

Penstock valve with non rising spindles (supplied with propriety D400 Access Cover and frame with min operating "T" Key) Min. 225mm clear opening of 1200 x 600 orifice to be cut through weir wall Access via hot-dipped galvanised mild steel ladder to a stable footing on the benching Concrete surround 150mm thick. D400 Access Cover and frame with min clear opening of 600 x 600 Access via hot-dipped galvanised mild steel ladder to a stable footing on the benching 3.0m Dia. Ring Rocker pipe (See table for details) 300Ø outflow Minimum 300mm orifice to Pipe joints with channel be cut through weir wall to to be located minimum accommodate outlet spigot 100mm inside face of chamber Concrete Benching Slope to **Flow Control Device** be 1:10 to 1:30 Hydro-Brake Optimum Concrete topping to be 40mm SHE-0059-2500-2700-2500 Design Head: 2700mm, Design Flow: 2.500 l/s Outlet Size: 300¢ Weir Wall to be tied into manhole ring. To structural specialist design. (to be brick or reinforced concrete) Minimum 300mm Thick.



Nominal Diamete

(mm)

150 to 600

601 to 750

over 750

0.6

1.0

1.25

PRELIMINARY SUBJECT TO APPROVAL

1. ALL DIMENSION IN MILLIMETRES UNLESS OTHERWISE

2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL

INFORMATION.

ALL MANHOLE COVERS AND FRAMES TO BE IN ACCORDANCE WITH 4.2.30 OF THE CIVIL ENGINEERING SPECIFICATION.

4. ALL LIFTING EYES IN MANHOLE CHAMBER SECTIONS AND COVER

REINFORCED COVER SLAB, WEIR WALL AND MANHOLE BASE TO BE DESIGNED BY CLIENTS STRUCTURAL ENGINEER.

SLABS TO BE POINTED.

ALL WALL DIMENSION SHOWN ARE SUBJECT TO DETAILED DESIGN BY CLIENTS STRUCTURAL ENGINEER.

MANHOLE FLOATATION TO CHECKED BY CLIENTS STRUCTURAL ENGINEER.

IF HIGH GROUND WATER LEVEL IS ENCOUNTERED, THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO DEAL WITH SUCH GROUND WATER BOTH AT SURFACE AND BELOW SURFACE DURING THE CONSTRUCTION OF THE DRAINAGE NETWORK.

ALL JOINTS BETWEEN PIPES AND CONCRETE SHALL BE

10. ROCKER PIPES SHALL BE 600mm IN LENGTH OR 1.5 X D, WHICHEVER IS GREATER.

11. TOP OF MANHOLE ELEVATION NOTED ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY THE ACTUAL ELEVATIONS AND SHALL ADJUST THE MANHOLES TOPS ACCORDINGLY TO BE FLUSH WITH THE ADJACENT ASPHALT PAVEMENT

CONCRETE RINGS NOT TO BE CUT. EITHER MANHOLE RING TO BE CONSTRUCTED DEEPER TO SUIT OR ALTERNATIVE BRICK MANHOLE TYPE TO BE USED.

FOR STEPS SEE SECTION E2.33 (STW DCG)

FOR HYDROBRAKE UNIT SPECIFIC DETAILS PLEASE REFER TO THE HYDRO-INTERNATIONAL MANUFACTURE **DETAILS**

The Surface Water system has been designed for the use of a Hydrobrake International Flow Control Device and any deviation from this device is to be approved via written confirmation from Residential & Commercial Engineering Ltd.

MANHOLE DETAIL S16 - HYDROBRAKE MH

OTHER TYPES OF HYDROBRAKES HAVE DIFFERENT SUMP CONFIGURATION, ALWAYS CONSULT MANUFACTURER.

2. THE WARNING SIGNS ARE TO BE 40MM HIGH RED LETTERING ON A WHITE PLASTIC BASE. THE PLASTIC BASE DIMENSIONS ARE TO BE APPROX. 300MM X 6MM

3. THE BASE IS TO BE RESISTANT TO ATTACK BY SEWAGE.

4. THE WARNING SIGN IS TO BE MOUNTED ON A REMOVEABLE SAFETY GRID AVAILABLE FROM COVER MANUFACTURER

5. THE SIGN IN THESE MANHOLES ARE TO READ "CAUTION -HYDROBRAKE LOCATED HERE"

6. A SIGN MUST BE FITTED IN THE UPSTREAM MH TO READ "CAUTION -HYDROBRAKE DOWNSTREAM"

7. A SIGN MUST BE FITTED IN THE DOWNSTREAM MH WHICH READS "CAUTION - HYDROBRAKE UPSTREAM"

8. ANY DIFFERENCE BETWEEN ACTUAL AND DRAWN DETAILS IS TO BE REPORTED IMMEDIATELY

Rocker Pipe Table (Table E13 from DCG) DESCRIPTION HEAD (m) CONTROL POINT Design Point 2.700 Effective Length

HYDROBRAKE TECHNICAL SPECIFICATION SHE-0059-2500-2700-2500 - HYDROBRAKE OPTIMUM FLOW (I/s) Flush-Flo 0.259 1.472 Kick-Flo 0.531 1.195 Mean Flow Over Head Range THE USE OF ANY OTHER FLOW CONTROL WILL INVALIDATE ANY DESIGN BASED ON THIS UNIT

The Contractor is to check and verify all building and site dimensions, levels and sewer invert levels at connection

points before work starts. The Contractor is to comply in all

respects with current Building Legislation, British Standard Specifications , Building Regulations, Construction (Design &

Management) Regulations, Party Wall Act, etc. whether or

not specifically stated on this drawing. This drawing must

be read with and checked against any structural,

geotechnical or other specialist documentation provided

This drawing is not intended to show details of foundations

ground conditions or ground contaminants. Each area of

ground relied upon to support any structure depicted

(including drainage) must be investigated by the Contractor. A suitable method of foundation should be provided allowing

for existing ground conditions. Any suspect or fluid ground,

contaminates on or within the ground, should be further investigated by a suitable expert. Any earthwork

constructions shown indicate typical slopes for guidance

should be subject to a full specialist inspection for safety. All trees are to be planted so as to ensure they are a minimum

of 5 metres from buildings. A suitable method of foundation is to be provided to accommodate the proposed tree

Residential & Commercial Engineering Limited do not accept

any responsibility for any losses (financial or otherwise) to any Client or third party arising out of the Clients (be it Developer or Contractor but not limited thereto) non-

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compliance with afore mentioned provisos.

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only & should be further investigated by a suitable expert. Where existing trees / structures are to be retained they

engineering design.

Revisions:

B Updated in accordance with

comments received from STW





Drawing Status: 5104 - Subject to Technical Approval from Severn Trent Water S106 - Developer to complete application/approval with STW. S185 - Subject to Technical Approval from Severn Trent Water

FLETCHER HOMES

Project: ROSEMARY LANE,

LEINTWARDINE

CONTROL CHAMBER CONSTRUCTION DETAILS - S16

Job Number. RACE/FH/GMR **Drawing No.** ENG_280

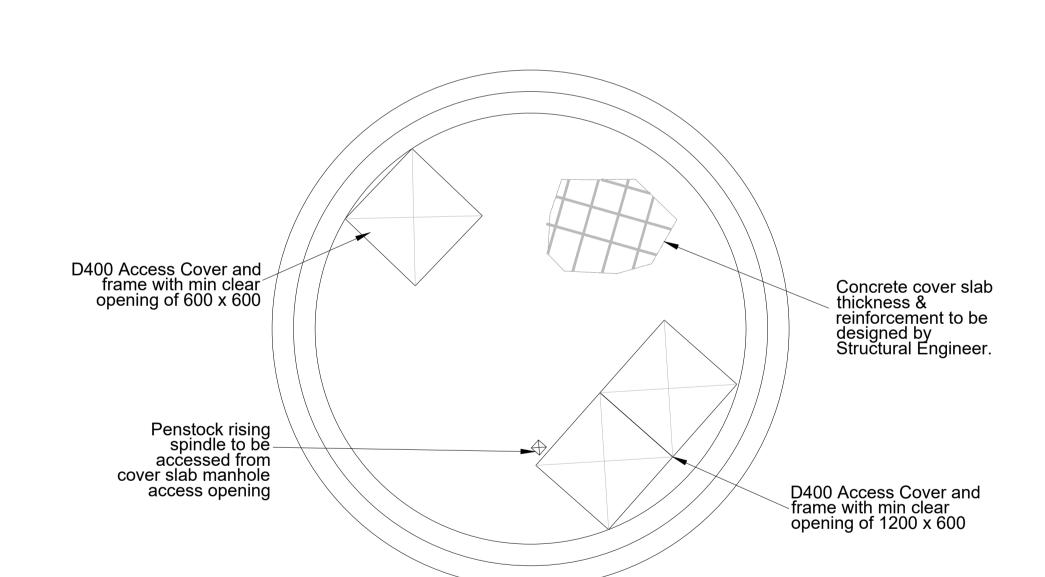
Revision. B

Scale: NTS @ A1 Date: JULY '21 Drawn by: JS Checked by: SM

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Plan View Of Cover Slab