

THESE DRAWINGS ARE THE PROPERTY OF MWP ENGINEERING AND ENVIRONMENTAL CONSULTANTS. ANY REUSE OR MODIFICATION OF THESE DRAWINGS WITHOUT THE WRITTEN PERMISSION OF MWP ENGINEERING AND ENVIRONMENTAL CONSULTANTS IS STRICTLY PROHIBITED. THE USER OF THESE DRAWINGS SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED AND FOR THE RESULTS OF ANY ACTION TAKEN AS A RESULT OF USING THESE DRAWINGS. THE USER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED AND FOR THE RESULTS OF ANY ACTION TAKEN AS A RESULT OF USING THESE DRAWINGS. THE USER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED AND FOR THE RESULTS OF ANY ACTION TAKEN AS A RESULT OF USING THESE DRAWINGS.

Manhole cover and frame shall comply to is EN 124 and BS 7903 (all class D400 covers shall have min. frame depth 150mm) min. OPE. 600x600mm

Concrete Haunch Surround to All Manhole Covers

Cover to be set as per manufacturer's specification

1 no. course min. 3 no. courses max of class B engineering bricks set in C50/60 mortar

675mm max. to first step

Min. 600

Manhole steps to comply with is EN 13101, type D, class 1, galvanised mild steel & plastic encapsulated. Elastometric joint seal to EN 681 > to a depth of 2.5m. Manhole ladders are required for manholes with a depth in excess of 2.5m & are to comply with is EN 14396 & with BS 4211.

300 C40/s

Refer to table for pre-cast ring diameter

150mm grade C16/20 in-situ concrete surround

Bottom precast section to be built into base concrete minimum 75 mm

Construction joint

Distance between top of pipe & underside of precast section to be min. 50mm to max. 300mm

First ring sunk into in-situ concrete base

Reinforced concrete base grade C30/37

Invert should be formed with cast-in-situ concrete C25/30 20mm aggregate finished with a 1:3 cement sand mortar

75mm grade C12/15 Blinding concrete

To barrel of pipe

1:3 cement:sand mortar with steel trowel finish at a 1:30 slope towards the channel

Self cleaning toe holes to be provided where channel exceeds 600mm wide

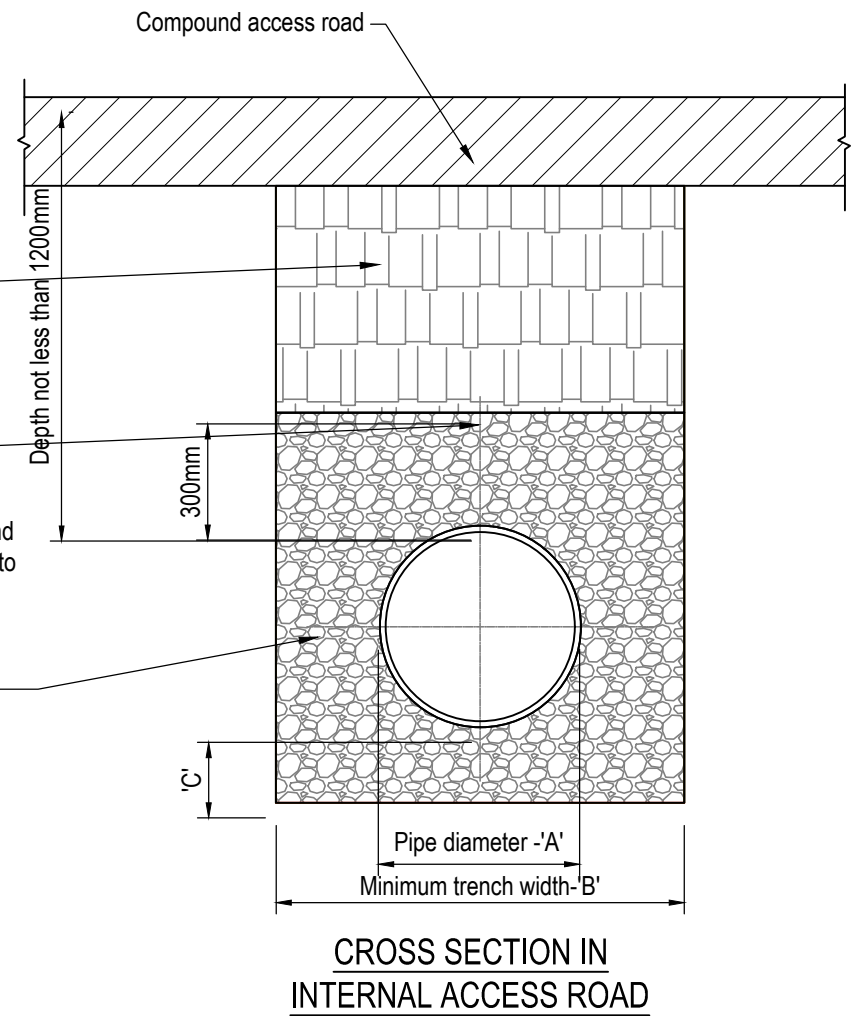
Stainless steel chain in "down" position secured to restraining hook, when chamber is occupied where the pipe diameter is 450mm or more

SECTION A-A

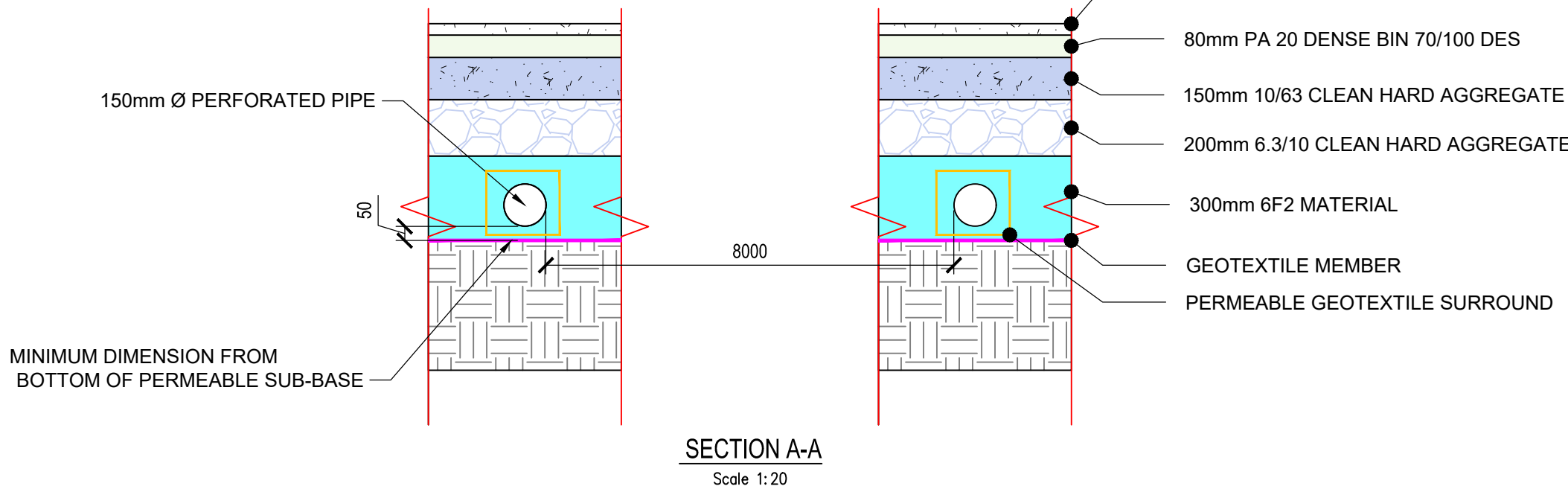
Clause 808 material in accordance with the national roads authority specification for road works is to be used as backfill material. Clause 808 is to be compacted as per clause 802 of the national roads authority specification for road works.

Non degradable marker tape should be installed at top of pipe bedding layer.

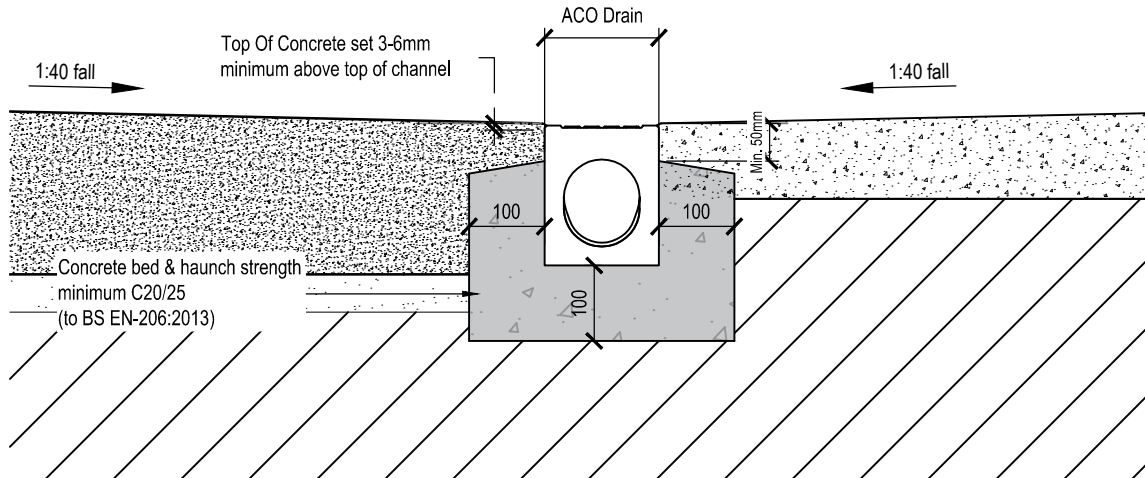
Pipe bedding shall comply with w4-08-02 and IGN 4-08-01 granular material shall be 14mm to 5mm graded aggregate or 10mm single sized aggregate is EN 13242. concrete bed, haunch & surround, where required, shall be to STD-WW-08.



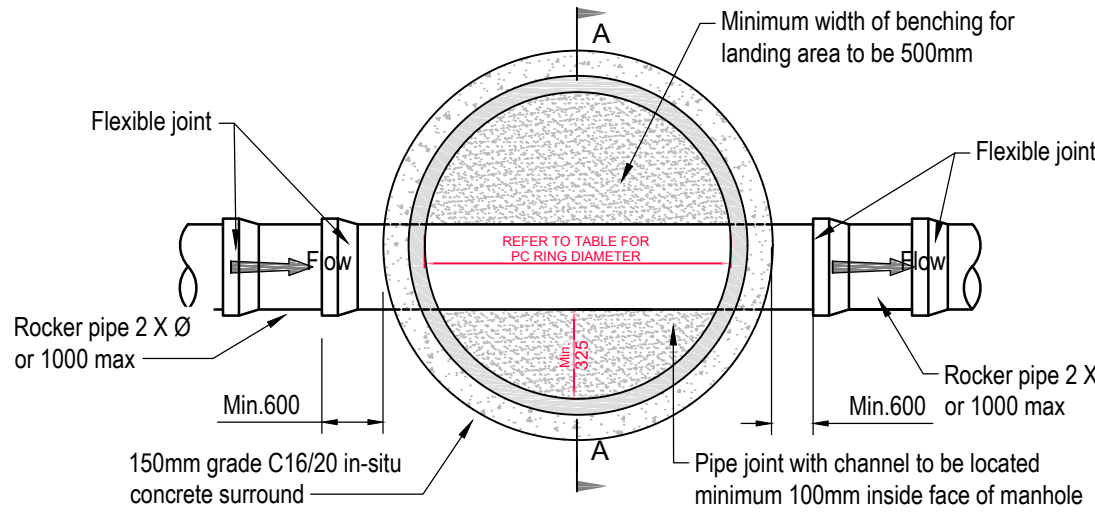
- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- CONCRETE PIPE BEDS AND HAUNCHES REQUIRED WHERE MINIMUM COVER IS LESS THAN 1200MM ROAD.
- CONCRETE PIPE BEDS AND HAUNCHES SHALL HAVE A MINIMUM THICKNESS.
- CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 AND TO BE CLASS C30/37.
- THE HAUNCHES AND SURROUNDS TO BE FORMED USING FORM WORK TO PROVIDE A ROUGH CAST FINISH.
- EXPANSION JOINTS IN THE CONCRETE SHALL BE PROVIDED AT ALL PIPE JOINTS TO ALLOW FOR PIPE FLEXIBILITY, COMPRESSIBLE FILLER BOARD TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4, AND TO BE 18mm THICK.
- POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
- BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES



SECTION A-A
Scale 1:20



Aco Drain Detail Scale 1:10

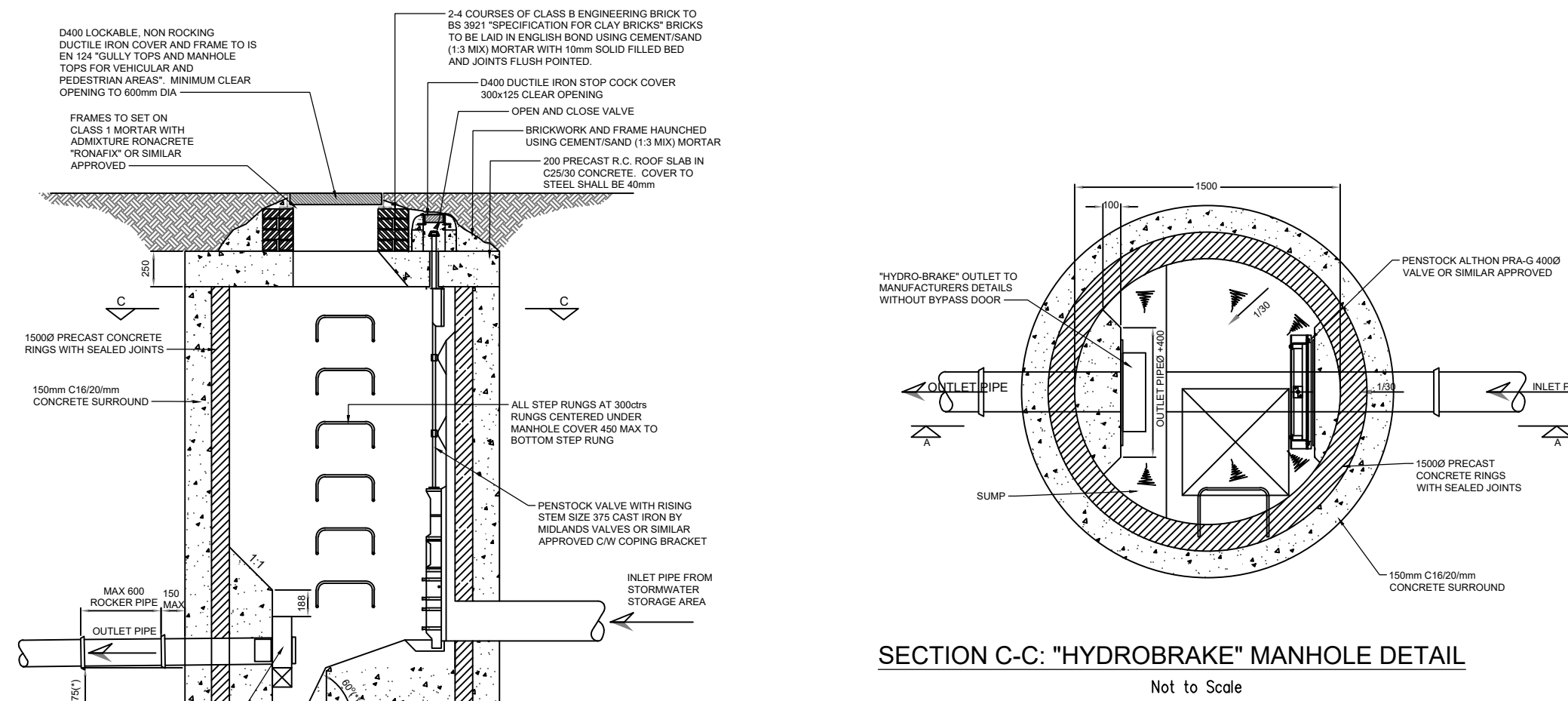


PRE-CAST CONCRETE MANHOLE
Not to Scale

MINIMUM MANHOLE DIAMETERS	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 450	1350
500 TO 750	1500

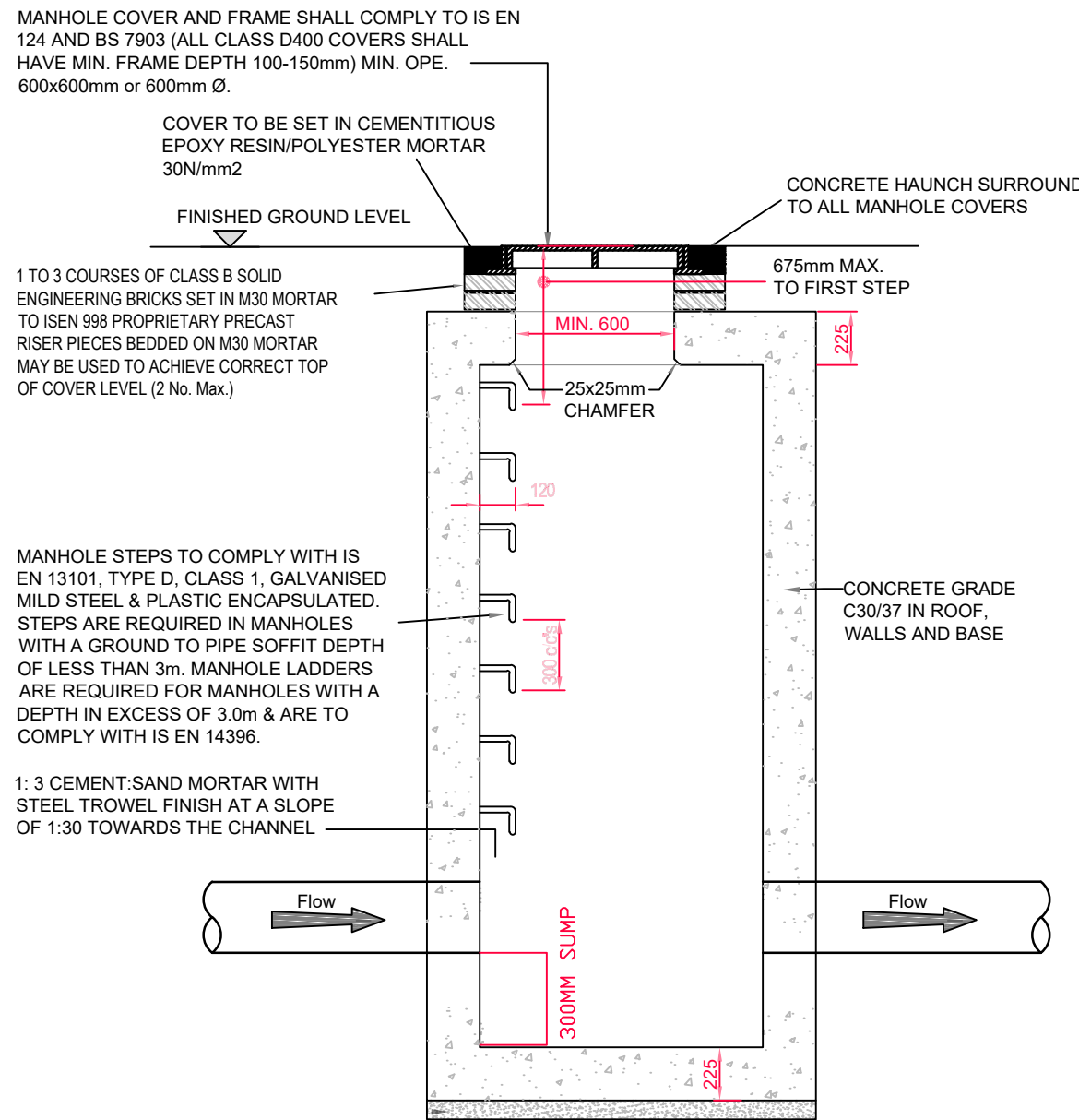
PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤100	100
150 - 450	200

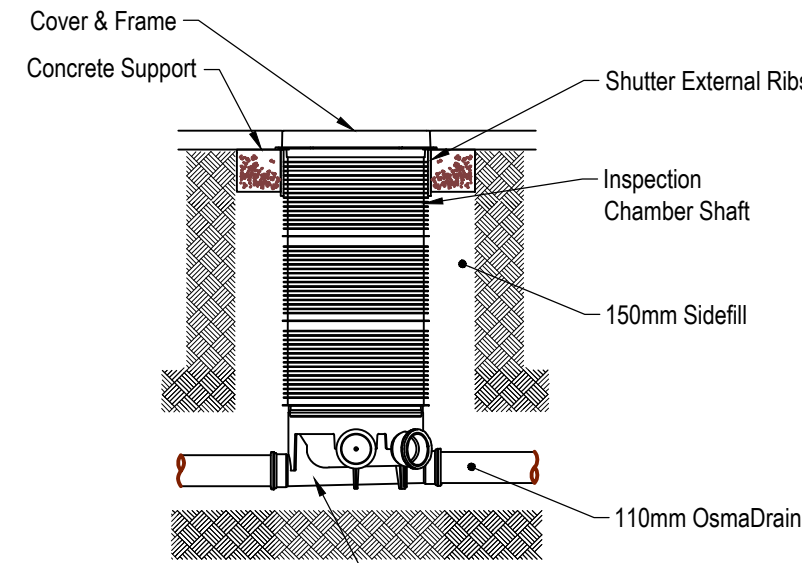


SECTION C-C: "HYDRO-BRAKE" MANHOLE DETAIL
Not to Scale

(*) DIMENSION TO BE APPROVED BY HYDRO-BRAKE" SUPPLIERS
SECTION A-A: "HYDRO-BRAKE" MANHOLE DETAIL
Not to Scale



STORMWATER CATCH-PT
MANHOLE DETAIL



ACCESS JUNCTION
(MAX DEPTH 1.2m, 450mm DIA. SHAFT TO A DEPTH OF 450MM AND GREATER THAN 450mm DEPTH TO BE 600mmØ)

DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS IN ALL CASES. VERIFY DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNERS IMMEDIATELY. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATION. © THIS DRAWING IS COPYRIGHT AND MAY ONLY BE REPRODUCED WITH THE DESIGNERS PERMISSION.

- NOTES:
- ALL DETAILS TO BE READ IN CONJUNCTION WITH THE CURRENT IRISH WATER DOCUMENTATION:
 - WASTE WATER INFRASTRUCTURE STANDARD DETAILS.
 - CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
 - ALL COVERS, GRATINGS & FRAMES IN HARDSTANDING AREAS ARE TO BE A MINIMUM OF CLASS D400 DUCTILE IRON IN ACCORDANCE WITH BS EN 124

2	16.07.26	ISSUED FOR PLANNING PERMISSION	C.M.	I.B.
1	27.05.26	ISSUED FOR INFORMATION	R.H.	I.B.
0	22.04.26	ISSUED FOR INFORMATION	R.H.	I.B.
REV	DATE	DESCRIPTION	BY	APP
PROJECT:				
STEEVEN'S LANE 110KV GIS SUBSTATION				
TITLE:				
COMPOUND DRAINAGE DETAILS				
CLIENT:				
 MWP ENGINEERING AND ENVIRONMENTAL CONSULTANTS CORK TRALEE LONDON LIMERICK mwp.ie				
DRAWN: R.H. CHECKED: S.M. APPROVED: I.B.				
PROJECT NUMBER: 27057		DATE: MAY 2026		SCALE @ A1: AS SHOWN
ACCEPTANCE CODE: S		PURPOSE OF ISSUE: ISSUED FOR PLANNING PERMISSION		PURPOSE CODE: P3
DRAWING NUMBER: 27057-00-DTM-DR-MWP-CE-2400				REV: 2