SOUTH CAMPSHIRE FLOOD PROTECTION PROJECT

Following recent extreme flood events and predictions of sea level rise due to climate change in Dublin City, a review of the capacity of the existing coastal flood defences to provide protection for urban areas was carried out by Dublin City Council as part of a study called the Dublin Coastal Flood Protection Project.

The project identified the south city as being at significant flood risk, particularly the South Campshires area from Butt Bridge to Cardiff Lane, and also identified significant sea level rise which had taken place over the 20th Century and particularly the early 21st Century in the Liffey Estuary and Dublin Bay.

The current flood risk analysis of this project was backed up by the OPW-led Catchment Flood Risk Assessment and Management study (CFRAMs) for the Eastern Region.

Dublin City Council, in partnership with the OPW, initiated a design process to address this urgent issue. A comprehensive and distinctive design was adopted and received planning permission from An Bord Pleanala to provide a flood defence system comprising of new reinforced concrete walls and flood gates, around 1.1km in length from Georges Quay to Sir John Rogerson's Quay, 100m east of its Cardiff Lane junction.

The effects of tidal flooding are devastating especially when combined with overload of the drainage network and are, capable of physical injury, spread of disease and even loss of life. The fundamental benefit of the project is that it significantly reduces the risk of flooding for approximately 3,000 residential and commercial buildings as well as 400 national and international businesses in this area.

This project which was constructed by the OPW, mainly by direct labour, is unique in that it not only protects against flooding but also employs a holistic approach, encompassing architectural elements to maintain and enhance the character of both the historical and contemporary aspects of this civic amenity.

A very large number of national monuments and statues, including the existing quay walls, had to be protected during construction. This project has resulted in a decorative staggered flood wall being used, the introduction of a new two way cycle track, new paving and plantings throughout the scheme and the creation of a new bespoke civic space at George' s Quay.

Work on three-year programme commenced in November 2014 and the project is now fully functional with only minor works, mainly aesthetic in nature, required to complete. The final outcome of the project is a value for money high quality flood defence scheme, protecting not only thousands of residents and business but the tens of thousands of people who use the campshires daily.

This coupled with the overall enhancement to the area for the public is a credit to the city and all involved. The area also has

a significant tourist footfall and is used as a back drop for many television programmes.

In recognition of the high standards achieved the project recently won the prestigious Engineers Ireland Excellence Award in the 'Local Authority Engineering Initiative' category at their annual awards in November 2017. These awards recognise exceptional engineering skill, positive contribution to society and proficiency in delivery.

The DCC project team leading the construction of the scheme were Engineer-in-Charge, Gerard O'Connell and Executive Engineers David Ryan and John McCooey. A large portion of the initial design and planning procurement was carried out under the supervision of Adrian Conway, now Executive Manager (Engineering).

These teams were supported by the OPW (the direct labour contractor and main funder), engineering consultants AECOM and Shaffrey's Architects.