


**APPENDIX B2: CERTIFICATE OF SATISFACTORY EXECUTION –WORKS ONLY**

<p><b>ACTIVITY</b> (Title of Applicant Activity)</p>	<p><b>Contractor Entry: Mechanical and Electrical Specialist and Designer</b></p>		
<p><b>SITE</b> <b>Construction contract:</b> (Title &amp; brief description)</p>	<p><b>Feakle Scariff Quilty Wastewater Pumping Station Contract</b> The Feakle Scariff Quilty Sewerage Scheme Contract covers the provision of the mechanical and electrical equipment for 4 No. Pumping Stations serving Quilty and its environs as part of the Feakle Scariff Quilty Sewerage Scheme in County Clare. The Quilty Sewerage Scheme provides for the construction of a system of foul water gravity sewers to collect sewage flows from the town of Quilty and its environs. The majority of these flows will be conveyed under gravity conditions to the 4no. Pumping Stations associated with this Contract for delivery ultimately to a proposed Wastewater Treatment Plant in Quilty.</p> <p>Glan Agua Ltd were contracted as the Mechanical and Electrical Specialist for the design, installation and commissioning of Pump Station No1, Pump Station No4, Pump Station No5 and Pump Station No.6 for the project.</p> 		
<p>Site location:</p>	<p>Quilty, Co. Clare</p>		
<p>Proportion of Project undertaken by the Applicant</p>	<p>100%</p>	<p>Tender entity (Sole trader/ Joint Venture):</p>	<p>Private Limited Company</p>
<p><b>VALUE</b> Construction contract value at award stage including cost of services where applicable:</p>	<p>€280,000</p>	<p>Construction contract value at completion (including cost of services where applicable):</p>	<p>€280,000</p>
<p><b>GENERAL INFO</b> Role of Company in delivery of Service:</p>	<p><b>Scope of Works</b></p> <ul style="list-style-type: none"> <li>• Design and Installation of all mechanical and electrical equipment for 4 separate Pump Stations to deliver wastewater to the WWTP in Quilty, Co. Clare.</li> <li>• Installation and commissioning of all mechanical and electrical equipment comprising, Submersible Pumps, Pipework, Access Ladders, Instrumentation Control and Automation equipment and Standby Generators.</li> <li>• Pumping Capacity at the different Stations ranging from 18m<sup>3</sup>/hr to 144m<sup>3</sup>/hr</li> </ul>		



The locations of the 4no Pump Stations are as follows;

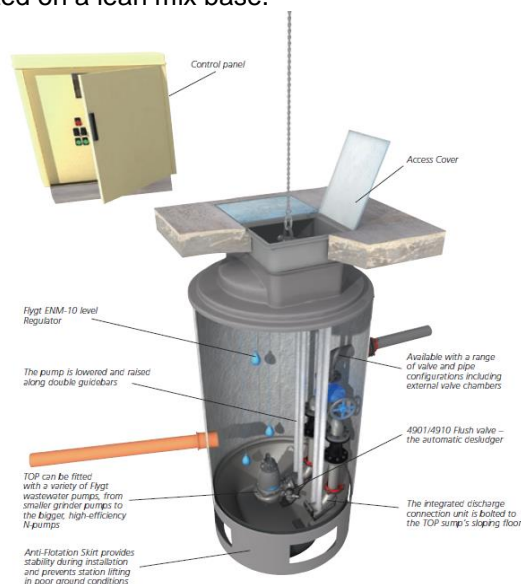
- Pumping Station No.1 on the Milltown Malbay Road in Quilty
- Pumping Station No. 4 adjacent to the main in Tromracastle, Quilty
- Pumping Station No. 5 adjacent to the main road in the townland of Rineroe, Quilty
- Pumping Station No.6 is situated to the east of Mullagh village

### **Pump Station 1**

Pump Station No1 installation contained the following;

- **3.0m Deep TOP 100 Tank**

The Flygt TOP100S station is made of Glass Fibre Reinforced Polymer (GRP) – a strong, lightweight material with superior resistance to corrosion which guarantees the pump station a long life. All raw materials meet ISO 2797 and ISO 2559, and all stations are batch tested to BS EN 12050. The GRP tank will be surrounded in 250mm of 20Newton concrete and constructed on a lean mix base.



- **2no Flygt Submersible Sewage Pumps**

The Flygt NP 3102 SH Submersible Sewage Pumps fitted with a 4.2 kW integrally coupled squirrel cage motor class “H” which is suitable for 400v,

3ph, 50hz electricity supply. Pumps are fitted with 256 impellers. The pumps have been designed to exceed the contract requirements while maintaining self-cleansing velocities in the rising main. The pumps have been selected on a duty /standby basis to meet the required flow and head characteristics of 9l/sec at 15m head.

- **Control Panel**

The 2.0kW Control Panel with DOL starters in a dust and damp-proof enclosure is configured for duty/assist operation and comprises of the following;

- 1no Main Interlocked Isolator
- 6no Main H.R.C. fuses
- 1no Control Fuse
- 2no Contactors and Overloads
- 2no Run Light
- 2no Trip Light
- 1no Low Voltage Transformer 400/24 volt
- 2no Hand/Off/Auto Switch
- 2no Klixon Overheat Protection Circuits
- Barrier Relays
- Labels and Terminals as required.

**Pump Station No. 4**

Pumping Station No.4 will contain 2no Flygt Electric Submersible foul pumps, NP 3102.090 256 "N" Impeller, with a 4.2kW motor and leakage sensor with relay. Each pump unit was a submersible pump located and installed within the wet well. All pumps were fixed speed. The pumps were designed to exceed the contract requirements while maintaining self-cleansing velocities in the rising main. The pumps have been selected on a duty /standby basis to meet the required flow and head characteristics of 7.5l/sec at 16m head. A 737m 100mm diameter Ductile Iron (D.I) rising main will deliver these flows to an existing connection point in Quilty.

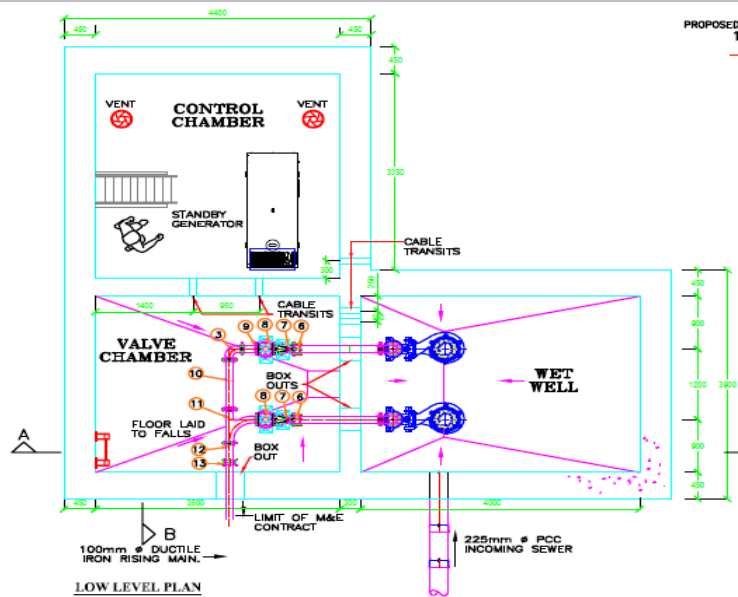
**Pump Station No. 5**

Pumping Station No.5 will contain 2no Flygt Electric Submersible foul pumps (NP 3153.091 275 "N" Impeller), with a 11.0kW motor, leakage sensor with relay and a cooling jacket. Each pump unit will be a submersible pump located and installed within the wet well. All pumps are fixed speed. The foul pumps and pipework will be designed so that the foul water pump will produce a flow of 15.0l/s at 32m head. A 358m 100mm diameter Ductile Iron (D.I) rising main will deliver these flows to an existing connection point in Quilty. Flows from Quilty will ultimately flow under gravity to the Quilty Wastewater Treatment Plant.

**Pump Station No. 6**

Pumping Station No.6 will contain 2no Flygt Electric Submersible foul pumps, NP 3153.091 273 "N" Impeller, with a 15.0kW motor, leakage sensor with relay and a cooling jacket. Each pump unit was a submersible pump located and installed within the wet well. All pumps are fixed speed. The foul pumps and pipework are designed so that the foul water pump will produce a flow of 18.0l/s at 36m head. A 1,148m 100mm diameter Ductile Iron (D.I) rising main will deliver these flows to an existing connection point in Mullagh.

Typical Layout Drawing of a Pump Station



**Generators**

As part of the contract, Glan Agua Ltd supplied the following generators for the 3no Pumping Stations.

- Pumping Station No. 4 – 16kW continuous to BS 551 fitted with a 20kVA alternator to allow for harmonics generated by fixed speed drives
- Pumping Station No. 5 – 16kW continuous to BS 551 fitted with a 20kVA alternator to allow for harmonics generated by fixed speed drives
- Pumping Station No. 6 – 48kW continuous to BS 551 fitted with a 60kVA alternator to allow for harmonics generated by fixed speed drives

**Health & Safety Aspects of the Contract**

- Entry into Confined Space
- Excavations
- Structural Stability
- Lifting Operations / Cranes
- Road Works
- Traffic Management
- Scaffolding
- Underground Services
- Overhead Cables
- Working at Heights
- Piling
- Vibration, Noise and Dust
- Working with hazardous materials / live sewers

Name & address of Contracting Authority responsible for the project:

Clare County Council, Ennis, Co. Clare

Contracting Authority contact name:

Hugh McGrath

Phone no.:

065 6821616

**OTHER INFORMATION**

**CONTRACTORS NAME:**

Glan Agua Ltd.

