# Weston Hills Road, Low Fulney

## Design and Access Statement

December 2018

**Client:** Mr N Marshall

**Project:** Residential development of one self-build zero carbon family home with annexe

**Project no:** 416

STUDIO11
architecture

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# 1.0 Introduction

## 1.1

This Design, Access and Planning Statement accompanies a full planning application for the erection of a new self-build zero carbon family home with annexe on land off Weston Hills Road, Low Fulney.

The purpose of the proposals is to allow a local businesses man with a business based in Spalding to build his own family home to share with his partner, a teacher, their children and his mother.

## 1.2

The proposed site is located to the east of South Hollands largest settlement of Spalding off Weston Hills Road, Low Fulney. The plot of land is approximately 0.49 hectares and is surrounded by existing buildings on three sides with Weston Hills Road bounding the site to the south.

## 1.3

This statement forms part of a series of reports and documents submitted in support of the planning application.

## 1.4

The Council is currently unable to demonstrate a 5-year supply of deliverable housing sites. In this context, local planning policies relating to the supply of housing are considered to be out of date and the principle of residential development is acceptable subject to other material planning considerations.

This planning application responds to the significant shortfall in housing, in particular in the self build/ custom build area of the market.



# 2.0 The Vision

## 2.1

The Clients brief was to create an environmentally conscious ‘forever’ home for their multi generational family allowing them to remain living and working within the South Holland District.

The vision for these proposals is driven by an aim to respond to the Clients brief by creating a home of high architectural quality together with being a highly sustainable home which responds to the social and environmental issues surrounding Climate Change.



Plank Drove, Crowland — South Holland District Council. Approved as a Paragraph 55 house in 2015 and currently under construction



The Street, Stowlangtoft — Mid Suffolk District Council. Approved 2018.



Chapel Lane, Letty Green — East Herts Council. Within the Green Belt, approved 2017 on appeal and currently under construction. The Planning Inspector commenting:

*‘ The dwelling would be of a contemporary design of an intrinsically good architectural quality that would satisfy LP Policy ENV1.’*



Stringers Lane, Aston — East Herts Council. Approved 2017 and completed 2018.



Cambridge Road, Spellbrook — East Herts Council. Approved 2016 within Green Belt land and completed 2018.

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# 3.0 Planning Policy Review & Material Planning Considerations

The development proposals in relation to national and local planning policies are outlined within the separate Planning Statement document.

# 4.0 The Development in Context

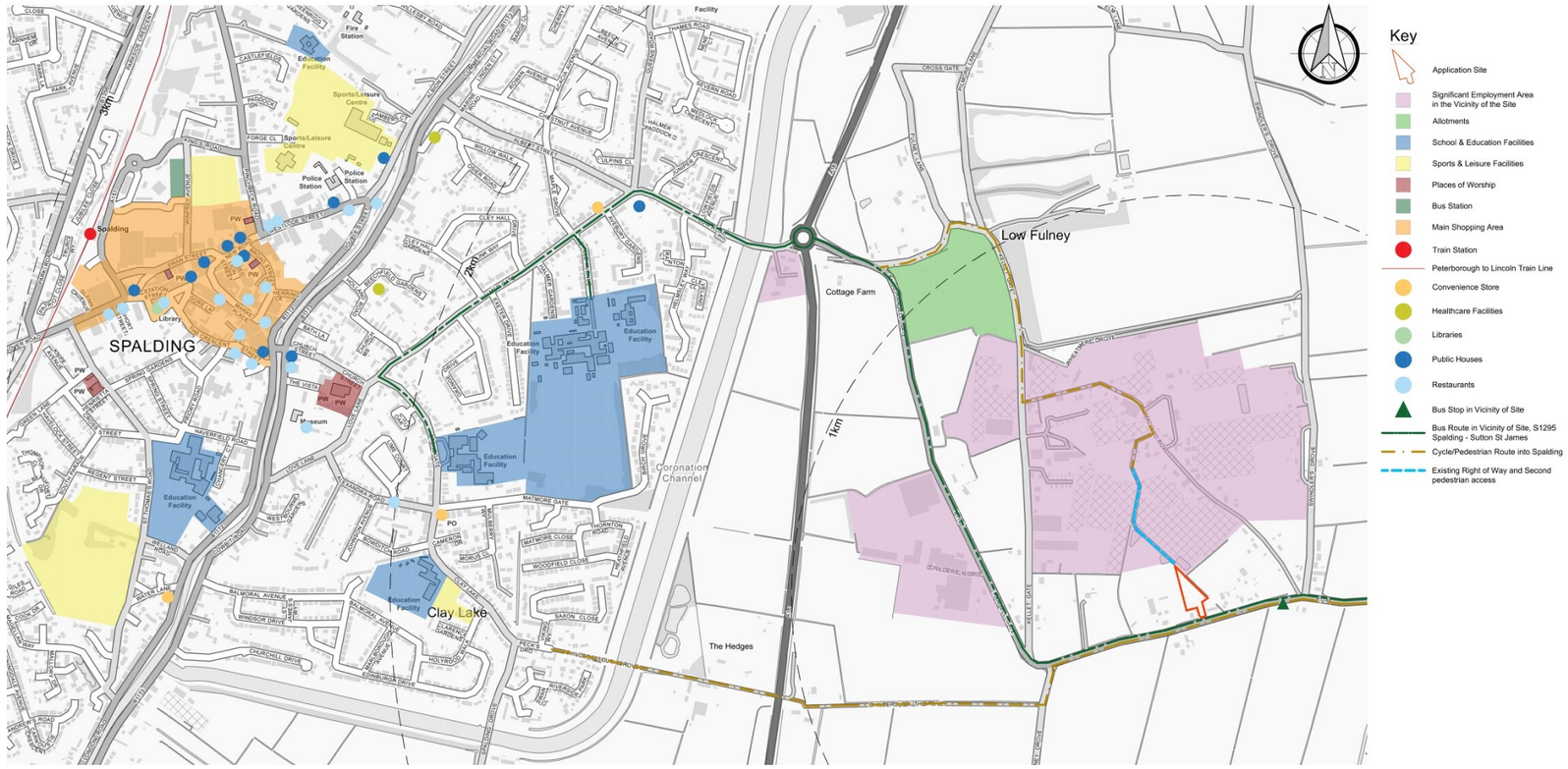
## 4.1 Character Assessment

Low Fulney is a small settlement to the east of Spalding, South Hollands largest settlement. Historically Low Fulney was related to Market Gardening and many post Second World War homes built within the settlement were constructed in a similar architectural style with large land holdings. More recently these holdings have been developed into a mix of commercial horticultural businesses, engineering businesses and caravan parks.

The site comprises of approximately 0.49 hectares of land on the southern edge of Low Fulney. To the north, east and west of site are a mix of domestic dwellings and horticultural glasshouses. Weston Hills Road bounds the site to the south.

The application site is currently used as paddock land within the ownership of the adjacent property 'The Gables' and benefits from an existing shared vehicular and pedestrian access to the public highway in front of number 19 Weston Hills Road. The site is located within a relatively flat landscape but does benefit from some mature trees, vegetation which largely screen the site from public view.

The site lies in close proximity to the settlement of Spalding and is  within 40 minutes walking time, 20 minutes cycling time and 8 minutes driving time of its centre and associated amenities. A bus route also passes the site and takes approximately 15 minutes to get into Spalding.




**Plan Showing site location in close proximity to Spalding and the associated amenities within Spalding**

## 4.2 Physical Influence

Currently the site is a highly managed parcel of land between 'The Gables' and 19 Weston Hills Road. Most of the site is laid to paddock land with stabling on the western side of the site. Open watercourses bound the site on the eastern and southern boundaries. There is an existing mature tree on the north-eastern boundary of the site and an existing mature hedge where the site bounds 'The Gables'.

At an early stage it was felt that the design of the scheme should be influenced by the Low Fulney architectural vernacular. The scheme has therefore been designed in a modern context with vernacular architecture which responds directly to the site constraints. The design principles incorporated are intended to provide a modern sustainable home that seeks to create its own sense of place. The proposal does not aim to compete with the surroundings but instead to sit modestly within them.

The site presents some constraints to development. The topography of the site is comparatively flat, with some mature perimeter landscape features. The two main key constraints to the site are the potential for overlooking to 'The Gables' and 19 Weston Hills Road together with an aspiration to improve the view into the site from Weston Hills Road.

These constraints have shaped the proposals and demonstrate that it is possible to have a new sustainable family home on the site that integrates well within the site and its surroundings.



**View into the site from Weston Hills Road**



**View to the north of the site with mature landscaping to the east and glasshouses to the north-west / north-east**



**View of stables and glasshouses beyond looking north-west**



**View of adjacent bungalow and mature boundary treatment**

## 4.3 Achieving Sustainable Development

A clear driver of the National Planning Policy Framework (NPPF) in relation to new housing is to contribute to the achievement of sustainable development. The NPPF goes on to confirm that there are three overarching objectives in achieving sustainable development which are:

- an economic objective;
- a social objective;
- an environmental objective.

So that sustainable development is pursued in a positive way, at the heart of the Framework is a **presumption in favour of sustainable development** (paragraph 11).

The following sections of this report seek to demonstrate that this proposal meets the objective of the NPPF and is sustainable development.

## 4.4 Economic Objective

The NPPF seeks to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure.

South Holland District Council do not currently have a 5 year housing supply and as such in do not have sufficient land available to support growth. Furthermore, they also do not currently have any sites specifically allocated for self-build homes within the current or emerging Local Plan.

These proposals accord with the NPPF in that the scheme provides a new family home, contributing to housing supply and in particular the supply of a self-build plot ensuring that the right type of land in the right places is available.

## 4.5 Social Objective

Paragraph 8b of the NPPF states:

*'The social objective to sustainable development is to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being.'*

The proposals directly respond to these requirements by providing a self-build home of high architectural quality within the South Holland District which is not currently available. Furthermore the Council do not currently allocate any land specifically for self-build homes within the current 2006 Local Plan or within the emerging South East Lincolnshire Local Plan.

The Self-Build and Custom Housebuilding Act 2015, as amended by the Housinf and Planning Act 2016, requires local authorities, including district councils, to keep a register of people who are seeking land to construct their own self-build homes. The Act also contains a **'duty',** which requires local planning authorities to grant planning permission for sufficient plots for self builders to meet the level of demand. This is established by the number of people registering for plots, and the level of demand in each 12-month period must be met within the following 3 years.

The Councils progress with complying with this duty is therefore highly relevant to this planning application. We requested that the Council inform us of the number of people on the custom and self-build register within South Holland District, and also the Councils progress in identifying available plots for these people. The Council confirmed that there are currently 42 people on the register, and that **'the council does not monitor custom and self-build plots available for sale in the district.'** This is a startling admission—the Council are very clearly failing to pay any regard to fulfilling its duty.

We believe that the Councils failure to meet, or even consider, its duty to provide plots for self-builders is highly material to this planning application, as set out in national policy guidance. It is clearly not a matter to which the Council have given any great consideration. It is also clearly not something which the Council will play any part in addressing in the near future. In this context, it is necessary for the market to step in to provide land for this type of housing.

## 4.6 Environmental Objective

Contributing, protecting and enhancing the natural, built and historic environment is a key environmental objective of the NPPF. Alongside this 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 are key objectives.

The proposed scheme makes better use of land by creating a family home on underutilised land. It will also improve biodiversity by introducing new plant species, new insect habitats and a water habitat on the site. In responding to climate change the new home will also be designed to be **Zero-Carbon** and not only will be creating no carbon emissions in the running of the building but will also be exporting a modest amount of energy back to the National Grid.

# 5.0 Proposed Development

## 5.1 Use

The scheme will be residential in composition providing a two storey family home annex and garaging.

## 5.2 Amount

The proposals will consist of two separate buildings , garaging and domestic garden land.

## 5.3 Layout

The proposed layout of the site is designed to create visual excitement by enhancing the views into the site as well as creating a space which makes good use of the land without having an affect on the adjacent dwellings.

## 5.4 Scale

The proposals consist of two buildings up to 2 storey's in height.

## 5.5 Landscaping

Where possible all existing landscape features will be retained. The existing tree to the north-east boundary of the site will be retained and supplemented by new tree planting. The new home will have sufficient land to allow for home grown food production, biodiversity improvements and good design in relation to energy conservation.

## 5.6 Amenity Space

The new home will be provided with a significant garden which will allow for general amenity space, biodiversity improvements and to allow for home grown fruit and vegetables.




**Extract From Site Layout**

## 5.7 Appearance

The design philosophy underpinning the proposals aims to ensure that the development has a clear affinity with the sites location. Low Fulney and its surrounding area has a clear architectural style that relates to post Second World War houses constructed on land that was formerly owned by the Land Settlement Association.

The form of these homes are quite unique within the South Holland District and the proposals seek to take architectural reference from these homes whilst also providing a modern, highly energy efficient home.



## 5.8 Access

The principle access to the site is by way of an existing gravel driveway off Weston Hills Road. The plot benefits from a right of way over this land.

Access to the principle entrance of the home and annex will be provided with a level threshold.




## 5.10 Waste

The property will be provided with  internal bins for household refuse and recycling. Once these bins are full the occupants will empty them into external bins and place the sacks at the kerbside for collection by the Local Authority on collection day.

The property will also be provided with a home composting bin of a minimum 900 litre capacity to reduce food and garden waste that is sent to landfill.

# 6.0 Key Sustainability Issues

## 6.1 General

The following section considers how the proposals will deliver its sustainability objectives and make a lasting and positive contribution towards sustainable development. The basic framework for analysis corresponds with the three key sustainability issues set out in planning and environmental legislation, guidance and best practice.

Sustainability in relation to the location of the site, amenities and public transport links are discussed in detail earlier within this report and within the Planning Statement.

# Environmental Issues

## 6.2 Energy

The need to reduce greenhouse gas emissions, particularly carbon dioxide (CO2), and adapt to effects of climate change is recognised as a global imperative. A key objective of the scheme has therefore been to encourage energy efficiency in all aspects of the home, including design, procurement, construction and use.

The building design includes environmental strategies throughout with the use of fabric-first detailing, heat recovery ventilation and passive solar gains. Passive solar gains will be achieved through controlled openings to the south with heavy weight floor and surface finishes storing the thermal energy, which will be released during the cooler parts of the day/ night.

The home will generate its own electricity through Photvoltaic Modules, storing a proportion in batteries for use by the home in 'high demand' times and selling the remainder back to the grid. The homes will also be provided with 100% low energy lighting, mechanical ventilation heat recovery and a ground source heat pump reducing energy consumption within each home.

All walls, floors and roofs will be highly insulated and the building airtightness will be improved significantly beyond current Building Regulations to provide a home which uses less energy than it generates and is therefore a **Zero-carbon Home**.

The definition of a Zero Carbon Home taken from the *Zero Carbon Hub* is:

*'There are three core requirements which must all be met for a home to qualify as zero carbon:*

1. *The fabric performance must as a minimum, comply with the defined standard know as the Fabric Energy Efficiency Standard (FEES) and*
2. *Any CO2 emissions that remain after consideration of heating, cooling, fixed lighting and ventilation, must be less than or equal to the Carbon Compliance limit established for zero carbon homes, and*
3. *Any remaining CO2 emissions, from regulated energy sources (after requirements 1 and 2 have been met), must be reduced to zero*

*Requirement 3 may be met by either deliberately 'over performing' on requirements 1 and 2 so that there are no remaining emissions, or by investing in Allowable Solutions.'*

The best way to determine if the proposed new home meets the Zero Carbon Home criteria is to produce a Standard Assessment Procedure Calculation.

The Standard Assessment Procedure (SAP) is adopted by Government as the UK methodology for calculating the energy performance of dwellings. The calculation is based on the energy balance taking into account a range of factors that contribute to energy efficiency:

- Materials used for construction of the dwelling
- Thermal insulation of the building fabric
- Ventilation characteristics of the dwelling and ventilation equipment
- Efficiency and control of the heating system(s)
- Solar gains through openings of the dwelling
- The fuel used to provide space and water heating, ventilation and lighting
- Energy for space cooling, if applicable
- Renewable energy technologies

The calculation is independent of factors related to the individual characteristics of the household occupying the dwelling when the rating is calculated.

A Design Stage Standard Assessment Procedure Calculation for the home has been produced and a copy of the full calculation has been submitted with this application.

The key highlights of the calculation in relation to the Zero Carbon Home criteria is as follows:

1. Dwelling Fabric Energy Efficiency 46kWh/m2/year — **Dwelling Fabric Energy Efficiency 45.4kWh/m2 PASS**
2. CO2 Emission Target 10kgCO2/m2/year—**Dwelling CO2 Emission Rate (DER) -0.91kg CO2/m2/year PASS**
3. Over provision of items 1 & 2 above mean that requirement 3 is passed. **PASS**

Based on the SAP calculation and the above information the proposals can be classified as a **Zero Carbon Home.**

## 6.3 Water and Flood Risk

It is understood that there are no major water courses flowing through the site and therefore the risk of water pollution is very low. There is however drains to the southern and north eastern boundaries of the site which will be fully protected during construction.

The use of water at the site will be regulated by fitting low consumption technology. Each home will have its water restricted to 80 litres/person/day, the equivalent of the former Code for Sustainable Homes Level 6 rating. Each home will also incorporate rainwater harvesting and grey-water recycling for use as irrigation within the garden and for washing cars. As well as flushing toilets.

The site lies within Flood Zone 3a and a site specific Flood Risk Statement accompanies this statement confirming that the application site is not at risk of flooding.

The surface water generated on site by the proposed development will discharged through a Sustainable Drainage System, attenuated to Greenfield run-off via a pond with final discharge to the drain on the southern boundary of the site.

## 6.4 Transport

Paragraph 103 of the NPPF 2018 states:








*' Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.'*

The focus of paragraph 103 is on a choice of sustainable transport modes with the aim of reducing congestion, emissions and improving air quality. It also recognises that the opportunities for sustainable transport solutions will vary between urban and rural areas and this should be taken into account in decision making.

The Department of Transport *National Travel Survey 2017 f*indings outlines the mode of transport and their relevant percentage of trips as follows;

- Car 61% of all trips;
- Walking 26% of all trips;
- Bus 6% of all trips;
- Train 2% of all trips;
- Cycling 2% of all trips;
- Other 3% of all trips.

These figures suggest that peoples choice of travel mode is predominantly the conventional car with walking being their second choice. In rural areas the figures show an increase in the choice of car use up to 76% with only 4% of trips taken on public transport.

The main difference in travel patterns between urban and rural areas lies in the use of the car and this is reinforced by data which suggests that almost 60% of rural homes have two or more cars. It therefore can be generally accepted that living in rural areas creates a need for the use of a car and the NPPF 2018 recognises this in allowing a clear change in decision making between urban and rural areas. It also clearly states that occupants should be offered the choice of transport modes and this proposal seeks to offer that choice to the occupants of the new home.

**Conventional Car**

It is accepted that given the sites rural location the household is likely to have at least one conventional car. However should the occupants decide to use the car it is likely to be for very short trips given the sites close proximity to Spalding the largest settlement within the South Holland District. Spalding contains significant services including primary and secondary schools, supermarkets, doctors, dentists recreation space/ facilities and further public transport links.

In a recent appeal decision (APP/D3505/W/18/3196882) for two dwellings in Newman's Green, Suffolk the Planning Inspector found that whilst there would be a dependence on the car it would be mitigated by the fact that the site was very close to a large settlement with significant services and therefore car trips would generally be very short distances. The difference between urban and rural areas being at the forefront of the Inspectors thought process.

**Electric Car**

The proposed new home will be provided with two electric car charging points powered by electricity generated using on site photovoltaic modules. This creates a genuinely low carbon alternative to the conventional car, whereby vehicles can be powered through energy generated on site. This meets the NPPF's goals of reducing emissions and improving air quality. It also complies with the definition of sustainable transport set out within the Glossary to the NPPF, which defines 'sustainable transport modes, as follows:







*'Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra emission vehicles, car sharing and public transport.'*

As such it is entirely likely that vehicular trips from the site will themselves be a sustainable mode of transport.

**Walking**

The National Planning Policy Framework (NPPF) does not provide specific guidance on walking distances. However, Manual for Streets states that:

*'Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2km.'*

White Young Green (WYG) have recently undertaken research, titled, *How far do people walk?* (July 2015), which examined National Travel Survey (NTS) data to establish actual walking distances to public transport and local facilities. The WYG analysis of NTS data for walking as a main mode (outside of London) is 1,150m and the 85th percentile distance is 1,950m. Therefore, the 85th percentile walking distance is similar to the 2km distance widely applied for walking trips as a main mode, albeit 15% of people walk further than this.

The site lies a short distance from an existing bus stop on

Weston Hills Road which is served by the S138S bus service. It is also within walking distance of the centre of Spalding, some 2-3km walking distance. Which is in line with the guidance within the Manual for Streets and the findings of WYG.

Occupants of the new home will have an alternative to the use of a car.

**Cycling**

The roads surrounding the site are categorised as '*Routes found useful by local cyclists* ' within Lincolnshire County Council's published maps and as such offers a further alternative to the occupants of the home.

**Public Transport**

The site lies in close proximity to a bus stop on Weston Hills Road (approximately 160m to the east of the site) which is serviced by the S138S bus route from Sutton St Edmond to Spalding. This bus is scheduled to stop at the Mallard Road stop at approximately 8.30am and 4.05pm on school days. This bus service provides a service directly to the schools as well as the centre of Spalding with further opportunities for public transport use via bus or train.

## 6.5 Waste During Use

Sustainable development demands a fundamental change in the way we design, produce, use and dispose of the products we consume. Every effort has been made to design out the production of on-site waste.

The home will be provided with dedicated internal bins within the Kitchen to allow the separation of recyclable and kitchen waste from landfill waste. These bins in-turn can be emptied into external bins and brought out to the kerbside of the road for collection by the Local Authority on the appropriate day.

The home will also be provided with compost bins of a minimum 900 litre capacity, reducing garden and food waste going to landfill.

The occupiers of each home will be encouraged to grow their own food and therefore reduce waste. Each home will be provided with a space for a Kitchen garden which allows this to be cultivated in accordance with the occupiers wishes. As part of the Kitchen Garden, compost bins will be provided to each home reducing the need for removal of garden waste from each home.

## 6.6 Waste During Construction

Where possible materials have been chosen to minimise on -site waste. Where this is not possible waste will be segregated on site to allow recycling where possible and to reduce waste going to landfill.

## 6.7 Materials

Materials within the proposals have been carefully chosen to suit the architectural style, use materials with low embodied energy or materials that are either recycled or can be recycled and materials that reduce waste to landfill.

It is intended that the home will constructed in the following materials:

**Concrete Foundation**—High embodied energy but acceptable for Flood Risk reasons in small quantities.

**Frame**—Steel frame, high embodied energy but recyclable.

**Brickwork**—Reclaimed brickwork and therefore recycled

**Wall/ Roof Cladding**—Eternet Thrutone Slates, made from 100% recycled material and timber cladding sourced from an FSC source.

**Internal Partitions, Floors and Roof Structure**— Timber sourced from an FSC source.

**Windows & Doors**—Oak timber sourced from an FSC source.

**Plaster/ Plasterboard**—British Gypsum made from recycled gypsum.

## 6.8 Biodiversity

A key element of the proposals is to improve biodiversity within the site and the scheme includes the provision of bird boxes, and insect hotel, log pile habitats as well as a new wild flower meadow, general planting and a new fruit orchard.

The provision of all of the above will significantly improve biodiversity within the site.

# 7.0 Conclusions

This proposal for a self-build zero carbon home addresses a clear need within the District for housing and in particular self -build housing. This combined with the home being zero carbon which directly responds to Climate Change makes this proposal exceptional within the South Holland District.

On that basis it is felt that the proposals meet the aspirations of the NPPF in delivering a home which responds to local need and the current and future requirements of Climate Change.

The architecture within the proposals is of a high level responding directly to the site, its proposed occupants and their need to have a modern energy efficient building.

Given all of the above and the Councils current lack of a 5 year land supply for housing, in particular with reference to self-build plots, it is felt that the application should be approved without delay.

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