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ADDENDUM ARBORICULTURAL NOTE
FOR PROPOSED DEVELOPMENT

Site:

4 Keats Grove
London
NW3 2RT

Client:

Richard Griffiths Architects
5 Maidstone Mews Buildings
72-76 Borough High Street
London
SE1 1GN

Prepared by:

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1. Introduction

1.1 *Marcus Foster Arboricultural Design & Consultancy* have previously produced an Arboricultural Impact Assessment Report (BS5837:2012) in relation to the proposed development at 4 Keats Grove, London, NW3 2RT. The report has been issued as follows:

> Marcus Foster - Arboricultural Design & Consultancy
> *Arboricultural Survey & Impact Assessment Report*
> (26th January 2017)

Reference should be made to this previous report in relation to this Addendum Note where required.

1.2 Further to issuing the Arboricultural Impact Assessment (AIA), guidance was provided recommending a trial trench be undertaken to provide a greater understanding of the root morphology of tree T1 within the Root Protection Area (RPA) where excavations are required to implement the proposed development. Highlighted within *Tree Constraints Site Plan* the above information was required for further assessment to be made.

1.3 This Arboricultural Addendum Note addresses these issues highlighted and provides findings from investigative work.

2. Site Overview & Implemented Works

2.1 Further to highlighting the requirement for the trial trench there is 1 x area where significant excavations would be required. Therefore the undertaking of 1 x trial trench prior to submission of a full planning application has been implemented for the line of the proposed plant room at basement level area. This trial trench has been recommended as excavations to implement the development would not be included as a condition within any consent.

2.2 Therefore a trial trench has been specified to be implemented as follows:

- Location as highlighted within Appendix A:
  Trial trench to south of Tree T1 - 3800mm from the main stem at closest point

- 1000mm depth x 600mm width for entire length of trench area where excavations are proposed

- Length of trench is 2200mm extending from corner of existing light well in a westerly direction along length of proposed lightwell

- Trial trench to be dug as per specifications outlined within Trial Trench Method Statement as included within AIA (January 2017)

2.3 The trial pit has been entirely dug by hand, as undertaken by contractors appointed by Rachel Farrer Bristow on behalf of Richard Griffiths Architects with strict instructions that all roots larger than 25mm in diameter should not be severed and left exposed and *in situ.* A working method statement (included in *Appendix* D*)* for carrying out these works whilst retaining all significant roots as specified above was prepared and closely adhered to.

2.4 A site visit was undertaken on the following date in order to undertake an inspection of the trial trench and provide further information regarding the tree root morphology of tree T1:

- *Thursday 13th April 2017*
  Attendance at 10am to inspect and document trial trench

2.5 The results of the site visit and trial trench inspection is detailed within *Section 3* below with brief sections an plans provided in *Appendix B*. Photographs are provided in *Appendix C* also.

2.6 The trial trench has been dug to a good standard with close adherence of the Method Statement as provided within the *AIA Report - 26th January 2017*

3. Findings & Discussion

Underlying Ground & Soil Profile

3.1 The underlying soil to this area is classified as a 'Clayey silt' within the *UK Soil Observatory* (www.ukso.org) and the excavations showed evidence of this type of soil with limited made up ground.

3.2 Generally for the trial trench which is located within the front garden area of 4 Keats Grove, the soil / ground profile is similar throughout the 2.2m length with an upper 100mm layer of MOT Type One beneath the existing hard landscape (sandstone paving). Beneath there is a consistent appearance of soil which is relatively clean and free of made up materials. The only exception is either end of the trench where a brief area of soft landscape ground exists only and there is no build up of hard landscape materials.

Trial Trench Findings

Close reference should be made to Appendix B and C (Trial trench Plan & Photographs) in relation to findings as highlighted below

3.3 This has been dug across the full width of the area where a basement extends for the proposed plant room which is a proposed 2200mm length from the light well to the west of this lightwell. In addition due to the discovery of a further root growing within the line of the existing lightwell, the trench has been extended to the east by a further 1000mm. The excavations for the trench have been carried out at the closest point 3.8m from the main stem of tree T1 and the findings are as below. Findings as highlighted within *Appendix B - Trial Trench Layout Plan* are described working in an east to west direction from the outer point of the existing lightwell:

3.3.1 A large 80mm diameter root extends within the pit for 100mm at 200mm depth before extending at right angles to the west where it lessens in diameter at the point of the existing light well to a 30mm diameter root at 100mm depth. At this point the root has no tension or compression with the larger origins of the root and also shows limited fibrous nature; it is recommended that this root can be severed on the line of the existing light well if carried out in a careful manner with a suitable root pruning saw. However pruning of the root where 80mm diameterer upon extending within the pit is not recommended

3.3.2 A 20mm root exists at 800mm depth originating at 500mm length within the trench from the existing light well. This root is insignificant and can be severed without detriment to the health or structural integrity of the tree

3.3.3 A 25mm root exists at 600mm depth originating at 700mm length within the trench from the existing light well. This root is insignificant and can be severed without detriment to the health or structural integrity of the tree

3.3.4 From 1.3m length within the trench from the existing light well to the end of the trench where the yew hedge exists there are 6 x significant roots which vary in size from 25mm to 45mm diameter which all hold tension and provide a likely combination of minor anchorage and likely greater fibrous function for tree T1. The roots extend from a depth of 300mm to 600mm within the trench and it is not recommended that severance of such a quantity of roots is implemented within such close proximity of this protected Horse Chestnut tree.

3.4 The trench does also show evidence of fibrous root activity within the ground both beneath the soft landscape and hard landscape features of this front garden:

3.4.1 From the existing lightwell for a 1000mm length there is good fibrous root development in the upper 300-400mm depth of soil with limited root development below this level

3.4.2 Extending from 1000mm to the west towards the yew hedge there is less significant root development mainly due to the hard landscape ground above and implications of compaction and implementation of hard landscape feature with compacted base layer beneath

4. Summary

4.1 Therefore there are 2 main areas where different approaches to the proposed development can be implemented as illustrated in diagram be low (*Section 4.2*):

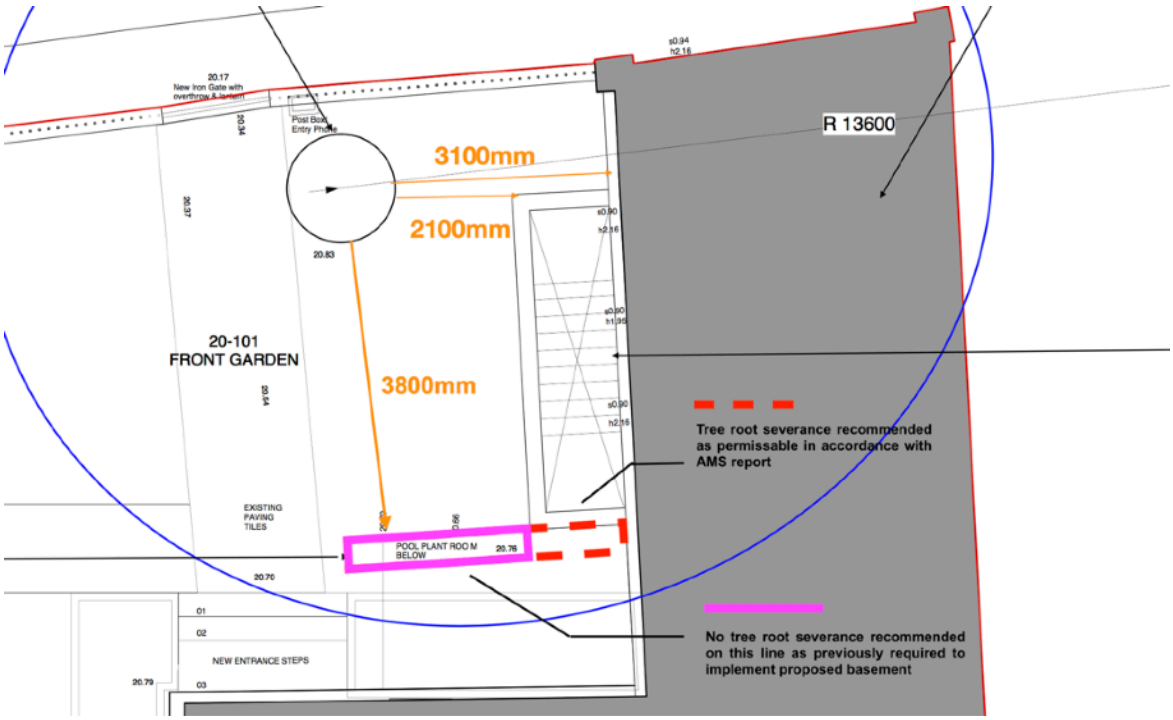
Area 1: Within RPA to the west of line of existing lightwell

- No tree root severance to be undertaken
- Full protection to tree root system as highlighted within AMS report as approved by Local Authority

Area 2: Within RPA to the east of line of existing light well

- Tree root severance of 2 x minor tree roots (under 30mm diameter)
- Excavations in accordance with tree protection guidelines as highlighted within AMS report as approved by Local Authority

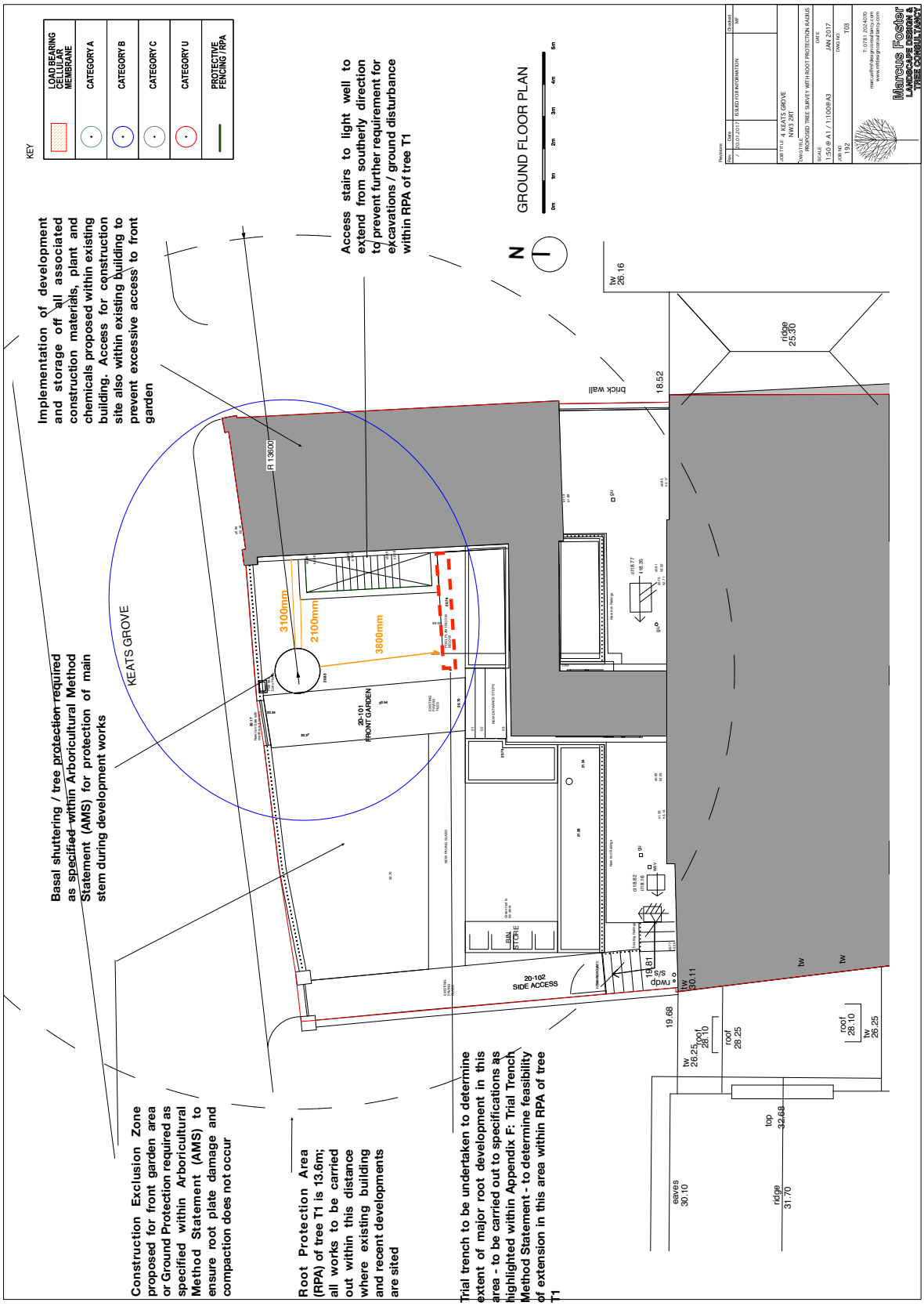
4.2 Plan highlighting area where basement excavations can be carried out below:



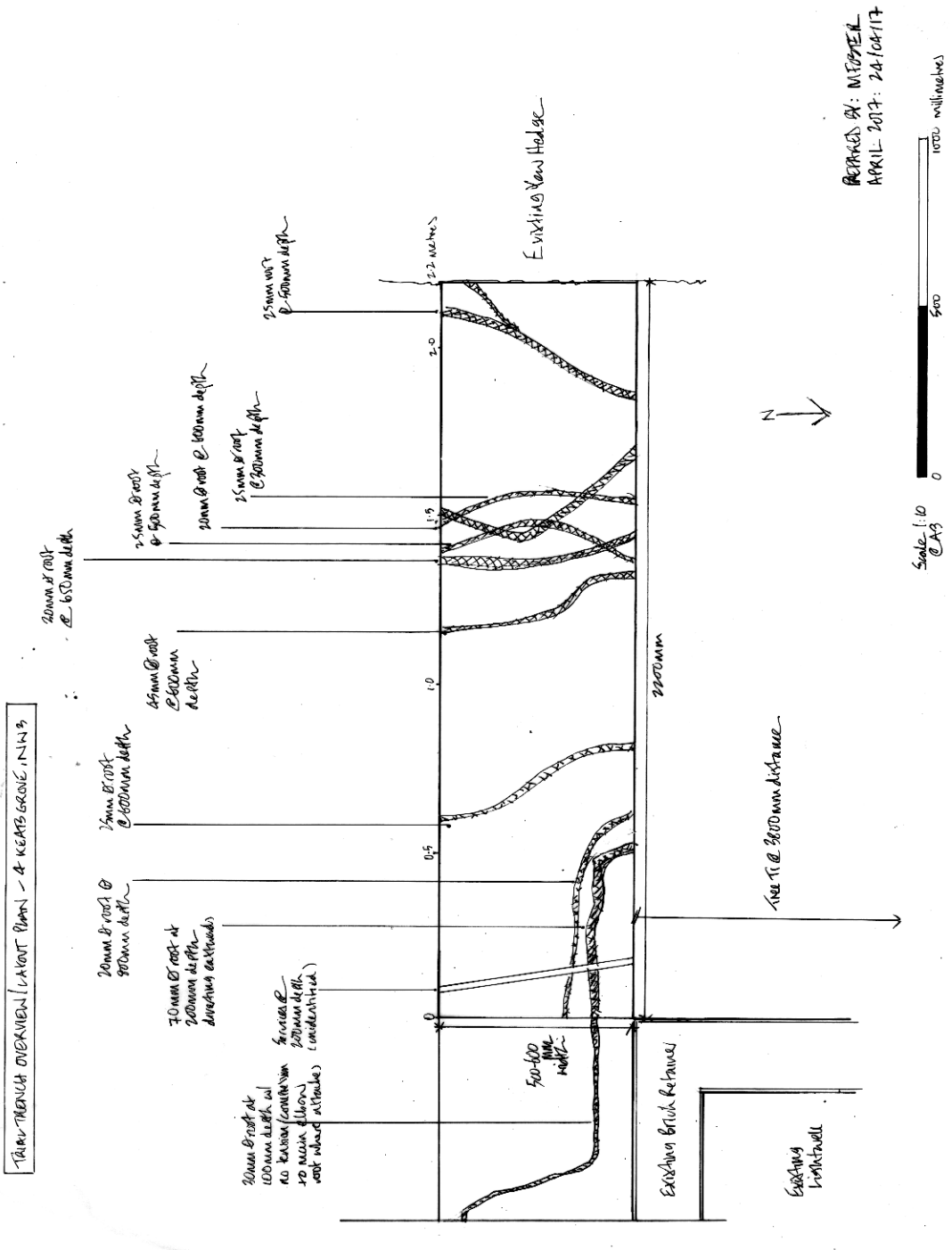
4.3 The above working method of any works within RPA of T1 to be specified within an AMS will require corroboration with construction working method statement. The implementation of these works will require consultation with the appointed arboricultural consultant and / or Local Authority Tree Officer

4.4 It is important to note that these findings do not highlight the importance of tree protection for the remaining root plate of tree T1 where major and extensive root systems will inevitably be located.

Appendix A
T004 - Tree Constraints Site Plan



Appendix B
Trial Trench 2 Layout Plan & Section Detail



Do not scale from this drawing

Appendix C
Photographs of Trial Trench (24.04.17)

A: Photograph of trial trench as viewed from front pathway towards property

B: Overview photographs of trial trench as viewed from above and within pit

C: Photograph of trial trench extending to south of existing lightwell where 1 x minor root exists

Appendix D
Trial Trench Working Method Statement
as provided to contractors implementing works

1. Scope of works:

1.1 A trench of the following dimensions is to be dug in the location as shown in the site plan overleaf:

1000mm depth x 500mm width

1.2 This is required to be hand dug using hand tools only where possible to determine the root morphology and root presence of the adjacent Horse Chestnut tree where proposed development works have the potential to cause damage

2. Reasons for works

2.1 The works are being carried out to determine the extent of larger tree roots which exist in this area growing from the tree in a southerly direction towards the building as exists. These hand dug excavations will enable the Local Authority and consulting arboriculturist to determine whether severance of tree roots would both:

a) be required in this area
b) be possible in order to facilitate implementation of a proposed plant room

3. Working Method:

3.1 The working method should be carried out as follows:

a) The 'breaking up' of any surface may be carried out by low impact pneumatic tools only or by hand where possible

b) Hand digging to be carried out WITHOUT severance of larger tree roots: the severance of any tree roots encountered larger than 2.5cm (25mm) in diameter MUST NOT occur without prior consultation with the Local Authority Tree Officer or appointed Arboricultural Consultant.

c) If at any point it is deemed not possible to continue with excavations without having to damage very significant tree roots, the Local Authority Tree Officer and / or the appointed Arboricultural Consultant must be contacted.

d) The hand dug trench should aim to expose any larger tree roots exposed. The trench should not be infilled until both the Local Authority Tree Officer and Consulting Arboriculturist have been contacted and have visited to inspect / document:

Contact Details

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