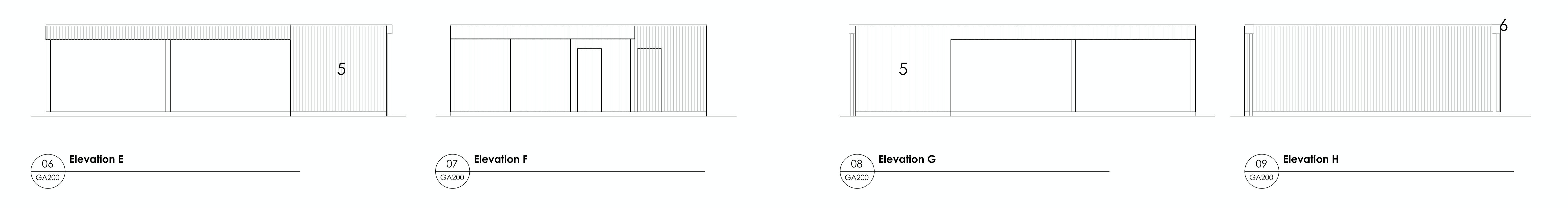
Elevations - Carport

Garage - Carport



Material Legend:

- Existing Brickwork
 Pantile Close colour match to existing brickwork
- 3. Pantile roof
- 4. Zinc Roof
- 5. Timber Cladding6. Metal Hopper & Guttering



Street view

Nestled into its context of lush vegetation and tree canopies. The site occupies a corner plot over looking the junction of Stixwould Road and Green Lane. The site is long and narrow and as a result of this the development uses the existing single story additions as a scale reference.



Carport

The carport will reusing the existing garage building on the site, it will be clad in timber, to match the new additions to the house and help its visual connection to the woodland setting.



Arrival

The single storey additions are clad in timber, with standing steam roofs. Maintaining the timber single storey design is a remnant of the previous additions. Two double storey additions are proposed for each gable end, these are clad in clay plain tiles to match the existing brickwork. The choice for clay plain tiles over brick is the difficulty of finding an appropriate brick match.



Garden

The historical studies and the existing buildings vernacular of gable and pitches has influenced the design of the proposal. From the design of the gables on the single storey additions to the pitch height and ridgelines. Using these design cues to create opportunities internally and external for a proposal to nestle into the landscape.

The plan steps in places to respect the existing tree roots zones, and maximise views and natural light.



Terrace

Terraces are proposed to help the building naturally shade internal spaces.

Material Palette

Text

Zinc Standing Seam Roof is proposed for all Single Storey pitched roofs.

A Pantile facade is proposed for the new double storey additions. This is due to the existing brickwork and the difficulty in achieving and appropriate colour match with a new brick.

Timber Cladding is a proposed finish to all single storey additions.



A new Pantile roof to match existing is proposed.

Aluminium Hoppers and Down Pipes are proposed on the new Additions.

Guttering and Downpipes on the existing building will be specified to match existing colours.

New planting, and vegetation is proposed to help nestle the building into its existing landscape.

3.0 Sustainability Statement

3.1 Introduction

The proposal embodies environmental technologies, sustainable materials and construction methodologies to create a development that has a minimal environmental impact on its immediate and wider context. The proposed sustainable strategy has been developed in collaboration with the client & various energy consultants.

3.2 What is sustainable?

The term 'Sustainable' is used frequently in construction and other industries and day-to-day life. The construction products industry is built around manufacturers claims that one product is more sustainable than their competitors and a whole raft of products come with A++ ratings, certifying their green credentials. Projects are often looked upon as "green", simply because they have a solar panel on the roof, but are many of these projects and products sustainable in the true meaning of the word?

We believe that, in order to achieve true sustainability; more of an 'all encompassing' and thoughtful approach needs to be taken. This approach needs to give consideration to all elements of the construction of buildings.

Renewable technologies such as solar panels and wind turbines need to play a part in sustainability. Photovoltaic panels are an energy efficient way of producing electricity without the need for consuming power from the grid, but many of these photovoltaic panels are manufactured in China and the far East, often using products flown in from thousands of miles away. These panels then have to be shipped to the UK. This manufacturing process expends a great amount of energy and Co2 before the panels have been put to use. There are however companies in the UK, manufacturing photovoltaic panels which will save this initial energy expenditure. This also supports local businesses and people; a key aspect of sustainable living.

Our approach to sustainable building is a combination of technology with 'back to basics' in terms of material selection. It puts localism and natural products at the forefront of importance. We want our buildings to stand for hundreds of years. The building should make use of recycled materials, and naturally occurring or locally produced materials where possible. The materials should be able to be recycled at the end of their useful life.

The building is a vitally important part in sustainability as it puts the foundations in place for sustainable living. The users and occupants must also play a major role in sustainable living, as the way they use the building is also very important in sustainable living.

3.3 Solar Gain Control

The façades have a number of large openings, maximising the benefits of solar gain. During the winter months when the sun is at a shallow angle, the sun will penetrate the depth of the dwelling providing natural heating. During the summer months when the suns angle is much greater, the overhanging roof on the southern and western elevation will prevent the direct sun from entering the dwelling, keeping the internal climate cooler.

3.4 Wall Construction

The external masonry walls of the building will provide a protected envelope, insulated with high performance materials, providing the building with a stable temperature, preventing fluctuating temperatures in extreme hot or cold spells. The wall construction will achieve a U-value which exceeds current building regulations.

3.5 Thermal Insulation

We propose to use 150mm of insulation in the walls of the building which will achieve a 'U' value of 0.12W/m ²k. and 300mm of rigid insulation in the roof achieving a 'U' value of 0.08W/m²k. This value is a vast improvement over the minimum values quoted in the building regulations.

3.6 Glazing

Glazing to windows and doors will be double glazed to achieve excellent 'U' Values. The frames will be constructed from sustainable sources and will be effectively draught sealed to prevent heat loss via this traditionally weak element.

3.7 Sourcing

Materials which are chosen for this project will ideally be locally sourced. We believe this is a very important factor in the overall sustainability of the project. A great emphasis is often placed on the performance of material in use. Whilst this is obviously extremely important, these products are often highly manufactured and transported many miles to the end user. The energy savings of using these materials may be outweighed by the embodied energy which has been consumed in their manufacture and transportation to site.

All timber used on the project will be FSC certified and therefore sourced from sustainable sources.

The use of recycled materials is to be maximised and materials will also be chosen on the knowledge that they can be recycled at the end of their lifespan.

The use of systems such as 'BRE Environmental Certification' are to be used to substantiate the sustainability of certain materials.

Materials will be chosen in consideration of their likely longevity in use. This is a very important factor in achieving true sustainability.

The project is to utilise local trades people and businesses where possible. This will support the local economy and gives local people a sense of ownership of the building.

3.8 Rainwater Harvesting

Some rainwater from the roof areas will be collected in a large rainwater tank and used to irrigate the garden.

3.9 Ventilation

All windows in the dwelling will be openable to maximise cross ventilation throughout the building. This will negate the use of air conditioning units within the building.

3.10 Heating

It is proposed to heat the building using an air source heat pump.

3.11 Lighting

Internal light fittings will be low energy fittings meaning the electricity demand is significantly reduced. The internal downlights will be LED's which use considerably less electricity when in use and crucially last for many years negating the need for regular replacement. External lighting will be low energy fittings installed with movement detection and daylight shut-off devices to minimise consumption. If security lighting is installed, this will be kept to a maximum of 150W and controlled as above.

3.12 Household Waste / Recycling

The proposal seeks to manage and reduce the amount of domestic waste going to landfill.

A secure area is to be provided to aid the storage and segregation of different waste products. A bin store incorporated within the leantowill house local authority collection bins which will separate the different streams of waste.

In addition to the above, we also propose to provide a composting station. This area can be used to process certain types of kitchen waste and garden waste such as grass and tree clippings. These waste items are allowed to decompose and can then be used to fertilise the proposed allotments.

3.13 Additional Features

Car Charge Points

Located within the garage there will be 1 charge points for electric cars.

Clothes Drying

Provisions will be made in the rear gardens of the dwelling for the drying of clothes. This will reduce the need for having a tumble dryer which will reduce electricity consumption.

Electrical Appliances

All white goods such as fridges, freezers, washing machines, dishwashers and cookers are to have an A+ rating under EU Energy Efficiency Labeling Scheme.

4.0 Access Statement

4.1 Access

The development will be served via the existing access that connects on to Rasen Road.

Sufficient space is provided within the proposed development to allow vehicles to turn so they can enter and leave the site in a forward gear.

4.2 Approach to the Dwelling

Approach, entry and circulation within the building will comply with the Building Regulation Part M document.

The width of the access up to the entrance of the dwelling will exceed 900mm.

Access through the main door will have a level door threshold. The width of the entrance doors will have a clear opening greater than 775mm.

4.3 Circulation Within the Dwelling

Corridor widths will not be less than 900mm wide. An accessible ground floor WC and shower is proposed.

5.0 Flood Risk Assessment

5.1 Flood Risk

The site is not within an area at risk of flooding as described in the NPPF.

See next page for reference map.

Environmental Agency Flood map



Environment Agency Flood Map

The site does not sit within an area of flood risk.