

Friars Point Residence



Located on the edge of Friars Point Head in Barry Island, Glamorgan, Friars Point Residence is a modern and sustainable mixed-use development that allows residents and workers to improve their quality of life.

The development accommodates several workshops and office spaces from ground level to the second level and houses a mix of single and duplex apartments from the second floor to the sixth floor. The building mass is divided into blocks of between 4 and 7 storeys linked with glazed circulation shafts. The final design and orientation of the development creates a space that is considerate to the site and that maximises the spectacular coastal views around Barry island and the surrounding area.

One of the main focus points of the design was environmental sustainability. As the ever-expanding building regulations require new-built developments to be less harmful to the environment a careful consideration was taken on the decision to use specific materials and building techniques. By using innovative technologies such as the PV array on the BioSolar roof and the GrassCrete car park and the local natural resources the final design was able to have a very small carbon footprint compared to other developments of this size.

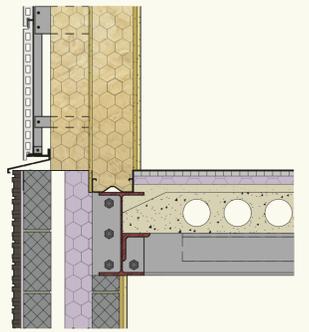
Hot rolled steel is the main structural framing system for the six stories with a masonry wall rising from ground level to the first level, a cold rolled SFS system is then used as secondary framing to support a natural clay terracotta rainscreen cladding system.



Site Section

- Connections to the coastal path and on-site green areas will give the residents and users ample space to enjoy the local views and improve their quality of life.
- Access to the building from the car park and coastal path will be provided by a smooth light asphalt pavement to ensure that users of all capabilities can travel safely and efficiently.
- A secure bike storage unit and electric car charging ports will promote residents to consider changing to a greener way of travelling to and from the development.

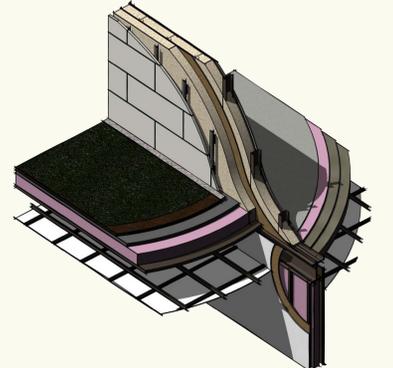
The detail below shows the external wall and intermediate floor junction on the first level. This is also the junction of both external wall types, the masonry wall encircles the ground floor while the natural clay terracotta cladding is used from the first level up to roof level. The main structural element of the intermediate floors are precast concrete slabs resting on steel angles fitted inside the primary steel beams.



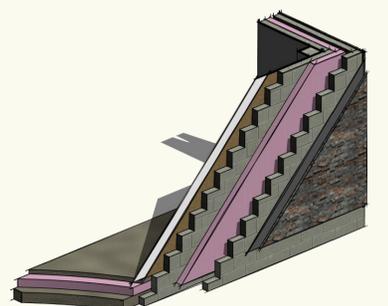
All garden terraces will have a glulam skeleton frame supporting a hanging garden giving the areas a natural and green aesthetic. The terraces will give the residents an opportunity to relax and exercise in an open aired space therefore improving their quality of life.



A secondary wall buildup will be used from the first floor to the roof level. This will be a terracotta rainscreen cladding system fitted back to SFS studwork. Mineral wool positioned inbetween and outside the SFS studwork will insulate the building and will ensure that no fire can spread from floor to floor. Natural clay Argeton Tampa Terracotta tiles will be used as cladding, giving the building a light and modern aesthetic.



The ground floor wall will be a semi-filled block and block cavity wall. The decision to use a heavier type of wall for the ground floor was made due to the possibility of machinery and materials used in the workshops colliding with it. The exterior will be finished with Taylor Maxwell StonePanel Dark stone cladding, allowing the lower part of the building to blend with the surrounding seaside rocks.



Level 6 (1:500)



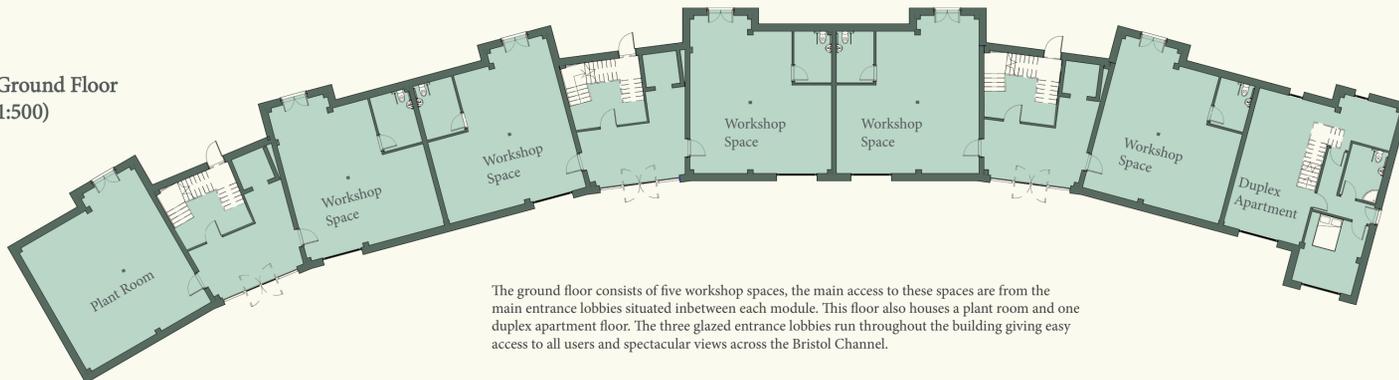
The highest level in the building houses three additional garden terraces open for use for all of the buildings users. This floor also accommodates one single apartment and one duplex apartment giving residents the opportunity to have private views across the Vale of Glamorgan and the Bristol Channel.

Level 1 (1:500)



The first floor accommodates three single storey and three double storey office spaces, these offices are equipped with sufficient kitchen and lavatory services. The second floor of a duplex apartment also sits on the eastern point of this floor, designed with an open plan living space giving plenty of natural ventilation and picturesque views.

Ground Floor (1:500)



The ground floor consists of five workshop spaces, the main access to these spaces are from the main entrance lobbies situated inbetween each module. This floor also houses a plant room and one duplex apartment floor. The three glazed entrance lobbies run throughout the building giving easy access to all users and spectacular views across the Bristol Channel.

South Elevation (N.T.S)



The electricity produced by the photovoltaic panel array on the BioSolar roof will be shared between each apartment to reduce the residents service bills and the buildings carbon emissions. The majority of glazing in the building is designed to be south facing to maximise the use of natural light, while glazing on the north elevation is kept to a minimum to ensure that the heat energy lost is kept to a minimum.