

# SJ Stephens Associates

ARBORICULTURAL, LANDSCAPE & MANAGEMENT CONSULTANTS

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# Arboricultural Impact Assessment

- Tree Survey
- Tree Protection Plan
- Arboricultural Method Statement

## <u>At:-</u>

58a Reddington Road London NW3 7RS

On behalf of:-Gwen McDougal 58a Reddington Road London NW3 7RS

Prepared by:

Simon Stephens MA Oxon, Dip Arb(RFS), MArborA, C Env. MICFor Email: <u>simon@sjstephens.co.uk</u>

Survey Date: Report Date: Project no: 18<sup>th</sup> January 2019 3<sup>rd</sup> April 2019 1263

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- A Tree Protection Plan: drawing no: 1263-01
- B Tree Schedule
- C BS 5837:2012 Trees in relation to design, demolition and construction, Table 1
- D Tree Protection Fencing Detail
- E Proposed Site Plan

#### 1 BACKGROUND

- **1.1** This Arboricultural Impact Assessment relates to the proposed renovation of 58a Reddington Road and provides recommendations for the management of trees on the site. It has been instructed by Gwen McDougal.
- **1.2** The tree survey was undertaken, and this report has been prepared, by Simon Stephens MA Oxon, Dip Arb (RFS), MArborA, C Env, MICFor a Registered Consultant with the Arboricultural Association, with over 20 years relevant experience.
- **1.3** This survey and report have been prepared in accordance with recommendations provided in BS 5837:2012, Trees in relation to design, demolition and construction Recommendations.
- **1.4** Documentation supplied:
  - Topographical Survey
  - TAG Architects, Proposed Site Plans: drawing nos 157-P2

#### 2 SURVEY DETAILS AND SCOPE

- **2.1** The site survey included trees and shrubs, within influencing distance of the proposed development, with a stem diameter over 75mm at 1.5m height, located within the area shown on the Tree Protection Plan, included as Appendix A.
- **2.2** Tree inspection took place from ground level with the use of binoculars, sounding hammer and metal probe using the Visual Tree Assessment method (Mattheck & Breloer 1994). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could increase the risk of structural failure were noted.
- **2.3** Tree details have been added to the plan received, which is included as Appendix A. Tree locations have been taken from the topographical survey provided. Where not included on the topographical survey, they have been determined by measuring distances from features shown on the plan, using a laser measuring device. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix B:
  - Number: an identity number for each tree, prefixed with a "T", which cross references locations shown on the plan with the schedule in Appendix B. Where a number of trees, normally of the same species, are located close together and are similar in character and requirements, they have been treated as a Group under a single Number, prefixed with a "G".
  - **Species**: common name.
  - **Tree height**: approximate height in metres.
  - **Stem diameter**: diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, stem diameters are recorded in the condition column.
  - **Branch spread**: approximate spread in metres to N,S,E and W of the trunk. The approximate branch spread is drawn on the plan.
  - **Canopy clearance**: approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
  - **Age class**: Young, Semi-mature, Early mature, Mature, Over-mature, Veteran.
  - **Condition**: features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
  - **Management Recommendations**: recommendations to ensure the health and safety of the tree, within the future development.
  - Estimated Remaining Contribution: <10 years, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.
  - **Category grading**: tree classification taken from BS 5837:2012, Trees in relation to design, demolition and construction (see Appendix C for details), as follows:
    - Category U: Unsuitable for retention, trees with less than 10 years life expectancy, normally recommended for removal (Red)
    - Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation. (Green)

- Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained. (Blue)
- Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout. (Blue)
- Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting. (Grey)

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

- Subcategory 1: mainly arboricultural values.
- Subcategory 2: mainly landscape values.
- Subcategory 3: mainly cultural values, including conservation.
- Trees have been classified irrespective of the possible proximity to future construction. The BS 5837 category is colour coded, as indicated above, on the plan included as Appendix A.
- **Protection Distance:** the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.
- **Root Protection Area (RPA):** the area in m<sup>2</sup>, as recommended in BS 5837, to provide sufficient rooting area to ensure tree survival and which, in most situations, should be fenced off to prevent root damage from construction activities.

#### **3 SURVEY LIMITATIONS**

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

#### 4 LEGAL PROTECTION OF TREES

4.1.1 Since the site is covered by a Conservation Area, six weeks notification must be given to the Local Planning Authority of any intended tree surgery works, to allow them the option of placing a Tree Preservation Order.

#### 5 ARBORICULTURAL METHOD STATEMENT

#### 5.1 Site Overview

- 5.1.1 The proposal is for the renovation of 58a Reddington Road, including construction of a basement. Proposed site plans are included as Appendix E and the extent of the new basement is shown on the survey drawing, along with tree details, to create the Tree Protection Plan attached as Appendix A.
- 5.1.2 There is a group of trees at the bottom of the garden including a veteran oak, an early mature beech (T8) and a mature Scots pine (T9). All are providing high amenity value.
- 5.1.3 All construction access will be from Reddington Road, so there is no reason that any of these trees should be affected by the construction works.
- 5.1.4 There is also a willow (T7) closer to the house, however this is of little arboricultural significance.

#### 5.2 Tree Work

5.2.1 The only tree work is proposed is the removal of a low quality willow (T7).

#### 5.3 Root Protection Areas

5.3.1 Root Protection Areas are shown for all trees in the tree schedule attached as Appendix B. They are also shown for all retained trees, as circular areas centred on the trunk, on the Tree Protection Plan attached as Appendix A. This shows the distance that construction must normally be kept back from a tree, to provide the Root Protection Area recommended in BS 5837.

#### 5.4 Tree Protection Fencing

- 5.4.1 Tree Protection Fencing must be erected where shown on the Tree Protection Plan, attached as Appendix A. This will provide full protection of the Root Protection Areas of all trees.
- 5.4.2 Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed, with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix D.
- 5.4.3 After erection of Tree Protection Fencing and installation of ground protection, 2 days notice must be given to the Local Planning Authority before demolition or construction, including any ground work, starts on site. Tree Protection Fencing must be maintained and retained for the duration of the works, or until such time as agreed in writing with the Local Planning Authority.
- 5.4.4 Notices must be fixed to the Tree Protection Fencing stating:- "Tree Protection Fencing No construction activity to take place within this area".

#### 5.5 General measures

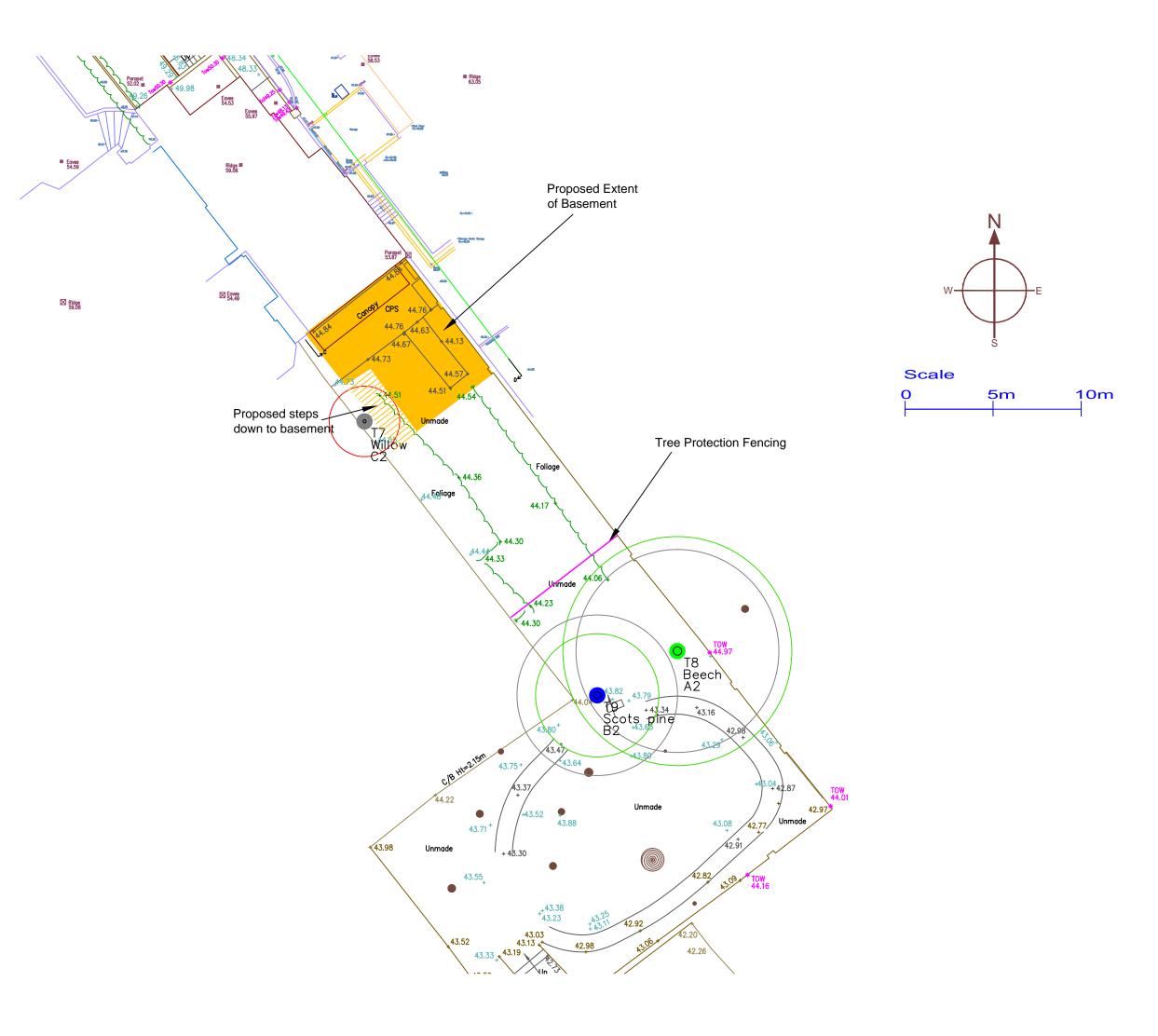
- 5.5.1 No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.
- 5.5.2 No mixing of cement, or concrete, or storage of fuel must take place within 10m of retained trees, nor in any position where the slope of the ground could lead to contamination of the Root Protection Area.
- 5.5.3 Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches or trunk.
- 5.5.4 Landscape works carried out within Root Protection Areas must be undertaken with great care so as not to damage shallow roots. Tractor mounted rotovators or other heavy mechanical cultivation must not be used within the Root Protection Areas.
- 5.5.5 A copy of the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

### 6 ARBORICULTURAL IMPACT ASSESSMENT

- 6.1 The only tree work proposed is the removal of a low quality self-seeded willow (T7).
- **6.2** Providing Tree Protection Fencing is erected and maintained where shown on the Tree Protection Plan, there will be no significant arboricultural impact of these proposals.

## **7** REFERENCES

- BS5837:2012 Trees in relation to design, demolition and construction Recommendations.
- NJUG 10: Guidelines for the planning, installation and maintenance of Utility Services in proximity to trees. (Published by the National Joint Utilities Group).
- The Body Language of Trees: A handbook for Failure Analysis. Mattheck & Breloer.



APPENDIX A

Кеу	/
	Category U
	Category A
	Category B
	Category C
$\bigcirc$	Crown spread: retained trees
$\bigcirc$	Trees For Removal
$\bigcirc$	Root Protection Area
—	Tree Protection Fence

### SJ Stephens Associates

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DRAWING TITLE TREE PROTECTION PLAN

DRAWING	NUMBER
1263-	-01

REVISIONS

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Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Bran	ich Si	pread	d (m)	Canopy Cleara -nce (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect -ion Distnce (m)	Root Protect. Area (m2)
				Ν	S	Е	W								
Τ7	Willow	3	180	2	2	2	2	0.5	Early mature	Low quality.	Remove to facilitate development	10-20	C2	2.2	15
Т8	Beech	16.5	est 480	6.5	6.5	6.5	6.5	1.2	Early mature	High amenity value		>40	A2	5.8	104
Т9	Scots pine	17	est 380	3.5	3.5	3.5	3.5	8	Mature	High amenity value		20-40	B2	4.6	65

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

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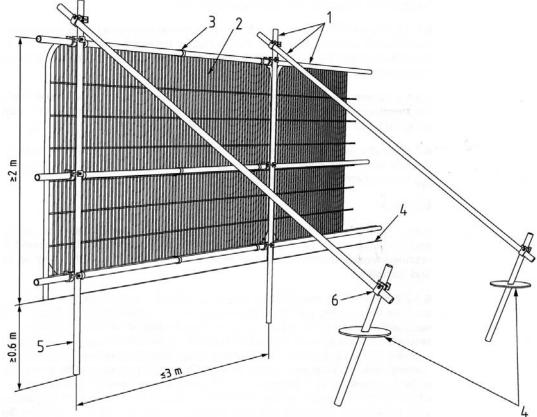
Category and definition	Criteria (including subcategories where a	ppropriate)		Identificatior on plan
Trees unsuitable for retention	(see Note)			
Category U		le, structural defect, such that their early loss		See Table 2
Those in such a condition that they cannot realistically	reason, the loss of companion shelte			
be retained as living trees in	<ul> <li>Trees that are dead or are showing s</li> </ul>	igns of significant, immediate, and irreversible	e overall decline	
the context of the current land use for longer than 10 years	<ul> <li>Trees infected with pathogens of sig quality trees suppressing adjacent trees</li> </ul>	nificance to the health and/or safety of other ees of better quality	trees nearby, or very low	
to years	NOTE Category U trees can have existing see 4.5.7.	g or potential conservation value which it mig	ght be desirable to preserve;	
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	÷
Trees to be considered for rete	ention			
Category A	Trees that are particularly good	Trees, groups or woodlands of particular	Trees, groups or woodlands	See Table 2
Trees of high quality with an estimated remaining life expectancy of at least 40 years	examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	visual importance as arboricultural and/or landscape features	of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B	Trees that might be included in	Trees present in numbers, usually growing	Trees with material	See Table 2
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	conservation or other cultural value	
Category C	Unremarkable trees of very limited	Trees present in groups or woodlands, but	Trees with no material conservation or other	See Table 2
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	merit or such impaired condition that they do not qualify in higher categories	without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	cultural value	(61)

## British Standard BS 5837:2012 Default specification for protective barrier

#### Figure 2

Key

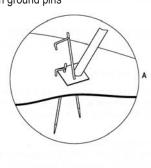
- 1 Standard scaffold poles
- 2 Heavy gauge 2 m galvanised tube and welded mesh infill panels
- Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps



#### Examples of above-ground stabilising systems

#### Figure 3a

Stabiliser strut with base plate secured with ground pins



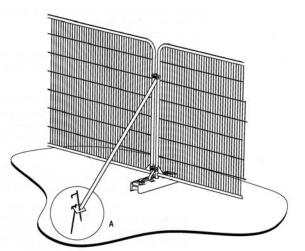
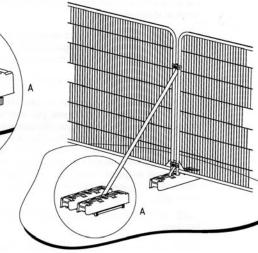
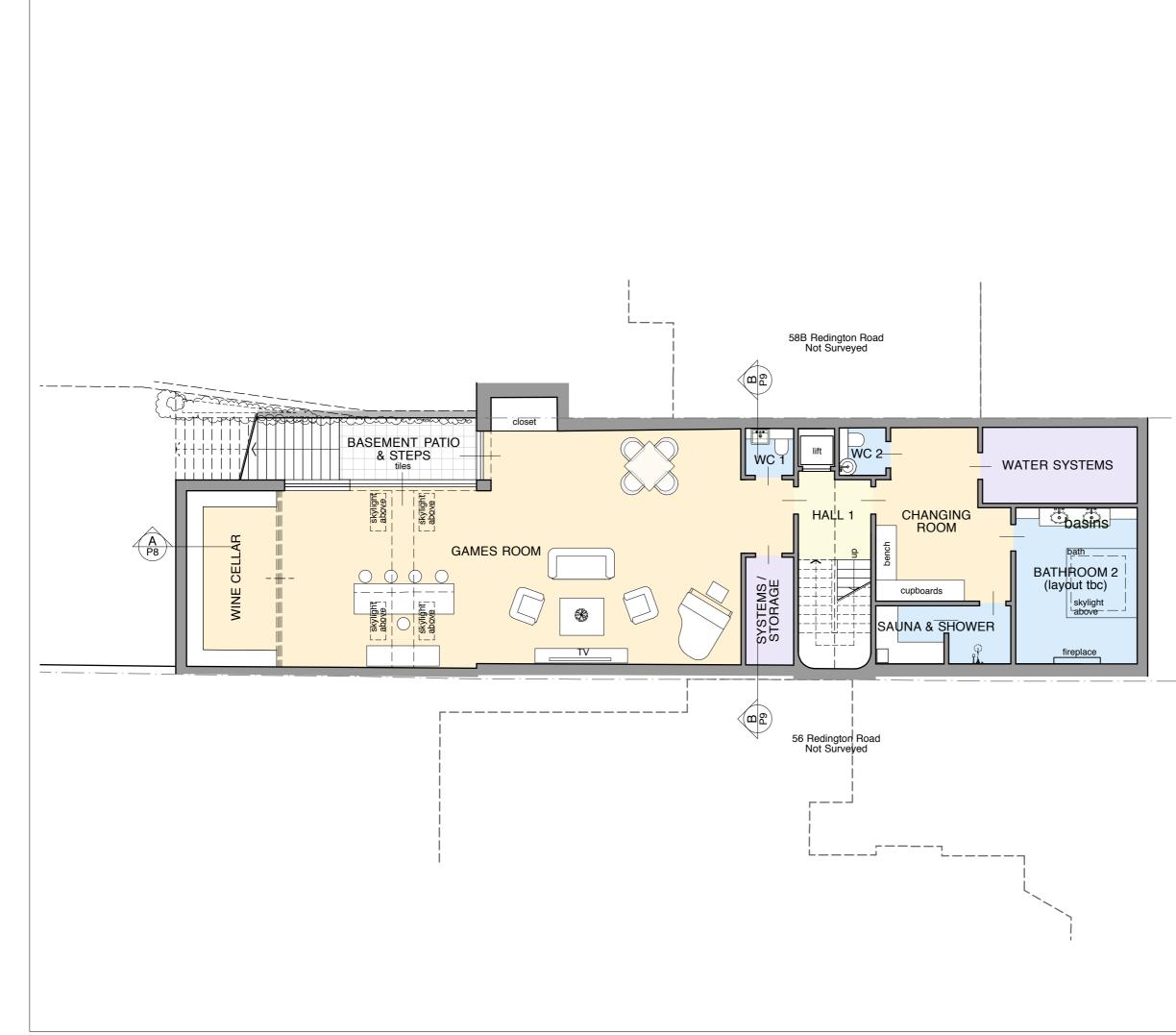


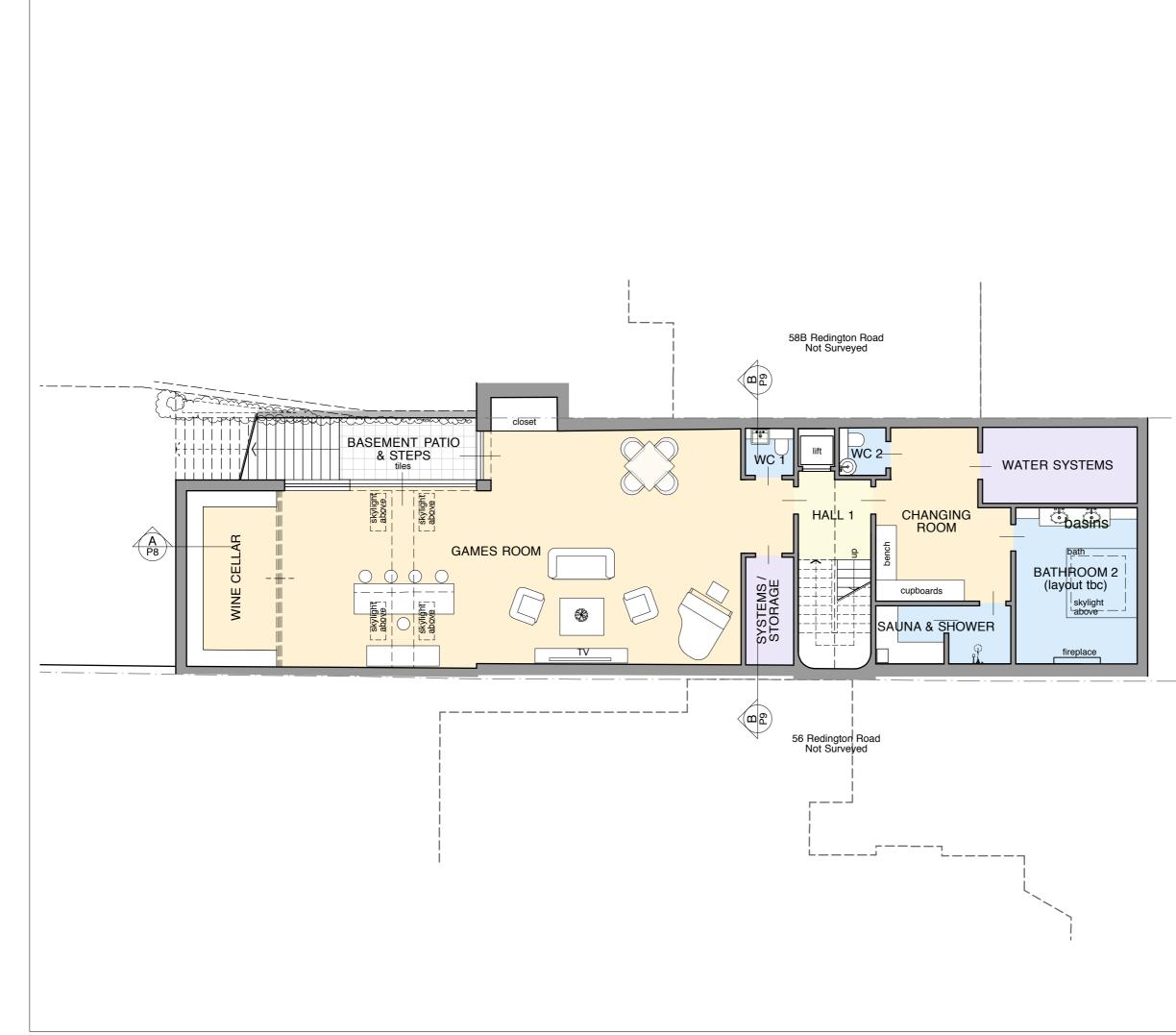
Figure 3b Stabiliser strut mounted on block tray



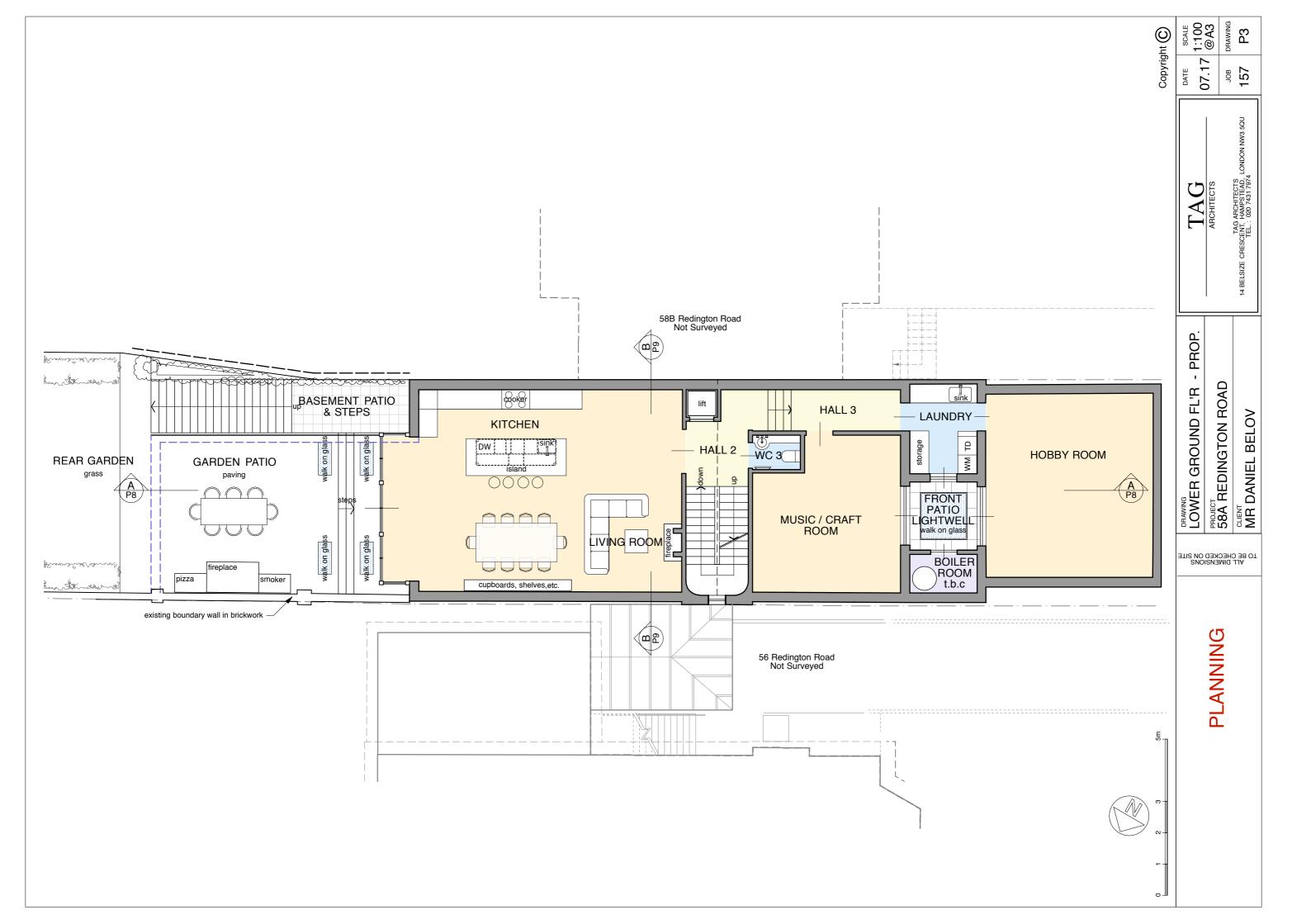
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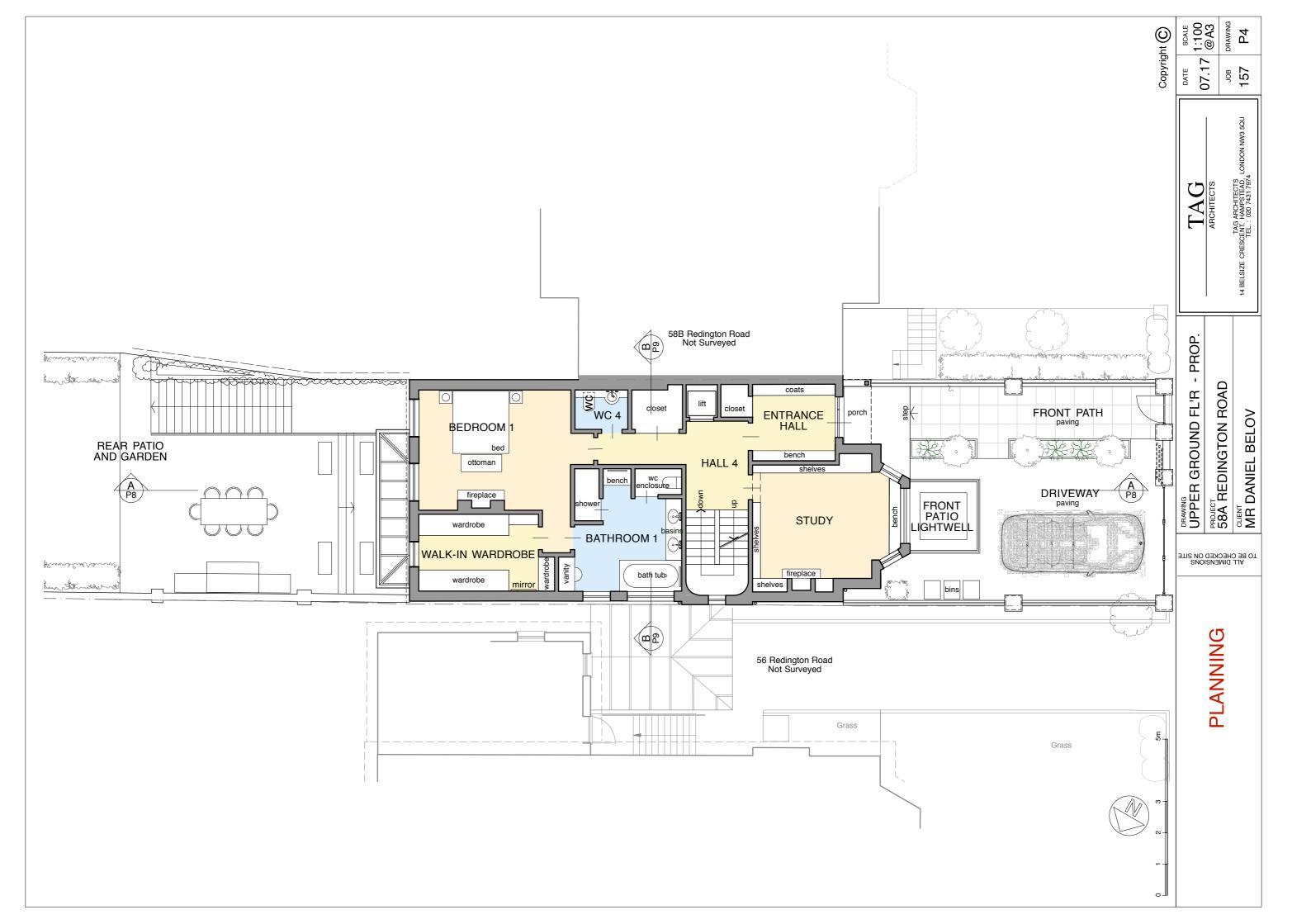


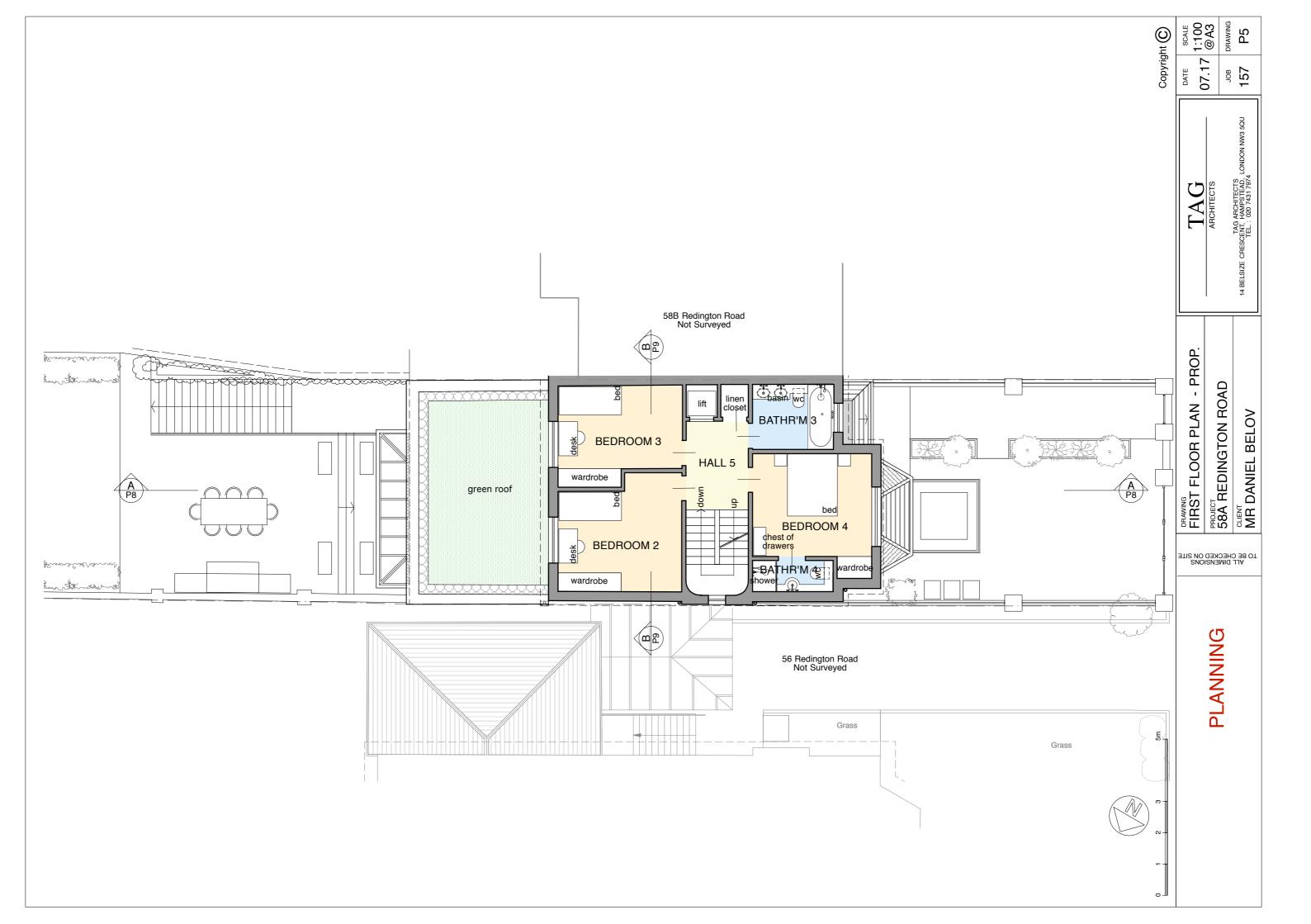
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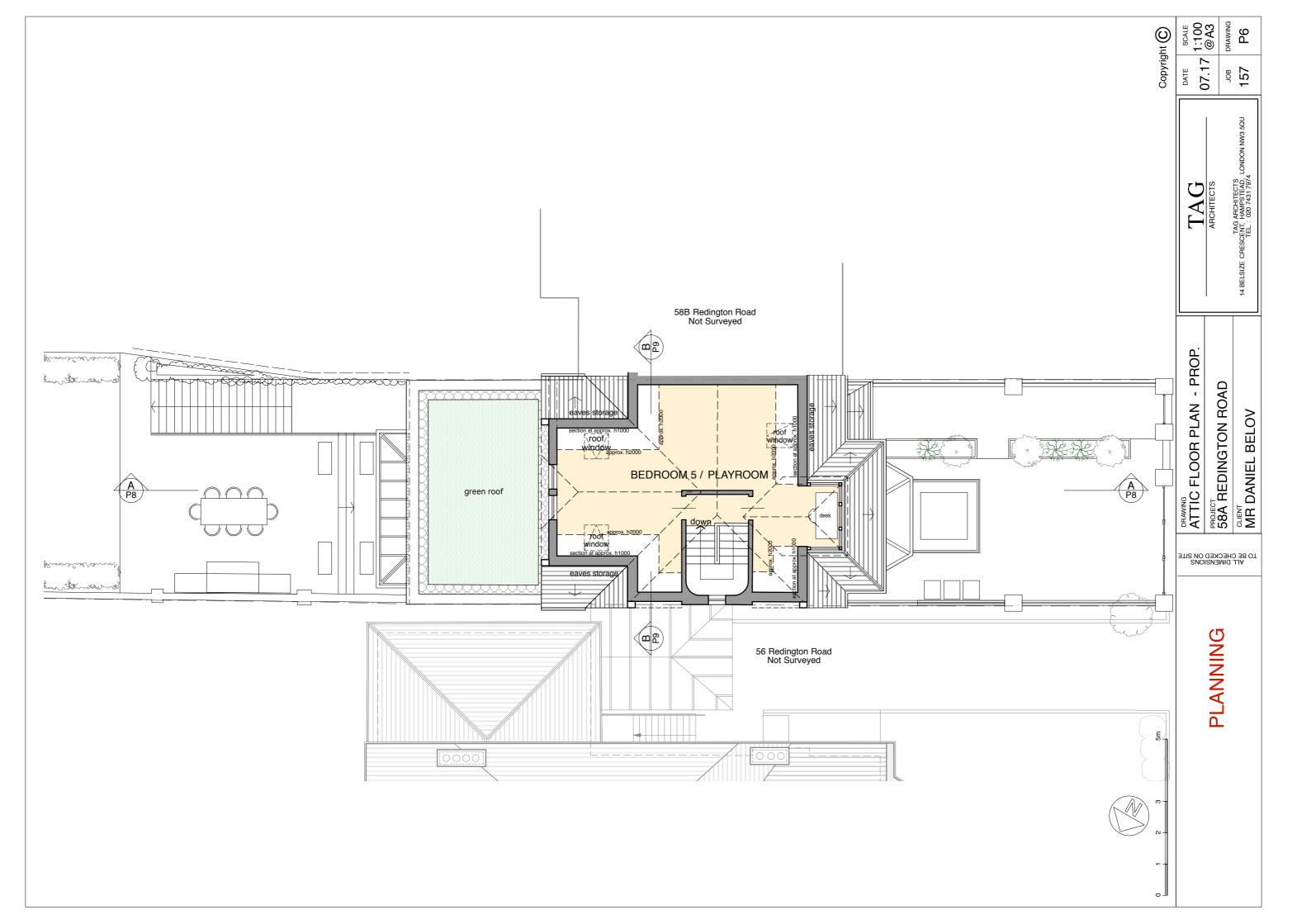


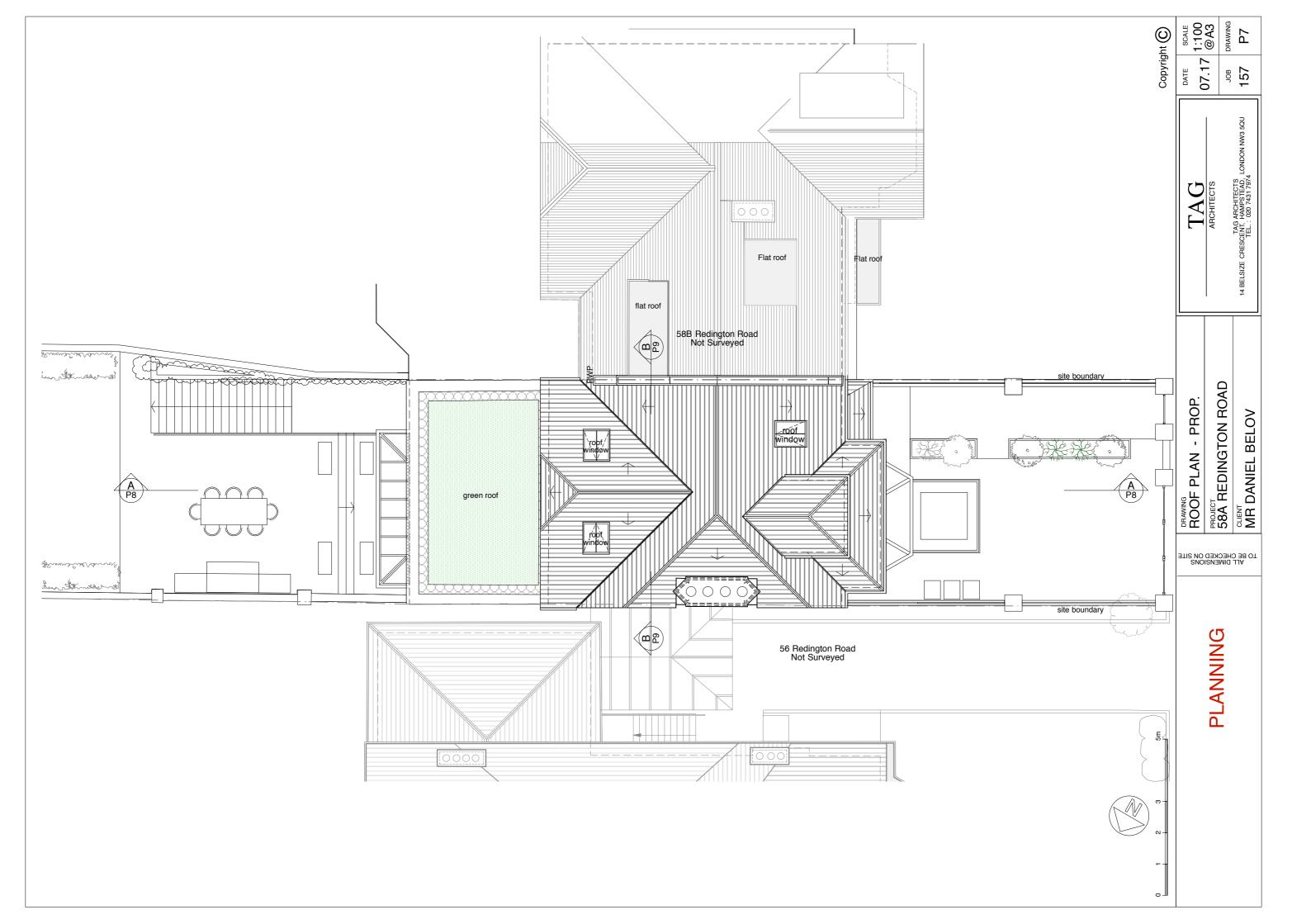
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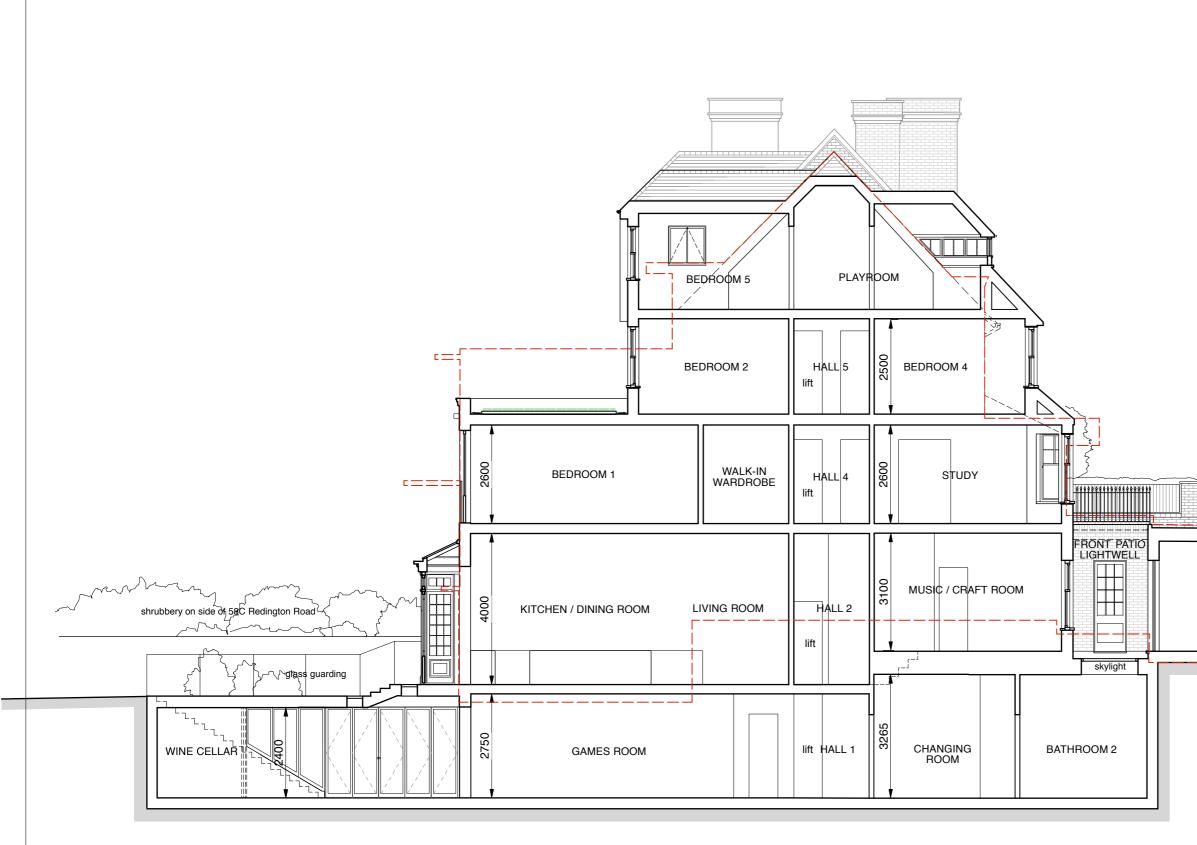


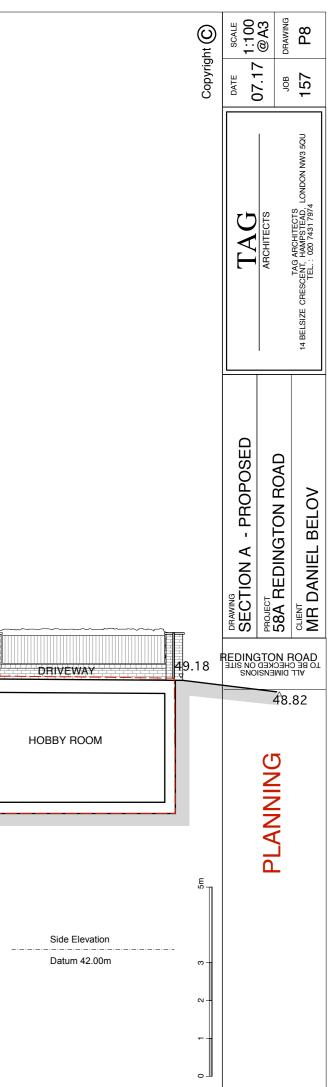










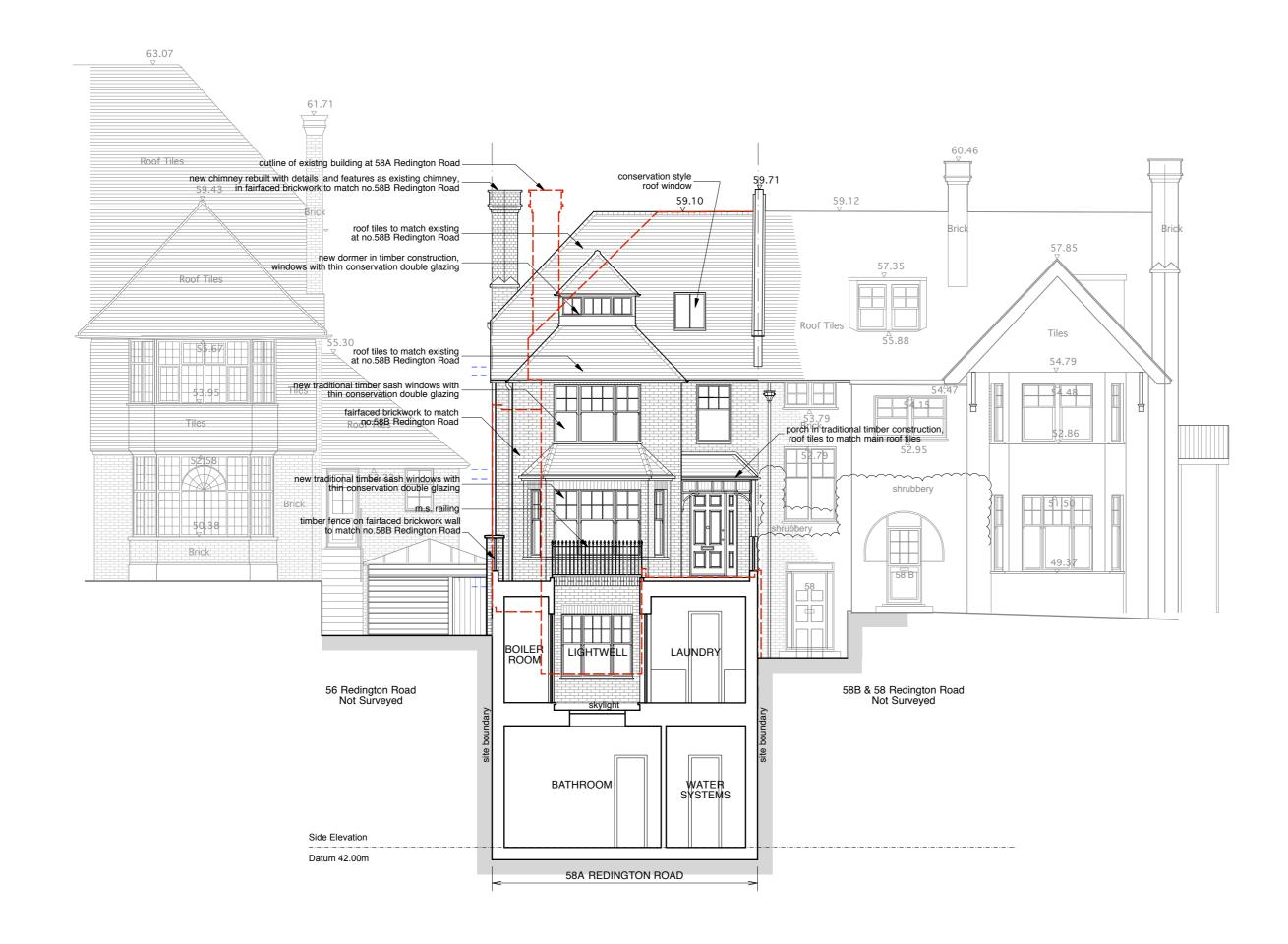


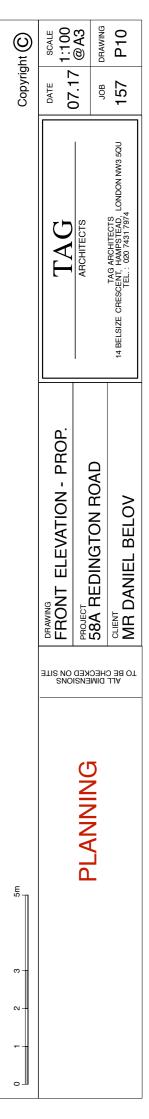


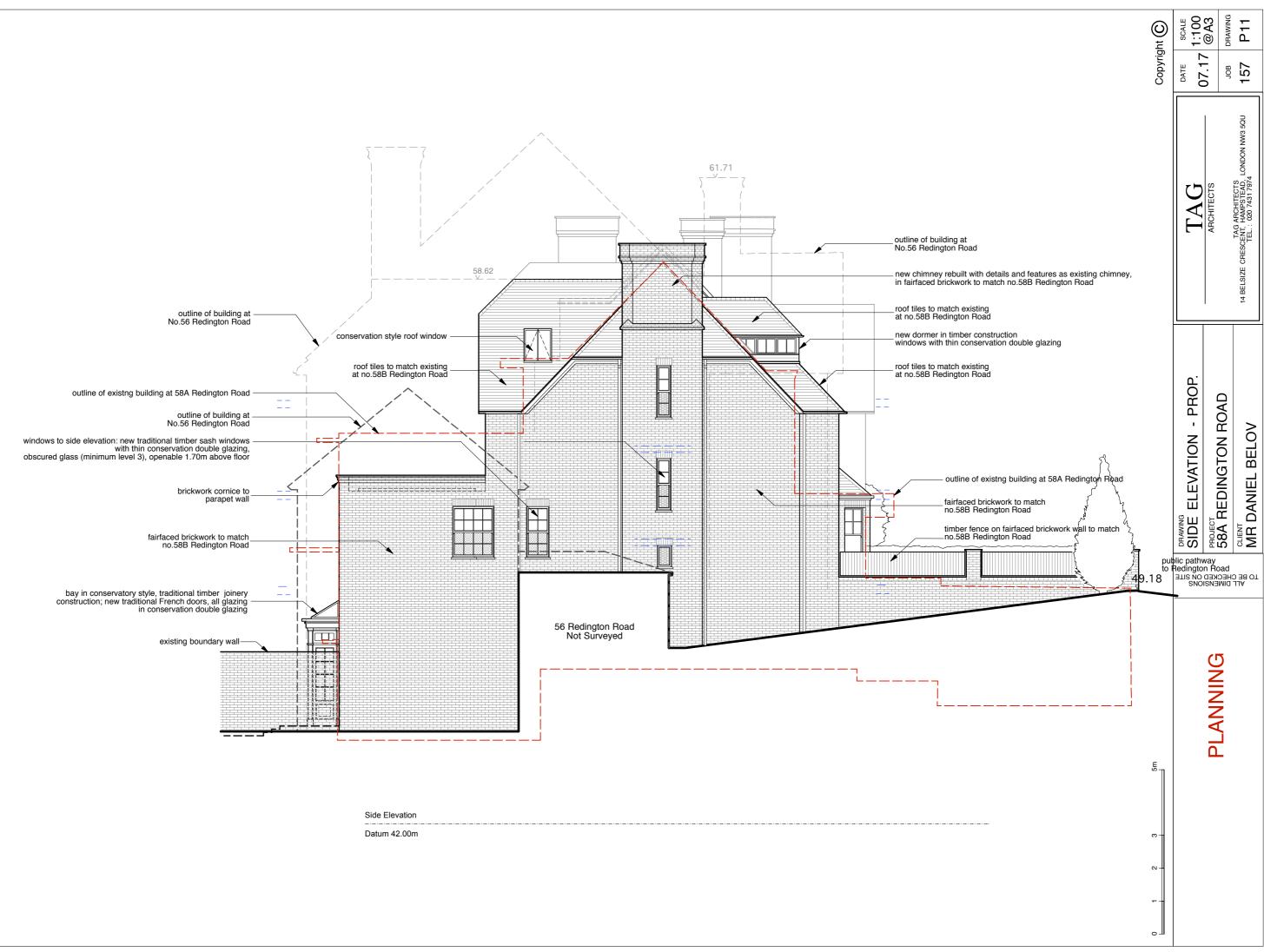
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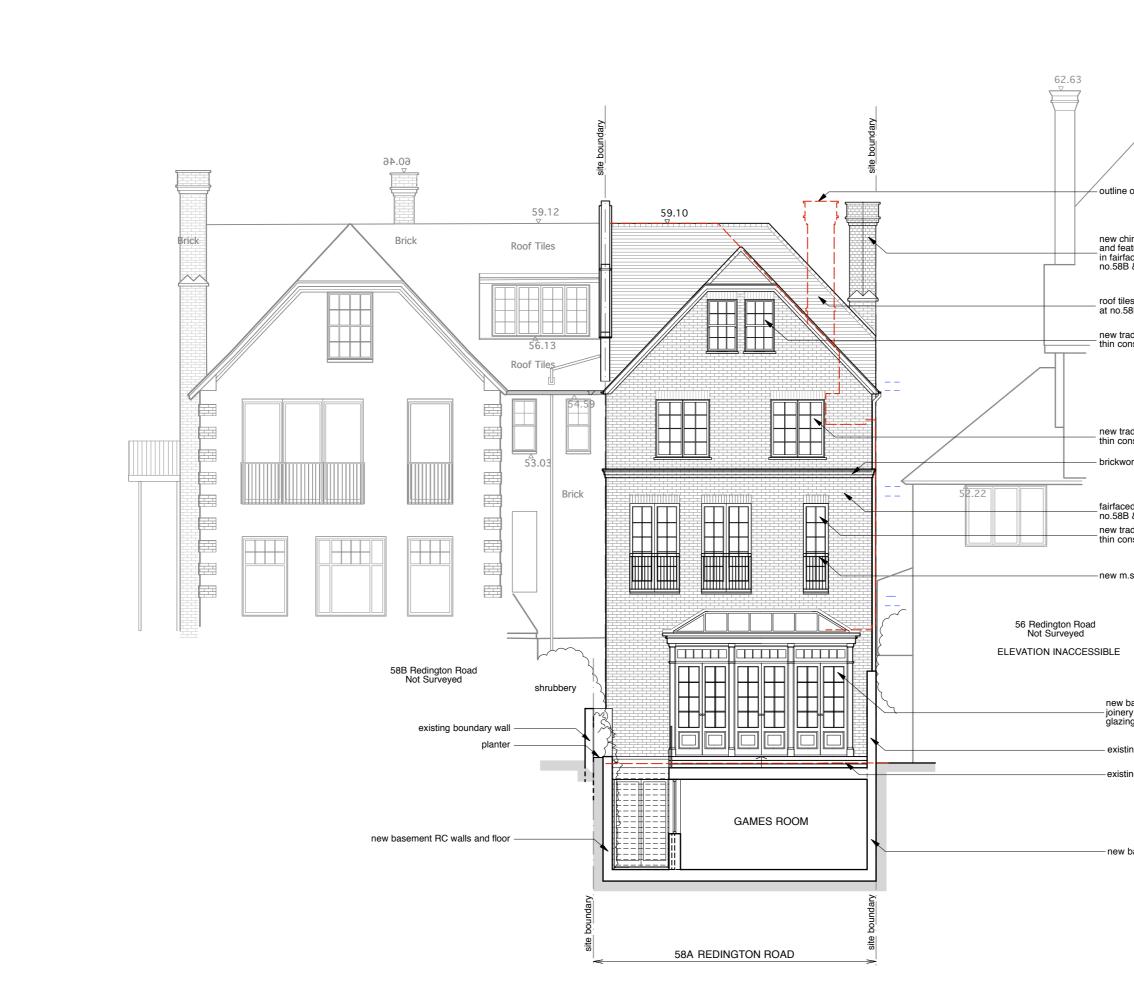
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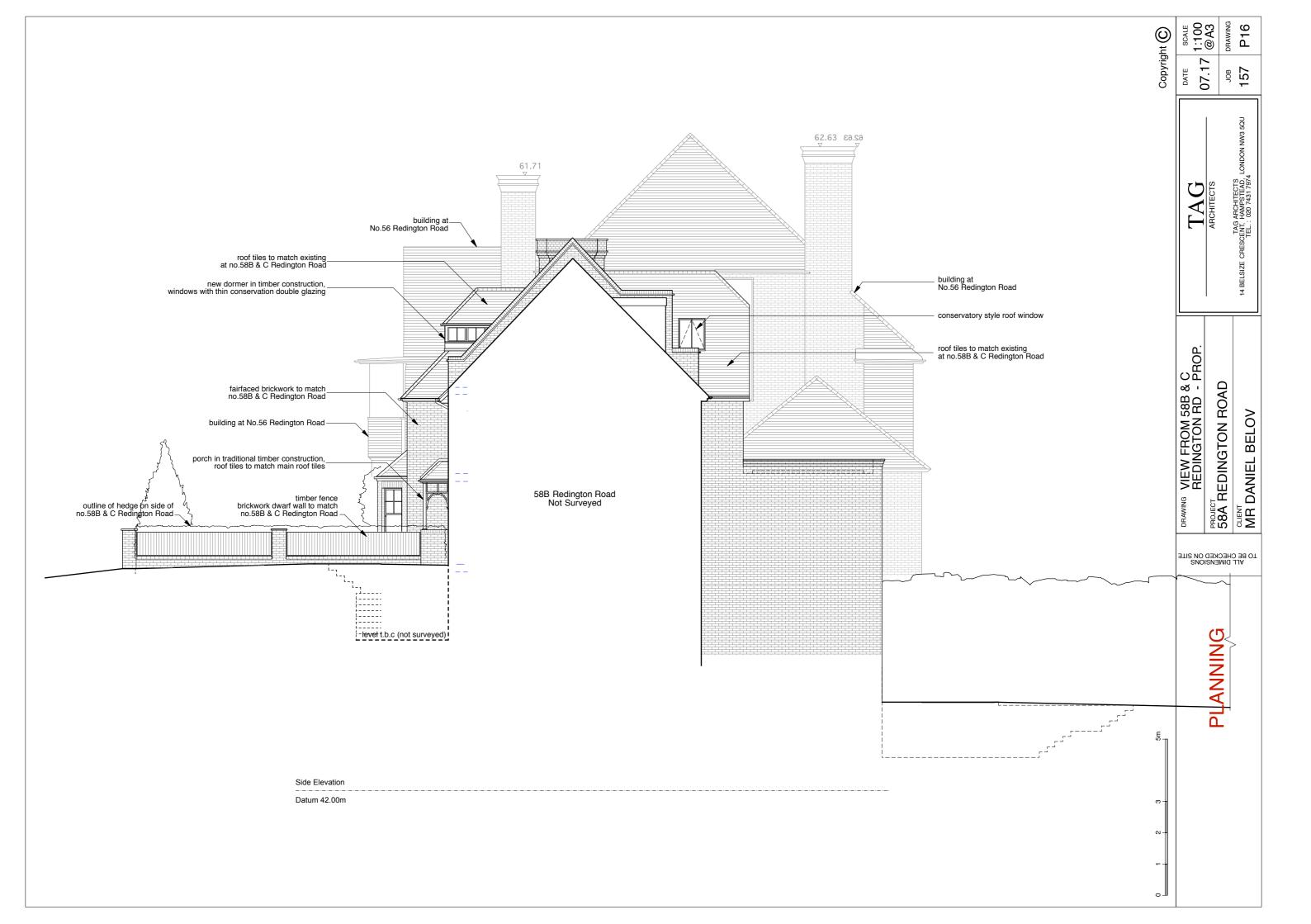








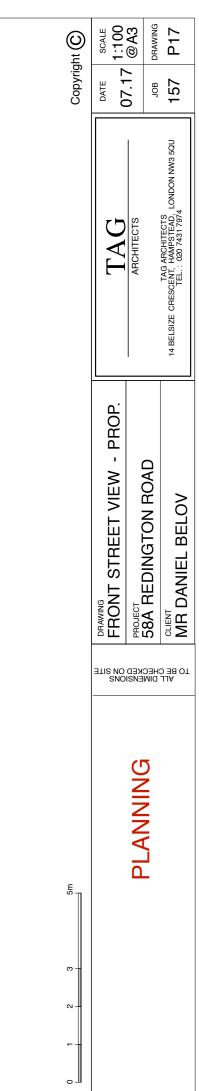
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es to match existing 8B & C Redington Road aditional timber sash windows with nservation double glazing aditional casement windows with nservation double glazing ork cornice to parapet wall ed brickwork to match & C Redington Road aditional timber French doors with nservation double glazing		REAR ELEVATION - PROPOSED	PROJECT 580 REDINGTON BOAD		
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bay in conservatory style, traditional timber y construction; new traditional French doors, all ng in conservation double glazing ng boundary wall ng rear garden level	Sm		PLANNING		
basement RC walls and floor	0 1 2 3				





Side Elevation

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Front view

Rear view

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