Landmark Trees

ARBORICULTURAL METHOD STATEMENT

92 Fitzjohns Avenue

London

NW3 6NP

REPORT PREPARED FOR:

Ms Rachel Lord and Mr John Weston

92 Fitzjohn's Avenue

London

NW3 6NP

REPORT PREPARED BY:

Adam Hollis

MSc ARB MICFor FArbor A MRICS C Env

Ref: TSS/92FJA/AMS/02a

Date: 20th March 2015

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1.0 Introduction

1.1 Purpose & Use of the Method Statement

1.1.1 This outline method statement has been prepared for Ms Rachel Lord and Mr John Weston, identifying the precautions that will be implemented to minimise the potential to damage the trees during the proposed revised development at 92 Fitzjohns Avenue, London NW3 6NP. The application for the revised proposals is to be submitted to the London Borough of Camden Council; this document is to be utilised to meet the requirements of the Council for tree protection. The tree replacement and landscape mitigation is dealt with in detail by the Design and Access Statement.

1.1.2 The planning application is for the erection of a replacement dwelling at 92 Fitzjohn's Avenue on an enlarged site taking in surplus land to the east at North Bridge House School, Hampstead currently used for car parking. The site previously gained conservation area consent for demolition of the existing dwelling and planning permission for the erection of a new house on 28 June 2013 (2013/1448/C and 2013/1119/P); these permissions remain extant. The footprint, scale and layout of current proposal are very similar to the previous approved scheme. Like the approved scheme it consists of a long thin single storey dwelling with a part lower ground floor storey on the surplus land to the east which is at a lower level. The arboricultural implications of these changes are discussed below at paragraph 1.3; in summary, the arboricultural impacts have been largely reduced for the retained trees, as the new proposals ensure the building has been pulled back from the boundary/extended over areas covered by the existing building and hardstandings.

1.1.3 The intention is to demolish the existing dwelling under the extant conservation area consent. The protection to the trees during these demolition works was dealt with by the previous Arboricultural Method Statement (TSS/92FJA/AMS/01a), although is included within this revised AMS to ensure that all works on the site that are likely to affect the trees are covered by one document. The new full planning application is solely for the erection of a replacement dwelling.

1.1.4 This document lays down the methodology for any proposed works that may have an effect upon the trees on and adjacent to the site. It is essential within the scope of any contracts related to the development proposals that this method statement is observed and adhered to. It is recommended that this document form part of the work schedule and specification issued to the building contractors and can be used to form part of the contract.

1.1.5 Copies of this document will be available for inspection on site. The developer will inform the local planning authority within twenty-four hours if the arboricultural consultant is replaced.

1.2 Terms of Reference

1.2.1 We (LT) are instructed by the client, Ms Rachel Lord and Mr John Weston to prepare a revised method statement for proposed revisions to the development; it will support the above planning

application with reference to BS 5837:2012 Trees in Relation to Design, Demolition and Construction.

1.2.2 For this purpose, the client has supplied us with a site lay-out plan (4170 -Topo), the current proposals plan (P094-Fitzjohn'sAve-Pre-appVersion-27-01-15) and the plans relating to the proposed boundary walls (P094-113 to 116). The recommendations made within the Construction Management Plan prepared by Projektplus (dated 3rd March 2015). We are also reliant upon our previous impact assessment report TSS/92FJA/AIA/01c, as updated by the impact assessment in 1.3 below. It is important to note that this is an outline MS only prepared on the information available to date. Further details will be provided post-planning, subject to condition, and with the issue of the final CMP.

1.3 Development Proposals & Potential Impacts

1.3.1 The revised proposals are for demolition of the existing dwelling, followed by the construction of a new detached family dwelling with integral garage and a robust landscaping strategy. The current proposed dwelling will provide a contemporary, low rise and sustainable family dwelling in a Modernist architectural style. The key design features include:

- Clear and simple residential form in a Modernist style;
- Flat roofs and parapets create clean visual lines and minimise massing, also allowing maximum use of green roofing and conceal solar energy installations;
- Access via small courtyard drive with single integral garage and a vehicle turntable to assist with the turning of larger vehicles, which creates a clearly defined entrance space;
- Low rise dwelling with accommodation principally on two floors, upper and lower ground floors, with a small element of accommodation at first floor level;
- High retaining wall where the existing site level changes;
- Main body of the house has a linear layout on a NW-SE axis, located towards the NE boundary creating private amenity areas to the SW. These are separated by the central southern projection forming two distinct garden areas that are the visual focus of the principle living accommodation;
- External colonnade running the length of the site provides: solar shading to glazing areas, a covered walk way, helps form the entrance to the house, and creates a covered loggia to Western boundary to maximize use of external space;
- House footprint and mass kept away from Northern boundary to minimise visual impact of the proposals on Greenhill Apartments and allow the retention of existing mature trees.

1.3.2 The project will comprise to following elements:

- **Demolition** – demolition of the existing two storey house and the removal of all structures including the garage and the hard landscaping.

- **Perimeter Wall abutting Henderson Court** (North West) – The proposal is for the existing fence to be replaced by a brick wall.
- **Perimeter Wall abutting Greenhill** (North West) – The existing masonry wall and fencing will be retained.
- **Perimeter Wall abutting North Bridge School** (North East) - The proposal is for the existing brick wall with fence to be replaced by a brick wall with a chain-link fence (boundary to be moved eastwards to reflect new boundary of site).
- **Perimeter Wall abutting Fitzjohn's Primary School** (South East) - The proposal is for the existing fence to be replaced by a brick wall (eastern end) and the fallen down brick wall to be re-built (western end).
- **Perimeter Wall abutting St Anthony's School (South West)** - The proposal is for the existing fence to be replaced by a brick wall with a chain link fence.
- **Substructure - reinforced concrete slab on elastic bedding.** Subject to confirmation of the structural engineer, it is anticipated that piling can be omitted.
- **Superstructure** – A prefabricated timber frame manufactured off site.
- **Roof Structure** - timber joist with green roof.

1.3.3 The principal primary impacts in the current proposals are the removal of 7 trees/shrubs of low quality/unsuitable for retention (T26, 35, 36, 40, 42, 43, 44) including elder and cypress; their removal will have little arboricultural impact. Tree T41 is recommended for removal on the grounds of sound husbandry, therefore has not been rated as impact attributable to the proposals. A further 11 trees/shrubs (T13 – T23a) will be felled as part of an overall landscaping scheme; they are to be replaced with good quality trees, improving on the existing low quality (all 'C' Category).

1.3.4 The impacts on retained, moderate quality trees have been reduced in the current scheme. The encroachments of the theoretical RPA's of category B trees T29, T30 and T37's have reduced and been located further away from the stem. The full impacts are shown below in Table 1. In summary, the revised proposals include the following beneficial changes for these sycamore trees:

- T29 – all excavations beyond existing hardstanding and services. Total excavation area considerably reduced from previous proposals.
- T34 – all existing development/hardstanding. Mitigation is required where existing levels are altered within the RPA (mainly level raising – see Extract 1 below). The impact of replacing boundary fence with a wall should be mitigated by lintels over roots with flexible footings where the position is established by the use of trial pits and pre-emptive pruning. The proposed crown-lift to 4.5m should provide clearance over the proposed boundary wall with chain-link fence. T34 will also benefit from the careful removal of the existing tarmac, which will provide additional rooting areas within the proposed garden (a positive impact).
- T37 - overall impact is reduced by moving the proposals away from the stem.

Extract 1: From Plan P094 – 107 Prepared by Urban Curve Architecture

1.3.5 The other impacts on the retained trees include the rebuilding of the existing boundaries, the proposed car turntable and resurfacing the drive (T12). The existing temporary construction access for the refurbishment works at Henderson Court, that lies adjacent to the development site, will also be used to service these development proposals (see TPP in Appendix 5). It is proposed that the initial slope off the crossover would be concreted (over no-dig geotextile and MOT build-up) up to T3, and thereafter a Infraweb or equivalent build up would be used. The existing paving slabs would of course be temporarily removed (and made good at the end of the build / use of the track). One category C tree (T9) would need to be felled along the proposed route, which has been rated as a low impact with replacement planting required. Subject again to the works already undertaken in the light of the existing construction use, pruning of the overhanging branches of T3, T10 & T11 will also be required. To enable access into this development site, a selective removal of hedge elements in G27 to create a path through the hedge. The impact of tree pruning and hedge opening will have a very localised visual impact that will be amply mitigated in the final landscaping of the site. Therefore these impacts are all rated as low, subject to the mitigation proposed.

5.0

Table 1: Arboricultural Impact Assessment

(Impacts assessed prior to mitigation and rated with reference to Matheny & Clark (1998))

Hide irrelevant | Show All Trees

Ref: TSS/92FJA/AIM

B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
B	3	Maple, Norway	Pruning/crown lift to facilitate construction access.	m^2 N/A %	Mature	Normal	Moderate	Low	N/A	Remedial tree surgery (see Rec. Works)
C	9	Magnolia	Fell to facilitate construction access.	m^2 N/A %	Early Mature	Normal	Good	Low	N/A	Remedial tree surgery (see Rec. Works)
B	10	Yew, Common	Pruning/crown lift to facilitate construction access.	m^2 N/A %	Early Mature	Normal	Good	Low	N/A	Remedial tree surgery (see Rec. Works)
C/u	11	Cherry, Wild (Gean)	Pruning/crown lift to facilitate construction access.	m^2 N/A %	Semi-mature	Moderate	Moderate	Low	N/A	Remedial tree surgery (see Rec. Works)
B	12	Sycamore	Drive Construction within RPA (16.5m2/10.5%) Turntable and resurfacing (36m2/22.9%) New Brick Wall	52.5 m^2 33.33 %	Mature	Normal	Moderate	Medium	N/A	No-dig construction Crown-lift for access Low impact turntable Footing to be linteled over roots. excavations to be supervised

5.0

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B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C	13	Holly	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	14	Cherry, Wild (Gean)	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	15	Rowan, variety	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	16	Amelanchier spp	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	17	Ceanothus	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Mature	Moderate	N/A	N/A	Low	New planting accordance with a landscape strategy

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B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C	18	Loquat	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Semi-mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	19 & 20	Privet	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	21	Cotoneaster	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	22	Magnolia (M. grandiflora)	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Semi-mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	23	Olive	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Semi-mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

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Ref: TSS/92FJA/AIM

B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C	26	Cherry, Autumn Flowering	Felled to Facilitate Development	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	G27	Hazel & Elder	Part fell to facilitate temporary construction access	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	Replacement planting / landscaping
B	29	Sycamore	Demolition of existing building 16.6m2 - 8.7% Replacement of boundary wall 39.5m2 GF (less existing 9.6 m2) 15.6%. Building Construction within Canopy	29.9 m^2 15.64 %	Mature	Normal	Moderate	Medium	N/A	Pull back demolition/ manual removal of existing foundations etc. in RPA Low-invasive foundations (no-dig) Pre-emptive root pruning; Low-invasive roof design
B	34	Sycamore	Demolition of existing house/store & hardstandings (29m2 - 14.3%) Construction of new dwelling within RPA (27.6m2 - 13.6%) NB: all existing building/paved area	27.6 m^2 13.59 %	Mature	Normal	Moderate	Low	N/A	Pull back demolition/ manual removal of existing foundations etc. in RPA Manual removal of tarmac Airspade / manual excavation Low-invasive wall foundation design with lintels over roots
C	35	Cypress, Lawson variety	Felled to Facilitate Development	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

5.0

Table 1: Arboricultural Impact Assessment

(Impacts assessed prior to mitigation and rated with reference to Matheny & Clark (1998))

Hide irrelevant | Show All Trees

Ref: TSS/92FJA/AIM

B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C	36	Cypress, Lawson variety	Felled to Facilitate Development	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
B	37	Sycamore	Demolition of garage - 18m2 Retention of boundary wall (possibly with mini-piles) LGF 15m2 additional RPA impact (NB: located further from stem). Below canopy.	15 m^2 14.21 %	Early Mature	Normal	Moderate	Low	N/A	Pull back demolition/ manual removal of existing foundations etc. in RPA. Low invasive wall foundations Pre-emptive root pruning of limits of LGF thru RPA to 750m. Remedial tree works.
C/u	40	Elder	Felled to Facilitate Development	m^2 N/A %	Mature	Poor	N/A	N/A	Low	New planting accordance with a landscape strategy
U	41	Cherry	Felled for good arboricultural practice	m^2 N/A %	Semi-mature	Dead	N/A	N/A	N/A	New planting accordance with a landscape strategy
C	42	Cedar (C. deodara)	Felled to Facilitate Development	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

5.0

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Ref: TSS/92FJA/AIM

B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C/u	43	Elder	Felled to Facilitate Development	m^2 N/A %	Mature	Moderate	N/A	N/A	Low	New planting accordance with a landscape strategy
C/u	44	Cherry, Wild (Gean)	Felled to Facilitate Development Remedial works could be carried out to cut-back from construction works - preferable to fell due to canker	m^2 N/A %	Semi-mature	Moderate	N/A	N/A	Low	New planting accordance with a landscape strategy
C	23a	Cherry	Felled to Facilitate Development	m^2 N/A %	Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

1.3.6 It is understood that the detailed design of the foundations will not be produced as part of the planning application. Instead it will be required by condition, as it was on the extant planning permission. It is likely that the mitigation for the LGF foundations will be sheet piling adjacent to T34 and T37 to avoid further battering through the RPA / closer to the tree. These piling encroachments will be pre-excavated and root-pruned by hand to 750mm depth under arboricultural supervision. Subject to confirmation from the engineers, it is proposed that piling can be omitted (see above at section 1.3.2). Should it be resolved that piling is required, the potential canopy impacts to T34 & T37 from the piling equipment will be resolved with pruning works (see Appendix 1).

1.3.7 The GF encroachments should employ low-invasive designs with cantilevered foundations for the garage within T29's RPA. Subject to confirmation that piling is not required and noted in the CMP, this AMS notes that any remaining GF encroachments will use discontinuous piles with shallow beams at flexible locations determined by trial-excavations.

1.3.8 The impact of the proposed boundary wall treatments will be mitigated by using a low-invasive foundation design (i.e. for T12, T29, T34 and T37). The proposed brick replacement wall within the RPA of T34 appears to require the ground to be raised within the site. This change in levels will require mitigation.

1.3.9 The impact of the driveway/path on T12 will be mitigated by using porous paving / no-dig construction techniques. The proposed car turntable has a high theoretical RPA impact (23%), however the model proposed only needs very shallow excavation (130mm), apart from the motor housing. Providing the turntable is hand excavated, with careful demolition of existing structures (buildings and surfaces) and soft landscape or less invasive design used in the remaining RPA, the overall net impacts will be sustainable. Further cultural improvements to rooting conditions can be made in the protected zones during the landscape phase. It is also important to note that the proposed boundary wall will have low invasive foundations with flexibility to move the footings should significant roots be found within the foundation trial pits.

1.3.10 In terms of the proposed access for construction traffic, the initial slope off the crossover would be concreted (over no-dig geotextile and MOT build-up) up to T3, and thereafter a Infraweb or equivalent build up would be used. The pedestrian will be built up to a suitable specification under the guidance of the council and/or with approved council contractors. Selection of this route will require substantive pruning of the lesser quality trees, T10-11, removal of T9, and selective removal of hedge elements in G27 to maintain a 5m ground clearance below the trees and a path through the hedge.

1.4 Sequence of Works

1.4.1 The sequence of works will be as follows:

- initial tree works – felling, stump grinding and pruning for working clearances
- installation of Tree Protection Barrier (TPB) & ground protection
- demolition of existing building & landscaping
- installation of supplementary ground protection
- installation of underground services
- main construction
- removal of TPB
- soft landscaping

These works and their arboricultural implications are outlined in sequence below:

1.5 Site Supervision

1.5.1 Full details of the construction team are to be confirmed, however the management of the project will be undertaken by Projektplus. Contact details for the site management team will be posted on the gate and will be passed on to the neighbours. During work hours and in case of any queries/ complaints, the team can be contacted on:

Project Management
Projektplus Ltd
The Old Mill
Cobham Park Road
Surrey KT11 3NE
www.projektplus.co.uk
01932 589123

1.5.2 In terms of this outline AMS, the following guidelines must be followed by the site management team:

1) Site supervision – an individual e.g. the Site Agent, must be nominated to be responsible for all arboricultural matters on site. An agent must be nominated for each phase of work, if demolition and construction contracts are to be awarded separately. The agent(s) must:
   - be present on site for the majority of the time;
   - be aware of the arboricultural responsibilities - to this end, a site briefing / meeting between the agent and arboricultural consultant must be held before the commencement of each phase of works;
   - have the authority to stop any work that is causing, or has the potential to cause harm to any tree;
   - be responsible for ensuring that all site operatives are aware of their responsibilities toward trees on site and the consequences of the failure to observe these responsibilities;

- Make immediate contact with the local authority and/or a retained arboriculturalist in the event of any tree related problems occurring, whether actual or potential.
- Contact details for Landmark Trees are provided on the cover to this report.
- Contact details for the Local Authority Tree Officer are as follows:

  Nick Bell
  Tree and Landscape Officer
  London Borough of Camden Council
  5th Floor Town Hall Extension
  Argyle Street
  London WC1H 8ND

  E-mail: tom.little@camden.gov.uk
  Telephone: 020 7974 5939

1.6 Site Monitoring

1.6.1 Landmark Trees are to be retained as Arboricultural Consultants responsible for site monitoring for the duration of the development. Key personnel are in the main Adam Hollis MSc (Arb) and occasionally James Bell Tech Cert, subject to any new staff intake. Site monitoring will be undertaken by a qualified and experienced arboriculturalist at pre-determined and agreed time intervals.

1.6.2 The arboriculturalist will arrive at the site, check in at the site office and be safely escorted around the site by the site agent, checking the maintenance of tree protection measures. Routine visits will generally be unannounced. However, the arboriculturalist will also visit subject to advance notification and agreement to supervise any agreed works within the RPA.

1.6.3 General site monitoring will take the form of regular inspections (of e.g. protection measures), ongoing liaison with all personnel involved in the site development and with the LA. Any defects requiring rectifying must be notified to the Site Agent and the Client and copied to the LA by email. Emergencies will be notified to the LA by phone. Appropriate records will be kept and be made available to the LA if required to show evidence of site monitoring (Appendix 3).

1.6.4 Task specific site supervision will require the arboriculturalist to be present during the key operations to ensure detailed tasks are carried out as per the approved methodology and during any other unplanned incursions into the protection areas (subject to LPA agreement) for whatever reasons. This supervision will require the arboriculturalist to be present during the task, to ensure the arboricultural objectives are met. However, where are tasks are ongoing, provided the arboriculturalist is satisfied, and after an appropriate briefing, the supervision may be reduced to telephone and email contact between the site foreman/ contractor and arboriculturalist. Site supervision should include the landscape works, including the reconstruction of boundary wall, resurfacing and construction of cycle stores within the RPA.

1.6.5 At this stage, the recommended frequency of visits is fortnightly for the first three months and monthly thereafter. In addition, a site logbook will be kept by the Site Agent to record all stages of the development from the installation of the fence protection, to daily checks of the fencing through to the completion of the project. This should be made available to the LA if required to show evidence of site monitoring. Site monitoring should include:

- Pre-Development Site Inspection (S.2.3)
- Construction Site Agent Briefing (S.1.5)
- Installation of site facilities (S.3.3)
- Demolition of hard surfaces / structures within RPA's (3.6)
- Construction of new of hard surfaces / structures within RPA's (3.7)
- Site completion meeting (S.5)

1.6.6 The LPA's Arboricultural Officer will have free access to the site and report on any problem areas directly to the developer's Project Arboriculturalist, who will then visit the site and make recommendations to the developer on how best to rectify the situation and ensure implementation. A final sign-off visit will be carried out at the end of the development and a formal letter sent to both the client and LPA indicating an end to the monitoring period.

1.6.7 N.B. Landmark Trees will only be responsible for providing monitoring in so far as they fully instructed to do so and regularly paid for such services by the client. In the absence of routine payment (as per our business terms), routine monitoring will cease (temporarily or permanently) and the LPA will be informed of the cessation of monitoring. The client will also reserve the right to dismiss Landmark Trees and replace with another arborist, but must inform the LPA.

1.7 Statement Adoption

1.7.1 It is recommended that, in due course, acceptance of the recommendations in this report is demonstrated by, for example, the architect specifying in writing to the building contractor that tree care conditions apply in execution of the contract, and by an estimate or written undertaking from the contractor to the architect demonstrating that the practical aspects of observation of such recommendations have been priced in. If conflicts between any part of a tree and the building(s) arise in the course of development these can often be resolved quickly and at little cost if a qualified arboriculturist is consulted promptly. Lack of such care is often apparent quickly and decline and death of such trees can spoil design aims and can of course affect saleability, and reflect poorly on the construction and design personnel involved. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of the finished development.

2.0 Pre- Development Site Preparation

2.1 Arboricultural Works

2.1.1 All works must be carried out by a competent arborist in accord with BS 3998: 2010 and any other prevailing good professional practice.

2.1.2 Specific works recommended to facilitate development are the removal of trees/shrubs T13-23, T26, T35, T36, T40, T42, T43, T44, with T9 and part of G37 felled to facilitate construction access. Crown lifting of T3, T10 and T12 is likely to be required to facilitate access, with T34 and T37 crown-lifted to provide sufficient working clearance. These specific works to facilitate development and any other husbandry works (such as the removal of T41) are listed in Appendix 1.

2.2 Installation of Tree Protection Barrier

2.2.1 A Tree Protection Barrier [TPB] comprising steel mesh panels of 2.4m in height ('Heras') should be erected to protect trees near buildings to be demolished on site. These panels will be mounted on a scaffolding frame as shown in Figure 1 below (this is also Figure 2 of BS5837: Trees in Relation to Design, Demolition and Construction in paragraph 6.2.2.2).

2.2.2 This TPB is to be erected before any work commences on site, is to remain 'in situ' undamaged for the duration of all work or each phase, and only to be removed once all work is completed. If any work is deemed necessary prior to the erection of fencing a Landmark Trees representative should be informed to enable their presence to oversee the work being carried out.

2.2.3 The only other exception is the completion of soft landscaping but if any excavations, however minor, are to be carried out as part of soft landscaping within RPAs, an arboricultural assessment must be carried out beforehand and any arboricultural protection measures incorporated. The TPB should carry waterproof warning notices denying access within the RPA.

2.2.4 The Tree Protection Plan in Appendix 6 illustrates where the protective fencing will be located to form the boundary of the Construction Exclusion Zone (CEZ). The CEZ is an exclusion zone and suitable steps will be taken to prevent access by pedestrians and vehicles and the storage of any works materials and equipment will be located outside of the CEZ.

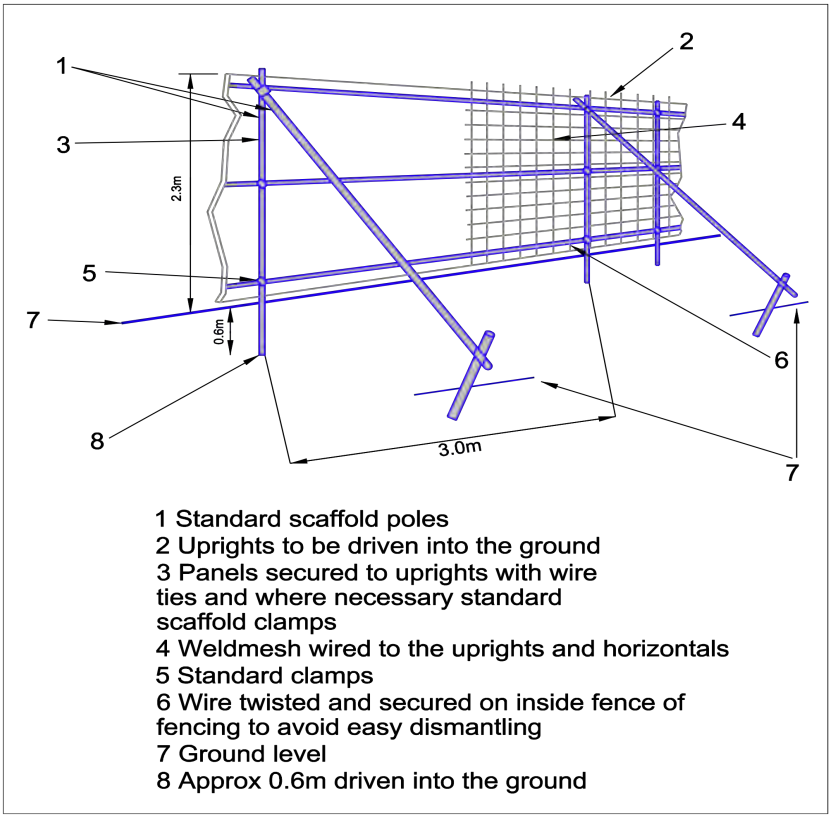


Fig. 1 Tree Protection Barrier Specification
(Source: Figure 2 from BS5837 - Default specification for protective barrier)

2.3 Pre-Development Site Inspection

2.3.1 Upon completion of the tree works the LT representative will meet the relevant local authority member on site to check the standards of the work. If there are any amendments to either the tree works or additional protection measures, they will be agreed at this meeting and confirmed in writing.

3.0 Development Phase

3.1 The following general precautions will apply:

- No fires shall be made on any part of the site, or within 20m of any tree to be retained.
- No spilling of pouring of fuels, oils, solvents, tar shall be made on any part of the site.
- No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained.
- No spillage or discharge of wet mortar or concrete shall be made on any part of the site.
- No storage of materials shall be made within the protective fences.
- No breaching or moving of the protective fences without the approval of an arboriculturist.
- Alterations in levels within the tree protection fence areas shall be avoided.

3.2 Root Protection Areas (RPA)

3.2.1 The Root Protection Area (RPA) is a desirable zone of protection around the trees' rooting system and these have been marked on the plan in Appendix 6. As much as possible, the RPA's will lie within the CEZ and therefore, be fully fenced off. However, this degree of protection is not entirely possible on the site: it is necessary to perform some works (in part) within the RPA i.e. demolition of existing building and hard landscaping, installation of services and construction of new building (including discontinuous piling) and terraces, in addition to the replacement boundary walls.

3.2.2 All involved parties will need to be made aware of the deficiencies. In these instances, careful and supervised working, as described in sections, S. 3.4 (routing of services) and S. 3.6 (demolition of surfaces) and S. 3.7 (construction) will be required.

3.2.3 Ground outside the CEZ must be protected from site traffic and not left exposed during construction. As far as practical, existing hard surfaces should be retained as initial ground protection (where fit for purpose for anticipated loading) until the landscaping phase and / or substituted / supplemented with appropriate materials (e.g. Infraweb, Ground Guards etc.), capable of withstanding anticipated loads. Existing tarmac will not be adequate ground protection for heavy plant use. To this end, a concrete crossover and intensive ground protection will be supplemented where necessary (see TPP in Appendix 6). Crossovers for HGVs should have 150mm concrete slabs temporarily installed to protect services and tree roots.

3.3 Site Access, Accommodation & Storage

3.3.1 Site access and accommodation will be as per the layout within our Tree Protection Plan (Appendix 6), making use of the existing temporary construction access through Henderson Court with supplemented ground protection where necessary. The temporary construction access is already in use by Henderson Court for current refurbishment works.

3.3.2 Pedestrian access will run parallel, but separate to vehicular access along the existing driveway.

3.3.1 Delivery lorries will be excluded from RPA's by tree protection fencing and ground protection. Subject to confirmation of the works already undertaken to facilitate access for the refurbishment works at Henderson Court, adequate allowance has been made for vehicle heights and ground clearance, with proposed crown lifts where tree canopies overhang access routes (T3, T9, T10, T11 and T12). If piling is required, construction clearance will be provided by crown lifting T34 and T37 (as per Appendix 1). Any further pruning for working clearances must be discussed first with the arboriculturalist. "Just in time" deliveries will reduce the volume of onsite storage requirements. Materials can be unloaded onto protected ground within RPA's, then stored in the designated area and throughout the interior of the site away from protected trees. Site accommodation will be located in the garden area, away from the CEZ's.

3.3.2 Many site activities are potentially damaging to trees e.g. material storage, parking, soil compaction and the use of plant machinery. In this latter example particular care is required to ensure that the operational arcs of excavation and lifting machinery, including their loads, do not physically damage trees in use.

3.4 Routing & Installation of Services

3.4.1 Final service routes and provision are to be determined. In general, where any underground service routes should enter an RPA, then the provisions of BS5837 and NJUG VOLUME 4 will be employed (e.g. radial trenching and /or mole trenching) under arboricultural supervision.

3.5 Changes in Grade

3.5.1 The upper layer of top soil contains the majority of a tree's roots and if this is disturbed by a reduction in ground level, serious damage can be caused. If such soil is to be disturbed within the CEZ / RPA, it will be done only with hand tools and the supervising arborist will be informed if roots are exposed. For example, the proposed car turntable within the RPA of T12 will need to be hand excavated to the required depth (130mm) under arboricultural supervision (see section 3.7 below).

3.5.2 If the ground level requires raising (e.g within RPA of T34), this will be achieved using coarse, granular material such as pebbles.

3.5.3 If ground levels need to be marginally altered within the RPA of any tree not identified within this outline AMS, prior agreement must be sought from the Tree Preservation Officer and given in writing by the LPA.

3.6 Demolition Measures.

3.6.1 The demolition measures remain as under the previous scheme, although are repeated within this outline AMS. Access facilitation pruning will be undertaken to prevent injurious contact between demolition plant and the tree(s). Any such pruning will be undertaken in accordance with British Standard 3998: Recommendations for tree works (See Section 2.1 / Appendix 1).

3.6.2 Demolition of structures within what would otherwise be an RPA will proceed with due caution to avoid unnecessary damage to trees. Such measures apply in particular to T29, 30, 34 and 37.

3.6.3 All plant and vehicles engaged in demolition works (removals only) will either operate outside the RPA, or work from within the existing built structure and hard standing, near trees. Where trees stand adjacent to structures scheduled for demolition, it will be necessary to undertake demolition inwards within the footprint of the existing building (often referred to as "top down, pull back").

3.6.4 Specifically, the demolition of the main structure will be carried out by using a 360^0 excavator, fitted with a grapple/bucket and, where necessary, a hydraulic impact hammer.

3.6.5 The roof timbers will be lifted from the house using the grapple, and lowered to the ground where they will be further processed, prior to being loaded into roll on/off containers and removed from site to a suitable landfill facility.

3.6.6 Having completed the removal of all materials, the main structure i.e. brickwork/blockwork of the house will be demolished using a 360^0 excavator. The walls will be pulled over in small increments and allowed to free fall in to the confines of the building, where they will be gathered into a stockpile to await loading away from site to a suitable landfill facility.

3.6.7 Having taken the structure down and removed from site the ground floor slabs/foundations will be broken up by a 360^0 excavator equipped with, if necessary, the hydraulic impact hammer, but if the concrete is not too difficult to break, it will be done with the excavator bucket, the quieter option being preferred, the concrete will be broken into manageable size pieces. Where the foundations are alongside trees the break out will be carried out in small sections and the void backfilled and compacted prior to the next section being broken out.

3.6.8 Throughout all mechanical operations a banksman will be present at all times. Dust generated by the works will be suppressed using water sprays.

3.6.9 If the weather is "dry," the site will be watered down to reduce dust travelling to adjacent properties. Where levels of dust build-up on trees occur, it may be necessary to seek the advice of Landmark Trees on remedial measures, e.g. hose down the tree(s) immediately following any significant accumulation of dust.

3.6.10 All spoil is to be loaded into trucks fitted with loading grabs.

3.6.11 Heavy plant used to remove imported materials and grade the surface will be deployed in one operation. This will be achieved by siting necessary machinery on top of the existing grade level and working systematically away from retained trees. **The aim is to ensure that spoil is removed away from RPAs but it is very important that their original soil levels are only lowered under consultant supervision as roots will be close to the surface and can be easily damaged**.

3.6.12 The hard standing within the tree's RPA's will be first broken up with manual power tools and then carefully removed with plant by a skilled machine operator. Soil beneath the structure will not be scraped away, but preserved in situ and protected with replacement ground protection (as per

Section 3.2) for post-development treatment (as per Section 3.8). It is assumed that the tarmac within the RPA of T34 will be retained as ground protection during the construction period, then removed manually and the sub-base lifted with caution to create the proposed garden area.

3.6.13 Where replacement or supplementary ground protection is required following the removal of hard standing, it will be installed prior to the continuance of operations

3.7 Construction Measures

3.7.1 It is understood that the works necessary for the construction of the foundations and slab of the current application are very similar to those for the extant permission, although the above ground works are very different because the house is manufactured off site. It has been proposed that the ground works can be constructed The CMP notes that, subject to confirmation from the engineers, piling can be omitted for the ground works. However, in the absence of this confirmation, this outline AMS ensures that all eventualities are covered in order to ensure adequate tree protection measures. The previous requirement for providing additional crown clearance where possible to account for the impact of the above ground works has been retained as a precautionary measure.

3.7.2 The building encroachments will require the use of specialised foundation techniques, which require further confirmation. If piling is recommended, it should not breach the 4.5m - 5m ground clearance provided by the tree canopy (post tree surgery), where a mini-rig will be required. The limits of the any LGF encroachment into the RPA will be pre-excavated and root-pruned by hand to 750mm depth under arboricultural supervision. Roots smaller then 25mm diameter may be cut cleanly with a sharp pruning saw or secateurs back to a junction. Roots larger then 25mm diameter may only be cut in consultation with an arboriculturalist.

3.7.3 JCB to excavate to required depth. All spoil to be loaded into trucks outside the RPA's until ground protection is replaced and reinforced. Construction materials will generally be delivered on lorries with mechanical off load and unloaded outside RPA's.

3.7.4 Concrete will be delivered to site pre-mixed in 6m3 lorries and distributed by a static concrete pump located outside RPA's where possible.

3.7.5 The GF foundations will be similarly trial-excavated within the RPA.

3.7.6 During the construction phase and throughout dry periods on site regular hosing down will be carried out to control dust pollution. In the event of dust build up on trees occurring arboricultural advice will be sort and if necessary remedial measures such as hosing down the trees will be taken.

3.7.7 Where scaffolding needs to be installed within the RPA the following ground protection should be followed / adapted to site needs:

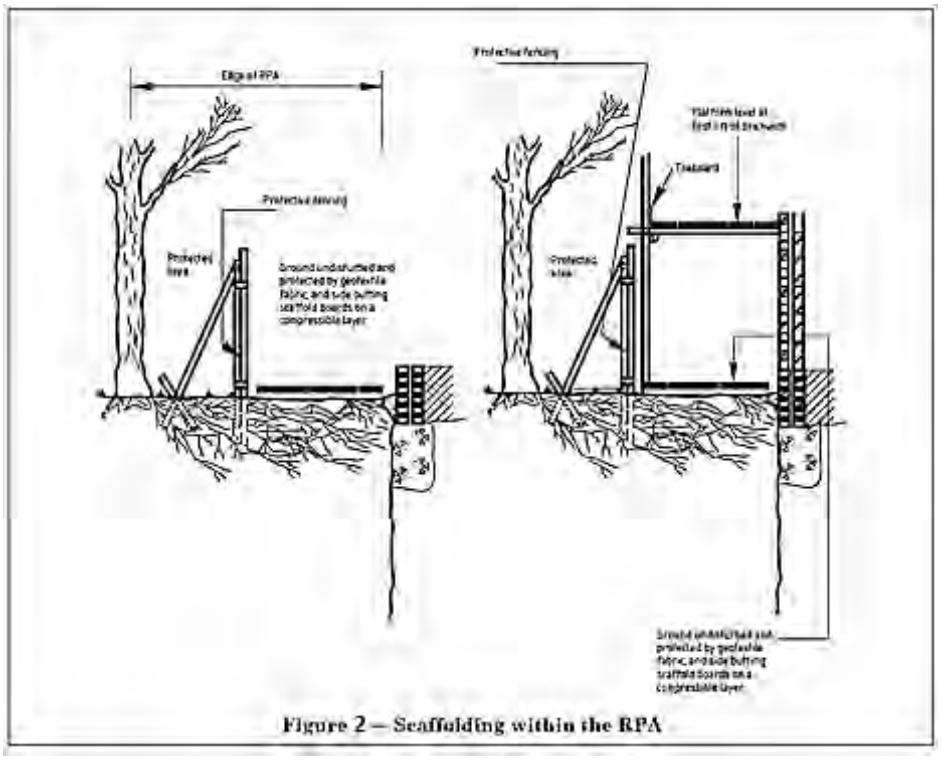
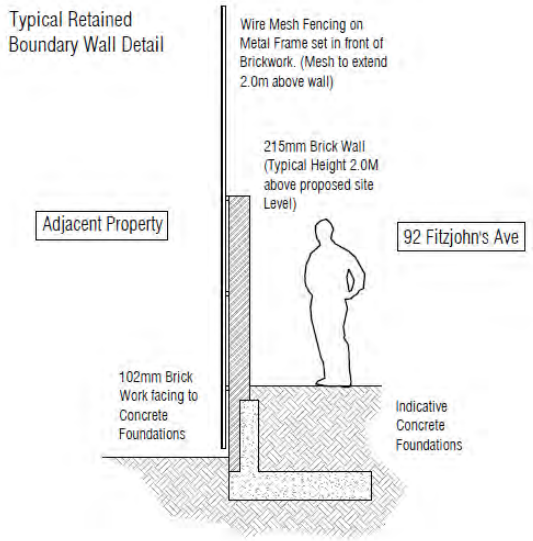


Figure 2 — Scaffolding within the RPA

3.7.8 Where the boundary wall requires replacement, it will be undertaken with a low-invasive design using lintels (T12 and T34) or existing sub-base (T29 & T37). It is important to note that the typical boundary wall detail shown below should not be employed within the RPA of any retained tree. Where the proposed wall with wire mesh above is required, other construction methods such as piling, with the pits pre-excavated by hand should be used; roots smaller then 25mm diameter may be cut cleanly with a sharp pruning saw or secateurs back to a junction. Roots larger then 25mm diameter may only be cut in consultation with an arboriculturalist.



Extract 2: Typical Wall Detail from Plan No. P094-114 (Urban Curve Architecture)

3.7.9 The proposed turntable within the RPA of T12 must be hand excavated to the required depth under arboricultural supervision. As noted previously, any roots smaller then 25mm diameter may be cut cleanly with a sharp pruning saw or secateurs back to a junction. Roots larger then 25mm diameter may only be cut in consultation with an arboriculturalist.

3.7.10 following is a sample specification for no dig drive construction by tree T12:

i. The Construction should ideally be undertaken between May and October when the ground is sufficiently dry to prevent compaction occurring. Any surface vegetation should be removed by hand or with suitable herbicide.

ii. Fill any hollows in the exposed ground with sharp sand or 4/20mm or 40/20mm clean angular stone.

iii. Place Permatex 300 Geotextile over the area to be protected ensuring laps are a minimum of 300mm. The geotextile should not be trafficked across at any time.

iv. The Infraweb system is available in 5 depths for varying traffic loadings but each site should have a specific design detailed to ensure the correct depth of product is used.

v. The system components are as follows:

- InfraWeb 3 Dimensional Cellular Confinement System
- Permatex 300 Separation Geotextile
- Permatex 200 Separation Geotextile (depending on surface finish)
- InfraWeb Staking Pins
- InfraWeb Stapler and Staples
- 4/20mm or 40/20mm Clean angular stone to Bs EN 13242 and 12620.

vi. Place the collapsed panel on the geotextile and pin through 3 cells across the 2.42m orientation using InfraWeb staking pins. Expand the panel to its full length of 8.7m and pin across the opposite panel end using InfraWeb staking pins. Pin along the length of the panel with 2 pins on each side using InfraWeb staking pins. If full panels are not being used then ensure the cells have been expanded to their full dimension. Staple any adjacent panels together using the Infraweb stapler and staples. The InfraWeb panels can be cut to shape if required with a heavy duty Stanley Knife.

vii. The correct specification of the granular infill is vital to the long term performance of the system. Use only 4/20mm or 40/20mm clean angular stone to Bs EN 13242 and 12620 (depending on cell depth being used). Fill the pockets of the InfraWeb with a 4/20mm or 40/20mm clean angular stone. Allow for any settlement of the stone in the cells and top up if necessary. **If the system requires trafficking immediately after installation for construction purposes then a 50mm sacrificial surcharge of the 4/20mm or 40/20mm granular material shall be placed on top of the InfraWeb.**

viii. The Infraweb TRP system can be surfaced with the materials listed below. Porous systems will be of greater benefit for the trees, however it is understood that this is not always possible.

Block Paving:

- Place Permatex 200 separation fabric over the filled InfraWeb.
- Lay sand / gravel bedding material as per manufacturer's recommendations.
- Place porous / standard blocks as per manufacturer's instructions.

Porous and Standard Asphalt:

- Slightly surcharge the InfraWeb with 25mm of 4/20mm or 40/20mm clean angular stone.
- Place hot Asphalt as per manufacturer's instructions.

Resin Bound Gravels:

- Place Permatex 200 separation fabric over the filled InfraWeb.
- Lay Asphalt carpet and resin bound gravel to the required thickness and as per manufacturer's instructions.

Loose Gravels:

- Option 1 is to slightly overfill the InfraWeb with the clean angular stone.
- Option 2 is to place a 25mm thick decorative stone above the filled InfraWeb.

Slimblock Gravel Retention System

- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Place 20mm bedding layer of 5mm single sized stone and lightly tamp.
- Lay Slimblock units and fill with a 10 to 14mm decorative gravel.

Slimblock Grass Protection System.

- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Place 50mm of Rootzone (60% sand/40% soil) bedding layer and lightly tamp.
- Lay Slimblock units and fill with Rootzone mix and seed accordingly. (Please allow for 4 to 6 weeks for seed germination)

Tree Mulch

- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Lay mulch to desired depth.

3.7.10 For technical data on the Geotextile membrane and the Infraweb cellular confinement system always refer to the manufactures guidelines for design and implementation. Further technical advice can be gained from the manufacturer:

Infra Green Limited
Warrington Business Park
Long Lane
Warrington
WA2 8TX
Tel. 01455 617139
www.infragreen-solutions.com

3.8 Removal of Ground Protection & Post Construction Landscaping & Treatment

3.8.1 The tree protection may be removed upon completion of the construction phase and when all drainage and service runs have been installed and any site machinery has been removed from the RPA.

3.8.2 Following the developing phase, impacted trees within the site boundary, identified for such treatment, will receive remedial soil remediation treatment: deep root fertiliser / mycorrhizal injection and surface mulching

3.8.3 Any further landscaping works should avoid the changing of ground levels or deep digging. Mechanised cultivation such as tractor-mounted rotovation must not be used within the RPA's of existing trees.

3.8.4 Heavy machinery should not be used in the vicinity of any retained trees.

3.8.5 If herbicides are to be used they should be appropriate to their purpose and not in such a way as to damage any retained trees or vegetation.

3.8.6 Ideally, retained trees should be within a shrub area as this reduces the chances of compaction and disturbance of root systems.

3.8.7 Any new planting schemes adopted should consider aspects of the site such as current design, layout and future use. Consideration should also be given to the soil type, climate and overall character of the landscape.

4.0 Summary of Proposed Methods

4.1 Table of Impacts and Mitigation

4.1.1 The table below summarises the main areas where trees could become damaged by the proposed development and the methods that need to be adopted in order to prevent such damage:

Impact	Mitigation	Reference	Trees Affected
General site access, material storage etc.	Ground protection to acceptable standards.	Sections 2.2 & 3.3 Tree Protection Plan in Appendix 6	All retained trees
Demolition & construction within existing canopy Proposed construction access	Tree surgery	Section 2.1	T34 & 37 T3, 10, 11
Demolition of existing build within RPA	Pull down / back technique within RPA	Section 3.6	T29, 34 and 37
Damage to roots caused by building / retaining wall foundation excavation within RPA. New boundary walls	Hand excavation of ground works line to 750mm within RPA. Low invasive foundations within RPAs	Section 3.7 & 8	T12, 29, 34 and 37

5.0 Completion

5.1 Completion Meeting

5.1.1 Following completion of the works listed above, a Landmark Trees consultant will meet with a local authority representative and agree upon any remedial works deemed necessary.

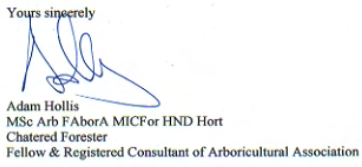
5.1.2 A separate LT post-development tree inspection (with specific reference to trees identified in the Appendix 1 schedules) is recommended to facilitate a constructive meeting and to monitor the health of some of the more senescent trees on site.

5.1.3 Any works agreed in the above meeting will be confirmed in writing and will be performed to BS 3998: 2010 Tree Works.

5.1.4 Landmark Trees recommend that any work proposed post development is checked to avoid penalty for performing illegal work on a protected tree.

5.1.5 If conflicts between any part of a tree and the building(s) arise in the course of development these can often be resolved quickly and at little cost if a qualified arboriculturist is consulted promptly. Lack of such care is often apparent quickly and decline and death of such trees can spoil design aims and can of course affect saleability, and reflect poorly on the construction and design personnel involved. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of the finished development.

Signed



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Adam Hollis MSc ARB MICFor FArbor A

23 March 2015

For and on behalf of ***Landmark Trees***

Web: www.landmarktrees.co.uk
e-mail: info@landmarktrees.co.uk
Tel: 0207 851 4544

London Office: 20 Broadwick Street, London, W1F 8HT
Registered Office: Grange Cottage, All Cannings, Devizes, Wiltshire, SN10 3NR
Landmark Trees is the trading name of Landmark trees Ltd. Registered in Wales. Reg No. 3882076

Appendix 1: Arboricultural Works

Landmark Trees

Site: 92 Fitzjohns Avenue, London

Date: 20 March 2015

Surveyor(s): James Bell

Ref: TSS/92FJA/AIM

Appendix 1

Recommended Tree Works

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
3	Maple, Norway	B	17	2.0	6684	CL4m	To facilitate development construction access
9	Magnolia	C	8	2.5	4244	Fell	Offsite To facilitate development construction access
10	Yew, Common	B	9	1.8	3	CL4m	Offsite To facilitate development construction access
11	Cherry, Wild (Gean)	C/u	11	4.0	4244	CL	Poor form Offsite To facilitate development construction access
12	Sycamore	B	17	2.0	6866	CL4m	Forks at 1.5m;4/5m clearance over garden To facilitate development
13	Holly	C	4.5	1.8	1.5	Fell	Twin stem SD=100 & 130 To allow landscape enhancement
14	Cherry, Wild (Gean)	C	4.5	1.5	1.5/2.5/ 2.5/1	Fell	To allow landscape enhancement

Landmark Trees

Site: 92 Fitzjohns Avenue, London

Date: 20 March 2015

Surveyor(s): James Bell

Ref: TSS/92FJA/AIM

Appendix 1

Recommended Tree Works

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
15	Rowan, variety	C	4	2.0	1	Fell	To allow landscape enhancement
16	Amelanchier spp	C	4	1.0	1.5	Fell	To allow landscape enhancement
17	Ceanothus	C	3	1.3	2	Fell	Multi stem 3 SD=80,70 & 40; shrub To allow landscape enhancement
18	Loquat	C	2.5	1.0	1.5	Fell	Garden ornamental To allow landscape enhancement
19 & 20	Privet	C	4	0.0	1.5	Fell	Multi stem - 5 SD av = 80; shaped To allow landscape enhancement
21	Cotoneaster	C	3	1.0	1	Fell	To allow landscape enhancement
22	Magnolia (M. grandiflora)	C	3	1.0	1	Fell	To allow landscape enhancement

Landmark Trees

Site: 92 Fitzjohns Avenue, London

Date: 20 March 2015

Surveyor(s): James Bell

Ref: TSS/92FJA/AIM

Appendix 1

Recommended Tree Works

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
23	Olive	C	3	1.0	1.5	Fell	Shaped To allow landscape enhancement
26	Cherry, Autumn Flowering	C	4	1.0	2.5	Fell	Sapling To facilitate development
G27	Hazel & Elder	C	7	2.0	2.5	Fell Pt	Multi stem 20+ Av SD = 40 To facilitate development construction access
34	Sycamore	B	15	2.0	6	CL4.5m Crown lift for piling works	Ivy smothered Forks at 1.7m Offsite; crown growing onto flank of building and over roof; base invisible so SD estimate is very notional To facilitate development
35	Cypress, Lawson variety	C	8	1.8	2.5	Fell	Garden ornamental To facilitate development
36	Cypress, Lawson variety	C	7	1.8	2.5	Fell	Garden ornamental Recommended to permit development
37	Sycamore	B	15	2.5	5546	CL5m	Twin stem SD=400 & 270 To facilitate development

Landmark Trees

Site: 92 Fitzjohns Avenue, London

Date: 20 March 2015

Surveyor(s): James Bell

Ref: TSS/92FJA/AIM

Appendix 1

Recommended Tree Works

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
40	Elder	C/u	7	2.0	2422	Fell	A sparser than normal canopy Twin stem SD=180 & 160 To facilitate development
41	Cherry	U	4	2.0	0322	Fell	Dead Advisable for good arboricultural practice
42	Cedar (C. deodara)	C	4.5	0.0	1.5	Fell	To facilitate development
43	Elder	C/u	4	1.5	2	Fell	Ivy smothered To facilitate development
44	Cherry, Wild (Gean)	C/u	4.5	2.0	2322	Fell Off-site tree	Ivy smothered Bacterial canker To facilitate development/good husbandry
45	Cherry, Wild (Gean)	U	9	2.5	?	FInv (or apply to fell)	Leans to SE Decay in exposed roots Advisable for good arboricultural practice
46	Cherry, Wild (Gean)	C/u	8	3.5	0321	Monitor	Leans to SE Ivy smothered Advisable for good arboricultural practice

Landmark Trees

Site: 92 Fitzjohns Avenue, London
Date: 20 March 2015

Appendix 1

Surveyor(s): James Bell
Ref: TSS/92FJA/AIM

Recommended Tree Works

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
23a	Cherry	C	7	1.0	3	Fell	Remote survey only To allow landscape enhancement

Appendix 2: General Guidelines

3.1 All work must be to BS 3998:2010 - '*Recommendations for tree work'*.

3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors, and will be covered by adequate public liability insurance.

3.3 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the consultant's attention immediately.

3.4 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this method statement are carried out under the supervision of a Landmark Trees consultant.

3.5 It is advisable to have trees inspected by a Landmark Trees consultant regularly. On this site it is recommended that these inspections are made every year.

Appendix 3: Sample Site Monitoring Sheet

Landmark Trees

Site Monitoring Report Sheet

Client:		**Planning Ref:**	
Local Authority:		**Date:**	
Site Address:			
Proposal:			

Visit Checklist	**Y/N**		**Y/N**
Tree protection barrier (TPB) in place		TPB as per approved	
Ground protection (GP) in place		GP as per approved	
TPB / GP breached		Trees damaged	
Site Agent briefed by LT			
LT briefed by Site Agent			
LPA informed			
Remedial action required			

Comments

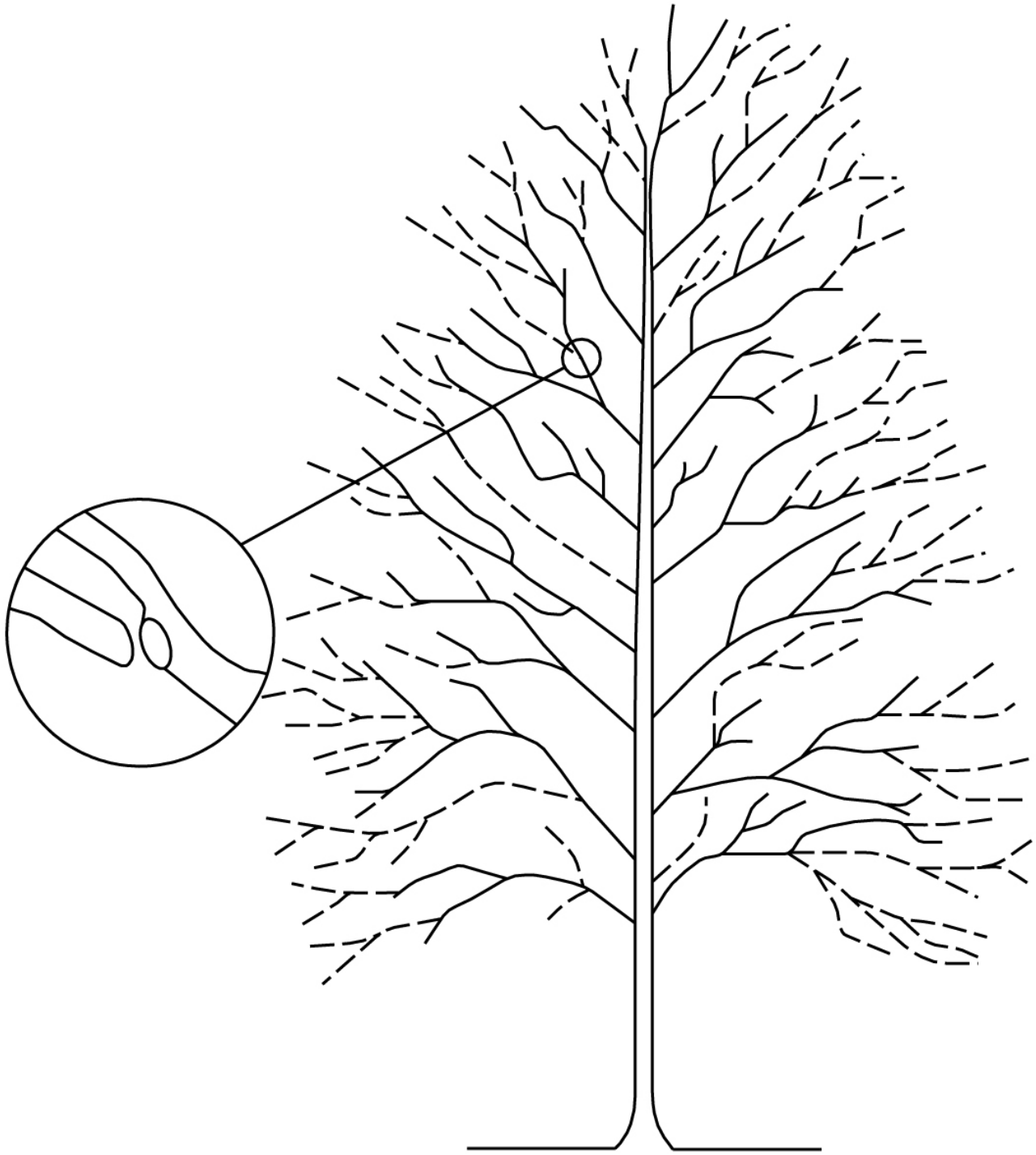
Recommendations

Outcome		
1		
2		
3		
4		

Web: www.landmarktrees.co.uk
e-mail: info@landmarktrees.co.uk
Tel: 0207 851 4544

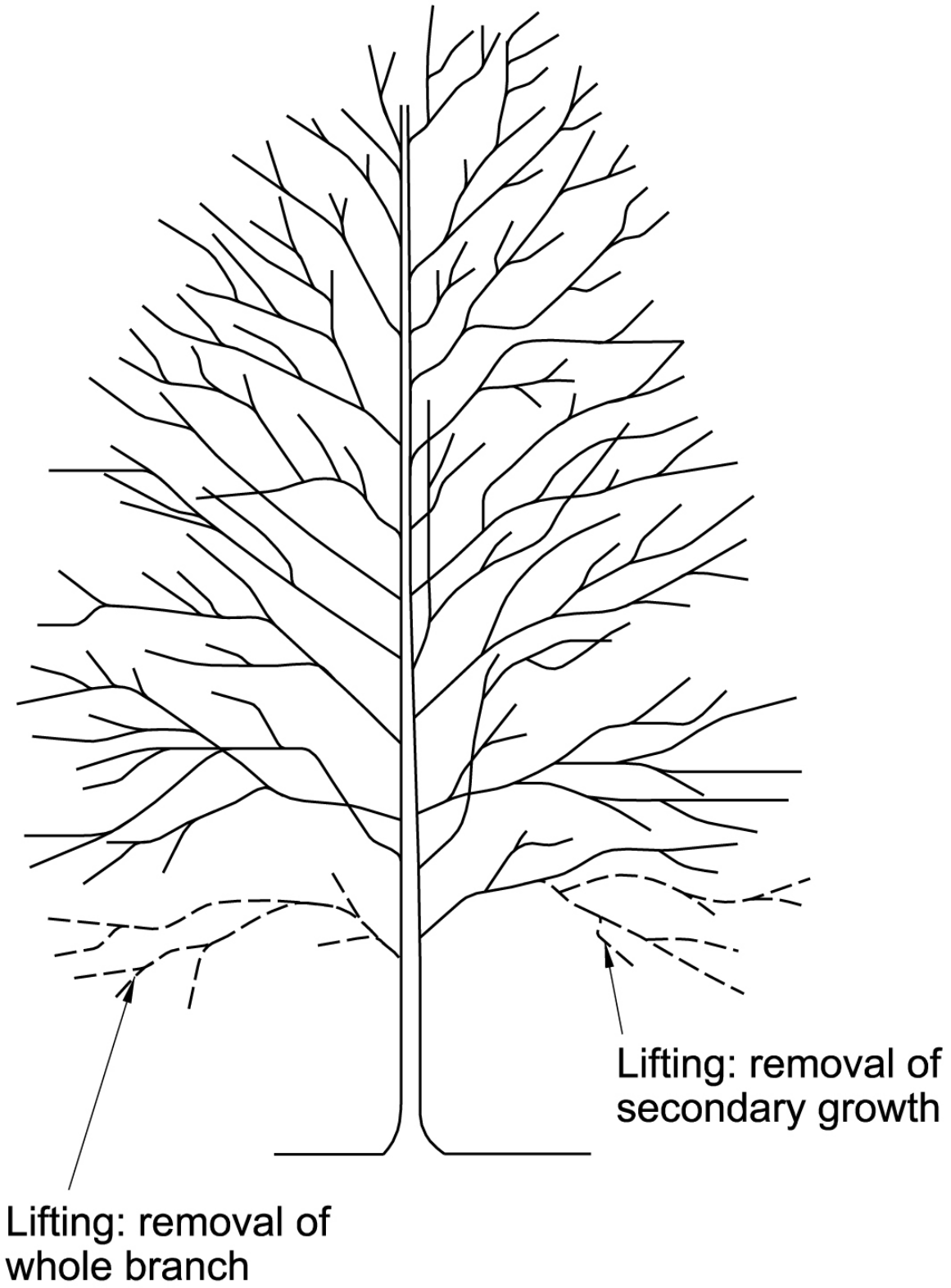
London Office: 20 Broadwick Street, W1F 8HT, London
Registered Office: Grange Cottage, All Cannings, Devizes, Wiltshire, SN10 3NR

Appendix 4: Indicative Pruning Guidelines



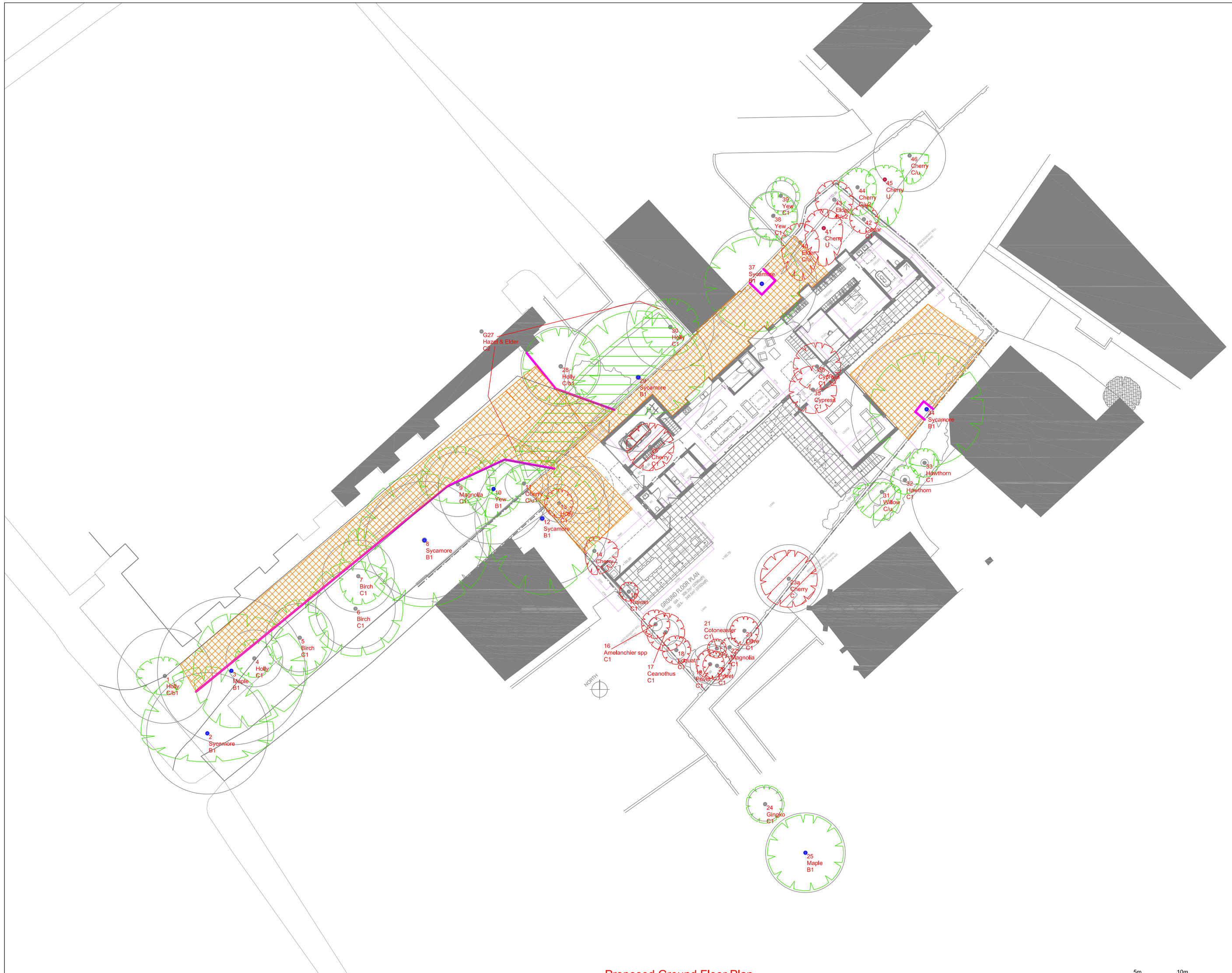
NOTE: Branches pruned back to suitable outward pointing bud or small branch.

REDUCING THE CROWN



CROWN LIFTING

Appendix 5: Tree Protection Plan



Proposed Ground Floor Plan

5m 10m

N

NOTE:

This survey is of a preliminary nature. The trees were inspected from the ground only on the basis of the Visual Tree Assessment method. No samples were taken for analysis. No decay detection equipment was employed. The survey does not cover the arrangements that may be required in connection with the laying or removal of underground services.

Branch spread in metres is taken at the four cardinal points to derive an accurate representation of the crown.

Root Protection Areas (RPA) are derived from stem diameter measured at 1.5 m above adjacent ground level (taken on sloping ground on the upslope side of the tree base).

Landmark Trees

20 Broadwick Street, London, W1F 8HT
Tel: 0207 851 4544 Mobile: 07812 989928
e-mail: info@landmarktrees.co.uk Web: www.landmarktrees.co.uk

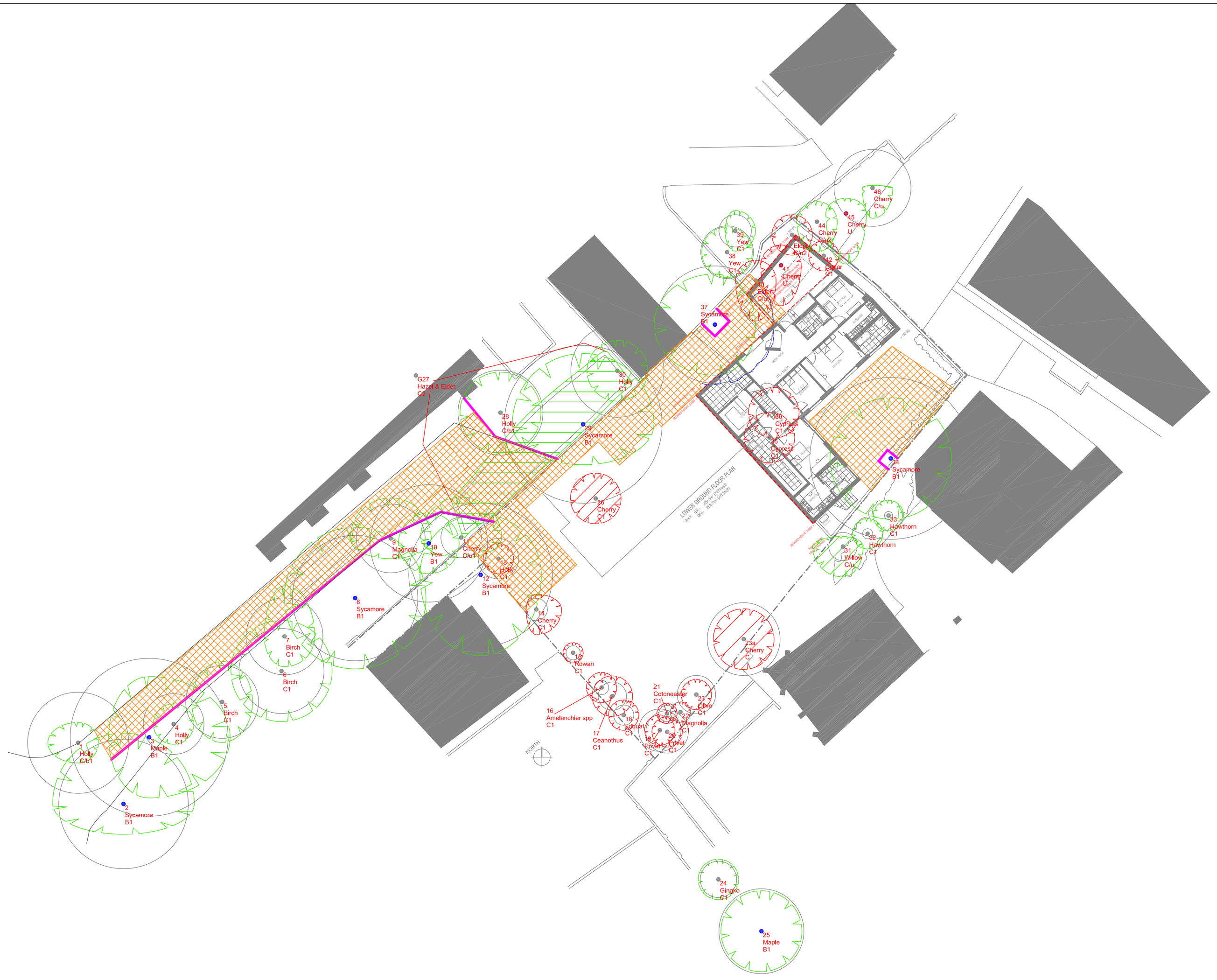
Site: 92 Fitzjohns Avenue	1:200 @ A1
Drawing Title: Tree Protection Plan	Feb 2015

Key:

- Category A High Quality
- Category B Moderate Quality
- Category C Low Quality
- Category U Trees Unsuitable for Retention

Category, Crown Spread, Root Protection Area, Tree Number, Species, Category (13 Birch B2)

- Tree Position Approximate (not shown on original survey)
- Tree Protection Fencing
- Ground Protection
- Tree Proposed for Removal



Proposed Lower Ground Floor Plan

NOTE:

This survey is of a preliminary nature. The trees were inspected from the ground only on the basis of the Visual Tree Assessment method. No samples were taken for analysis. No decay detection equipment was employed. The survey does not cover the arrangements that may be required in connection with the laying or removal of underground services.

Branch spread in metres is taken at the four cardinal points to derive an accurate representation of the crown.

Root Protection Areas (RPA) are derived from stem diameter measured at 1.5 m above adjacent ground level (taken on sloping ground on the upslope side of the tree base).

Landmark Trees

20 Broadwick Street, London, W1F 8HT
Tel: 0207 851 4544 Mobile: 07812 989928
e-mail: info@landmarktrees.co.uk Web: www.landmarktrees.co.uk

Site: 92 Fitzjohns Avenue	1:200 @ A1
Drawing Title: Tree Protection Plan	Feb 2015

Key:

- Category A High Quality
- Category B Moderate Quality
- Category C Low Quality
- Category U Trees Unsuitable for Retention

Category — Crown Spread
Root Protection Area — Tree Number — Species — Category

Tree Position Approximate (not shown on original survey)

Tree Protection Fencing

Ground Protection

Tree Proposed for Removal