

- Yorkshire Water Notes**
- All adaptable sewer works and material to be in accordance with "Code for Adoption" The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked.
 - Manhole covers shall/must have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
 - Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
 - Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adaptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section regarding the disposal of the filter drain/land drainage run-off.
 - The adaptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
 - Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height.
 - Sewers to be laid in Class "S" Bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in nonvehicular access areas) then a concrete slab should be provided above granular bed and surround.
 - Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
 - Yorkshire Water policy is that Type "C" brick manholes and 1050mm diameter manhole rings are not preferred. Instead, it is preferred that you use a type "B" manhole with 1200mm diameter or 1500mm diameter rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m.
 - Adoptable plastic sewer pipes to be BSI Kitemarked (certified to WS 4-35-01 and BS EN 13476). Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer lengths. Plastic channel sections in manholes are not acceptable and Yorkshire Water would require clay ware channel in manholes.
 - The minimum crushing strength for clay pipes should be as follows: 100mm dia. 40kN/m, 150mm dia. 40kN/m, 225mm dia. 45kN/m and 300mm dia. 72kN/m. The minimum crushing strength for concrete pipes should be - (Class 120 to EN 1916/BS5911-1 2002). Plastic pipes should conform to WS 4-35-01 and BS EN 13476.
 - Where a B125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screen down covers are not acceptable.
 - There must be enough clearance at crossovers to accommodate bedding to both pipes, approx. 300mm; if crossover is near the rocker then the clearance needed may need to be increased.
- General Notes**
- Precast concrete manhole units shall comply with the relevant provisions of BS EN 1917 and BS 5911-3 and shall be manufactured from concrete with a Design Chemical Class DC-4 unless the sewerage company can be satisfied that a lower class will resist attack from soils and groundwater. Units which bed into bases shall be manufactured so that imposed vertical loads are transmitted directly via the full wall thickness of the unit. The profiles of joints between units and the underside of slabs should be capable of withstanding applied loadings from such slabs and spigot-ended sections shall only be used where the soffit of the slab is recessed to receive them.
 - All levels of existing drainage to be confirmed prior to work commencing on site.
 - The contractor must allow for any fee's required for road and sewer opening permits, sewer connections and make the appropriate applications.

S23 FLOW CONTROL DATA

MANUFACTURER	HYDRO INTERNATIONAL
TELEPHONE	01275 878371
TYPE	Hydrobrake Optimum
FLOW/HEAD	9.1 l/s @ 1.900m
HYDRO REF	SHE-0126-9100-1900-9100

To be installed in accordance with manufacturers specifications and recommendations before the manhole cover slab is installed

IC	14.11.25	Preliminary	MI	MI	
Rev	By	Date	Revision	Chk	Apvd

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TITLE
**FLOW CONTROL MANHOLE
DETAIL S23**

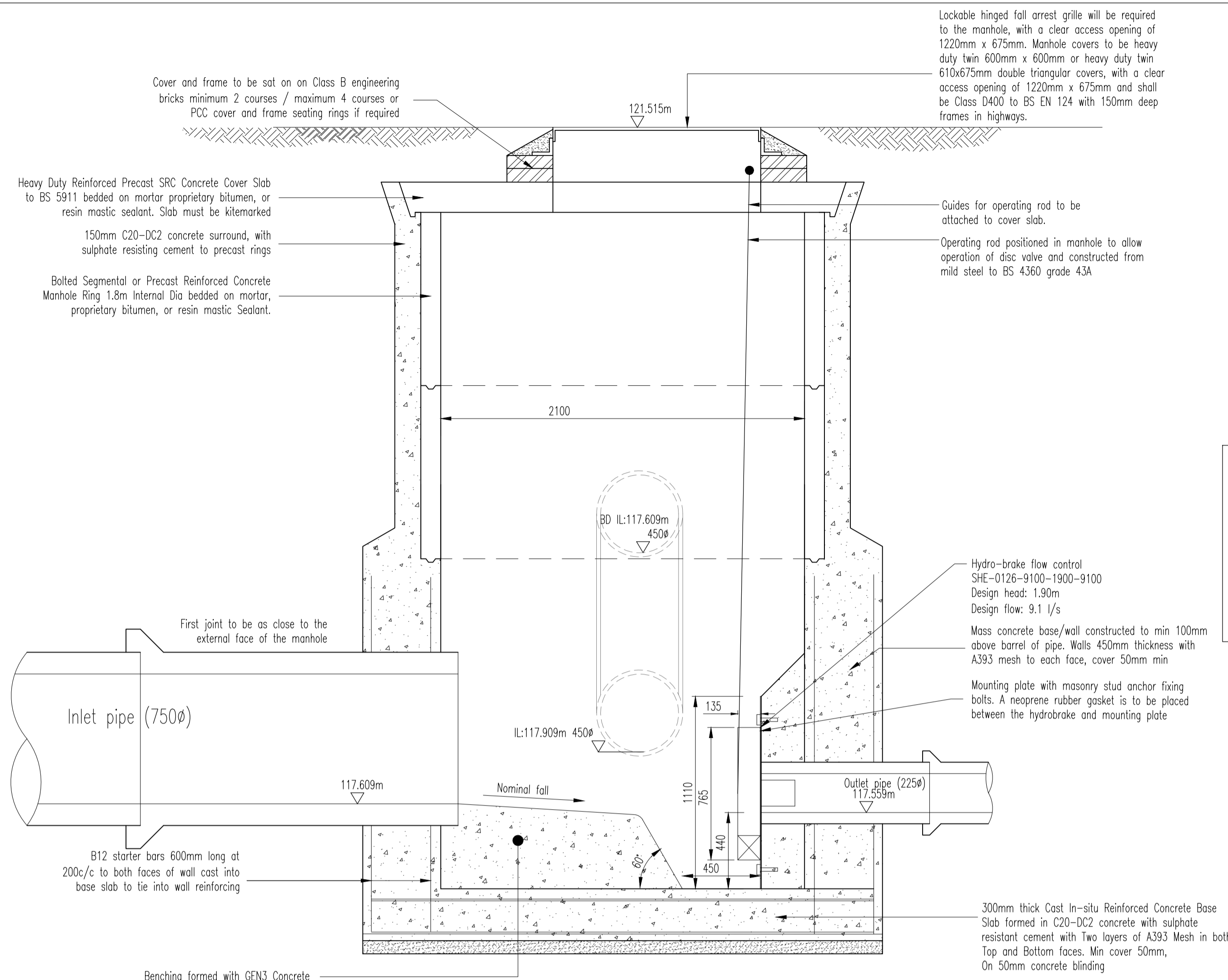
PROJECT
**COCKLEY HILL,
KIRKHEATON**

CLIENT
GLEESON HOMES

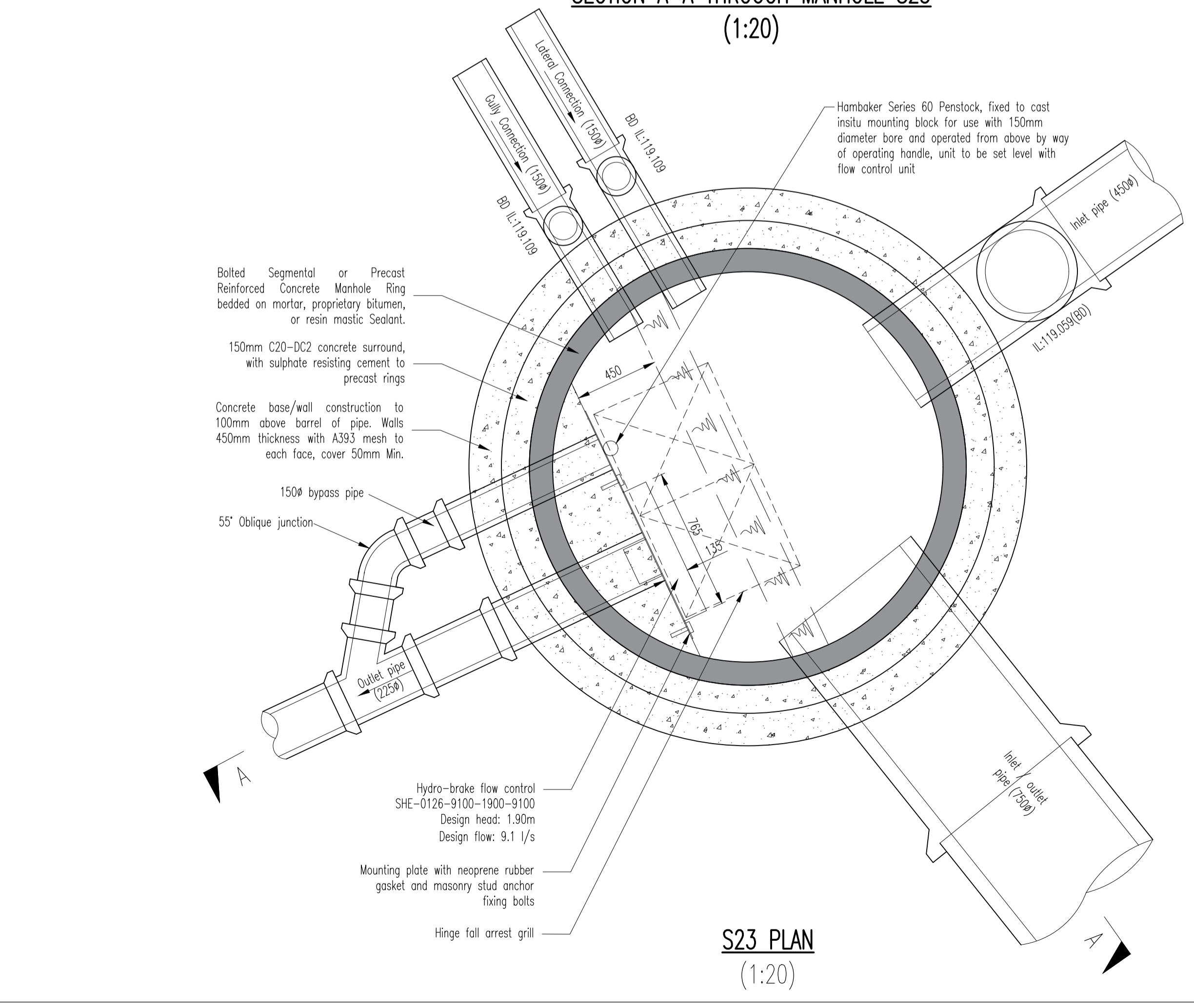
DRAWING STATUS
FOR APPROVAL

Scale	Date	Drawn	IC
AS SHOWN	NOV 25	Chk.	MI

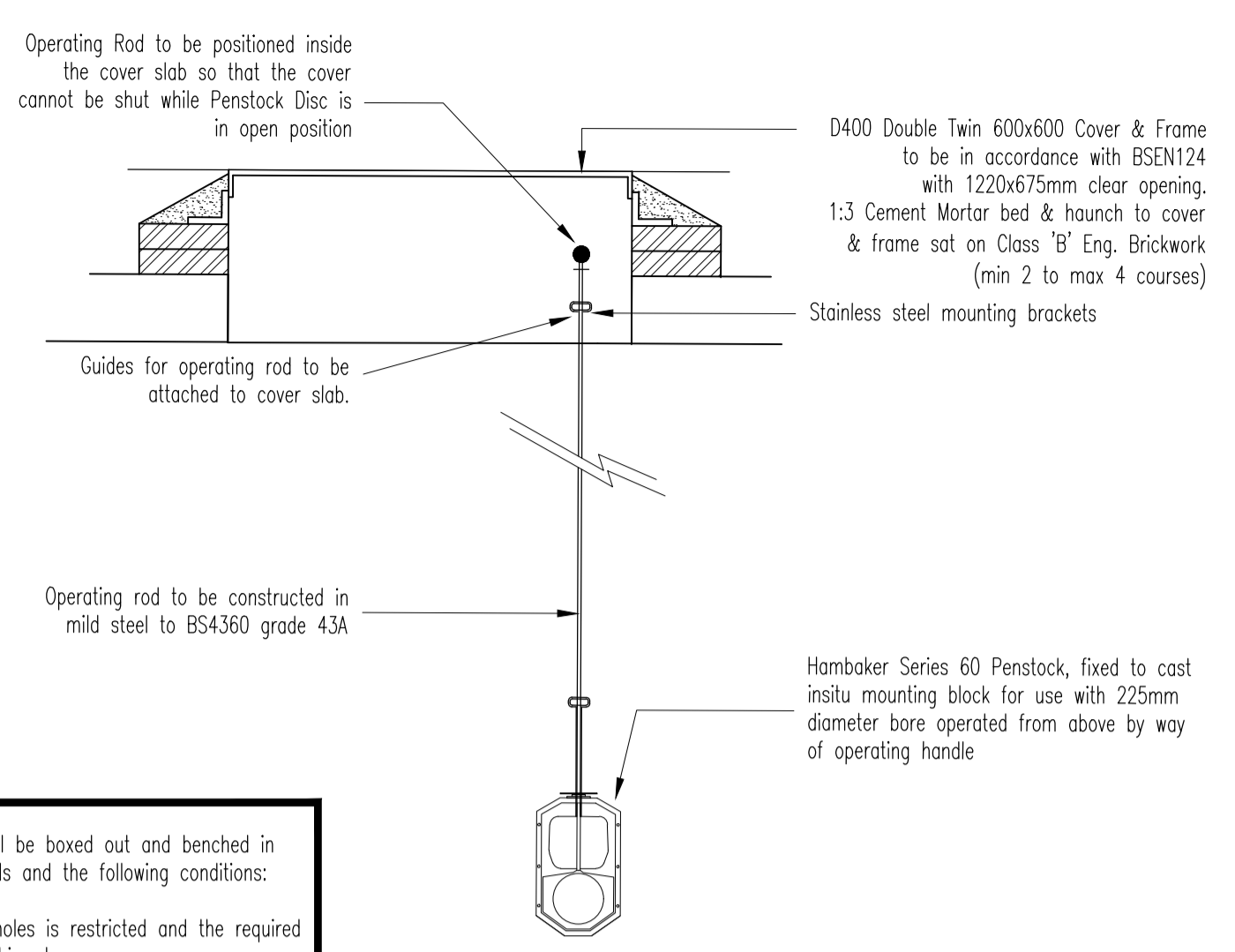
Drwg. No. **2298/03/12.01** Rev /



SECTION A-A THROUGH MANHOLE S23 (1:20)



S23 PLAN (1:20)



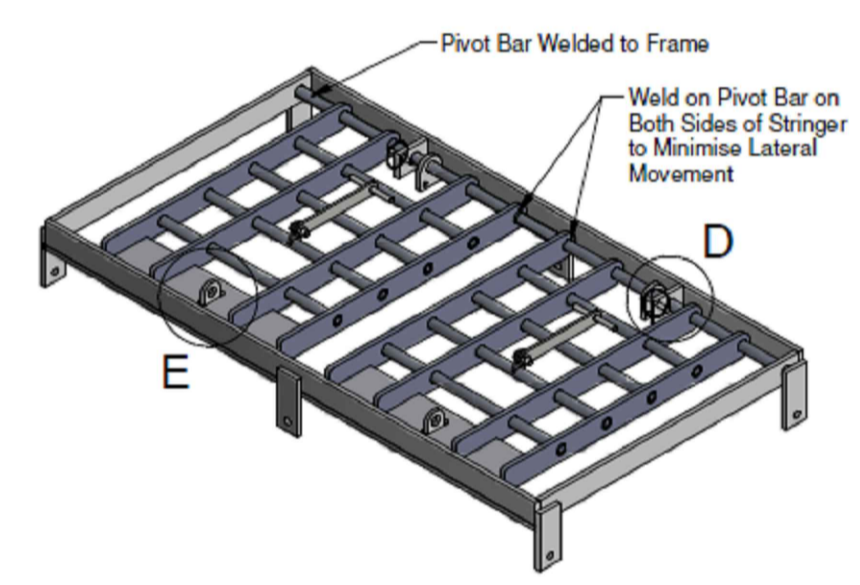
ELEVATION ON PENSTOCK (1:20)

The benching to manholes shall be boxed out and benched in accordance with standard details and the following conditions:

- Where access into manholes is restricted and the required headroom cannot be achieved.
- Where the pipe internal diameters are 1050Ø or greater.
- The width of the boxed out benching shall be 750mm.
- All access ladders or step irons must continue in accordance with the standard manhole details.

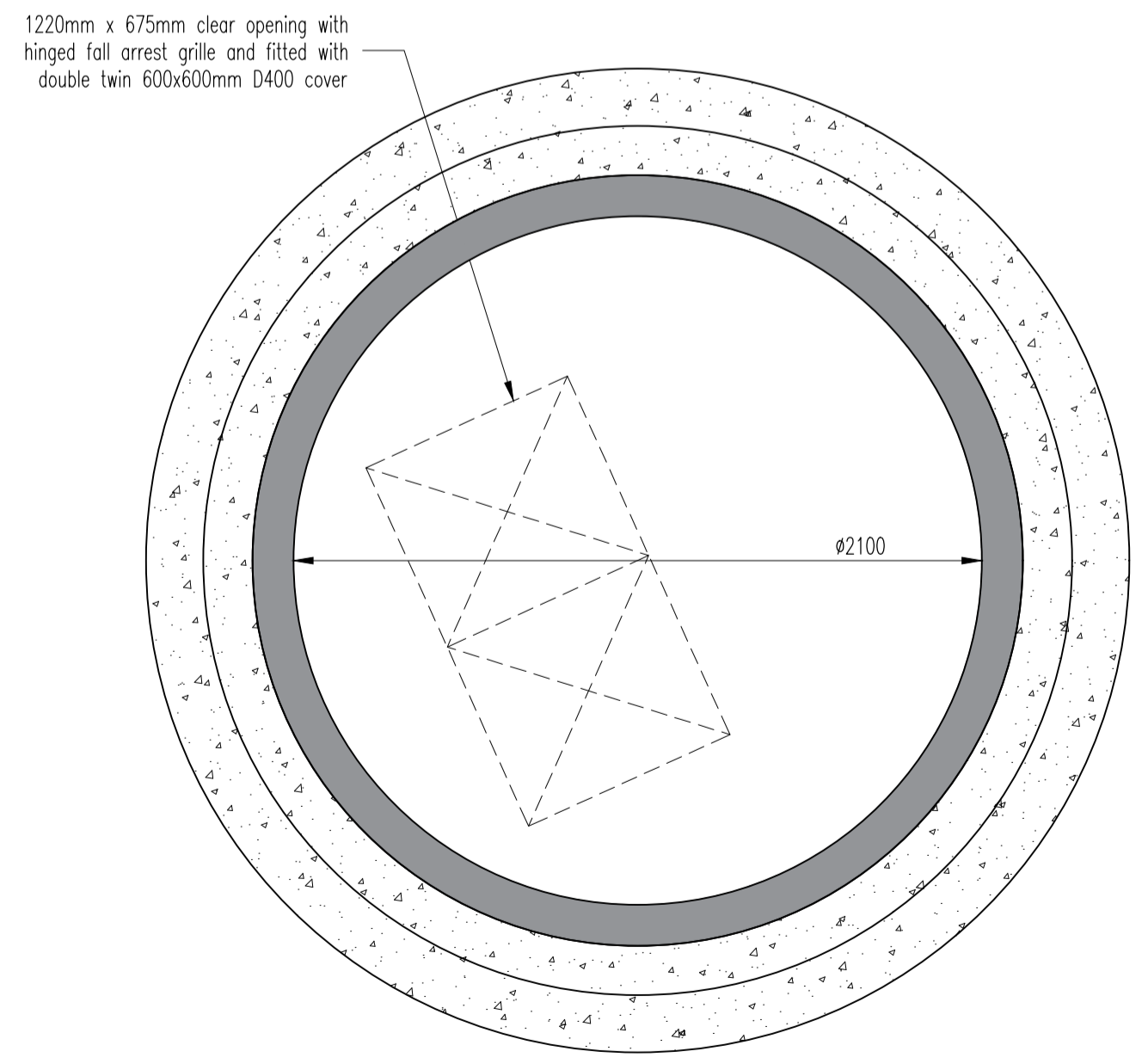
All boxing out of the benching within the manholes shall be approved by Yorkshire Water before work commences

All custom built ironwork to be hot-dipped galvanised prior to final fixing

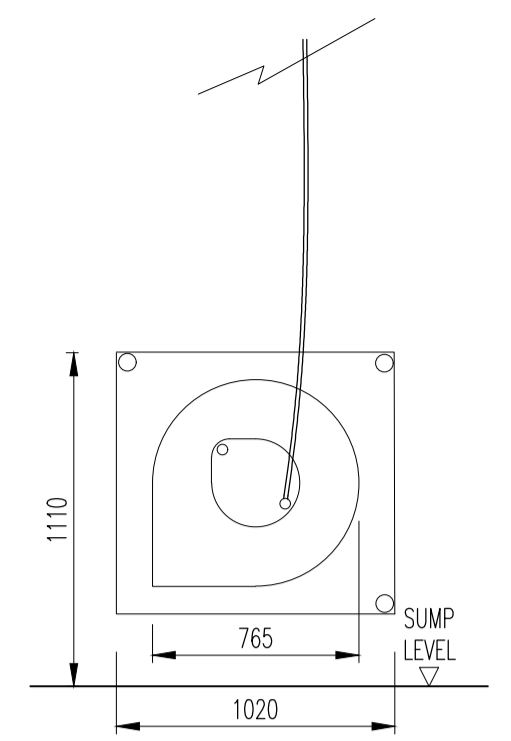


HINGED FALL ARREST GRILLE (1:20)

Peter Savage Ltd KD19 RETRO FIT - PRISON GRILLE 1220x675mm with hinged fall arrest by Yorkshire Water
Material: Mill Steel to BSEN ISO 1461:1999



COVER SLAB PLAN (1:20)



FLOW CONTROL FACE-ON VIEW (NTS)

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES