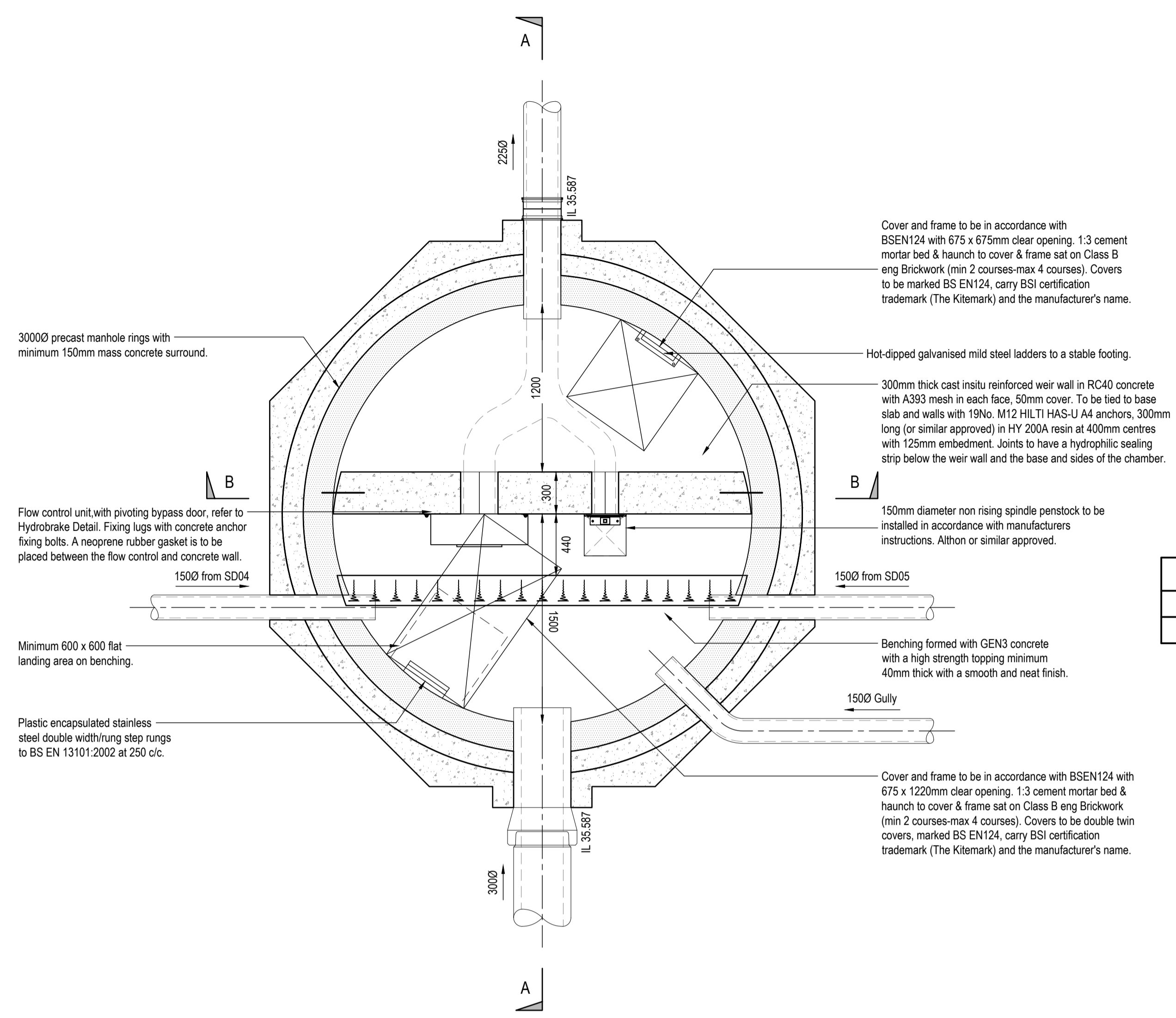


NOTES

- All pipes shall be either:
 - A - Verified clay to BS EN 295 with a minimum crushing strength as follows:
 - 150 dia. - 40 kN/m
 - 225 dia. - 45 kN/m
 - 300 dia. - 72 kN/m
 - B - PVC (certified to WIS 4-35-01 & BS EN 13476)
 - C - Class 120 concrete to BS 5911-1:2002/EN 1916
- All pipes should always connect soffit to soffit unless noted otherwise.
- All sewers to have BSI kitemark status (certified to WIS 4-35-01 & BS EN 13476). Maximum pipe length to be 3m. Plastic channel sections in manholes are not acceptable. Clay channel sections shall be used.
- Sewers to be laid in Class "S" bedding (150mm granular bed and surround). Where depth of cover to soffit is less than 1.2m in highways and verges (or less than 900mm in non vehicular access areas) then a reinforced 150mm concrete slab should be provided above granular bed and surround. Bedding and backfill material to conform to WIS 4-08-02 (Table 2) for PVC pipes.
- Manhole covers shall have a clear opening of 600 and shall be class D400 to BS EN 124 with 150 deep frames in highways. Covers to have closed keyways and are to be bedded on steel shims with 1.3 mortar haunching.
- Pipes entering manholes and road gullies shall have a flexible joint within 600 of the inside the manhole or gully joining with a short Rocker pipe.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5m clearance from trees and hedges ("DCG SSG" for restrictions on tree planting adjacent to sewers).
- All trenches in roads and paved areas shall be backfilled with Type 1 DOT granular sub-base material, or other granular material approved by the highway authority.
- Filled ground must be filled and consolidated under the supervision and to the satisfaction of Severn Trent Water before any sewer works are carried out.
- All in situ concrete to be designated mix FN20 to BS 8500-1 unless agreed otherwise.
- The invert levels at the proposed points of connection to existing public sewers shall be checked before any new drains are constructed. Any variation to the levels shown on the drawing shall be notified to Eastwood CE.
- The chamber size of manholes with more than one connection in them may need to be increased by an increment to accommodate the connections and bends.
- Cover levels are indicative only. Covers to be set to suit camber/gradient of existing and proposed roads.
- All adoptable sewer works and materials to be in accordance with Design and Construction Guidance, the relevant British/European standards/requirements/addendum to the mechanical and electrical specification and be kitemarked.
- It is Severn Trent Water policy not to accept Type C brick manholes and 1050mm diameter manhole rings. 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 1000mm to 1500mm.
- Cover slabs must carry the BSI Kitemark or will be rejected by the Severn Trent Water inspector. Where the clear opening of the kitemarked product is different to that of the cover and frame, a load bearing slab should be fitted above the cover slab to bring the size down to 600x600, refer to CPSA Technical Bulletin issued autumn 2004 for kitemarked cover slab opening sizes.
- Where type B125 cover and frame have been approved, this must NOT be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.
- Severn Trent Water is not obliged to accept land drainage run off into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of land drainage will therefore be required and you will have to liaise with the Local authority land drainage section with regard to the disposal of land drainage.
- Demarcation chambers to be a min. 450mmØ chamber for 150mmØ foul and surface water pipes up to 1.2m deep. For depths greater than 1.2m, restricted access opening to 300mm is required for health and safety reasons.
- Any connection into an existing Severn Trent Water Sewer should only be made following the submission of a completed S106 application form and method statement for STW approval. This must be provided giving 21 days notice of the intention to connect to the public sewer.
- Any lateral connections to a storage tank or storage manhole should be connected above the 'springing level' or via a 'backdrop' into the manhole.
- All pipes entering manholes from dead spurs are to be fitted with either proprietary pipe stopper or pipe cap at the upstream end, to prevent the ingress of ground water and debris. These are to be removed upon recommencement of pipe laying.

WARNING SIGNS:

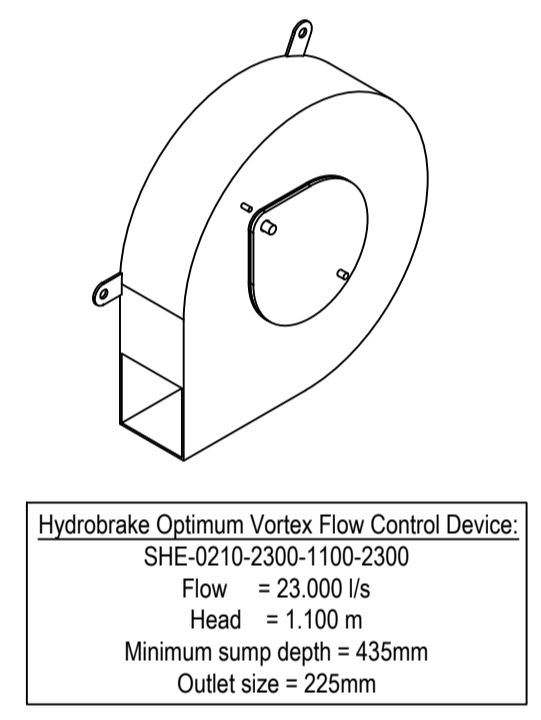
- A sign fitted within the Flow Control Chamber:
"CAUTION - HYDROBRAKE LOCATED HERE"
- A sign fitted in the upstream Manhole of the Flow Control Chamber:
"CAUTION - HYDROBRAKE LOCATED DOWNSTREAM"
- A sign fitted in the downstream Manhole of the Flow Control Chamber:
"CAUTION - HYDROBRAKE UPSTREAM"



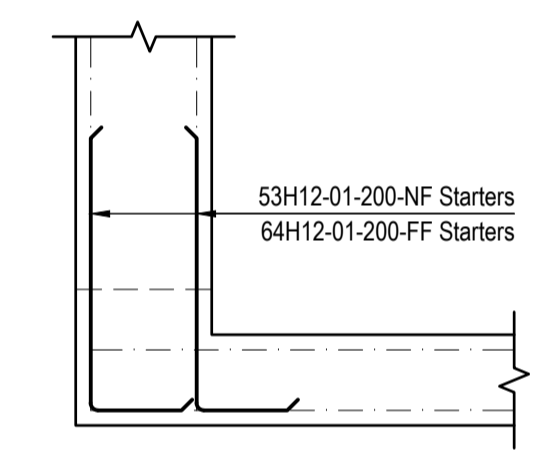
PLAN ON HYDROBRAKE MANHOLE S4
SCALE 1:25

BAR BENDING SCHEDULE

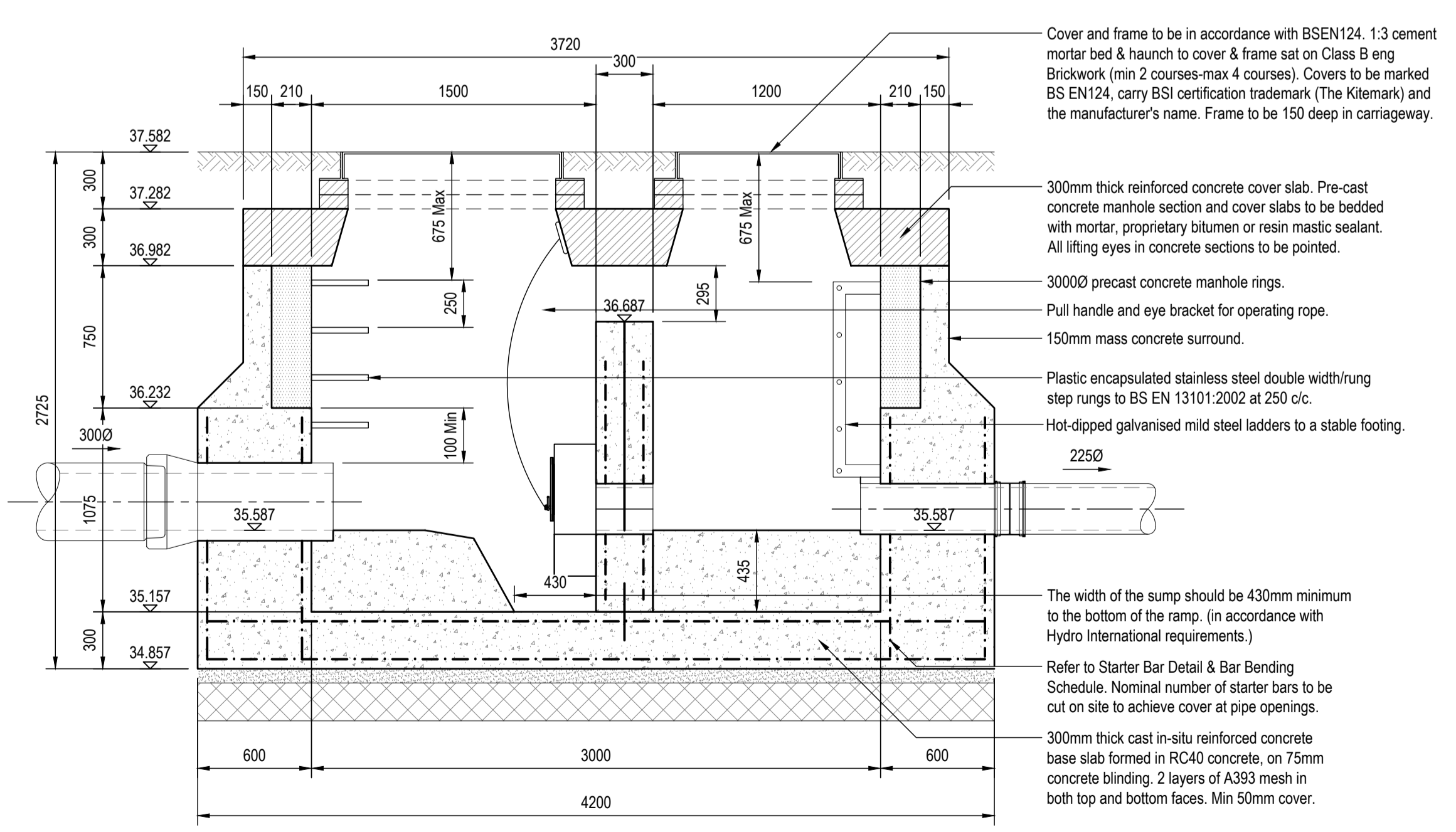
Bar Mark	Type and Size	No. of Members	No. of Bars in Each	Total Number	Length of Each Bar (mm)	Shape Code	A* (mm)	B* (mm)
01	H12	1	117	117	1200	11	900	300



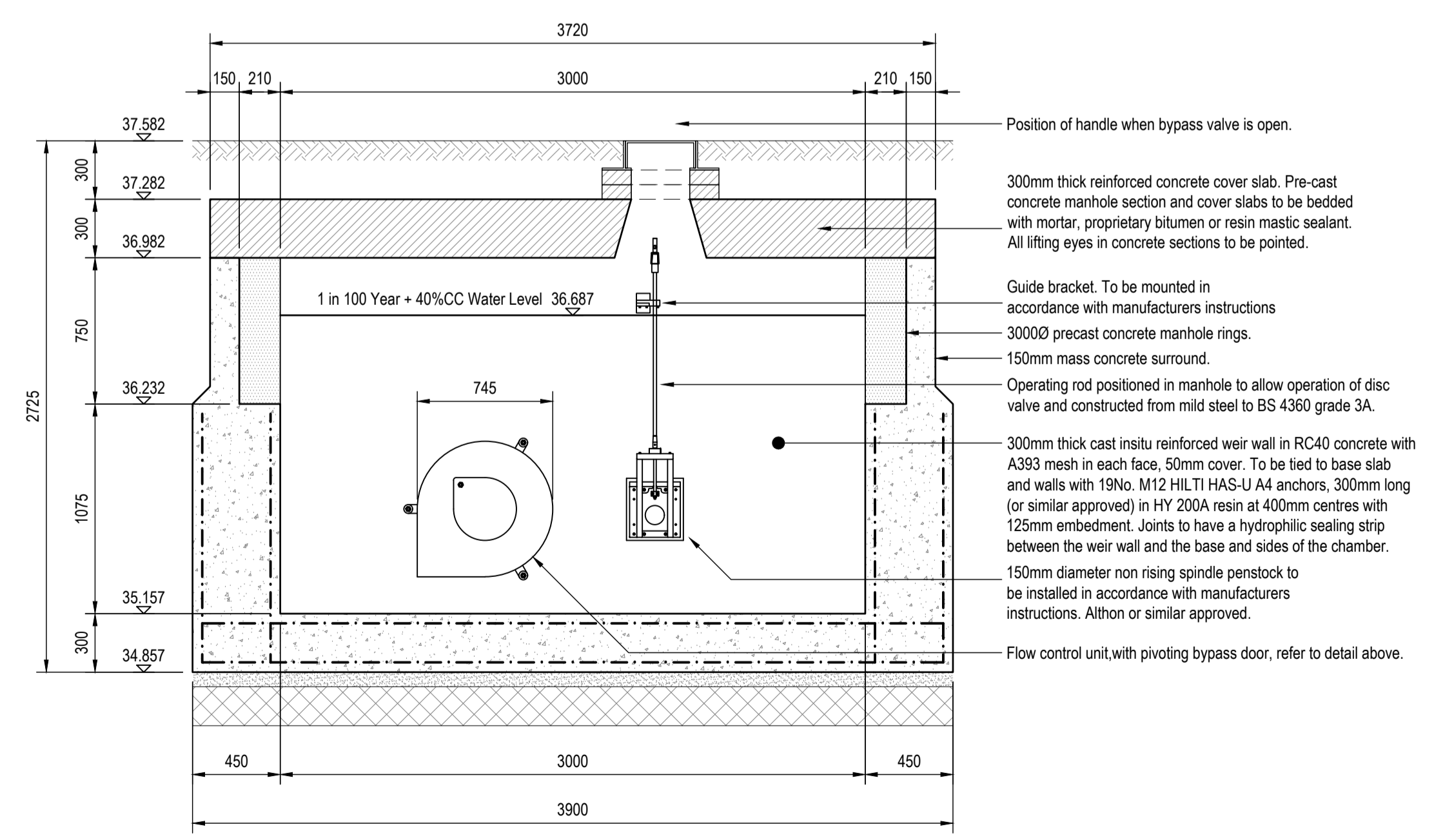
HYDROBRAKE DETAIL
NOT TO SCALE



STARTER BAR DETAIL
SCALE 1:25



SECTION A-A
SCALE 1:25



SECTION B-B
SCALE 1:25

D	Flow control amended to suit latest drainage design changes.	CJH	AMC	07.06.23
C	Ladders provided to flow control side as per Severn Trent S104 comments.	CJH	AMC	25.05.23
B	Re-submission to Severn Trent S104	CJH	AMC	19.05.23
A	First Issue.			
REV	DESCRIPTION	SIG	CHK	DATE

ONGO HOMES LIMITED

ASHBY MARKET, SCUNTHORPE

**MANHOLE S4
HYDROBRAKE DETAILS**

SCALE WHEN PLOTTED AT A1			DRAWING STATUS		
1:25			CONSTRUCTION		
DRAWN	CHECKED	DATE	DRAWING NUMBER	REV	
JB	?	14.03.23	46664/040	D	