

Planning, Design & Access Statement

Building plot to the East and South of 15 Hallett Road, Denvilles, Havant

Erection of 1no two-bedroom bungalow, repositioning of existing garden shed and erection of a greenhouse

Introduction

The site is situated on the South side of Hallett Road and until March 2017 (when it was sold to the applicant with planning permission APP/16/01091) formed part of 15 Hallett Road's garden to its South and East. Its entrance is now the last property on the South side of Hallett Road before the entrance to the new housing site at the end of Hallett Road.

This application is for the erection of a two-bedroom bungalow to replace the one permitted in APP/16/01091. The applicants wish to construct a sustainable, highly energy efficient Passivhaus bungalow (<15kWh/m²/year versus 52kWh/m²/year for a similar sized detached property built to Part L 2013) using sustainable natural materials with straw bale panels being the currently preferred option.

This application also includes proposals to re-locate the existing garden shed which will be used as a site office and for storing hand tools during the build and thereafter for garden tools, bicycles and kayaks; it also includes for the erection of a new greenhouse for seed/cutting propagation and food production.

It is intended to keep the 2.4 m high landscape buffer zone between the plot and Nos 1- 5 Hallett Close however it will be in the form of a pleached hornbeam hedge against the existing brick wall and behind it a half productive/half amenity planted garden across the width of the narrow part of the plot.

Parking will be as approved with APP/16/01091 and will have cabling from the house to facilitate the later fitting of an intelligent electric vehicle charger to allow the EV's battery to contribute to house energy demand.

Bin storage will be behind the existing fence which demarcates the garden from the parking area.

Amount of Development

Erection of a single low-profiled bungalow, re-location of a garden shed and erection of a greenhouse (replacing a slightly smaller existing one)

Involvement of local interests

None

Access

There would be no change to the parking arrangements at the front of the property permitted in (APP/16/01091) including the lowering of the first part of the wall adjacent to the pavement by 900mm. Access to the front garden would be through a lockable door in the existing fence at the front to provide a measure of security for the proposed bungalow and also neighbouring properties.

Transport Assessment

The site is within easy walking/cycling/bus distance of schools, shops, places of employment and entertainment; there is also a railway station at Warblington a short walk away providing good connections to Emsworth, Havant, Chichester and Portsmouth.

Evaluation

The proposed bungalow is similar to that in APP/16/01091 albeit with a modest increase in area and change of shape due to the requirements of Passivhaus methodology (see below); it has the same ridge height of 4.23m it has been designed as far as possible to ensure it is not prominent on the street-scene or when viewed from neighbouring residential properties; it does not give rise to overshadowing or overlooking issues.

Physical context

The site plan and the introduction above sets out the physical context of the site

Planning Context

General

On the basis that planning application APP/16/01091 was granted the applicants believe that the principle for development of this site in the form of a two-bedroom bungalow with the same access, parking, and waste disposal arrangements as well as new cycle storage and provision for future electric vehicles has been established under:

Presumption in Favour of Sustainable Development	Presumption in Favour of Sustainable Development
Recreational Disturbance to SPAs from Res Development	Recreational Disturbance to Special Protected Areas (SPAs) from Residential Development
CS11	Protecting and Enhancing the Special Environment and Heritage of Havant Borough
CS16	High Quality Design
CS17	Concentration and Distribution of Development within the Urban Areas
CS21	Developer Requirements
DM8	Conservation, Protection and Enhancement of Existing Natural Features
DM13	Car and Cycle Parking on Residential Development

In particular:

the proposed development fulfils the requirements of **The Havant Borough Core Strategy 2011 policy CS11– Protecting and enhancing the special environment** and heritage of Havant Borough – especially items 2/ and 7/.

<https://www.havant.gov.uk/sites/default/files/documents/ADOPTED%20CORE%20STRATEGY%20.pdf>

The Havant Borough Core Strategy 2011 policy CS16 – High Quality Design

(<https://www.havant.gov.uk/sites/default/files/documents/ADOPTED%20CORE%20STRATEGY%20.pdf>) lists a number of requirements that a new development should demonstrate in its design; several of these are not applicable to this development, however where they are the applicants believe this application fulfils all of them.

Economic context

The granting of APP/16/01091 would suggest that the siting of a bungalow on the plot is thought to be beneficial economically.

Social context

In a social context, a highly energy efficient house, using rainwater as far as possible, built of natural materials, using offsite construction methods as well as having a productive garden will hopefully act as an example of good practice for what can be achieved in sustainable building and living in a small back-land plot.

Design principles

There are three main principles used in the design of the proposed bungalow

1/ Using Passivhaus methodology, to provide an energy efficient, healthy, comfortable and relaxing living environment.

A useful guide on the principles of Passivhaus design written for local authorities & architects can be found at

http://www.passivhaus.org.uk/filelibrary/Primers/KN4430_Passivhaus_Designers_Guide_WEB.pdf)

2/Use well designed landscaping and planting to ensure it fits into its environment as unobtrusively as possible; and also reduces impact as far as possible on neighbouring properties.

3/To reduce as far as possible the house's use of energy and water supplied from exterior sources through the use of energy saving appliances, on site energy generation and rainwater harvesting.

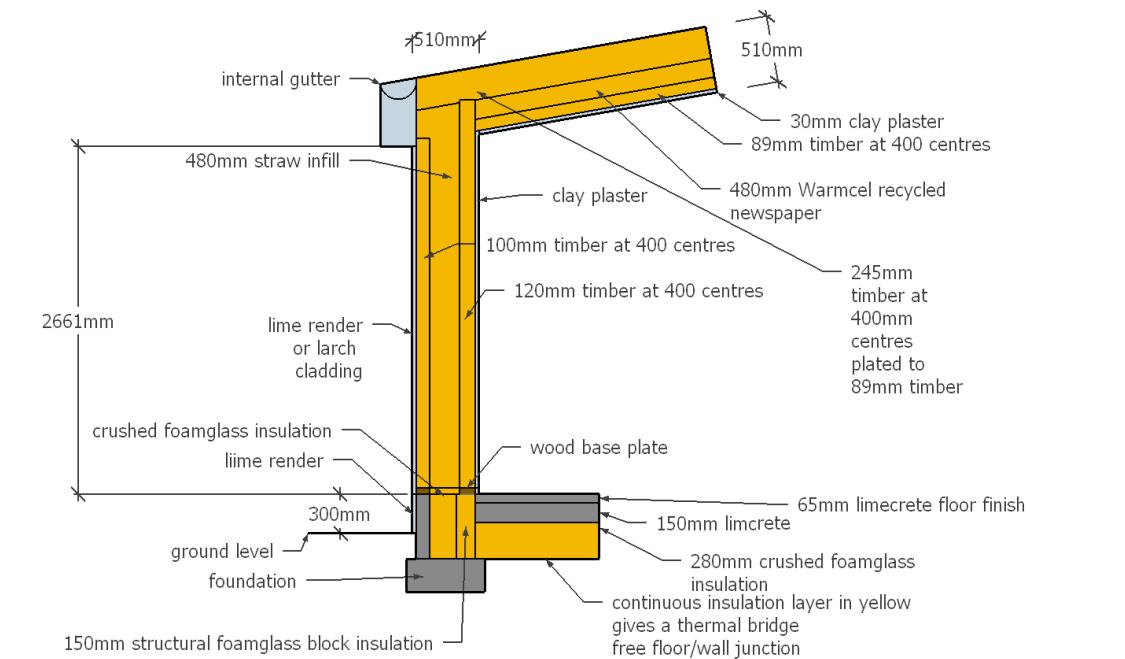
To build a Passivhaus on a compact plot which is shaded to the South requires it to have a certain shape and volume to attain the high levels of energy efficiency required for Passivhaus; without this it will not be possible to achieve Passivhaus certification.

As detailed in the above guide a Passivhaus requires a low heat loss area to internal volume ratio as well as a reasonable volume to start with. The proposed bungalow already has an increased heat loss area/volume ratio over that of a cube (the best shape) but when this shape disadvantage is combined with a site shaded from the South (a significant contribution to the heating of a Passivhaus is made through solar gain from the South) it makes reaching the requirements of Passivhaus on this site quite challenging.

To illustrate this principle, the shape of the bungalow contained in APP/16/01091 has a high heat loss area/volume ratio due to its shape; initial calculations show it would be impossible to reach Passivhaus levels of energy efficiency without 700mm thick walls and roof which would not be economic to build or a good use of space on a compact plot.

Even with a rectangular bungalow the walls still have to be 510mm thick to accommodate the extra insulation and this necessarily leads to a larger footprint than for a house built to Part L.

The floor also has to be a similar thickness to include the required amount of insulation and 300 mm of this has to be above ground level so that the straw panels are kept above any standing water moisture risk whilst still ensuring there are no thermal bridges (see below).



This gives rise to higher walls than would be normal however this also reduces the roof area presented to neighbouring properties (especially no 4 Hallett Close) due to the shallow pitched roof and the increased wall area which would be covered in climbing plants (see appearance section below)

With the size and shape of the proposed bungalow largely dictated by the site and Passivhaus requirements, the second main design principle is to make it fit into its surroundings as unobtrusively as possible.

We feel this has been achieved in the design by the use of a hipped roof and by using planting both attached to the house and in the garden. The planting in the garden has been designed in tandem with the house as a series of complementary exterior “rooms” (one of which is the greenhouse which is integral to the sustainability of the garden both for propagation of plants by seeds/vegetative methods and all year food production) which ensure that the house fits into its garden setting and will not be detrimental to adjoining residential properties. Many of the garden’s plants would be propagated here.

With careful consideration given to the planting, neighbours and the surrounding area will benefit not only from a green space but also from the biodiversity and its promotion of wildlife which will include pollinators and other beneficial insects as has already been shown by the many plants that have already been moved to the site.

On site energy production would be from solar photovoltaic panels with battery storage with an intelligent car charging cabling also installed to allow a future electric vehicle to be charged in the parking area but also to supply the house as part of an energy balancing system.

The house would be fitted with the latest Cat 7 structured cabling to enable it to become a smart home in future and easily link into the recently announced Ofgem smart energy system https://www.ofgem.gov.uk/system/files/docs/2017/07/upgrading_our_energy_system_smart_systems_and_flexibility_plan.pdf

In conclusion by using Passivhaus methodology, on site power generation and battery storage, natural/recycled materials as far as possible in its construction and planting growing up the walls of/on the house, the proposed bungalow design will ensure a healthy, comfortable, energy efficient sustainable place to live in and which will fade into the greenery of its surroundings as far as possible.

Scale

The building is a single storey building with a low-profile ridge height of 4.23 metres which it is felt is appropriate in size and shape to the plot.

The greenhouse is of a size where it will be useful for meaningful seed propagation and food production.

The shed's dimensions are those of the existing shed – this size and height is needed for storing two 16-foot touring sea kayaks in the roof.

Layout

The living room/kitchen is on the sunnier East of the plot to maximise use of daylight and easy access to the rear and front gardens; sleeping accommodation is to the shadier West and bathrooms are to the North bordering the rear garden of 15 Hallett Road.

There are no vertical windows facing East, West or the North section bordering 15 Hallett Road garden so the properties in closest proximity (Nos1-5 Hallett Close & 15 Hallett Road) are not overlooked in any way; daylight to these elevations is from rooflights with a suntube lighting the hallway. All the vertical glazing faces South across the rear garden to the more distant properties of Glenleigh Park or North into the front garden looking towards the street; 15 Hallett Road has an oblique view of the North facing door and kitchen window there will be pleached Hornbeam to 2.4m (40mm above top of kitchen window and front door) & on the fence so these can't be seen and there will be no overlooking from the front door to 15 Hallett Road Garden.

To reduce any potential overlooking problems from the top floors of 1-5 Hallett Close pleached Hornbeam to a height of 2.4m will act as a landscape/visual buffer and for 15 & 17 Glenleigh Park a yew hedge of mature bushes (re-sited from the site of the proposed mobile home) has been planted which based on 30cm growth per year will be above 1.7m garden wall by summer 2018.

The proposed bungalow has low ridge height of 4.23 m and a 10 degree hipped roof to enable possible future planting on the roof and also to ensure overlooking properties will be unable to see into the rooflights on any elevation.

The re-location of the shed is to the shadiest, least visible (to occupants and neighbours) and least useful part of the garden and is needed for keeping garden tools, bicycles and kayaks; it would be used as the site office/hand tool store during construction; it will also will block any potential view of the bungalow's master bedroom from the top floor rooflight of 17 Glenleigh Park in Winter when the oak tree has lost its leaves. It will have climbing plants on its Southern and Western elevation to minimise any visual impact.

The company who wrote the Arboricultural report for APP/16/01091 have been consulted and do not feel that this re-siting would have any effect on the roots of the oak tree. (a copy of the correspondence is included in the documentation for this application.

Should the shed relocation contained in this application be granted, the proposed relocation of the shed to the Eastern corner of the plot contained in the applicants other application APP/17/00665 would not take place however a temporary materials store of similar dimensions would be sited there during the construction of the proposed bungalow.

The greenhouse is located in the sunniest part of the garden to make the most of solar gain and will be largely concealed from the street scene by the planting of trees at the entrance of the garden. it will contain a vine along the roofline to provide shading inside but will also have a greening effect on the exterior colour.

Appearance

A quick look around the area shows many different styles and finishes to residential buildings to a point where there is no obvious style to emulate.

Given its garden setting, the fact that it will not be visible from the street and the applicants wish for it to sink into its setting the walls will either be lime-rendered in a neutral tone or clad in larch which becomes a silver/light grey colour within a few years.

This however this is not intended to be the long-term finish visible to neighbours. The proposal is for the East West and Northern elevation (the part bordering 15 Hallett Road) to have a wire framework installed from eaves to ground up which a variety of evergreen climbing plants can climb; after three or four years it is intended that the walls on these elevations will not be visible at all.

Using two species of climber with light and dark leaves on the Eastern elevation it is hoped to emulate some of the articulation of the design in APP/16/01091.

On the Southern and Northern elevation (where it borders the front garden) there are a verandah and porch respectively; the verandah would have a pergola over it for deciduous climbing plants to provide shade for the glazing in high summer (to prevent overheating) and light in the winter when the leaves drop. The porch would have climbing plants growing up the supports and have a grey finish on the roof.

Given the silty/clay nature of the soil and the fact that water drains onto the plot it means that the ground under the top soil layer is damp all year round so it is not envisaged that a permanent watering system will be required for the building attached climbing plants after they have become established using a temporary one.

Because the Western end of the Southern roof elevation is shaded by the oak tree much of the time it is not a good place to put solar panels, these have therefore been placed on the Eastern and Western roof elevations with some on the east of the Southern elevation.

It is the applicants' preference to have a living roof on the Northern and the Western side of the Southern roof elevation however cost and the North facing aspect may dictate against this (a 10 degree pitch facing North may be OK but further research is needed); if not the roof will either be grey slate type tiles or cedar roof shingles in line with the applicant's wish for the house to fade into its surroundings.

Windows will be in a complementary colour to the walls – once again designed to be unobtrusive.

The greenhouse will contain a vine along the interior ridge line to provide shading inside but it will also have a greening effect on the exterior colour.

The existing shed is already a grey green and similar to the photo below in its current location will have plants growing up all elevation except the door elevation which would face onto the garden.



Landscaping

Full details of the proposed landscaping are in the landscape site plan but the border treatments are as follows.

1/At maturity a 2.4m high landscape buffer on the Eastern boundary in the form of pleached Hornbeam at each brick pillar



(which are 2.6m apart as per RHS advice <https://www.rhs.org.uk/advice/profile?pid=155>) with a variety of fan trained fruit-trees between them.



25 hornbeam and varied fruit trees were bought in March 2017 and planted in large pots and are now on site with a watering system to ensure maximum growth until planted out.



2/ The existing 1.7m wall on the Southern boundary has not been well-constructed (see photos below) and also has shallow foundations so though it is likely to stand for many more years without interference, the solution to make it higher proposed in APP/16/01091 could well have resulted in in falling down due to the extra wind load placed on it.

A number of solutions were explored and the one arrived at was to plant an irrigated Yew hedge which was carried out a few days before this application. Using the RHS's planting interval of 50cm between plants and an average of 30cm per year growth rate for Yew many of the plants will have reached a height of 2 metres by summer 2018 when it is envisaged the proposed bungalow would become occupied.



The Western border with 13 Hallett Road is an existing 2 metre fence and the Northern and Western border fences were designed and installed in collaboration with the new occupants of 15 Hallett Road (design of fence in photo of Hornbeam in pots above).

Trees

As per the tree report the only tree on the plot which needs to be considered is the oak tree in the garden of 17 Glenleigh Park. A 6.6 metre exclusion zone for house foundations was detailed in the report and with the proposed bungalow being further away than APP/16/01091 it is even less likely to affect the roots of the oak tree.

The company who carried out the tree report for APP/16/01091 do not feel that proposed re-location of the garden shed to where the existing greenhouse now stands presents a threat to the oak tree so long as surface foundations are used (see correspondence in separate document)

Much of the protection of the oak's roots during construction would be performed by the re-location of the shed as allowable under Note 2 of section 6.2.2.3 of BS5837 2012 "Trees in relation to design, demolition and construction – Recommendations" The shed's northern

wall would form the Northern border of the tree protection zone with the Eastern border being protected as required under section 6.2.2.1 and in consultation with the project arboriculturalist as required in 6.2.2.3.

Waste & Recycling

As per comment from HBC Waste department in APP/16/01091, general and recycling bins will be kept under the trees just inside the fence door to the parking area so they are easy to out near the pavement on collection day.

Food/garden refuse would be composted on site in a wormery to avoid it going to landfill.

Site waste will be removed by skip however with off-site construction techniques this should be limited.

There is a layer of clay/silt under the top soil and assuming tests are successful the applicants intend to use the clay excavated when the foundations are dug for use on the walls in the house as clay plaster has many benefits. <http://jeffreynaturalbuilder.com/many-benefits-clay-plaster>

Foul Sewerage & Utilities

Mains electricity, water, telecoms and foul sewerage drainage will be brought on site and surveys indicate that there are no physical problems in doing so.

Storm water drainage

As the wettest and lowest part of the plot 2m³ of soakaway will be installed where the existing garden shed now is. In addition a 10,000 litre tank will be installed in the foundations for rainwater harvesting which will be used for plant watering and WC flushing.

Security

The design has followed "Secured by Design" as far as possible though this is difficult with a house set back from the road and there are some conflicts with Passivhaus windows and doors; various electronic security measures will be installed on the construction site and afterwards in the completed house to mitigate any vulnerabilities in this area.

Offsite construction

It is intended that the proposed bungalow will be constructed using the latest off-site construction methods which will significantly reduce noise and dust on site.

Working hours/noise

As per APP/16/01091 and most local authorities in the UK - no works or ancillary operations associated with any demolition, excavation, clearance and construction works at the development, which are audible at the site boundary, would take place on any Sunday or Bank / Public Holiday, nor on any other day except between the following times: Monday to Friday: 08.00 - 18.00 and Saturday: 08:00 - 13.00.

Offsite construction should significantly reduce noise on site; the digging of the foundations/drainage will require a digger for a couple of weeks, the foundations will require a mixer for a couple of weeks and the four day erection of the walls and roof a crane. Interior fitting out should not give rise to much noise in a highly insulated, air-tight, triple glazed building.

Dust

Given the off-site construction method likely to be used there should not be much dust making activity on site however any dust making activity would be mitigated by warning neighbours in advance and adhering to the HSE's CIS36 construction dust information booklet.

Bonfires

No bonfires would take place on this site, during any phase of the operation i.e. demolition, excavation, clearance and construction works without reference to Environmental Health Pollution team, at Havant Borough Council, prior to taking this action.

Neighbour Consultation

Attempts have been made to give opportunities for consultation with all the neighbours in 1-5 Hallett Close, 13 & 15 Hallett Road and 17 & 19 Glenleigh Park in person about our proposals with varying levels of success; in particular the owners of No 4 Hallett Close who the applicants realise the siting of the bungalow will most affect. They have been involved in the design of the Eastern elevation to ensure that it is as acceptable to them as possible.

The applicants have greatly appreciated working with their neighbours who have engaged with them already in face to face meetings and they would welcome the opportunity of continuing to do so on any matters arising from this application; email addresses and phone numbers have been supplied to all nine neighbouring properties.

Conclusion

The proposed development of the plot has been carefully designed after taking time to work out how to reduce as far as possible any impact on neighbouring properties, whilst providing a healthy, comfortable, energy efficient and future proofed living-space both for the applicants and future occupants.