

2227

# Design and Access Statement

09/12/2022

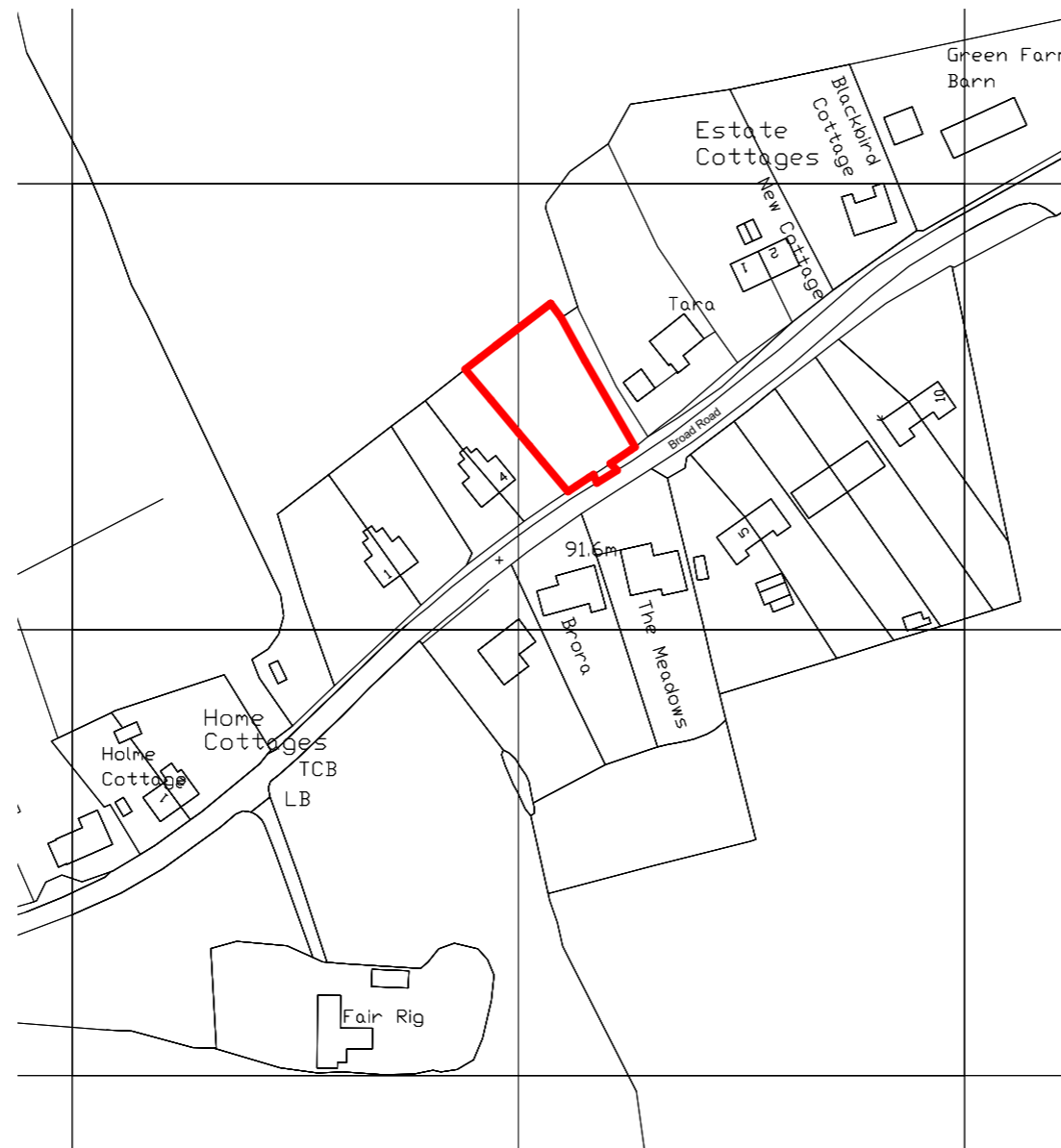
**The Site**

The site is adjacent to 4 Broad Road and fronts onto Broad Road. Little Thurlow Green is located in Suffolk. The landscape is comprised mostly of fields, with small pockets of woodland dispersed throughout.

Most dwellings within Little Thurlow Green are set out fronting onto Broad Road and backing onto arable farmland. The proposed dwellings also fronts onto Broad Road and sits beside a two-story semi-detached dwelling to its west, neighbouring property and a garage to its east, and is opposite a two-storey detached dwelling.

Surrounding properties along the road are detached and semi-detached houses—some with gable end facing the road and others facing adjacent sites. There is also a two-story timber-clad converted barn east of the site. Beyond the boundary hedges and trees to the northwest of the site, there is open countryside broken up by hedgerows and a softly undulating landscape.

The site is a section of enclosed land currently unused and overgrown.



Location Plan

**LANDSCAPING**

The access, parking and turning area will be finished with gravel and is to be bound at the entrance to meet highway standards. This will continue from the parking area to the dwellings. New hedgerows will separate parking areas from the neighbouring property and road. Access to the rear garden will be via a gravel path from the sides of the dwellings.

The rear of the properties will have a patio area.

Further notes, including boundary treatments, bin storage and collection points, are shown on plans supporting this application.

**The Access**

Access to the site is currently located on the northeast boundary of the site. The new access onto the highway with no gate was approved under planning permission Reference No. DC/20/0804/RM.

The dwelling is designed with inclusive access in mind. Level and flush access will be achieved from the site's entrance to the dwelling's interior. The proposed dwelling will be fully compliant with Part M of the building regulations.

**Planning History**

The reserved matters application reference No. DC/20/0804/RM was submitted in pursuance of conditions imposed on outline planning permission No. DC/17/1341/OUT and was approved by the Council as Local Planning Authority.



Site View from Broad Road looking Southwest



Site View from Broad Road looking Northeast

**Wider Context**

The buildings in the neighbourhood are two-storey residential dwellings.

Little Thurlow Green exhibits a variety of building materials. Red brick, timber cladding and rendered walls can be found in the area. The majority of buildings have slate or pantile roofs.

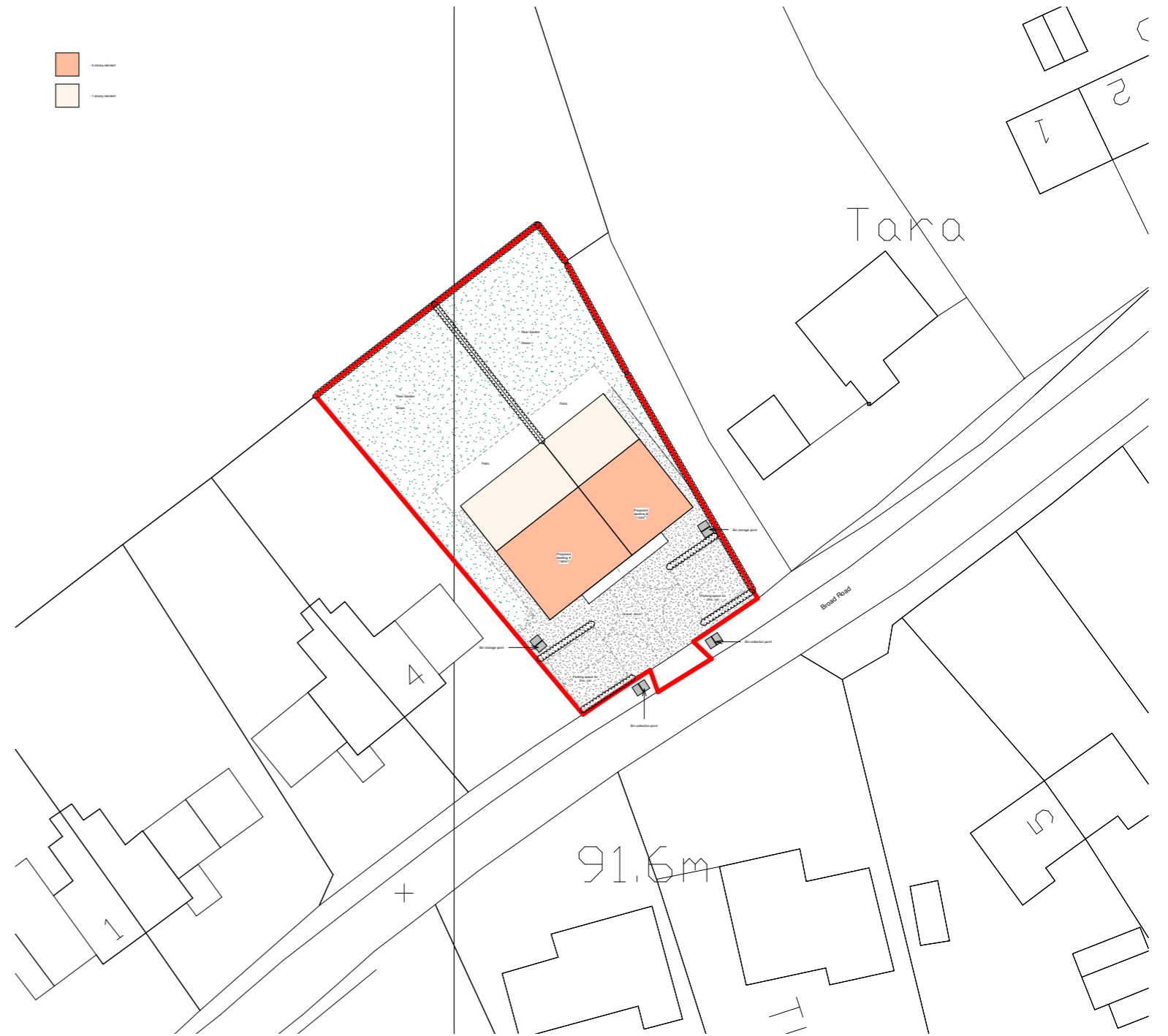


Site Layout

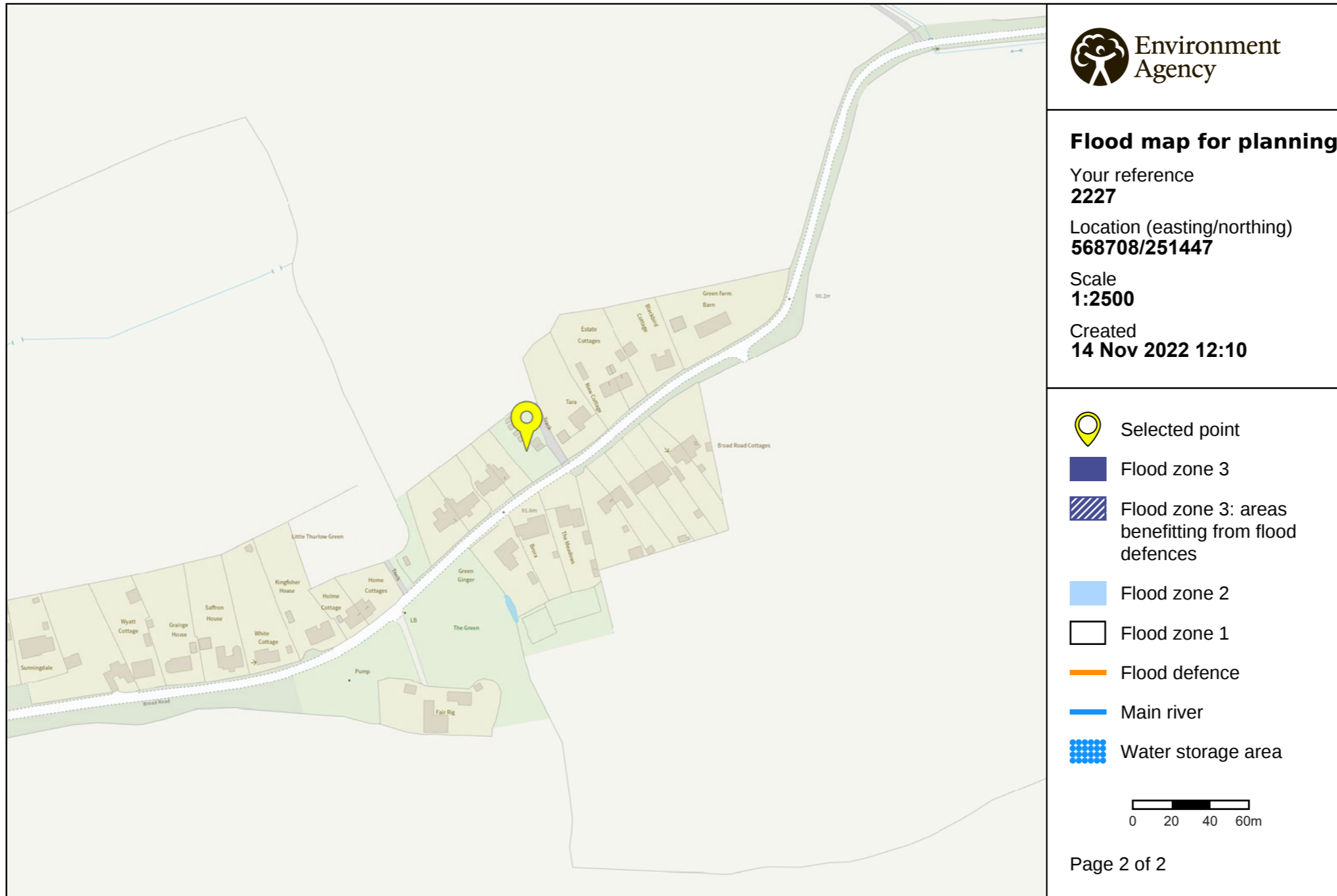
The intention is to build two new semi-detached eco dwellings on the site. One is a four-bedroom larger house (A) to the west, and another is a smaller three-bedroom house (B) to the east.

At this stage in the early design process, The aim is to develop the site in an appropriate and respectful manner. The following points are key drivers in this approach (Please also refer to the drawing opposite and the appended layout plan):

- Privacy and outlook for the neighbouring dwellings are to be respected and retained.
- Provide privacy and outlook for the proposed dwellings.
- Maintain and respect the existing development scale and build lines.
- Provide garden space.
- Parking provisions are to be located in front of the properties and hidden with hedge lines from the road.



Block plan



**Flood Risk**

The site lies completely within Environment Agency Flood Zone 1. The site is not therefore considered to be at a significant risk of flooding.

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View north-east along Broad Road, from site entrance



View south-west along Broad Road, from site entrance

**Highways**

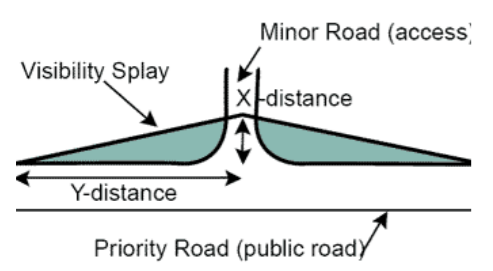
The site lies to the north of Broad Road, Little Thurlow Green.

Access from Broad Road will be via the new proposed site access to achieve better visibility in both directions - see the drawing to the left.

Currently, there is 100.7m of visibility to the southwest along Broad Road and 51.4m of visibility is achieved to the northeast.

The drawing showing the extent of Highways is also submitted along this application. Any new hedgerows that border the site and road will be cut back and managed to ensure site access visibility.

Access Plan showing achieved visibility splays



### Design

The sustainable performance of the building will be a constant consideration and design driver throughout the project. A fully integrated approach for sustainable systems, products and materials on the site will be required.

### Thermal Performance

The dwellings will be super-insulated. This will reduce the requirement for dwelling heating and thus reduce the size of the heating system required. In addition, a super-insulated house's internal temperature fluctuates less with external conditions, and therefore the internal temperature and comfort level is easier to control.

### Airtightness

An airtight building is as important as insulation. There is no point insulating a space if a cold draught is allowed to remove all the heat. An airtight dwelling solves this issue. Again, it is about giving control of the internal environment back to the occupier. The proposed dwelling will achieve the Passivhaus standard of airtightness.

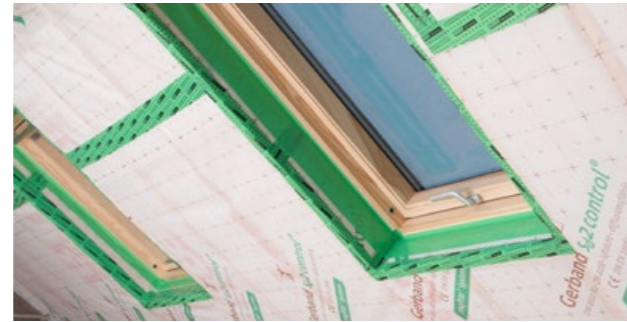
### Low Energy Use

A key component to simultaneously reducing the environmental impact of a dwelling and saving money is to reduce the energy demand as much as possible. Super-insulation and airtightness mean there will be a minimal requirement for heating. However, in addition to this, all appliances in the dwelling will be highly efficient; white goods will be a minimum of A\*\* rated; low energy LEDs will provide all lighting, and a smart energy meter will be installed to help the residents monitor their energy usage and understand how to reduce it if possible.

### Ventilation

Good quality ventilation is essential for the health and wellbeing of the residents.

Background ventilation for the dwellings is provided via trickle vents, Purge ventilation is provided via openable windows. In addition, the position of the windows and internal layouts will allow passive cross and stack ventilation to move air through the space if ever required quickly. This can help let out hot air and draw in cool air on the warmest summer days.



maintaining the airtight layer

### Heating

Heating will be supplied through underfloor heating to all ground floor areas, with radiators in the first-floor bedrooms and living room and towel rails in en-suites. Heating requirements will be minimal. Hot water will be provided primarily by a air source heat pump in the winter and in conjunction with Solar PV in the summer.

### Cooling

The potential for overheating internal spaces is minimised by reducing internal gains through good lighting specifications and low energy-consuming equipment.

### Materials

All materials chosen will be scrutinised for their environmental credentials. Key aspects include their embodied energy and sustainable sourcing. Where possible, materials will be procured from local suppliers. Materials that take less energy and do not give off harmful substances when being produced will be prioritised.

All materials specified will have a BRE Green Guide rating of A or A+.

The dwelling will be designed as breathable construction using natural materials which allow moisture to pass through the building fabric and hence help mitigate the internal humidity of the internal environment. Materials derived from petrochemicals will be avoided.

Natural materials generally have the lowest embodied energy associated with them; they do not give off toxic gases and are fully breathable.

### Construction longevity

Natural materials are generally more flexible than non-natural.

In addition, the entire ground floor will be designed to meet the accessibility requirements of Part M of the building regulations. Ground floor bedrooms in Plot A&E, with easy access to an accessible shower room, provides the flexibility for accessible occupants and



natural sheeps wool insulation

multi-generational living.

### Building Whole Life Cycle

Natural materials can be recycled or returned to the environment at the end of the building's useful lifetime without causing harm.

### Energy Performance Rating and Environmental Impact

The dwelling will be designed to achieve a high A rating on its Energy Performance Certificate (EPC) and a high A rating for its Environment Impact.

### Health and Wellbeing

The dwelling will be designed with the residents' health in mind, from the ventilation strategy to the choice of materials free from toxic emissions (VOCs) and providing good levels of daylight and sound insulation levels.

### Water Use

By installing low use appliances and efficient low-flow taps and supplementing the supply with the rainwater harvesting system, the proposed dwelling will be designed to achieve very low usage of water. The target usage of mains water is a maximum of 80litrs per person per day.

### Travel

All vehicle parking spaces on-site will be equipped with fast electric charging points to promote the use of electric cars.



electric car charging points next to all parking spaces