

Arboricultural impact assessment and BS5837 survey of 145 Park Road, Chandler's Ford, EAST- LEIGH, SO53 1HT

Carried out by Matthew Rowden for Gianluca Bellucci,
Applicant

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3. Instruction

To assess trees on the site for any potential impact that the proposed development may have on them, and the constraints that the trees may pose on the proposals. This is in accordance with current guidance BS5837:2012, and to implement control measures and/or design alterations to the proposals where necessary. I have been instructed by Gianluca Bellucci, applicant.

4. Limitations

This survey is valid for 1 year, dependent on changing site conditions. I must be kept in direct supervision of the site at all times in regards to all arboricultural matters in order for the findings in this report to remain valid.

5. Site details

The site is a residential plot built in 1906, with the north east aspect extension built in the 1960. It sits on Park road in the centre of Chandlers Ford. It is under the jurisdiction of Eastleigh Borough Council.

The BGS lists the soil conditions for the site as, "Whitecliff Sand Member-Sand and gravel. These sedimentary rocks are shallow-marine in origin. They are detrital, ranging from coarse- to fine-grained (locally with some carbonate content) forming interbedded sequences."

6. Legal restrictions

Tree 9 is covered by a TPO, with reference 893E.

7. Proposals

The proposals are in the parts:

1. To demolish the single storey extension to the north east aspect and to build on the same footprint with a double storey extension. The footings are to be replaced with similar strip footings, but meet current NHBC guidance.
2. The garage is to be demolished and a new one built adjacent to the property on the south aspect.
3. A new driveway is to be installed to the north of the existing one, with two parking bays measuring 2.5 x 5m.

8. Drawings and documents

The client has provided detailed drawings and documents for the purposes of this assessment. For ease of identification, the trees relevant to this report have been numbered as T1- T9 and grouped where applicable.

9. Summary

There are some significant constraints to the proposals, meaning that several trees require felling to facilitate the build. These are all relatively low value, with tree 1 being the biggest loss to the site.

Tree 6 is the highest value tree on the site and will require pruning to facilitate the extension, and is likely to cause regular nuisance with dropping detritus in gutters. However, I do not believe this is going to be greatly exacerbated when compared to the current situation, as the building footprint is not going to change.

The access to this area of the site is dictated by the RPA of tree 6, and places quite strict perimeters on the working area around the extension.

Tree 9 constrains the location of the new driveway, but as a sapling, it may easily be transplanted, and the RPA of tree 6 necessitates some ground protection to the east aspect of this new driveway installation.

Overall, the build is viable without significant design alterations, and minimal loss to the sylvan character of the area.

10. Findings (please see appendices 2 & 3 for specific details)**A. Identification of the constraints posed by the trees to developing the site under the current proposal.****Tree 6**

- i. The root protection areas of this tree overlaps the proposed extension and places moderate constraints on the new driveway installation.
- ii. The footings are already in situ, so an assumption may be made that little to no rooting area exists beneath the existing footings of the extension footprint.

Trees 1, 2, G3, G7, G8

- iii. These trees constrain the site access for the site or the new driveway location, and are of low enough value that their removal is not going to significantly affect the site.
- iv. Tree 1 specifically blocks access to the site for high sided vehicles, meaning access to the site for lorries, plant and deliveries is severely constrained.
- v. Tree 2 is partially dead and has little to no value to the site.

All remaining trees

- vi. No constraints posed.

B. Potential impacts of the proposal on the trees**All trees:**

- i. The rooting area of these trees is in the top 600mm of soil and very susceptible to compaction from vehicular movements. This can result in root death, loss of oxygen in the soil, reduced moisture percolation and diminished nutrient uptake, leading to stress and eventual strain.

Tree 6

- ii. This tree may be significantly impacted by the demolition of the north east aspect of the house, lifting of the existing footings and replacement: if mechanical excavation is used with no supervision, catastrophic root damage could occur.
- iii. Although there is the potential for damage, it is unlikely that much rooting area extends beneath the actual footings, so providing the site is accessed from the south, outside the RPA, tree 6 may be adequately protected.
- iv. The driveway installation could result in minor damage to the tree's rooting area, with 2.7m² occupied, or 1.1%. This is minor, but due to the lack of rooting area to the south aspect of the tree, I've suggested a design revision in this area to keep the roots protected.

- v. The pruning recommended to allow adequate clearance of the structure could allow ingress by opportunist pathogens, loss of transpiration pull, loss of photosynthetic material, and disruption of hormone pathways. I believe that this pruning can be done within the phenological guidance of BS3998:2010 with no severe impacts.

Trees 1, 2, G3, G7, G8

- vi. The impact is the loss of these trees to the site.
- vii. For the majority of these trees, the loss is negligible: the trees are either inappropriate, low value, or in such a state that they would have very little residual value to offer over the next 5 years.
- viii. The exception to this rule is tree 1.
- ix. This is a higher value tree that, although not protected, is visible from the road and adds some level of tree cover to the area, despite being far from my favourite species.

C. Potential impacts of trees on the current proposals

All Trees

- i. Tree protective fencing must be erected as shown on the TPP to prevent any tools, materials, fuel or other contaminants from being stored within the construction exclusion zone.
- ii. For the initial demolition, the access to the site must only be along the existing entrance to the south west of the site, and the historic hard surfacing must be used. The route followed must adhere to that set out in the tree protection plan, phase 1.

Tree 6

- iii. The footings may be removed mechanically, but it must be done with arboricultural supervision, ensuring that the excavator sits within the extension footprint, and works from north to south, with no incursion within the tree protective fencing as shown on the phase 1 plan.
- iv. This must be carried out carefully, and where any roots are found, this area must be excavated by hand.
- v. The new driveway must be a no dig solution where it sits within the RPA of tree 6. 100mm layer of Cellweb® or similar geocellular membrane would be sufficient.
- vi. The tree will require a reduction of the south aspect canopy to ensure adequate clearance of the new structure.

Felled trees

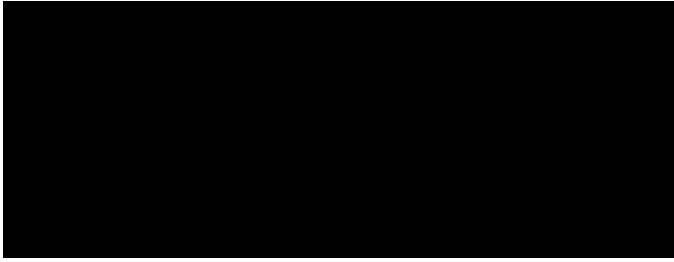
- vii. The site is overgrown, so the majority of the low value, felled trees do not necessarily require replacement.

- ## 11. Conclusion

The issues for the arboricultural method statement to address are:

- ## 12. Recommendations:

- i. Fell all trees recommended for removal.
- ii. Erect tree protective fencing as per TPP phase 1.
- iii. Demolish existing extension and garage utilising the route dictated on the drawing.
- iv. Remove the footings that fall within the RPA of tree 6 as per AMS.
- v. Install new footings, then build super structure and new garage.
- vi. Phase 2: refer to TPP phase 2 for location of tree protective fencing.
- vii. Transplant tree 9 to new location.
- viii. Install new sub base using a geo cellular membrane where the route falls within the RPA of tree 6.
- ix. Plant replacement tree for tree 1.



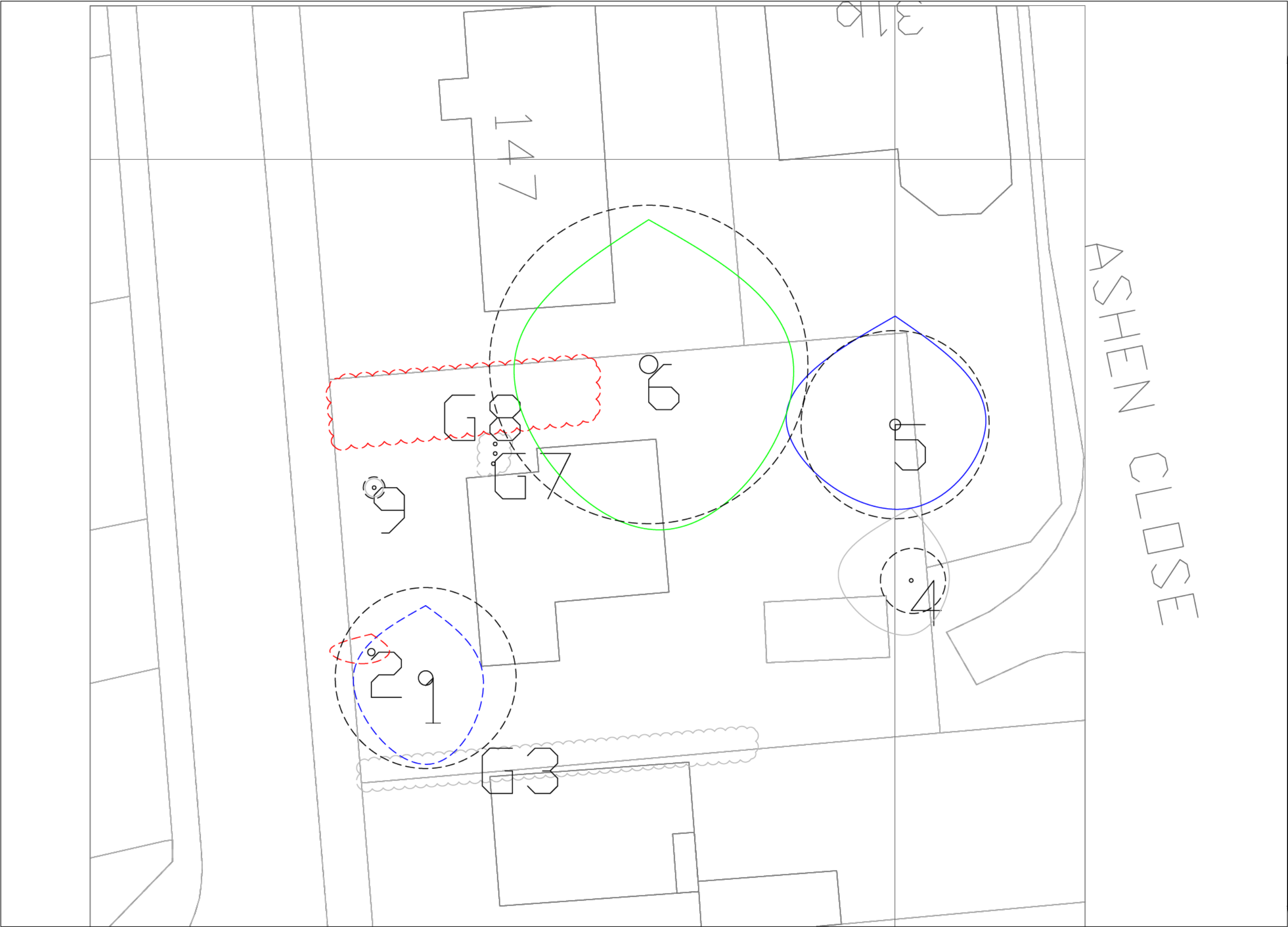
Matthew Rowden *BTEC L3 NatDipArb, ABC L6 ProfDipArb*

13. References

- a. BS5837:2012 - Trees in relation to design, demolition and construction
- b. TDAG 2014
- c. Cutler & Richardson 1981, Kew root survey.

Appendix 1 - Tree protection plan (in DWG and PDF format)

Appendix 2 - Tree survey schedule



General Notes

Key	
Cat. A Trees	▼▼▼
Cat. B Trees	▼▼▼
Cat. C Trees	▼▼▼
Cat. U Trees	▼▼▼
RPA	---
TPF	---
Ground protection	●●●

No.	Revision/Issue	Date

Firm Name and Address



arbelite
TREE CARE

Project Name and Address

145 Park Road,
Chandler's Ford,
EASTLEIGH, S053
1HT

Project

ArbC/G3/145PR/252637/V1
Appendix E

Date

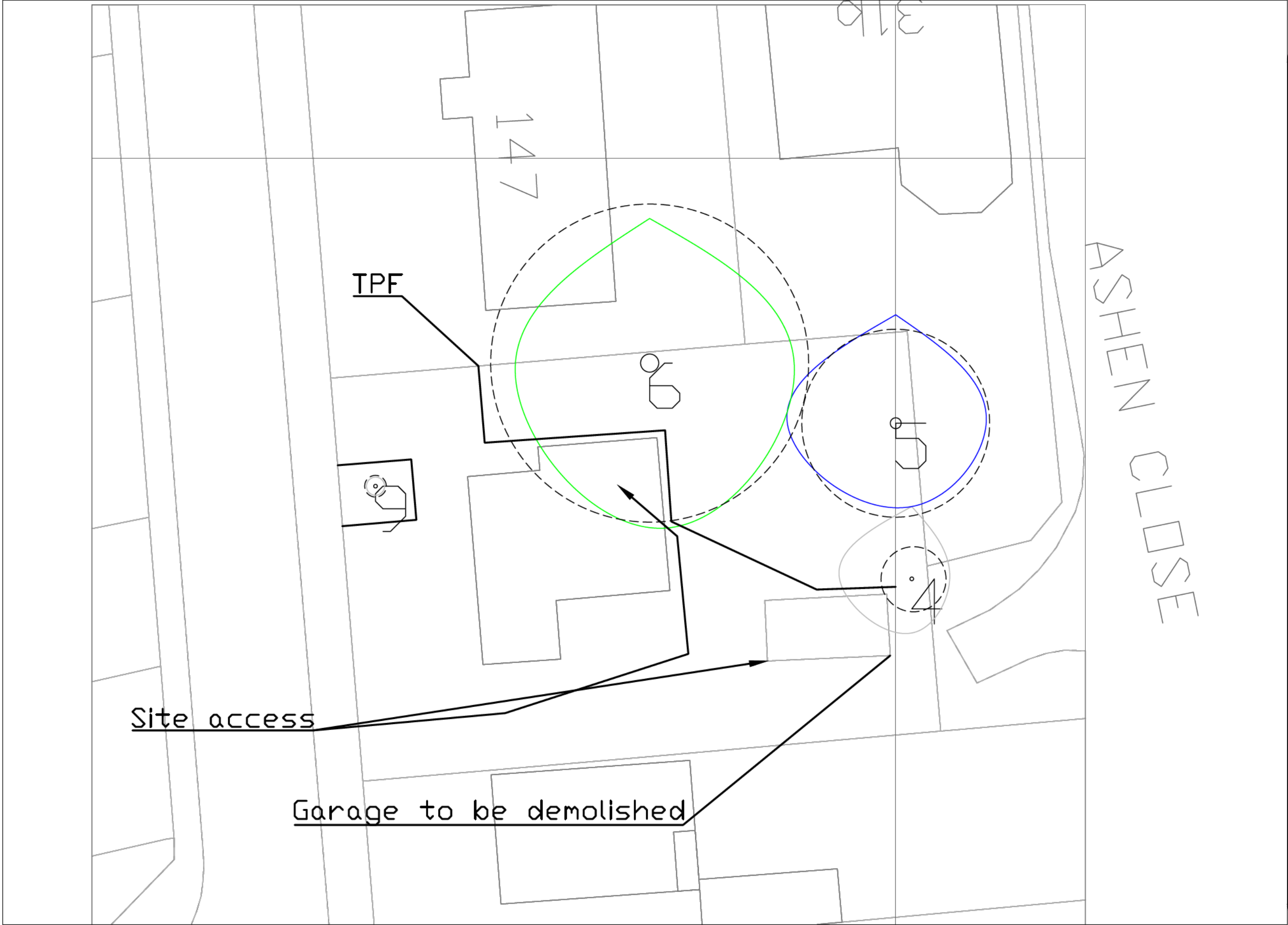
05/06/2026

Scale

1:200 @ A3

Sheet

Plan of tree
constraints



General Notes

Key	
Cat. A Trees	▼▼▼
Cat. B Trees	▼▼▼
Cat. C Trees	▼▼▼
Cat. U Trees	▼▼▼
RPA	---
TPF	---
Ground protection	●●●

No.	Revision/Issue	Date

Firm Name and Address

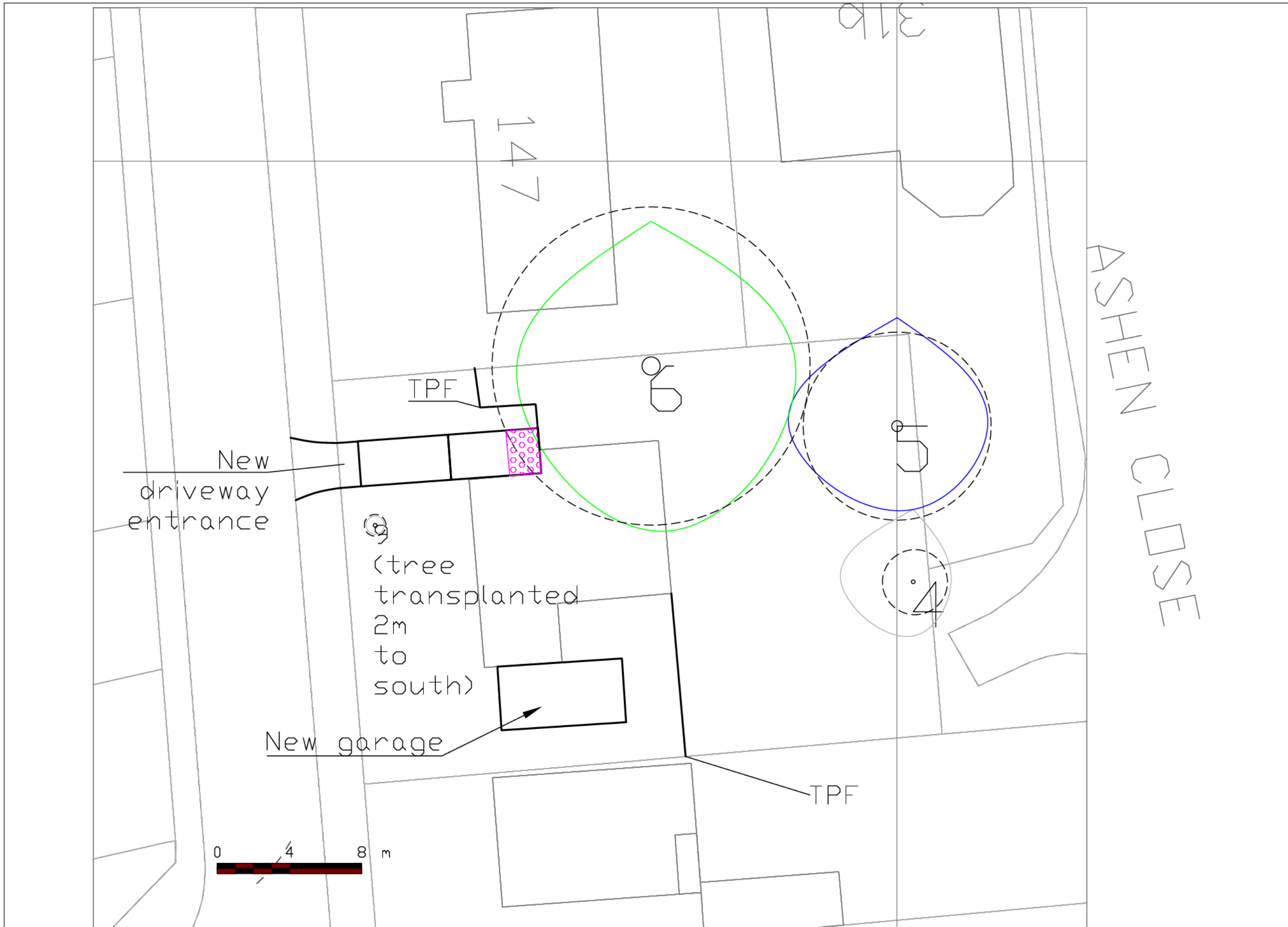


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145 Park Road,
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1HT

Project ArbC/G3/145PR/252637/V1 Appendix E	Sheet Tree protection plan Phase 1
Date 05/06/2026	
Scale 1:200 @ A3	



General Notes

Key	
Cat. A Trees	▼▼▼
Cat. B Trees	▼▼▼
Cat. C Trees	▼▼▼
Cat. U Trees	▼▼▼
RPA	---
TPF	---
Ground protection	●●●

No.	Revision/Issue	Date

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ArbC/G3/145PR/252637/V1
Appendix E

Date

05/06/2026

Scale

1:200 @ A3

Sheet

Tree protection plan
Phase 2

Tree no. on plan	Species	Ht (M)	Crown spread (M) N E S W	Stem dia. @1.5m (mm) RPA circle radius (M) RPA (M2)	Life stage	Estimated remaining contribution in years	General observations Physiological condition- P Structural condition - S	Preliminary management recommendations	Category of retention and sub category
1	<i>Cryptomeria japonica</i>	14	4 3 5 4	420 5 80	M	>10	P- Good S- Fair Tree blocks access for high sided vehicles and is lifting driveway on S aspect. It constrains site access.	Fell	B1
2	<i>Laburnum anagyroides</i>	7	1 1 0.5 2	150	YM	<5	P- Poor S- Poor	Fell	U
G3	<i>Lingustrum ovalifolium</i> , <i>Ilex aquifolium</i> , <i>Forsythia sp.</i> , <i>Cercis canadensis</i> , <i>Cornus alba</i>	4 - 7	2 - 3m radius	<150	Y	<10	P- Fair S- Fair Grown as a hedge group, these trees are all low value and constrain site access for demolition.	Fell	C3

Tree no. on plan	Species	Ht (M)	Crown spread (M) N E S W	Stem dia. @1.5m (mm) RPA circle radius (M) RPA (M2)	Life stage	Estimated remaining contribution in years	General observations Physiological condition- P Structural condition - S	Preliminary management recommendations	Category of retention and sub category
4	<i>Prunus cerasifera</i>	5	4 2 3 4	150 1.8 10	YM	>10	P- Fair S- Fair	Erect TPF as per TPP.	C1
5	<i>Malus domestica</i>	10	6 5 5 6	430 5.2 84	M	>40	P- Good S- Good	Erect TPF as per TPP.	B1

Tree no. on plan	Species	Ht (M)	Crown spread (M) N E S W	Stem dia. @1.5m (mm) RPA circle radius (M) RPA (M2)	Life stage	Estimated remaining contribution in years	General observations Physiological condition- P Structural condition - S	Preliminary management recommendations	Category of retention and sub category
6	<i>Robinia pseudoacacia</i>	21	8 8 10 9	730 8.8 241	M	>40	P- Good S- Good RPA overlaps proposed footings excavation. Canopy will shade structure extension, drop debris in gutters and may place tree under some pressure to be pruned.	Erect TPF as per TPP. Excavate footing from S aspect with access as shown on TPP phase 1. Reduce S aspect by 3m to allow adequate clearance of structure. Install ground protection as per TPP (100mm Cellweb will suffice).	A1

Tree no. on plan	Species	Ht (M)	Crown spread (M) N E S W	Stem dia. @1.5m (mm) RPA circle radius (M) RPA (M2)	Life stage	Estimated remaining contribution in years	General observations Physiological condition- P Structural condition - S	Preliminary management recommendations	Category of retention and sub category
G7	<i>Cupressus leylandii</i> x 3	7	1m radius	75	Y	<10	P- Fair S- Fair Constrains driveway installation.	Fell	C3
G8	<i>Bamboo</i> , <i>Lonicera ntida</i> , <i>Sophora sp.</i> , <i>Prunus cerasifera</i>	5 - 9	1 - 2m radius	<75	Y	<5	P- Poor S- Poor Constrains driveway installation.	Fell	U
9	<i>Liquidambar styraciflua</i>	4	0.5m radius	40 0.5 0.8	Sapling	>10	P- Good S- Good Covered by TPO. Constrains driveway installation.	Transplant 2m further south of new driveway.	C1

Survey schedule key

1. Tree ID: Refers to numbers as shown in the plan of the tree constraints.
2. Species: common name and scientific name
3. Height (measured in meters)
4. Crown spread (measured in meters at the points of North, South, East and West). Where “#” is used as a suffix, the measurements are approximate.
5. Stem diameter measured at 1.5m height in mm. Root protection area (RPA) radius is shown in meters, and RPA in square meters is displayed at the bottom.
6. Life stage: Young (Y) (small trees at a very early stage of their growth), young mature (YM)(larger trees at an early life stage with the potential to still grow considerably larger), Mature (M)(trees which have reached their maximum size and are self sustaining at the point), Over mature (OM) (trees that are beginning to decline and starting to die back from the tips), Veteran (V)(trees that are rapidly in decline and steadily losing canopy spread), Dead (D)
7. Estimated remaining contribution in years: Until such a time as any residual amenity is lost.
8. General observations - a visual assessment of the physiological and structural condition of the tree, classed as :Poor, fair, good, dead, decline. Physiologically refers to the vitality and vigour of the tree; Structural refers to the presence of physical defects within the tree's structural makeup. For example, a multi stemmed tree from a lapsed pollard with multiple defects in those unions, but with good vitality and good leaf cover would be classed as physiologically good, but structurally poor.
9. Preliminary management recommendations - recommendations to maintain the tree as part of the proposals, or assessing whether its retention is viable, whether it be the suggestion of aerial inspections, remedial pruning, or detailed decay inspections.
10. Categories and sub-categories of retention: See figure 1 below.

BS5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U 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	- 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 <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</i>			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A 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)	
Category B 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 downgraded 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 or other cultural value	
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	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	

Fig.1

Appendix 3

Arboricultural Method Statement for 145 Park Road, Chandler's Ford, EASTLEIGH, SO53 1HT

Carried out by Matthew Rowden for Gianluca Bellucci,
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1. Responsibilities

It is the responsibility of the site manager to respect the tree protection measures and observe the necessary precautions within and adjacent to them. All personnel must be inducted by the site manager and the tree protection measures explained and enacted to the letter of this method statement.

As the arboriculturist appointed for this site, I must be present onsite prior to work commencing to ensure that my protection measures have been followed. I must attend site whenever there are arboriculturally sensitive activities occurring, and must send regular supervision reports to Eastleigh Borough council with site meetings arranged if the planning officer or handling team so wish.

In this instance, I believe that I will need to visit site to check the installation of the tree protective fencing, demolition of the structure (specifically the footings within the RPA of tree 6), the geo cellular membrane rollout within the RPA of tree 6, and then final sign-off once the build is complete.

2. COSHH

- a. A cement mixing area will be sited away from the construction exclusion zone (CEZ) and, if necessary, a protective bund installed to prevent contaminated washings or rainwater draining into the CEZ.
- b. These will be positioned to the south of the existing structure, well outside the RPAs of any trees.

3. Contractor parking and site office

- a. Contractor parking will be on the road.
- b. No site office necessary.

4. Restrictions within Construction exclusion zone

Inside the exclusion area of the CEZ, the following shall apply:

- a. No excavation by any means without arboricultural site supervision.
- b. No hand digging without a written method statement having first been approved by the developer's arboriculturist.
- c. No storage of plant or materials.
- d. No storage or handling of any chemicals.
- e. No vehicular access.
- f. No development activity.

5. Tree Protection Fencing

- a. Barriers must be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers must be maintained to ensure that they remain rigid and complete.

- b. Given the site circumstances, 2 m tall welded mesh panels on rubber or concrete feet will provide an adequate level of protection from pedestrians and manually operated plant.
- c. The fence panels must be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers must be at least 1 m and must be uniform throughout the fence.
- d. The panels must be supported on the inner side by stabiliser struts, which should normally be attached to a base plate secured with ground pins (see figure below).

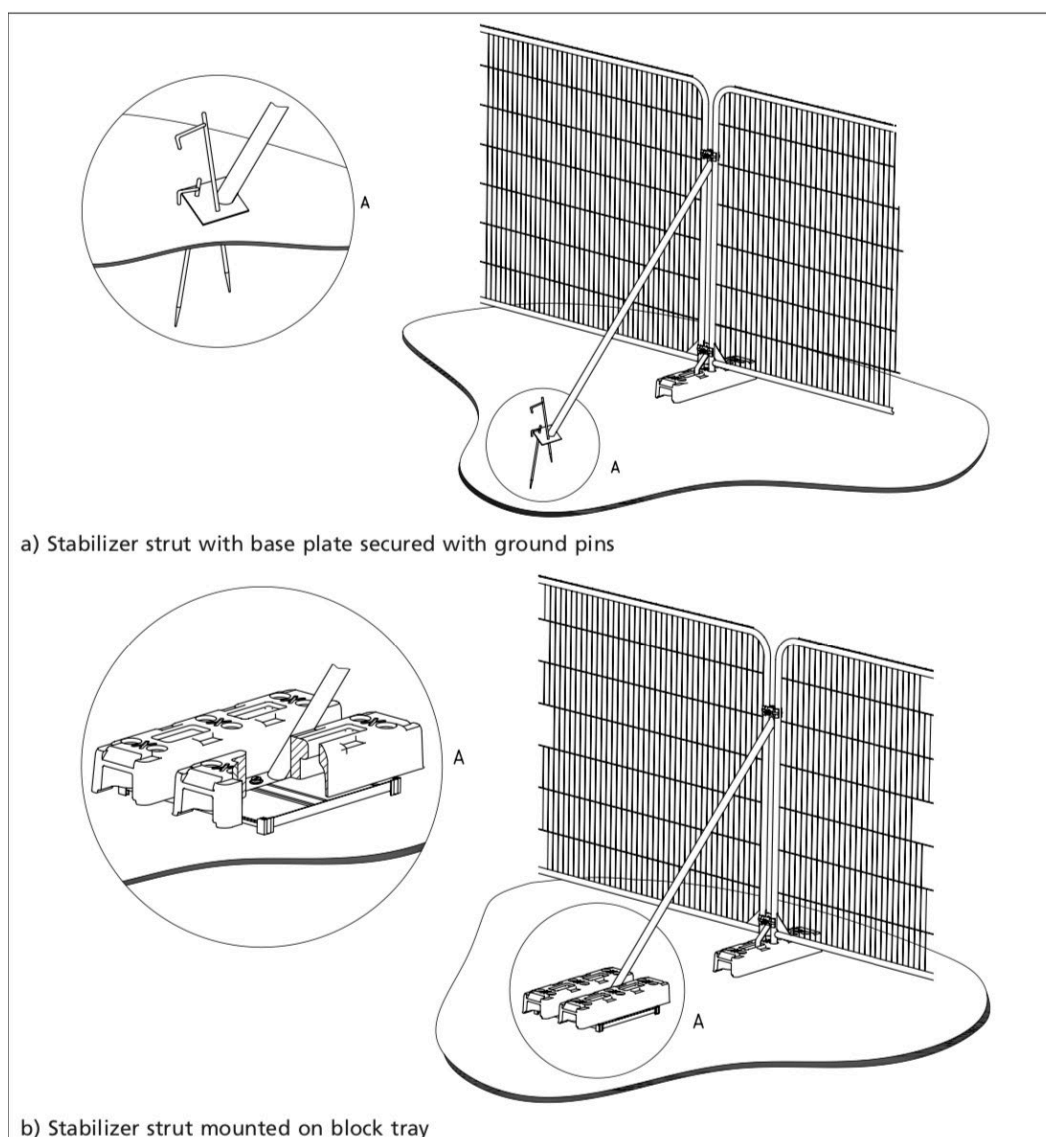


Figure 1: Fencing secured with rubber feet



6. Foundation removal:

- a. The footings in situ will be capable of handling ground loading of plant up to 3.5 tonnes, so they may be removed mechanically, providing the access route to the demolition follows that shown on the TPP phase 1.
- b. The excavator must start from the east aspect of the extension, moving into the structure as it comes down, and scraping the footings up from north to south, minimising incursion into the RPA of tree 6.
- c. The whole operation must be undertaken with arboricultural supervision: where roots are found, the area must be excavated by hand.

7. Driveway installation

- a. Tree roots are very shallow, the majority occupying the top 600mm deep layer of soil. With this in mind, the driveway cannot be laid in the traditional fashion of excavating to >500mm and compacting hardcore prior to applying the top surface. Instead, the following control measures must be implemented to ensure the tree is not constrained by the proposal and extensive root damage doesn't occur:
- b. The proposed area of excavation is for cars [a 100mm layer of cell web will permit loading of up to 3.5 tonnes].
- c. Install Treetex geotextile membrane up to the boundaries of the proposed access route and to act as a pollution barrier and a separation layer.
- e. Install a 60mm layer of clean angular stone (type 4/20mm) as a sub base, to level the area where possible. Often sand is used to level out hollows.
- f. Install 100mm layer of Cellweb® TRP up to the edges of the proposed extension area and working area, banking up the sides of the separation membrane with angular stone. Infill the TRP with clean angular stone, size 4/20mm. Commence roll out within the RPA as a no dig solution, as ground level can be adjusted more flexibly outside of the RPA.
- g. Overfill by 25mm with clean angular stone, size 4/20mm, then apply top dressing of porous tarmac or other.

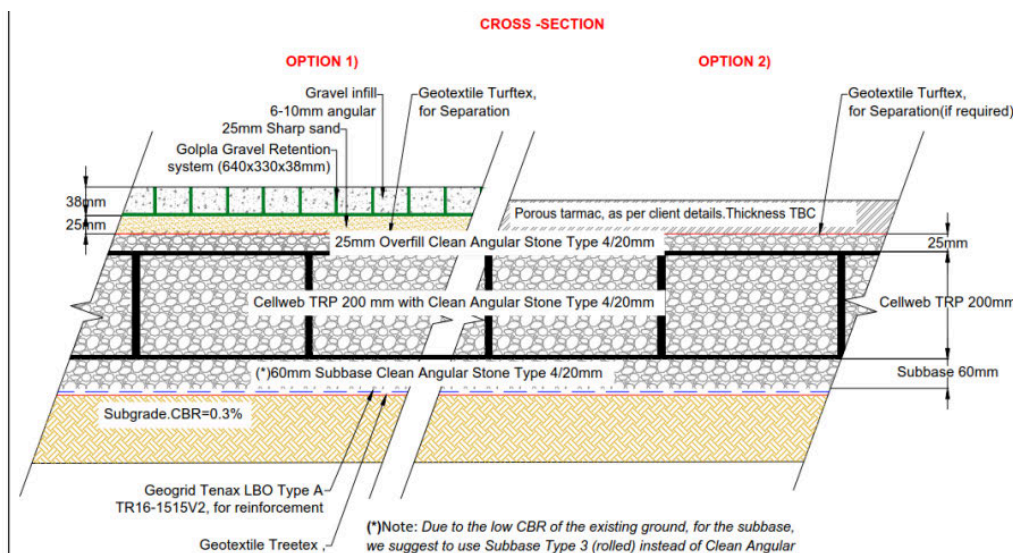


Fig.1

8. Sequence of events

- a. Carry out all felling and pruning operations as per the survey schedule.
- b. Erect tree protective fencing as per TPP. Supervision statement submitted to EBC.
- c. Demolish existing structure, utilising the route shown on TPP Phase 1.
- d. Remove footings by hand if necessary where the RPA of tree 6 extends into the area of excavation with arboricultural supervision.
- e. Commence and fully complete build of super structure and garage.
- f. Refer to TPP Phase 2:
- g. Erect TPF as per TPP.
- h. Transplant tree 9 to new location.
- i. Roll out new driveway access, with geo-cellular membrane installed with arboricultural supervision.
- j. Replace tree 1.
- k. Final sign off.