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Arboricultural Impact Assessment

- Tree Survey
- Tree Protection Plan
- Arboricultural Method Statement

At:-

106 Ellis Road
Crowthorne
Wokingham
RG45 6PH

On behalf of:-

Mr D Fail
106 Ellis Road
Crowthorne
Wokingham
RG45 6PH

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Project no: 1779

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- A Tree Protection Plan: drawing no: 1779-01 Rev B**
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1 BACKGROUND

- 1.1** This Arboricultural Impact Assessment has been instructed by Mr D Fail to specify tree protection measures and to assess the arboricultural impact of the proposed erection of 1 no. four bedroom dwelling, following the demolition of existing garage, plus new dropped kerb and bike store.
- 1.2** This report was originally prepared on 16th August 2021 to support planning application ref: 211823. Planning permission was approved on 14th October 2021 but has now lapsed as the development was not begun within the conditioned time period. Permission is now being sought for the same development, with no alteration of plans. Trees have not been re-surveyed but photos have been supplied by the client and have been added to the photos attached as Appendix E.
- 1.3** Trees were surveyed, with findings shown in the Tree Schedule in Appendix B and plotted on the Tree Protection Plan in Appendix A. This also shows tree protection measures, which are specified in the Arboricultural Method Statement in section 5 below. The arboricultural impact is assessed in section 6, which assumes that these measures are followed.
- 1.4** The tree survey was undertaken, and this report has been prepared, by Catherine Fforde HND Hort, Dip Arb L4(ABC), MCIHort, MArborA and approved by Simon Stephens MA Oxon, Dip Arb (RFS), MArborA, C Env, MICFor a Registered Consultant with the Arboricultural Association, with over 20 years relevant experience.

- 1.5 This survey and report have been prepared in accordance with the recommendations of BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations.
- 1.6 Documentation supplied:
- Topographical Survey
 - Partners in Planning and Architecture, Proposed Block Plan & Street Scene: drawing no: 20-067-101 C
 - Potton, Plans & Elevations: drawing no: 20-067-01 C
 - Wokingham Borough Council, Landscape Comments on Proposal, dated 26.6.21
 - Wokingham Borough Council, Decision Notice, dated 14 October 2021

2 SURVEY DETAILS AND SCOPE

- 2.1 The site survey included trees and shrubs, within influencing distance of the proposed development, with a stem diameter over 75mm at 1.5m height, as shown located on the Tree Protection Plan, included as Appendix A.
- 2.2 Tree inspection took place from ground level with the use of binoculars, sounding hammer and metal probe using the Visual Tree Assessment method (Mattheck & Breloer 1994). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could increase the risk of structural failure were noted.
- 2.3 Tree diameters were measured using a girthing tape and tree heights were measured using a hypsometer. Where use of a tape was restricted by site factors, diameters were estimated, with the diameter recorded in the tree schedule preceded by the word "est".
- 2.4 At the time of the survey, the weather was fine with no restrictions to visibility. Broadleaf trees were in leaf. In places, dense undergrowth restricted access and dense ivy restricted visibility of tree stems.
- 2.5 The suitability of trees for inclusion in the future development was considered, in particular considering the safe useful life expectancy, and sustainability, of trees on the site after development is completed.
- 2.6 Tree details are shown on the Tree Protection Plan included as Appendix A. Tree locations have been taken from the topographical survey provided. Where not included on the topographical survey, they have been determined by measuring distances from features shown on the plan, using a laser measuring device. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix B:
- **Number:** an identity number for each tree, prefixed with a "T", which cross references locations shown on the plan with the schedule in Appendix B. Where a number of trees are located close together and are similar in character and management requirements, they have been treated as a Group under a single number, prefixed with a "G".

- **Species:** common name.
- **Tree height:** approximate height in metres.
- **Stem diameter:** diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, stem diameters are recorded in the condition column.
- **Branch spread:** approximate spread in metres to N,S,E and W of the trunk. The approximate branch spread is drawn on the plan.
- **Canopy clearance:** approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
- **Age class:** Young, Semi-mature, Early mature, Mature, Over-mature, Veteran.
- **Condition:** features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
- **Management Recommendations:** recommendations to ensure the health and safety of the tree, within the future development.
- **Estimated Remaining Contribution:** <10 years, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.
- **Category grading:** tree classification taken from BS 5837:2012, Trees in relation to design, demolition and construction (see Appendix C for details), as follows:
 - Category U: Unsuitable for retention, trees with less than 10 years life expectancy, normally recommended for removal (Red)
 - Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation. (Green)
 - Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained. (Blue)
 - Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout. (Blue)
 - Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting. (Grey)

For category A, B and C trees, a subcategory has been allocated, providing information on the reasons for selection of a specific category, as follows:

- Subcategory 1: mainly arboricultural values.
- Subcategory 2: mainly landscape values.
- Subcategory 3: mainly cultural values, including conservation.
- Trees have been classified irrespective of the possible proximity to future construction. The BS 5837 category is colour coded, as indicated above, on the plan included as Appendix A.
- **Protection Distance:** the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.

- **Root Protection Area (RPA):** the area in m², as recommended in BS 5837, to provide sufficient rooting area to ensure tree survival and which, in most situations, should be fenced off to prevent root damage from construction activities.

3 SURVEY LIMITATIONS

- 3.1 No internal decay devices, or other invasive tools to assess tree condition, were used.
- 3.2 No soil excavation or root inspection was carried out.
- 3.3 This survey has not considered the effect that trees or vegetation may have on the structural integrity of future building through subsidence or heave.
- 3.4 The tree survey has been undertaken for planning purposes. Although any obvious structural defects have been noted, a Tree Hazard Assessment has not been carried out. Mature trees close to highly populated areas or public highways should normally be checked for safety annually, by a suitably qualified person.

4 LEGAL PROTECTION OF TREES

- 4.1 The Wokingham Borough Council Protected Tree Map was viewed on 04-11-2024, which showed that the site does not contain any Tree Preservation Orders, nor does it fall within a Conservation Area. The presence of Planning Conditions currently attached to the site, was not checked.

5 ARBORICULTURAL METHOD STATEMENT

5.1 Site Overview

- 5.1.1 The proposal is for the erection of a four bedroom dwelling, following demolition of existing garage, plus new dropped kerb and bike store. The proposed site plan is included as Appendix F and details have been added to the survey drawing, along with tree details, to create the Tree Protection Plan attached as Appendix A.
- 5.1.2 The site is part of the existing garden and parking area of 106 Ellis Road. There is a timber garage between the parking area and the pavement which adjoins Ellis Road, with a dropped kerb to the front. The garage is to be removed to allow extension of the parking area and to allow creation of a new soft landscape area. Close to the southwest corner of the garage is a moderate quality beech tree, T1. T1 is almost entirely surrounded by hard surfacing, with roots extending over the edge and between a joint in the hard surfacing.
- 5.1.3 To the east side of the garage is an area of dense vegetation containing a mixture of shrubs and multi stem hazel, G2. A new access is proposed through this area to serve the new dwelling.
- 5.1.4 To the rear of the parking area there is a small group of trees and a hedge, which provide separation and screening to the main part of the garden area. Trees in this area are of generally low quality.
- 5.1.5 To the west side of the site is the pedestrian access for Oaklands School. The boundary is demarcated with a chainlink fence supported on concrete posts. Within the site a hedge, G3, is providing screening from the path. It is proposed to remove a section of G3 to allow construction of the new dwelling and bike store and to then erect a closeboard fence on the boundary to re-instate screening.
- 5.1.6 A yew, T13, is located immediately adjacent to the west side of the parking area. The ground level at the base of the tree is approximately 250mm higher than the driveway level. A new pedestrian path is proposed within part of the root protection area of T13. It will be necessary to reduce the ground level in this area to facilitate construction of the path.
- 5.1.7 Within the retained front garden area of 106 Ellis Road closely spaced, coniferous and broadleaf trees, underplanted with evergreen shrubs, are providing screening from the road, and are contributing greening to the street scene.

5.2 Tree Work

- 5.2.1 Details of proposed tree works are included in the Tree Schedule included as Appendix B.
- 5.2.2 Eight trees and shrubs, and four groups are proposed for removal, as detailed in section 6.1 below.
- 5.2.3 All tree work must be undertaken to the standards set out in BS 3998:2010 Tree work – Recommendations.

5.3 Root Protection Areas

- 5.3.1 Root Protection Areas are shown for all trees in the Tree Schedule included as Appendix B. They are also shown for all retained trees, as circular areas centred on the trunk, on the Tree Protection Plan included as Appendix A. Where there are physical obstructions to root growth the Root Protection Area should be shown as an equivalent area that is more likely to reflect actual root growth. The Root Protection Area shows the area around a tree in which all construction activity must normally be excluded, unless appropriate protection measures are implemented.

5.4 Tree Protection Fencing

- 5.4.1 Tree Protection Fencing must be erected where shown on the Tree Protection Plan, included as Appendix A. This will provide full protection of the Root Protection Areas of all retained trees within the site, other than for:
 - area hatched in blue on the Tree Protection Plan, where No-Dig Construction must be used, as described in section 5.5 below, to protect underlying roots.
 - areas shaded cyan on the Tree Protection Plan, indicating Ground Protection Areas, where roots must be protected, as described in section 5.6 below.
 - areas shaded red on the Tree Protection Plan, where there will be excavation within Root Protection Areas, but where hand excavation must be used, as described in section 5.7, to minimise potential root damage.
- 5.4.2 Tree works can be completed before Tree Protection Fencing is erected, however no contractors plant or vehicles must be allowed to track within the Root Protection Areas unless ground protection panels are laid or where working from areas of existing hard surfacing.

- 5.4.3 Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed, with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix D. Alternatively, weldmesh panels can be supported on blocks, providing the blocks are pinned to the ground with road pins, or similar, and the panels are braced, as per Figure 3 of BS5837:2012, which is also reproduced in Appendix D.
- 5.4.4 Within the Root Protection Area of T1 Tree Protection Fencing must initially be erected where indicated "D"/"G" on the drawing while demolition work is undertaken, then moved to where indicated "C", following removal of the garage and adjacent area of hard surface, before construction starts.
- 5.4.5 After erection of Tree Protection Fencing two days' notice must be given to the local planning authority before demolition or construction, including any ground work, starts on site.
- 5.4.6 Tree Protection Fencing must be maintained and retained for the duration of the works, or until such time as agreed in writing with the local planning authority.
- 5.4.7 Weatherproof notices must be fixed to the Tree Protection Fencing, and maintained, stating:-

TREE PROTECTION AREA

KEEP OUT

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS
CONTRAVENTION MAY LEAD TO CRIMINAL PROSECUTION
THE FOLLOWING MUST BE OBSERVED BY ALL PERSONS:

- The Protection Fence must not be moved
- No person or machine must enter the area
- No materials or spoil must be deposited
 - No excavation must be permitted

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

5.5 No-Dig Construction Area

5.5.1 The No-Dig Construction area is shown hatched blue on the Tree Protection Plan included as Appendix A. This covers an area within a Root Protection Area where:-

- existing hard surfacing is to be replaced by new hard surfacing
- new hard surfacing is to be constructed on an existing soft area

5.5.2 Where existing hard surfacing within the No-Dig areas are to be replaced by new hard surfacing, no excavation must be permitted beneath the existing sub-base. If existing sub-base remains, it can be used as a base for the new build up. If the existing sub-base is removed, engineering details for the new build must avoid localised compaction, using both a two dimensional geogrid, and a three dimensional cellular confinement system as integral components of the sub-base. As well as being fit for purpose, the design and methodology must protect tree roots, by ensuring the following:-

- following leveling with soil or sand, a permeable, non-woven geotextile membrane, must be laid.
- a suitable two dimensional geogrid, such the TriAx Geogrid supplied by Tensar International (www.tensar.co.uk), or the Biaxial Geogrid supplied by Geosynthetics Ltd (www.geosyn.co.uk), must be laid over the entire area and underneath the edging.
- pressure treated timber edging boards, supported by driven stakes must be used.
- a suitable cellular confinement system must then be laid to manufacturers instructions on top of the geogrid. Products that might be considered include Geoweb, supplied by Greenfix (www.greenfix.co.uk) or Cellweb, supplied by Geosynthetics Ltd (www.geosyn.co.uk). The depth of the system must be adequate to take the maximum axle weight, as per manufacturers guidance.
- the cellular confinement system must be filled with clean (no fines), washed angular, 20/40mm, stone to provide load support, while allowing air and moisture to permeate to the root zone.
- a further permeable, non-woven geotextile membrane, such as TreetexT300, or an alternative approved product which has similar oil trapping qualities, must be laid over the cellular confinement system.
- a porous, surfacing material, free from contaminants, must then be laid. Either sand bedding and block paving, gravel or permeable tarmac would be suitable.
- removed turf/topsoil can be used to grade surrounding ground levels.

5.5.3 Where existing soft areas within No-Dig Construction areas are to be replaced by new hard surfacing, they must be constructed without excavation apart from the removal of turf/organic matter, which must be carried out by hand. Engineering details must avoid localised compaction, using both a two dimensional geogrid, and a three dimensional cellular confinement system as integral components of the sub-base. A typical section is shown on the Tree Protection Plan included as Appendix A. As well as being fit for purpose, the design and methodology must protect tree roots, by ensuring the following:-

- topsoil/turf can be removed carefully by hand to a maximum of 50mm, but less if roots are found nearer the surface.
- following leveling with soil or sand, a permeable, non-woven geotextile membrane, must be laid.

- a suitable two dimensional geogrid, such the TriAx Geogrid supplied by Tensar International (www.tensar.co.uk), or the Biaxial Geogrid supplied by Geosynthetics Ltd (www.geosyn.co.uk), must be laid over the entire area and underneath the edging.
- pressure treated timber edging boards, supported by driven stakes must be used.
- a suitable cellular confinement system must then be laid to manufacturers instructions on top of the geogrid. Products that might be considered include Geoweb, supplied by Greenfix (www.greenfix.co.uk) or Cellweb, supplied by Geosynthetics Ltd (www.geosyn.co.uk). The depth of the system must be adequate to take the maximum axle weight, as per manufacturers guidance.
- the cellular confinement system must be filled with clean (no fines), washed angular, 20/40mm, stone to provide load support, while allowing air and moisture to permeate to the root zone.
- a further permeable, non-woven geotextile membrane, such as TreetexT300, or an alternative approved product which has similar oil trapping qualities, must be laid over the cellular confinement system.
- a porous, surfacing material, free from contaminants, must then be laid. Either sand bedding and block paving, gravel or permeable tarmac would be suitable.
- removed turf/topsoil can be used to grade surrounding ground levels.

5.5.4 Site traffic, including pedestrians, must not be allowed on the No-Dig areas unless roots are protected by existing hard surfacing, new No-Dig surfacing or unless suitable ground protection panels are laid. Either Maxitrack mats, as supplied by the Marwood Group, (www.marwoodgroup.co.uk) or Euro Mat or Pro Mat panels, from Ground Guards (www.ground-guards.co.uk), or a similar approved product, must be used, laid on top of a compressible layer of sand or woodchips, laid onto a geotextile. If access is only required for pedestrians, 25mm plywood or side butting scaffold boards can be laid, on top of a compressible layer of sand or woodchips, laid onto a geotextile.

5.5.5 Alternatively, the build up for the new No-Dig permeable surface can be used for construction traffic providing an adequate depth of cellular confinement system is used for the loads anticipated. In this case, the same section detail shown on the Tree Protection Plan must be used but with the sand and porous paving surface replaced with clean stone. This can then be removed together with the underlying geotextile at the end of the construction period and a new geotextile laid and final surface laid.

5.5.6 No-Dig construction will result in an increase in levels. This must be fully taken account of in all other aspects of the design.

5.6 Ground Protection Areas

- 5.6.1 The Ground Protection Areas, which are shaded cyan on the Tree Protection Plan, contain hard surfacing which is protecting any underlying roots. No excavation must be permitted beneath the base course within these areas.
- 5.6.2 An excavator must only be used for the removal of the existing building base and area of hard surfacing within the Root Protection Areas of T1 and T13, if it can work only from areas of hard standing, or from outside the Root Protection Areas. A banksman must be present during this operation and excavation must go no deeper than the existing base course and must cease immediately if roots are found. Once hard surfacing has been removed, the new soft landscape area must immediately be topsoiled using good quality topsoil supplied to BS3882:2015. The area of existing base course within the Root Protection Area of T13 should be retained and be used for the build up to extend the new parking area using No-Dig Construction.
- 5.6.3 The area of hard surfacing, shown shaded red, within the Root Protection Area of T1 must only be removed using hand tools, as detailed in section 5.7.3 below.

5.7 Hand Dig Areas

- 5.7.1 The Hand Dig area within the Root Protection Area of T13, shown shaded red on the Tree Protection Plan, must be dug to formation level by hand, neatly severing any roots found, using secateurs or a hand saw.
- 5.7.2 On no account must use of an excavator be used in the Hand Dig area, which would rip roots and cause unnecessary damage.
- 5.7.3 The Hand Dig area within the Root Protection Area of T1, shown shaded red on the Tree Protection Plan, covers an area where surface roots are growing over and between hard surfacing. The hard surfacing must be carefully removed from around the roots using only hand tools. Use of a pneumatic concrete breaker is permitted provided that it is used only to carefully break up the outer edges of the surfacing and that it is not directed down into the ground. Once the hard surfacing has been removed the exposed roots must be covered in topsoil using good quality topsoil supplied to BS3882:2015.
- 5.7.4 Where new fences are to be constructed within Root Protection Areas post holes must be dug by hand and relocated if roots over 25mm diameter are found.
- 5.7.5 Post holes must then be lined with heavy duty polythene before concrete is poured.

5.8 General measures

- 5.8.1 No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.
- 5.8.2 No mixing or storage of cement, concrete, oil, fuel, bitumen or other chemicals must be permitted within 10m of the trunk of any retained trees, nor in any position where the slope of the ground could lead to contamination of the Root Protection Area.
- 5.8.3 Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches or trunk.
- 5.8.4 Landscape works carried out within Root Protection Areas must be undertaken with great care so as not to damage shallow roots. Tractor mounted rotovators or other heavy mechanical cultivation must not be used within the Root Protection Areas.
- 5.8.5 If any tree shown for retention is removed, uprooted or destroyed, another tree must be planted in the same location, at a size and species to be agreed in writing with the Local Planning Authority.
- 5.8.6 A copy of this report and the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

5.9 Bat roosts

- 5.9.1 The current legislation makes it a criminal offence to disturb, damage or destroy any bat roost or hibernation area. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.

5.10 Birds

- 5.10.1 The current legislation makes it a criminal offence to disturb nesting birds. The nesting season is generally assumed to be from 1st March to 31st July, however this can vary depending on species and location. During these months a careful inspection must be made before work commences and works must be postponed if active nests are found.

5.11 Arboricultural Supervision

5.11.1 A qualified Arboricultural Consultant must be retained during the period of construction to carry out the following:

- to meet with/ liaise with the contractor, prior to construction or demolition starting on site, to ensure this Arboricultural Method Statement is fully understood and can be complied with in full. If any revisions are required, a revised Arboricultural Method Statement must be approved by the local planning authority, prior to construction or demolition starting on site.
- as necessary, to inspect Tree Protection Fencing, prior to construction or demolition starting on site.
- as necessary, to advise on any issues at the request of the local planning authority, the developer, architect or contractor.

The details of each site visit must be recorded using a site visit proforma, with copies circulated to the contractor, developer and the local authority tree officer within three working days of the visit.

6 ARBORICULTURAL IMPACT ASSESSMENT

6.1 The following trees and shrubs / groups, categorized as per BS 5837 (see Appendix C for details), are proposed for removal:

- Category U – unsuitable for retention: One tree – T14.
- Category C – low quality: Seven trees & shrubs – T15, T16, T17, T19, T20, T21 and T22, and four groups G2, G3(section), G12 and G18.

6.2 No trees of any arboricultural significance are proposed for removal. The removal of trees and shrubs will however result in a loss of greening and open up the view into the site. New planting to either side of the proposed driveway, including in the area currently occupied by the garage, could successfully mitigate the removal of vegetation. Mixed planting of trees and shrubs is recommended in order to provide landscape interest and to provide screening at different heights.

6.3 Removal of the garage and adjacent area of hard surfacing from within the Root Protection Area of T1 and replacement with topsoil will be beneficial to the tree. A new hedge is proposed which will eventually grow out to encompass the stem of the tree. In the highly trafficked area next to the school pedestrian access this measure will help deter trampling over exposed roots which has previously caused abrasion damage.

- 6.4** Protection measures have been specified to protect the Root Protection Area of all retained trees, other than for:-
- T13, where there will be excavation with root loss of approximately 2.8m², or 10.77% of the Root Protection Area.
- Excavation is necessary to lower the level where the soil is mounded up along the western boundary and within the planted area to the north. Hand dig excavation has been specified to minimise damage to retained roots and No-Dig construction has been specified the new path and for the driveway area within the Root Protection Area. This will allow roots to regenerate beneath the areas of new hard surfacing. Yew is considered to be a resilient species and it is expected that it will adapt to the changes within its rooting environment and continue to thrive.
- 6.5** Although preservation of Root Protection Areas is deemed to protect tree roots, in some cases buildings may need to be set further back to ensure the future sustainability of trees. If buildings are too close to trees, future occupiers may be likely to seek the reduction, or removal of trees, if they are cutting out excessive sunlight or providing a claustrophobic or threatening environment.
- 6.6** Section 5.2.2 of BS 5837:2012 states that “an indication of potential direct obstruction of sunlight can be 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.” Shading patterns for key trees have been shown on the plan. This shows that a living area of the new dwelling is within a potential shading area. Shade will be cast by the beech tree, T1, and a yew, T13. At present the beech and yew tree are only semi-mature can be expected to grow, extending the tree shade area. However, the dwelling has been designed with a second living room to the rear of the property in an area which is unaffected by tree shade. This living area has glazed bifold doors together with windows to either side and roof light over which will allow plentiful natural light into the room. In this case the tree shade is not considered to be an issue that would be likely to result in future pressure for tree removal.
- 6.7** There will be no large trees close enough to the new dwelling to produce a claustrophobic or threatening environment for future residents. Instead, retained trees will contribute to the amenity of the site and the screening of the new dwelling. The proposals will not therefore adversely affect the sustainability of retained trees.
- 6.8** The area of No-Dig construction has been increased in size, and location of the Tree Protection Fence has been amended since the preparation of the Tree Protection Plan in 2021 to allow for the potential growth of the trees over the last three years and the associated increase in size of their Root Protection Areas.
- 6.9** Provided the recommendations in this report are followed, the arboricultural impact of this development on existing trees is considered acceptable. Arboricultural supervision has been included to assist with tree protection measures and a landscape plan, including new tree planting can be conditioned.

7 REFERENCES

- *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*
- *BS3998:2010 Tree Work. Recommendations.*
- *The use of Cellular Confinement systems near Trees: a guide to good practice Arboricultural Association Guidance Note 12.*

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distance (m)	Root Protect. Area (m2)
				N	S	E	W								
T1	Beech	13.5	250	4	4	4	4	2.5	Semi- mature	Stem bifurcates at approx 5.5m and further forks above. Exposed and damaged surface roots. Good vitality.		>40	B2	3.0	28
G2	Shrubs/Small trees	2 - 7.5	75 - 300					0	Early mature/ Mature	Species including Portugal laurel, hazel and rhododendron. Growing together to form a dense screen. Hazel with some dead stems and squirrel damage.	Remove to facilitate development and to allow new planting.	10-20	C2	3.6	41
G3	Hedge	3 - 5	25 - 80					0.0	Semi- mature/ Early mature	Narrow line of hedging growing against chainlink fence. Species including holly, yew and hazel. Providing screening to school access.	Remove section indicated red on the Tree Protection Plan to facilitate development	10-20	C2	1.0	3
G4	Shrubs	1 - 5.5	25 - 100					0.0	Semi- mature/ Early mature	Species including laurustinus, rhododendron, hazel and holly. Suppressed by trees. Self sown Norway maple sapling.	Cut back as required to reduce encroachment on driveway area.	5-15	C2	1.2	5
T5	Holly	6	180	2.5	2.5	2.5	2.5	2.5	Early mature	Two stems from 2m, with short dead stem from union - poor structure. Wire embedded at 1.4m.		15-30	C2	2.2	15
T6	Lawson cypress	17.5	500	3	3	1.5	3	1.5	Mature	Twin stem from 0.6m - 290 & 410mm. Previously reduced to 3m but grown out with multiple stems above.		10-20	C2	6.0	113
T7	Lawson cypress	14.5	310	3	3	1.5	1	1.5	Early mature	Twin stem from 0.7m - 190 & 240mm. Previously reduced to 2.7m but now grown out. One truncated dead stem with decay beginning. Drawn up.		10-20	C2	3.7	43
T8	Lawson cypress	12	310	1.5	3	1.5	2	1.5	Early mature	Small secondary stems from 0.3m and 0.7m Drawn up. Stem in contact with lateral from T9. Ivy.	Remove section of ivy from base.	10-20	C2	3.7	43
T9	Horse chestnut	12	390	4	4	0	5	1.5	Early mature	Asymmetric crown. Upper stem bent and growing to west. Small cavity at 1.4m to west. Basal canker.		20-40	B2	4.7	69
T10	Black pine	15	750	6	6	2.5	3	3	Mature	Offsite tree. Ivy severed.		20-40	B2	9.0	254
T11	Lawson cypress	15	430	2	2	2.5	1.5	1.5	Mature	Three stems from 3m. Good vitality.		15-30	B2	5.2	84
G12	Hedge	1.7	25					0	Mature	Lonicera nitida. Low quality evergreen hedge.	Remove to facilitate development.	5-15	C2	0.3	0
T13	Yew	7	240	2.5	2.5	2.5	2.5	1.5	Semi- mature	Growing against chainlink fence. Base approx 250mm above driveway level. Exposed roots. Good vitality. Contributing to screening. Ivy.	Remove section of ivy from base.	>40	B2	2.9	26
T14	Holly	6	est 250	2	2	2.5	1	1.5	Semi- mature	Three stems from 1.5-1.8m - poor structure. Extensive dieback. Ivy.	Remove.	<10	U	3.0	28

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distance (m)	Root Protect. Area (m2)
				N	S	E	W								
T15	Bird cherry	10.5	240	4	4.5	2	4	3	Early mature	Two stems from base - 130 & 200mm. Gum exudate from both basal stems. Crown thinning above northern stem.	Remove to facilitate development.	5-15	C2	2.9	26
T16	Holly	8	120	1.5	1	1	1	3	Early mature	Variegated foliage with areas reverted. Engulfed in ivy and Lonicera nitida growing up through. Two stems - 75 & 90mm - bark wounds.	Remove to facilitate development.	5-15	C2	1.4	7
T17	Rowan	9.5	160	3	3	3	3	2	Early mature	Two stems from base - 110 & 120mm. Western stem kinked at 1.5m. Poor structure.	Remove to facilitate development.	10-20	C2	1.9	12
G18	Shrubs	1 - 3	25					0	Early mature	Species including laurel, rhododendron, camellia, berberis and mock orange. Self sown bird cherry and hazel.	Remove to facilitate development.	5-15	C2	0.3	0
T19	Fig	4.5	110	3	2.5	0	3	2.5	Mature	Five stems, average 50mm. Old pruning wounds and tear out wounds. Grown out and obstructing path.	Remove to facilitate development.	5-15	C2	1.3	5
T20	Camellia	4	120	1.5	1	0	1.5	1	Mature	Evergreen shrub. Three stems - 60, 70 & 70mm.	Remove to facilitate development.	5-15	C2	1.4	7
G21	Laurel	6	80 - 120	3.5	2.5	3	2.5	1.5	Mature	Two shrubs growing together. Low quality and over large.	Remove to facilitate development.	5-15	C2	1.4	7
T22	Euonymus	2	60	0.7	0.7	0.7	0.7	0.5	Mature	Variegated foliage with areas of reversion.	Remove to allow new landscaping.	5-15	C2	0.7	2
G23	Trees/Shrubs	2 - 20	25 - 800					0	Mature	Trees and shrubs within garden but not within influencing distance of development. Species including apple, pear, quince, cherry, walnut and oak.		5-40	B2	9.6	289

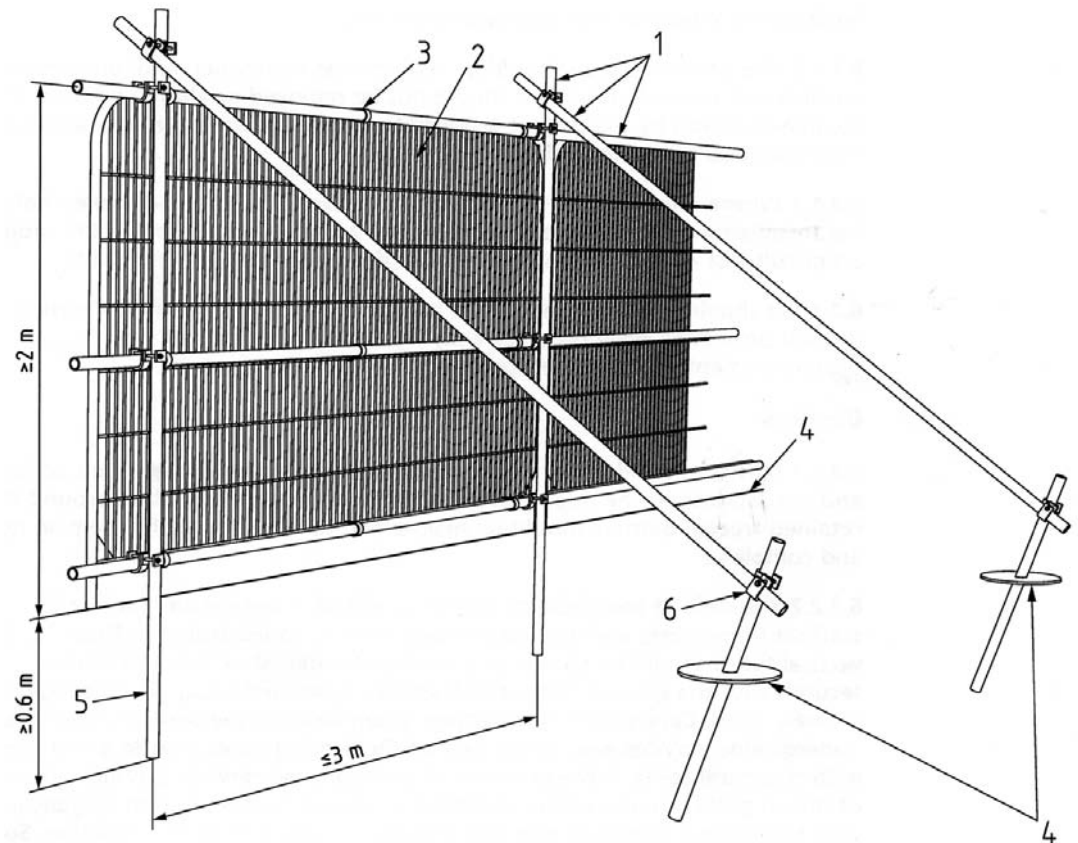
BS 5837:2012, Table 1 Cascade chart for tree quality assessment

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 4.5.7.</i>			See Table 2
	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)	See Table 2
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	See Table 2
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	See Table 2

Figure 2

Key

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



Examples of above-ground stabilising systems

Figure 3a

Stabiliser strut with base plate secured with ground pins

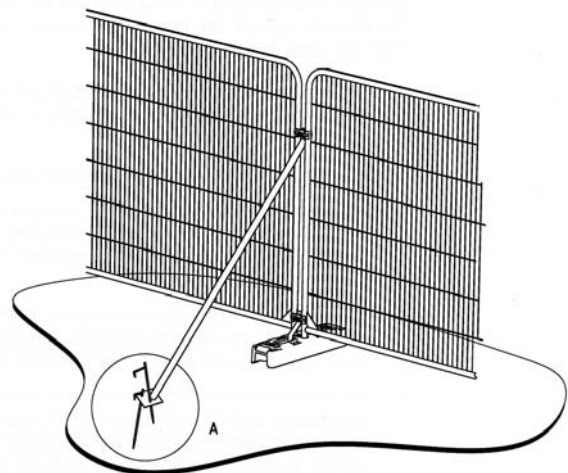
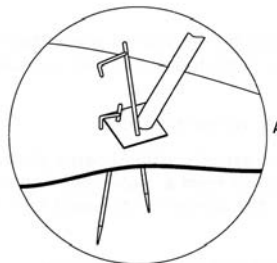
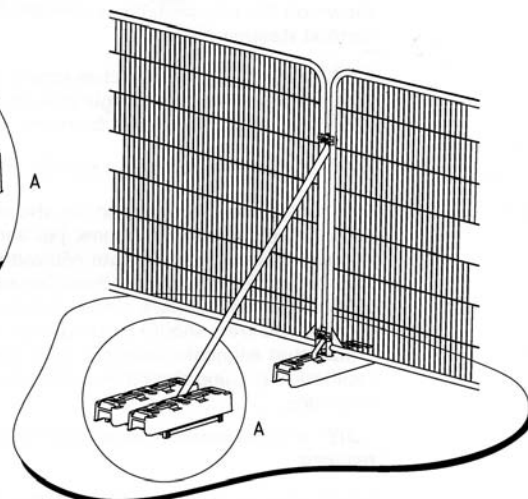


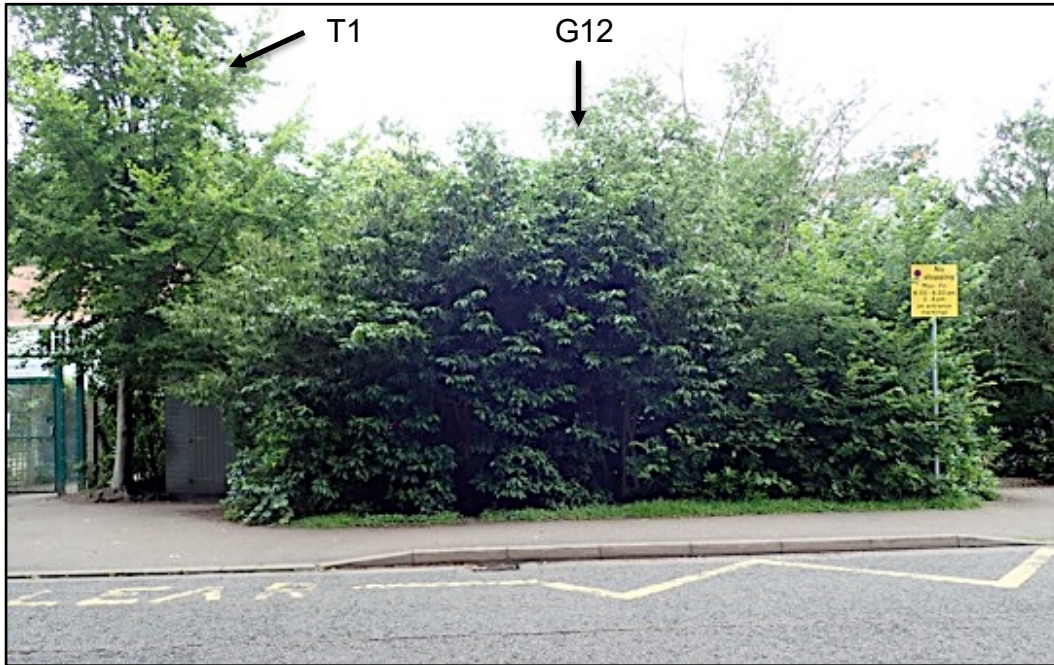
Figure 3b

Stabiliser strut mounted on block tray



106 Ellis Road

Appendix E



View of site frontage with Ellis Road. Shrubs and small trees, G12, to be removed to allow construction of a new access and to allow new landscape planting of trees, shrubs and hedging.

Beech, T1, to be retained.

PHOTOS TAKEN 2021



Beech, T1. Surface roots growing over adjacent hard surfaces and suffering abrasion damage.



106 Ellis Road

Appendix E

View of site frontage with Ellis Road. Shrubs and small trees, G12, to be removed to allow construction of a new access and to allow new landscape planting of trees, shrubs and hedging.

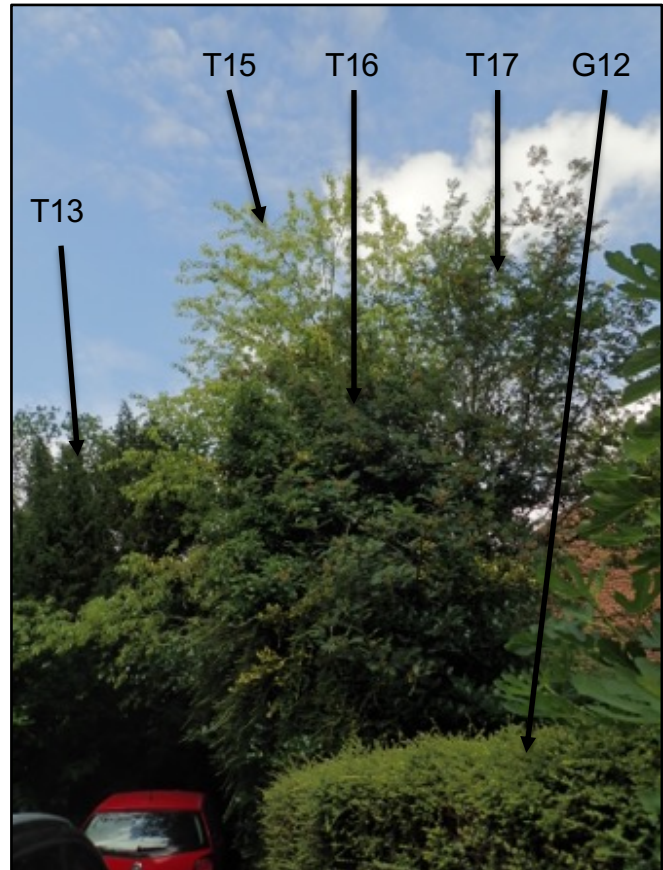
Beech, T1, to be retained.



PHOTOS TAKEN 2024

Beech, T1. Surface roots growing over adjacent hard surfaces and suffering abrasion damage.





Above left: external site view of T13.
 Above right: internal site view from parking area.
 T13 to be retained. G12, T15, T16 & T17 to be removed.
 Left: Base of T13 set above adjacent driveway level.

PHOTOS TAKEN 2021

View from within garden,
 looking at location for new
 dwelling.





Above left: external site view of T13.
 Above right: internal site view from parking area.
 T13 to be retained. G12, T15, T16 & T17 to be removed.
 Left: Base of T13 set above adjacent driveway level.

PHOTOS TAKEN 2024

View from within garden,
 looking at location for new
 dwelling.





Proposed Street Scene

1:200 @ A1

OKLANDS INFANT SCHOOL

NEW BOUNDARY FENCE TO BE
ERECTED FOLLOWING
COMPLETION OF MAIN
CONSTRUCTION PERIOD,
WHEN TREE PROTECTION
FENCE CAN BE REMOVED.

Proposed bike store

Existing 1.8m high
close-boarded
fencing to be retained

Existing chain-link
fencing and hedgerow
beyond to be retained

Existing garage to be
removed and existing
access to be relocated
as shown

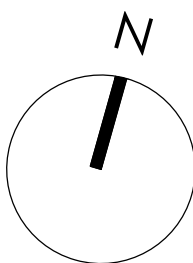
Existing soft landscaping to be
cut back, grass verge to be
reinstated and new hedgerow
planted as shown

Existing soft landscaping to be
cut back and grass verge to
be reinstated

Proposed new
cross-over/relocated
vehicular access

Existing access and
parking to no. 106
to be unaltered

- KEY**
- 81.01 Existing floor level in accordance with site survey
 - PL 00.00 Proposed level
 - Existing trees to be retained
 - Existing trees/shrubs to be removed
 - Existing hedge to be retained
 - Proposed new hedgerow
 - Existing structures to be removed
 - Grass
 - Gravel
 - Grey Tarmac
 - Indian Sandstone patio slabs
 - 2.4m X 43m vehicular visibility splays



Proposed Block Plan

1:200 @ A1

C	14/08/21	QC	Block plan amended in accordance with TPP.
B	13/07/21	QC	Block plan amended to address highways comments.
A	10/07/21	AS	Driveway and parking area updated. Block plan rendered.
REV	DATE	BY	REVISION NOTES
Suite 2, Clare Hall, St Ives Business Park, Parsons Green, St Ives, Combs, PE27 4WY			
© COPYRIGHT Tel: 01480 494969 Email: enquiries@planningandarchitecture.co.uk Web: www.planningandarchitecture.co.uk			
PARTNERS in PLANNING and ARCHITECTURE			
PROJECT Erection of Dwelling at 106 Ellis Road, Crowthorne, Berks, RG45 6PH			
CLIENT Mr and Mrs Fail			
DRAWING TITLE Proposed Block Plan & Street Scene			
DRAWN BY AS	SCALE 1:200 @ A1		
DATE 29/04/21	DWG. NO. 20-067-101	REV.	C