stage.
6. At the north-east of the site, just beyond the RPA of the hedge some fill soil will need to be removed to create a level for the entrance drive. This will not involve entering the RPA but a banks man should ensure digger operations do not damage the protective fencing
7. All underground services are to be kept clear of RPAs, preferably under the entrance drive.
8. During the second phase, or perhaps before, the southernmost boundary of the site, currently with an aged wire fence, will need to be replaced. This fence line runs through the RPAs of 523 and 529. The new fence should not be constructed using strips dug for things like gravel boards. The fence should be built using hand dug post holes to reduce digging within RPAs as much as possible.
9. Excavations within RPAs should take place carefully with an expectation of finding roots. Should roots be found they should be carefully unearthed by hand tools to determine their diameter. Roots under 25mm in diameter are considered to be insignificant and should be severed with secateurs. Roots over 25mm are significant and need to be retained. The position of the post should be slightly adjusted to avoid significant roots.
10. Every second fencing panel should have the sign, shown in Appendix D, fixed to it. It should be laminated to ensure it is weatherproof.

5.6 Removal of protective fencing

1. Only when all construction work on stage 1, including hard landscaping has ceased, all plant, site buildings, skips, building spoil and spares are removed from site can protective fencing be removed and positioned in stage 2. A similar situation is required for the removal of Stage 2 protective fencing.
2. Vehicles collecting protective fencing should remain on roads and not enter into RPAs.
3. Support poles for protective fencing should be withdrawn from the soil carefully to ensure roots are not damaged.

6.0 Conclusion

- 6.1 The diligent following of this method statement will ensure the tree is successfully retained and remains healthy into the future. The advantages of this is that the site retains this large tree and users of the site will appreciate the maturity brought to the buildings by this large and amenable oak tree.

The data, views and opinions of this report relate to the survey undertaken on the date shown and do not take into account effects of weather conditions, vandalism or accidental damage. Neither can the effects of tree surgery work, poorly executed or which does not comply with BS3998:2010, be predicted. Old Oak Tree Care cannot accept any liability in connection with any of these factors. This report becomes out of date and in need of renewal two years from the survey date.



Appendix A

Dick White Referrals, Station Farm, London Road,
Six Miles Bottom, Cambridgeshire, CB8 0UH

Tree Protection Plan

STAGE 1

Showing all trees, crown dimensions, tree categories and Root Protection Areas (RPAs)

SCALE :
1 : 250

@ A3

DATE :
30/10/2017



David Bailey Old Oak Tree Care 01630 673216
07813 808174 oldoaktree@talktalk.net

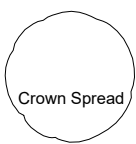
Map reference:
PC17/209/TPP/S1

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Legend

 Protective Fencing

 Fence distance from tree

 Crown Spread

 Root Protection Area

 Category 'A'

 Category 'B'

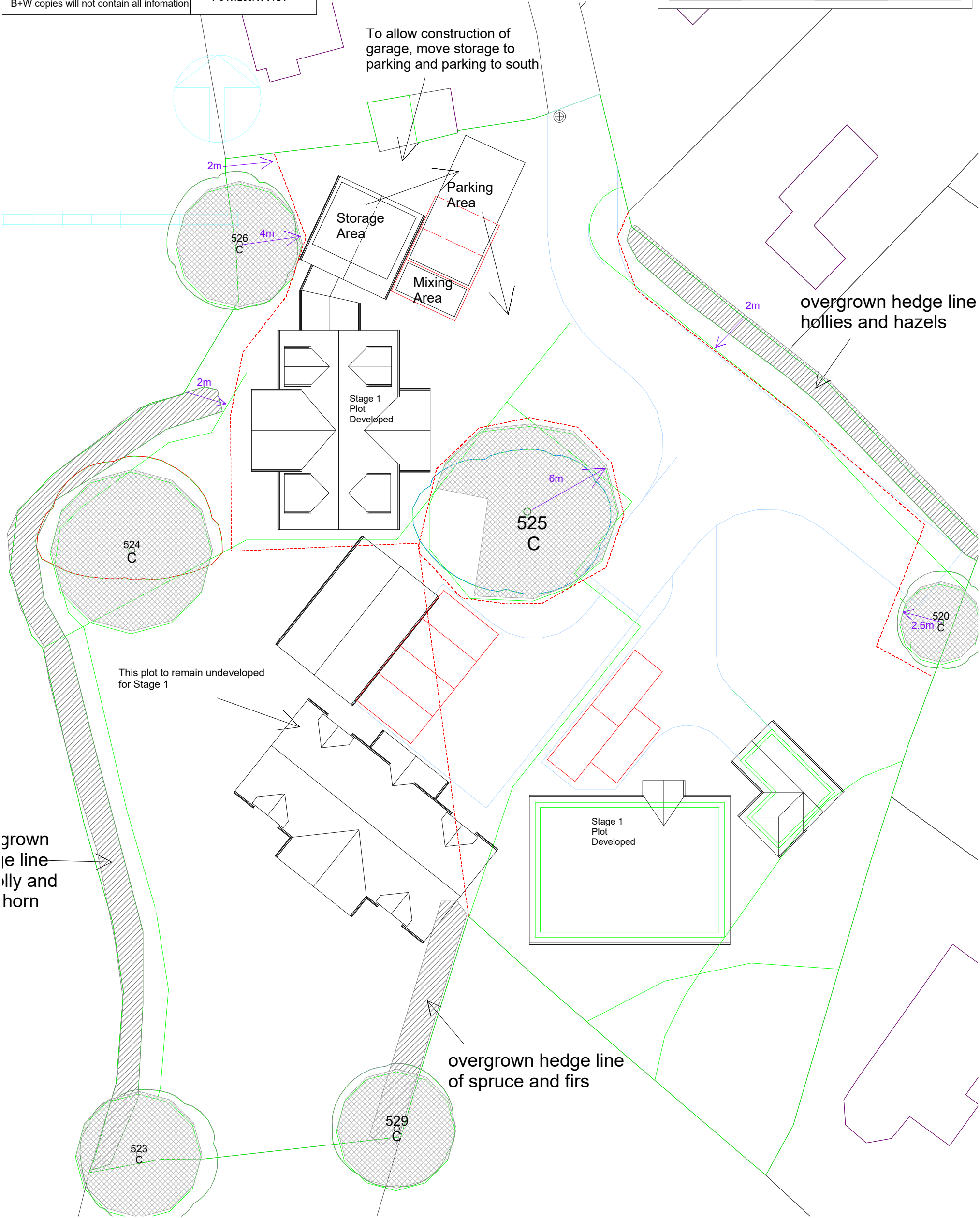
 Category 'C'

 Category 'U'

0



20m





Appendix B

Dick White Referrals, Station Farm, London Road,
Six Miles Bottom, Cambridgeshire, CB8 0UH

Tree Protection Plan

STAGE 2

Showing all trees, crown dimensions, tree categories and Root Protection Areas (RPAs)

SCALE :

1 : 250

@ A3

DATE :

30/10/2017

David Bailey

Old Oak Tree Care

01630 673216

07813 808174

oldoaktree@talktalk.net



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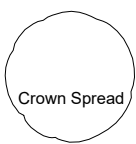
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PC17/209/TPP/S2

Legend

 Protective Fencing

 Fence distance from tree

 Crown Spread

 Root Protection Area

 Category 'A'

 Category 'B'

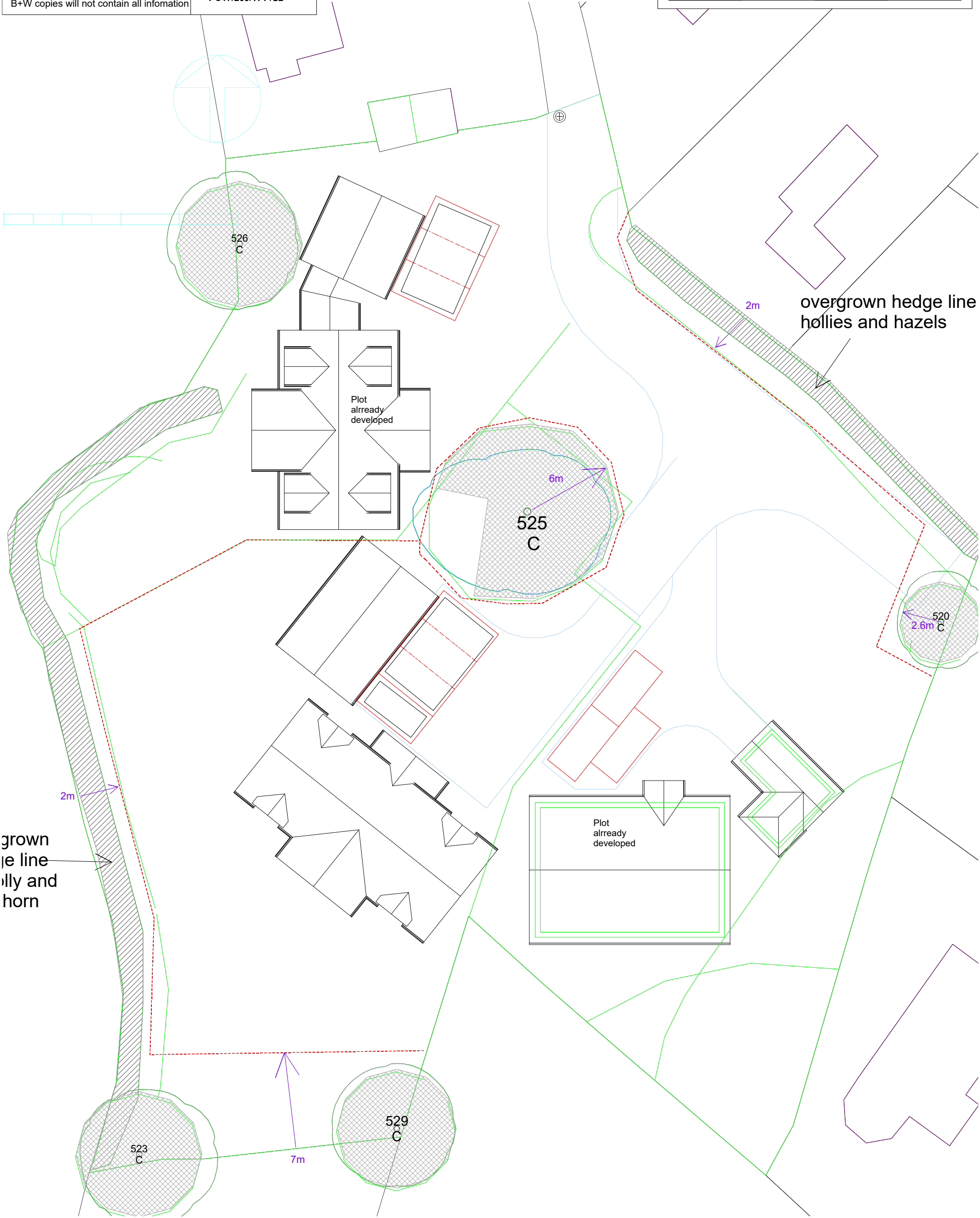
 Category 'C'

 Category 'U'

0



20m



BS 5837:2012

BRITISH STANDARD

Figure 2 Default specification for protective barrier

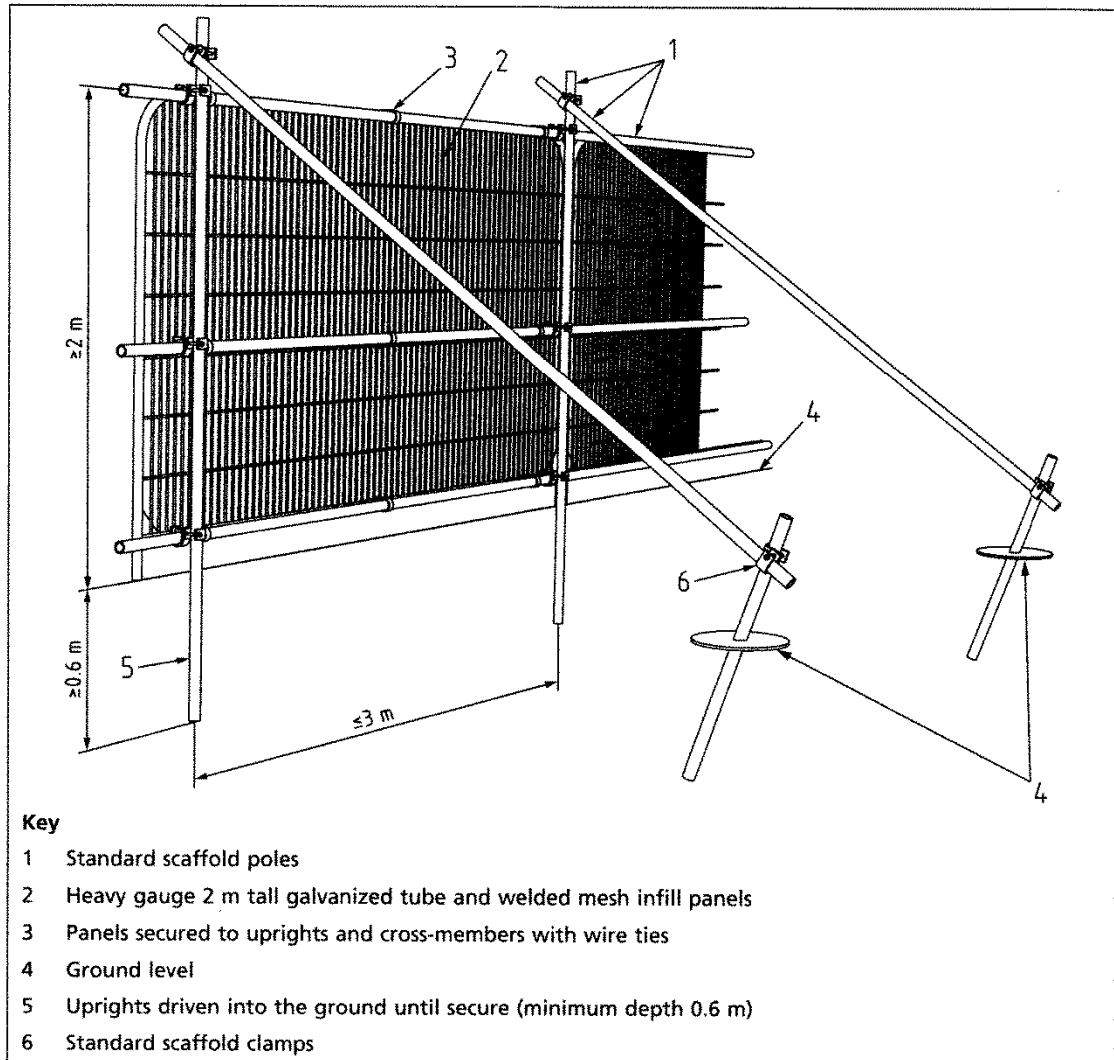
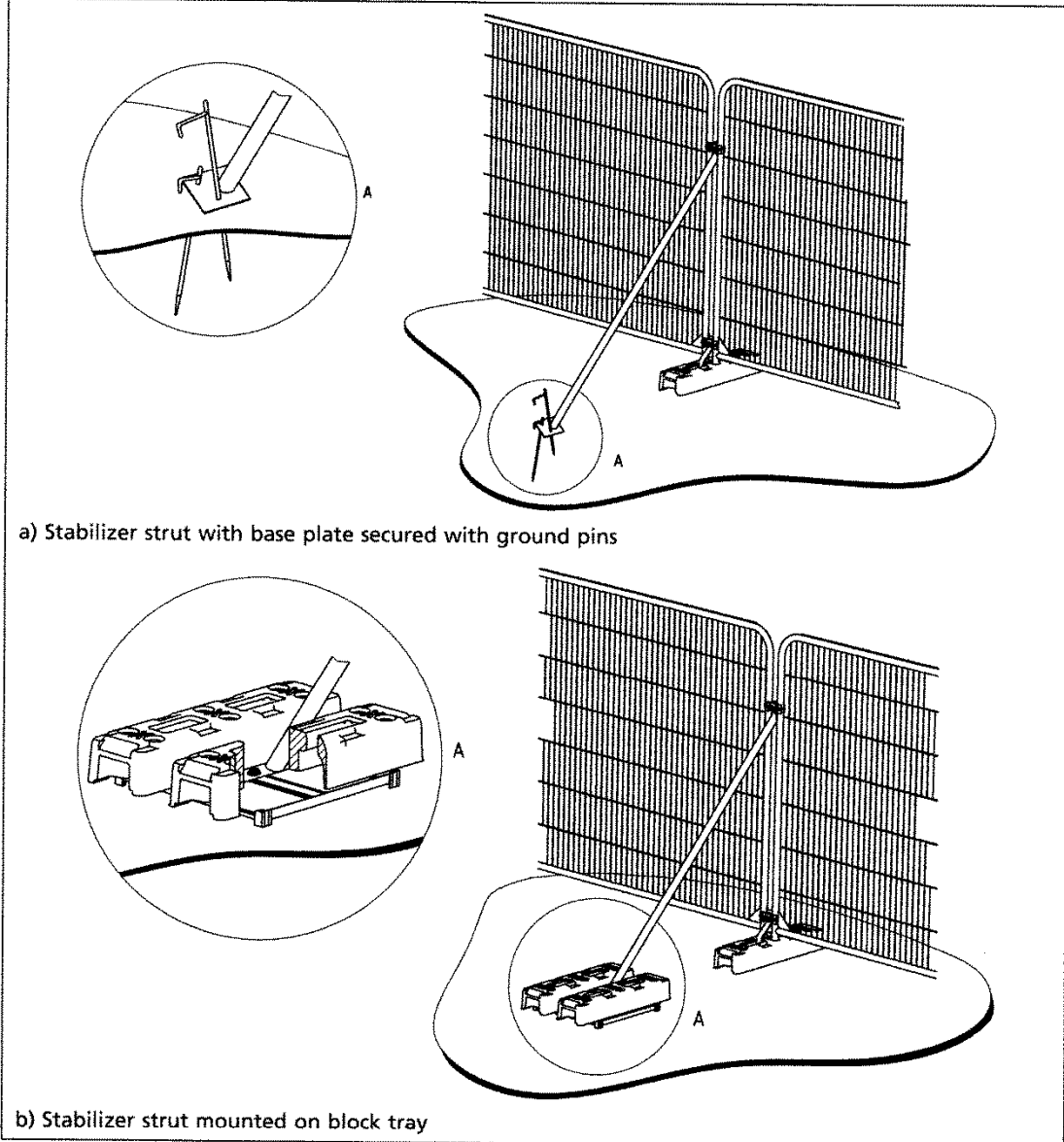


Figure 3 Examples of above-ground stabilizing systems





**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**