



## **DESIGN & ACCESS STATEMENT**

**Land to the rear of 1a Frognal, London, NW3 6AL.**

## Introduction

Our proposal is an amendment to a previously approved scheme (Ref: no. . 2012/5492/P), which simply incorporates an additional basement level within the excavation of that design. All aspects of the design above ground remain unchanged. As such much of the following information, and that contained in the accompanying reports, is simply an update and re-issue of those previously submitted. However, all the reports have been updated by the original authors and relate specifically to this design.

## 1. The Proposal

The proposal is to replace an existing 5-bay single storey garage with two semi-detached houses. There are several restrictions & requirements relating to the site which inform the design and these are dealt with in the following sub-sections.

### 1.1 Siting, scale & massing.

The positioning of the proposed houses on the site is a response to both the existing floor plate of the garages and a significant area to the south of the site identified as a tree root protection area<sup>1</sup>. In order to limit the height of the new building to a maximum of 2m higher than the existing garages<sup>2</sup> it is proposed to sink the building into the ground by approximately 1.35m. We propose to do this by installing a contiguously piled retaining structure completely avoiding the tree root protection area and maintaining a separation from the sub-station and party wall along the north-east boundary allowing the installation of piled foundations whilst safeguarding these structures (see fig.1.1)<sup>3</sup>.

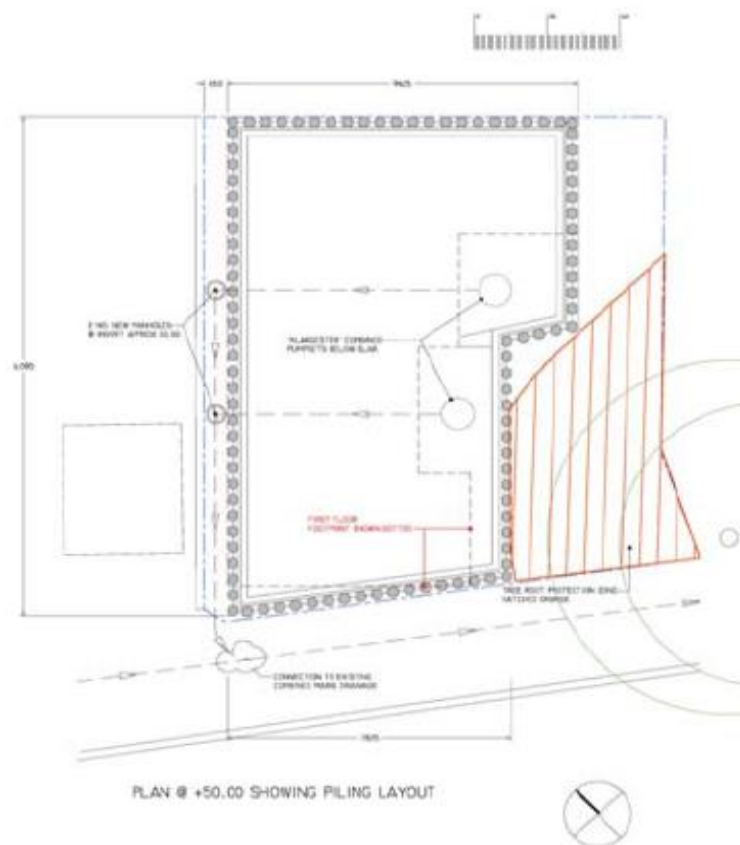


Fig.1.1

<sup>1</sup> See accompanying BS5837(2012)tree report undertaken by Tretac.

<sup>2</sup> As recommended in the pre-application advice Ref:CA/2011/ENQ/05137

<sup>3</sup> Refer also to accompanying Basement Impact Assessment carried out by EIS Ltd.

The frontage of the building is orientated south-eastwards to maintain a visual link to Frognaal itself, whilst also retaining the openness of the existing green space and providing a consistent visual amenity within its surroundings. A narrow secure access path to the North West of the site provides a route for incoming and outgoing service connections to the houses, thus avoiding the root protection zone at the front. The roof levels are stepped, in that the frontages to the north-east, south-east and south-west elevations are lower than the main roof of the building, and as such create a reduced visual impact.

### 1.2 Accommodation, Day-lighting & Privacy.

It is intended to take the most advantage of the available daylight within the living spaces of both houses, and to this end they have been located on the upper level. The close proximity to the boundaries on three sides of the site mean that natural light will be largely introduced through large glazed facades to the south-west elevation and roof level windows. In both houses upper level accommodation will comprise highly useable living/dining spaces, a separate kitchen and large Part M compliant w.c./cloakroom. At lower ground floor there will be a double and single bedroom and Part M compliant bathroom. At lower ground floor, the light is introduced through large floor to ceiling windows which will be openable onto courtyard gardens. All rooms will be supplied with some natural daylight either through windows, skylights or sunpipes.

A series of three vertical slatted screens are specifically located to reduce direct views both into and out of the windows to the front of the houses and these will be further supplemented by maintained planting along the northeastern boundary. These screens are also designed to incorporate a series of obscured glass fins running horizontally at high level to reduce the possibility of excessive solar gain in summer.

Externally, there is a communal landscaped entrance to both buildings, whilst at lower level each unit has a private courtyard garden of approximately 10sq.m.

### 1.3 Construction and materials.

As previously stated, it is intended to construct the lower level partially into the ground. This will involve a more solid structure to the lower ground floor, whilst a highly insulated SIPs system will be used to construct the upper level. The more solid ground floor will serve as a plinth protecting the timber upper level from potential damage from both groundwater and impact (particularly on the south-western boundary where vehicular traffic is present) and the off-site fabrication of the SIPs system will reduce material wastage and construction times. The flat roof will be constructed to provide structural support for an 'extensive' green roof.

The material finishes will be a largely rendered first floor with a smooth basalt slip cladding to the exposed ground floor areas. There will also be powder coated aluminium to the windows, hardwood timber detailing to front doors and surrounds and a combination of powder coated aluminium and hardwood to the slatted screens.

## 2. Sustainability.

It is intended that the development be sustainable from both an environmental and a long term usability standpoint and as such is it is intended that it achieve a Code 4 rating against the Code for Sustainable Homes<sup>4</sup>. The following sub-sections outline the areas where these considerations have been implemented in the proposals.

### 2.1 Energy Efficiency.

There will be a number of ways in which we will reduce the burden of the development on the environment. We will seek to reduce the basic energy demand firstly by constructing the building with elements of extremely high thermal efficiency<sup>5</sup> ensuring that all elements significantly exceed minimum standards. Avoiding thermal bridging in the detailing will also prevent burden on heating demand. A heavily insulated and planted 'green' roof will prevent heat freely passing through. In addition to this, it is intended to make a provision for an element of PV panels on the flat roof towards the north-west of the building to supplement the other power sources. Drying areas will be incorporated over baths within all units. The size and positioning of windows is designed to bring as much natural daylight deep into the plan as possible in order to reduce the demand for artificial lighting. All lights will be dedicated low energy fittings.

<sup>4</sup> As detailed in the accompanying BREGLOBAL pre-assessment report carried out by Energytest Ltd.

<sup>5</sup> More specific performance details can be found in the attached LIA 2010 - Regulations Compliance Reports.

## 2.2 Water usage and drainage.

Currently the site is almost entirely hard standing which is drained by running off onto the road and into the main storm drain on Frognaal. Our proposals seek to heavily reduce this burden in two ways. Firstly we are incorporating >90sq.m of 'extensive' green roof which provides water attenuation and reduced run-off of rainwater to below 15% of unplanted roofs. Additionally we are significantly reducing hard landscaping to the south-west of the site and introducing significant planted and grassed areas to this area, allowing it to absorb significant rainfall within itself.

Within the building, water will be conserved by using low volume fittings in addition to a grey water recycling tank to located below the deck within the courtyard in either unit.

## 2.3 Biodiversity.

The introduction of a significantly increased area of planting on the site, including the roof, mean that the plot will still encourage diverse wildlife within a robust urban context. Furthermore, the design takes great care to safeguard the health of the two Lime trees sited within the garden of No.1 Frognaal, both during and following construction works.

## 2.4 Daylight and sunlight

The proposed development has been designed to maximise daylight within the development, whilst minimising the obstruction of daylight to adjoining properties.

The proposals maximise the window areas on the south facing elevations, on which the main living and bedroom areas are located, whilst other living areas are naturally lit by skylights which are 3 times more efficient than vertical windows whilst also offering unobstructed views of the sky.

Shading from is provided to south facing windows from sun that is high in the sky by louvred screens on the raised ground floor and an overhang on the lower level. External shading is provided to the single west facing window by the existing buildings facing Finchley Rd. All habitable rooms ie. Living/dining rooms and bedrooms have windows which are significantly more than 10% of floor area, whilst in each case there are opening windows or doors which are well in excess of 20% of floor area (*see fig 2.4.1 below*).



Fig.2.4.1

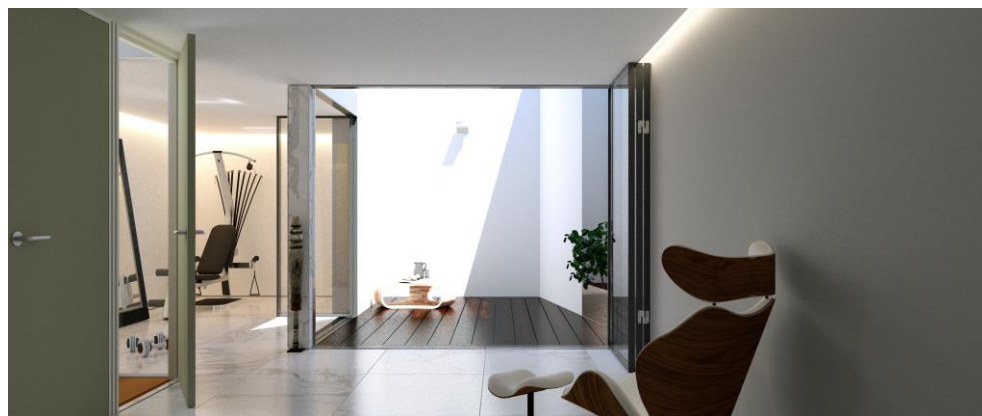


Fig. 2.4.2

Furthermore, the Code for Sustainable Homes pre-assessment classifies the three main living spaces (and the only ones applicable as habitable rooms under CPG guidance) Living room, dining room & main bedroom as achieving 'high' daylight factors. The proposed additional space at basement level is intended for use as additional utility and recreational space (*see fig.2.4.2*)

## 3. Lifetime Homes.

The following demonstrates our proposal's performance against the 16 Design Criteria set out in the Lifetime Homes Standard:

1. Parking provision is not applicable
2. As 1.
3. It is not possible for us to incorporate level approaches to the entrances and thus comply with this criteria.
4. All entrances will be illuminated, have level access, compliant opening widths, adequate weather protection and level landings.
5. Not applicable
6. All internal door and hallway widths meet the required specification.
7. There is space for turning wheelchairs in dining and living areas and elsewhere.
8. There is an entrance level living area.
9. A convenient temporary bed space could be provided in the dining room.
10. A Part M compliant w.c. compartment with floor drain is provided.
11. All walls to bathrooms and w.c.s will include ply backed areas for grab rails.
12. There is scope for the provision of a stair lift - made more straightforward by the curved winder. Also a suitable position for the installation of a knockout panel 1m x 1.5m is shown on the plans.
13. The provision and positioning of hoists will both be compliant.
14. Both lower ground floor bathrooms are accessible and located adjacent to the main bedroom.
15. All living and bedroom areas have windows with views out whilst seated, additionally they will be approachable and operable by those with reduced mobility.
16. All service controls will be installed in compliant locations.