P/25/063/FUL

28th July 2025

BUILDER'S MATERIALS & MACHINERY STORE, TRESCO

SCHEME OF SUSTAINABLE DESIGN MEASURES

Client:

Tresco Island Limited,
Tresco Estate Office,
Tresco,
Isles of Scilly,
TR24 0QQ.

1.0 Introduction

The Scheme of Sustainable Design Measures has been prepared to support a planning application to construct a steel framed barn on the isle of Tresco. The barn will be used to store building materials and machinery which are essential for the maintenance and construction of the Island's built environment, including tourist accommodation and homes for local residents. The proposed barn will provide a secure and dry place to store materials and equipment, providing a much needed improvement to the existing storage site

2.0 Proposed Works

A steel framed, timber-clad shed of approximately 380 square meters is proposed. The shed would adopt an agricultural style in keeping with similar utilitarian buildings found elsewhere on the island (eg. Tresco Maintenance Store & Tresco Cycle Hire). The building will be located on the eastern side of the tip site, set back approximately 65 meters from Racket Town Road.

The shed takes the form of a modern agricultural building consisting of an open portal steel frame, dual pitched roof, rooflights and solar panels. It is shielded from sight by the bunding and dense vegetation enclosing the tip site. Four roller shutter doors on the west elevation will provide access for plant and machinery. Three small access / escape doors will be located on the north, west and south elevations respectively. Internally, a wall will divide the space into two storage zones. Roof lights will provide ample natural light, and a water tank will store harvested rain water for use in building operations.

The proposed materials continue the established island vernacular for buildings of this type. Vertical timber cladding will be left untreated and will silver naturally. The roof will be covered with green profiled timber cement sheeting. Roller shutter doors will be green painted to match.

Enclosing and containing the rather unsightly piles of plant and machinery is considered to be a visual benefit within the confines of the existing site.

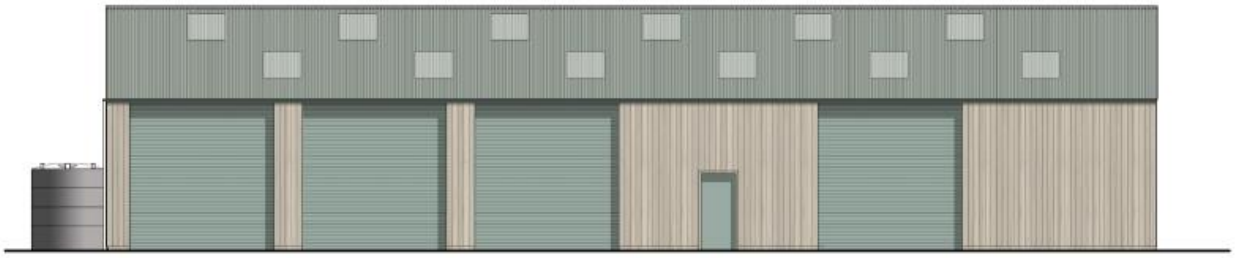

Figure 1. West Elevation

3.0 Sustainable Design Measures

The following sustainable design measures will be implemented:

Sustainable design measure	**Description**	**Benefit**
PV panels	In the first phase prior to commission, PV Panels with a minimum 7.5kW capacity will be installed on the south-east roof slope of the building to generate electricity.	Sustainable solar energy will be generated on site and contribute towards powering the building, plant and machinery, thereby reducing the external energy demand, The panels could be connected to the Island's electricity grid in the future, and excess energy could be exported to the grid.
Local battery array	Batteries on site will store solar energy generated by on-site PV panels, to be readily available when required to power the building, and charge electric plant and machinery.	The building will form a new hub for charging electric vehicles, supporting the Island's transition towards green transport and infrastructure.
Roof lights	Roof lights provide ample natural daylight.	Ample natural daylighting reduces the building's electrical lighting requirement during daylight hours, thereby reducing the energy demand.
Longevity of machinery	The store will provide a dry, covered storage building for the Island's plant and machinery.	The new storage facility will prevent rust and degradation of plant and machinery, providing longevity, thereby reducing future embodied carbon and energy use associated with future maintenance and repairs.
Rain water storage	2 x 6000 litre rain water storage tanks will store water harvested from the roof of the building.	Rainwater will be harvested and stored on site, and will be available for use, reducing the requirement for main's water supply.
Rain water soakaway	A soakaway will be located to the north of the building.	Excess rain water will be directed to a local soakaway, providing a low impact method for rain water management.
Timber cladding	Timber cladding will be used in lieu of metal sheeting.	Timber cladding is a sustainable, carbon sequestering material.