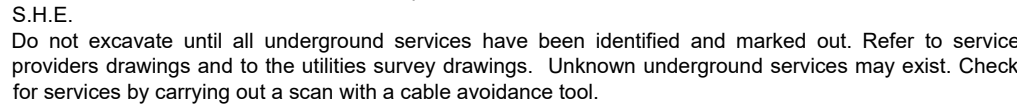


1. Cover levels are approximate only and may vary on site. Covers to suit finished levels.
2. Contractor is responsible for positioning MHs so they do not compromise line or level of kerbing or other delineation at the junction of two surface materials.
3. PPIC manhole diameters may vary and are dependant on manufactures specification and diameter of incoming / outgoing pipes.
4. Concrete manhole diameters are dependant on nominal internal diameter of largest pipe in manhole. See Table A on Typical Manhole Details drawing.

| Surface Water Drainage Manhole Schedule - Hub |             |   |         |             |            |                 |                 |               |                 |          |  |
|---|-------------|---|---------|-------------|------------|-----------------|-----------------|---------------|-----------------|----------|--|
| MH Ref.                                       | Cover Level | Invert Level                            | MH Type | MH Dia. (m) | Cover Type | D/S Pipe Length | Depth to Invert | Pipe Size (m) | Depth to Soffit | Gradient | Comments   |
| S5  | 83.150      | 81.158                                  | Conc.   | 2.100       | D400       | 67.801          | 1.992           | 0.600         | 1.392           | 1:452    |  |
| S6  | 83.000      | 81.008                                  | Conc.   | 1.800       | D400       | 29.810          | 1.992           | 0.600         | 1.392           | 1:289.4  | 300mm Silt Trap Sump   |
| S7  | 82.825      | Inlet IL = 80.905<br>Outlet IL = 80.855 | Conc.   | 2.100       | D400       | 4.630           | -               | 0.300         | -               | 1:57.9   | Hydrobrake at 42.4 l/s<br>Reference:<br>MD-SHE-0272-4240-1245-4240 |

# 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. All levels shown are in metres and are relative to ordnance datum (m AOD).
3. Connection to United Utilities sewers are only to be carried out under an S106 agreement by UUI approved term contractors unless agreed otherwise between both parties. (organised by main contractor)
4. Invert levels of all existing channels and connection points are to be confirmed and engineer advised prior to commencement of any Drainage Works.
5. Where proposed sewers connect into existing sewers, the existing sewers must to be checked for line, level and condition preferably by a CCTV survey
6. Concrete bed and surround is required to all gully leads and to all pipes in highways/hardstanding where cover to pipe <1200mm
7. All pipes to be either extra strength V.C. to BS 65 or PVC certified to WIS 4-35-01 and BS/EN13476 or concrete pipes Class 120 to BS/EN 1916/BS5911-1:2002.
8. All RWP and slab penetration (PU) locations are indicative and accurate positions should be taken from the Architects drawings. All slab penetrations to be roddable above ground level via access pipe.
9. Existing sewer positions are indicative and are not to be used in conjunction with design. Contractor to confirm location.
10. All existing drainage to be cleaned and jetted as part of the contract
11. All RWP connections to be 1000 and surface water sewers to be 1500 unless noted otherwise.
12. All FW drains to be 1500 between manholes and 1000 unless noted otherwise elsewhere.
13. Contractor is responsible for positioning MHs so they do not compromise line or level of kerbing on other delineation at the junction of two surface materials.
14. Cover levels shown are indicative and may vary on site. The contractor should adjust levels to suit site conditions
15. All internal manholes to be Type 'PP10' with double seal covers u.n.o



|  |  |
|--|--|
| Proposed SW Drain  |  |
| Proposed FW Sewer  |  |
| Nor Beck (Culverted)   |  |
| Existing SW Sewer  |  |
| Existing FW Sewer  |  |
| Site Boundary  |  |
| Proposed Attenuation Tank  |  |
| Permeable Paved Paving with perf. pipe (Tanked)                                    |  |
| Filter Drain   |  |
| Yard Gully   |  |
| Highway Gully fitted with Naylor Smart Gully Adapter (or similar approved by LLFA) |  |

**Flow Control Details - (S7)**  
Hydro-Brake® Optimum Flow Control - Surface/Storm Drainage System  
1N<sup>r</sup> 272mm Type SH (MD5) Hydro-Brake® Flow Control (Horizontal Discharge)  
Technical Criteria: Design / Duty Point Flow = 42.40 l/s with Head = 1.245m  
Flush-Flow™ Point Flow = 42.40 l/s Head = 0.451m  
Kick-Flow™ Point Flow = 36.75 l/s Head = 0.914m  
Reference: MD-SHE-0227-4240-1245-4240

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



**Project No.**  
21T2034

**File Reference**  
CMIQ-BGP-05-XX-DR-C-52-05145