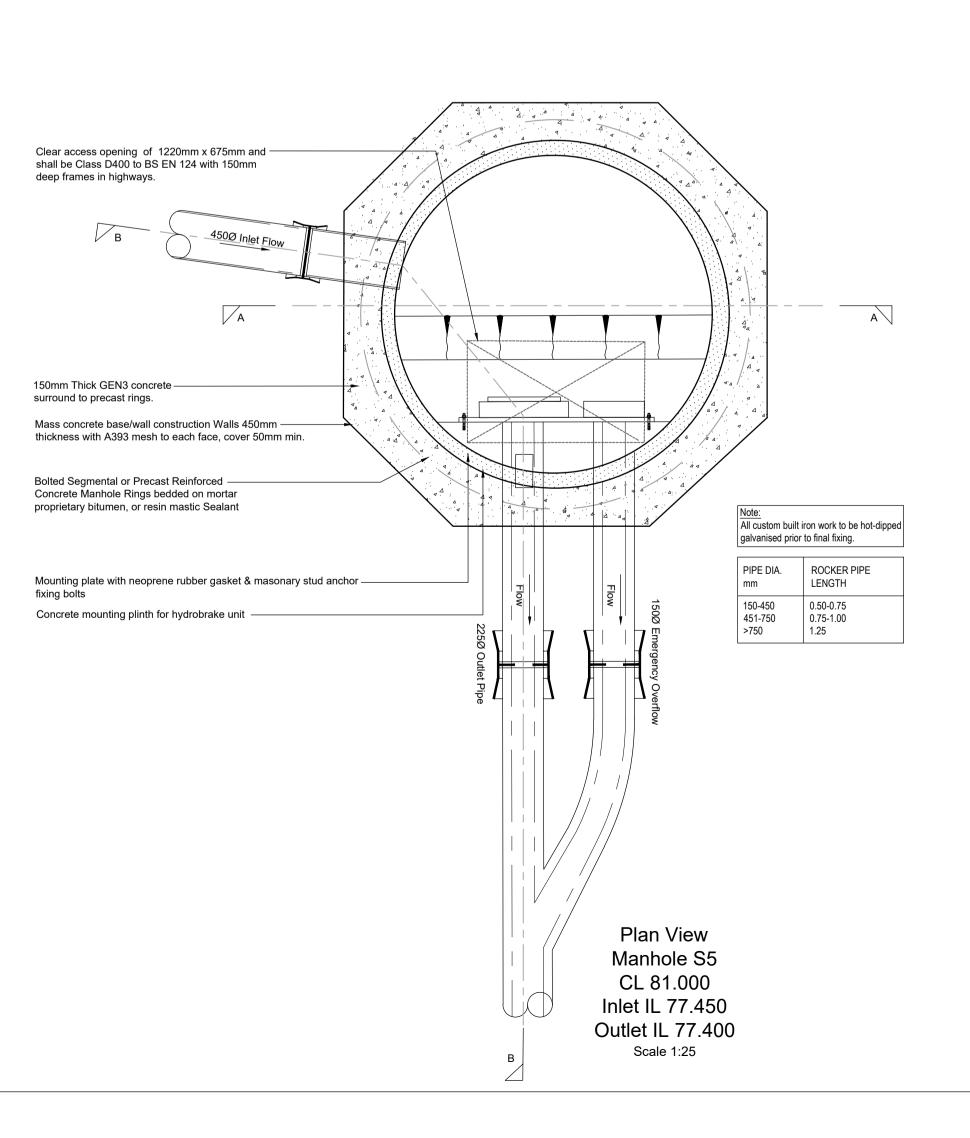


Manhole S5 Section A-A Scale 1:25

Section Thro' Reinforcement To
Inlet / Outlet Pipe
(Scale 1:10)
See Table 1 For Bar Sizes Required
(Scale 1:10)



Manhole S5

Section B-B

Scale 1:25

- DO NOT SCALE -

Note

- For clauses refer to Sewers for Adoption 7th Edition.
- 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.
- 3. 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/
 - All materials are to be stored in such a manner as to preserve their quality as to the standard specified in the specification.
- 5. All concrete to be produced on site must be mixed with only potable water, to ensure that it is clean from dirt and contaminants.
- Aggregates for concretes shall comply with the relevant provisions of BS EN 12620 and PD
- 7. 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.

Pulverised-fuel ash (PFA) for use as a component material in ementitious grout our non

- structural concrete shall comply with BS 3892-2 & 3.

 9. 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).
- 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.

11. Ladders for manholes in a vertical plane are to be mild steel and comply with BS4211,

- Class A and PD 970.
- 12. 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.
- 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.

13. Manhole covers and frames shall comply with the relevant provisions of BS EN 124, BS

- 14. Clay bricks to be used within manholes are to be solid, Class B Engineering bricks complying to BS 3921.
- 15. All bricks shall be frost resistant category F.
- 16. 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.
- 17. 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.
- 18. Admixtures (including calcium chloride and pigments) shall not be used in the production of concrete.
- 19. 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.
- 20. All mortar mixes shall be in accordance with BS 5628-1:2005.
- 21. 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 strength class 120.

Manhole S5 Flow Control Details

Hydro-Brake® Optimum Flow Control - Surface/Storm
Drainage System
1Nr 157mm Type SH (MD5) Hydro-Brake® Flow Control

(Horizontal Discharge)
Technical Criteria: Design / Duty Point Flow = 15.000 l/s
Head = 2.250m

Flush-Flo™ Point Flow = 15.000 l/s Head = 0.658m Kick-Flo® Point Flow = 11.800 l/s Head = 1.353m Reference: MD-SHE-0157-1500-2250-1500

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Issued for Information	JJH	P02	JC	07.09.2022
Issued for Pricing	JJH	P01	JC	17.08.2022
AMENDMENT	BY	REV	СНК	DATE

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

In instances where this drawing completes or partly completes a contract, Billinghurst George & Partners will consider that it's product has been validated, unless in a period not exceeding 90 working days, the client advises to the contrary.



Billinghurst George & Partners

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Copeland Borough Council

oor Innovation Quarter	

04

BOC - Flow Control Manhole

Drawn Date Checked Date Size Scale Class. Rev.

JJH Aug 2022 JC Aug 2022 A1 As Noted 52 P02

Location Originator Volume Level Type Role Unique No.

DR

XX

Project No. 21T2034

04136

File Reference

BGP

CMIQ

CMIQ-BGP-04-XX-DR-C-52-04136