

Proposed New Development at  
Cat Hill Mews, Hoylandswaine,  
S36 7JB



Design and Access Statement



September 2013

## 1.0 INTRODUCTION

### 1.1 GENERAL

1.1.1 This Design and Access statement has been prepared by Walker Associates on behalf of Mr and Mrs Taylor in support of an application for a new Passive House dwelling built within the curtilage and ownership boundaries at Cat Hill Mews, Hoylandswaine, S36 7JB.

1.1.2 This Design and Access Statement is to be read in conjunction with the submitted application drawings for Cat Hill Mews and other supporting information.

1.1.3 The Statement covers all key criteria assessed in the design process and the design principles on which the scheme is based. It is subdivided into the following seven sections:

1. Introduction
2. Overview of the Development
3. Assessment of the Site
  - Context
  - Evaluation
4. Site Topography
5. Design Objectives
  - Concept
  - Development Images
6. Access
7. Summary of Benefits

1.1.4 The generalised description of the proposal is – Unique new build Passive House standard dwelling at Cat Hill Mews and demolition of existing timber clad workshop building.

## 2.0 OVERVIEW OF THE DEVELOPMENT

### 2.1 WHY PASSIVE HOUSE?

- 2.1.1 Passive houses provide a comfortable indoor climate at any time of year without using conventional heating. They need only 10% of energy that a standard new building uses - good for the environment and the home-owner.

Instead of traditional mechanical heating and cooling, passive houses use smart, time-tested heating and cooling methods like natural ventilation, solar heat gain and efficient insulation.

Passive housing is effective for any building that uses energy - residential housing, offices, schools, supermarkets and factories.

In the UK, the Government has pledged that all new build houses will be 'Zero Carbon' rated by 2016 - a target that passive housing could help to achieve.

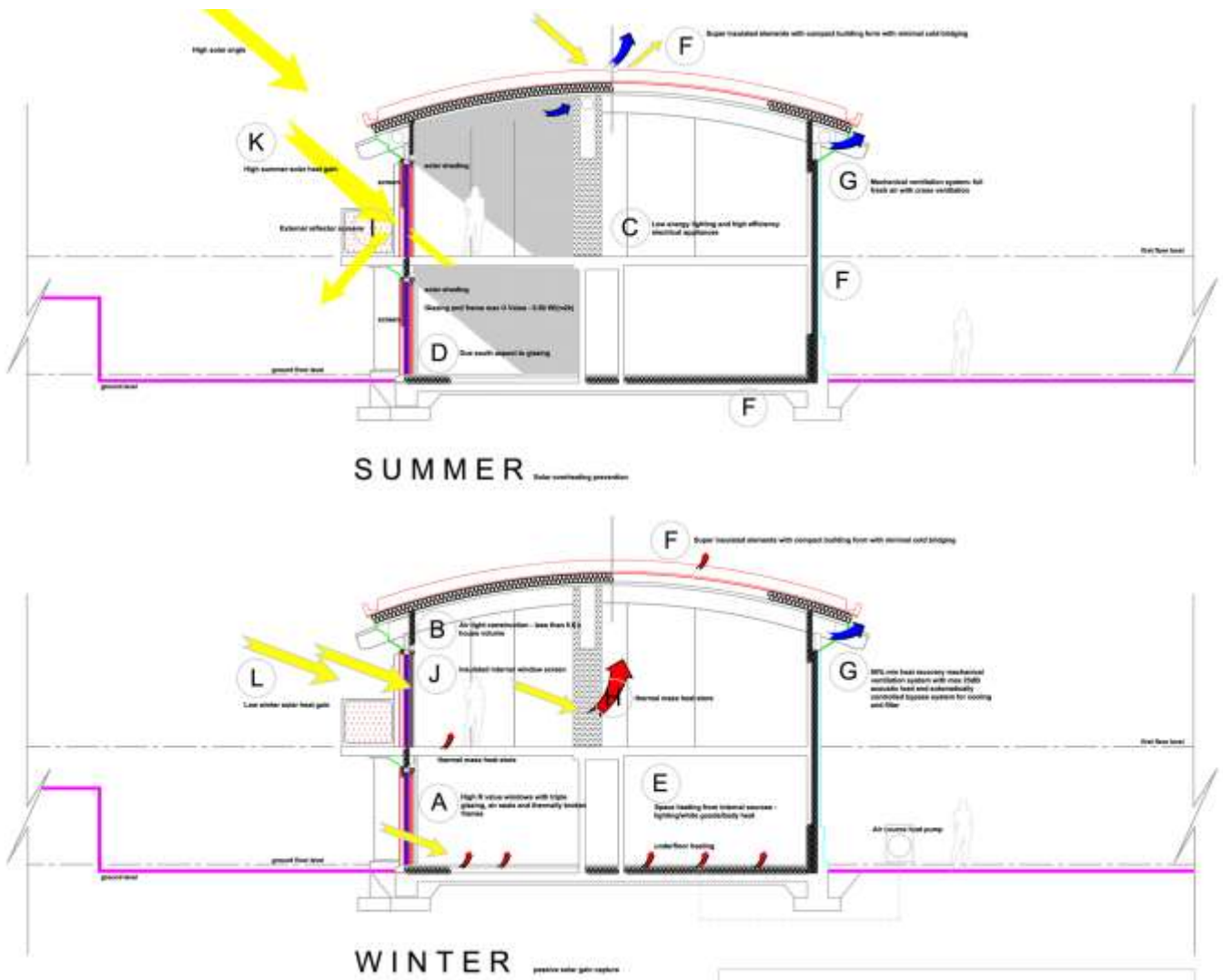
Since August 2010 approximately 25000 Passive Houses have already been completed in mainland Europe with the majority being located in Germany and the UK falling behind in taking up the carbon challenge.

- 2.1.2 In order to achieve this standard, the new passive house is intended to be built with high levels of insulation, exceptional air tightness standards, energy-efficient glazing and frames, use passive solar gains through south facing windows and using heavyweight walls and floors to collect, store and distribute solar energy in winter and reject it in summer and internal heat gain sources.; and has whole house mechanical ventilation with heat recovery for good indoor air quality. It will also have low energy appliances and lights.

The reduced energy demand of the passive house will be provided by on-site renewable sources including solar panels and heat pumps.

- 2.1.3 The new build design will be sensitive and respectful to the adjoining Grade II buildings and its surroundings. The proposals would also be for two double garages designed in a similar style as the Passive House catering for the upper site terrace and lower site terrace.

It is our belief that the proposed design will greatly enhance its surroundings and can be an exemplary example to meet with the current Local and National targets for Sustainability within the area.

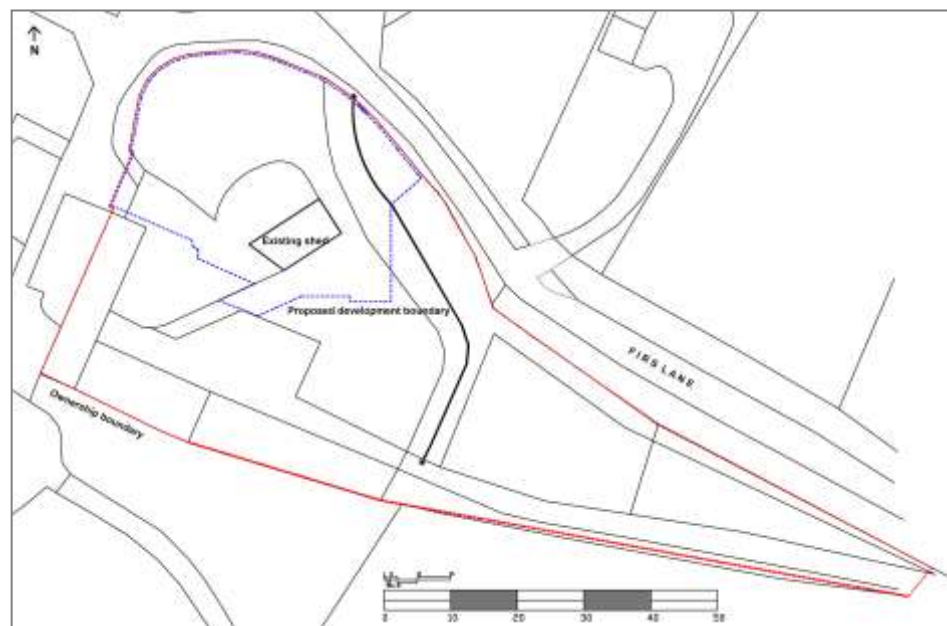


Passive House Concept Diagrams

### 3.0 ASSESSMENT OF THE SITE

#### 3.1 CONTEXT

3.1.1 Location: The location of the proposed works lies within the ownership boundaries of Mr and Mrs Taylor. Pedestrian and vehicular access is by an existing private, shared driveway off Firs Lane. The property lies within the Grade II listed curtilage of Cat Hill Mews and cannot be seen directly from Firs Lane. The proposed location for the new build is overlooked by the Clients existing properties but does not overlook any other adjacent properties.



3.1.2 Current Use: The site contains two properties with one property occupied by Mr & Mrs Taylor and the adjoining property occupied by family members.

3.1.3 Site Characteristics: The site is located in a rural setting with open views towards Emley Moor. The surrounding properties are constructed in a traditional style using local traditional building materials. The more recent alterations and extensions have been constructed using the same materials. The adjoining open workshop is constructed with timber vertical boarding with a metal corrugated monopitch roof. Existing changes of ground level are major features of the site.

3.1.4 Scale, Height and Massing: The site layout has developed over a number of years resulting in differing building styles from differing periods. Generally, building heights are two storey with ground entry positions located at differing site levels and separated by an existing

retaining wall crossing the site. The existing two dwellings are linked to form one overall building footprint.

- 3.1.5 Appearance, Details and Materials: Materials are primarily coursed natural local stone, natural stone slates, timber windows and doors. Openings have stone heads, jambs and sills. Refer to enclosed images within this document.

## 3.2 EVALUATION

- 3.2.1 General: The site area allows the potential to add additional buildings with adequate residential amenity surrounds together with vehicle parking and access. The existing changes of level contained by the retaining wall crossing the central site area allows the potential to locate new building works at a lower level minimising the visual impact from the upper entrance terrace and site entry position. Sufficient site area is available to allow construction of new buildings without causing impact on either Firs Lane or the existing residencies.



A - Upper terrace and main site entry level with parking

## 4.0 SITE TOPOGRAPHY

### 4.1 GENERAL TOPOGRAPHY

4.1.1 The site is terraced on two horizontal levels and includes a further cascading garden area falling towards the lowest point of the site boundary at the North-Western section.

The existing two terraces are separated by a retaining wall at approximately 1.5m in height.

The proposed building location is on the lower of the two terraces but intended to be further reduced in height by a 1m distance.

An approximate fall of 3m occurs between the existing lower terrace and the site boundary along Firs Lane.

4.1.2 Detailed site levels are not available at this stage of the development.

## 5.0 DESIGN OBJECTIVES

### 5.1 CONCEPT

#### 5.1.1 Concept Design elements and Sustainable key factors include:-

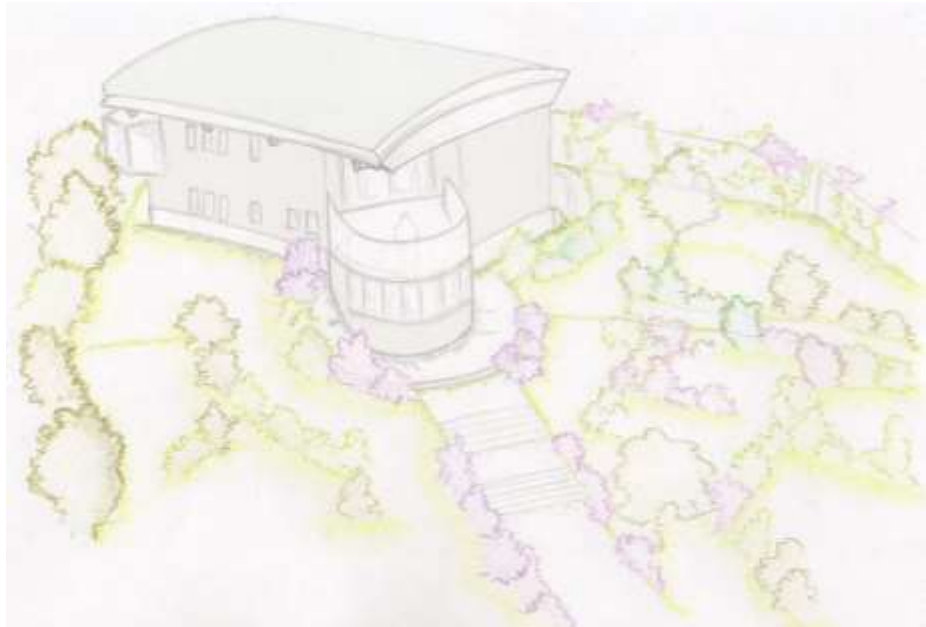
- ❖ Construction of a unique new detached two storey Passive House standard dwelling set against the existing retaining wall on the second terrace at the lowest point of the site on an East-West axis.
- ❖ The proposed dwelling to be constructed using matching traditional walling materials with coursed stone and matching architectural details.
- ❖ Construction of a green roof to minimise the visual appearance of the proposed building and enhance one of the key sustainable credential factors.
- ❖ South axis glazing allowing solar passive gain design.
- ❖ Improvements to the existing retaining wall and construction of a new retaining wall built using gabion sandstone filled baskets.
- ❖ Enhancing and improving the existing site by landscaping the area with soft planting.
- ❖ External green walls on the south-east axis obscuring the ground floor level of the proposed dwelling offering privacy and minimise the overall visual impact.
- ❖ Demolition of existing stand-alone timber shed.
- ❖ Low profile building massing.

### 5.2 DEVELOPMENT IMAGES

#### 5.2.1 Project design development ideas and examples include the following elements:-

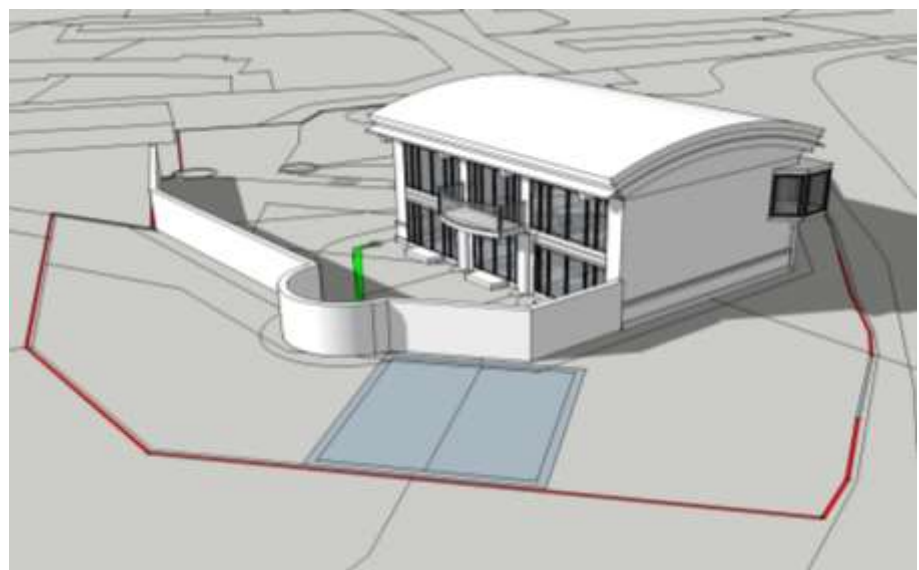
5.2.2 The proposed Passive House to be located on an east-west site axis giving potential for the proposed dwelling to benefit from natural daylighting and solar gain using a fully glazed southern elevation. The design of the detached dwelling with its southern glazed frontage would take maximum advantage of solar gain and its appearance would provide a distinct design foil against the traditional existing building style whilst being sympathetic to the existing properties. North facing glazing would be minimal to minimise heat loss to the building envelope but would be punctuated with a panoramic orial window taking advantage of the views of Emley Moor mast and the

views beyond. The proposed Passive House would take advantage of the site levels and provide first floor views out over a landscaped garden and the wider landscape beyond with additional new soft landscaping screens located to the front and side of the proposed dwelling providing visual screening from the existing properties.



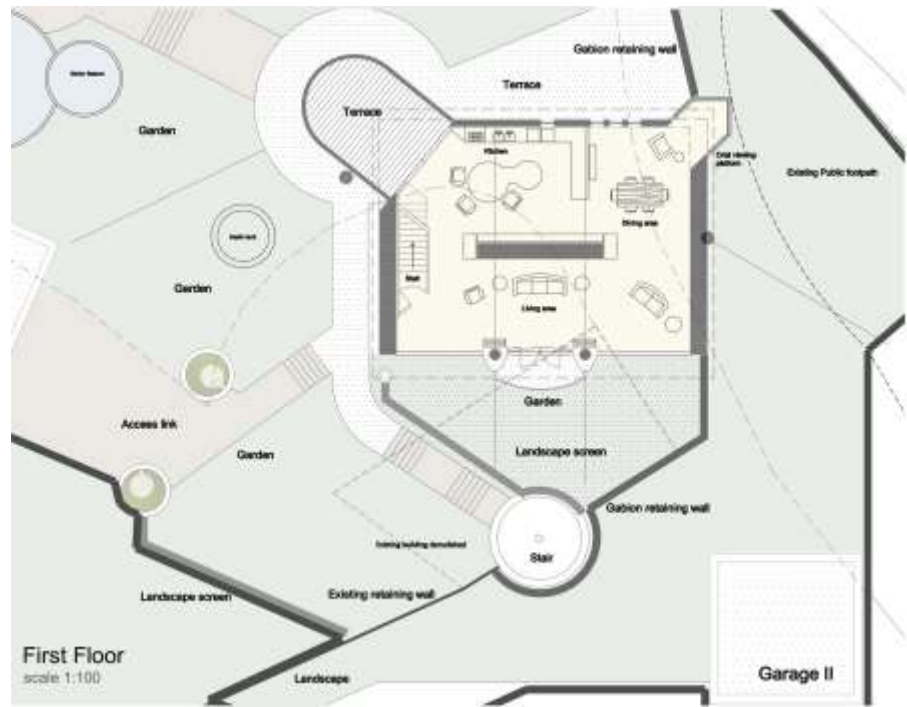
Sketch 01

5.2.3 The curved roof design provides options to create a low impact skyline profile externally and also an internal design feature using exposed timber structure combined with a curved ceiling design to the main living accommodation at first floor level.

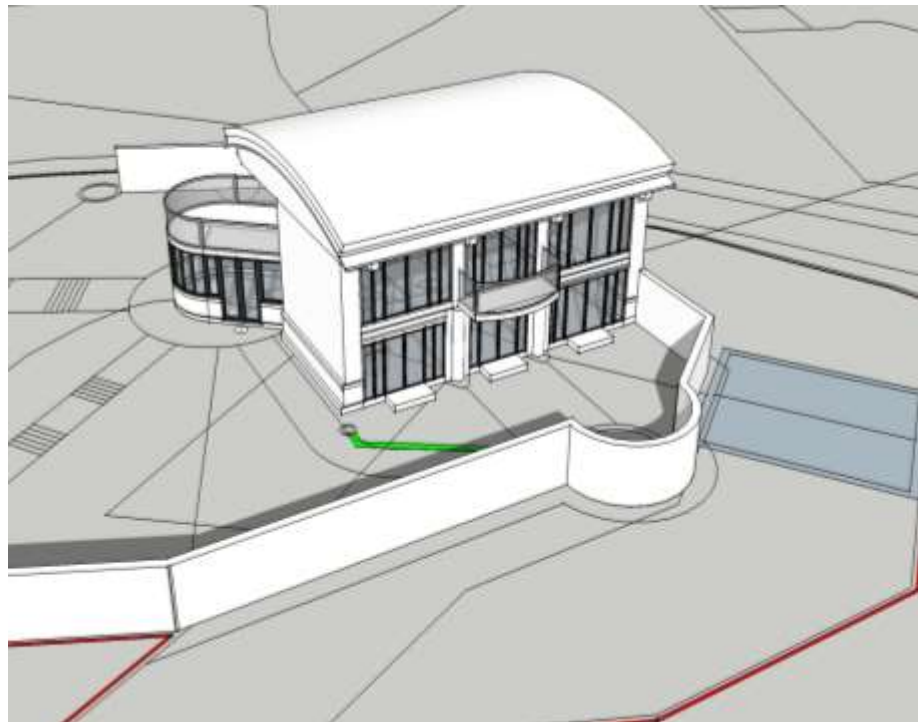


Sketch 02

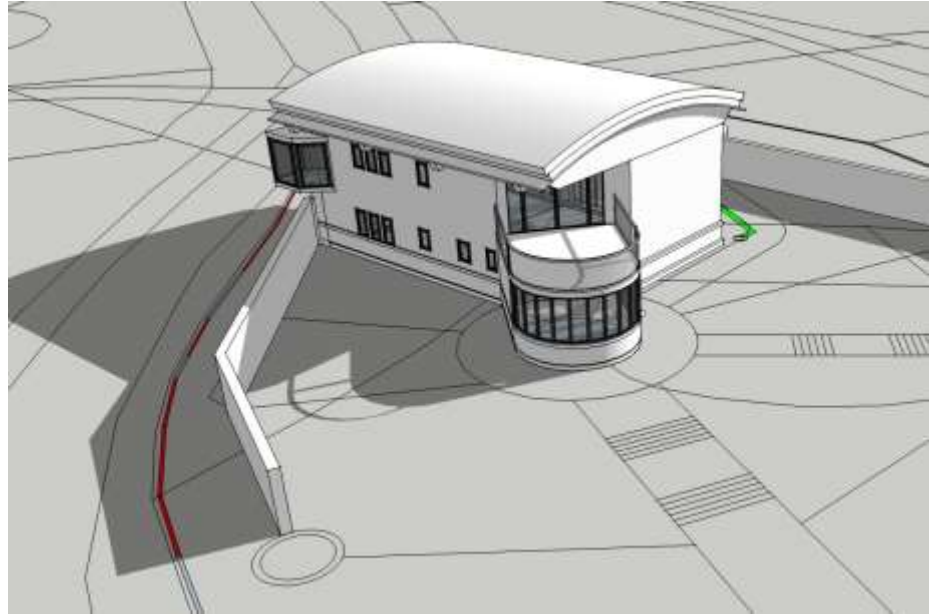
5.2.4 Retained features include vehicle parking areas, retaining wall and access routes to existing lower residence.



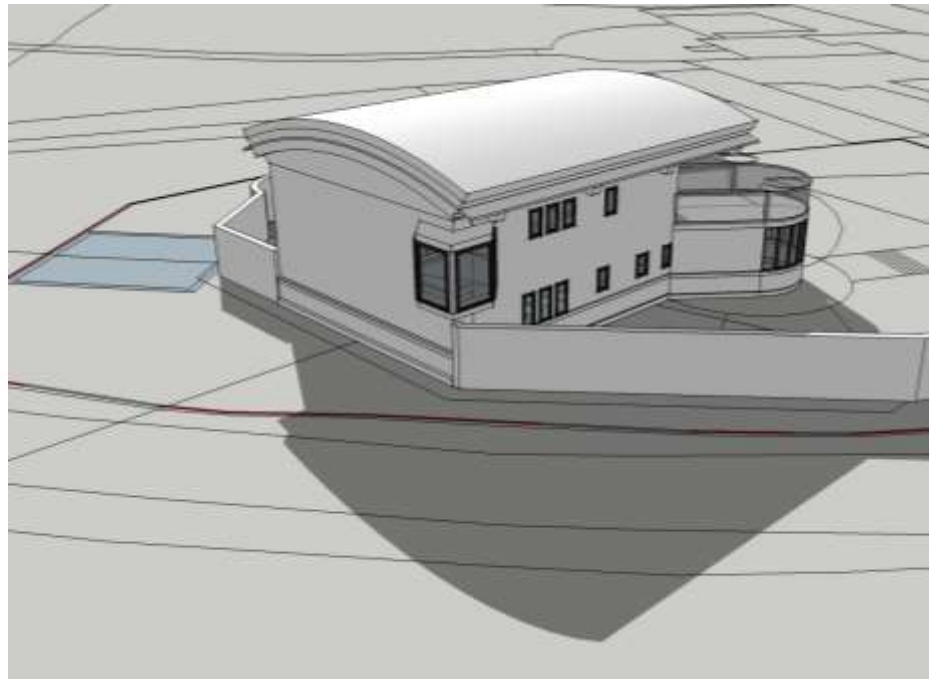
Sketch 03



Sketch 04



Sketch 05



Sketch 06



South Elevation



North Elevation

Principal elevation proportions

5.2.5 The materials pallet and textures are proposed to match the local architectural language of the existing site.



Sketch 07



Sketch 08



Sketch 09

## 6.0 ACCESS

### 6.1 GENERAL

6.1.1 Access: The access arrangements for vehicles and pedestrians onto the site remains unchanged with two access points leading from Firs Lane.

A new garage is included within the proposal located at the upper terrace level together with a new garage located at the lower access point level serving the existing house.

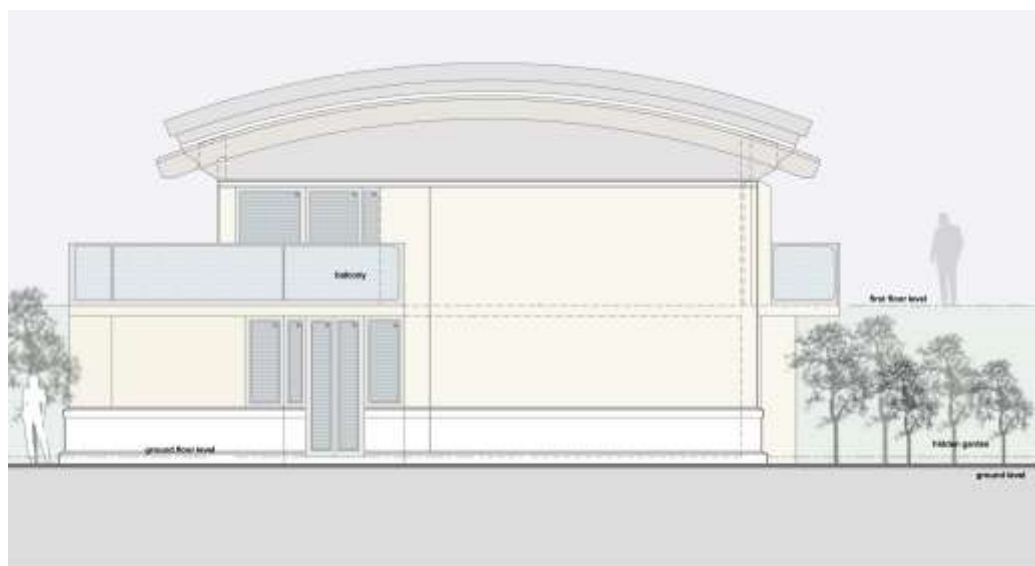
The existing adjoining public footpath route is proposed to remain unchanged.

Access between the terraces is proposed using a new external stair enclosure.

Disabled access to the new dwelling is proposed from the existing lower site entry point via a ramped walkway with max 1:20 gradients.

## 7.0 SUMMARY OF BENEFITS

- 7.1 The development provides a unique opportunity to construct a new detached Passive House standard dwelling in a contemporary style that complements the traditional character of the existing surrounding properties and the site.
- 7.2 The project will promote low carbon energy efficient design model within the region.
- 7.3 The existing timber workshop can be removed from the site grouping of buildings.
- 7.4 Enable the energy performance data to be recorded and logged into a local database for future reference and construction guidance.
- 7.5 Allows increase to the biodiversity of the site and provides additional landscape value to the site



West Elevation  
Sketch 10