

Mr B Toomer

BY EMAIL ONLY

10 March 2026

Our Ref: WT 128-25-Part 2 AIA

Dear Mr Toomer

Re: Tree information relating to planning application at Huguenot, Nunton, Salisbury, SP5 4HP

Further to our recent site survey please find details relating to the tree protection and management issues for your planning application to build a 2-storey side and rear extension with internal alterations. In this context, I have considered the likely impact on the adjacent trees and provided the following appropriate mitigation requirements in compliance with BS5837:2012 Trees in relation to design, demolition and construction - Recommendations. It would be appropriate to forward these details to the Local Planning Authority (LPA) by way of this letter with its attached plan and illustrative notes.

I enclose plan WTP2, which is an adapted version of the plan provided by Larkham Design, (1013 – Planning – Rev A). It has been annotated to identify all the relevant trees and show the areas where appropriate tree protection applies. This plan is illustrative, and the precise location of protective measures may need to be modified in the context of the site conditions at the time of implementation.

Collection of tree information: I inspected each tree and have indicated the numbering on the tree protection plan (WTP2) in Appendix 1. I identified obvious groups where appropriate. For each individual tree and group, I collected information on species, height, diameter, maturity and potential for contribution to amenity in a development context. As advocated in BS 5837, each tree was then allocated to one of four categories which reflected its suitability as a material constraint on development:

- **Category A:** Trees of high quality and value
- **Category B:** Trees of moderate quality and value
- **Category C:** Trees of low quality and value
- **Category U:** Trees unsuitable for retention, usually to be removed

This information is recorded in the tree schedule included as Appendix 2, with further explanatory notes. I stress that my inspection was of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level.



The root protection areas: BS5837:2012 paragraph 4.6.1 gives recommendations for the areas of root protection to be the equivalent to the area of a circle centred on the single stem tree with a radius of at least 12 times the trunk diameter. For trees with more than one stem, the recommended formulas were used to arrive at the combined stem diameter calculation. The calculated root protection area (RPA) for each tree was capped to 707m². This distance is given for guidance to each tree or group in the schedule. In practice, the siting of the specific protection measures may be different. The implication of this notional RPA is that no significant disturbance should occur within it if the trees are to be successfully retained. As advocated in paragraph 4.6.3 of that document, where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon or equivalent area has been produced. Any modifications to the shape of the RPA have reflected our interpretation of a reasonable and likely root distribution.

Tree assessment and management advice: The comments made about the health and stability of the trees within this report were correct at the time of inspection. It should be recognised that trees are dynamic structures that can never be completely predictable and may become unstable or partially unstable even in average weather conditions. Changes can occur not only to environmental triggers but also in response to biological or mechanical events. For these reasons, the tree assessment advice only remains 18 months from the date that the trees were last inspected. No tree is ever safe due to the unpredictable laws and forces of nature.

The inspection was carried out from ground level. Where there was restricted access to the base of a tree, its attributes were assessed from the nearest point of access. Binoculars were used to observe features higher in the canopies such as foliage, extension growth and/or bud proliferation. No soil or tissue samples were taken during this inspection, and no invasive diagnostic equipment was used to detect decay. If ivy covered, I probed and tapped the wood from ground level to establish if there were any obscured features that were relevant to the assessment. This did not extend to removing all the ivy or probing beyond what could be reached from ground level. Where trees have thick ivy, it would be impractical in every case to remove it or climb into the crown to have a closer look. However, where I suspect there are obvious visible significant outward health problems or structural defects visible under the ivy, I may recommend its removal for a further assessment.

Protected trees: After investigating the LPA online mapping system, it was established that there are no tree preservation orders (TPOs) protecting the trees on or surrounding the site and it is not within a Conservation Area.

Soil assessment: British Standard (BS) 5837:2012 Trees in relation to design, demolition and construction – Recommendations advocates that a soil assessment should be carried out to inform decisions relating to Root Protection Areas (RPAs), tree protection, new planting and foundation design. I have consulted the British Geological Survey (BGS) website and their Geology Viewer, and this advises that the bedrock geology for the site is (**Culver Chalk Formation-Chalk**). I did not undertake any excavations on site to confirm this and a full geotechnical site investigation may need to be undertaken to provide a more in-depth level of information regarding soil type for the site.



The proposal and its impact on trees: From my site observations and the information provided, I have set out the necessary mitigation options required below where trees may be implicated to minimise harm and comply with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations:

Replacement retaining wall: Having considered the implications of the new retaining wall installation close to trees T018 and T019, I refer to Section 5.3.1 (a) of BS 5837:2012 which recommends that, if operations (in this case, excavations for installing the new wall foundations) are proposed within a tree's RPA then, the project arboriculturist should demonstrate that it can remain viable and that the area lost to encroachment can be compensated for elsewhere, contiguous with its RPA. For clarity, an RPA is an estimation of the minimum root system needed to sustain the condition of a tree (if all roots outside it were to be severed); it is not a measure of a tree's entire rooting system.

It is commonly accepted, within the arboricultural industry, that the RPA represents about a third of a tree's actual rooting system and, consequently, whilst the RPA is particularly important to ensure that there are no adverse effects on stability, if an encroachment does not significantly reduce the overall assimilative function of the root system, it is unlikely to cause harm.

In terms of viability, research has shown that healthy trees of most species can withstand the loss of some roots (to a maximum of about 20% of the rooting area) with no long-term detrimental impact (Helliwell & Fordham 1992).

Due to the level differences, it is not possible to design a root bridging (low impact structure) so there is the potential for some roots to be encountered when the replacement wall is installed. (see Image 1). However, the overall area for these changes will be less than 5% of either RPA (shown on plan WTP2), so in my opinion this will only result in a minor encroachment. The trees are very healthy so they should be able to tolerate some root pruning, and over time establish new roots elsewhere within the offset RPAs to compensate. Therefore, it should be feasible to undertake some minor root pruning without harming the trees.



Image 1: A small section of the existing retaining wall (yellow annotation) will be replaced. The differences in ground levels mean that a root bridging system is not possible in this situation



In the context of these points, I believe that if some small roots need to be cut, this is unlikely to have significant adverse consequences on tree health or stability. However, to avoid unnecessary damage to large roots, the wall structure must be installed by following BS5837:2012 recommendations (hand digging clauses 7.2.1- 7.2.4). If these works are supervised and implemented as set out in my previous report, I believe both trees can still be retained without significant harm.

Trees to be removed: The three trees along the frontage proposed for removal (T023, T024 and T025) are low quality and do not offer any significant amenity when viewed from outside the site (Image 2). In this case, there is sufficient space for new landscaping that could include trees or shrubs that will easily mitigate these losses. If required, it would be appropriate for the precise detail to be agreed with the LPA through a planning condition.



Image 2: The three trees proposed for removal do not offer any significant amenity value

Temporary tree protection: The retained surrounding trees can be easily protected for the duration of the proposed works without the likelihood of significant harm to them, or any consequential adverse impact on local amenity. However, as a safeguard, they should be protected during the development process with precautionary barriers as shown on plan WTP2. These measures need to be agreed on site with the LPA before any development activity starts and must be retained in place until completion.

Tree pruning to facilitate access/working space: At this stage no pruning requirements are anticipated to accommodate these proposals. However, if this changes for any reason, I advise that these matters are considered at an early stage and agreed with the LPA prior to the work commencing. Any approved pruning will need to be done in accordance with BS3998: 2010 '*Tree Work Recommendations*', without harming the health or appearance of nearby trees.

Site access and storage of materials: Materials can be delivered to site using the existing vehicular access and stored on the surfaced outside the fenced areas (see plan WTP2). It is entirely feasible to



move materials to the working areas by hand or using small low ground-effect plant, with no significant harm to trees.

Drainage and other services: The site is already serviced, and this establishes the principle of drainage runs, electricity cabling, soakaways and their maintenance and repair. It is not intended for there to be any major service upgrades, and the proposal is to connect into the existing services without the need to cause any disruption to RPAs, that could result in important trees being damaged. If this changes for any reason, we advise that these matters are considered at an early stage and agreed with the LPA prior to the work commencing.

Post occupancy pressures on trees: The location and character of the proposal have been achieved in consideration of all the site factors, including the presence of trees. In reference to BS5837:2012 recommendations paragraph 5.3.4 and its sub paragraphs, any issues relating to shading, privacy and screening, direct damage, future pressure for removal and seasonal nuisance have been factored into the design to minimise any post occupancy pressure on trees. In this case, living spaces will not be significantly closer than before and, there is sufficient space within the house and the garden areas to still allow the owners normal and reasonable access to daylight. In taking a balanced approach, I believe all the surrounding trees will continue to offer good screening as well as provide some shaded areas that will be more of a benefit than an inconvenience for the owners. Therefore, I believe the rebuilding of the extension is unlikely to bring new pressures on adjacent trees.

Conclusions: This proposal will result in the loss of three small trees that do not provide any significant visual amenity when viewed from outside the site. If required new tree planting is feasible to mitigate these losses. This submission has demonstrated that it is reasonably practicable to develop the scheme without significant harm to retained trees and the proposals take proper account of potential pressures for pruning and felling post-occupancy. If adequate precautions to protect the retained trees are implemented as recommended in this report, and as may reasonably be required by consent conditions, the overall impact of the proposal on local amenity will be low and limited to the short term only. Any additional information required for reassurance, can be provided by way of conditions attached to the planning permission. The scheme accords with the principles set out in the National Planning Policy Framework and is technically compliant with BS5837:2012 and the way in which that Standard has been applied. Any deviations from its recommendations have been properly justified with appropriate actions. Therefore, I do not believe there are supportable or reasonable grounds for refusing permission in terms of the trees.

Tree protection and planting enhancement recommendations: The recommendation in BS5837:2012 is that where details might need to be submitted to allow for changes that might occur after planning permission has been granted, heads of terms for an arboricultural method statement (AMS) would be appropriate. That is appropriate for sites with a range of arboricultural protection measures and methods to be determined. For this site, the development is reasonably straightforward, so a separate AMS is not proposed. However, in the context of the above discussions, I have identified the following protection issues that may be necessary:



- **Protective barriers and root protection area (RPA):** The protective barriers erected need to be in accordance with Figures 2 and 3 of BS 5837:2012, Appendix 3 and the tree protection plan (WTP2). They should form the boundary of the construction exclusion zone (CEZ). Where feasible, the position of the barrier will be based on a distance equivalent to the radius of the RPA of the tree. Once erected all-weather signage should be displayed stating 'Construction Exclusion Zone - Keep Out'. Once established, the protective barriers are not to be moved without written consent from the LPA.
- **Storage areas outside the RPA:** Before construction begins on site, it is important to identify areas outside the RPAs that minimise chemical pollution and damage from construction materials (See Appendix 3). On this site, there is adequate space on the existing drive for this purpose.
- **Replacing the retaining wall:** Where work is required to replace the retaining wall, the exposed RPAs must be protected as set out on the tree protection plan (WTP2) and Appendix 3 until there is no risk of damage from the development activity. Removing existing structures is a high-risk activity for any adjacent roots and the following guidance **must** be observed:
 - a. Appropriate tools for manually removing debris may include a pneumatic breaker, crowbar, sledgehammer, pick, mattock, shovel, spade, trowel, fork and wheelbarrow. Secateurs and a handsaw must also be available to deal with any exposed roots that have to be cut.
 - b. Machines with a long reach may be used if they can work from outside RPAs or from protected areas within RPAs. They must not encroach onto unprotected soil in RPAs.
 - c. Debris to be removed from RPAs manually must be moved across existing hard surfacing or temporary ground protection in a way that prevents compaction of soil. Alternatively, it can be lifted out by machines provided this does not disturb RPAs.
 - d. Great care must be taken throughout these operations not to damage roots as set out above.

NB: If appropriate, leaving structures in place should be considered if its removal may cause excessive root disturbance.
- **Installation of new services or upgrading of existing services:** It is often difficult to clearly establish the detail of services until the construction is in progress. Where possible, it is proposed to use any existing services into the site and keep all new services outside RPAs. However, where existing services within RPAs require upgrading or new services have to be installed in RPAs, great care must be taken to minimise any disturbance. Any excavation must be carried out by hand according to the guidelines in Appendix 3. If services do need to be installed within RPAs, written approval must be obtained from the LPA before any works are carried out.
- **Reinstatement/landscaping works:** No heavy machinery should be driven over unprotected ground and materials must be stored outside RPAs. The tree protective fencing



can only be removed with the agreement of the project arboriculturist and may have to be reinstalled during a break in operations. Any soil removal or replacement, excavations for hard landscaping or installation of any structures including lighting, water, electric gates etc must be approved by the project arboriculturist. Unwanted vegetation can be removed using handheld tools to avoid damage to the stems of retained trees. Planting holes for new trees or shrubs shall be dug by hand and will be repositioned if woody roots are encountered. For further advice, refer to the tree protection guidance notes below.

Responsibilities: It will be the builder's responsibility to ensure that the details of this letter are known and understood by all site personnel. A copy must be kept on site at all times, and the site manager must brief all personnel who could have an impact on trees on the specific tree protection requirements. This should be a part of the site induction procedures and written into appropriate site management documents. If appropriate, the builder should instruct an arboricultural consultant to comply with any necessary planning conditions relating to pre-commencement meetings and/or agree protection with ongoing supervision requirements sanctioned by the LPA.

New trees/landscaping: New trees should be as large as possible for the planting space available. The supply, planting and maintenance of all new trees will need to be in accordance with BS 8545, with an expectation that any planning conditions will secure the provision of appropriate maintenance and replacement in the event of any trees not surviving to independence in the landscape.

Tree establishment and care: For further advice on young tree establishment, a useful introductory guide has been produced by the Arboricultural Association which can be found at <https://www.trees.org.uk/Help-Advice/Guide-to-Young-Tree-Establishment>. This sets out the principles of good tree choice, planting practice and aftercare.

I believe that this covers all the appropriate issues but please call me if there is anything else that you think should be included.

Yours sincerely

Mark Wadey ND Arb CUEW MArborA RCarborA MICFor

Arboricultural Consultant



 Institute of
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Appendices:

1. Tree Protection Plan WTP2
2. Data Collection
3. Tree Protection Guidance

Appendix 1 - The Tree protection Plan WTP2: Illustrating tree protection and management proposals

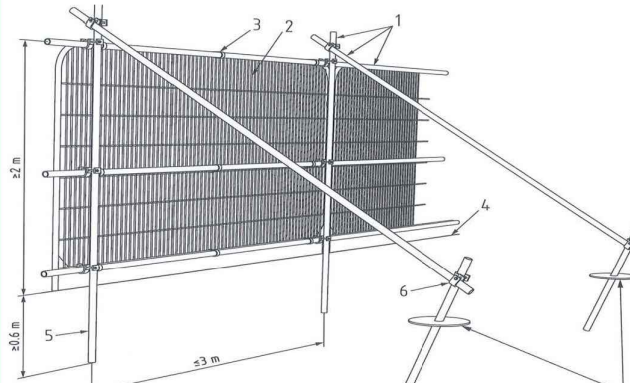
Content: 1 A2 plan @ scale 1:250

Tree No.	Species	Retention Category	RPA
G001	Common holly (<i>Ilex aquifolium</i>) Sycamore (<i>Acer pseudoplatanus</i>)	C1	Area: 74 sq m.
T002	Sycamore (<i>Acer pseudoplatanus</i>)	B1	Radius: 9.6m. Area: 290 sq m.
T003	Oak (<i>Quercus sp.</i>)	U	Radius: 15.0m. Area: 707 sq m.
G004	Sycamore (<i>Acer pseudoplatanus</i>) English yew (<i>Taxus baccata</i>)	C1	Area: 98 sq m.
T005	Beech (<i>Fagus sp.</i>)	B1	Radius: 6.6m. Area: 137 sq m.
T006	Beech (<i>Fagus sp.</i>)	B1	Radius: 6.6m. Area: 137 sq m.
T007	Horse chestnut (<i>Aesculus hippocastanum</i>)	B1	Radius: 5.4m. Area: 92 sq m.
T008	Ash (<i>Fraxinus sp.</i>)	C1	Radius: 3.6m. Area: 41 sq m.
T009	Ash (<i>Fraxinus sp.</i>)	C1	Radius: 2.4m. Area: 18 sq m.
T010	Ash (<i>Fraxinus sp.</i>)	C1	Radius: 2.4m. Area: 18 sq m.
T011	Holly (<i>Ilex sp.</i>)	C1	Radius: 1.2m. Area: 5 sq m.
T012	Sycamore (<i>Acer pseudoplatanus</i>)	B1	Radius: 7.0m. Area: 154 sq m.
T013	Holly (<i>Ilex sp.</i>)	C1	Radius: 3.4m. Area: 36 sq m.
T014	Sycamore (<i>Acer pseudoplatanus</i>)	C1	Radius: 6.0m. Area: 114 sq m.
T015	Sycamore (<i>Acer pseudoplatanus</i>)	U	Radius: 8.4m. Area: 222 sq m.
T016	Sycamore (<i>Acer pseudoplatanus</i>)	C1	Radius: 3.0m. Area: 26 sq m.
T017	Yew (<i>Taxus sp.</i>)	C1	Radius: 1.0m. Area: 3 sq m.
T018	Sycamore (<i>Acer pseudoplatanus</i>)	B1	Radius: 7.0m. Area: 154 sq m.
T019	Beech (<i>Fagus sp.</i>)	A1	Radius: 11.4m. Area: 408 sq m.
G020	Sycamore (<i>Acer pseudoplatanus</i>) Yew (<i>Taxus sp.</i>) Elm (<i>Ulmus sp.</i>)	C1	Area: 159 sq m.
G021	Yew (<i>Taxus sp.</i>) Sycamore (<i>Acer pseudoplatanus</i>)	B1	Area: 458 sq m.
G022	Yew (<i>Taxus sp.</i>)	C1	Area: 289 sq m.
T023	Cypress (<i>Cupressus sp.</i>)	C1	Radius: 0.6m. Area: 1 sq m.
T024	Cypress (<i>Cupressus sp.</i>)	C1	Radius: 0.6m. Area: 1 sq m.
T025	Cypress (<i>Cupressus sp.</i>)	C1	Radius: 0.6m. Area: 1 sq m.
T026	Cypress (<i>Cupressus sp.</i>)	C1	Radius: 1.2m. Area: 5 sq m.
T027	Ash (<i>Fraxinus sp.</i>)	C1	Radius: 4.8m. Area: 79 sq m.
T028	Ash (<i>Fraxinus sp.</i>)	C1	Radius: 3.0m. Area: 25 sq m.
T029	Ash (<i>Fraxinus sp.</i>)	C1	Radius: 6.0m. Area: 119 sq m.
T030	Yew (<i>Taxus sp.</i>)	B1	Radius: 4.8m. Area: 72 sq m.



Tree Protection Advice

Examples of Standard Barriers



KEY

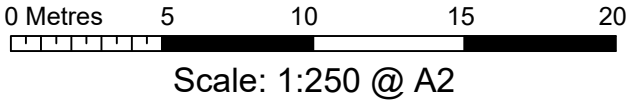
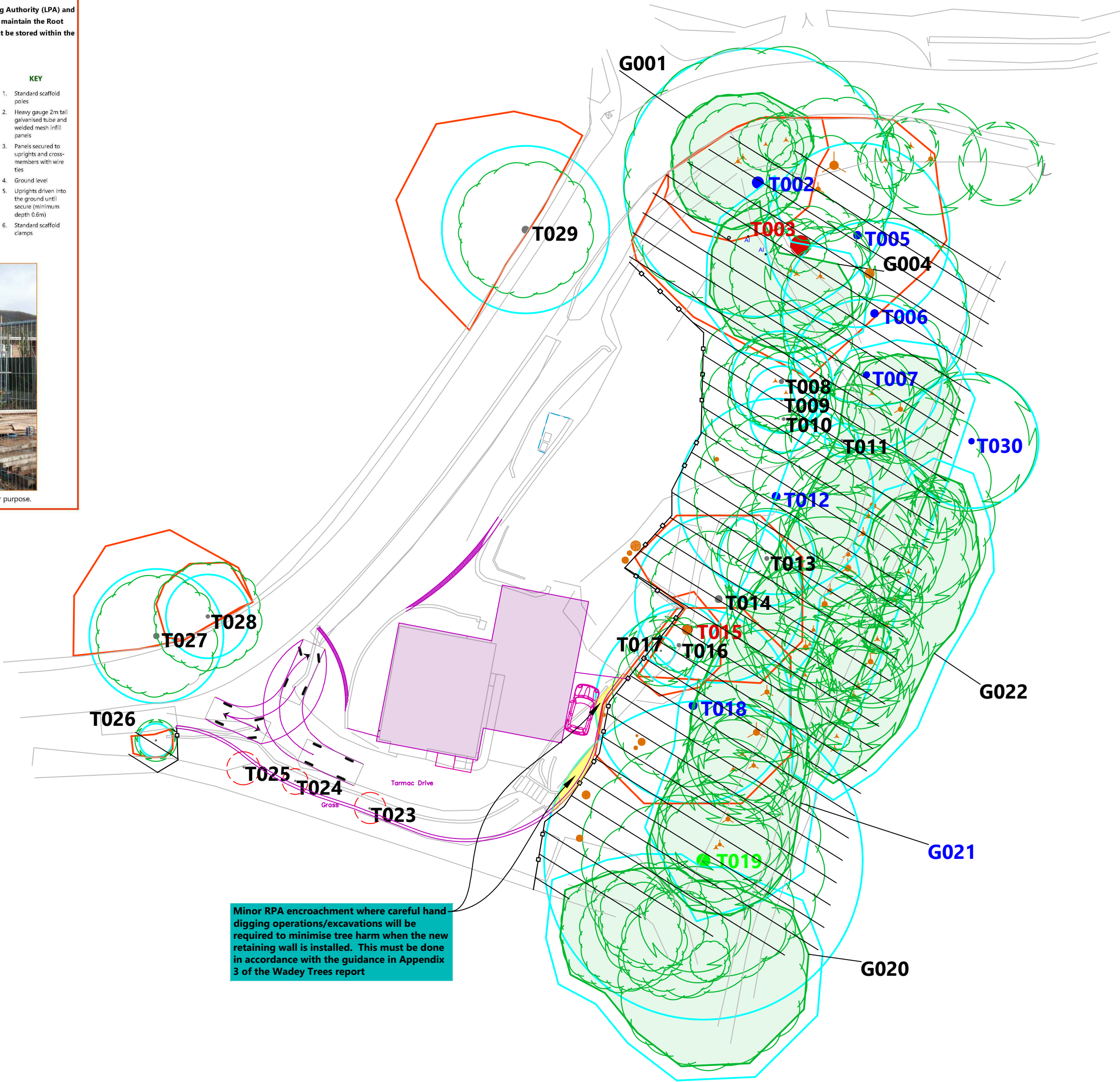
- Standard scaffold poles
- Heavy gauge 2m tall galvanised tube and welded mesh infill panels
- Panel secured to uprights and cross-members with wire ties
- Ground level
- Uprights driven into the ground until secure (minimum depth 0.6m)
- Standard scaffold clamps

Protective barriers are not to be moved without written consent from the Local Planning Authority (LPA) and any adjustments should be under direct supervision of the project Arboriculturist to maintain the Root Protection Area (RPA) of each tree. No materials, chemicals, machinery or vehicles must be stored within the protected area as defined on the Tree Protection Plan.

Extract from BS5837:2012 Figure 2—Default specifications for tree protective fencing.



Image 1: Scaffold and Heras panels can provide standard protection that is fit for purpose.



Key:

- T001 Trees - colour coded by BS 5837 category
- A BS category - Trees of high quality
- B BS category - Trees of moderate quality
- C BS category - Trees of low quality
- U BS category - Trees unsuitable for retention
- Notional BS 5837 RPA boundaries
- Offset BS 5837 RPAs taking account of pre-existing barriers to root growth
- Tree canopies for groups
- Tree canopies for individual trees
- Stumps
- Existing layout
- Proposed layout
- Construction exclusion zone (CEZ) to be protected by BS 5837 compliant fencing
- Precautionary area

For further information, refer to the WT tree schedule. Do not scale from this drawing (unless for planning purposes), please check all dimensions on site, and notify us of any discrepancies. Wadey Trees Ltd cannot be held responsible for inaccuracies in the topographical plan on which this drawing is based. © Wadey Trees Ltd 2020. This drawing is designed to reflect only the principles of layout and/or design insofar as these relate to the protection of trees to be retained, and should NOT be read as a definitive engineering or construction method statement. Reference should be made to the architect or structural engineer, as appropriate, over any matters of construction detail or specification, or any engineering standards or regulatory requirements relating to proposed structures, hard surfaces or underground services.



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DATE:
9 Mar 26

REVISION:

LOCATION OF TREES, CATEGORISATION & DEVELOPMENT AT:
Huguenot, Nunton, Salisbury, SP5 4HP

DRAWING NO:
WTP2

DRAWING TITLE:
Tree Protection Plan

SCALE:
1:250

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SHEET NUMBER:

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WT 128-25

STATUS:
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CLIENT PROVIDED PLAN REF:
20973 and 1013 - Planning - RevA

Appendix 2 Data Collection: In accordance with BS 5837 (2012), all tree schedule data has been collected based on the recommendations set out in subsection 4.4 of BS 5837). **NOTE:** Colour annotation is A trees green background; B trees blue background; C trees grey background; U trees red background

Tree No.	Species	Height (m)	Stem diameter(s) (mm)	Spread	Physiological Cond	Structural Cond	Life Stage	Survey Notes	Rem. Contrib.	Retention Category	RPA	Recommendations
G001	Common holly (<i>Ilex aquifolium</i>) Sycamore (<i>Acer pseudoplatanus</i>)	10	100		Good	Fair	Semi Mature	Poorly developed trees, with low future potential for improvement.	20+ Years	C1	Area: 74 sq m.	
T002	Sycamore (<i>Acer pseudoplatanus</i>)	25	800		Good	Good	Mature	Access restrictions: Ivy clad trunk and scaffold stems. No significant defects and could be retained with minimal remedial care.	40+ Years	B1	Radius: 9.6m. Area: 290 sq m.	
T003	Oak (<i>Quercus sp.</i>)	10	1400		Dead	Poor	Mature	Dead tree, Ivy clad trunk.	Dead	U	Radius: 15.0m. Area: 707 sq m.	
G004	Sycamore (<i>Acer pseudoplatanus</i>) English yew (<i>Taxus baccata</i>)	12	250		Good	Fair	Semi Mature	Poorly developed trees, with low future potential for improvement.	20+ Years	C1	Area: 98 sq m.	
T005	Beech (<i>Fagus sp.</i>)	15	550		Good	Good	Early Mature	Access restrictions: Ivy clad trunk and scaffold stems. No significant defects and could be retained with minimal remedial care.	40+ Years	B1	Radius: 6.6m. Area: 137 sq m.	
T006	Beech (<i>Fagus sp.</i>)	18	550		Good	Good	Early Mature	Access restrictions: Ivy clad trunk and scaffold stems. No significant defects and could be retained with minimal remedial care.	40+ Years	B1	Radius: 6.6m. Area: 137 sq m.	
T007	Horse chestnut (<i>Aesculus hippocastanum</i>)	18	450		Good	Good	Early Mature	Competes with adjacent trees. No significant defects and could be retained with minimal remedial care.	40+ Years	B1	Radius: 5.4m. Area: 92 sq m.	

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Tree No.	Species	Height (m)	Stem diameter(s) (mm)	Spread	Physiological Cond	Structural Cond	Life Stage	Survey Notes	Rem. Contrib.	Retention Category	RPA	Recommendations
T008	Ash (<i>Fraxinus sp.</i>)	12	300		Fair	Fair	Semi Mature	Access restrictions: Ivy clad trunk and scaffold stems. Ash dieback symptoms visible: Health Class 2 – 75%–50% remaining canopy.	10+ Years	C1	Radius: 3.6m. Area: 41 sq m.	
T009	Ash (<i>Fraxinus sp.</i>)	15	200		Fair	Fair	Semi Mature	Access restrictions: Ivy clad trunk and scaffold stems. Ash dieback symptoms visible: Health Class 2 – 75%–50% remaining canopy. Drawn up slender tree with poor stem taper	10+ Years	C1	Radius: 2.4m. Area: 18 sq m.	
T010	Ash (<i>Fraxinus sp.</i>)	10	200		Fair	Fair	Semi Mature	Access restrictions: Ivy clad trunk and scaffold stems. Ash dieback symptoms visible: Health Class 2 – 75%–50% remaining canopy. Drawn up slender tree with poor stem taper	10+ Years	C1	Radius: 2.4m. Area: 18 sq m.	
T011	Holly (<i>Ilex sp.</i>)	5	100		Good	Good	Semi Mature	Young or insignificant small tree. Limited visual amenity and easily replaced.	20+ Years	C1	Radius: 1.2m. Area: 5 sq m.	
T012	Sycamore (<i>Acer pseudoplatanus</i>)	18	580		Good	Good	Early Mature	Access restrictions: Ivy clad trunk and scaffold stems. No significant defects and could be retained with minimal remedial care.	40+ Years	B1	Radius: 7.0m. Area: 154 sq m.	

Appendix 2 Data Collection: In accordance with BS 5837 (2012), all tree schedule data has been collected based on the recommendations set out in subsection 4.4 of BS 5837). **NOTE:** Colour annotation is A trees green background; B trees blue background; C trees grey background; U trees red background

Tree No.	Species	Height (m)	Stem diameter(s) (mm)	Spread	Physiological Cond	Structural Cond	Life Stage	Survey Notes	Rem. Contrib.	Retention Category	RPA	Recommendations
T013	Holly (<i>Ilex sp.</i>)	5	2 stems: 200(avg)		Good	Fair	Semi Mature	Young or insignificant small tree. Limited visual amenity and easily replaced. Compression fork with included bark and some adaptive bonding growth visible around the stem bark ridge.	20+ Years	C1	Radius: 3.4m. Area: 36 sq m.	
T014	Sycamore (<i>Acer pseudoplatanus</i>)	20	500		Fair	Poor	Early Mature	Large trunk wounds with extensive stem decay visible. Investigations with a nylon hammer and probe reveal that the internal decay is progressive. Although the tree has a healthy crown, it is exposed above the tree line and vulnerable to extreme wind forces. Access restrictions: Ivy clad trunk and scaffold stems.	40+ Years	C1	Radius: 6.0m. Area: 114 sq m.	
T015	Sycamore (<i>Acer pseudoplatanus</i>)	3	700		Dead	Poor	Mature	Collapsed trunk covered in ivy	Dead	U	Radius: 8.4m. Area: 222 sq m.	
T016	Sycamore (<i>Acer pseudoplatanus</i>)	10	250		Good	Fair	Semi Mature	Poorly developed tree, with low future potential for improvement.	20+ Years	C1	Radius: 3.0m. Area: 26 sq m.	
T017	Yew (<i>Taxus sp.</i>)	4	80		Good	Fair	Young	Young or insignificant small tree. Limited visual amenity and easily replaced.	20+ Years	C1	Radius: 1.0m. Area: 3 sq m.	

Appendix 2 Data Collection: In accordance with BS 5837 (2012), all tree schedule data has been collected based on the recommendations set out in subsection 4.4 of BS 5837). **NOTE:** Colour annotation is A trees green background; B trees blue background; C trees grey background; U trees red background

Tree No.	Species	Height (m)	Stem diameter(s) (mm)	Spread	Physiological Cond	Structural Cond	Life Stage	Survey Notes	Rem. Contrib.	Retention Category	RPA	Recommendations
T018	Sycamore (<i>Acer pseudoplatanus</i>)	18	580		Good	Good	Early Mature	Access restrictions: Ivy clad trunk and scaffold stems. No significant defects and could be retained with minimal remedial care.	40+ Years	B1	Radius: 7.0m. Area: 154 sq m.	
T019	Beech (<i>Fagus sp.</i>)	20	950		Good	Good	Mature	No significant defects and could be retained with minimal remedial care.	40+ Years	A1	Radius: 11.4m. Area: 408 sq m.	
G020	Sycamore (<i>Acer pseudoplatanus</i>) Yew (<i>Taxus sp.</i>) Elm (<i>Ulmus sp.</i>)	10	300		Good	Fair	Semi Mature	Poorly developed trees, with low future potential for improvement.	20+ Years	C1	Area: 159 sq m.	
G021	Yew (<i>Taxus sp.</i>) Sycamore (<i>Acer pseudoplatanus</i>)	18	500		Good	Fair	Early Mature	No significant defects and could be retained with minimal remedial care.	30+ Years	B1	Area: 458 sq m.	
G022	Yew (<i>Taxus sp.</i>)	9	300		Good	Fair	Semi Mature	Provides useful boundary cover Suppressed by adjacent trees	20+ Years	C1	Area: 289 sq m.	
T023	Cypress (<i>Cupressus sp.</i>)	1	50		Good	Fair	Semi Mature	Insignificant small tree. Limited visual amenity and easily replaced.	10+ Years	C1	Radius: 0.6m. Area: 1 sq m.	Fell to facilitate the access widening
T024	Cypress (<i>Cupressus sp.</i>)	3	50		Good	Fair	Semi Mature	Insignificant small tree. Limited visual amenity and easily replaced.	10+ Years	C1	Radius: 0.6m. Area: 1 sq m.	Fell to facilitate the access widening

Appendix 2 Data Collection: In accordance with BS 5837 (2012), all tree schedule data has been collected based on the recommendations set out in subsection 4.4 of BS 5837). **NOTE:** Colour annotation is A trees green background; B trees blue background; C trees grey background; U trees red background

Tree No.	Species	Height (m)	Stem diameter(s) (mm)	Spread	Physiological Cond	Structural Cond	Life Stage	Survey Notes	Rem. Contrib.	Retention Category	RPA	Recommendations
T025	Cypress (<i>Cupressus sp.</i>)	1	50		Good	Fair	Semi Mature	Insignificant small tree. Limited visual amenity and easily replaced.	10+ Years	C1	Radius: 0.6m. Area: 1 sq m.	Fell to facilitate the access widening
T026	Cypress (<i>Cupressus sp.</i>)	5	100		Good	Fair	Semi Mature	Insignificant small tree. Limited visual amenity and easily replaced.	10+ Years	C1	Radius: 1.2m. Area: 5 sq m.	
T027	Ash (<i>Fraxinus sp.</i>)	14	400		Fair	Fair	Early Mature	Offsite tree, no direct access to survey and restricted clear line of sight. Ash dieback symptoms visible: Health Class 2 – 75%–50% remaining canopy.	20+ Years	C1	Radius: 4.8m. Area: 79 sq m.	
T028	Ash (<i>Fraxinus sp.</i>)	14	250		Fair	Fair	Semi Mature	Offsite tree, no direct access to survey. Ash dieback symptoms visible: Health Class 2 – 75%–50% remaining canopy.	20+ Years	C1	Radius: 3.0m. Area: 25 sq m.	
T029	Ash (<i>Fraxinus sp.</i>)	14	500		Fair	Fair	Early Mature	Offsite tree, no direct access to survey. Ash dieback symptoms visible: Health Class 2 – 75%–50% remaining canopy.	20+ Years	C1	Radius: 6.0m. Area: 119 sq m.	
T030	Yew (<i>Taxus sp.</i>)	10	400		Good	Fair	Semi Mature	No significant defects and could be retained with minimal remedial care.	40+ Years	B1	Radius: 4.8m. Area: 72 sq m.	

Appendix 2 Data Collection Cont'd: Explanatory notes

Structure: The following categories are assigned appropriately to each landscape feature: T=(tree); G=(group); H=(hedge); C=(coppiced); M=(multi-stemmed); P=(pollard); Sh=(shrubs); S=(stump) or W=(woodland).

Species: Species identification is based on visual observations. Where there is some doubt over tree identity, sp is noted after the genus name in the botanical names section to indicate that the species cannot be reliably identified at the time of the survey. Where there is more than one species in a group, only the most frequent are noted and not all the species present, may be listed. The tree botanical names surveyed on this site are listed in column 3.

Height: Height is estimated to provide an indication of the size of the tree.

Stem diameter: Stem diameter is estimated or measured and recorded in 2.5cm increments as advised in BS 5837 Table D1. It is measured with a diameter tape unless access is restricted, direct measurement is not possible because of ivy on the trunk or the tree is assessed as poor quality. The point of measurement and the adjustments for stem variations are as advised in Figure C1 of BS 5837. The RPAs given below have been used for single stem trees and the equivalent resultant combined stem diameter for multi-stemmed trees.

Branch height and crown spreads: Where crown accuracy varies from site observations and the original topographical survey, new measurements of the crown may be taken and illustrated on the plan as a crown amendment. These are taken in the context of the development proposal where it is considered there may be encroachment from the development. For example, it may only be necessary to record the measurement of one side of the canopy where it overhangs the site, or where there is likely to be some kind of impact to branches/crown of the tree from development proposals. If there are any significant trees missing from the original topographical survey, their positions are estimated and branch spread is taken as a minimum at the four cardinal points, to derive a representation of the crown. Also, where it is considered appropriate, existing height above ground level of: 1) first significant branch and direction of growth (e.g. 2.4-N); 2) canopy will be recorded to inform on ground clearance where access issues may be a concern.

Tree condition: The tree condition is represented by the surveyor's initial visual observations of its health and/or structural integrity. These are separated into the following subcategories:

Physiological condition (P)	Description
Good	Appears to be healthy and have good vitality.
Fair	Generally, in good health but with visible signs of decline or reduced vitality.
Poor	Obviously in poor health and significant decline.
Dead	Dead, or very little live growth.
Structural condition (S)	Description
Good	No significant structural defects/weaknesses.
Fair	Some visible defects but no significant hazards/weaknesses.
Poor	Significant defects/weaknesses or dangerous/potentially dangerous condition.

Appendix 2 Data Collection Cont'd: Explanatory notes

Life stage: For the purposes of this report the following life stages are recorded as one of seven categories below. Age class is indicative and will vary between species:

LIFE STAGE	DEFINITION
Newly planted	Very young, newly planted trees at least within the last 5 years.
Young	Small establishing tree in its youngest years that could be transplanted with specialist equipment, i.e. less than 150mm in diameter at 1.5m.
Semi-mature	An established tree, but with some growth to make before reaching its potential maximum size. A tree within its first third of lifespan.
Early mature	A tree that is reaching its ultimate potential height, whose growth rate is slowing down but if healthy, will still increase in stem diameter and crown spread. A tree in the second third of life span.
Mature	A mature specimen with limited potential for any significant increase in size, even if healthy. A tree within its final third of expected lifespan.
Over mature	A senescent (declining/degradation) or moribund specimen of low vigour within its final third of expected lifespan. Possibly also containing sufficient structural defects with safety and/or duty of care implications.
Veteran	Specimens exhibiting features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.
Ancient	A tree which is remarkably old for its species.

General observations: Only relevant features such as tree physiology, structural condition, decay and crown or branch structure that may impact on the proposed development are recorded. If there are no notes, then the presumption should be that no relevant features were observed.

Remaining contribution: This is broadly interpreted as <10 years, 10+ years, 20+ years, or 40+ years to provide some indication of a tree's potential for future contribution to its locality.

BS category: Each tree is placed into a relevant coloured category based on their quality and contribution they offer in terms of their arboricultural, landscape or cultural values. This assessment is based on the BS5837 Table 1 cascade chart for tree quality assessment summarised at the beginning of this report.

RPA measurements: For single stem trees, the RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter. For trees with more than one stem, one of the two calculation methods set out in paragraph 4.6 of BS5837 recommendations will be used. In all cases, the stem diameter(s) will be measured in accordance with Annex C and Annex D of that document. The calculated RPA for each tree will be capped to 707 m².

Future tree safety inspections: Our assessment of the trees was carried out on the basis that a re-inspection would be carried out within a year of the assessment visit and our advice on tree condition must be reviewed annually from the date of that visit.

General Principles

Objective: This guidance sets out the general principles that must be followed when working in Root Protection Areas (RPAs). Before work starts on site, the purpose of this guidance is to demonstrate to the LPA that tree protection issues have been properly considered and to provide a written record of how they will be implemented. Once the site works start, this guidance is specifically for the site personnel to help them understand what has been agreed and explain what is required to fully meet their obligations to protect trees. All personnel working in RPAs must be properly briefed about their responsibilities towards important trees based on this guidance.

RPA description: RPAs are the areas surrounding important trees where disturbance must be minimised if they are to be successfully retained. All RPAs close to the construction area are illustrated on the tree protection plans accompanying this advice. Damage to roots or degradation of the soil through compaction and/or excavation within RPAs is likely to cause serious damage. Any work operations within RPAs must be carried out with great care if trees are to be successfully retained.

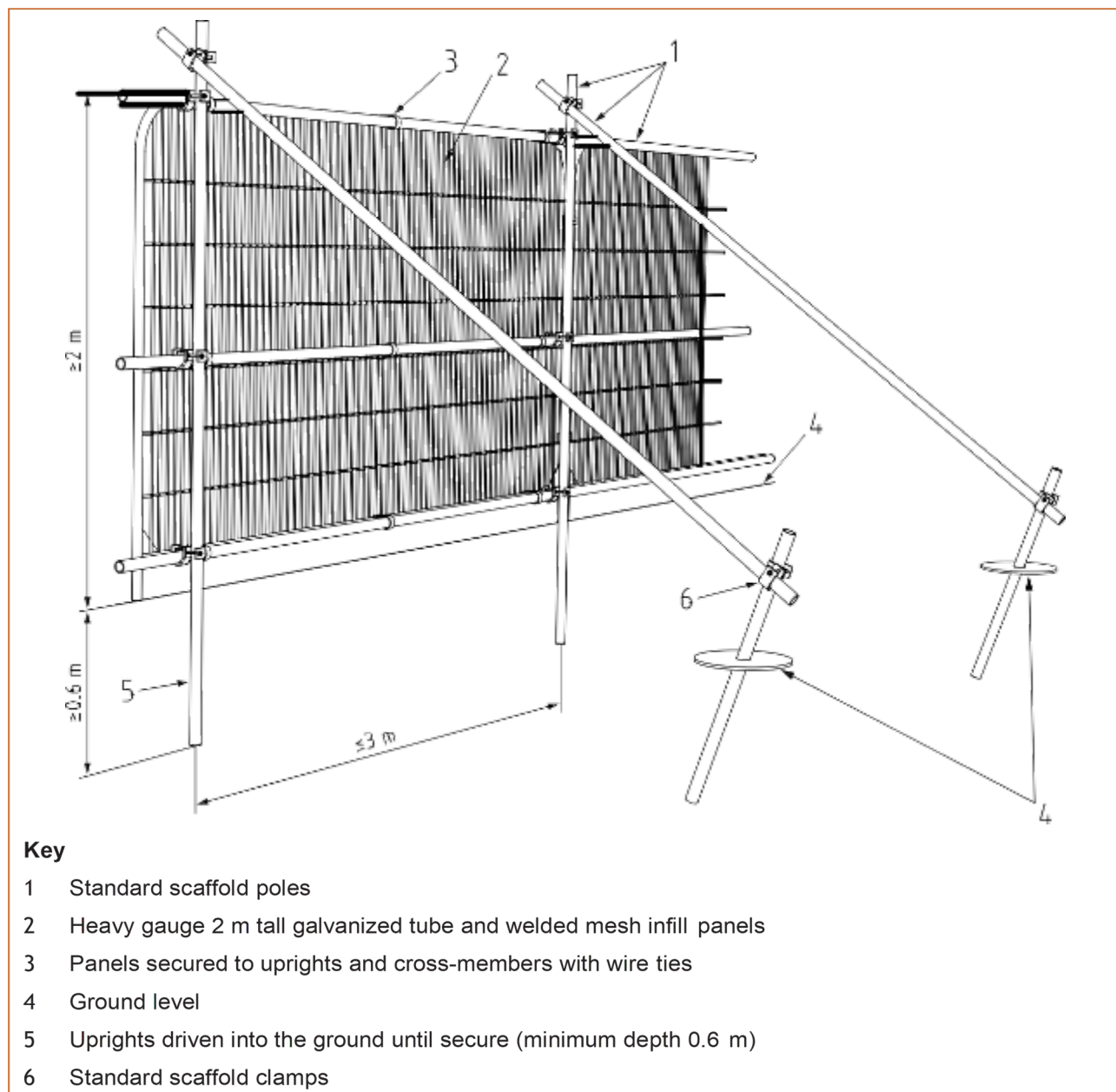
Use of this guidance: Anyone working within an RPA must follow this guidance if important trees are to remain unharmed. They must take care to minimise excavation into existing soil levels and limit any fill or covering that may affect soil permeability. This advice should always be read in conjunction with the tree protection plan illustrating the areas where specific precautions are necessary. Each area where precautions are required is annotated on the plans as identified on their keys. All plans are illustrative and intended to be interpreted in the context of the site conditions when the work is started. All protective measures should be installed according to the prevailing site conditions and agreed as satisfactory by the appropriate supervising officer before any demolition or construction work starts.

Preventing adverse impact to the RPA: Any part of the RPA beyond the agreed work area must be isolated from the work operations by protective barriers or ground protection to at least the minimum standard described in BS 5837 for the duration of the work. Any further precautions required to minimise harm to trees should be undertaken using the relevant tree protection guidance in the following pages.

Arboricultural supervision: Qualified arboricultural supervision is essential to minimise the risk of harm to trees. Ongoing work must be inspected regularly and, on completion, must be signed off by the arboriculturist to confirm compliance by the contractor and to sign off relevant Planning Conditions. In the context of this guidance, an appropriate supervising officer would normally be an arboriculturist.

Tree protective barriers

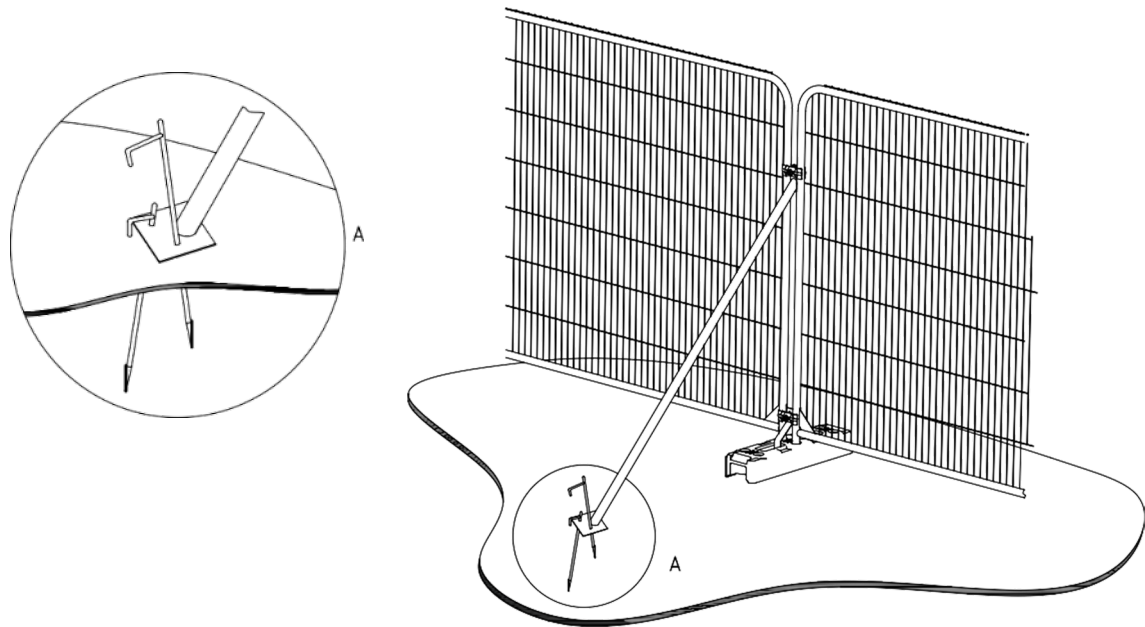
Installing Barriers: Tree Protective barriers must be fit for purpose, and once installed must not be moved without written consent from the Local Planning Authority (LPA). If it is absolutely necessary for any adjustments, they should be under direct supervision of the project Arboriculturist to maintain the Root Protection Area (RPA) of each tree. No materials, chemicals, machinery or vehicles must be stored within the protected area as defined on the Tree Protection Plan. On this site, all exposed rooting areas should be protected by barriers (while vulnerable to damage), in accordance with BS 5837 figures 2 and 3 below until there is no risk of damage from the development activity. This work should be subject to arboricultural supervision.



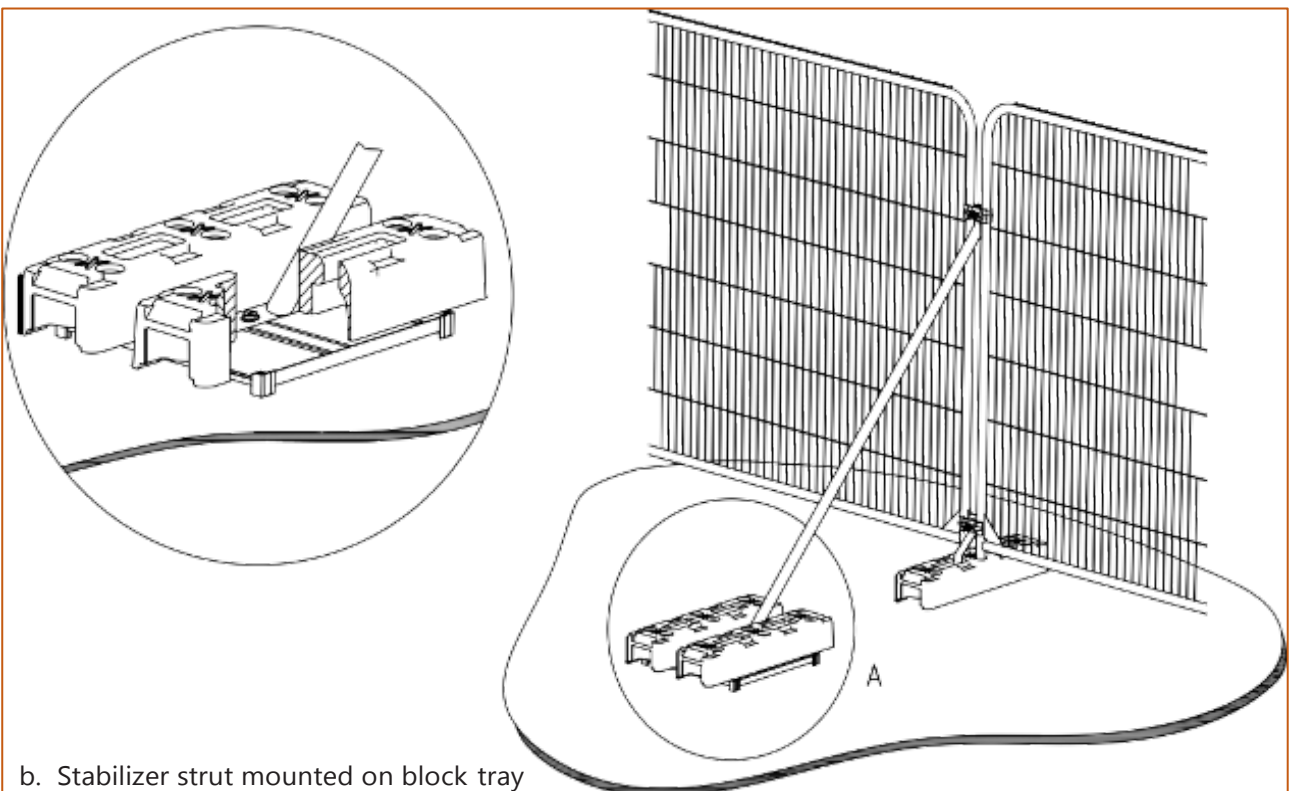
Extract from BS5837: 2012 Figure 3: Examples of above-ground stabilizing systems

Appendix 3 –Tree Protection Guidance

Examples of tailored protective barriers: A range of methods can be used to protect the trunks and underlying soil but whatever the choice of method, the end result must be fit for purpose to prevent the protected area from being breached by the construction activities.



a. Stabilizer strut with base plate secured with ground pins



b. Stabilizer strut mounted on block tray

Appendix 3 –Tree Protection Guidance

Picture 1: All barriers should be labelled to keep working activities outside the Construction Exclusion Zones (CEZs).



Picture 2: Scaffolding supports and board coverings erected around the trunks of trees can provide suitable protection against traffic turning into the site.



Picture 3: Temporary barriers are useful around individual trees where construction activities only occur during a short period.



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Pictures 4 & 5: Wooden boards carefully secured around the trunks can provide good protection where access is limited.



Picture 6: Where trees are off site, or public access is required through the work zone, boxing around the tree may be feasible.

Hand digging operations

Excavations within RPAs: All excavation must be carried out carefully using hand tools, taking care not to damage the bark and wood of any roots. Specialist tools for removing soil around roots using compressed air may be an appropriate alternative to hand digging, such as an air spade excavator (Image below), if available.



All soil removal must be undertaken with care to minimise the disturbance of roots beyond the immediate area of excavation. Where possible, fibrous roots should be retained or displaced temporarily beyond the excavation without damage.

Where excavations are required within RPAs, the advice below **must** be followed:

Advice for digging trenches

- All work within RPAs must be carried out by hand under close and recorded arboricultural supervision.
- Machines should not enter protective zones unless there is a suitable existing hard standing.
- Excavation of open trenches by machine is unacceptable within the



Appendix 3 –Tree Protection Guidance

protective zone. Wherever possible, trenchless techniques should be used.

- d. For trenchless installation of services, the pit excavations for starting and receiving machinery should be located outside the protective zone. The depth of run should be below 600mm. Techniques involving external mole lubrication with materials other than water should be avoided unless precautions are taken to ensure that there is no soil contamination within 600mm of the surface.



- e. The broken trench technique combines hand dug sections of trench with trenchless techniques. The open trench is dug by hand with the same precautions as for continuous trenching described below. Open sections of trench should be kept as short as possible and only long enough to allow access for linking to the next section.

- f. Continuous trenches should only be used where it is not possible to use either of the above techniques. The objective is to dig by hand and to retain as many roots as possible. Hand digging must be undertaken with great care to retain all roots greater than 25mm and to prevent damage to those retained.



- g. Hand tools such as a fork should be used to loosen the soil and help locate any substantial roots. Once roots have been located, a trowel and brush should be used to clear the soil away from them without damaging the bark. Any roots that need to be removed should be cut cleanly with sharp saw or secateurs 100–200mm behind the final face of the excavation

- h. Backfilling should be carried out carefully to avoid direct damage to roots and excessive compaction of the soil around them. Where the finished surface will be hard standing, the backfill material around roots should be a mixture of top soil and a granular fill such as sharp sand to reduce excessive compaction and to secure a local aerated zone. On sites away from hard standing, backfill only with excavated soil.



- i. Exposed roots should remain protected from drying out and extremes of temperature by insulating covering such as sacking.

Services: Excavation to upgrade existing services or install new services in RPAs may damage retained trees and should only be chosen as a last resort. In the event that excavation emerges as the preferred option, the decision should be reviewed by the supervising officer before any work is carried out. If excavation is agreed, all digging should be done carefully and follow the guidance set out above.

Material storage and pollution control

Loose building materials, chemicals and other pollutants that can contaminate the soil must be stored in locations outside the RPAs. If space around the site is limited, materials must be ordered in smaller/less frequent amounts to minimise excessive build-up of unused building materials. Where liquids or powder/granule products are required, precautionary measures of bunding or sealed frameworks should be sufficient to prevent contamination and must be designed so they are fit for purpose. If spillage or leakage occurs, there should be immediate procedures put in place to reduce further risk to the surrounding RPAs. All contributing contaminants must be moved away from the affected RPAs in a way that minimises harm to tree roots and the surrounding soil.



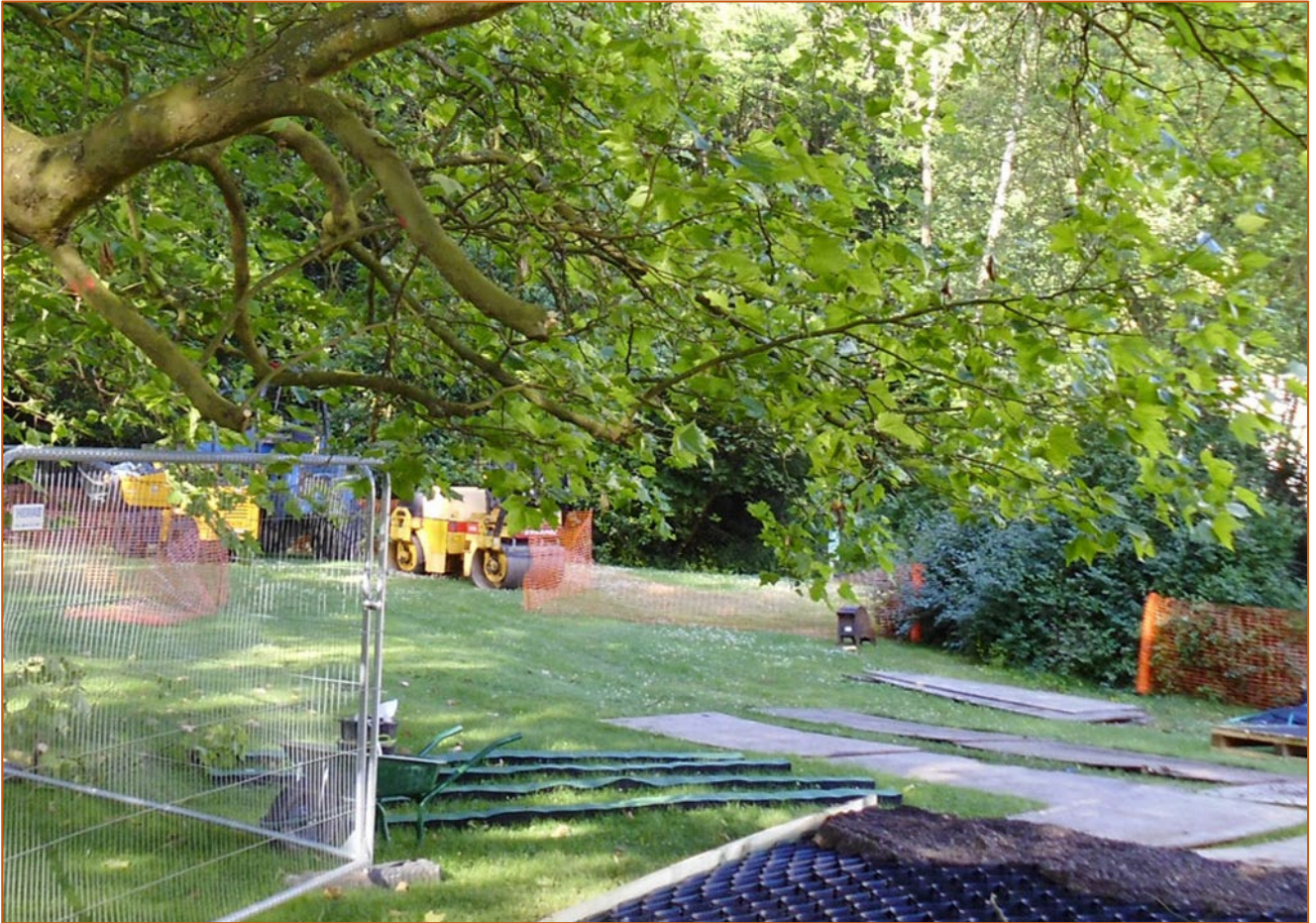
The following points must be adhered to:

Minimising harm from storage of pollutants

- The storage of fuels or toxic materials must be kept outside RPAs
- Emergency spillage kits must be available on site at all times to reduce the risk of accidents to the environment
- Where space is limited, contaminants must be kept safe using tailored containment systems fit for purpose.
- Cement washings must be contained to prevent leaching into the soil within RPAs
- Concrete pouring must be done in a way that ensures all RPAs within influencing distance are adequately protected. Liners should also be used where possible to prevent contamination.



Landscaping around trees



Landscaping works in RPAs: landscaping is usually the last stage of works and often the most important to minimise harm within RPAs. The re-profiling of existing soil levels and covering the soil surface with new plants or an organic covering (mulch). It does not include the installation of solid structures or compacted surfacing. Soft landscaping activity after construction can be extremely damaging to trees.

Minimising harm from landscaping works

- a. No significant excavation or cultivation, especially by rotovators, should occur within RPAs.
- b. Where new designs require levels to be increased to tie in with new structures or the removal of an existing structure has left a void below the surrounding ground level, good quality and relatively permeable top soil should be used for the fill.
- c. It should be firmed into place but not over compacted in preparation for turfing or careful shrub planting.
- d. Ideally, all areas close to tree trunks should be kept at the original ground level and have a mulched finish rather than grass to reduce the risk of mowing damage.
- e. All installations of light systems or other garden improvements that involve trenching works must be undertaken following the hand digging guidance above.

