

CASE STUDY

Primary Care Centres

Ballymote, Westport, Tuam, Dungarvan and Waterford City (East), Ireland

Storage Provided:	1,379 m ³
Area:	50 acres
Model:	Recharger® 902HD
Number of Units:	352
Installed:	December 2016 – April 2017
Engineer:	SEWES Ltd. Dublin, Ireland
Contractor:	Balfour Beatty Group Ltd. Dublin, Ireland JJ Rhatigan & Co. Ltd. Galway, Ireland



CULTEC provided more than 350 of its high capacity Recharger 902HD stormwater chambers for the construction of new primary care health care facilities in Ireland. The project started in December in 2016 and finished in March 2017. CULTEC chambers were used in the construction of centers in Ballymote, Westport, Tuam, and Waterford City.

In July 2012, Ireland's then-Minister for Public Expenditure and Reform, Brendan Howlin, announced the government's intention to build 14 primary care centers to help address the nation's health needs. The facilities provide comprehensive medical care, including community nursing services, general practitioners, occupational therapy, physiotherapy and home help/support staff. The new clinics also provide dental services, mental health services, early intervention teams and on-call doctor services. The project had originally been conceived in 2008, but a lingering economic crisis delayed construction of the facilities.

When the economy improved, the project's contractors, Balfour Beatty Group Ltd. And JJ Rhatigan & Co. Ltd., chose CULTEC's Recharger 902HD chambers for the project. "CULTEC chambers were considered for use on nearly every project," according to David Newman, a stormwater attenuation specialist at SEWES, an authorized CULTEC distributor, and the project manager for the stormwater management part of the project. "The 48-inch tall 902HD was chosen in part because it reduced the overall footprint of the project compared to other chambers that were available."

In Ballymote, in the county of Sligo, contractors used 75 chambers in a footprint of 26 meters x 8 meters. The Westport facility, in the County of Mayo, required 54 chambers in a footprint of 9.5 meters x 21 meters. Tuam's stormwater system, in the County of Galway, required 51 chambers in a 19-meter x 8-meter footprint.

The largest project was built in Waterford City East and



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required two beds, one with 104 chambers and the other with 68.

The Recharger 902HD high capacity chamber stands 48 inches (1,219 mm) tall, is 4.1 feet (1.25 meters) long and 78 inches (1,981 mm) wide. Each chamber stores 17.66 ft³/ft and 64.75 ft³/unit. The model offers the benefit of minimizing project costs and maximizing storage volume in a specific footprint.

Several challenges faced workers in constructing the stormwater relief systems. One of the primary challenges was the original plans were designed within a specific footprint. But because some of the drainage areas were 40 years old, the stormwater relief systems had to be re-designed. In many cases, workers encountered rock. Workers were forced to narrow the design of some systems due to challenging ground conditions.

Since most of the construction was done during difficult winter months, workers had to find time windows to excavate to keep the area dry and free of water until they got the tanks in place.

The different soils in Ireland also challenged construction teams. In some cases, workers encountered clay, sand and rock.

Contractors had to work with all the various soils differently to build the systems.

The new primary care centers were also built in urban areas. With space at a premium, CULTEC's stackable chambers enabled construction teams to work in a tight footprint of space.

The new facilities are a public private partnership (PPP) that aims to shift some of the healthcare burden from hospitals to community facilities. European Investment Bank helped fund the project, its first healthcare investment in Ireland and its first support of any primary healthcare program in Europe.

Ireland's government built the new centers as part of an economic stimulus plan and as part of a response to increased need to handle health issues in areas in which the population is expanding.

Newman said CULTEC's chambers are recognized in the industry for their superior structural performance. "You know what you're putting into the ground is not going to collapse. The service and technical assistance are also excellent. CULTEC's service was an important consideration in choosing them for this project," he said.



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