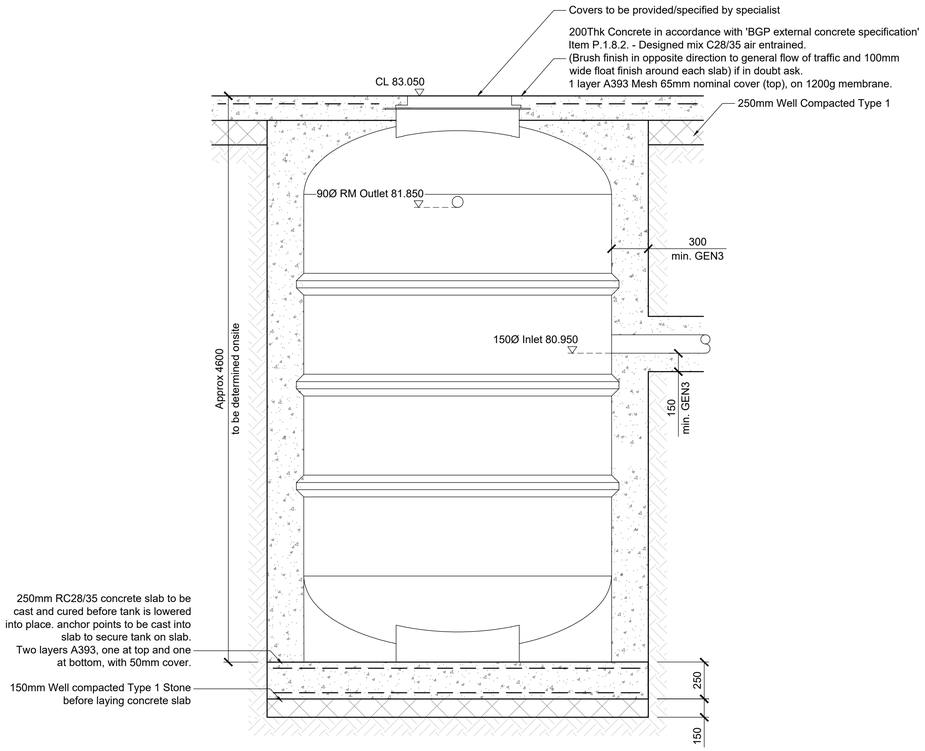
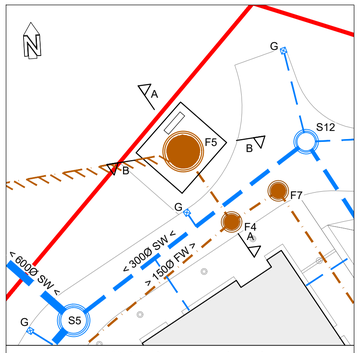


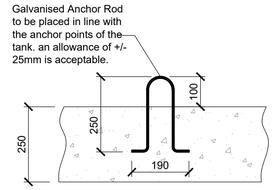
Section A - A Typical Section Through Pumping Station

Scale 1:25



Foul Water Pump Location Plan

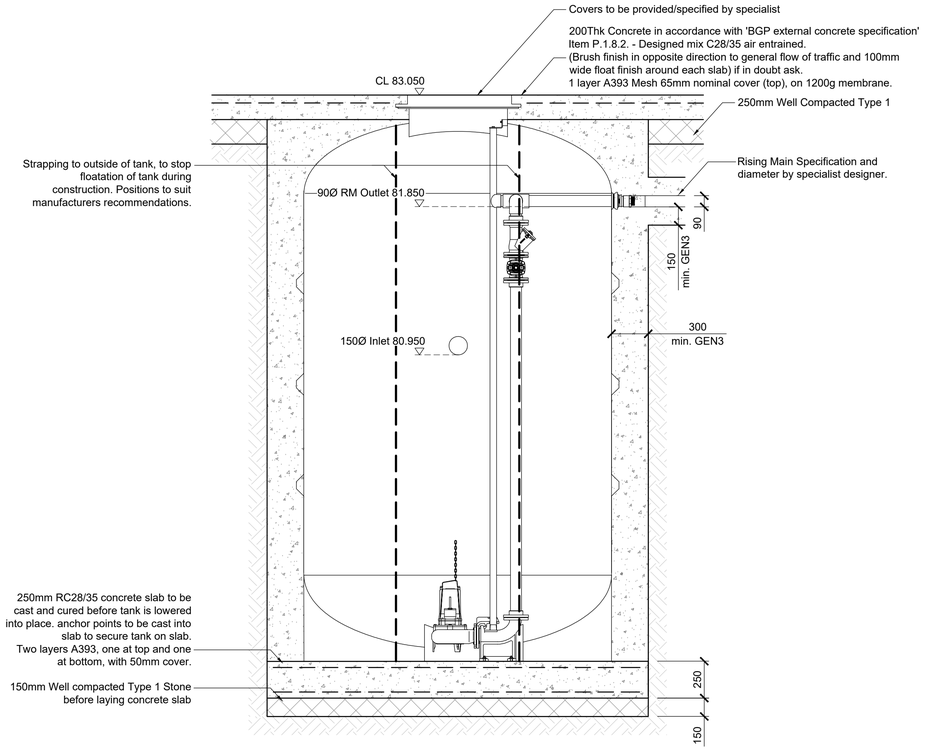
Scale 1:250



Galvanised Anchor Point

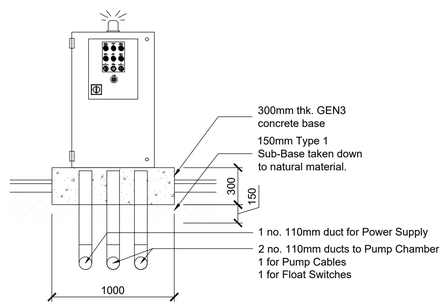
(Provided by manufacturers Spec as part of the anchoring kit)

Scale 1:10



Section B - B Cross Section Through Pumping Station

Scale 1:25



Typical Section through Kiosk

Scale 1:25

Note
Advantage Pumps to confirm requirements for kiosk, high level alarm/notification system and M+E apparatus.

Note
Level, position and gradient of service entries and connections to Advantage Pumps requirements and drawings.

Note
Pumping station to be installed in complete accordance with Advantage Pumps requirements and technical data manual.

Note
Tank to be filled with water at same rate as pouring concrete to avoid floatation in accordance with Advantage Pumps requirements.

- DO NOT SCALE -

Notes:

1. All works to be carried out in accordance with:
   - 1.1 Design and Construction Guidance (DCG) and Sewerage Sector Guidance (SSG) for all sewers proposed to be offered for adoption. (note - the SSG replaces Sewers for Adoption (SfA) for all new developments)
   - 1.2 BS EN 752 - 'Drain and Sewer Systems Outside Buildings'
   - 1.3 Current applicable Building Regulations
   - 1.4 BGP Specifications
   - 1.5 Manufacturer installation guidance and requirements
2. For clauses refer to Design and Construction Guidance (DCG) and Sewerage Sector Guidance (SSG) for all sewers proposed to be offered for adoption. (note - the SSG replaces Sewers for Adoption (SfA) for all new developments)
3. The developer should take all neccesary precautions to avoid causing any damage to, or interference with flow in existing sewers and shall ensure that debris, silt, mud etc. do not enter the sewer.
4. Where works are to be carried out on sewers. the contractor must carry out their works in accordance with "The classification and management of confined spaces" published by Water UK they must also comply with all other relevant health and safety legislation/ documentation.
5. All materials are to be stored in such a manner as to preserve their quality as to the standard specified in the specification.
6. All concrete to be produced on site must be mixed with only potable water, to ensure that it is clean from dirt and contaminants.
7. Aggregates for concretes shall comply with the relevant provisions of BS EN 12620 and PD 6682-1.
8. Sands for mortar and grouts shall be washed sand, complying with BS EN 13139 and PD 6682-3. All other sands are to comply with BS EN 12620 and PD 6682-1 or BS EN 13139 and PD 6682-3.
9. Pulverised-fuel ash (PFA) for use as a component material in ementitious grout our non structural concrete shall comply with BS 3892-2 & 3.
10. Virtified clay pipes and fittings for sewers shall have flexible mechanical joints. Pipes for foul sewers and surface water sewers shall comply with the relevant requirements of BS EN295 and BS65 (Surface water pipes only).
11. Pre-cast concrete manhole units of circular cross section for manholes, chambers and wet wells shall comply with the relevant provisions of BS EN 1917 and BS 5911-3.
12. Ladders for manholes in a vertical plane are to be mild steel and comply with BS4211, Class A and PD 970.
13. GRP ladders shall be manufactured in accordance with BS EN 131, and from glass-reinforced polyester using an appropriate resin for the ladder location. Unidirection reinforcement shall be provided in the GRP matrix to maximise strength.
14. Manhole covers and frames shall comply with the relevant provisions of BS EN 124, BS 7903 and Highways Agency guidance document HA 104/02. They shall be of a non-rocking design which do not rely on the use of cushion inserts.
15. Clay bricks to be used within manholes are to be solid, Class B Engineering bricks complying to BS 3921.
16. All bricks shall be frost resistant category F.
17. Standard concrete mixes should be in accordance with BS EN 206-1 and BS 8500 and shall be used with a 20mm nominal maximum size of aggregate and a slump class of S2 for a target of 70mm.
18. GEN1 concrete to be used for; fillings, blindings, soft spots and drainage slumps. GEN3 concrete to be used for; all other applications. U.N.O.
19. Admixtures (including calcium chloride and pigments) shall not be used in the production of concrete.
20. High strength concrete topping shall be produced, laid and finished in accordance with the relevant provisions of BS 8204: part 2 and the following approximate mix proportions shall be used: 1part cement, 1part natural sand and 2parts single-sized coarse aggregate.
21. All mortar mixes shall be in accordance with BS 5628-1:2005.
22. All pipes to be either extra strength VC to BS 65 or PVC to BS 4660 or BS 5481 "UPONOR ULTRARIB" or Concrete pipes to class 120. The contractor should use the same material and manufacturer throughout (where feasible).

Design Notes

Foul Water Pumping Station - (F5)

1. The outfall manhole for the pumped main is FW00 with an invert level of 82.175m AOD at a distance of approximately 104.3m. Length of rising main is subject to final pumping station position.
2. 2 nr. identical submersible pump units arranged in a duty/standby configuration to pump water at a rate to be confirmed by manufacturer.
3. Access requirements for maintenance to be confirmed by the pump manufacturer.
4. A service contract is to be arranged with a suitable contractor for general maintenance and for emergency response in the event of failure.
5. Pump manufacturer to confirm final details of rising main to suit pump efficiency.

Issued for Stage 4	GL	P01	JJH	20.09.2024
AMENDMENT	BY	REV	CHK	DATE

Rev P = Preliminary T = Tender C = Construction LCI = Last Construction Issue

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Client
Copeland Borough Council

Project	Project No.
Cleator Moor Innovation Quarter	21T2034

Drawing Title
Hub - FW Pumping Station

Drawn	Date	Checked	Date	Size	Scale	Class.	Rev.
GL	Sept '24	JJH	Sept '24	A1	As Noted	52	P01

Location	Originator	Volume	Level	Type	Role	Unique No.
CMIQ	BGP	05	XX	DR	C	05139

File Reference
CMIQ-BGP-05-XX-DR-C-52-05139