

Northshore

**40 Sinah Lane
Hayling Island**

Design and Access Statement

Planning Submission

October 2020



Northshore Hayling Island

Contents

- 1.0 - Introduction
- 2.0 - Site Context
- 3.0 - Planning Policy Context
- 4.0 - Design Proposal
- 5.0 - Design Layout
- 6.0 - Scale and Appearance
- 7.0 - Landscaping
- 8.0 – Biodiversity and Sustainability
- 9.0 - Appendices

1.0 Introduction

This Design and Access Statement has been prepared in support of the full detailed planning application which seeks to replace the existing 1930s dwelling currently on the site.

This report should be read in conjunction with the following reports which were submitted as part of this application.

- **Arboricultural Impact Assessment : Alderwood Consulting**
- **Ecology Report: Hampshire Ecological Services Ltd**
- **Renewables: BBH Energy Strategies Ltd**
- **Planning Policy Overview A.D.N. Planning Consultants**

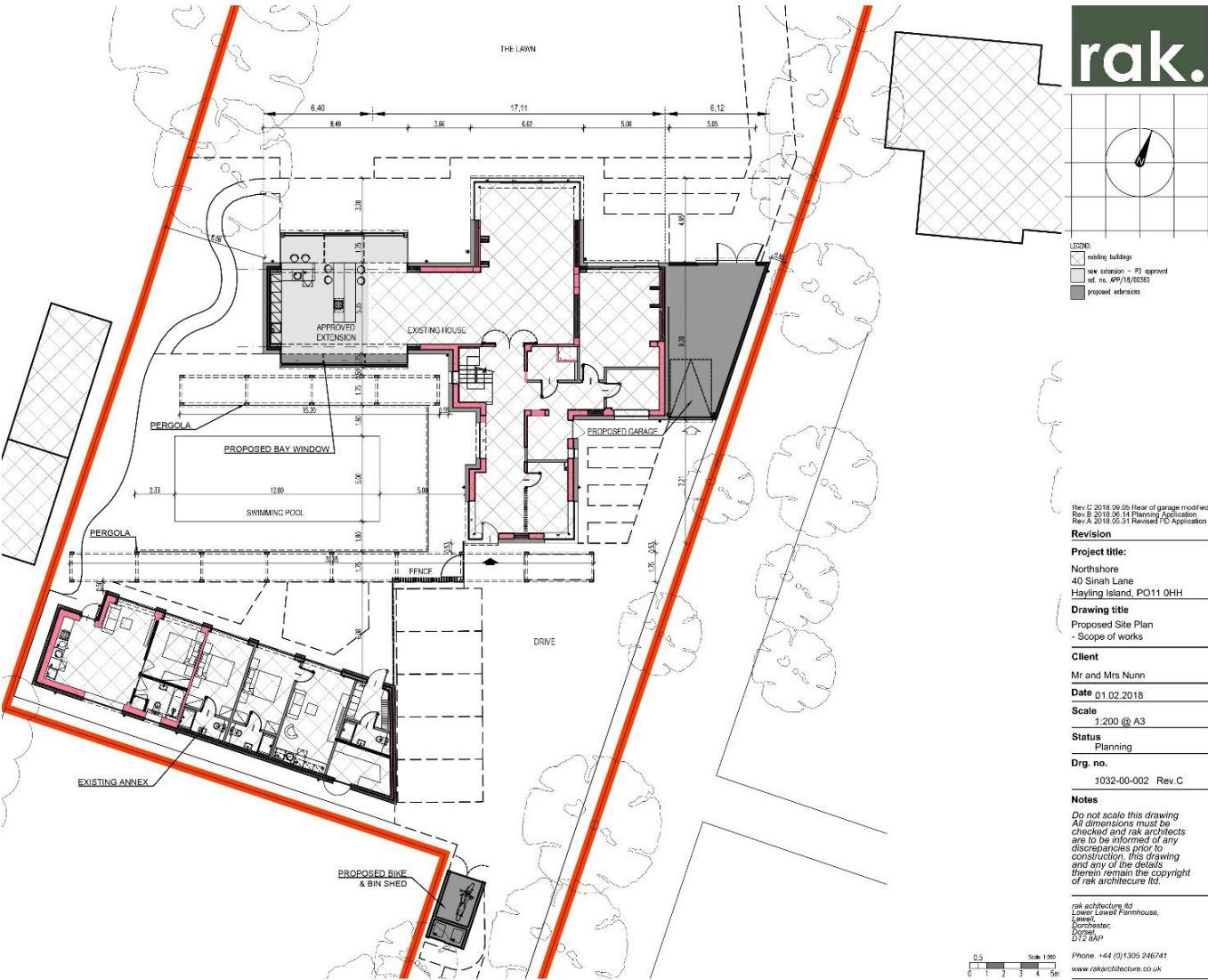
Our clients, Stephen and Philippa Nunn bought the property in December 2017. Both have had a long standing family tie to Hayling Island. Philippa was born and raised on Hayling Island and her parents and sister still live on the island today. The intention is to move back to Hayling and to create a high quality, flexible and sustainable family home here, where they intend to relocate.

Rak architecture were appointed in January 2018 to explore options for remodelling and refurbishing the existing house as well as comparing these options with the possible advantages of a replacement dwelling on the site .

A fundamental aspect of the client brief has been to create a high quality, contemporary family home for the family, a design which is robust and future-proofed, exceeding current standards for thermal performance, energy consumption and sustainability.

We have explored a variety of refurbishment options for the home and an application was approved for a series of extensions to the house including a new enlarged western wing of the house (Planning reference APP/18/00360) and a garage to the eastern side of the house (Planning reference APP/18/00646). We subsequently developed this refurbishment scheme to a high degree of final detail.

It was felt that the final design fell well short of the quality and sustainability benchmark that we were hoping to achieve. This detailed refurbishment study was modelled in relation to energy use as well as fully costed and the resulting scheme was neither feasible in terms of costs or capable of meeting the limited carbon footprint we wish to achieve.



Extract from the approved 2018 application APP/18/00646 illustrating the principle components of the approved refurbishment scheme which includes a single storey extension to the west, a single storey garage extension to the east and bin store to the south.

1.0 Introduction

1.1 The existing building

The buildings along this side of Langstone Harbour are generally mixed in character, however at this end of Sinah Lane there is a noticeable cluster of 4 distinctive 1930's modern movement houses (40, 40A, 42 and 44 Sinah Lane). Two of these houses are notable, Grade II Listed modern homes and we have discussed these in more detail in section 2 of this report. It is evident we feel, that whilst the fabric of the existing building has a number of major issues, the general approach of a simple white rendered modern pavilion style house is very much in keeping with the local context and it is for this reason that the new proposals take a great deal of direction from this approach.



The Saltings – number 42 Sinah Lane – designed by Connell, Ward and Lucas 1934 – located to the west and front of the site



38 Sinah Lane – Traditional Arts and Crafts house located to the east of the site



Northshore – number 40 Sinah Lane – Existing house on the site

1.0 Introduction

1.2 The existing building fabric

Despite appearances the existing house is predominantly traditional brick cavity wall construction. The outer leaf of brick is traditional cement render painted white. Window and door openings are formed with concrete lintels and there are exposed slender steel pin columns at the corner windows. The ground floor is a concrete screed laid directly onto concrete foundations. There is no insulation in the floor or walls. The upper floors and roof are timber joists. Some parts of the original roof have thin degraded insulation batts dating back many years and some newer sections of roof have limited areas of Celotex rigid foam insulation.

The building fabric suffers from a number of construction shortfalls such as large areas of uninsulated or barely insulated walls and floors and electric under floor heating systems fitted in every room. Despite being relatively cost effective to install initially, these systems are incredibly inefficient and expensive to run as well as representing a highly unsustainable choice in terms of the resultant carbon footprint of the home.

The option of over cladding the entire building with a modern insulated render system and forming entirely new insulated roof areas was considered, however not only would this be very challenging to achieve technically, it would be costly in the extreme and the uninsulated floors, being impossible to rectify would remain. Attempting to introduce extensive wall and roof insulation to such a building could also present a major risk of increasing moisture within what is already a very problematic building and retro-fitting mechanical ventilation with heat recovery would be unrealistic due to complications and costs.

The existing building has a number of defects which cannot sensibly be remedied without stripping the whole house back to "bare bones" and starting afresh. The existing house has undergone extensive refurbishment and extension at least three times since it was built and the patchwork of materials and details makes further refurbishment and extension very difficult and adapting the house to modern standards of performance all but impossible.

We have looked in detail at options which attempt to improve the poor fabric of the house as well as find different ways to heat and ventilate the building but these have proven to be unfeasible when costed and still fall short of the level of quality and sustainability that we have been asked to achieve.

We are, therefore proposing a replacement dwelling of a similar scale and design to the approved house plus extensions, but a new build with a much smaller carbon footprint and one which is capable of meeting and exceeding current Part L energy standards and so creating a home for the next 100 years. Accordingly, to make way for a new building which provides the required level of accommodation, comfort, standard of construction, thermal performance and sustainability, the existing building will be carefully dismantled and any fixtures and fittings in good condition such as kitchens, appliances, sanitary ware, brassware, doors, windows, blinds, electrics, ironmongery, floor finishes and other materials will be removed and set aside for re-use where practicable. Where recycling is not possible items will be disposed of in a responsible way and in accordance with regulations.



Large areas of wall roof and floors with no insulation and would require a major rebuild to accommodate



Significant cracking to finishes due to lack of movement joints in large areas of cementitious render and subsequent building movement



Significant problems in many areas of water penetration to substructure due to lack of damp proofing membranes and copings



A number of internal areas of damp where the original cavity is failing and lack of DPC or failing DPC – poor ventilation further exacerbates many of these areas

2.0 Site Context

2.1 Wider context

The site lies on the North side of Sinah Lane, a quiet residential road on west Hayling, and extends down to the shoreline of Langstone Harbour. The existing 3 storey house lies on a generous plot which includes a separate single storey annexe (with 4 garages, plant room and a self-contained apartment) to the south and single storey summer house by the shore. The site also benefits from several mature trees.

The existing house is set back some 70m from the road, behind 40A, and is accessed via a long driveway. The main house lies some 80m from Langstone Harbour to the north. Langstone Harbour is a Site of Special Scientific Interest (SSSI), part of the Chichester and Langstone Harbour Special protection Area (SPA) and Ramsar site and within the Solent Maritime Special Area of Conservation (SAC). The Harbour is rich in wildlife and home to several important species including little tern, brent goose and harbour seal.

The development site is not within an SSSI or other designated site and is not in a Conservation Area, however the proximity to such an important and sensitive area is something that forms an important aspect of the design and will be a factor with the build and programme. To this effect we propose adopting an agreed Construction Environmental Management Plan (C.E.M.P.) as part of any planning conditions, to offer a proactive approach in controlling potential nuisance and hazards to the natural environment.

The existing house and outbuildings are not listed. The site lies in Flood Zone 1, an area with a low probability of flooding and a flood risk assessment is not required. The site lies within the Havant Borough Council 5600m Coastal Buffer Zone. There are a number of TPO protected trees on the site (refer to tree report).

Northshore is one of approximately 50 houses with water frontage to Sinah Lake extending from Northshore Road in the east to Warren Close in the west. Further west is an area of natural salt marsh, Sinah Warren Hotel resort, the Kench local nature reserve and SSSI and Ferry Point which overlooks the harbour entrance and Portsea Island. To the south and west is Hayling Golf Club and Sinah Common a local nature reserve and SSSI. The commercial centre of West Town lies to the east.



Wider context Aerial View – N.T.S

2.0 Site Context

2.2 Local context

Northshore is one of a cluster of 4 distinctive 1930s modern movement houses (40, 40A, 42 and 44 Sinah Lane). 40A was built on land in front of no 40 and so is "land locked". 40A underwent recent extensive refurbishment but is not listed. 42 and 44 Sinah Lane are both notable Grade II listed houses. Both buildings were designed simultaneously by the architects Connell, Ward and Lucas in 1934. The buildings were originally designed for two doctor friends and their families as weekend houses so that they could holiday together. Notably 42 and 44 are two of Britain's first in situ concrete homes.

The long plot of 42, which originally extended to the shore has recently been divided so the house has also become "land locked" to make way for a single storey dwelling of contemporary design on the land to the north of 42 which will enjoy access to the shore and will be accessed by a long driveway off Sinah Lane. Of the 4 houses, only 40 and 44 retain water access. All 4 houses share a distinctive "DNA" of white render, flat roofs and dark framed metal windows.

The original Hayling Island Sailing Club and Hayling Golf Club buildings were modernist contemporaries as are a number of dwellings near Sandy Point on the eastern end of Hayling. Northshore enjoys striking views north across Langstone Harbour toward Portsdown Hill where the white rendered 1930s Sunspan House by architect Wells Coats reciprocates.

In contrast, 38 Sinah Lane to the east is a traditional Arts and Crafts style house of facing brick and clay tile pitched roof and chimneys built in the early part of the Twentieth Century. Like no 40, this house sits midway between Sinah Lane and the Harbour and is rotated. This House has been divided into two dwellings both with gardens extending to the shore.



Northshore – number 40 Sinah Lane – Existing house on the site



The Saltings – number 42 Sinah Lane – designed by Connell, Ward and Lucas 1934



The White House – number 44 Sinah Lane – designed by Connell, Ward and Lucas 1934

3.0 Planning Policy Context

3.1 Policy Context

A.D.N. Planning Consultants have provided us with a detailed planning appraisal which we have included within the planning submission material.

In this section we have summarised some of the key planning considerations which are raised in this report. Please refer to the full report for our understanding of the relevant policy context.

3.2 Principle of Development.

The proposal is for a replacement house and ancillary buildings that will all sit broadly on the footprint of the existing structures. They are located on an existing residential plot, on a brownfield site and within a residential area and not within an AONB. As such there is no in principle objection to the proposal.

3.3 Impact upon the character of the Area

Policy CS 16 of the Havant Borough Local Plan requires that development is of a high standard and amongst other requirements states: "Uses the characteristics of the locality to help to inform the design of the new developments including heights, massing, existing building lines, plot width and depths, materials and proportions of windows and doors". Such advice is also replicated in the NPPF.

The replacement dwelling as previously stated will sit broadly on the footprint of the existing. It will be rotated a few degrees clockwise and shifted north by approximately 3 metres and will be set off the eastern and western boundaries by just over 5 metres. The new building will be over 80 metres to its northern boundary with the shoreline. Importantly, the replacement house will follow the flat roofed contemporary design of the existing building utilising similar materials. It will therefore help to preserve the character of a small cluster of dwellings which as well as the application property also includes No.40a, 42 and 44 Sinah Lane. No.42 and 44 are Grade II listed building. Other dwellings in the immediate locality are of a more traditional design, but there is no overall defining architectural style or age that characterises the area.

The new house will be marginally greater in height than the existing and its western wing will also be marginally larger than the existing building. However, its overall design, bulk and massing will not be significantly different from the current dwelling. Whilst the new building will be visible from Langstone Harbour to the north, the 80metre set back will, as with the existing dwelling, reduce any visual impact from this direction. Furthermore, the generous set-back of the house from Sinah Lane, accessed via new double gates will ensure that the limited view of the existing dwelling from the highway will not be materially different in relation to the new house. It is considered that the proposals will be in keeping with the area and, together with the annex and pavilion building, in keeping with the design and styles that prevails in the locality.

The proposed annex will be on a similar footprint to the existing building, extending slightly to the north and the replacement garage and guest accommodation does not depart significantly from what was approved under LPA reference APP/18/00360. The new garden pavilion at the northern end of the site and close to the foreshore will also replace an existing building in that location. It will be slightly bigger than the structure it replaces and closer to a preserved tree. Any slight impact on this tree can be mitigated through hand digging initially and piling. These measures can be secured through an appropriately worded condition. Both buildings will provide accommodation that is ancillary to the residential use of the house.

Given that it is not considered that the proposed house will depart materially in its size, design and materials from the existing house, it is considered that it will be in keeping with the area and together with the annex and pavilion building be in keeping with the design and styles that prevails in the locality.

3.4 Residential Amenity

The existing building is predominantly two storeys but includes a room on the second floor, with balconies to both the northern and southern elevations. This layout will be repeated in the new building and consequently there will be no material change in relation to physical change in relation to impact and overlooking on the amenity of the adjoining properties than currently exists.

The adjoining properties comprise No. 38 Sinah Lane, which is located to the east of the proposed house, whilst No.40a and No 40 Sinah Lane are sited to the south. The re-orientation of the house will move it further away from the latter two properties and as such the degree of overlooking currently experienced by the latter two properties would be reduced. The closest distance between the properties is however 50 metres (No.40a) and 60 metres (No.42).

The garage annex building will be very similar to the application approved by the Council under LPA reference APP/18/00646. The Planning Officer in her report on this application stated:

"It is considered that the proposal will not appear overbearing or lead to overlooking and would have limited and acceptable impact on the properties immediately adjacent to the application site and the properties opposite to or to the rear"

A single storey dwelling was approved in the rear garden of No.42 Sinah Lane (LPA reference APP/16/60383). The house to date has not been built but nevertheless account has to be had to it in any assessment of the proposal. Whilst the proposed house is slightly closer to this house than the existing there is still a distance of 25 metres from the first - floor window with intervening vegetation and 35 metres from the north facing balcony. It is considered that there will be no material increase in physical impact and privacy from that currently experienced in the existing property.

The pavilion building is located close to the foreshore on the northern boundary of the site and its size and location will have no adverse impact upon residential amenity.

The proposed replacement building would not appear overbearing or lead to significant overlooking on the properties immediately adjacent to the applications site and the properties to the rear in terms of residential amenity over and above what currently exists. It therefore complies with the requirements of Policy CS16 of the Local Plan and emerging policies.

3.0 Planning Policy Context

3.5 Highways and Parking

Access to the site is from the existing driveway that runs to the east of 40a Sinah Lane. New entrance gates to replace the existing are proposed on the road frontage and additional landscaping either side of the driveway. One car space will be provided within the garage and there is ample additional space for cars to park on one side of the long access driveway and a turning area in front of the house. As such the proposal will meet the minimum 3 car space requirement as set out in the Havant's Parking Supplementary Planning Document. The proposal is therefore in accordance with this SPD and Policy DM13 of the Local Plan and emerging policy.

3.6 Ecology

Paragraph 175(d) of the NPPF states that "development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity". An ecological Appraisal Report of the site has been prepared by Hampshire Ecological Services Ltd. The report finds that the three main buildings on the site (the main house, annexe/garage and summer house) have all negligible bat roost suitability. In addition, the majority of the trees on the site were also identified as having negligible suitability. Two mature trees were identified as having features such as broken limbs and crevices that could be used for roosting bats. The two trees; a silver birch and a pedunculate oak are not directly affected by the proposals.

The report identifies a number of enhancements which could be conditioned via a biodiversity mitigation and management plan. Examples of these are set out in the report and include directional lighting away from retained and proposed vegetation areas and the introduction of bat and bird boxes on the building. In addition, the applicant is providing a wildlife pond in the courtyard, a habitat log pile and a wildlife meadow in the rear garden together with green nature roofs.

The report identifies three internationally statutory designated sites within 5km of the site, and two nationally and county designated sites within 2km of the site. None of these sites will be directly affected by this (small scale) development.

The Ecological Appraisal Report demonstrates that not only will the proposed development not result in a loss of ecology to the site, but further with introductory measures, sought by condition, the proposal will improve the wildlife and Ecology of the site.

3.7 Flooding

The Environment Agency's flood maps show that the site falls within Flood Zone 1 and as such a one to one replacement dwelling is not considered to be a vulnerable development and a flood risk assessment is not required as it will not increase flooding on the site or elsewhere. The Environment Agency maps also show that the site is in a low risk area for surface water. As such the proposal does not conflict with Policy CS15 of the Core Strategy.

3.8 Sustainability

Sustainability is at the heart of the NPPF with paragraph 7 of the document stating that "the purpose of the planning system is to contribute to the achievement of sustainable development". The environmental objective of sustainable development is to contribute to protecting and enhancing our natural, built and historic environment, including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy. Policy CS14 of the Core Strategy sets out standards which it seeks to achieve in all development. These include meeting Level 3 of the Code for Sustainable Homes and particular attention to be paid to water efficiency measures.

BBH (Energy strategies) have prepared an Energy report which accompanies the application. The report identifies the preferred options for the site as being ground source heat pump technology. Ground-source systems, once deployed, leave no visible surface trace, thus minimising the visual impact of the surrounding environment. Being silent, they also have no audible impact on the environment. Photovoltaics will also be utilised on the building in order to further reduce carbon emissions. The annual carbon potential reduction is calculated at 69%.

Importantly, the report concludes that it is "evidential that the replacement dwelling provides an opportunity for emissions reduction that is highly compelling and which would be impossible to match through improvements to the existing dwelling". The report further states that "It should also be noted that continued decarbonisation of the national grid will result in the replacement dwelling being close to carbon neutral by 2050, when HM Treasury Red Book and National Grid Future Energy Scenarios forecasts show the national grid reaching effective zero emissions".

It is clear from the foregoing that the proposal will be in full compliance with the NPPF and Core Strategy for carbon reductions to be made on new developments. Further, it makes a compelling case for the advantages that can be achieved in the new dwelling in terms of sustainability that cannot be gained by retaining the existing building.

4.0 Design proposal

4.1 Proposed Development

The development comprises the removal of the existing dwelling and outbuildings and the construction of a replacement three storey dwelling, single storey outbuildings and associated landscaping works. The replacement buildings will provide additional floor area on much the same footprint as the existing buildings.

** Note the areas below are excluding the approved extensions.*

Existing Main House – 400msq - within 3 storeys.

Existing Annexe and Garage – 104msq - single storey

Existing Beach House pavilion – 34msq – single storey

The proposed replacement dwelling and garden buildings are similar in scale / height, but each is slightly larger in area and so more comparable with the recent proposals for the extended house as approved with the two recent applications.

The new scheme proposals will provide the following accommodation;

Proposed Main House – 580msq - within 3 storeys.

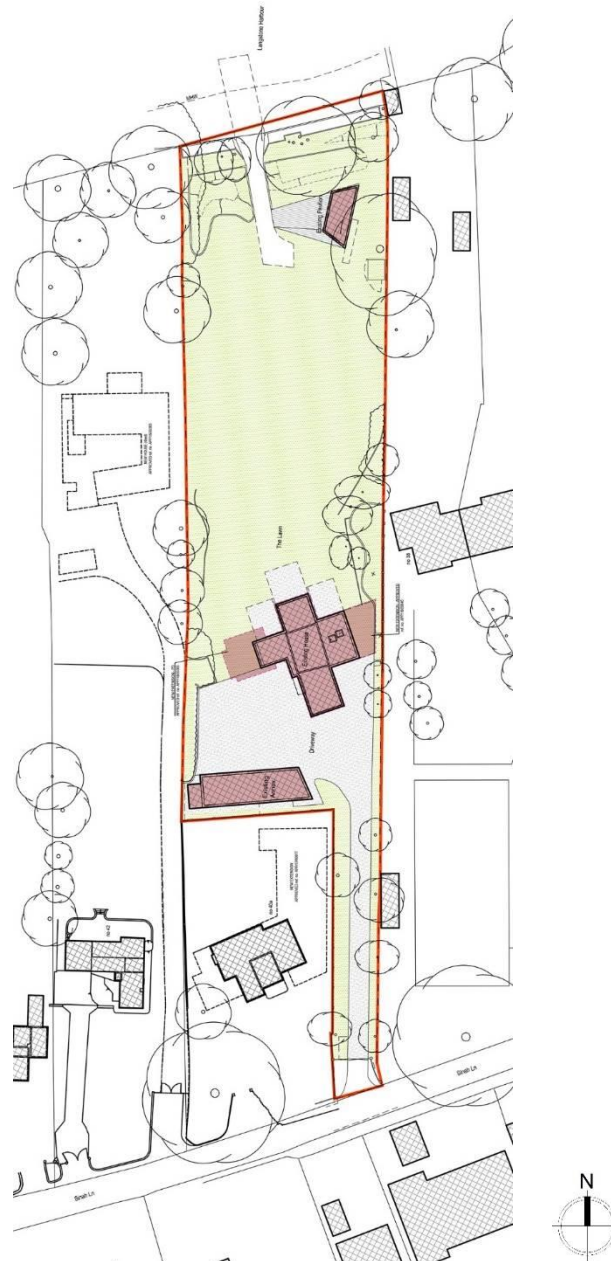
Proposed Annexe and Garage – 150msq - single storey

Proposed Beach House pavilion – 64msq – single storey

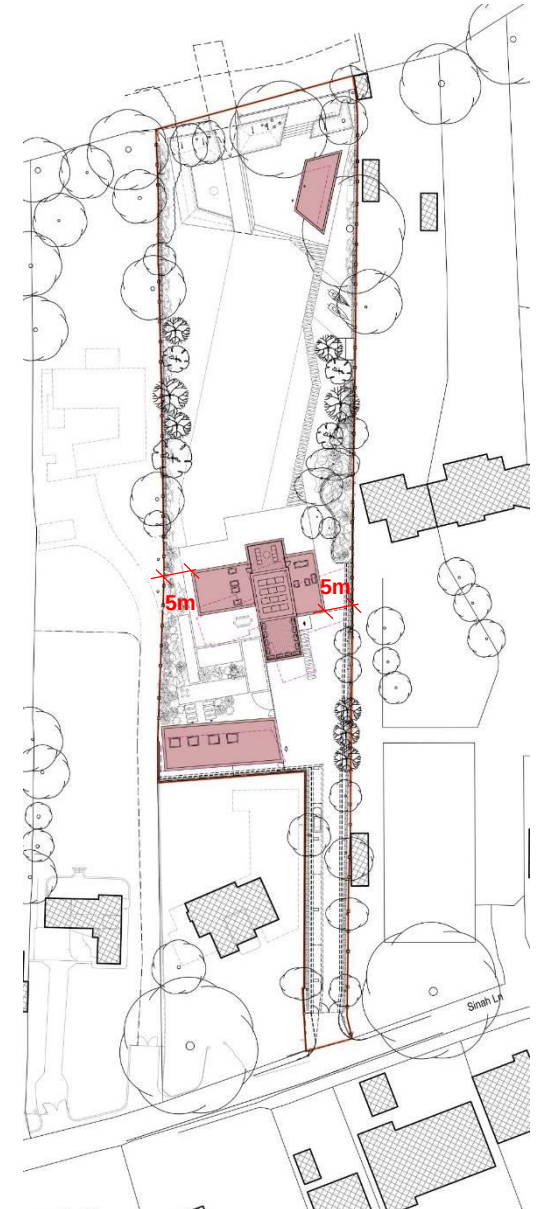
The biggest difference in layout between the two schemes is the relationship to the eastern boundary, where these new proposals have enabled us to pull the building back from this boundary and so create a much more sympathetic relationship to this edge of the site and neighbouring property. The proposed development will be inset from both the east and west boundaries by over 5 metres.

4.2 Proposed Development Density

In terms of development density and plot ratio, whilst the proposed scheme is approximately 140msq larger than the existing house with approved extensions, the actual footprint of the replacement house itself is smaller at 299msq with the current approved extended house being 304msq. The single storey annexe and pavilion have been slightly enlarged in such a way that they will have no significant impact on neighbours.



Block plan of existing house and outbuildings with current approved extensions – N.T.S.



Block plan of proposed replacement house and outbuildings– N.T.S.

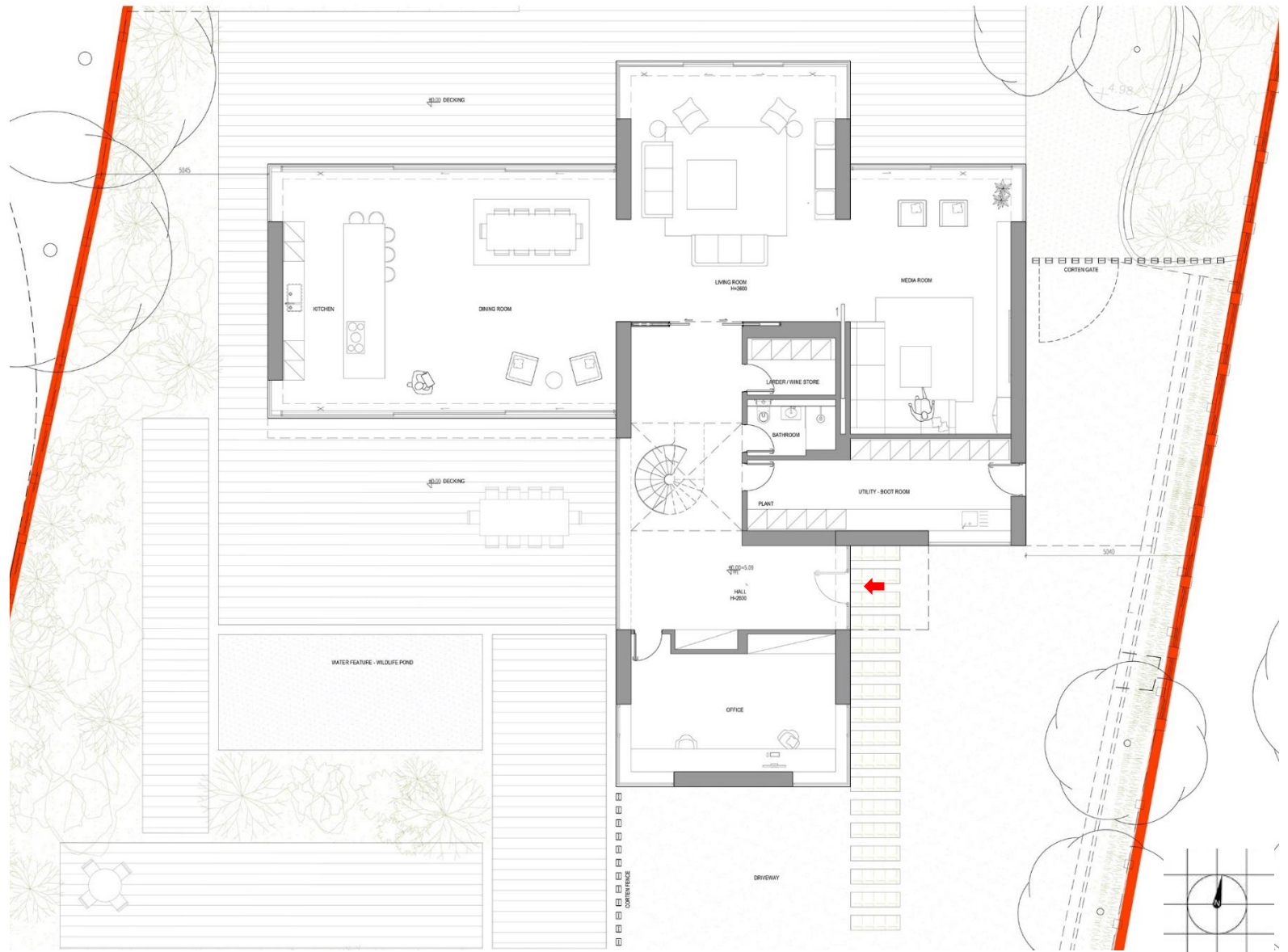
4.0 Design proposal

4.2 Description of Proposed Accommodation

The main house is organised around a cruciform plan which optimises the site, whilst not forcing the building too close to the site perimeter, as could be the case with a simpler 'slab form'. The cruciform plan also allows the kitchen, entertaining and dining spaces to be both open and semi closed at ground floor by maintaining a series of interconnected spaces which each have their own definition within the plan. In this way we have designed the building so that each portion of the cruciform plan at ground floor is characterised by a particular function and activity.

The first floor has 5 generous bedrooms most of which will have access to an ensuite. The majority of the bedrooms have the benefit of the corner cut out windows which will allow some direct sunlight into the north facing bedrooms throughout the day.

The second floor will provide a study and this space will also be used to access the north and south roof terraces, as it does currently. The two east and west terraces to the sides will not be designed for regular access and these will be landscaped with an extensive green roof that will offer a pleasant adjacent view as well as an excellent habitat for insects and bees. Access to these side terraces will be strictly for maintenance of the roof only.



Proposed Ground Floor Plan – N.T.S

5.0 Design Layout

5.1 Location and site zoning

The proposed site zoning is similar to the previous approved proposals. The main house is broadly located in the same location with a slight rotation in the geometry. The proposed relationships to the adjacent boundaries on the east and west sides are slightly improved with these proposals compared with the consented proposal, as the garage to the side of the house has now been omitted and so there is a much more generous space between the new development and the eastern boundary edge.

5.2 The Main House

The existing design of corner windows within the main house is particularly effective at allowing sunlight into spaces which often otherwise would be north facing due to the strong north south orientation of the building. This principle of corner windows has also been adopted with these proposals in such a way that they present no more of a potential overlooking concern than those that exist already. The same consideration can be said for the roof terraces where the two east and west terraces will be landscaped with an extensive green roof and restricted to occasional maintenance access only (a few times a year for weeding etc.). The two proposed second floor north and south terraces will continue to be accessible as sun terraces, as they are currently. These terraces are also of a similar size and location to the existing terraces and so do not present any new concerns in regards to privacy or overlooking.

The proposed western extension is now two storey to match in better with the rest of the building and to maintain the pavilion character of the house. There is also a generous buffer of landscape between the house and the western boundary.

5.3 The Annexe

The proposed annexe and garage is of a similar scale and largely in the same location as the previous annexe and garage and so the relationship to the southern boundary with number 40a Sinah Lane is also maintained. The existing annexe roof is a sedum roof and these proposals will re-introduce a green roof here so that the view down onto this single storey structure from the surrounding buildings will still be of a green roof.

5.4 The Beach House Pavilion

The new beach house pavilion located towards the end of the garden is also principally located in the same location as the existing pavilion which is being replaced. The new proposals are slightly larger in plan but very similar in height and mass.

5.5 Overlooking and Privacy

Overall it can be seen from careful comparison of the proposed and existing drawings, that the siting of the buildings and the location of windows and terraces is very comparable to the existing dwelling and outbuildings and therefore these proposals do not present any greater concerns for overlooking or issues of privacy to any neighbours.

Proposed landscaping to the east and west sides of the rear garden will incorporate new screening trees of a modest scale which will provide further privacy to the these external spaces which will also benefit neighbours.



Block plan of proposed replacement house and outbuildings– N.T.S.

6.0 Scale and Appearance

6.1 Proposed Form and Massing

In order to maintain the relationship to the cluster of simple elegant white rendered modernist buildings, the proposed replacement dwelling follows a very similar architectural direction to the existing building on the site. The massing and scale is also very similar to the existing house with a strong 3 storey pavilion character, set within a simple maritime landscape setting.

The material palette is predominantly of white render and simple corner window apertures similar to those of the neighbouring Saltings building. As a counterpoint, the second floor roof pavilion (currently clad in dark grey zinc panels) and garden pavilion (currently clad in varnished timber) will be clad in contrasting dark glass panels which will serve to strengthen the connection between the two buildings. The glass will reflect the sea, trees and sky, echo the glazing elsewhere and simplify the material palette. The annexe will be in white render (the existing is white render and varnished timber cladding) to simplify the materials palette and to mirror the main house across the garden courtyard.

The new house will employ modern materials and greatly improved standards of construction and, combined with renewable energy technology, will dramatically improve thermal performance, energy demand and carbon footprint over its lifetime.



The Saltings – number 42 Sinah Lane –Connell ,Ward and Lucas



Northshore – number 40 Sinah Lane – Existing house on the site



Northshore – sketch model view of proposed replacement dwelling

7.0 Proposed Landscaping

7.1 Landscape policy context

The proposal is subject to policies in the Havant Borough Core Strategy (2011) and the Allocations plan adopted (2014). The site is located within the Open Countryside for Development Plan purposes and within the Coastal Zone and Flood Zone 1. The proposed replacement dwelling will comply with the criteria in the Coast and Natural Environment policies of the Havant Borough Core Strategy (2011). Policy DM8 (Conservation and Enhancement of Existing Natural Features) states that:

"development will only be permitted where it protects and enhances local habitats and landscape distinctiveness and addresses the following criteria: Provides new landscape works that integrate successfully with the local environment and existing natural features, using local materials and plant species and making provision for future maintenance of new landscape works associated with new developments."

and Policy DM9 Development in the Coastal Zone states that;

"Planning permission will only be granted for development in the coastal zone which addresses all of the relevant criteria set out below: Has no harmful effects on nature conservation within Chichester and Langstone harbour SSSIs and SPA, Solent maritime SAC and Ramsar site or any SINCs and local nature reserves; Maintains and enhances the appearance and distinctiveness of the existing settlements and landmarks along the coast; Contributes positively to the landscape and has regard to best practice on the design of new buildings in coastal locations."

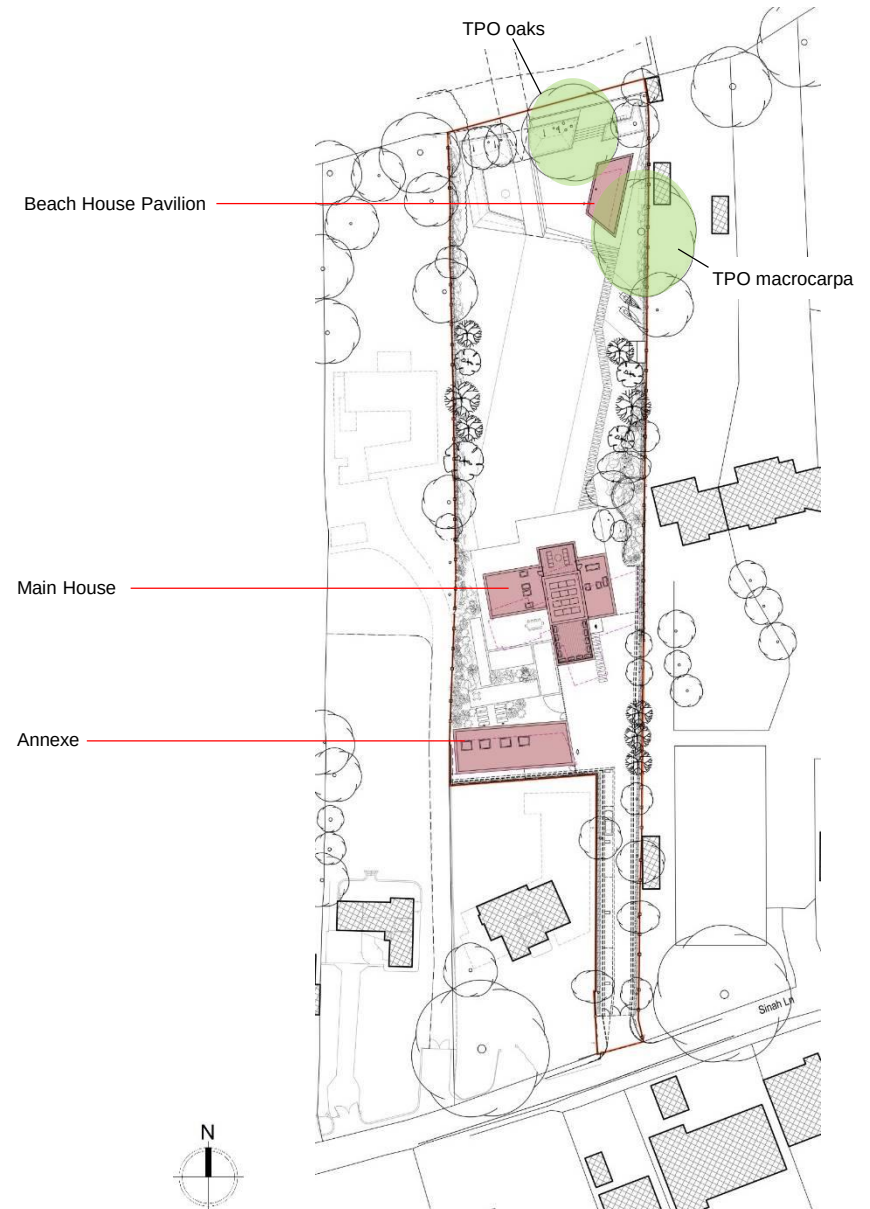
7.2 Existing Landscape Character and Tree Preservation Orders

Alderwood Consulting Ltd and Hampshire Ecological Services Ltd have been appointed to undertake a detailed review of the existing site in terms of ecology and trees. Both of these reports have been provided as part of this application and should be reviewed in conjunction with these landscape proposals.

The existing site has a distinct and charming maritime character. The existing landscaping is relatively sparse with much of the rear garden largely set to lawn. There are a handful of fine trees to the site boundary which includes a group of oaks to the waterside which are protected with a Tree Preservation Order (TPO) and a very mature macrocarpa to the north east of the site. This fine macrocarpa is also protected with a TPO and therefore care to protect the roots has been factored in to the detail design and construction of the adjacent pavilion.

The existing beach house pavilion will be demolished and a more insulated replacement rebuilt in a very similar location. Existing foundations will remain where possible and it is proposed that any additional foundations will be piled using a mini piling rig to avoid damage to the tree roots and canopy. It is also proposed that the first 600mm of each pile location will be hand dug and the pile repositioned if a root is found. Similarly the area where the deck steps down toward the sea wall will be hand dug to ensure the roots of the oaks here are undisturbed. We propose that the existing concrete pad under the shed and all round the base of the macrocarpa will be carefully broken and removed by hand.

The proposed landscaping that we have described later within this section is envisaged as a relatively 'light touch' and that the informal, natural maritime character of the rear garden and waterside is something that will pervade with the new scheme.



Block plan of proposed replacement house and outbuildings– N.T.S.

7.0 Proposed Landscaping

7.2 Proposed Landscape Zoning

The site is divided into distinct landscape zones which relate to both the use and function as well as the shifting character from street to waterside. A key consideration for all aspects of the proposed landscape design has been to optimise opportunities to for biodiversity, for the creation of habitats that will support a range of wildlife on the site.

Another key element of the design is to remove a significant amount of the existing impervious hard landscaping and so increase the amount of sustainable drainage on the site through natural percolation avoiding the need to send rain water run off through the main drainage.

The scheme will in fact reduce the amount of impervious hard landscaping by over 700msq.

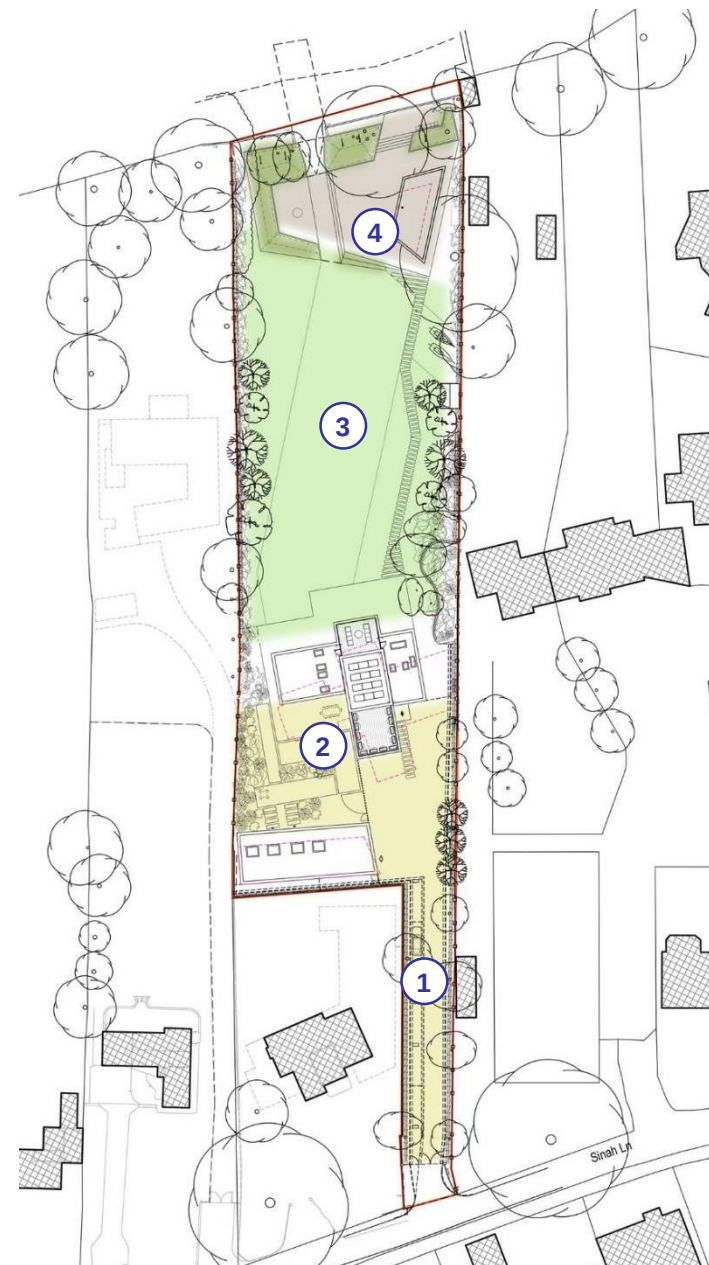
7.3 Landscape Character Areas

1. Driveway. This area includes the long narrow approach and the vehicle turning area in front of the house and around the front door. The proposed ground surface is stabilised gravel with areas of shrub and grass planting to the sides. The east boundary will be a 1.8m high vertical boarded treated softwood fence. The west boundary wall flanking the approach will be clad in vertical timber board to match the east flank to create an avenue. The existing TPO silver birch will be retained. The entrance gates will be renewed with the same height and geometry as existing (material and detail TBC). Additional trees will be planted on the east boundary to provide a screen to the house and courtyard garden.

2. Courtyard. This area re-orientates the house towards the sun, providing a sheltered, sunny, semi-formal oasis to the south and west of the main living spaces where currently there is a only driveway and parking area. Here the landscape is conceived as a series of rectangular terraces floating on a background of local Solent shingle. The shingle will be planted with a variety of soft grasses and flowers of varying height, density and colour changing throughout the seasons. A wildlife pond sits at the centre of the courtyard garden providing a habitat for frogs, toads, newts, dragonflies and other insects and a focus of reflection. A 1.8m high permeable CorTen screen fence divides the "private" courtyard from the "semi-public" driveway to the east. A large gate is incorporated into this CorTen screen to provide occasional turning for large vehicles should this ever be required.

3.Lawn. To the north of the house is the lawn, conceived as a coastal meadow with some areas mown short and other areas on the fringes left wild to form pockets of wildflower meadow with existing and new tree planting. Paths on each flank slice through the meadow connecting the house with the shore. Planting will be a mixture of native and suitable coastal species. Trees will include varieties such as maritime pine and tamarisk as well as Himalayan birch. Close to the boundary fence and near the existing mature trees a large log pile is proposed which is intended to provide a habitat for a variety of animals including stag beetle and other invertebrates, slow worms, hedgehogs, field mice and other small mammals.

4.Deck. To the north of the lawn are decked areas. The west deck is set low and wrapped on 3 sides by a low grassy bank to provide shelter from the wind. In contrast to the sheltered west deck, the east deck is a little higher (at the same level as the existing deck and pavilion) and more exposed, and upon it sits the enlarged glazed pavilion. The deck is fringed by a series of low grassy banks where the existing TPO oaks stand and reconcile the change in level down to the sea wall. A section of the deck forms generous steps which descend to a waterside deck area and so re-connects the pavilion and upper deck to the shore and harbour.



Northshore – Landscaping zoning and character areas.

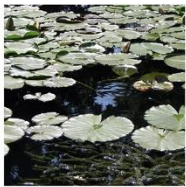
7.0 Proposed Landscaping

7.4 Proposed Landscape Layout and Material

The overall landscape design has been developed as a relatively 'light touch' and informed by the local maritime character and by the desire to increase the diversity of available habitats for birds, insects and mammals within the site. The approach will create a very natural and informal maritime garden with lots of opportunities to explore and enjoy nature.



Bamboo screening



Wildlife pond



Hardwood decking



Wild flower margins



Habitat log piles



Coastal grasses



Granite setts



Stabilised Solent gravel



Driveway planting in Solent gravel



Courtyard planting in Solent shingle



Extensive green roof



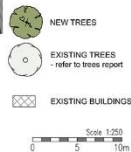
New 'Maritime' trees such as Holm oak or Monterey pine



Lawn



Decking



8.0 Biodiversity and Sustainability

8.1 Biodiversity

The supporting ecology report that has been produced by Hampshire Ecological Services Ltd. sets out in detail the impact on and opportunities for biodiversity and ecology on the site as well as any mitigation that will be required in order to minimise any adverse impact from the proposed development on the local ecology.

The design approach seeks to protect and enhance local habitats wherever possible. Bat boxes and swift boxes will be incorporated into the fabric of the building located on the eastern wing of the first floor parapet. A wildlife pond has been introduced into the southern courtyard which will create opportunities for frogs and tadpoles as well as feeding opportunities for birds and mammals.

The landscaping approach draws on the distinctiveness of the site with a proposal which is centred around the specific maritime character. As part of the landscape proposals we are providing works which will successfully integrate with the local environment using local materials and plant species as well as providing further habitats and feeding opportunities for insects, birds and small mammals.

The key Ecology and Biodiversity provisions we are proposing can be summarised as follows.

- Bat boxes and swift boxes incorporated within the first floor east parapet of the main house
- Wildlife pond proposed within the southerly courtyard
- Habitat log piles located along the site perimeter within the long wild flower areas. These will create habitats for insects and small mammals such as mice and hedgehogs.
- Native grasses and flowers throughout which will provide feeding opportunities for bees and birds.
- External lighting will be kept to a minimum and where required will be carefully selected so that light is directional and thrown at low level across surfaces rather than towards existing or proposed vegetation.

8.2 Sustainability and low carbon design

BBH (Energy strategies) have prepared an Energy report which accompanies the application. The report identifies the preferred options for the site as being ground source heat pump technology. Ground-source systems, once deployed, leave no visible surface trace, thus minimising the visual impact of the surrounding environment. Photovoltaics will also be utilised on the building in order to further reduce carbon emissions. The annual carbon potential reduction is calculated at 69%. Due to relatively low operating temperatures, ground source heating requires the infrastructure of under floor heating which in turn needs to be very well insulated to be effective. It would not be viable to introduce such a system to the ground floor of the existing house and annexe as the work would involve digging up original floor slabs and foundations which would be more costly and far less effective than building new.

Importantly, the BBH report concludes that it is “evidential that the replacement dwelling provides an opportunity for emissions reduction that is highly compelling and which would be impossible to match through improvements to the existing dwelling”. The report further states that “It should also be noted that continued decarbonisation of the national grid will result in the replacement dwelling being close to carbon neutral by 2050, when HM Treasury Red Book and National Grid Future Energy Scenarios forecasts show the national grid reaching effective zero emissions”.

It is clear from the foregoing that the proposal will be in full compliance with the NPPF and Core Strategy for carbon reductions to be made on new developments. Further, it makes a compelling case for the advantages that can be achieved in the new dwelling in terms of sustainability that cannot be gained by retaining the existing building.

	External wall insulation	Gas-fired boiler + UFH	Ground-source heat pump + UFH	Emissions KgCO ₂ e/annum	Improvement over existing baseline	Equivalent average vehicle displacement
Existing dwelling + annexe				38,450		
Existing dwelling + annexe	X			27,830	28%	6
Existing dwelling + annexe		X		21,440	44%	9.7
Existing dwelling + annexe	X	X		15,620	59%	13
Replacement dwelling + annexe			X	5,140	86.6%	19

Baseline estimate data provided by Beat Solutions, replacement dwelling estimate data by BBH Energy.

Extract from BBH energy assessment report

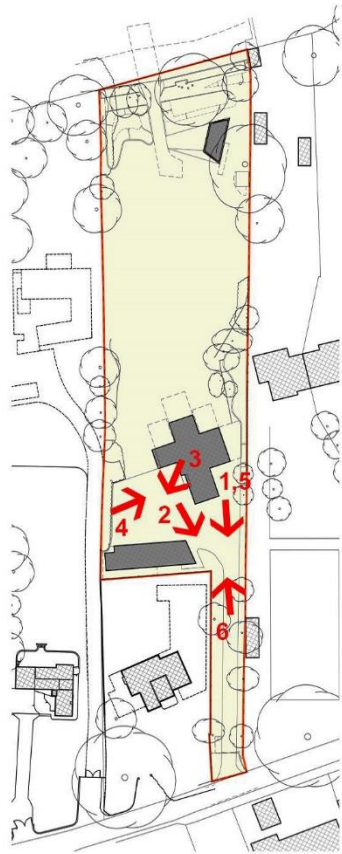
The above chart is taken from the energy assessment that was undertaken by BBH energy strategies when comparing the refurbishment options to the potential benefits of a new build dwelling.

It is evident from this comparative table that the proposed replacement dwelling with the proposed Ground Source Heat pump can be seen to offer an enormous carbon footprint reduction of nearly 87% per annum which is the equivalent of taking 19 typical family cars off the road.

It can also be noted from the table above that the optimum refurbishment scenario, should this be feasible, would mean a carbon footprint which is still over 3 times that of the replacement dwelling.

9.0 Appendices

9.1 Photographic Survey



Key Plan – N.T.S.



1 2



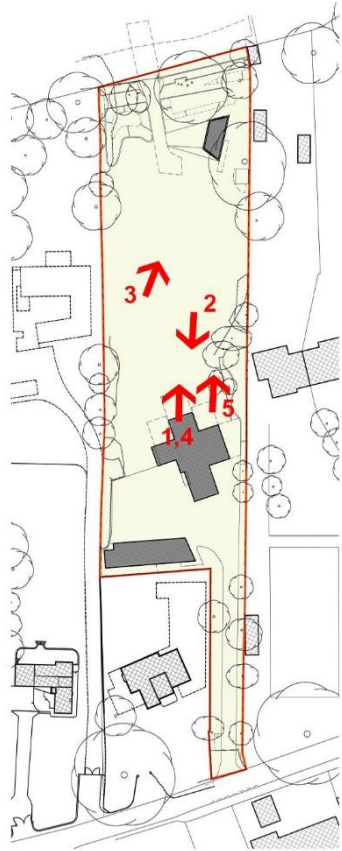
3 4



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9.1 Photographic Survey



Key Plan – N.T.S.



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