Contact details

<table>
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<th>Address</th>
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</tr>
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<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>SW7 2NG</td>
</tr>
<tr>
<td>Name</td>
<td>Liège Matharu</td>
<td></td>
</tr>
<tr>
<td>Contact</td>
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</tr>
<tr>
<td>Architect</td>
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<td>KRAUSE ARCHITECTS</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
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<td>6 Corbet Place</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
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<td></td>
<td></td>
<td>E1 6NN</td>
</tr>
<tr>
<td>Contact</td>
<td>Luiz Vidal</td>
<td></td>
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Report History

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1. Summary
1.1 Outline of proposal

Rear single storey extension

1.2 Age Class of trees

<table>
<thead>
<tr>
<th></th>
<th>Young</th>
<th>Semi Mature</th>
<th>Middle Aged</th>
<th>Early Mature</th>
<th>Mature</th>
<th>Over Mature</th>
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1.3 Category of trees

<table>
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<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
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<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>3</td>
<td></td>
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</tr>
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</table>

1.4 Works required

None
2. **Instructions**

2.1 This report has been prepared to discharge the instruction of the client, Liège Matharu ‘The Client’ in respect of detailed planning permission at 14 Pelham Street, London, SW7 2NG

2.2 The Client, has commissioned a Tree Survey in compliance with BS5837: 2012 to prepare a Tree Survey, Arboricultural Constraints Assessment, Arboricultural Impact Assessment, Tree Protection Plan and heads and terms of a Method Statement for the trees at the site

2.3 The site survey was carried out on the 5th July 2019. The relevant qualitative and quantitative tree data and information was recorded to assess the condition of the trees, their constraints upon the proposed development and a summary on any proposed protection and construction specification required.

2.4 **Qualifications and experience:** I have based this report on my site observations and the provided information, and I have come to conclusions in the light of my experience. I have experience and qualifications in arboriculture, and include a summary in Appendix V
2.5 All information given is in accordance with British Standards 5837:2012 – Trees in relation to design, demolition and construction – Recommendations.

I. Identification of tree by number value (collates with the associated plans)
II. Common tree species
III. Height (m)
IV. Stem diameter (mm) at 1.5m above ground using a DBH tape (or as per BS5837 fig C.1)
V. Branch spread to the four cardinal points (m)
VI. Existing height above ground of first branch and direction (m)
VII. Existing height above ground of canopy (m)
VIII. Life Stage (Young, Semi Mature, Early Mature, Mature, Over Mature)
IX. Estimated Remaining contribution (yrs) <10, 10+, 20+, 40+
X. General observations; Condition and Preliminary management recommendations; Physical condition and structural defects
XI. Category as per BS5837 Table 1
XII. Root Protection Area (RPA) radius (m)
XIII. Root Protection Area (RPA) m²
3. Caveat

This advice and all appendices are subject to caveat as follows:

3.1. This report is nullified if any remedial works are undertaken on any area of the site, on or after the date of study/survey.

3.2. The report is only valid on the date on inspection and any deletion, editing or alteration will void it in its entirety.

3.3. The responsibility for any works undertaken on the basis of the recommendations of this report does not form part of this contract. No responsibility is assumed by the Author of this report or by Reuben Hayes for any legal matters that may arise as a consequence.

3.4. The Author of the report, will be required to attend court or give testimony as part of this contract. The report is not valid in adverse or unpredictable weather conditions or for any failure due to Force Majure.

3.5. No liability is assumed by the Author of the report for any misuse, misinterpretation or misrepresentation of information contained herein.

3.6. This report has been compiled using only the information made available to the Author as at the above date of inspection.

3.7. The assessment, unless described as “detailed” was of a preliminary nature, conducted from ground only; the tree was not climbed or inspected below ground level (inc. roots). There was no use of decay detection equipment, and only basic surveying instruments were used.

3.8. The Author did not have at the time of writing any information as to the integrity of the main structure, its annexes or the drainage system.

3.9. Water supply/drainage systems, if damaged, can allow roots to penetrate, however, if the system is sound, or after repair, roots have little capacity to access/damage underground services.

3.10. Any doubt as to the structural condition of properties would require the advice of a structural engineer.

3.11. Apex Environmental Ltd are not responsible for any works other than those invoiced for.

3.12. The observations are visual in nature and are made from ground level only, no climbing inspections have been carried out nor was there the use of binoculars.
4. **Scope of Report**

4.1 The aim of the report is to give guidance under the British Standards BS5837:2012 Trees in relation to design, demolition and construction. This will help to produce a harmonious and sustainable situation and long term development.

4.2 The report will identify the value and quality of the woody vegetation on and within impacting distance from the site. All data gathered will be used to identify and address the impacts that vegetation will have on the proposed development and the impact the development will have on the vegetation.

5. **Documents Supplied**

   1700 0. Basement, LGF and Roof Plans as DWG file
   1701 1. Rear Elevation and Sections as DWG file
   1702 2. External Perspective 01 as DWG file
   1703 3. External Perspective 02 as DWG file
   1704 3. Internal Perspective 01 as DWG file
   1705 4. Internal Perspective 02 as DWG file

6. **Legal and Policy Information**

6.1. **Tree Protection Orders:**

   The land is not protected by a Tree Preservation Order. It is advisable before carrying out any works to trees to check on any updated status.

6.2. **Wildlife protection:**

   It is a criminal offence under normal circumstances to disturb or destroy – whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981 and the 'Countryside and Rights of Way Act 2000'. Therefore, avoid carrying out significant tree works during the bird nesting
season [mid- March to end of July] and ensure that trees are professionally surveyed for signs of bat roosts and/or bat activity before starting any tree work. Further advice on protected species can be obtained from the local office of ‘Natural England’.

6.3. Felling Licence:

Tree felling can also be restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for “Felling necessary for the prevention of danger or the prevention or abatement of a nuisance”.

If full planning consent is granted for the current proposal, then any trees which require felling to implement the approved plans are exempt from this statutory protection. It should also be considered that any proposed tree works detailed in the tree schedule are also implemented as part of the planning decision consent.

6.4. Conservation Area Protection:

The land is within a Conservation Area. Any works outside of those listed within the report will require a separate application.
7. Site History and Application background

7.1 The Site is a mid-terrace Victorian mansion property with similar properties on either side. The rear garden is flat and laid to paving and hardstanding. There are small areas of planting and this also includes a small tree.

7.2 Site location shown in red

Source: www.Google.com

7.3 There is a total of 3 trees. This report has only listed the trees in connection to the main development on the site.

7.4 The proposal, to which this report pertains to, involves the erection of a small rear extension and modification of existing building.
8. Tree and vegetation findings

8.1 The survey was carried out using the BS5837: 2012 methodology and is listed within the appendices attached.

8.2 A full appraisal of the site is listed as such

8.3 There is a mix of trees from Early Mature to Mature trees. Most were seen to be in good condition.

8.4 All trees can be retained during and after the development.

8.5 The trees are a mix of category B and C.

8.6 Any works with regards to the overall application have been listed in this report.

8.7 Findings:

8.8 T.1 – Purple Plum – This is the only tree within the development area. The tree has several defects and has been pruned back in the past. The tree is also growing within a small raised planting bed. The tree is causing minor damage to the planter and the wall. There are no visible signs of tree root ingress within the garden area which is of hard standing. It is likely that the root system is just within the planter and the tree is compromised by its soil area. The plan has tried to demonstrate the extent of the rooting area (which is below the expected 34m²). This tree has been assessed as Category C1

8.9 T.2 and T.3 – These are off site trees and the root system is behind the boundary wall. Due to the environmental factors it is unlikely that the rooting system of these trees will be within the garden.
9. Constraints posed by existing trees

9.1 It is necessary to assess the existing trees in relation to their potential constraints, these mainly being –

- The effect and extent of the proposed development will have on existing trees and their RPA.
- The potential conflicts of the proposed development will have on the canopies of retained trees.
- The effect and extent of the likely location of the new service runs will have on existing trees and their RPA.
- The potential conflict of leaf fall from the existing trees will have on the proposed development.
10. Arboricultural Impact Assessment

10.1. Amenity value of the trees at the site

The tree within the site has no visual value and can not be seen from any public area.

10.2. Facilitation pruning works

It is not necessary to carry out any facilitation pruning.

10.3. Storage of materials, siting of welfare units and contractor parking

All materials will be placed on the hardstanding within the garden area. All welfare will be serviced from the existing property. Contractor parking can be located on the road to the front. The house is also close to South Kensington station and personnel could arrive via public transport.

10.4. Incursions between layout (foundations) and the trees for retention

The extension is outside of the RPA of the tree within the garden. There will be a requirement to move and rehouse a Honey suckle. After close examination of the climber, it would be possible to prune back to suitable growth points leaving structural branches. It would then be possible to carefully lift the climber and move 2m further along the raised bed. It should then establish quickly and fill out the open space.

10.5. Canopy issues on the new development

T.1 will be close to the new extension. The canopy should not cause an issue, and it has been under management to reduce the canopy. This will need to be carried out again and this will increase the available space.

10.6. Tree works

None for the development.
11. Concluding Statement

11.1 Having appraised the proposals and balanced the Standard’s thinking against the will of our clients proposals; the author of the report can fully support this application as sound from the view of a competent, independent arboriculturist. (Reason): all reasonable concerns have been satisfied to the fullest standard.

This concludes the report, if I can be of further assistance please do not hesitate to contact.

Signature: [Signature] Date: 10th July 2019

Managing Director for and on behalf of Apex Environmental Limited

Reuben Hayes M.Arbor.A; CMgr MCMI
Apex Environmental Ltd
12. Heads and Terms of Arboricultural Method Statement

12.1. It is possible to secure tree protection through conditioning the Tree Protection Plan (AEL-18139-TPP-A – Tree Protection Plan). Due to the size of the development it should not be necessary for any further monitoring.
13. Arboricultural terms

13.1 An “arboriculturist” is a person who has, through relevant education, training and experience, gained recognized qualifications and expertise in the field of trees in relation to construction.

13.2 A “Competent person” is someone who has had training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached. A competent person is expected to be able to advise on the best means by which the recommendations of the BS 5837: 2012 may be implemented.

13.3 A “tree survey” in the context of planning and development is taken to mean an assessment of the tree stock on site (or within area shown where appropriate), as individuals or groups. (This is undertaken independent of and prior to any knowledge of a scheme being produced.) Management recommendations in the tree survey schedule reflect the structural and physiological condition of the trees only. It is essential that the trees are assessed objectively and without reference to site layout proposals.

13.4 The “Construction” is a site-based operation with the potential to affect existing trees.

13.5 A “root protection area”, or RPA, is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority. The RPA area is worked out on a mathematical basis and listed in appendix III.

13.6 “Construction Exclusion Zone” (CEZ) is based upon the RPA above and forms the exclusion zone to which access is prohibited during the project phase.

13.7 A “tree constraints plan”, or TCP, is a scaled plan prepared by an arboriculturist showing the RPA and the accurate canopy spread of a tree, along with information to identify the tree by reference to a survey schedule, this will identify any under and above ground constraints. Author to produce this in AutoCAD.
13.8 An “arboricultural impact assessment”, or AIA, is a study or report undertaken by the project arboriculturist to include detailed information to evaluate the direct and indirect effects of the proposed design against the tree(s). As well as the potential future maintenance of the tree(s) against the proposed development, and where necessary recommends mitigation. The assessment should take account of the effects of any tree loss required to implement the design, and any potentially damaging activities proposed in the vicinity of retained trees.

13.9 An “arboricultural method statement”, or AMS, is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. NOTE The AMS is likely to include details of an on-site tree protection monitoring regime

13.10 A “tree protection plan”, or TPP, is a scale plan and should be superimposed on a layout plan, based on the topographical survey, showing all hard surfacing and other existing structures within the RPA. The plan should clearly indicate the precise location of protective barriers to be erected to form a construction exclusion zone around the retained trees.

13.11 Other plans and documents may be referred to and annexed where appropriate.

13.12 Access facilitation pruning is a one-off tree pruning operation, the nature and effects of which are without significant adverse impact on the tree(s) physiology or amenity value, which is directly necessary to provide access for operation on site.

13.13 Services are any above- or below-ground structure or apparatus required for utility provision. Examples include drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.

13.14 Stem is the principal above-ground structural component(s) of a tree that supports its branches.

13.15 Structures are manufactured objects, such as a building, carriageway, path, wall, service run and built or excavated earthworks.
13.16 A ‘Veteran tree’ is recognized by a set criteria as set by British Standards 2998; 2010, Tree Work – Recommendations. This must show signs of biological, cultural or aesthetic value that are characteristic of, but not limited to, individuals surviving beyond the typical age range for the species concerned.
Appendix I – Tree Survey

List of trees on site:

<table>
<thead>
<tr>
<th>Species (Common Name)</th>
<th>Species (Botanical Name)</th>
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<tbody>
<tr>
<td>Horse Chestnut</td>
<td>Aesculus hippocastanum</td>
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<tr>
<td>Lime</td>
<td>Tilia cordata</td>
</tr>
<tr>
<td>Purple Plum</td>
<td>Prunus cerasifera 'Pissardii'</td>
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Page 18 of 32
**TREE SURVEY TO THE BRITISH STANDARD 5837:2012 “TREES IN RELATION TO CONSTRUCTION - RECOMMENDATIONS”**

**FIELD KEY:**

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<th>Field</th>
<th>Description</th>
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<tr>
<td>- TREE No.</td>
<td>Tree identification method in sequential order – TXXX=Existing trees, GX=Group of trees, HX=Hedgerow</td>
</tr>
<tr>
<td>- SPECIES</td>
<td>Species and/or common name;</td>
</tr>
<tr>
<td>- HEIGHT in (m)</td>
<td>Approximate height of tree in metres;</td>
</tr>
<tr>
<td>- DBH in (mm)</td>
<td>Stem diameter in millimetres taken at 1.5 metres above ground level; AV=average diameter (see appendix III)</td>
</tr>
<tr>
<td>- Branch Spread in (m)</td>
<td>Branch spread in metres reflecting the spread at the four principal compass points; N/A= Not Applicable in woodland settings</td>
</tr>
<tr>
<td>- Existing height above ground in (m)</td>
<td>Height in metres of crown clearance above existing ground level: To include first significant branch and direction of growth (e.g. 2.5 – N)</td>
</tr>
<tr>
<td>- Life Stage</td>
<td>Age classification (Y=young, SM=semi-mature, EM=early-mature, M=mature, LM=late-mature, OM=over-mature)</td>
</tr>
<tr>
<td>- Est. remain years</td>
<td>Approximate years remaining (+40=minimum of 40 years, +20=minimum of 20 years, +10=minimum of 10 years, &lt;10 less than 10 years)</td>
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<tr>
<td>- General Observations</td>
<td>Condition of tree (good, fair, poor, dead); Structural and/or physiological condition, and/or preliminary management recommendations.</td>
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<tr>
<td>- Preliminary</td>
<td>Works needed in order to retain tree in current setting or where works would be needed in order to facilitate development.</td>
</tr>
<tr>
<td>management</td>
<td></td>
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<tr>
<td>- Physical Condition</td>
<td>Physiological condition (good, fair, poor, dead); to include and Structural defects such as the presence of any decay, fungal issues, pathogens, defects</td>
</tr>
<tr>
<td>and Structural</td>
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<tr>
<td>Condition</td>
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<tr>
<td>- RPA in (m²)</td>
<td>Area directly calculated from the DBH measurement (single stem/multiple stem variant, as outlined within the Standard, see appendix III);</td>
</tr>
<tr>
<td>- TPO/CA</td>
<td>Presence of Tree Preservation Orders, catchment within a Conservation Area - when instructed/informed;</td>
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<tr>
<td>- Location</td>
<td>Either co-ordinates or visual markings to identify the tree in its current setting.</td>
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<td>Structural condition (notes);</td>
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<td>BS CATEGORY:</td>
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Page 19 of 32
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<thead>
<tr>
<th>Tree reference number</th>
<th>Species</th>
<th>Height (m)</th>
<th>Stem diameter (mm)</th>
<th>Canopy Spread N (m)</th>
<th>Canopy Spread E (m)</th>
<th>Canopy Spread S (m)</th>
<th>Canopy Spread W (m)</th>
<th>Age class</th>
<th>Physiological condition</th>
<th>Structural condition</th>
<th>Preliminary management recommendations</th>
<th>Estimated remaining contribution</th>
<th>Category grading</th>
<th>Number of Stems</th>
<th>RP A</th>
<th>RP A m³</th>
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<tr>
<td>T.3</td>
<td>Aesculus hippocastanum</td>
<td>10</td>
<td>450; 400 (602)</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>Tree growing on 3rd party land, tree signs of leaf minor moth, 5m from wall</td>
<td>20-40</td>
<td>B1</td>
<td>1</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>T.2</td>
<td>Tilia cordata</td>
<td>8</td>
<td>450</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>Tree growing on 3rd party land, tree has been managed in past at 5m and then allowed to grow and develop a new canopy. The tree has been recently pollard and new growth is forming. The tree is inaccessible from garden and behind a 1.8m high brick wall. Some disturbance to nearby ground brickwork so possible small amount of root system has escaped.</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>T.1</td>
<td>Prunus</td>
<td>4.5</td>
<td>270</td>
<td>2.7</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>Early</td>
<td>Good</td>
<td>Good</td>
<td>Tree growing</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Page 21 of 32
| cerasifera 'Pissardii' | Mature | within a small raised planted area. Close to brick wall and coping on top. Slight movement to coping likely to be from direct damage from the stem of the tree. Old pruning wound on north east side at 900mm, canopy has been reduced in past and allowed to grow again.300m from boundary wall6.6m from house3.9m from corner of house | 3 |
Appendix II – Photos
AEL-18139-PIC1 – Showing location of T.1
AEL-18139-PIC2 – Showing T.1 close to boundary
AEL-18139-PIC3 – Showing tree within planting area
AEL-18139-PIC4 – Showing google image of property with 3rd party trees behind.
Appendix III – Tree Categorisation Table (BS5837:2012)
Appendix IV – Bibliography


Appendix V – About the author

Mr Reuben Hayes M.Arbor.A, MCMI

Qualifications

Higher National Diploma, Arboriculture (HND), July 2003 – Warwickshire College
CMI Management and Leadership (Level 5) – May 2015

Continued Professional Development

Professional Tree Inspection (PTI), July 2009 – Lantra Award
BS5837 – Trees in relation to Construction 2012 (refresher course) 2015
Mortgage report writing (refresher course) 2015

Membership of industry bodies

Professional Member of the Arboricultural Association - M.Arbor.A
Professional Member of Consulting Arborist Society (CAS)
Associate member of the Institute of Chartered Foresters
Chartered Management Institute – CMgr MCMI
Institute of Directors – (IoD)