



**Site:** 3 Somali Road, London, NW2 3RN  
**Client:** James Adler  
**Project:** 20\_5837\_05\_18



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<b>Document Title:</b>	Arboricultural Implications Assessment
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<b>Project Manager:</b>	Matt Harmsworth
<b>Project Title:</b>	3 Somali Road, London, NW2 3RN

### Revision History.

Date:	Version number:	Summary of changes:
5/6/2020	1.0	First Draft
5/6/2020	1.0	First Issue

### Distribution.

Approved by:	Signature	Date:	Version:
Matt Harmsworth	MWH	5/6/2020	1.0
James Adler	JA	5/6/2020	1.0

### Re-Survey Date.

Survey Type:	Lifecycle:	Re-survey Date:
BS5837: 2012	Planning Only	N/A

Report no: 20\_5837\_05\_18

Date: 5th June 2020

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## Arboricultural implications assessment to BS 5837 2012 of trees at: 3 Somali Road, London, NW2 3RN.

### 1. Scope

- 1.1 We have recently been instructed to undertake an appraisal of mature tree cover at 3 Somali Road, London, NW2 3RN.
- 1.2 The data was collected to the British Standard BS5837 'Trees in Relation to Design, Demolition and Construction - Recommendations' 2012.
- 1.3 The survey has been commissioned to offer guidance on the arboricultural constraints with a view to the future development of the site.
- 1.4 The trees were inspected on the 1st June 2020 following the guidance in the British Standard by Connor Harmsworth. The crowns and stems were inspected from the ground using the 'Visual Tree Assessment (VTA)' method; non invasive techniques were used at this stage. Although a sounding hammer was utilised to determine the presence of any decay.
- 1.5 The site was assessed and data was collected on four individual trees. Trees were grouped or designated woodlands as per the allowance in the British Standard when the area in question was uniform in terms of species, age or geography.

## Photographic Plates.



Photographic plate showing the surveyed site.





Photographic plate showing tree T1 centre shot.



Photographic plate showing the tree T2.





Photographic plate looking back toward the built foot print.



Photographic plate showing the surveyed site.





Photographic plate showing tree T4 that has been 'topped' to form a hedge.

## 2. Site Conditions & Site Surroundings

- 2.1 The site is situated in Camden in the Camden Council control area. The site is located on the western side of the town and has a suburban feel.
- 2.2 The site is home to a semi detached residential dwelling house with associated hard and soft landscaping and a small rear garden accessed via an alleyway which leads to the surveyed area.
- 2.3 The wider locality is predominantly residential housing. The site is accessed via a private alleyway to the north of the built footprint.
- 2.4 A desktop assessment has highlighted that site is not within a Conservation Area nor are there any TPO protected trees on or adjacent to the plot.
- 2.5 All desktop assessment data was cross checked and validated on the 5th June 2020 using the web portal provided by the local planning authority and cross checked with the DEFRA MAGIC database.

<https://www.camden.gov.uk/tree-preservation-orders?inheritRedirect=true>

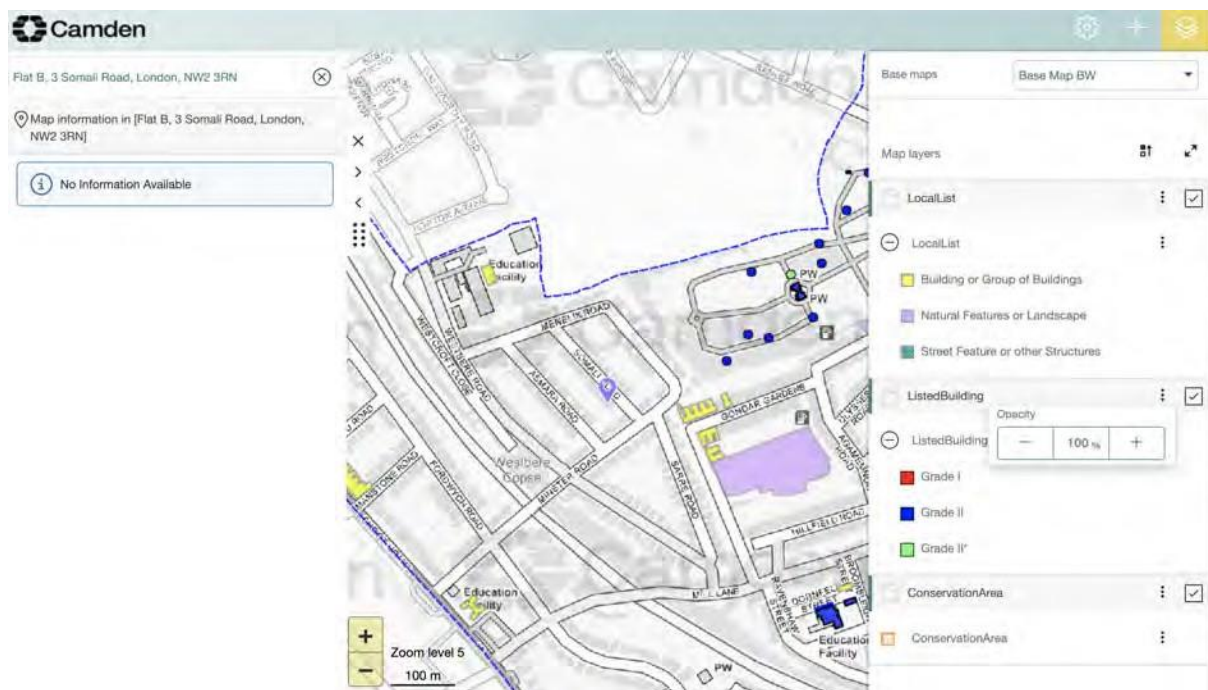


Image plate showing the desktop analysis results of the surveyed plot.

- 2.6 Works to protected trees require consent from the local planning authority. In the case of TPO's an application must be made. In the case of conservation areas a notification must be made. TPO applications take up to eight weeks, conservation area notifications take six weeks.



- 2.7 Certain exemptions apply; for example the removal of deadwood. In the case of dangerous trees 5-days written notice should be given to the local authority (in the cases of immediate danger the work should proceed, but the local authority contacted as soon as possible afterwards) with the works evidenced by photographs and video where possible.
- 2.8 It should be noted that planning consent overrides protected trees, where the works or removal are necessary for development to proceed and have been highlighted in the tree survey documents.
- 2.9 Bats. Under current legislation it is an offense to 'intentionally or recklessly disturb a bat' or 'damage, destroy or block access to the resting place of any bat'. For further details consultation must be made with the Statutory Nature Conservancy Organisation. Where relevant any current ecological surveys for the site will take precedence in this matter.
- 2.10 Birds. It is an offense to kill, injure or take any wild bird; or take, damage or destroy the nest of any wild bird while it is in use or being built. Therefore work likely to disturb nesting birds must be avoided from late March to August.

### 3. The Tree Population

#### 3.1 BS5837: 2012 Tree Categorisation:

BS5837: 2012 sets out the methodology for surveying trees on potential development sites in order to identify them within a prioritised system of retention categories, as summarised below and given in full within the BS5837: 2012 Cascade Chart for Tree Retention.

**A Category Trees** of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years.

**B Category Trees** of moderate quality and value in such a condition as to make a significant contribution for a minimum of 20 years.

**C Category Trees** of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 meters above ground level.

**U Category Trees** in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.

#### 3.2 Additionally, BS5837: 2012 provides subcategories 1-3 within the category system outlined above which indicate the area(s) in which a tree or group retention value lies. An explanation of these values is given within the BS5837: 2012 Cascade Chart for Tree Retention.

1 - Retention values that are mainly arboricultural

2 - Retention values that are mainly landscape.

3 - Retention values that are mainly cultural, including conservation.

#### 3.3 In line with BS5837: 2012, A and B category trees should be considered as a constraint on site and provide a substantial contribution to the site. As a result, A and B category trees should be retained and incorporated into the scheme where possible.

#### 3.4 Generally C and U category trees are considered to be of low quality or are young specimens that can be readily replaced and therefore should not be a constraint in terms of future development.

#### 3.5 However, it is generally considered desirable to retain trees wherever reasonably possible to ensure continuity of tree cover and to provide a mature landscape to the development.

#### 3.6 Tree cover at the site is limited to garden ornamentals.



- 3.7 The survey contains details of four individual trees, no tree groups and no woodland blocks. The comments including species, age, condition and the BS5837:2012 retention category for each individual tree and group of trees are provided in detail in the Tree Schedule (data tables). The full data collection methodology is appended behind the data tables.
- 3.8 The location of each individual tree and their associated constraints are illustrated on the appended Tree Constraints Plan.
- 3.9 Trees on site generally contribute to secluded feel of the rear garden but are outgrown ornamentals of low arboricultural and amenity value. They provide useful screening from neighbouring properties only.

## 4. Trees & Construction - General Issues

- 4.1 This report has been prepared to inform the design layout of potential development and should be submitted with a planning application. When and if full plans become available this report should be updated to include a full arboricultural implications assessment (AIA).
- 4.2 Due to the changing nature of trees and other site circumstances this report and recommendations are limited to a one year period. Similarly, this report could be invalidated if any alterations are made to the site that could change the conditions as seen at the time of inspection.
- 4.3 Under certain circumstances, roots can affect foundations, drains and other underground services. These issues have not been addressed by this report. Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer occasional damage under only average weather conditions. A lack of recommended work does not imply that a tree will never suffer damage.
- 4.4 Typically, about 80% of roots will be found in the upper 500mm of soil and often extending well beyond the canopy spread. The threat to the trees by development comes from:
  - (a) root severance or fracture
  - (b) compaction of the soil, preventing gaseous exchange and moisture percolation
  - (c) possible change to moisture gradients due to surface water run-off or interception
  - (d) physical damage to low branches and trunk.
  - (e) damage from chemical run-off from construction activities

The consequences for the tree of such damage are:

- (i) instability, if severe enough
- (ii) entry points for pathogenic fungi at wounds / fractures
- (iii) loss of vitality due to reduced oxygen, mineral and moisture take-up; all leading to
- (iv) root death, and
- (iv) a general decline or possible death of the tree.



## 5. Tree Constraints

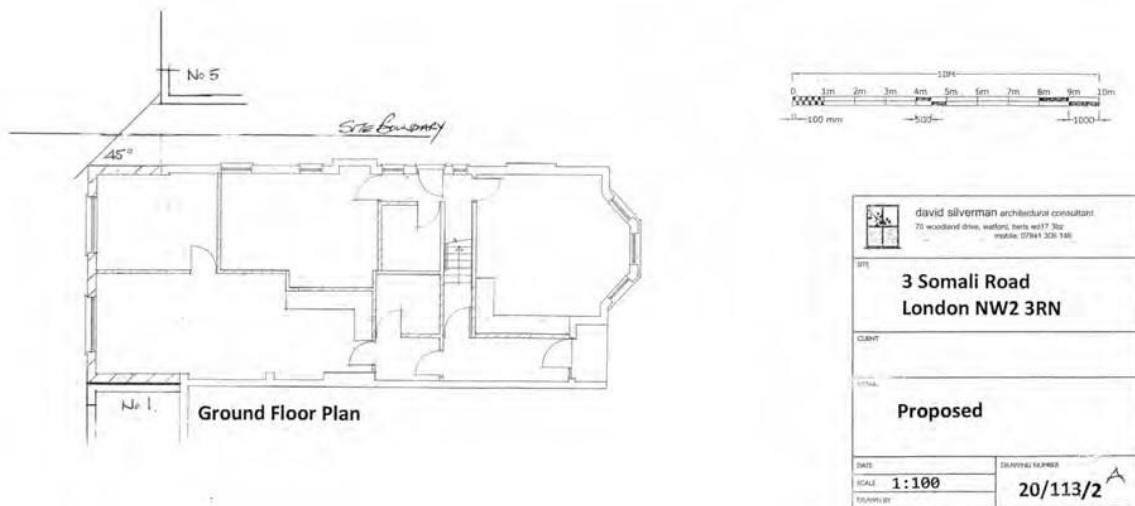
- 5.1 Constraints imposed by trees during development, both above and below ground need to be considered within the site layout design. Protection is afforded to the tree by defining a Root Protection Area (RPA) within which no development activity should take place. The size of the RPA is defined in the British Standard and relates to trunk diameter. The RPA is normally the minimum position for placement of tree protective fencing. The data tables hold a column figure as an offset in meters from the stem that the root protection area extends to.
- 5.2 Nominally the RPA is represented by a circle around the tree. The area of the RPA may however, subject to the consideration of the arboricultural consultant, and be altered to a polygon in order to reflect the site conditions and requirements. For example, existing hard surfaces and foundations are likely to restrict or limit root growth while good quality soil may promote and extend root growth.
- 5.4 Root Protection Areas primarily relate to below ground constraints (root protection). Other constraints that must be considered include:
- The current as well as ultimate height and spread of a tree
  - Large trees close to a building, particularly a dwelling, can cause apprehension to owners/occupiers that result in pressure for tree removal or inappropriate pruning. Buildings should be sited allowing for the species height, spread and overall habit
  - Species characteristics; i.e. density of foliage, fruit-fall, susceptibility to honeydew drip, or branch drop. Trees are shedding organisms. The leaves of some species may cause problems with blocking of gullies and gutters. Fruit may cause slippery patches and honeydew drop can affect surfaces (particularly cars).  
If conflicts may arise, detailed design may address such issues, such as non-slip paths, use of car-ports, provision of leaf guards or grilles etc.
  - The potential impact on direct and diffuse light of a particular location of land; shading of buildings by trees can be a problem, especially where rooms require natural light, in addition open spaces such as gardens and sitting areas should be designed to meet requirements for direct sunlight (for at least part of the day)
  - Infrastructure requirements in relation to trees e.g. easements for underground or above ground apparatus and visibility splays
  - Space for the provision of new planting or landscaping
  - The proposed end use of space within Root Protection Areas
  - The requirement to protect overhanging canopies of trees that overhang or extend beyond Root Protection Areas

## 6. Structures within the RPA of trees

- 6.1 In the development layout design structures should be positioned outside of RPAs as far as practicable. In some exceptional instances there may be an overriding justification for construction within the RPA. In such cases technical solutions may be available to minimise to an acceptable level of disturbance to the tree or trees. Where such technical solutions may be relied upon full details will need to be included within a method statement. Advice must be sought from a suitably qualified arboriculturalist to develop a solution.
- 6.2 In some cases it may be unavoidable to place permanent hard surfacing within an RPA (for example the placement of an access driveway or parking area). In such cases the following should apply:
- No excavation of the soil should take place, other than scraping of the turf/vegetation layer
  - Any design must avoid compaction, allowing an even distribution of weight
  - New hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA  
If the proposed surface is likely to require de-icing salt then run-off should be directed away from the RPA
  - Permeable hard surfacing can result in soil moisture saturation for long periods (resulting in root death). Where there is a risk of water-logging a design should incorporate land drainage
- 6.3 Appropriate sub-base options for new hard surfacing include three-dimensional cellular confinement systems (cell-web). Piles, pads or elevated beams can support bridges over RPAs. In all cases full specifications and methodology must be included within a supporting method statement.

## 7. The Proposals

- 7.1 Provided to us for comment are plans appended and titled as 3 Somali and floor extension PDF.
- 7.2 Whilst we acknowledge that an AIA should inform layout, in many cases domestic tree surveys for construction projects do not get commissioned until either the application has been submitted and refused OR pre-application advice highlights the requirement OR the application has been rejected on arboricultural grounds.
- 7.3 In the case of 3 Somali Road these plans have been drawn to show the construction of a rear extension that matches that of the adjoining properties in terms of extent to the south and matches that of no.1 Somali Road.
- 7.4 As drawn the plan would impact the radial RPA of trees T1 and T4.
- 7.5 Both trees T1 and T5 are ornamentally planted laurel and we have no view as to their removal to facilitate the project. In addition T2 should be removed on sound arboricultural grounds and we recommend T3 is removed and replaced with a more suitable deciduous tree of columnar form.



## 8. Limitations

- 8.1 ROAVR Environmental has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.
- 8.2 This Report may not be relied upon by any other party without the prior and express written agreement of ROAVR Environmental. The assessments made assume that the land use will continue for their current purpose without significant change. ROAVR Environmental has not independently verified information obtained from third parties.
- 8.3 This report, video walkthrough, data tables and raw data remain the copyright of ROAVR until such time as any monies owed are settled in full and the report may be withdrawn at any time.

Should you require any further information, please do not hesitate to contact us at any time.

Mr. M Harmsworth tech.arbor.a, DipRS  
Consultant Arborist

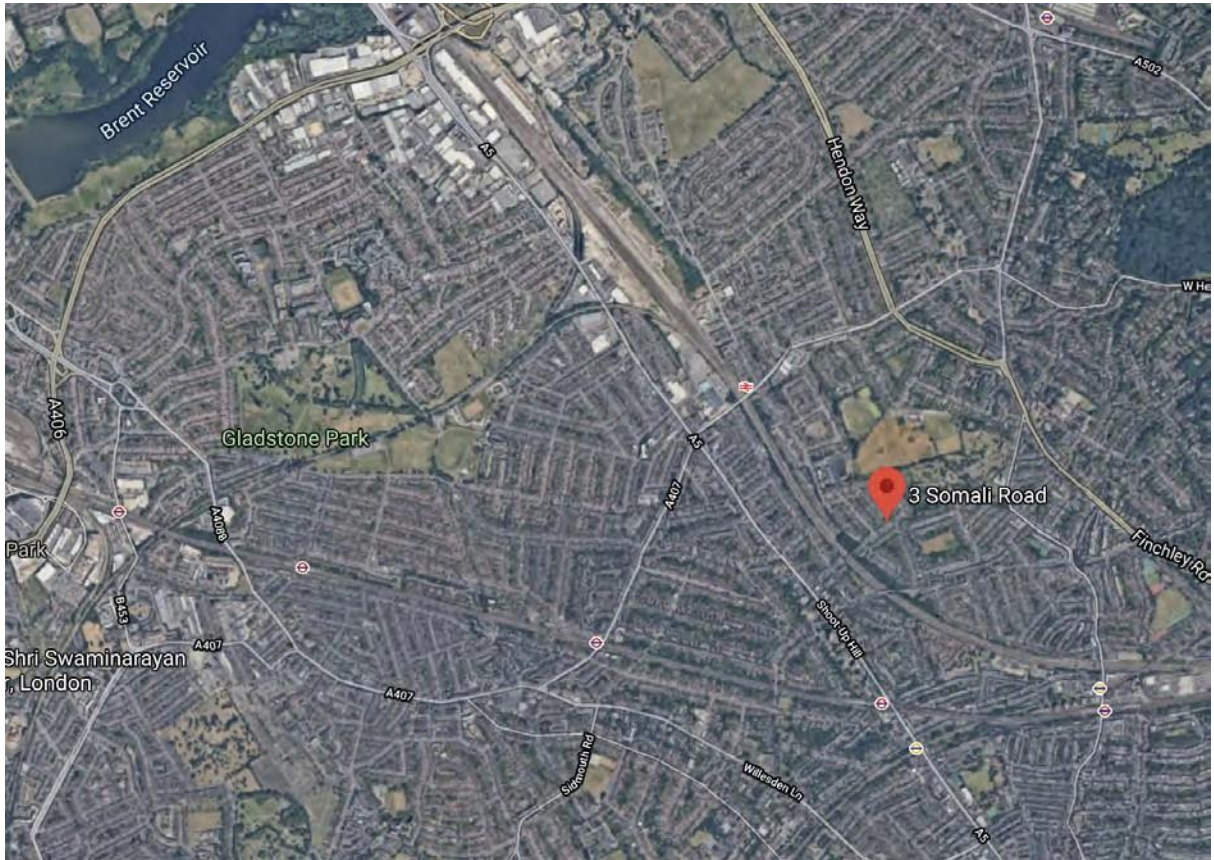
# Matt Harmsworth

Prepared by: Matthew Harmsworth.  
Checked by: Jill Taylor





## Appendix 1 – Site Location



## Appendix 2 – Arboricultural Data Tables

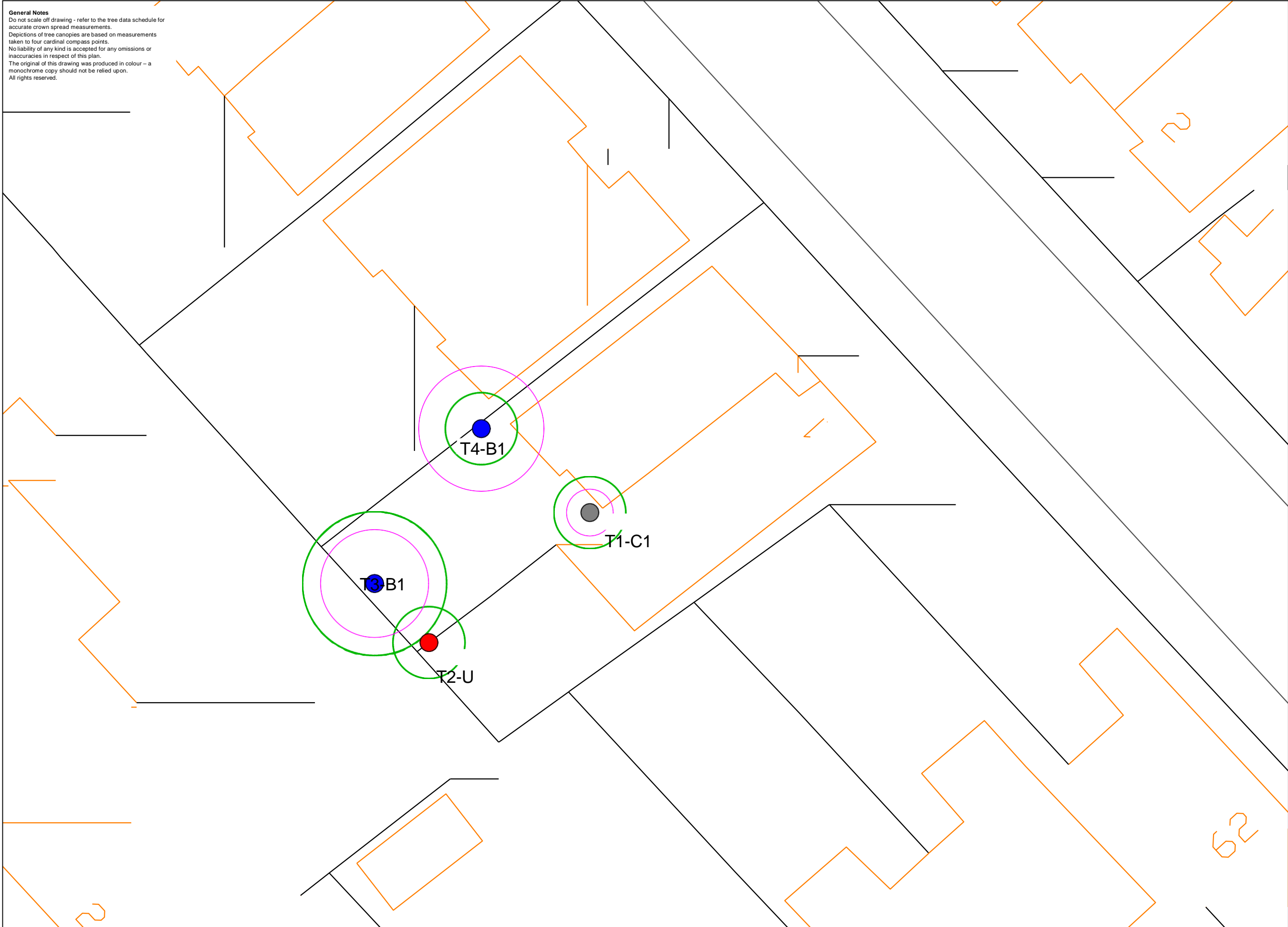
Tree Number	Species	Age Class	DBH	Height (crown height)	N	E	S	W	Condition	Life Expectancy	Physical Description	Comments	Managment Recommendations	RPA offset from stem.	Category Rating
T1	<i>Prunus laurocerasus</i> (Laurel)	EM	108	5(2)	2	2	2	2	Fair	20+	Poor shape & form. Leaning West. Ivy on tree; multi-stemmed at ground level	Garden ornamental	Limited long term prospects	1.3	C1
T2	<i>Prunus laurocerasus</i> (Laurel)	EM	100	6(1)	2	2	2	2	Poor	<10	Dead. Poor shape & form. Broken branches in crown.	Rotten and failed unions	Fell	1.2	U
T3	X <i>Cupressocyparis leylandii</i> (Leyland Cypress)	EM	250	8(2)	4	4	4	4	Fair	20+	Located in dry compacted area adjacent to fence line; outgrown garden ornamental; topped; limited long term prospects	Over bearing for a small garden;	Consider removal	3	B1
T4	<i>Prunus laurocerasus</i> (Laurel)	EM	290	5(1)	2	2	2	2	Fair	20+	Out grown hedging; dominates boundary line;	Over bearing on boundary line	Consider reducing back to fence height and maintain as hedging	3.48	B1

## Arboricultural Data Tables Terms

<b>Tree Number</b>	Reference number (T1, T2 etc for trees / G1, G2 etc for tree groups / H1, H2 etc for hedgerows)
<b>Species</b>	Common name
<b>Height</b>	Height of tree to the nearest metre
<b>DBH</b>	Diameter of stem (mm) at breast height (1.5 metres above ground)
<b>RPA radius (m)</b>	The radial measurement of the Root Protection Area in metres indicating the minimum distance from the centre of the trees stem to the recommended position of the protective (Heras) fencing.
<b>RPA (m2)</b>	The Root Protection Area, measured in square metres. This measurement is directly proportional to and calculated from the trees DBH measurement as specified in section 4.6 of BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations.
<b>Crown Spread</b>	The maximum spread of the trees canopy measured from the stem in four directions (North, East, South, West)
<b>Age class</b>	<p>The estimated age class of the tree (relative to species)</p> <ul style="list-style-type: none"> <li>○ Y - Young</li> <li>○ SM - Semi-mature</li> <li>○ EM - Early-mature</li> <li>○ M - Mature</li> <li>○ LM - Late-mature</li> </ul>
<b>Comments</b>	A brief description of the tree which refers to tree form, condition, health and significant defects. Comments regarding environmental conditions affecting the tree (e.g. ground conditions) will also be included where relevant.
<b>Preliminary management recommendations</b>	Recommendations (made with respect to the development proposals if available) for removal, retention and/or remedial arboricultural works.
<b>Estimated remaining years</b>	Estimated safe, usable life expectancy
<b>Category grade</b>	<p>Tree categorisation based on section 4.5 of BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations. Four categories are used (A, B, C, U) with categories A, B &amp; C being split into three separate sub categories (1, 2 or 3):</p> <p><b>A</b> – Trees of high quality with an estimated remaining life expectancy of at least 40 years.  <b>B</b> – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.  <b>C</b> – Trees of low quality with an estimated remaining life expectancy of at least 10 years, or trees with a stem diameter below 150mm</p> <p><b>Subcategories:</b> 1: Mainly arboricultural &amp; aesthetic qualities  2: Mainly landscape qualities  3: Mainly cultural values, including conservation</p> <p><b>U</b> – Trees in such a condition that they cannot realistically be retained as living trees in the context of current land use for longer than 10 years</p>









**General Notes**  
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.  
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.  
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.  
 The original of this drawing was produced in colour - a monochrome copy should not be relied upon.  
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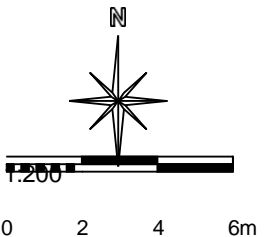


**Tree Constraints Plan showing existing layout with tree categories and root protection zones.**

BS5837:2012 Tree Categories

- 
**Category A**  
 Trees of high quality with an estimated remaining life expectancy of at least 40 years
- 
**Category B**  
 Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
- 
**Category C**  
 Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
- 
**Category U**  
 Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
- 
**BS 5837:2012 Root Protection Area**  
 Note: The RPA limits for some groups may be represented by a dashed/hatched category coloured line.
- 
**Tree**  
 Showing Canopy extents, category colour, tag number (with category) and optional indication arrow showing bearing of first significant branch.

Tree/Group/Hedge numbering: 1-4.



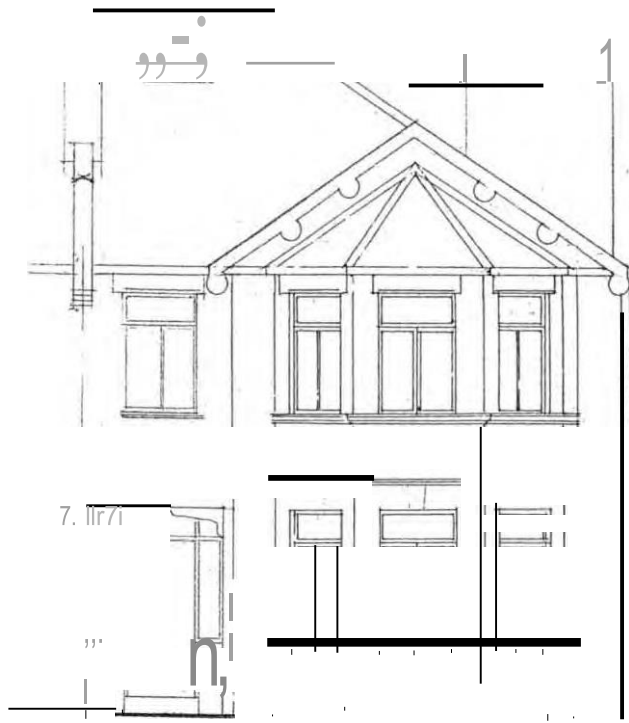
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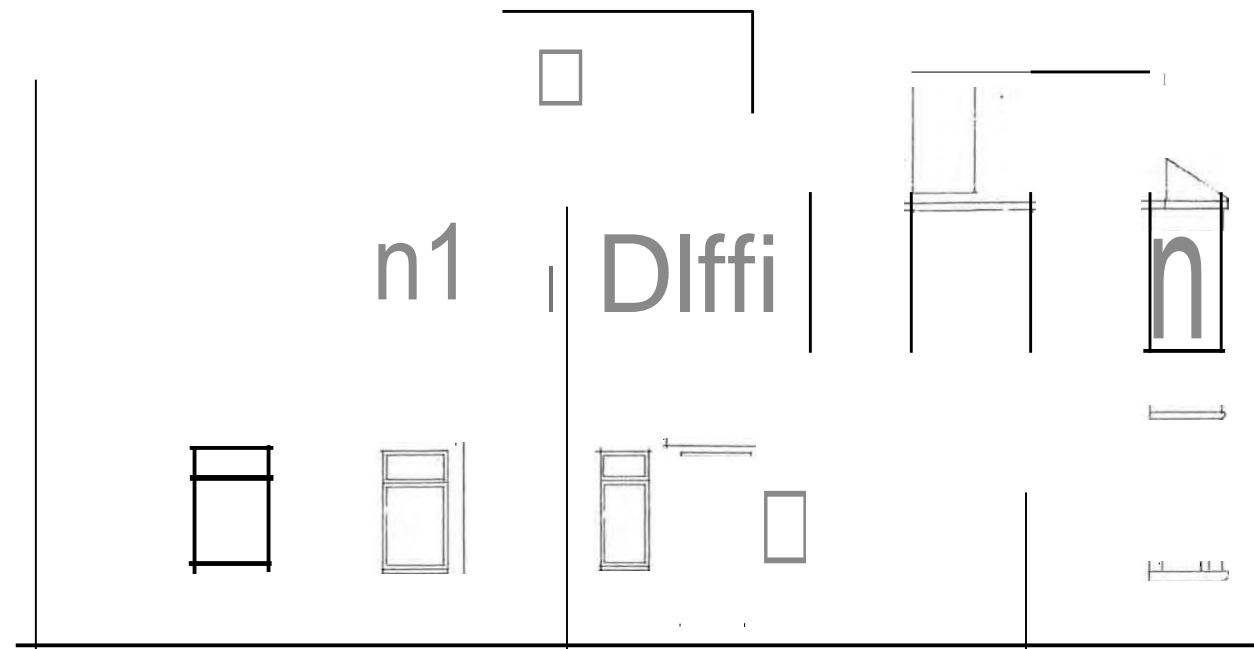
Project: **3 Somali Road**

Drawing Title: **Tree Constraints Plan**

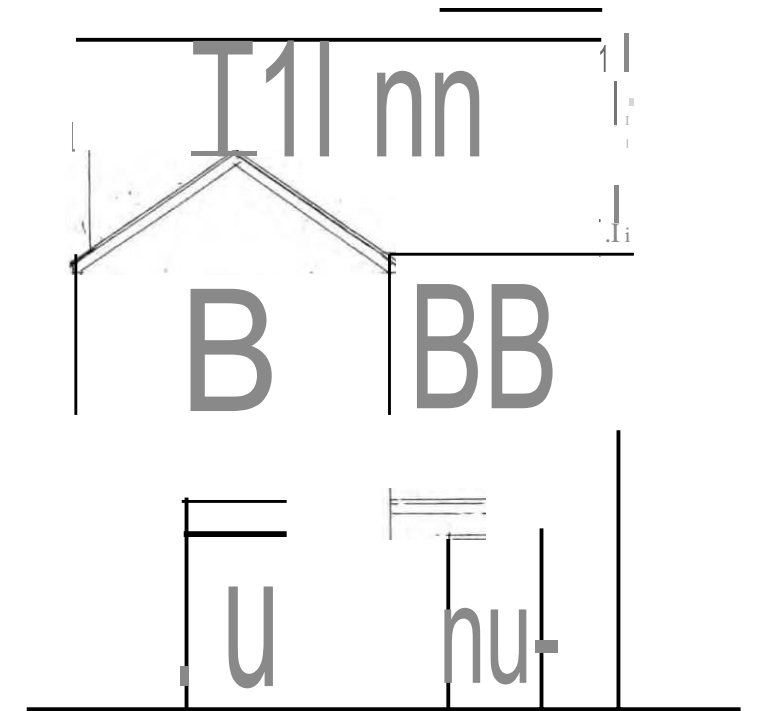
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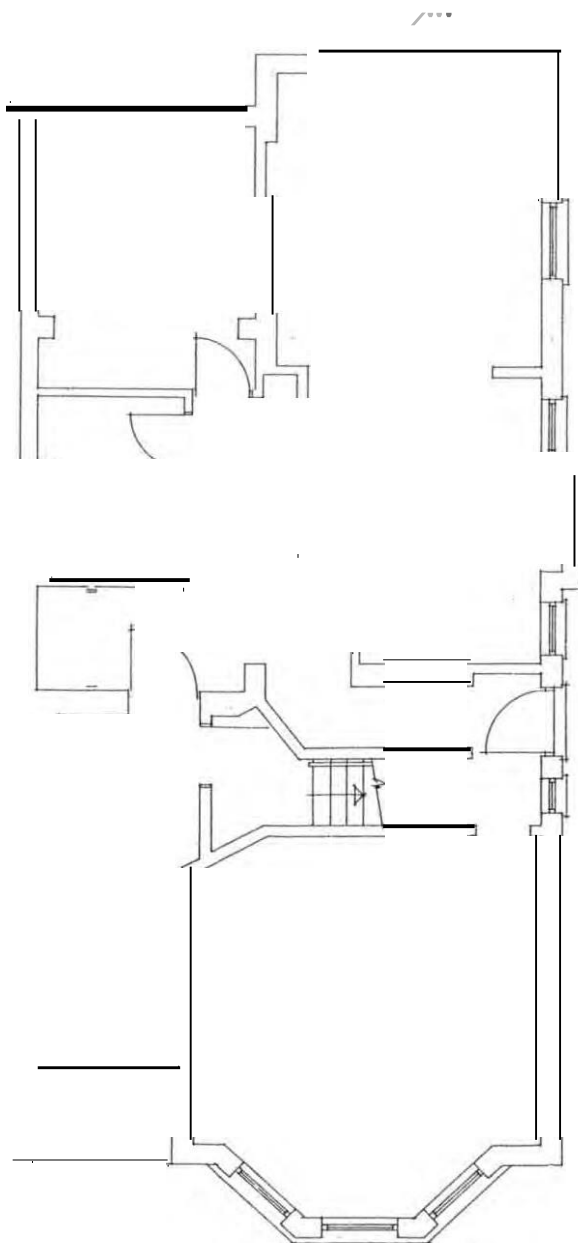
Front Elevation



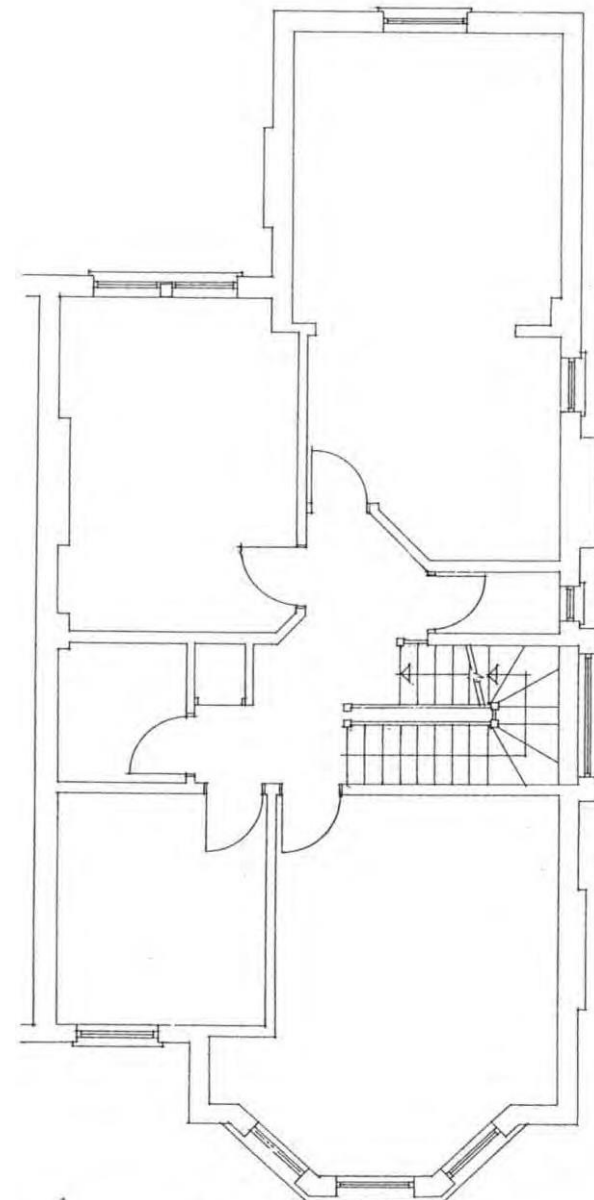
Side Elevation



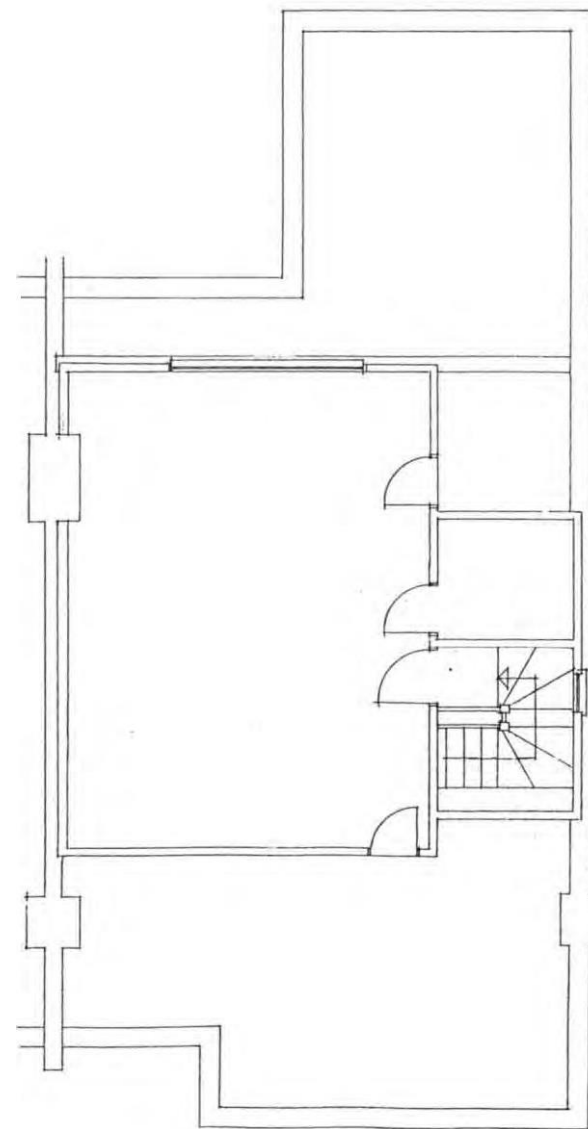
Rear Elevation



Ground Floor Plan




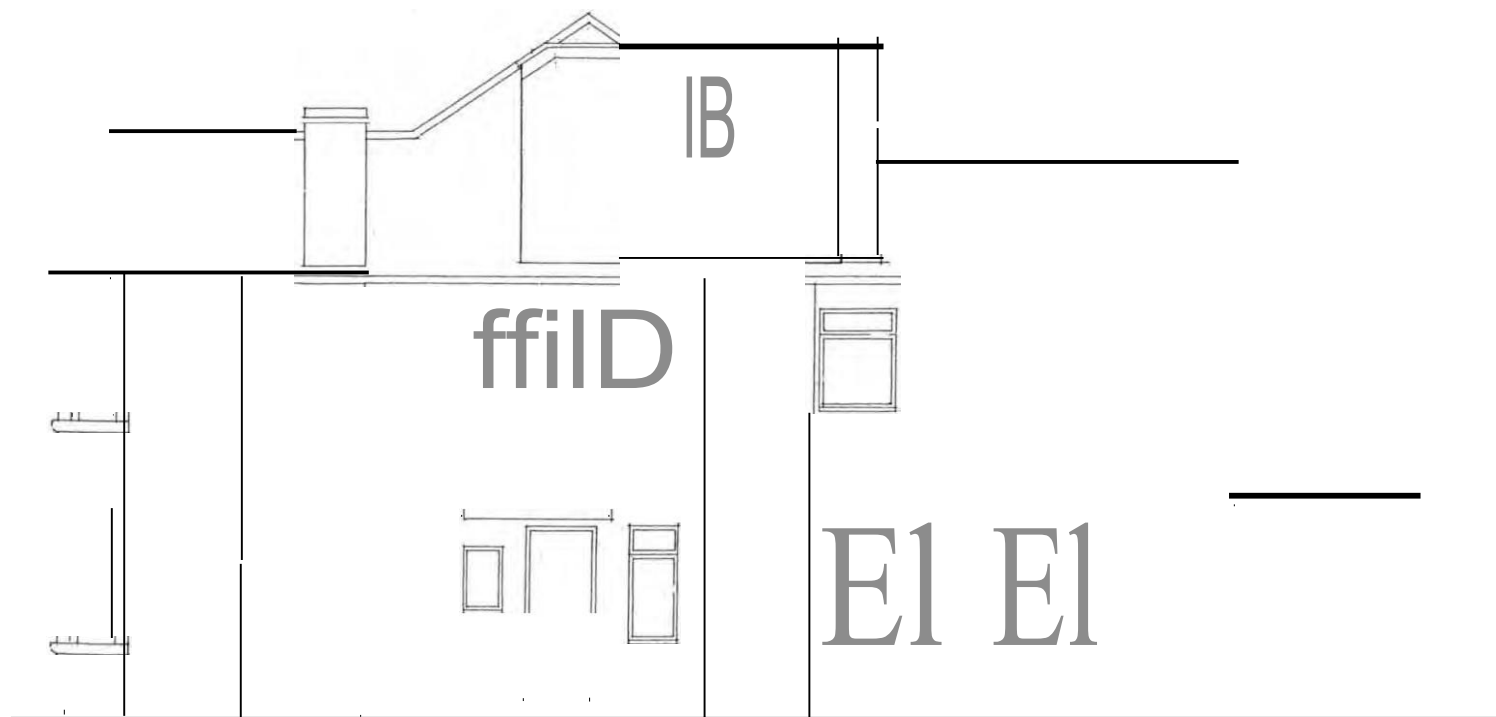
First Floor Plan



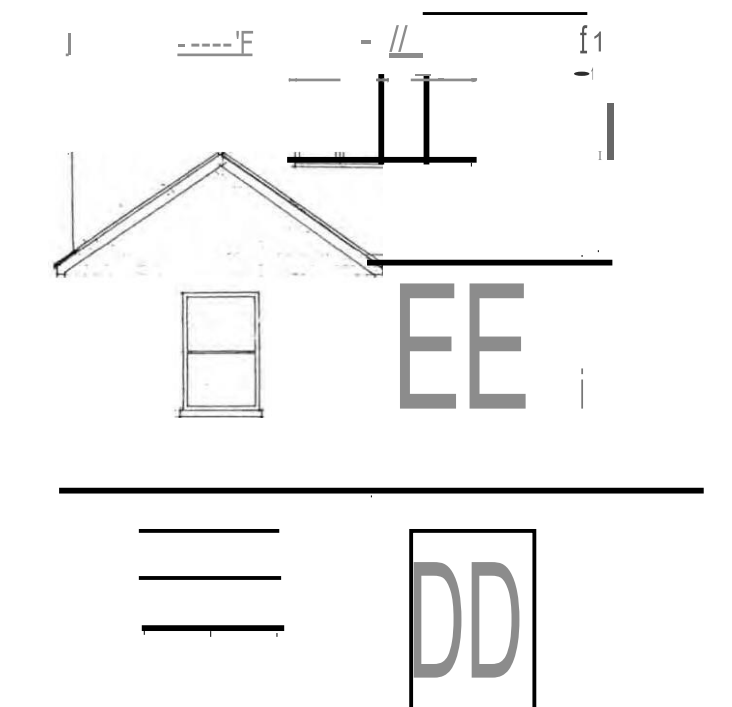
Loft Plan



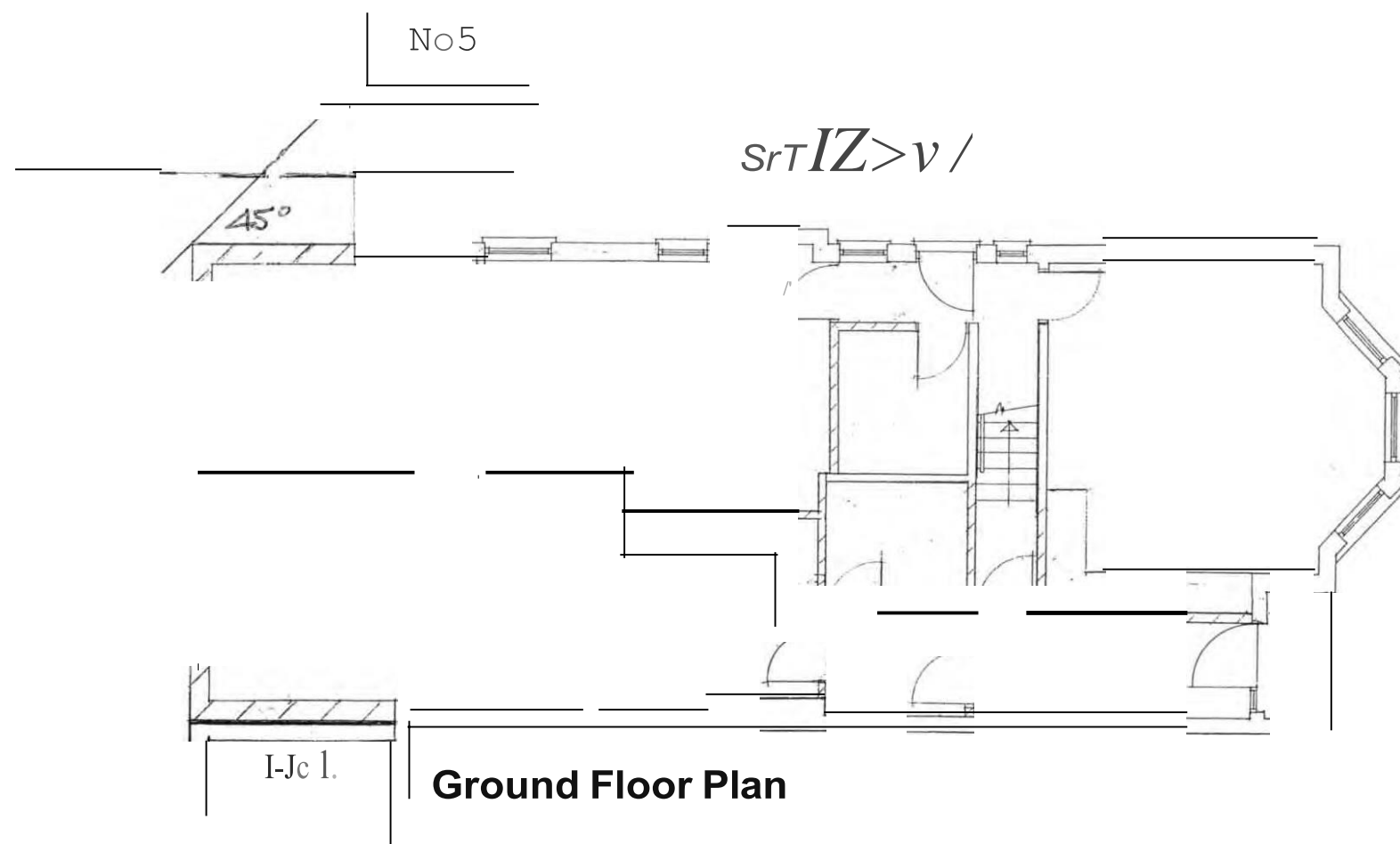
 david silverman architectural consultant 70 woodland drive, watford, herts wd17 3bz mobile: 07941 306 14 6	
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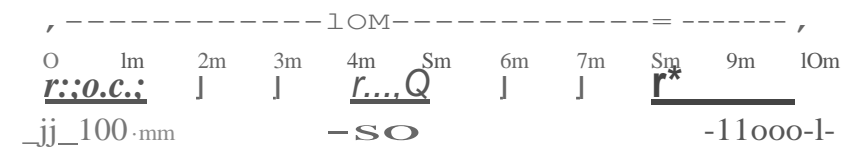
Side Elevation




Rear Elevation



Ground Floor Plan



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