



COASTAL POINT

Introduction

Located in Barry, in a secluded area of land adjacent the Bristol Channel, Coastal Point is a new development that harnesses the Welsh coastlines natural beauty. The Building includes both residential apartments and Studio/Office units all with views looking out over the Bristol Channel.

While respecting the existing nature in and around the site, Coastal Point has been developed to preserve the environment using sustainability. Wind, Solar and bio-tech technology have all been implemented and inter-grated within the design to improve the Buildings carbon footprint.

The building has a hybrid structural frame of concrete and steel with an external envelope of slate cladding on cold rolled steel 'SFS' infill frames.



Diagram 1

The stair-shaft, highlighted in Orange is for Residential use only. Each floor has a lobby (Green) that gives entrances to two apartments. The room highlighted in blue shows the toilet of the an office unit.

Diagram 2

A studio and office unit can be shown highlighted in blue in the above diagram. Both floors provide flexible work spaces to allow reconfiguration if required. The floors are connected by a well lit, enclosed staircase to apply with part B fire regulations. Each unit has a disabled toilet on the ground floor and a second toilet on the first floor.

Diagram 3

The above cross-section exhibits three different areas of coastal point. The apartments (yellow), Office (blue), and maintenance room (red). The diagram also shows one of the three rooftop terraces. All assessable by the residence of coastal point.



Floor Layout A.1

Floor layout A.1 displays the second floor of one of two apartment configurations. This floor comprises of a study, bathroom and master bedroom all connected by a landing. The master bedroom also includes a small balcony.

Altogether, there are 6 two story apartments. The largest that coastal point has to offer.

Floor Layout A.2

The First Floor layout has been designed for open plan living. The kitchen, Dining and living area flow from the back to the front of the building, allowing natural ventilation throughout the apartments. The choice of materials have been specifically selected to reflect the sites natural aspects. Oak Floor-boards and Stone tile are used throughout the build.

Floor Layout B.

The second apartment is a one bedroom, one story configuration. Similar to the floor layout of A.2 but the bathroom and bedroom is slightly larger.

Of the nineteen apartments Coastal Point has to offer thirteen are one bedroom, one story.

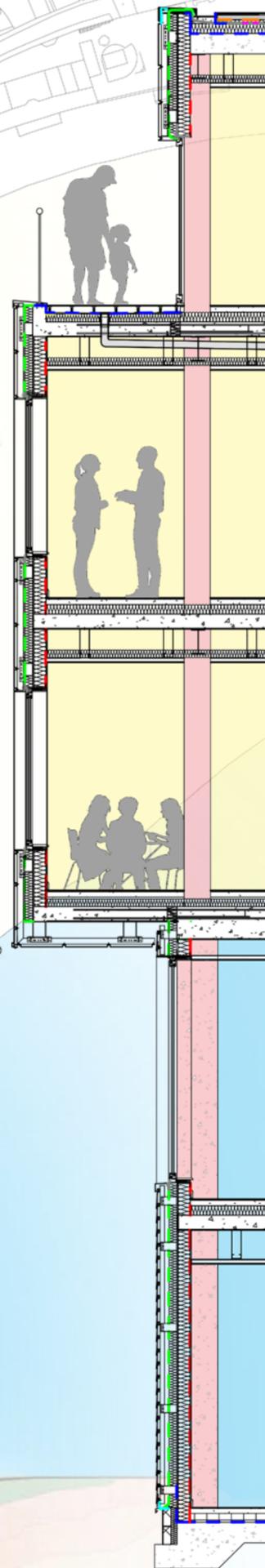
Site

The road leading to the site is shared by a grade two listed building as shown in Orange in the Site Diagram. This road provides access to all utilities and small delivery vehicles.

The development provides 50 car parking spaces. Five of which are for disabled users.

All existing trees at the site have either been relocated to more suitable positions or remained in place. The public walkway has also not been effected by the development and has been utilised as a means of access for Employees and residents as well as the public to access the site.

The building, highlighted in yellow on the site diagram has been placed specifically with the balconies pointing out towards the sea. The location of the building has also taken the neighbouring listed buildings privacy into consideration, with the minimum amount of windows facing the direction East towards the house. Existing trees and shrubs have also been kept as a barrier in the area between the two buildings for privacy and natural preservation.





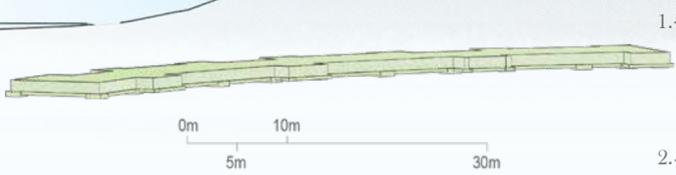
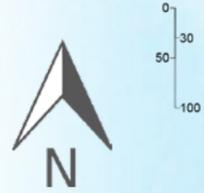
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Location

The Gradual decline of the terrain on the site posed a challenge. The solution was either to adapt the building design to fit this decline or position the building in such a way that minimal excavation of the site is needed. The latter has been chosen as it was the more suitable option.

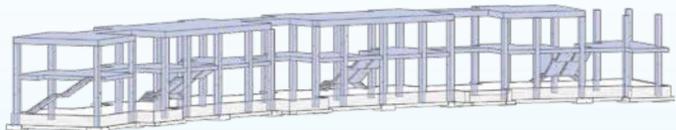
Access to the Commercial areas of the building are located on the west side via individual entrances to each of the six units.

Residents of Coastal Point enter the building from three entrances on the east side of the building.



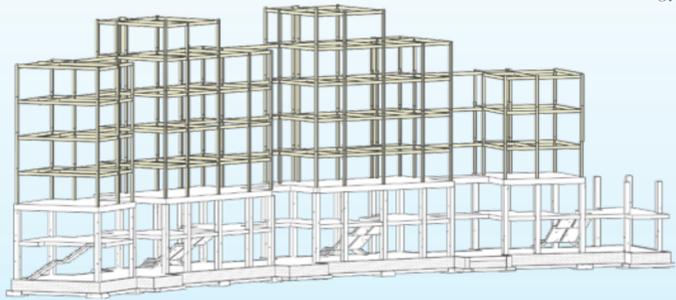
Frame 1

A combination of pad and floor slab foundations have been utilised because of the grounds thin top soil. The foundation wall is placed on top of these.



Frame 2

The transfer deck is supported by structural concrete columns that provide a large open unobstructed space for the studios and offices.



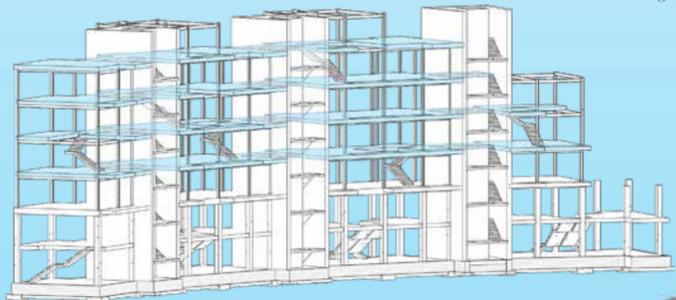
Frame 3

The apartments are a conventional steel frame with SFS infill walls in-between the columns. The steel is coated in an intumescent paint.



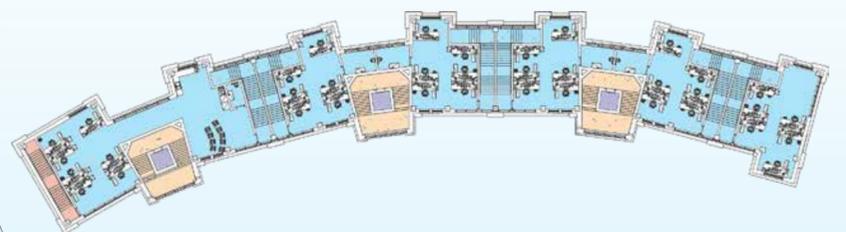
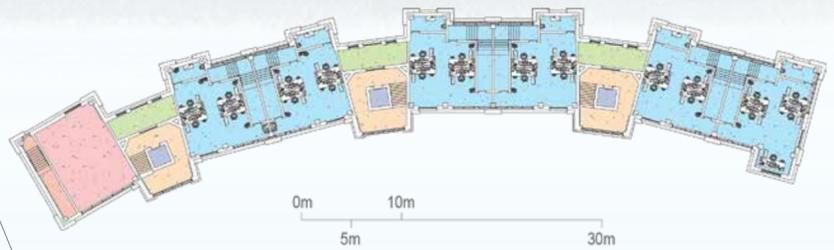
Frame 4

The three block-work protected stair shafts connect to the lobby areas providing fire protection to the apartments. This also maintains seclusion between the residential and commercial areas of Coastal Point.



Frame 5

Concrete intermediate floors connect the balconies with Ancon balcony connectors. The pre-cast concrete stairs are placed between these floors.



Floor Plans

The floor plans have been designed with open plan living/working at the forefront. The simple yet efficient area planning between zones utilizes the space while maintaining privacy between sectors. Diagram A. shows the ground floor layout. Diagram B. shows the first floor and Diagram C. the third. These diagrams clearly illustrate the stair shafts (orange) and lobbies (green). They are completely segregated.

Two roofs of Coastal point will contain a vast Photovoltaic (PV) array, comprised of 100 Trina Solar 275 Wp PV modules mounted on stands at an angle of 35 degrees from horizontal, orientated 180 degrees from North to maximise their efficiency

