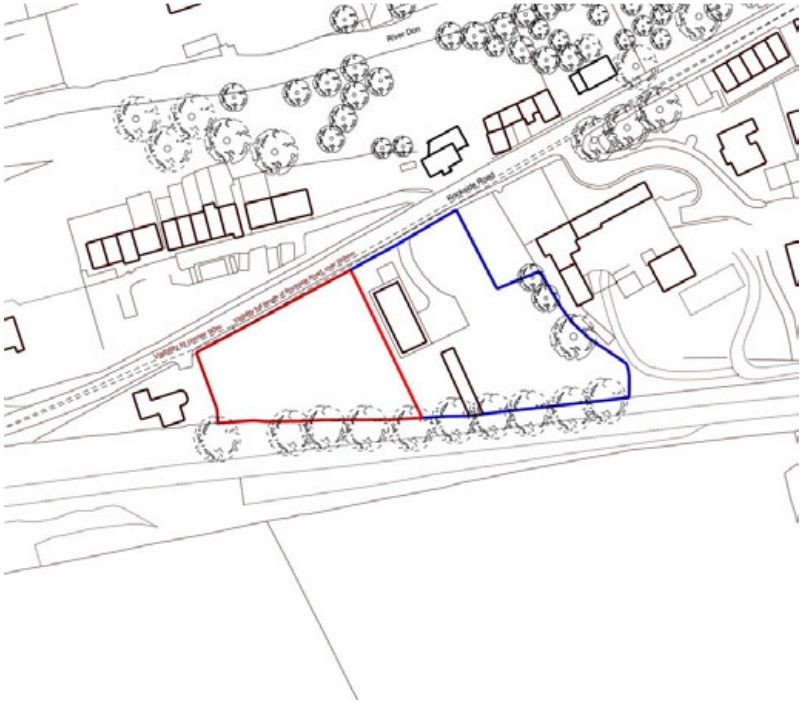
14th January 2014

Design & Access Statement

Land adjacent Highfield, Rockside Road, Thurlstone, Sheffield. S36 9RB



1.1. The Site & Surrounding






Rockside road looking west


Rockside road looking east


From the Trans Pennine Trail

The site is located on the edge of the semi-rural village of Thurlstone approximately 1 mile from the market town of Penistone and 7 miles from Barnsley and access to the M1 motorway network. Thurlstone is predominantly residential but with some industry located alongside the river Don. Although the majority of buildings are located on the northern valley side, the village spreads out to the southern valley on which Rockside Road is located. Facilities within Thurlstone consist of primary school, public house and takeaway, further amenities are located within Penistone and Penistone Grammar School is nearby. Central Thurlstone is a conservation area noted for its stone built weavers cottages, the wider area consists of a mixture of stone, brick and render houses with slate, concrete tile or stone slate roofs.

Rockside Road has a number of recent housing developments, the largest of which being the Hornthwaite development of 14 large stone built homes, a number of houses have been built on Rockside Road by local architect DesignSpace in a contemporary style.

The site measures approximately 2,000sqm, Rockside Road lies to the North on a relatively steep incline and the Trans Pennine Trail (formerly Manchester railway line) lies directly to the south cutting through the surrounding rock face. The site is elevated above both Rockside Road (approx. 1.5m) and the trail (approx. 3m) with a further 1m high dry stone boundary wall; trees line the railway bank to the south. The site was used as a fill site for spoil from the railway excavations thus its elevated position this will entail deeper or specialist foundations for the proposal. To the west is a rendered detached bungalow and to the east is a contemporary stone dwelling with curved sedum roof by the aforementioned architect.

A 200mm cast iron water main runs near the southern boundary, this has been declared redundant by Yorkshire Water and so does not affect the development.



Developments on Rockside Road by designSpace



Other housing on Rockside Road

1.2. Planning History & Relevant Policy



There are no previous planning applications for the site
The site is within the village of Thurlstone; it is outside the conservation area and does not affect the setting of the conservation area.
The site is within a housing policy area.
The density of surrounding buildings is low.

1.3. Consultation

A pre application enquiry was submitted to BMBC planning department on 12/11/2013, Senior Planning Officer Elaine Ward commented by email on 20.12.2013

> First of all, this is a good site as it lies within a Housing Policy Area and its of a high quality innovative design with many sustainable features. In overall design terms, I see no obvious concerns and its a very high quality proposal.
> *I have consulted the following:*
> *Drainage – who see no problems as there is a foul sewer nearby and providing the SUDs, green roof and water collection systems work effectively there will be minimal surface water runoff to deal with. A percolation test has recently been undertaken further down Rockside Road which confirms that soakaways should work. Derek Bell has been asked to comment on the SUD's aspect though I have not yet received any comments.*
> *Highways, no real issues, I have appended their comments above.*
> *Due to the substantial size of the plot, amenity issues such as overshadowing shouldn't be an issue, though you need to ensure appropriate minimum distances between the proposed dwelling and Highfield, and that privacy is maintained, as you seem to be proposing large windows to the east elevation (though I note you have proposed a 1.8m fence to the east side), and also to the west elevation, which would have longer views to the neighbouring property, but which could still lead to objections.*
> *The only other reservation I have is with the changes in level between the dwellings on Prospect to the north, and the proposed dwelling. I would like to see a north-south cross section just to confirm that the scale and massing would be acceptable due to the changes in level, though I see you have put the lowest elevations closest to Rockside Road.*
> *Subject to clarification and acceptability of the above details, I think it is a proposal I would be happy to support.*

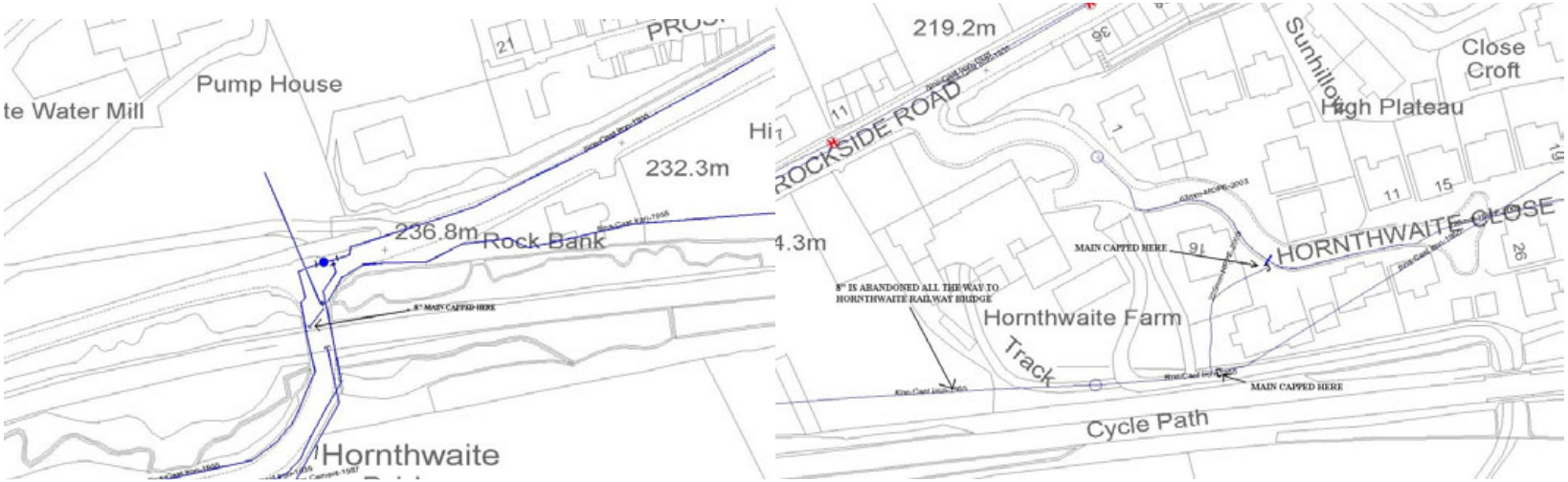
As is illustrated later in this document at least minimum distances according to the South Yorkshire Residential Design Guide are achieved to all neighbouring buildings. The houses on The Prospect are at a much lower elevation so having very little relationship to the proposal.
The 1.8m high fence between the proposal and Highfield will deal with any overlooking issues from ground floor windows, the only other window that could be a concern is the first floor study window on the west elevation overlooking Highfield, if the officer thought it necessary the applicant would accept a condition for this to be obscure glazed.

Yorkshire Water were consulted by the applicant in particular regard to the water main which crosses the site

Response from Yorkshire Water regarding the water main crossing the site:

Hi Andrew,
As per our recent telephone conversation I can confirm that the 8" cast iron pipe crossing the land above is abandoned. I attach sketches below showing the cap off points.
Thanks Dave Y

The water main can therefore be built over/ removed on this stretch of land and so does not affect the positioning of the building.

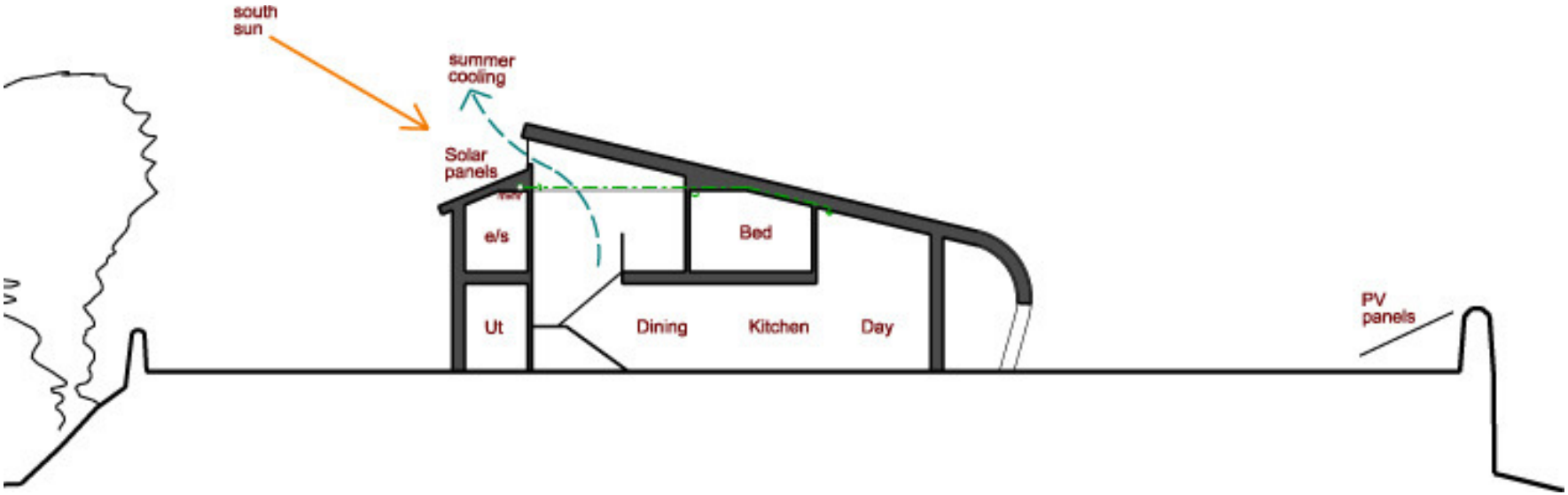


YW plans showing cap off points of the redundant water main.

Neighbour Consultations

Mrs Ruddy, the direct neighbour to the west has been consulted on the proposals and has not voiced any objections at the time of writing; there are no other neighbours that are directly affected by the proposal.

2.1. Use & Amount

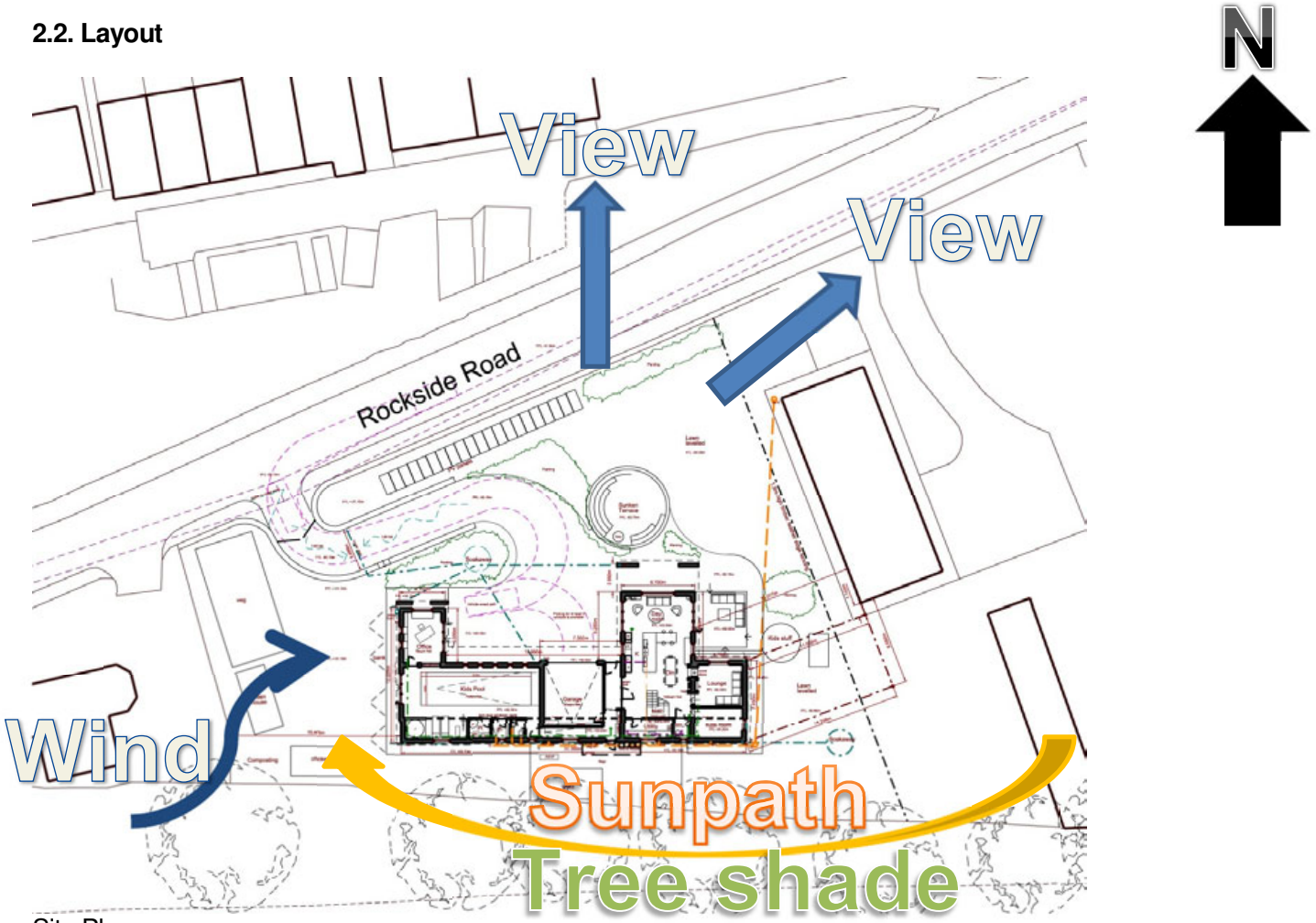


Concept Section

The application is for a single occupancy five bedroom dwelling, internal floor area of 277sqm plus built in garage of 30sqm and pool building of 75sqm, the amount proposed is proportional to the size of the site. The density of buildings in this area is low being on the periphery of the village and there are a number of large dwellings with large gardens, the density of the proposed is in keeping with the general area.

The design is based around the section diagram above, as there is tree cover directly to the south and the building needs to be North facing to address the road and views, the design uses a clever section to collect sunlight deep into the plan from high level windows and also collect the solar energy through a mixture of Solar PV and Solar Thermal panels. The high level windows also act as passive vents to create stack effect ventilation through the building for summer cooling.
The raked roof section allows sunlight to the northern garden areas as the southern garden area is well shaded from the trees to the south.
The building will be designed with a high level of insulation and airtightness which will far exceed code for sustainable homes level 3 which is required of all new homes in the Barnsley area.
The modest pool it is felt will provide an invaluable facility for friends and family given the recent closure of Stocksbridge swimming facility. The pool will be powered by a number of south facing solar panels cleverly integrated into the roof to overcome the tree cover to the South.
The applicant has set aside areas for growing of food to provide a degree of sustainability

2.2. Layout



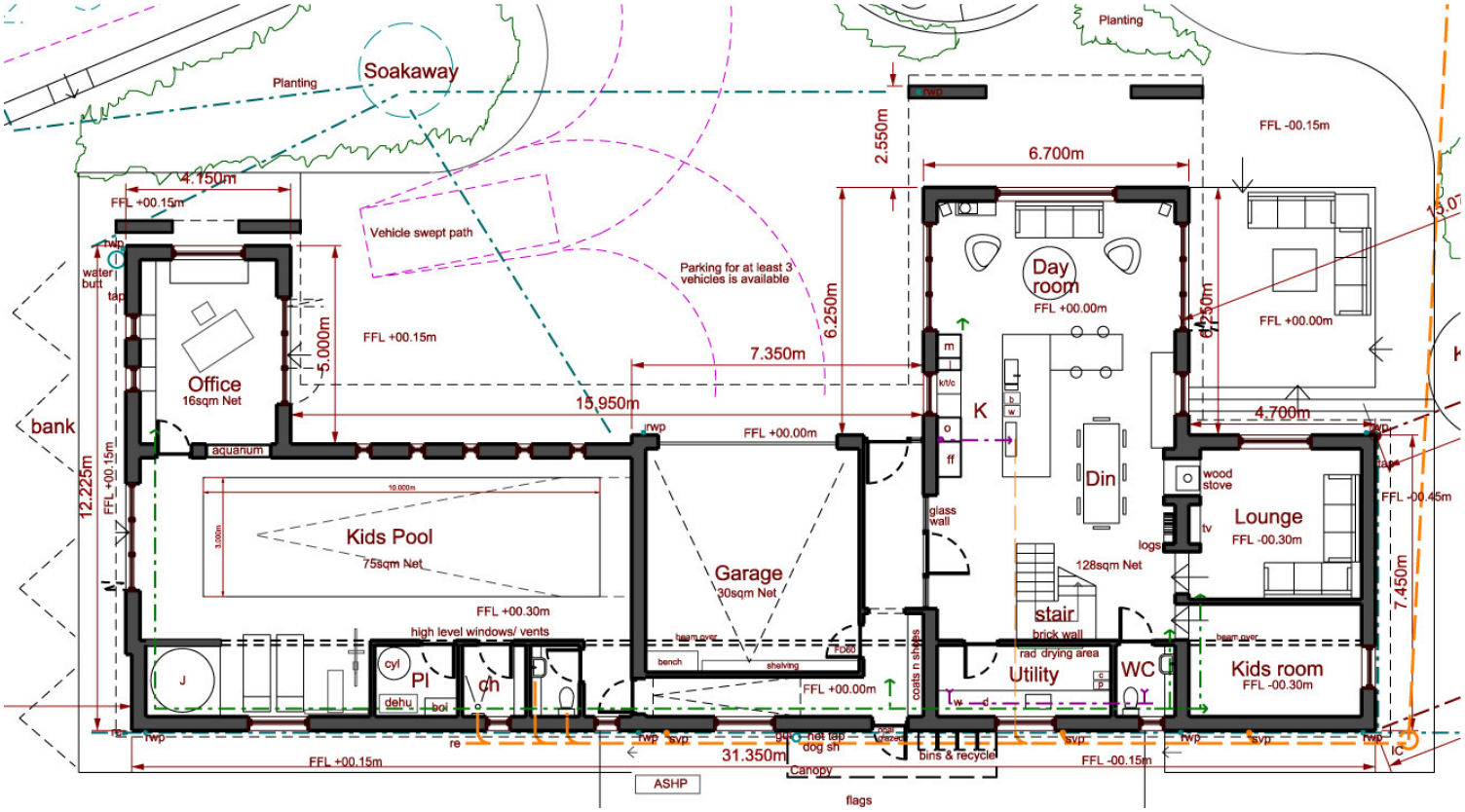
Site Plan

The building is orientated north/ south, the ideal orientation to take advantage of solar gains and the views across the valley. The building is intended to sit close to the southern boundary as this area is well shaded by the trees along the side of the trail and so does not provide useable garden space, by pushing the building back as far as possible and with the raked roof form as shown on the section this creates much more usable garden space to the north, east and west.
A new highways access will be formed onto Rockside Road towards the west side of the site, see Access section
The building faces and addresses Rockside Road and the views across the valley, although glazing to the north elevation is kept to a minimum to minimise heat losses from the cold face. The ground floor steps to follow the slope of the site.

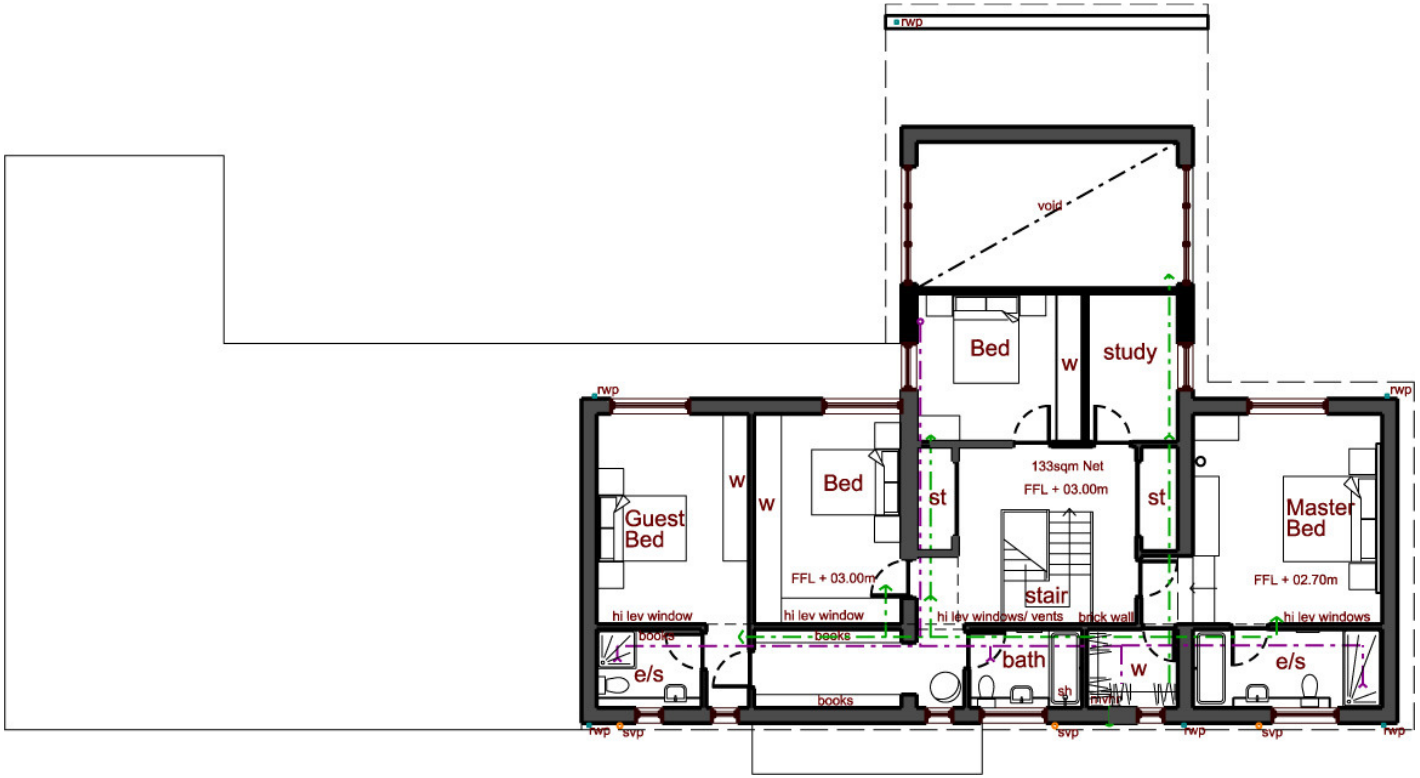
The bungalow to the west is over 25m from the west elevation of the proposed and at a higher elevation so there will be no detrimental effects on the bungalow in terms of sunlight and day light. The detached property to the east has a rear elevation facing the proposal, as all windows are at ground level (two bedroom windows and one opaque bathroom window) it is intended to install a 1.8m fence to overcome any overlooking issues and the positioning of the proposal with raked roof means that sunlight and daylight to the neighbour is not adversely affected.

It should be noted that the site is elevated from Rockside Road by about 1.5m and there is a further 1m high dry stone wall above this and as the building is set relatively deep in the site little of the building will be seen especially when approaching on Rockside Road from the lower east side. There will be distant views of the building from parts of Thurlstone across the Don valley but the building is designed with a mixture of timber cladding, green (sedum) roof and olive green render to cleverly blend in to the backdrop of trees.

The buildings 't' form plan creates a series of sheltered outdoor spaces from the prevailing south westerly winds.



Ground Floor Plan



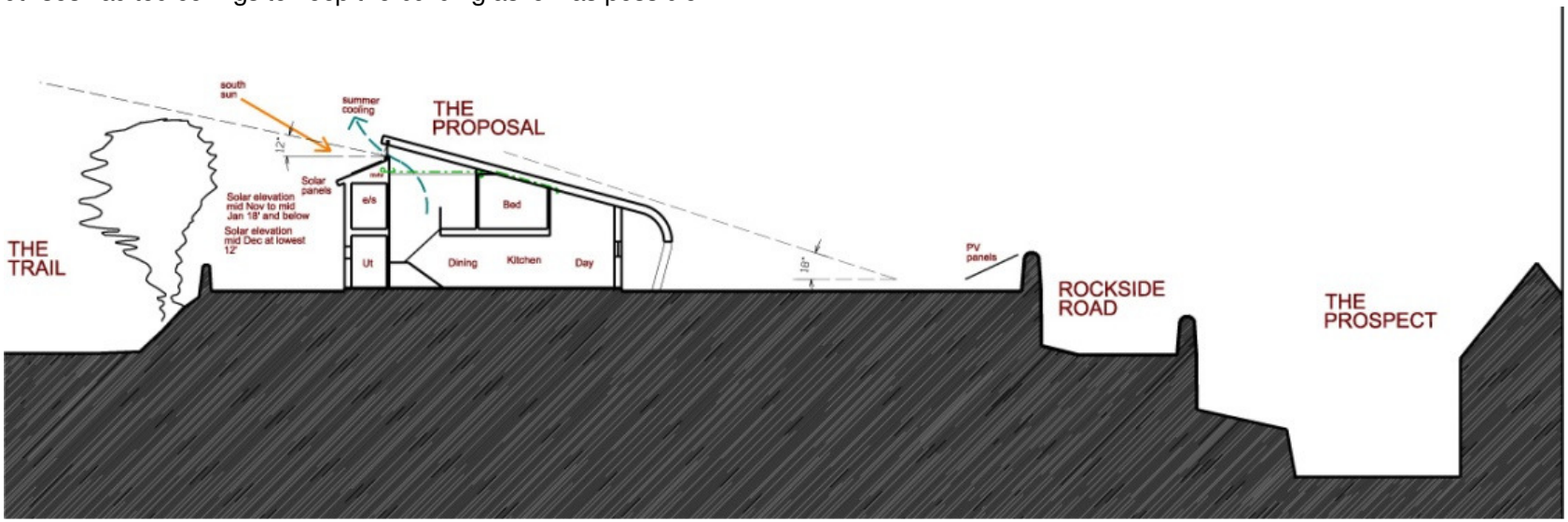
First Floor Plan

2.3. Scale



Rockside Road Elevation

The building sits against a backdrop of trees and is of a similar height so it does not break the skyline. The building roof steps down to address the neighbouring properties to east and west. The roof rakes towards Rockside road so giving it a less imposing presence and the building utilises vaulted ceilings to keep the building as low as possible.



Site Section

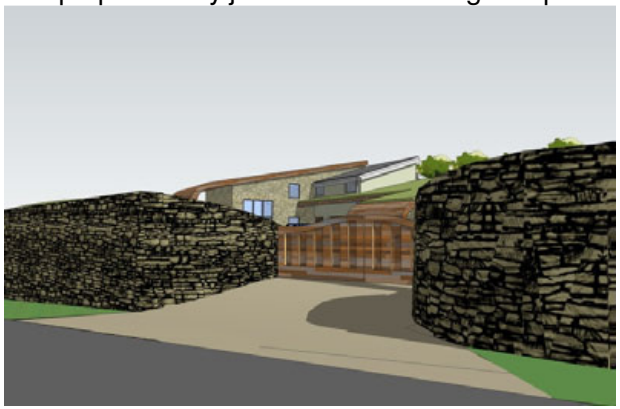
The building being at a higher elevation than Rockside road and set deep into the site means it has less impact than a building would at street level, the dominant form from Rockside Road will remain the existing 2.5m high dry stone retaining wall. The proposal has very little impact on the houses along ‘the Prospect’ given their significantly lower elevation.



The proposal will not be seen from the lower side of Rockside Road beyond the existing high dry stone retaining wall



The proposal may just be seen from higher up Rockside Road over the stone wall and through the vegetation



The most prominent view of the building will be at the new entrance cut through the existing retaining wall



The roof of the proposal may be partially visible over the embankment and wall from the Trans Pennine Trail

2.4. Appearance



Elevated View from Rockside Road, Lower Side

The building is of a contemporary design but utilising materials familiar to the area and also those that will sit it into its surroundings, the thin coursed sandstone walls will be taken from the nearby Hillside Quarry and are a common feature of buildings throughout the area, the soft olive green render, the cedar cladding and green sedum roof will settle the building in against its backdrop of trees, along with reflecting the materials of the two adjacent buildings. The roofs will be a major feature of the building and three contrasting roof finishes will mix modernity and tradition, a natural slate roof, a single ply membrane and the ever changing sedum planted roof.

The Southern elevation is the utilitarian service side of the building, the soil pipes, bins, solar panels, functional high level and secure windows and vents and sheds are all located to this side out of public view, only the roofline will be visible from the public footpath; having said that the elevation still provides a pleasing composition of windows and varying roof line.

As mentioned previously Rockside road has a number of properties designed by designSpace; although there are common themes that run through the buildings they are all unique in their own right, being site specific designs. The building will hopefully be an exemplar of good quality architecture in this semi-rural area.



Elevated View from Rockside Road, Top side



Elevated view of the South Façade

2.5. Landscaping

Dry stone walls will be adapted and extended to the boundaries where the new vehicular access is formed, a new 1.8m timber feather edge fence will be provided to the boundary with Highfield, the driveway and parking area will be block paved. The remaining garden areas will be a mixture of lawn, terrace and planted areas using indigenous shrubs and plants. An area is set aside to the west for growing of food, including a greenhouse.

2.6. Sustainability

Good orientation and a clever building section will harness the suns power to heat the building naturally in the winter and utilise natural stack effect ventilation to cool the building in summer; this will be particularly evident in the pool room which will be able to use natural ventilation via thermostat and humidistat controlled high level windows to control the temperature and humidity in the space reducing the energy used by the mechanical systems. The air source heat pump will provide the majority of heat to keep the pool temperature at a comfortable constant; passive measures will be used to further reduce energy bills, such as insulated pool walls and floor, a pool cover which can save as much as 50% on the heating and the applicant will also ensure the pool temperature is kept at a modest level.

High levels of insulation will be used throughout the build.

The building will achieve a high degree of airtightness.

A Mechanical Ventilation Heat Recovery system will eliminate leaky trickle vents and distribute warm air throughout the building.

The building will have a high thermal mass so retaining a more constant internal temperature, taking the strain off any heating system.

Materials and trades will be sourced locally wherever possible including stone from the nearby Hillside quarry.

The majority of dry stone walling stone will be taken from the foundation excavations as the ground for 1.5m is stone fill from the original railway excavations

The sedum roof offers many advantages such as reducing rainwater run-off, increased insulation properties and a habitat for insects and flora

The cedar cladding (or an equivalent) will be chosen for its sustainability as well as its appearance.

A high performing gas condensing boiler will provide central heating (via underfloor heating).

The building will use solar PV and/ or solar thermal panels to provide a large quantity of the energy demand for the property.

Rainwater from roofs will be stored in water butts for use in the garden.

The applicant has set aside areas for growing of food to provide a degree of sustainability and areas for composting.

3.1. Access

A new highways access will be formed onto Rockside road with splayed entrance; there is a 1m wide grass verge between wall and road, giving good visibility for vehicular egress in both directions. Although the entrance is in a 60mph national speed limit area, the 30mph zone is just 90m along the road to the east, visibility is possible over 200m to the bottom of Rockside road, to the west visibility is possible to the sharp bend where the road bridges the trail, approximate speed around this bend is no more than 10mph, the width and condition of the road and the constraints mentioned above mean the average speed on the road alongside the site is no more than 30mph.

The driveway bends from the Higher Rockside road into the lower end of the site allowing the driveway to be nearly level, gradients will be no greater than those recommended in the South Yorkshire Residential Design Guide.

A double garage is provided and parking and on site turning for at least a further two vehicles is available on the driveway, achieving the LA requirement of 3 parking spaces.

Emergency services can gain access to the property from Rockside Road.

Refuse & recycling area is provided at the rear of the house, roadside collection.

Pedestrian access to the entrance from the parking area will be level with level thresholds into the building; A reception space and an accessible WC is provided at ground floor level, corridors and doorways will meet part M of the building regulations.

The building is intended to be fully adaptable to meet the changing needs of the occupants

The foul drain will connect into the mains sewer via the Highfield drainage.

All surface water will be dealt with on site with soakaways and other SUDS.

The building will follow ‘secured by design’ principles as far as is reasonably possible.

4.1. Contact

Applicant
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S36 7LJ
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*All illustrations in this document are indicative only and should not be used for detailed consideration of massing or heights in relation to other buildings, please consult the technical drawings in this regard.

5.1. DesignSpqace Architects Projects

DSA are specialists in one off sustainable, contemporary homes, established for four years, our first completed building won the Home Building & Renovating competition for best do it yourself project.



New Dwelling, Rockside Road, Thurlstone

The first sedum roof and environmentally aware building in the area, with a striking form on a hilltop location overlooking the market town and conservation area.



New Dwelling, Rockside Road, Penistone

Designed in a conservation area well renowned for its weavers cottages, the row of high level windows and industrial steel trusses give the building its historical reference in a contemporary open plan home.


under construction

New Dwelling, St Johns Drive, Grantham

Taking on a site with two schemes by other architects already refused planning, required a brave approach; the solution, a stunningly unique eco-friendly home. A building of three parts; two curved sedum planted roofs, slicing into a central 'modernist' box reduced the apparent scale that had been the downfall of its predecessors and created a beautiful ever changing building from any angle, cutting edge ICF construction and the latest renewable energy sources complete this truly unique building.