

Jade3 Architecture Ltd

Job reference: 2023 enquiry 76

Address: **Stancliffe House Farm site**
Woodhead Road
Wortley
Sheffield
S35 7DA

Date: 22/6/2024

Extra notes: Demolition of existing rainbow hill boarding kennel block and construction of new C3 one off dwelling and demolition of the shed and cattery to offset slight increase in floor area at Stancliffe House Farm site, at Woodhead Road, Wortley, Sheffield S35 7DA

A green sedum flat roof outline specification

A green sedum flat roof is also known as an extensive green roof which is lightweight and low maintenance roofing system covered with sedum plants and assist to blend into the surrounding visually. These green roofs are popular for their aesthetics appeal with environmental benefits and relatively simple installation and upkeep.

The installation of a green sedum roof improves the air quality and support biodiversity, enhance thermal insulation reducing heating and cooling cost. The green sedum roof also reduce surface water runoff and provides a visually pleasing green sedum space in rural environments.

This would be a specialist suppliers who will assist with the design and installation of the green sedum roofing system.

The following are a typical outline specification for a green sedum roof

Outline specification

Structural support

The roof structure will include the additional loading of the green sedum roofing system, including the saturated substrate plants and any potential snow loading.

Waterproofing membrane

A high quality root resistant waterproof membrane would be essential to prevent water penetration into the roof.

Root barrier

The root barrier helps to protect the waterproofing membrane from root penetration and is integrated with the waterproofing membrane.

Jade3 Architecture Ltd

Drainage layer

A drainage layer could be consists of gravel which will assist to drain the excess water and prevents waterlogging.

Filter layer

A filter layer is normally a geotextile fabric that will assist to keep fine particles from clogging the drainage layer.

Growing medium/substrate

A lightweight well draining soil mixture designed specifically for green roofs and includes

- expanded clay
- perlite
- pumice and
- organic matter

the depth of the substrate for a green sedum roof is circa ranges between 50mm to 150mm thick.

Vegetation layer

Sedum plants are hardy and drought-tolerant succulents and are selected for their ability to thrive in shallow soil and their low maintenance requirements. Different plant species can be proposed and even a design pattern can be considered to provide an attractive roof.

Maintenance Watering

The sedum roofing system will be equipped with an irrigation system. Initially watering will need to be more frequent. After established, the irrigation would be minimal.

Weeding

Regular inspections and removal of unwanted weeds to prevent competition with the sedum.

Fertilization

Light fertilization would be necessary to ensure sedum plant health.

Inspection

Periodic inspection would be needed to ensure the drainage system is functioning properly and check the integrity of the waterproofing membrane.



Example of green sedum roof with solar panels



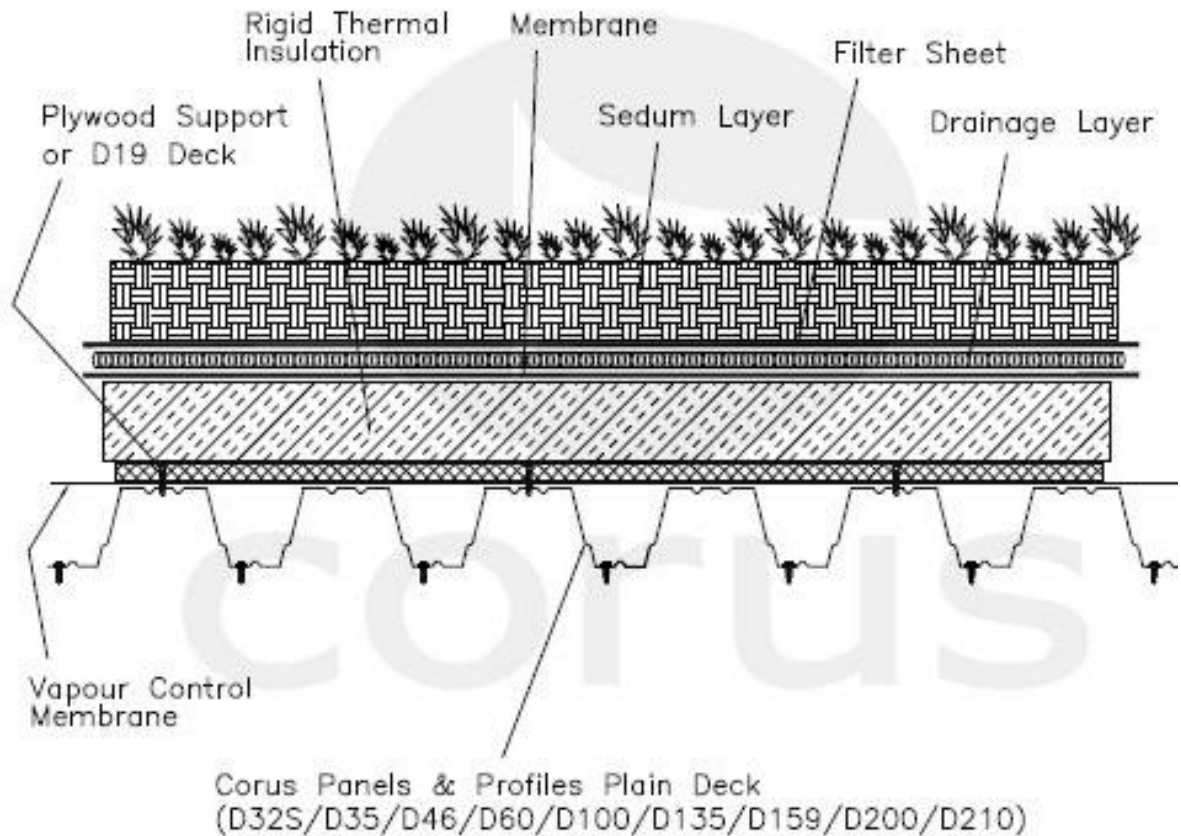
Example of simple green sedum roof



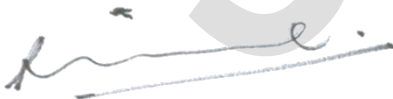
Example of green sedum roof



Typical green roof system with Corus plain deck



Prepared by



Michael Chow BA Arch, Dip Arch, ARB
Managing and Concept Director
Chartered Architect and Urban Masterplanner
for and on behalf of Jade3 Architecture Limited