situ8
planning consultancy

Statement of Sustainable Design Methods

Integrated Health and Social Care Centre at St Mary's Hospital, Hospital Lane, Hugh Town St Mary's Isles of Scilly TR21 0LQ

On behalf of The Cornwall Partnership NHS Foundation Trust

January 2024

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1.Introduction

Situ8 Ltd have been instructed to act on behalf of The Cornwall Partnership NHS Foundation Trust to write a supporting Statement of Sustainable Design Methods for an Integrated Health and Social Care Centre at St Mary's Hospital, Hospital Lane, Hugh Town St Mary's Isles of Scilly TR21 0LQ (hereinafter referred to as 'the site').

2.Planning Policy & Guidance

The following policies and guidance have been used to inform this statement.

2.1 National Planning Policy Framework 2023

2.2 National Planning Policy for Waste, 2014.

2.3 Environmental Improvement Plan, 2023.

A plan setting out how we will work with landowners, communities and businesses to deliver each of our goals for improving the environment, matched with interim targets to measure progress. Taking these actions will help us restore nature, reduce environmental pollution, and increase the prosperity of our country.

2.4 Isles of Scilly Local Plan March 2021

POLICY SS6 Water and Waste Water Management

Policy OE2 Biodiversity and Geodiversity

Policy OE3 Managing Pollution

Policy OE5 Managing Waste

2.5 Good Practice Guidance: Sustainable Design and Construction

The NPPF states that “The purpose of the planning system is to contribute to sustainable development”. Sustainable development is key to tackling the linked challenges of climate change, resource use, economic prosperity and social well-being, and cannot be achieved without sustainable buildings. This note provides guidance on how the planning system can encourage sustainable design and construction as part of this.

2.6 Council of the Isles of Scilly - A Sustainable Energy Strategy for the Isles of Scilly November 2007

Provides guidance on ways to improve the build and performance of proposals which includes, orientation of the building, insulation, solar water heating, ground source heat pumps, rainwater harvesting and other renewable energy sources.

2.7 Isle of Scilly Climate Change Action Plan 2022

This action plan sets out what the Council will be doing to combat our carbon emissions over the coming years focussing on what we can control (through the direct control of sites and services), what we can influence (working with our community and local businesses) and how we will work with our local partners and national stakeholders to ensure we can achieve our ambition to be net zero carbon by 2030.

3.Sustainable Design measures

We propose a number of sustainable design measures to increase the sustainability of the project and reduce the impacts of this refurbishment and extension project on the natural environment.

3.1 During construction

- The majority of the new building works contained within this application centre around the new bedroom wings at the rear of the hospital.
- These will be “assembled” on site using off-site fabricated modules.
- The ground to the rear of the hospital drops away sharply, so there will be a need to create a platform on which the modules will be assembled.
- Traditionally, this platform would be constructed from concrete strip footings with dense concrete block walls. A significant amount of general construction waste is associated with masonry construction (waste mortar, cut blocks etc), so for this project we are proposing to utilise an off-site fabricated steel frame sitting on concrete pads on the granite bedrock.
- The steel frame will be fabricated on the mainland where the re-use and recycling of off-cuts, etc can be easily achieved and only the materials required will be transported to the site. This also significantly reduces the on-island labour resource and the weight of materials being transported.
- Arisings from the foundations and drainage works will be used within the landscaping scheme where possible to minimise transport and improve access to the steeply sloping grounds.
- Both accommodation wings will be constructed off-site at a specialist factory and as far as possible, the internal fit-out will also be installed in the factory to minimise works on the islands.
- These factories work using modern methods of construction within a controlled factory

environment to standardise size, design, components etc to minimise waste. They also have good access to recycling facilities for waste materials that is not available of Scilly.

- Once again, only the materials actually required (in the form of completed modules) will be shipped to the islands, and recent reports suggest that volumetric offsite construction systems can reduce waste on site up to 50% when compared to traditional construction.
- Traditional construction tends to involve a steady stream of small quantities of materials which with the logistics and shipping required by the island location is both costly and carbon heavy. With the modular proposal, all the modules will be transported at the same time on a single ship which is both more efficient and also minimises the duration of disruption.
- The significant proportion of off-site construction techniques employed on this project will result in a dramatic reduction in on-site works and all the associated impacts on water and energy used. Energy usage by the works will be monitored and the Contractors incentivised to minimise consumption and waste.
- There are elements of reconfiguration to the existing hospital buildings, which will be planned in advance to ensure efficient deliveries of materials. The programme for this element of work is over winter 2024/25 so the impact of labour and transport on the island will be less than during the busy summer months.
- As the detailed design develops, the Construction team will be developing their site-based waste management plan, and this will be a constantly evolving document throughout the construction works. We recognise that most waste will need to be transported off the island at cost to the project, so there is an inherent incentive to minimise such waste in the first place.
- We recognise the impact the project will have on the islands during construction through the travel, accommodation and subsistence of labour, and we are actively participating in the Council of the IOS Infrastructure Board to seek opportunities to share or co-locate with other projects.

3.2 Post construction

- The co-location of the hospital and care home, with shared usage of various spaces (staff accommodation etc) will inevitably result in reduced energy and waste compared to the two separate buildings currently in use.

- A reduction in road transport of patients between the care home and hospital, and the provision of digitally supported out-patient appointments reducing transport to the mainland will have a long term impact in reducing carbon associated with healthcare on the islands.

- Within the building (both new and refurbished) the use of low / zero carbon technologies where feasible such as LED lights, ASHP, MVHR will reduce ongoing running costs and carbon impact.

- The windows will have U values in excess of the requirements of Building Regulations as we will improve on the limiting U values in Table 4.1 of AD Part L Vol 2.

- The Trust recognises that waste disposal is the least cost efficient and least environmentally acceptable method of waste management. It is therefore Trust policy that methods of resource and materials minimisation are introduced to reduce the consumption of energy, water and materials within the Trust. Where it is acceptable and does not compromise infection prevention, materials will be re-used.

- The potential for directing waste material into recycling routes will be regularly reviewed and implemented. This will apply to paper, cardboard, plastics, scrap metal, printer cartridges, fridges/freezers, IT equipment and other materials as cost effective recycling or reuse as new recycling sites become available.

- In order to effectively identify different types of waste generated within the NHS a national colour coded system has been agreed. It is essential that all members of staff are aware of

this and correctly segregate waste to ensure that it is disposed of legally, within locally agreed contracts set up via the Waste Management Advisor and Supplies Manager.

- Water meters will be installed. Measures to maximise water efficiency and minimise water wastage which includes push top taps, low flush toilets and flow regulators for taps and shower heads.

- The overall results between both percolation trial pits indicated that infiltration is poor and therefore the disposal of surface water will take place using a piped facility to an outlet to the sea. By way of offering a community benefit the route of the pipe will be intercepted by a rainwater harvesting tank located in the allotment area to the southwest of the site which will give fresh rainwater access for those wishing to water their gardens.

- Grey water reuse has been explored but the nature of the hazards associated with grey water reuse in a hospital environment are prohibitive.

- Solar photovoltaics (PV) panels are proposed to harness the sun and daylight which will assist in reducing the electricity bills associated with the proposal and help reduce its carbon footprint.

- The NHS recognises the importance of minimising its impact on the environment by embracing greener methods of heating their buildings and a commitment reducing carbon emissions. Air source heat pumps are proposed which will assist in this goal alongside the solar PV.

- We propose additional habitat measures which will include bat and bird boxes, bee bricks, hedgehog boxes.

- The landscape scheme will include the retention of existing sward (where possible) and allowing natural regeneration / spreading with hay from the retained grassland to generate the new areas, native planting such as wild privet is common along the dunes.

4.Conclusions and recommendations

We trust that the information given within this report and associated documents in this submission demonstrate that this proposed scheme satisfies policy and that we have demonstrated that the steps proposed will increase sustainability of the project and prevent unnecessary impacts on the environment.

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