

TY MENYN, SWANSEA

DRAINAGE STRATEGY FOR PLANNING

Austin Partnership have been commissioned by Coastal Housing Group to produce an outline Drainage Strategy for the planning Pre-Application Consultation (PAC) for the redevelopment of the Ty Menyn (formerly Ty Gwalia) building at 7-13 The Kingsway, Swansea. SA1 5JN.

The project is proposed to convert the existing multi-storey office building into a mixed use commercial and residential development, with internal alterations and a two-storey extension to be located above the existing structure.

Surface Water Flood Risk.

Natural Resources Wales Development Advice Maps show that the development area `considered to be at little or no risk of fluvial or costal tidal flooding`, ie. Zone A. Other information taken Data Map Wales shows no flood risk from surface water or watercourses.

Surface Water Drainage Strategy.

The current building has a large area of flat roof to the western and central portion, with a low pitched metal clad roof over the eastern portion. All existing rainwater down pipes that drain these areas of roof are located within the central areas of the building, and discharge into the existing combined drainage network at both ground floor level and basement level. This existing drainage network has had a cctv survey undertaken to provide guidance on the position of the discharge points into the surrounding Dwr Cymru Welsh Water combined sewers. Proven to be located in both The Kingsway (to the South) and Northampton Lane (to the North).



Birds-eye view of existing building (Google Earth)

The proposed redevelopment works will see the third-floor section of eastern portion of the building carefully taken down to second floor roof level. Also, the small two storey garage area in the north west corner will be carefully taken down to ground floor level. The new building work will the construction of the two new floors at third and fourth floor, along incorporating the rebuilding the garage building into the main building. The whole of proposed roof area is to have a semi-intensive green roof construction installed, which will reduce volumetric runoff from the roof area, by adsorbing, storing and treating rain falling on this area, and reducing the rate of runoff entering into the above ground drainage system, when compared to the impermeable roof covering on the

building pre-development, which directs all runoff into the above ground drainage system and down into the combined drainage at ground floor/basement level.

A central area of fully glazed roofing will provide light into the core of the redevelopment and runoff from these glazing areas will be collected to feed the proposed internal green living walls.

The below ground drainage system will be cleaned out and repaired where required, with the three existing drainage connection points to the public sewers retained and reused.



3d view of proposed redevelopment (Huw Griffiths Architects)

Foul Water Drainage Strategy.

The existing above ground drainage throughout the building pre-redevelopment will be retained wherever possible, with new drainage layouts installed to suit the change of use from office building to residential (on floors one to four). All existing combined below ground drainage will be retained wherever possible and reused, with all discharge points to the public sewer retained.

Conclusion.

The redevelopment of Ty Menyn will provide the building with a new lease of life and provide much needed social housing in Swansea. The proposed green roof will provide greater hydraulic control of surface water into the surrounding sewers, as well as improving water quality, providing amenity and biodiversity value to the building. Also, providing better air quality and reducing air temperatures in the area.

A new detailed and definitive above ground drainage scheme will be designed by the appointed M+E consultants will provide an efficient and effective drainage layout to utilise the existing below ground drainage network on site, and finally discharge into the public sewerage network in The Kingsway and Northampton Lane.

