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SUSTAINABILITY STATEMENT

Site: 2-4 Alexandra Road, Reading RG1 5PE

Proposal: Proposed change of use from day care centre for adults with learning difficulties and autism to children's care home, erection of a single storey side extension and removal of 4no. roof lights and erection of 2no dormer windows.

Date: 29 September 2021

WATER CONSERVATION AND EFFICIENCY MEASURES

Water harvesting can be a measure to minimise water wastage. A cost effective system that will meet the minimum standard under the code for Sustainable Homes and the Building Regulations is being considered.

The proposed porous grasspave2 paving system at the rear car parking will allow rainwater to percolate through the permeable surface of the paving and back into the ground where the water is cleansed and returned to the ground water supplies.

The percolated water from the car park and from the amenity area and rainwater from the roof can be collected into an underground water tank buried below the car park and amenity area. The water can be diverted into the buildings to be used for toilet flushing, washing machine and garden hose pipes. As pumping water to consumers is the biggest single use of energy in the UK, water saving is of huge importance in the fight against climate change.

Water supply to the buildings will be through a water meter and the units will incorporate water savings and efficiency measures that comply with Regulations 36(2)b of Part G2 of the Building Regulations. These will ensure that a maximum of 105 litres of water is consumed per person per day.

Water consumptions by the fittings and appliances provided will not exceed the values in Table 2.2 of the maximum fittings consumption. The toilets, showers, taps, dishwashers and washing machines will be the water efficient types

FLOOD RISK AND MITIGATION

Use of permeable surfacing is proposed as a measure to mitigate flood risk.

The Staff car parking area will be formed using grasspave2 system. This is a porous grass paving system that allows rainwater to percolate through the permeable surface of the paving and back into the ground. The system provides a long term green paving alternative that can reduce CO2 emissions and filter out environmental toxins through bioremediation.

The flooring material for the amenity space is a 3D printed permeable Polypropylene and the car parking at the front will be paved with permeable paving. They allow water to percolate through their permeable surface back into the ground reducing flooding considerably

TRANSPORT

The site is within a sustainable location in terms of transport as the area is well served by public transport. Alexandra Road is a classified road located in zone 2, Primary Core Area of the Revised Parking Standard and Reading Design SPD. Zone 2 surrounds the Central Core and it is within walking distance of 2 kilometres from the centre of Reading.

The proposed parking facilities have been designed in compliance with the Revised Parking Standard and include car parking, bicycle stands, motorcycle/moped parking for staff and visitors. The proposed parking is designed to encourage staff and visitors to use public transport as the area is well served by public transport. Electric vehicle charging points will be installed at strategic positions at the forecourt and rear parking. The proposed parking will not generate any pressure to the existing residential parking on Alexandra Road

ENVIRONMENT AND ENERGY EFFICIENCY

All works will be carried out strictly in accordance with the requirement of the current Building Regulations ensuring high level performance of the building in terms of energy efficiency, lighting, heating, sound insulation and security.

Energy efficiency measures and passive solar design were considered and incorporated into the design. The use of renewable energy technology such as photovoltaic cells and solar water heating and passive ventilation were explored and further consultations with the installers are still going on. The buildings are existing building and as such it will be very difficult to achieve 100 percent energy efficiency. However, were new windows are being installed they will have double glazing and trickle vents and the existing loft will have additional insulation installed. The existing and proposed external doors will be drought proofed

It is our intention to carry out further consultations with the lighting and sound insulation consultants during the detail design and specification stages.

The proposal is designed to comply with the minimum standard for the Code for Sustainable Home.

PLANTING

Planters and retaining walls are made of Gabion stones wire mesh baskets.. The planting are sustainable and predominantly perennials, evergreens, flowering shrubs and plants that bloom in winter. They do not require extreme maintenance.

COMPLIANCE WITH PART M4(2)

The proposal is inclusive and issues regarding accessibility have been addressed. Reasonable provisions have been included to address this situation, for instance the existing ramp at the main entrance has been retained and door entry controls and handle will be installed at heights to comply with building regulations requirement.

A platform lift has been provided at the ground floor at no.2 to allow easy access to the Activity area, Light switches and socket outlets and other controls will be fitted at heights to comply with the building regulations and door widths are such as will allow for wheel chair use. A new ramp has been provided at the rear of the Activity area to allow access to the amenity area

CO2 EMISSION REDUCTION

Measures to reduce CO2 emissions have been incorporated by design and materials specified for new works. The existing buildings were built in the 1980s and will require upgrading its building fabric as practicable as possible

Measure such as:

- Increasing insulation particularly under the existing rafters in the roof, installing double glazed windows including trickle vents, high efficient condensing boilers and under floor heating
- Reducing drafts and air leak
- Installing energy efficient appliances and energy efficient light fittings
- Encourage the use of bicycles for transport and sufficient bicycles stands have been provided on the ground floor
- A bay for waste and recycling bins are also been provided
- Electric Vehicle charging points are included in the proposal
- The proposed floor tiles at the amenity space is Polypropylene and has very low carbon foot print i.e. 3.456 metric tonnes co2eg per tonne

CONCLUSION

It is hoped that all the above measures and undertakings will help in addressing the climate change issues and also reduce carbon dioxide emission by 20-30 percent