



Circular Precast Concrete Sedimentation Tanks Wall Units – Shay Murtagh

DfMA Title

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Company Details

Shay Murtagh
Raharney, Mullingar,
Co Westmeath,
Ireland. N91 WY91

Reference

Chorley WwTW

Area of application

Water/Wastewater Treatment

Links

<http://www.shaymurtagh.ie/>

Key Contacts

Shay Murtagh

Richard Carey
sales@shaymurtagh.ie
0844 2020263

United Utilities Contact

John Browne
john.browne@uuplc.co.uk
07964 208399

Reference Contacts

C2V+

Steven Smythe
steven.smythe@ch2m.com
01793 816595

Summary

Shay Murtagh manufacture and install sectional precast concrete wall units that form a post-tensioned tank system. The system yields water retaining tanks compatible with the operation of scraped sedimentation tanks and other treatment process applications. This Datasheet highlights a recent installation at Chorley WwTW (September 2016).

Application

- Water retaining tanks with or without process equipment
- Scraped sedimentation tanks relate to this example

Benefits

- *Precast wall units are installed onto the structural base – advantageous in poor ground conditions*
- *Concrete launder channel option available – saves second fixing work*
- *Speed of construction – ability to save weeks against traditional wall construction methods*
- *Quality of construction – reduced risk of delay arising from water testing*
- *Use of precast units is less prone to disruption from winter/poor weather conditions*

Case Study

Chorley WwTW – UU Contract No 80040262

The DfMA opportunity saving has been identified to be some £300k and 80 days against the traditional tendered solution.

The tendered solution comprised four final tanks 37m nom dia using insitu. The final design solution comprised three number nom 43m dia tanks. The tanks in both cases are nom 5.5m deep.

The precast wall units adopted for the works incorporate a precast launder channel to allow the full wall profile to be achieved in one pass.

The wall unit placement with initial tensioning of the reinforcement tendon to form the full perimeter wall for a single tank takes approximately three days. Second stage tensioning occurs approximately a week later. Coping unit placement and final finishing is completed in the third week.

DfMA Solution Summary

Data Sheet



Circular Precast Concrete Sedimentation Tanks Wall Units – Shay Murtagh

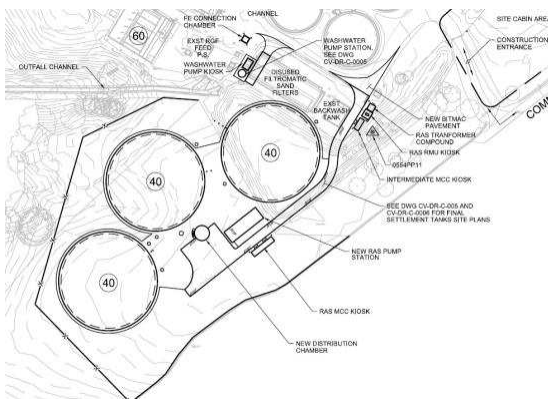
Photographs and Illustrations



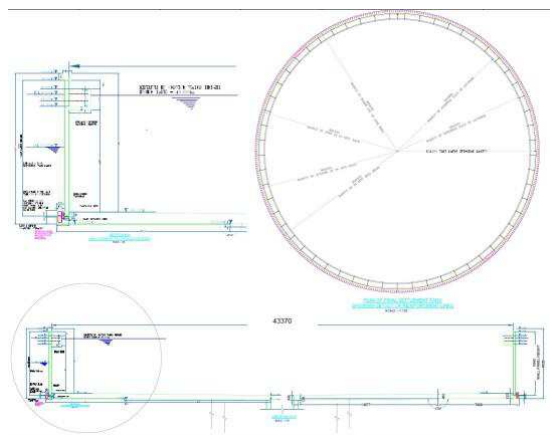
Wall Unit (with integral launder channel) – Prior to Installation



Wall Unit – Lifting into position and Placement



Site Plan – Final Tanks Area



Section Through Typical Tank