September 2020
CBA11394 v1

Stonegate Homes (Reading) Ltd

ARBORICULTURAL DEVELOPMENT STATEMENT

Site:
Oxford, Reading (Battle)

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The Complete Arboricultural Consultancy

ARBORICULTURAL DEVELOPMENT STATEMENT

Arboricultural Implications Assessment and Method Statement
guided by recommendations within BS5837:2012

Client:	Stonegate Homes (Reading) Ltd
Site:	Oxford, Reading (Battle)
Arboricultural Consultant:	Stefan Rose *BSc (Hons), TechCert (Arbor.A), TechArborA*
Date:	September 2020

SUMMARY

There is a development proposal for the provision of a mixed use commercial and residential development at Oxford Road, Reading. The impact of these works have been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

This Arboricultural Development Statement (ADS) will demonstrate the protection measures for the retained trees and should be read in association with the Tree Protection Plan CBA11394.02 TPP that identifies the trees to be retained, their protection measures and trees for removal. It follows the initial tree survey and implications assessment.

The emphasis of the report is predominantly that of preservation and tree protection. It identifies methodologies to provide protection for trees, to ensure their healthy and safe retention during and post development, as guided by BS5837:2012 and current best practice.

The tree survey exercise identified 4 (four) individual trees. One tree will be removed and three trees will be retained.

CBA Trees believes that the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

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SUPPORTING INFORMATION/APPENDICES:

CB1 Tree Survey Schedule and Tree Survey Plan CBA11394.01 TSP
CB2 Root Protection Area Schedule
CB3 Tree Protection Plan CBA11394.02 TPP
CB4 Tree Works Schedule

GUIDING PRINCIPLES/APPENDICES:

CB5 Tree Protection Guidance Leaflet
Construction Exclusion Zone Site Notice
Common Causes of Damage During Construction Works
CB6 Qualifications and Experience

1.0 INTRODUCTION

1.1 There is a development proposal for the provision of a mixed use commercial and residential development at Oxford Road, Reading. The impact of these works has been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

1.2 Document disclosure provided by ECE Architecture:

- Location Plan, drawing no. LOC
- Existing Street Elevations
- Proposed Street Elevations
- Proposed Site Plan
- Ground – Fifth Floor Plans

1.3 The client and project architects provided the original site plans and locations of the trees, and these have been the basis for the production of subsequent plans. Whilst CBA Trees has had a limited input in defining the contents of the development plan, it broadly conforms to the requirements of BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"* and current best practice advice.

1.4 Our advice has been sought on the principles of the development and landscape improvement works in relation to the potential impact on the existing tree stock, to inform and to facilitate the development layout.

2.0 CLIENT'S BRIEF

2.1 In line with our written quotation and verbal instructions, information has been compiled in accordance with BS5837:2012 and current best practice advice.

- To undertake a Tree Survey, appended at CB1.
- To produce a Tree Survey Plan that relies on the accuracy of the topographical survey provided by the client (plan CBA11394.01 TSP appended with the Tree Survey Schedule at CB1).
- To produce a schedule of Root Protection Areas in accordance with BS5837:2012 Annex D, appended at CB2.
- To undertake an Arboricultural Implications Assessment (AIA) of the proposed development provided by the client to identify which trees will be lost, which can be retained and suggest mitigating build techniques in order to retain trees.
- Based on the above and further on-going discussions, to provide an Arboricultural Development Statement detailing the methodologies for the retention of the tree stock where feasible, in relation to the development layout including a Tree Protection (CBA11394.02 TPP) appended at CB3.

2.2 The advice provided has been formulated without discussion with the main ground or construction contractors who at this stage have not been appointed. Once the

main contractors are appointed, amendments to this statement may be required for construction purposes. All amendments will be assessed by the retained arboricultural consultant and approved in writing by Reading Borough Council Planning Officer/Tree Officer.

3.0 DESCRIPTION OF THE SITE

3.1 The site is currently an unused area of land.

3.2 Three of the four trees are located offsite.

3.3 Site levels significantly change within the site with a change of approximately 2.0m from north to south.

4.0 THE TREE STOCK

4.1 CBA Trees undertook a tree survey on 20th August 2020. The tree survey exercise identified 4 (four) individual trees. The Tree Survey Schedule and Tree Survey Plan (CBA11394.01 TSP) are appended at CB1.

4.2 *Tree Categorisation Method*

Category U = Trees in such a condition that any value would be lost within 10 years, or should be removed for reasons of sound arboricultural management. There were no individual 'U' grade trees on or adjacent to the site at the time of surveying.

Note: BS5837:2012 states -
"Category U trees are those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years."

Category A = Trees of high quality and value: in such a condition as to make a substantial contribution, (40 years or more is recommended). There were no individual 'A' grade trees on or adjacent to the site at the time of surveying.

Category B = Trees of moderate quality and value, capable of making a significant contribution for in excess of 20 years.

Individual Trees: 1 & 4

Category C = Trees of low quality and value which might remain for a minimum of 10 years or young trees with stems of less than 150mm diameter.

Individual Trees: 2 & 3

Note:
Trees under these categories are trees that should be a material consideration in the development process; the subcategories are intended to reflect arboricultural, landscape and cultural values respectively.

4.3 For more details of the existing tree stock, refer to the Tree Survey Schedule (appended at CB1).

5.0 TREE PRESERVATION ORDER/CONSERVATION AREA

5.1 The client has provided information on TPO 103/003. It is advised that for clarity written confirmation is sought from Reading Borough Council on which trees are included within the order served in 2003 and are therefore afforded legal protection.

5.2 As trees can be legally protected at any time, checks with Reading Borough Council should be made prior to carrying out any tree works to see whether a Tree Preservation Order has been served.

6.0 PROPOSED TREE RETENTION AND TREE LOSS

6.1 In accordance with the recommendations contained within BS5837:2012, an experienced arboriculturist has assessed the requirements for tree protection and the Root Protection Area (RPA). The implications of the proposed development are detailed below, along with any mitigating measures to ensure the retention of these trees.

6.2 As part of the assessment, dimensions have been scaled from the proposed drawing 6906-ECE-01-XX-M3-A-6906_Main Building - Floor Plan - Ground Floor prepared and modified, to include the relevant Tree Survey data appended at CB3.

7.0 SUMMARY OF ARBORICULTURAL IMPLICATIONS

7.1 The following is a summary of arboricultural implications as indicated on Tree Protection Plan CBA11394.02 TPP.

Table 1: Arboricultural Implications

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
1	Common Sycamore *Acer pseudoplatanus*	B1 Interim	• Under footprint of development • Significant loss of roots due to level changes	• Removed	• New tree planted • Site levels make retention of tree through special construction techniques unviable

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
2	Small Leaved Lime *Tilia cordata*	C1	• Unaffected by development as offsite within public realm	• Retained	• Protected by site hoarding acting as tree protection barrier • Protected as detailed in Part 2 of this report
3	Small Leaved Lime *Tilia cordata*	C1	• Unaffected by development as offsite within public realm	• Retained	• Protected by site hoarding acting as tree protection barrier • Protected as detailed in Part 2 of this report
4	London Plane *Platanus x hispanica*	B1	• Loss and damage to roots and rooting environment • Damage to crown during construction works • Working space • General site construction movement • Service locations • Post development pressure to prune crown	• Retained	• Crown reduced to provide a scaffold branch network of 1.5-2.0m in length and then maintained as a pollard • Tree previously reduced/topped • Protected as detailed in Part 2 of this report

8.0 PRE-COMMENCEMENT SITE MEETING

8.1 It is recommended that a pre-commencement site meeting is be held prior to any works commencing on site, to agree all approved processes with the arboricultural consultant, the construction personnel and Reading Borough Council Tree Officer. This meeting could be used to formally agree the methods of work, position of site offices, material storage, compounds, parking and tree protection measures prior to commencement of the development and the associated clearance work. It is advised that a pre commencement meeting is held prior to the start of site clearance and demolition works.

9.0 ADDITIONAL ARBORICULTURAL ADVICE FOR SITE PERSONNEL

9.1 To provide site personnel with additional information regarding the requirements of Tree Protection, a leaflet (appended at CB5) shall be issued to all staff at the time of their site induction. Spare copies of this leaflet shall be available in the site office as replacements.

9.2 In order to inform site personnel of the purpose of the barriers, information notices shall be fixed to the barriers at 5m intervals. These notices shall be of all-weather construction and shall be substantially in the form of the specimen provided at appendix CB5 and replaced as and when necessary.

10.0 PRE-DEVELOPMENT TREE WORKS

10.1 All tree works will be undertaken prior to the commencement of site preparation and construction works.

10.2 **All permitted or approved tree work** should be carried out in accordance with the British Standard *"Recommendations for Tree Work"* BS3998:2010, by suitably qualified and experienced professional arborists. Under no circumstances shall site personnel undertake any tree pruning operations. All tree surgery works should be carried out prior to the development of the site, and erection of protective barriers.

10.3 Written consent will be required from the landowner of T4 before pruning can be completed beyond the site boundary. It is also advised that a long term management plan is agreed in writing to provide for the on going remedial tree work that this tree will require.

10.4 If additional tree works are required during the development works, a written notification must be made to Reading Borough Council prior to the works being programmed/commenced and are subject to the Council considering the works and allowing the tree works before the works are carried out.

10.5 Consideration should be given to the timing of any tree works to avoid the active growing period of trees. Therefore, all tree work should ideally be carried out during

the dormant period from November through to February and then again from June to August.

10.6 Due to the bird-nesting season, considered to be from 1st March through to the 31st July (Natural England) depending on weather conditions, consideration must also be given to the potential for nesting birds. Therefore, where tree work is to be carried out within these months the project ecologist must be consulted to:

- Complete or advise on a pre-works survey that needs to be carried out by a suitably competent person. As a general rule, it should be assumed that birds will be nesting in trees, and it is down to contactors to assess, record and confirm that any works carried out in the management of trees and other vegetation has not disturbed actively nesting birds.

- Ground vegetation, and therefore ground nesting birds, can often be overlooked by tree workers so additional care and controls should be taken when access and egress to the work site may also cause disturbance or damage to a nesting site. This is also true for retained trees on site as the removal of adjacent trees or remedial works on a tree may lead to an established nest being abandoned, exposed to the elements or predation. This action is also a breach of the Act and therefore could lead to prosecution due to the infringement of the Wildlife and Countryside Act 1981 and breaching the Conservation of Habitats and Species Regulations 2010 (as amended).

10.7 Although not apparent at the time of the site visit, consideration should also be given to the presence of bats, and a full visual assessment should be undertaken before any works are carried out on the trees. Where bats are identified as a serious concern, a bat survey should be undertaken by qualified and trained personnel to identify the needs of the bats (roosts, resting place etc) and no tree works can be carried out until the ‘all clear’ is given, or a programme of recommendations is received in writing.

10.8 Should additional tree works become apparent during the construction process; written consent will be required from Reading Borough Council prior to these additional works being undertaken.

10.9 All tree works that are required to facilitate the development works are detailed within the Tree Works Schedule appended at CB4.

11.0 TREE PROTECTION MEASURES

11.1 All site operations will be planned, implemented and supervised to prevent the following unless otherwise agreed within this report:

- Root severance
- Damage to the bark, branches and trunks
- Compaction of the soil within the Construction Exclusion Zone
- Alterations in soil level

- Soil contamination by phytotoxic materials such as herbicides, petrol, oils, diesel, cement and concrete washings or other construction additives

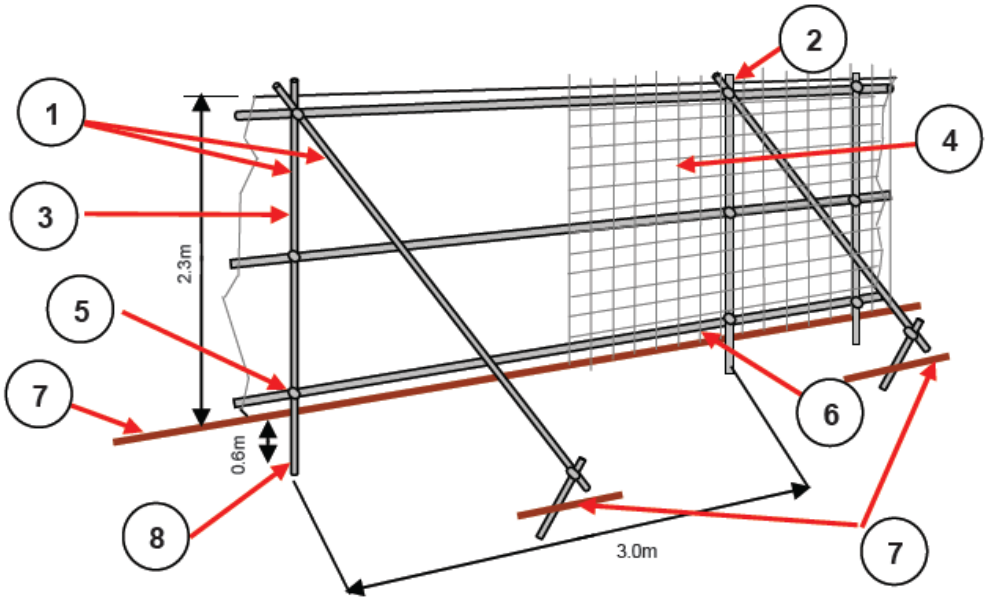
11.2 Before starting any site preparation, demolition, ground or construction works in relation to this development proposal; tree protection will be installed in accordance with Tree Protection Plan CBA11394.02 TPP (appended at CB3). This will occur immediately following the completion of tree works and prior to any site preparation works starting.

A copy of the Tree Protection Plan will be displayed in the site office and canteen as a point of reference for all site operatives.

11.3 ***Standard Protective Barrier***

Installing the following protective barrier as indicated on Tree Protection Plan CBA11394.02 TPP will protect retained trees. The barrier is to comprise of a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps.

Figure 1: Protective Barrier



1. Standard scaffold poles
2. Uprights to be driven into the ground
3. Panels secured to uprights with wire ties and where necessary standard scaffold clamps
4. Weldmesh wired to the uprights and horizontals
5. Standard clamps
6. Wire twisted and secured on inside face of barriers to avoid easy dismantling
7. Ground level
8. Approximately 0.6m driven into the ground

Example of tree protection:

11.4 Site and Machinery Access within Construction Exclusion Zone

At this stage, no information has been provided as to the type, weight or ground pressure of the equipment to be deployed for the demolition works, and therefore the exact type of ground protection is yet to be specified for the existing access. The method of ground protection will be engineer designed and fit for purpose. Prior to the commencement of works, ground protection will be assessed by the retained arboricultural consultant and approved in writing by the Reading Borough Council Tree Officer.

As a guide, a compressible layer will be incorporated into the design to minimise compaction of the rooting environment. This layer could consist of a thick layer of composted wood chip or preparatory neoprene mats.

11.5 The use of narrow scaffolding or a cantilevered scaffold may be required adjacent to T4 and this will prevent vehicular access in this area once the foundations are laid and the scaffolding is erected.

11.6 Once the barriers are in place it must remain *in-situ* throughout the following list:

- Contractor occupancy
- Plant and materials delivery
- Construction works
- Installation of porous surfacing
- Utility installation
- Completion of development
- Landscaping

11.7 The areas protected by barriers, fencing and ground protection will be regarded as **sacrosanct**, and the tree protective barriers shall not be taken down or relocated at any time without the written approval of Reading Borough Council. An example of a CEZ notice is appended at CB5.

11.8 Rather than use weldmesh panels, the appointed contractor may opt to establish site hoarding. This can be used for tree protection but should not be erected any closer to the retained trees than the tree protective barrier.

12.0 EXISTING SERVICES

12.1 No information has been provided on the location and size of existing services. However, if there are any existing services within the RPA and CEZ of retained trees will not be chased out, but cut at the edge of any structure and left *in- situ.*

12.2 Cabling will only be recovered from beneath a CEZ where it is located in ducting, and can be removed by winching from an existing service manhole beyond the CEZ.

12.3 Service pipes and ducts, where they are located within the CEZ or RPA of retained trees, will be made redundant either by pipe bursting or by filling with an inert material such a foamed concrete.

13.0 AVOIDING DAMAGE TO STEMS AND BRANCHES

13.1 Care shall be taken when planning site operations, to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact could result in serious damage to them, and might make their safe retention impossible. Consequently, any transit or traverse of plant in close proximity to trees, will be conducted under the supervision of a banksman, in order to ensure adequate clearance from trees is maintained at all times.

14.0 VEHICULAR MOVEMENTS

14.1 There should be minimal vehicular movement in the potential rooting zone and outside the CEZ identified on plans CBA11394.02 TPP.

14.2 It is not anticipated that there will be a need for excess vehicular movement near the retained trees for works relating to this development given the locations of the trees.

15.0 SITING OF TEMPORARY OFFICES, TOILETS AND MATERIAL STORAGE COMPOUNDS

15.1 It is anticipated that all storage materials and deliveries shall make use of the open space outside of the RPAs of retained trees and the construction exclusion zone in order to avoid unnecessary damage to tree roots.

15.2 The locations shall be agreed in writing with Reading Borough Council prior to the commencement of works on site, and will remain in only those agreed locations throughout the construction phases. If an alternative location is required, this must be agreed in writing with Reading Borough Council. This will also include the delivery; storage and movement of all essential facilities, as well as aspects such as temporary contractor vehicle parking and site location of chemical mixing (e.g. concrete). All such locations will be outside of the RPAs, and avoid areas where ‘run off’ of chemicals may flow into RPAs.

15.3 All site huts that are to be situated on ground soft ground, shall have appropriate footings or be situated on a temporary surface, which will aid in reducing the potential for compaction of the ground, where they are in close proximity to the existing tree protective barrier line. Site huts can be used as part of the protective barrier boundary, and in some cases, can be beneficial where installation does not conflict with the aerial parts of the tree.

15.4 This shall be accommodated outside of the CEZ, particularly to avoid harmful spillages of fuel, or phytotoxic substances that may damage the health of retained trees.

16.0 GENERAL CONSIDERATIONS WITHIN AND OUTSIDE THE CONSTRUCTION EXCLUSION ZONE (CEZ)

16.1 Inside the CEZ formed by the tree protective barrier measures, the following prohibitions shall apply:

- No construction activity will occur within the CEZ unless otherwise stated in this report, or agreed in writing with Reading Borough Council prior to the specific activity taking place.

16.2 In addition to the above, further precautions are necessary adjacent to trees outside the CEZ:

- Materials which will contaminate the soil e.g. concrete mixing, diesel oil and vehicle washings, shall not be discharged within 10 metres of the tree stem. This should take into consideration the topography of the site and slopes, to avoid materials such as concrete washings running towards trees.

- Fires shall not be lit in a position where their flames can extend to within 5 metres of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.

- Notice boards, telephone cables or other services shall not be attached to any part of the tree (see appendix CB5 Common Causes of Damage During Construction Works).

17.0 UTILITY SERVICE CONNECTIONS

17.1 Full details of all service location proposals have not been forwarded to CBA Trees at the time of compiling this assessment. It is however assumed, given the location of the trees to be retained, that any new services will be installed outside the root protection areas of retained trees.

17.2 Further advice on the installation of services is set out in NJUG Publication Volume 4 2007, and Section 7.7 of BS5837:2012.

18.0 FOUNDATION DESIGN AND CONSTRUCTION

18.1 Traditional style foundation construction methods can be used to construct the development. Methodologies of work will need to be considered when working in close proximity to T4 so that works do not impact on the rooting environment of this tree.

19.0 GROUND LEVEL ALTERATIONS

19.1 There will be no increases or decreases to the ground levels within the root protection areas of the retained trees.

20.0 SOFT LANDSCAPING WORKS

20.1 Any soft landscaping works within the development site will be in accordance with all approved landscape plans, and any specification of such works approved by Reading Borough Council.

20.2 Landscaping will accord with following requirements where in close proximity to retained trees:

- The CEZ will remain off limits for all site plant and machinery unless fit for purpose ground protection is installed. Pedestrian traffic must be kept to an absolute minimum only permitted for the ground preparation and landscape installation works.

20.3 The replacement tree species, size and planting detail and after care programme shall be secured and approved through a suitable planning condition.

21.0 SITE MONITORING AND SUPERVISION

21.1 To ensure that the tree protection measures are maintained correctly and as per the approved documents (subject to any written approval for amendments where required), arboricultural supervision will be completed.

21.2 As part of this process, photographic records will be taken and kept by the client. An email copy of the photographs will be sent to the Reading Borough Council Tree Team and CBA Trees showing works during each phase and stage of onsite works:

- This will take the form of the client and/or their appoint person from the contractors signing off in a weekly logbook, that the agreed protection measures are in situ and fit for purpose as per the approved documents and as agreed by the representative of Reading Borough Council.

- The tree protection measures will be photographed and emailed to the Tree Team in the planning department with a request to visit site and confirm that the protection measures are acceptable. The Reading Borough Council representative will then sign off the protective measures:

- Setting out and erection/establishment of tree protection measures
- Excavation for ground works and establishment of drainage and service runs
- During construction works of the ground floor in particular
- During the construction works of the car parking adjacent to T4

21.4 CBA Trees will be retained throughout the project to enable tree related concerns for the site to be discussed and acted upon quickly and efficiently to ensure that any tree related issue that may arise on site during the project can be dealt with, without detriment to the long-term health of the trees.

Example pro-forma:

Date	Activity	Checked	Comments/ damage noted	By whom	Signed	Action taken
	Pre commencement meeting					
	Erection of protective measures					
	Tool box talk with appointed contractors advising on the importance of the protection of the trees					
	Weekly inspection of protective barriers					
	Removal of driveway and reinstatement to garden					

22.0 REPORT DAMAGE TO TREES AND TREE PROTECTION BARRIERS

22.1 Should any damage be caused to trees noted for retention, either by the above works or as the result of any other action, the damage should be reported to the site supervisor immediately. The site supervisor shall report up the chain of responsibility to the retained consultant arboriculturist, or in the absence of such an appointment, to an appropriately qualified arboriculturist, to enable remedial measures to be implemented as necessary and as agreed with Reading Borough Council Tree Officer.

22.2 Should damage occur to a protective barrier to impair its function in protecting trees, all work will cease near the damage, until the barrier has been returned to standard.

23.0 REMOVAL OF PROTECTIVE BARRIERS

23.1 When each development phase is complete, all drainage and service runs are in place, all site machinery has been removed and any landscaping for the principal area of the site has been implemented, the protective measures where they have been installed will be dismantled/removed.

23.2 This dismantling/removal of the tree protection measures must be undertaken with great care and will need to be supervised to avoid heavy machinery being used within the Root Protection Areas. Hoarding, scaffolding and other barrier materials will need to be removed from site immediately.

24.0 CONCLUSIONS

24.1 There is a development proposal for the provision of a mixed use commercial and residential development at Oxford Road, Reading. The impact of these works have been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

24.2 The tree survey exercise identified 4 (four) individual trees. Of these four trees, one tree will be removed and three trees will be retained.

24.3 Of the three retained trees, one will require the crown to be reduced. This is in part due to the historic reduction of the crown and the regrowth needing to be managed but also to provide separation from the crown and the proposed development. Written consent will be required from the landowner of T4 before pruning can be completed beyond the site boundary. It is also advised that a long term management plan is agreed in writing to provide for the ongoing remedial tree work that this tree will require.

24.4 The replacement tree species and size of tree to be planted for the removal of T1 to include an after care maintenance programme will be detailed and secured through a suitable planning condition to ensure the establishment of the tree and repalcement of the tree should the new planting fail.

24.5 It is our opinion that the trees identified for retention can be afforded due respect and provided adequate protection throughout each stage and phase of works on site, ensuring their safe and healthy retention during the development process and have been fully considered throughout the design of the site development.

24.6 Provided the recommendations included within this report are strictly adhered to, CBA Trees believes the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

25.0 CONTACT LIST

25.1 It is suggested that points of contact and lines of communication are established prior to commencement of the works on site including:-

25.2 It is advised that the site supervisor establishes their own listing of contact details. It is suggested that points of contact and lines of communication are established prior to commencement of the works on site including:

Client: Stonegate Homes Ltd	01306 884277
Project Architects: ECE Architecture	01903 248777
Project Arboricultural Consultant: Stefan Rose, CBA Trees	02380 986229
Tree Officer (customer services) Reading Borough Council	0118 937 3787
Site Foreman/Supervisor	To be appointed

26.0 BIBLIOGRAPHY

- British Standard 5837:2012 –
  "Trees in Relation to Design, Demolition and Construction - Recommendations"
- British Standard 3998:2010 –
  "Recommendations for Tree Work"
- National Joint Utilities Group Publication Volume 4 –
  "Guidelines for the planning, installation and maintenance of utility services in proximity to trees"
- Wildlife and Countryside Act 1981
- Conservation of Habitats and Species Regulations 2010 (as amended)
- Town and Country Planning Acts

CB1

The Professional Arboricultural Consultancy

TREE SURVEY NOTES

This Tree Survey has been undertaken within the recommendations of British Standards 5837:2012 and current arboricultural best practice.

- Each tree has been numbered and, where instructed, for future identification on site, has been tagged using small durable metal or plastic tags.
- Due to variations of existing ground levels through the site, height dimensions are estimated and are given in metres. Accurate heights, measured with the aid of optical instruments can be provided where instructed.
- Trunk/stem diameters are measured in mm at 1.5 metres above ground level, using a standard measuring tape as defined by British Standards, unless otherwise stated.
- Estimated branch spread is taken in metres from the centre of the trunk, at the four cardinal points of a compass, to achieve an accurate representation of the crown shape which will be recorded on the tree survey plan.
- An assessment of a tree's age classification is made in terms of its maturity within the site's landscape and defined as:

  Y = young trees
  SM = semi-mature trees
  EM = early mature trees
  M = mature trees
  OM = over-mature trees

- An assessment of a tree's physiological condition is defined as:

  Good = fully functioning biological system showing average vitality i.e. normal bud growth, leaf size, crown density and wound closure
  Fair = fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and reduced wound closure
  Poor = a biological system with limited functionality showing significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, low crown density and limited wound closure
  Dead = dead

- An assessment of a tree's structural condition is defined as:

  Good = no significant structural defects
  Fair = structural defects which could be alleviated through remedial tree surgery or management practices
  Poor = structural defects which cannot be alleviated through tree surgery or management practices
  Dead = dead

- An assessment of a tree's future life expectancy is defined as: **<10, 10+, 20+ or 40+ years.**

Categorisation of Trees

The category for each tree is assessed using the recommendations of BS5837:2012. The assessment has not considered any site-specific development proposals, but will have considered any changes on or off-site which may have an effect on the conditions surrounding the surveyed trees.

The trees have been classified into one of the following categories (and one or more sub-categories [this will however not increase the value of the tree]) and are indicated on the associated drawings by colours as indicated.

Category U				Identification colour on plan
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality			**DARK RED**
Category A	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands, of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	**LIGHT GREEN**
Category B	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are down-graded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation value or other cultural value	**MID BLUE**
Category C	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	**GREY**

Clients are advised that Tree Surveys are a basic data collection exercise and record of tree condition at the time of survey. This will identify any visible signs of ill-health or major defects, advising a further detailed investigation where appropriate. This will most often take the form of a request for either "*full ground level inspection*" or "*climbing inspection required*". There may also be a further reference to the need for "*decay detection equipment*" to aid diagnosis. A tree survey does not include a comprehensive schedule or specification of remedial tree works, but may contain a guide to the work which might be undertaken by a prudent tree owner, purely for reasons of health and safety.

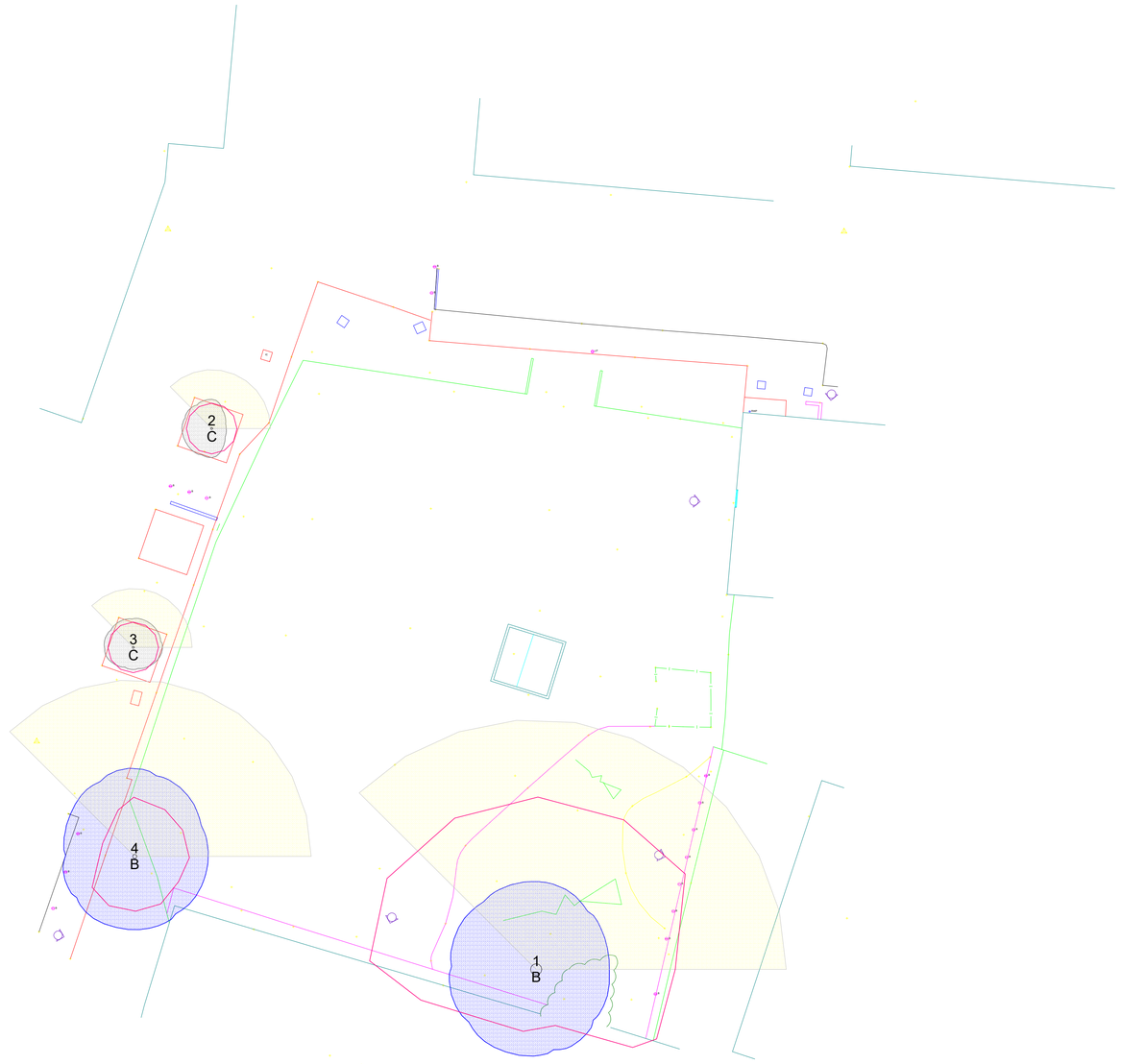
A Tree Survey should not be confused with a Tree Inspection or Arboricultural Implication Assessment, which are totally separate exercises.

	TREE SURVEY REPORT (BS5837:2012)	
CBA Trees	**Site:**	Oxford Road, Reading (Battle)
	Date:	20th August 2020
	Consultant:	Alexa Monk *TechCert(Arbor A) NCH Arb*
	Tagged:	No

Notes:
1. It may be advised that some trees should have the ivy removed to enable a re-survey to be carried out. This would also alleviate the tree from becoming suppressed; carrying additional weight that increases the chance of windthrow due to a larger dense crown area; and only receiving restricted light. Unless otherwise stated, in order to prevent regrowth, it is only necessary to remove a 300mm section of ivy and clear around the base.
2. It may be advised that it was only possible to estimate the diameter of some trees because of ivy smothering, dense vegetation, or trees located off-site with no access.
3. The estimated remaining contribution in years, and the tree grading category have been calculated for the current situation and may alter where further investigation works are advised.
4. Some trees or groups may have been given an interim grade. The reason for the interim grading is addressed in the timescales given as this may have a bearing on health and safety and/or any development proposals.
5. Tree Groups have been assessed with estimated and representative data.
6. This is not a Tree Works Schedule. Any preliminary management recommendations are listed in the interests of health and safety and should be carried out by a prudent tree owner.
7. Any management recommendations are suggested for reasons of health and safety only, regardless of development proposals at this stage. However, the defects requiring remedial tree surgery are by their very nature potential wildlife habitats, including protected species which needs consideration prior to any tree surgery works commencing.
8. The data collected and any advice provided within this report is supplied in the interests of sound arboricultural management. Trees are a living dynamic organism that can be affected by external conditions (high winds, storms, snow, heavy rain or drought) and may occasionally fail without warning. It is therefore not possible to state with any certainty that any tree or group of trees is completely safe. The condition of a tree or group of trees can change rapidly as a result of external factors; we would advise that the occupier/ owners inspect the trees at least every 12 months or following periods of extreme weather and where concerns are raised relating to tree health that would be considered beyond the knowledge of a layperson, further arboricultural advice should be sought.

TREE PRESERVATION ORDER/CONSERVATION AREA:
The client has provided information on TPO 103/003. It is advised that for clarity written confirmation is sought from Reading Borough Council on which trees are included within the order served in 2003 and are therefore afforded legal protection.

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
1	Common Sycamore *Acer pseudoplatanus*	17	S	Est 770	6.0	5.0	6.0	6.0	4.0	7.0	5.0	5.0	M	Good	Fair Unable to verify health and safety due to ivy on trunk Multi-stemmed at 6m above ground level Wall and building to south Basal suckers Minor deadwood in crown	Sever and remove ivy and resurvey within 1 month	20+	B1 Interim
2	Small Leaved Lime *Tilia cordata*	4	S	140	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	SM	Good	Good Offsite tree Crossing branches Street tree growing in paved area	No works required at time of survey	40+	C1
3	Small Leaved Lime *Tilia cordata*	4	S	140	2.0	2.0	1.5	2.0	2.0	2.0	2.0	2.0	SM	Good	Good Offsite tree Crossing branches Street tree growing in paved area	No works required at time of survey	40+	C1
4	London Plane *Platanus x hispanica*	12	S	280	6.0	5.0	5.0	5.0	1.0	2.5	2.5	2.0	SM	Good	Good Offsite tree Growing on bank Minor deadwood in crown	No works required at time of survey	40+	B1



CBA Trees

East Lodge, Leylands Business Park,
Colden Common, Winchester, SO21 1TH
Tel: 02380 986229
Email: info@cbatrees.co.uk
Web: www.cbatrees.co.uk

CBA11394
Oxford Road, Reading (Battle)
Tree Survey Plan

SCALE : 1 : 200 @ A1	**DATE :** 25/08/2020	N
MAP FILENAME : CBA11394.01 TSP	**BASE PLAN:** 20051-02-T-E	

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1. Root Protection Areas (RPA) are shown as a theoretical polygon. The RPA for T1 and T4 has been modified to take into account site features and constraints, however this has not been verified by onsite investigations.
2. An indication of potential direct obstruction of sunlight has been illustrated by plotting a segment, with a radius from the centre of the stem equal to the height of the tree, drawn from due north-west to due east, indicating the shadow pattern through the main part of the day.

Crown Spread | Root Protection Area | Shading Arc

Category 'A' | Category 'B' | Category 'C' | Category 'U'

0 30m

TREE PRESERVATION ORDER/CONSERVATION AREA:
The client has provided information on TPO 103/003. It is advised that for clarity written confirmation is sought from Reading Borough Council on which trees are included within the order served in 2003 and are therefore afforded legal protection.

CB2

BS5837:2012 TREE ROOT PROTECTION AREA SCHEDULE

Site:	Oxford, Reading (Battle)
Date:	20th August 2020
Consultant:	Alexa Monk *TechCert(Arbor A) NCH Arb*

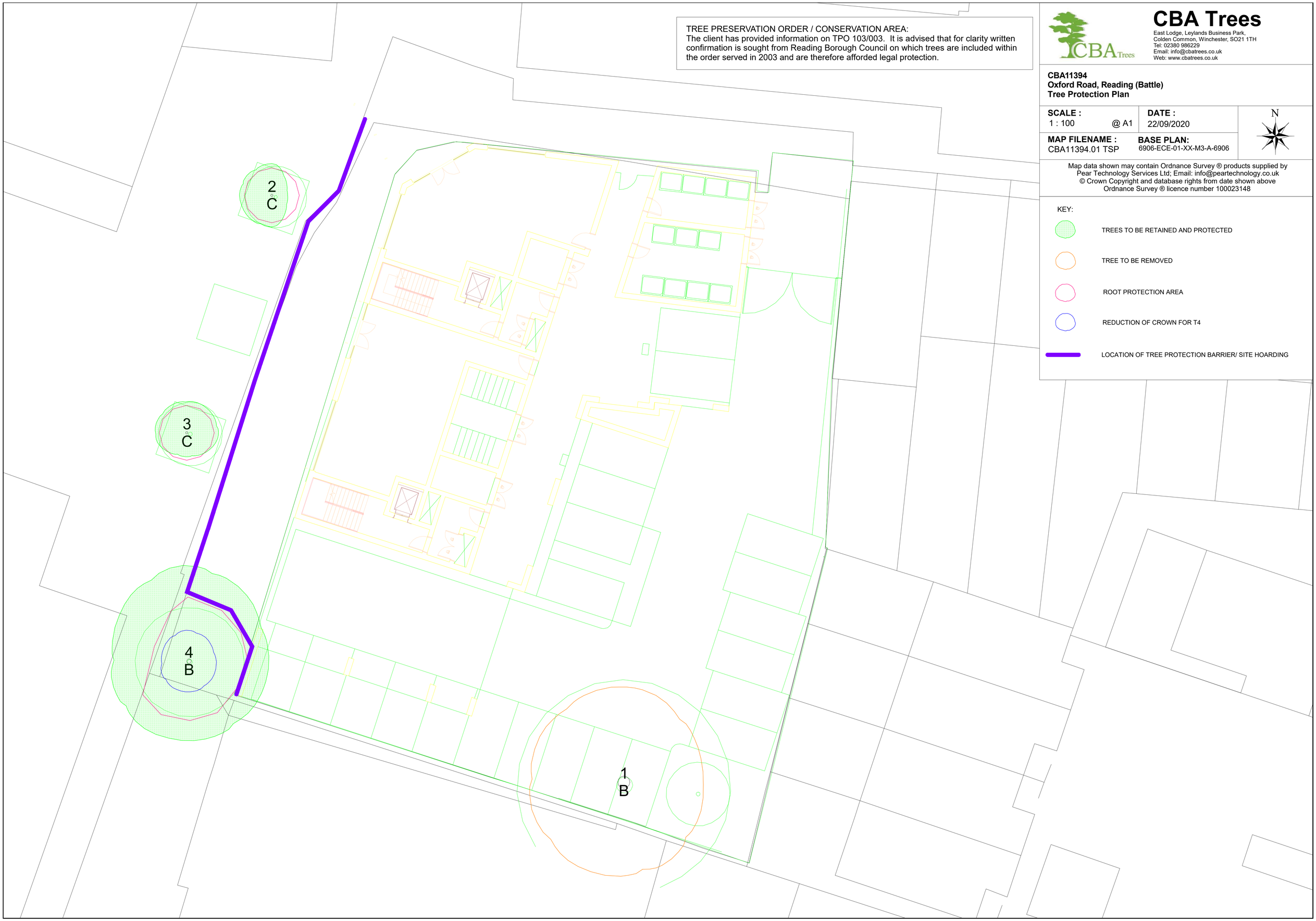
Notes:
1. This is an assessment of the Root Protection Area (RPA) required, based on the individual tree data collected and Section 4.6.1 of BS5837:2012.
2. For all single stem trees with a stem diameter greater than 1250mm, and multi-stem trees with a stem diameter greater than 1500mm, the calculated RPA has been capped at 707m2 in accordance with Section 4.6.1 of BS5837.2012.

TREE PRESERVATION ORDER/CONSERVATION AREA:
The client has provided information on TPO 103/003. It is advised that for clarity written confirmation is sought from Reading Borough Council on which trees are included within the order served in 2003 and are therefore afforded legal protection.

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
1	Common Sycamore Acer pseudoplatanus	B1 Interim	S	770	9.24	268.26
2	Small Leaved Lime Tilia cordata	C1	S	140	1.68	8.87
3	Small Leaved Lime Tilia cordata	C1	S	140	1.68	8.87
4	London Plane Platanus x hispanica	B1	S	280	3.36	35.47

CB3

TREE PRESERVATION ORDER / CONSERVATION AREA:
The client has provided information on TPO 103/003. It is advised that for clarity written confirmation is sought from Reading Borough Council on which trees are included within the order served in 2003 and are therefore afforded legal protection.



CBA Trees
East Lodge, Leylands Business Park,
Colden Common, Winchester, SO21 1TH
Tel: 02380 986229
Email: info@cbatrees.co.uk
Web: www.cbatrees.co.uk

CBA11394
Oxford Road, Reading (Battle)
Tree Protection Plan

SCALE : 1 : 100 @ A1	**DATE :** 22/09/2020
MAP FILENAME : CBA11394.01 TSP	**BASE PLAN:** 6906-ECE-01-XX-M3-A-6906

N

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KEY:

- TREES TO BE RETAINED AND PROTECTED
- TREE TO BE REMOVED
- ROOT PROTECTION AREA
- REDUCTION OF CROWN FOR T4
- LOCATION OF TREE PROTECTION BARRIER/ SITE HOARDING

CB4

	TREE WORKS SCHEDULE	
	Client:	Stonegate Homes (Reading) Ltd
	Site:	Oxford, Reading (Battle)
	Date:	September 2020
	Consultant:	Stefan Rose *BSc (Hons), TechCert (Arbor.A), TechArbor.A*

Tree works to only be completed on receipt of full planning permission.

Tree No	Species	Recommended Works
1	Common Sycamore *Acer pseudoplatanus*	• Fell to ground level and remove stump
2	Small Leaved Lime *Tilia cordata*	• No works required
3	Small Leaved Lime *Tilia cordata*	• No works required
4	London Plane *Platanus x hispanica*	• Reduce to provide a branch frame work of 1.5-2.0m and then maintain as a pollard every 5 years (subject to written acceptance from tree owner)

- All tree works are advised to be carried out between July and September or November and February. Tree works should also avoid the season for nesting birds.
- All tree works should be carried out in accordance with current best practice guidelines and BS3998:2010 – Tree Work Recommendations.
- We recommend the use of an Arboricultural Association Approved Contractor or an ISA Certified Arborist/Tree Worker that is suitably insured and experienced to carry out the tree works.

CB5

SUMMARY OF

TREE PROTECTION MEASURES

Introduction

This leaflet shall be issued to all site personnel as part of their induction briefing.

It describes in summary form, the precautions that site personnel shall at all times follow, to ensure that the existing trees on the site come to no harm.

The precautions described are neither arbitrary nor reducible and must be adhered to in full.

These precautions are necessary because unprotected trees are very vulnerable to damage during demolition and construction works.

Furthermore, many of the trees on the site are under LEGAL PROTECTION and damaging them can result in heavy fines.

Two common misconceptions about trees:

MYTH: Trees have deep taproots and so shallow excavations will not harm the tree.
FACT: 90% of all tree's roots are found in the top 600mm of soil; all excavations near to trees are likely to cause root damage which can kill the tree.
MYTH: Trees will quickly heal over any bark wound, with no ill effect.
FACT: Bark wounds take years to heal and larger ones never do; missing bark can lead to disease and even the death of the tree.

Tree Protection

All trees adjacent to unsupervised work areas have been protected by fencing.

This fencing must be respected at all times and no attempts shall be made to damage, bypass or ignore it.

In areas designated for supervised working, no works shall be undertaken without the supervisor being present or without him/her issuing a "carry on" chit.

Prohibitions Adjacent to Trees

Inside the exclusion area of the tree protection, the following prohibitions shall apply.

- No digging or scraping
- No storage of plant or materials
- No vehicular access
- No fire lighting
- No handling, discharge or spillage or any chemical substance
- No water-logging

In addition to the above, further precautions shall be taken near to trees.

- A 10m separation distance shall be observed between trees and any substance injurious to their health, including fuels, oil, bitumen, cement (including washings) builders' sand, concrete mixing and other chemicals.

- No fire shall be lit such that flames come within 5m of any foliage; this shall be taken to mean a fire separation distance to the leaves of 20m.

Avoiding Damage to Stem and Branches

Care shall be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights, can operate without coming into contact with trees.

Consequently, any transit or traverse of plant in proximity to trees shall be conducted under the supervision of a spotter to ensure that adequate clearance is at all times maintained.

In some circumstances, it may be impossible to achieve this, necessitating the pruning of the tree.

If this is necessary, a specialist team shall be called in following referral to the project Arboriculturist.

No tree pruning shall be undertaken by demolition or construction personnel.

Asking for Help

If you see any damage to a tree or its protective fencing, or if you need a tree pruning for plant clearance, contact **CBA Trees** as follows:

Office Telephone: 02380 986229

REMEMBER:
ALL TREE DAMAGE IS AVOIDABLE – SO AVOID IT!

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

TREE PROTECTION AREA

KEEP OUT !

(TOWN & COUNTRY PLANNING ACT 1990)

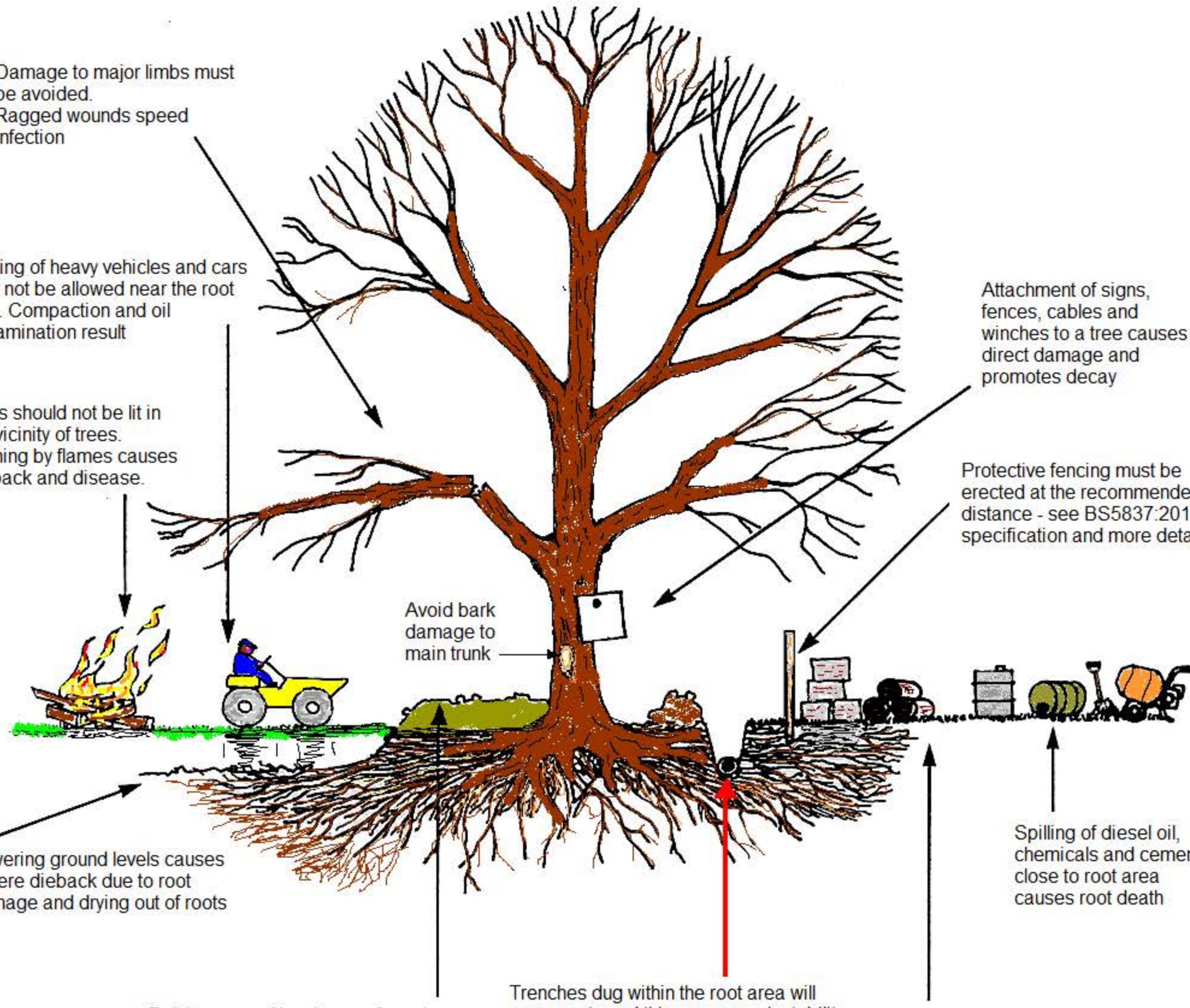
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.

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

COMMON CAUSES OF TREE DEATH

The use of properly positioned protective barriers can prevent tree deaths occurring.



CB6

The Professional Arboricultural Consultancy

Qualifications of
Stefan Rose
Principal Consultant

Stefan Rose *BSc (Hons), TechCert (Arbor.A), TechArbor.A* joined CBA Trees in 1998 as a junior surveyor and having gained extensive knowledge and a wealth of experience over the years, has progressed to Principal Consultant. He has considerable experience in working as a locum for Local Authorities, assessing new and extant Tree Preservation Orders, and continues to work on a number of major development projects nationwide.

As our Principal Consultant Stefan undertakes a full range of arboricultural services from health and safety audits to BS5837:2012 tree surveys, providing expert advice and guidance on initial feasibility site assessments to full scale planning applications. He is accomplished at producing implication assessments and method statements for the submission of planning applications, working with both individual home owners and within multi-disciplinary teams to achieve successful arboricultural outcomes.