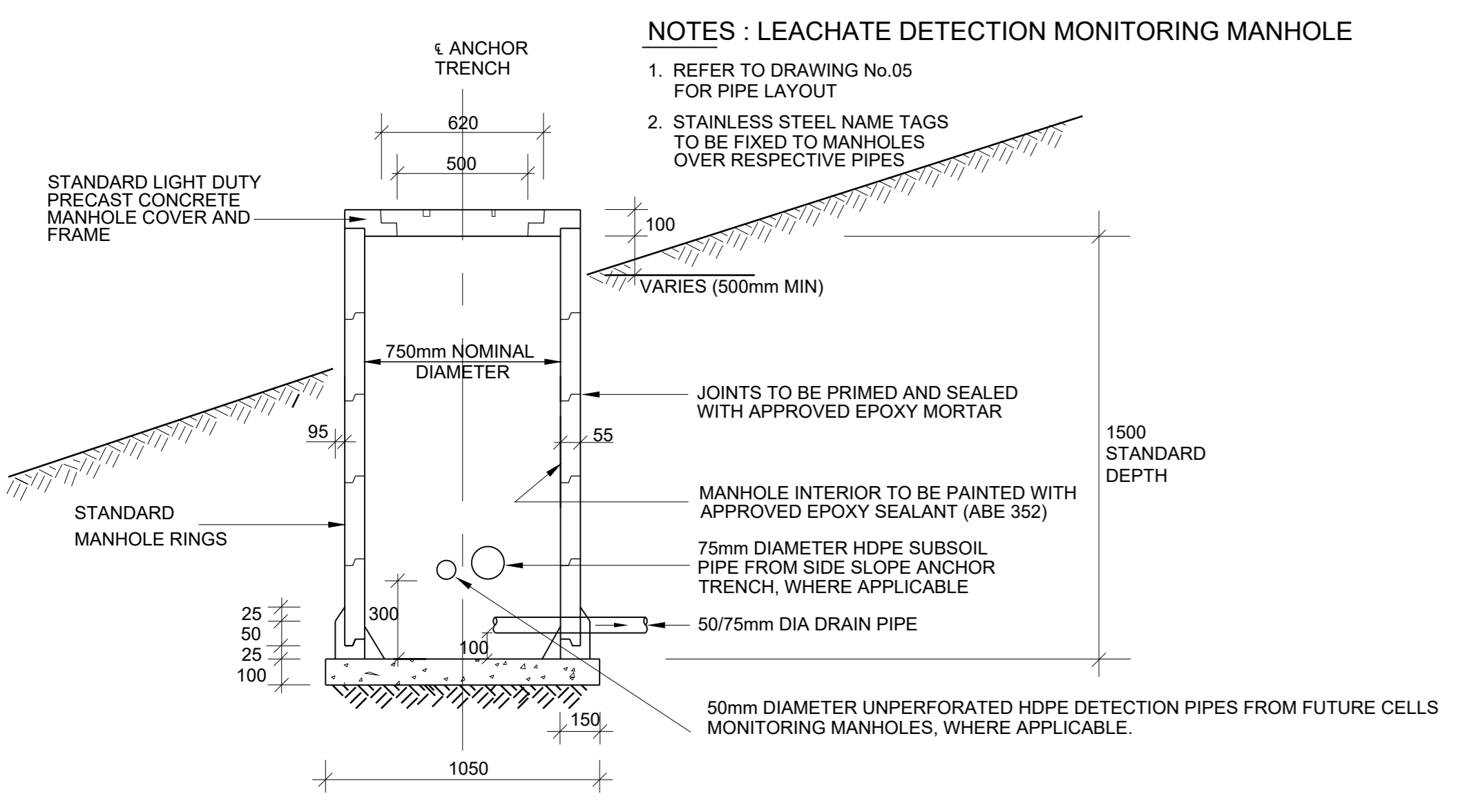


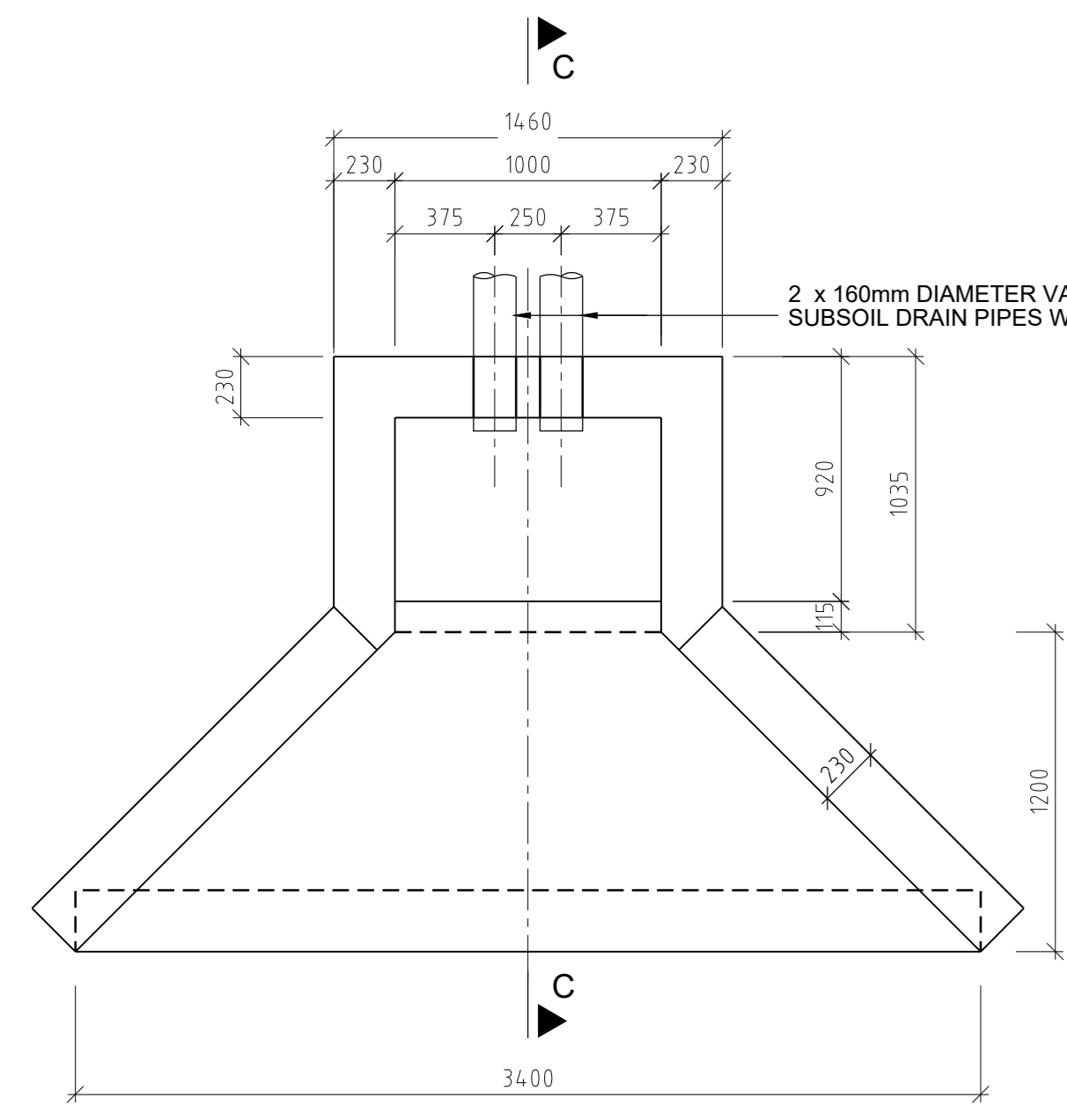
PIPE PENETRATION FOR 160mm AND 110mm DIAMETER - HDPE CLASS 16 PIPES

SCALE 1 : 10



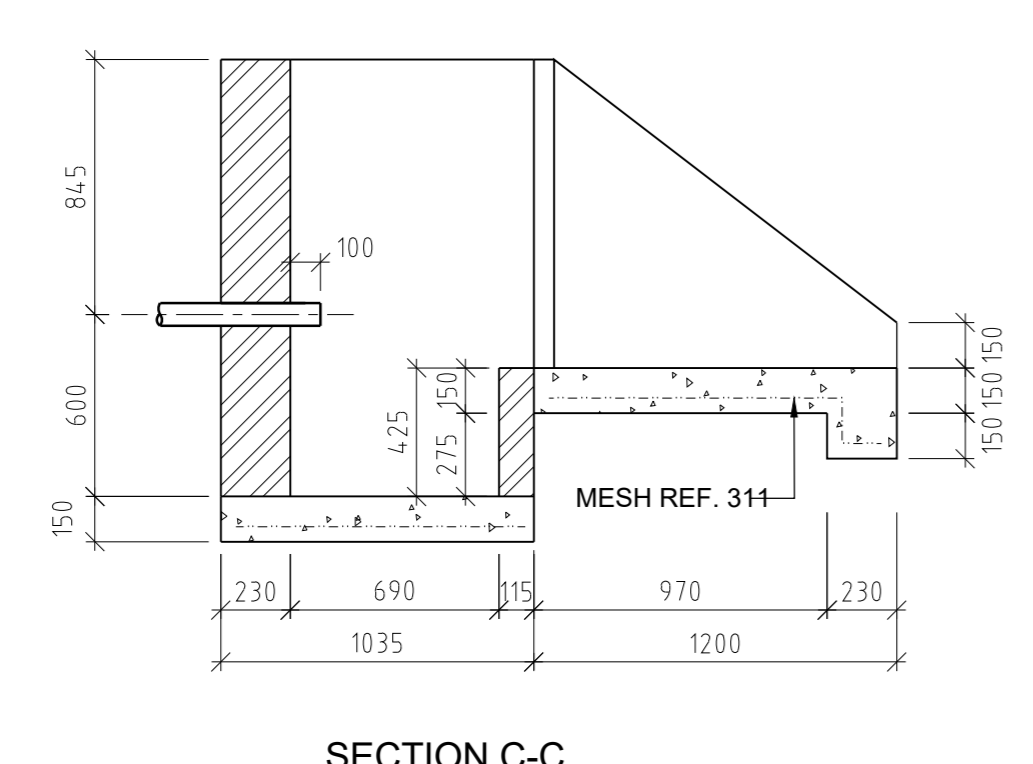
LEACHATE DETECTION / COLLECTION MONITORING MANHOLE DETAILS

SCALE 1 : 20

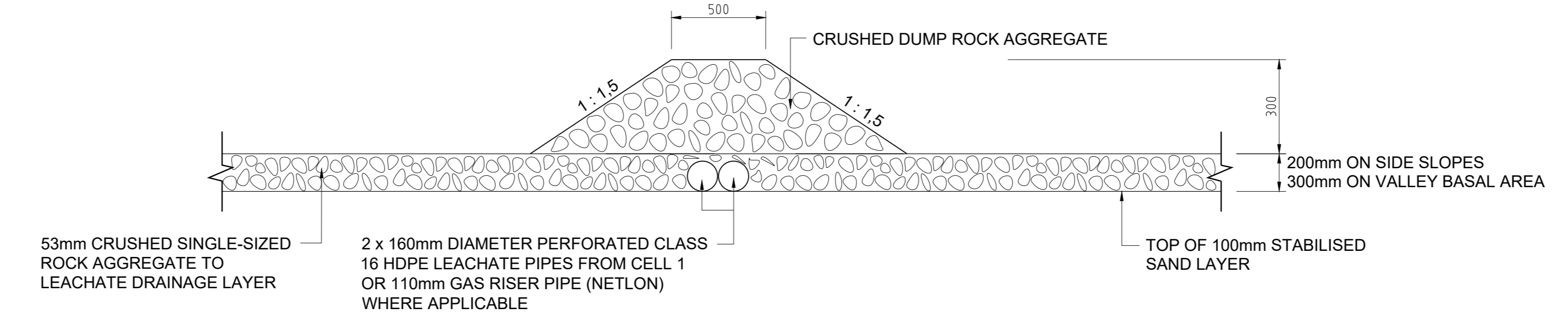


FRONT ELEVATION

BASAL SUBSOIL DRAIN HEADWALL SCALE 1 : 25

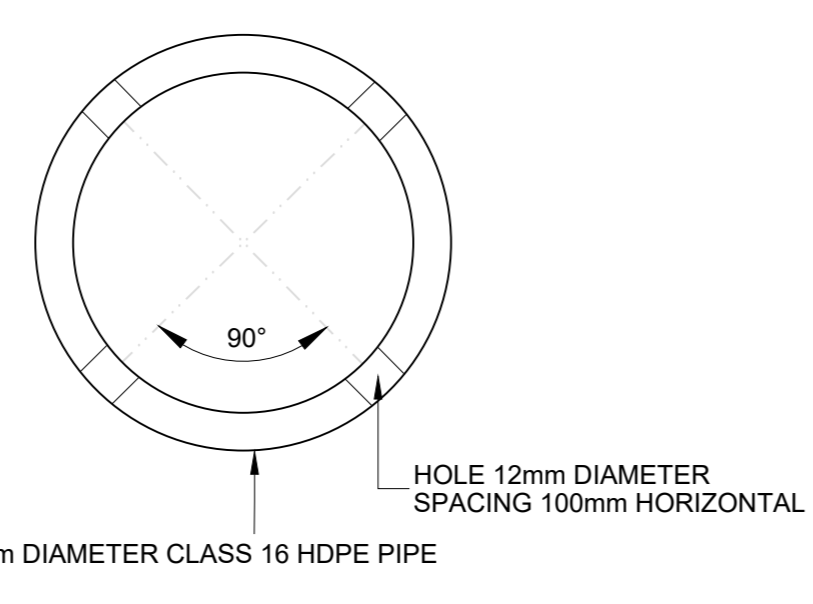


SECTION C-C



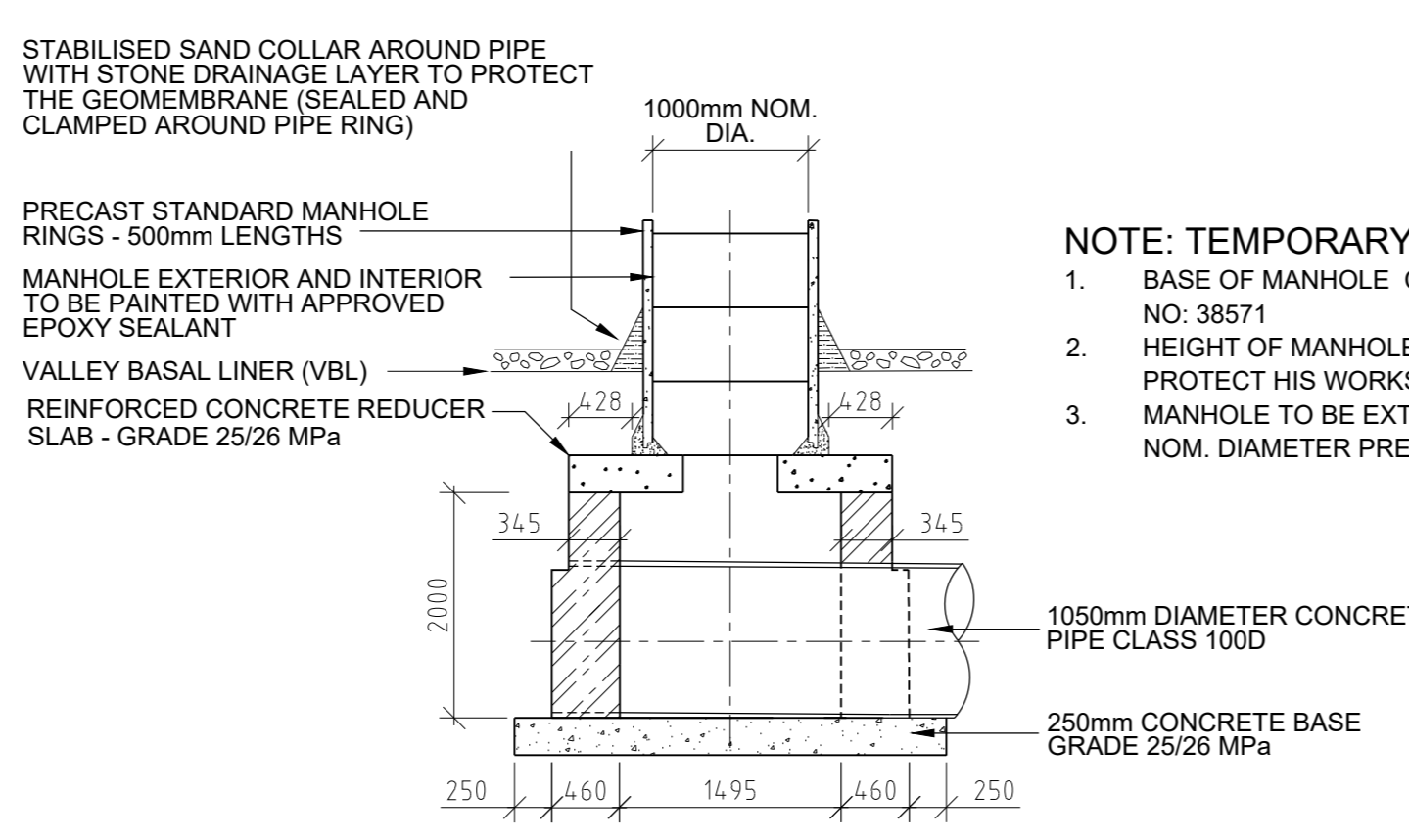
LEACHATE COLLECTION PIPE / GAS RISER PIPE PROTECTION BERM

NOT TO SCALE



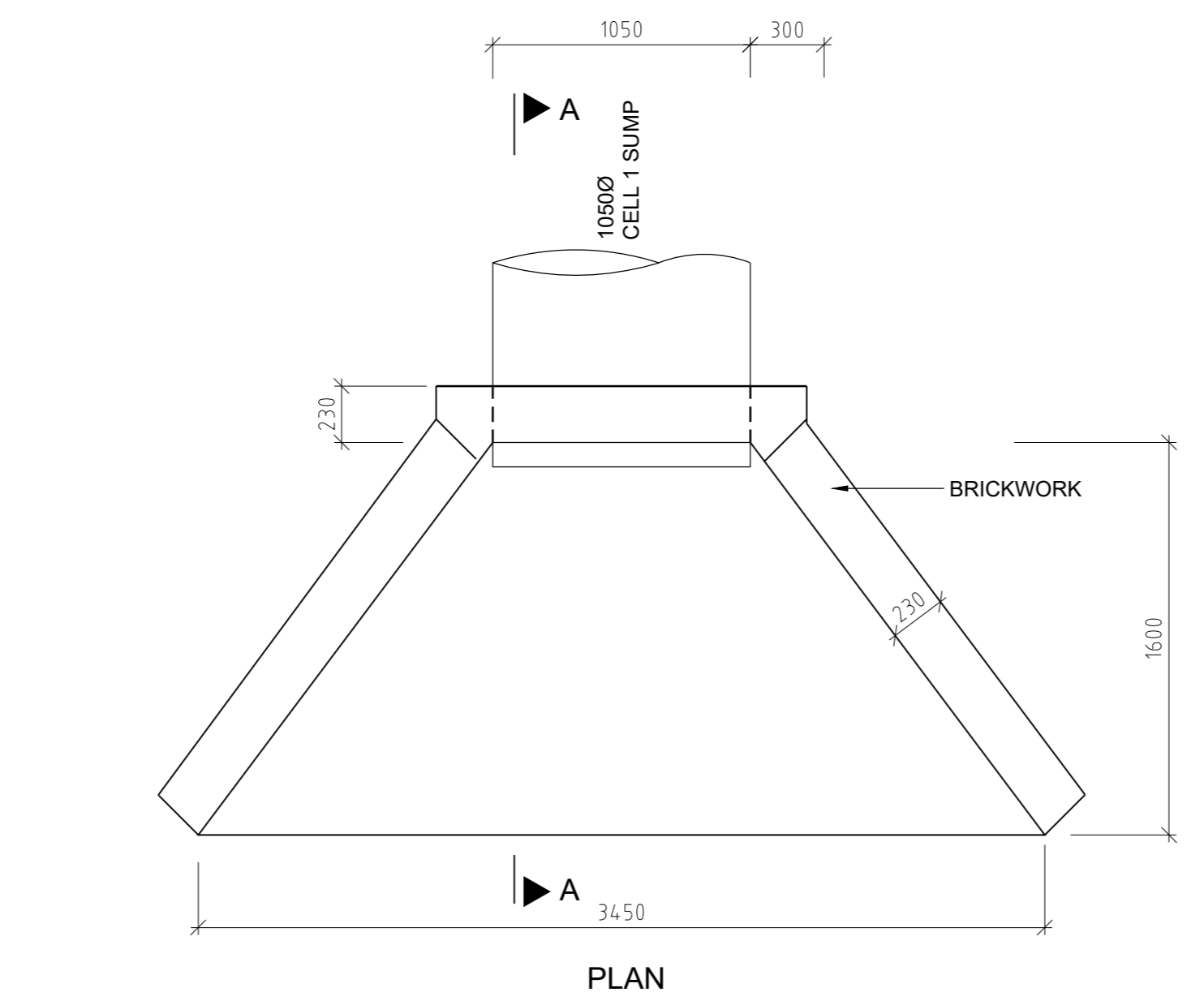
PERFORATED LEACHATE COLLECTION PIPE

SCALE 1 : 2



TEMPORARY STORMWATER OVERFLOW MANHOLE - TYPE B

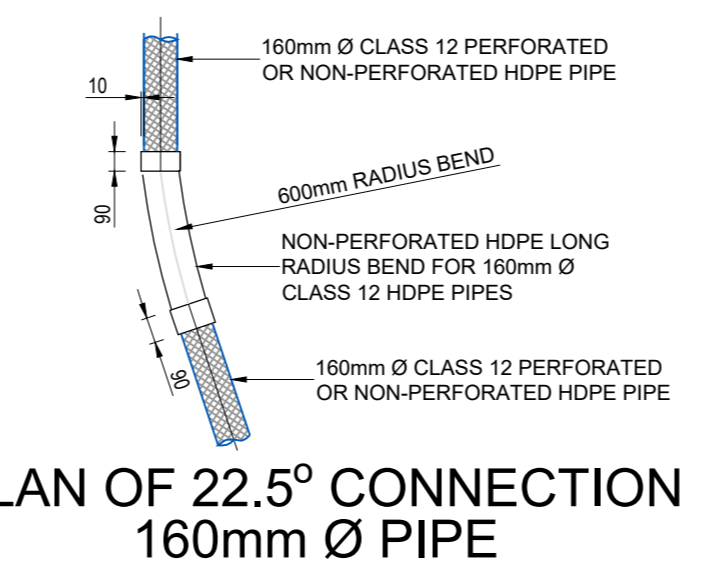
NOT TO SCALE



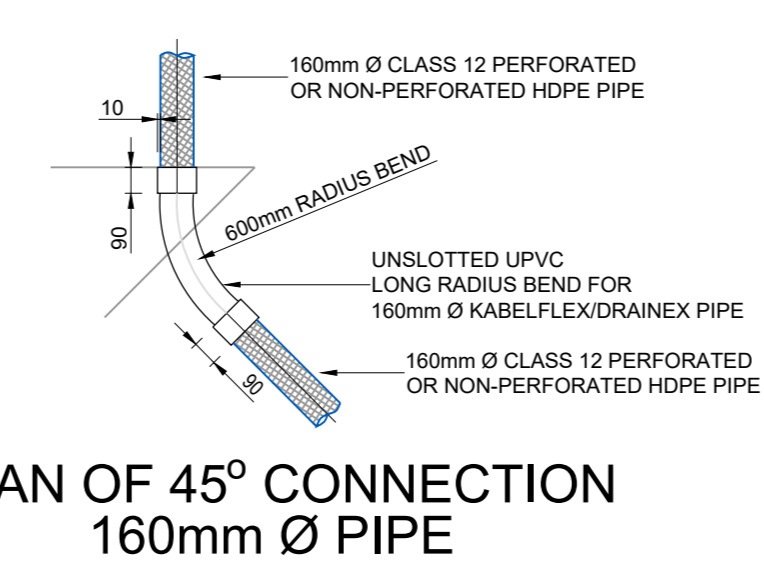
FRONT ELEVATION

CELL 1 TEMPORARY STORMWATER OVERFLOW SUBSOIL HEADWALL

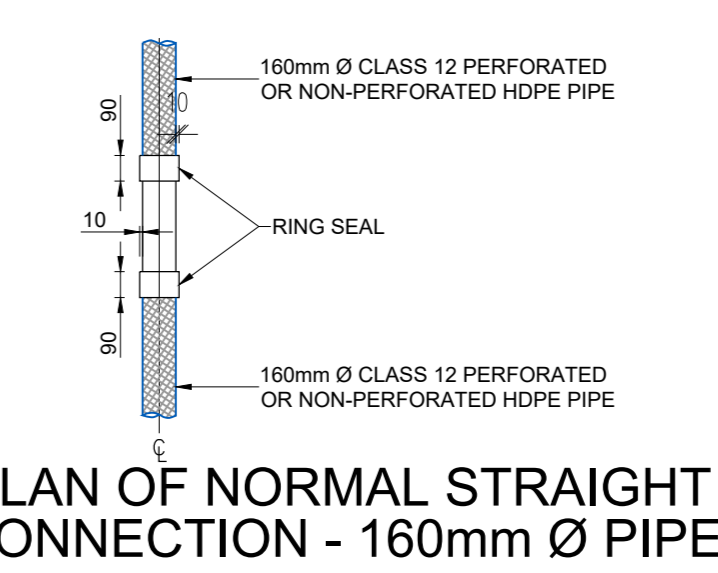
SCALE 1 : 25



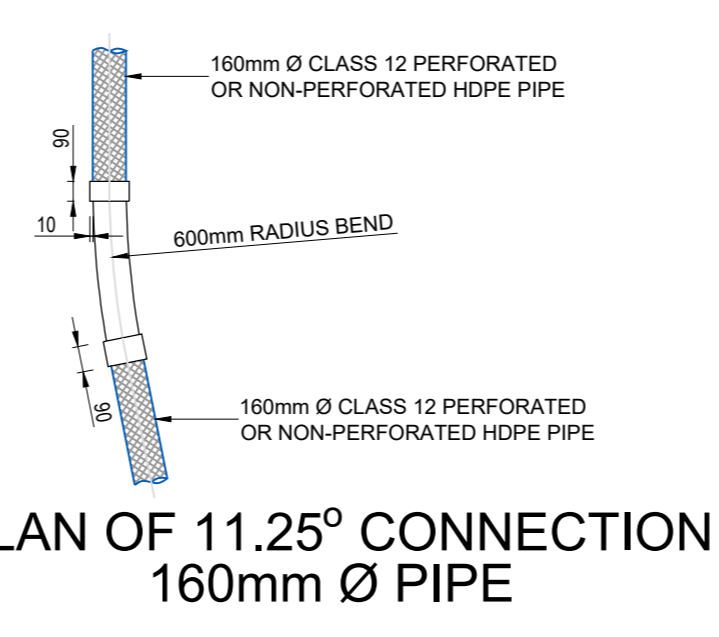
PLAN OF 22.5° CONNECTION 160mm Ø PIPE



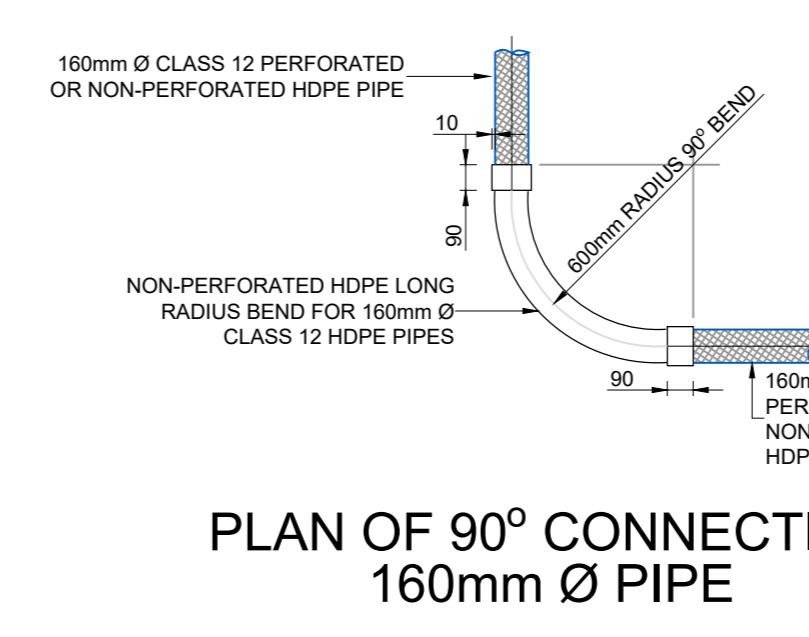
PLAN OF 45° CONNECTION 160mm Ø PIPE



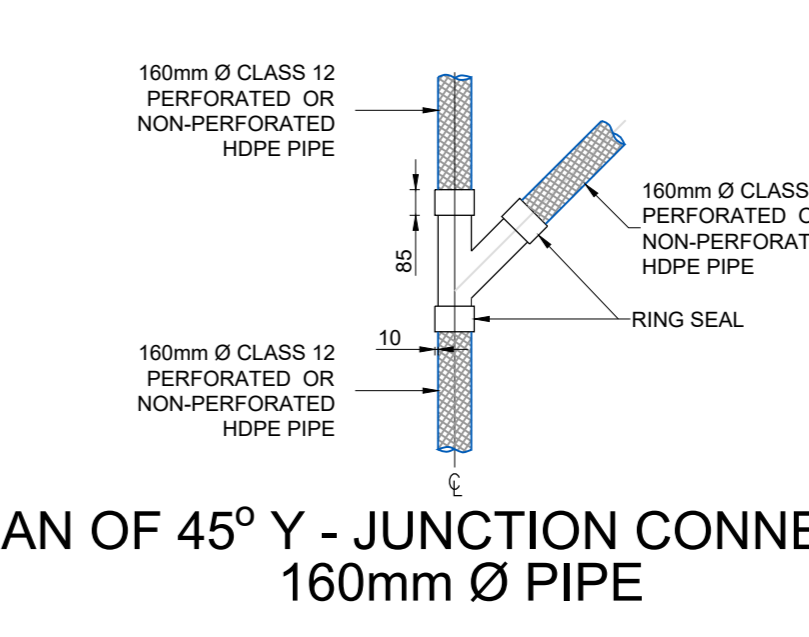
PLAN OF NORMAL STRAIGHT CONNECTION - 160mm Ø PIPE



PLAN OF 11.25° CONNECTION 160mm Ø PIPE

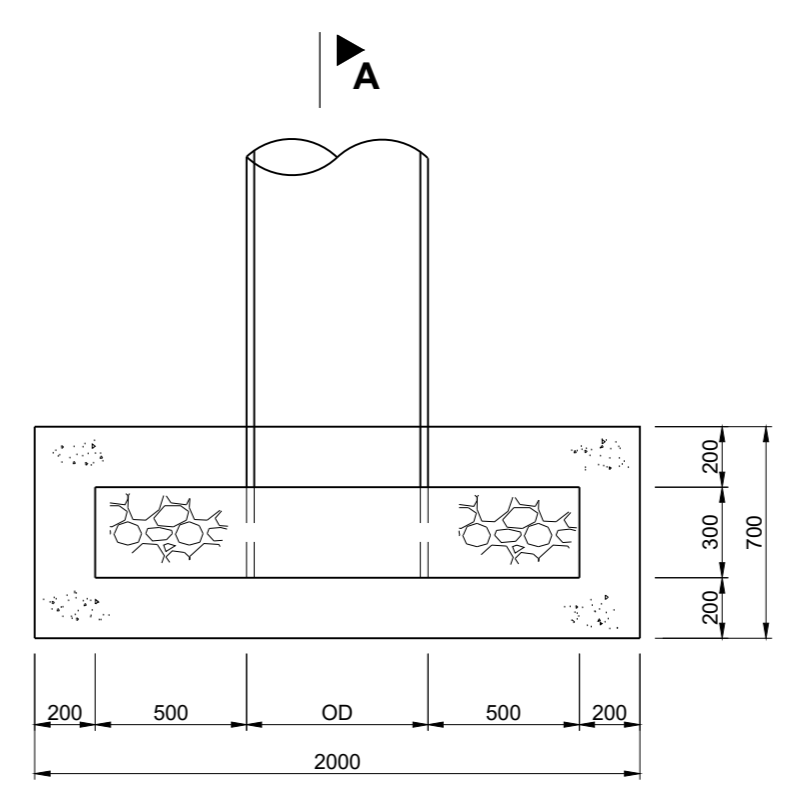


PLAN OF 90° CONNECTION 160mm Ø PIPE



PLAN OF 45° Y - JUNCTION CONNECTION 160mm Ø PIPE

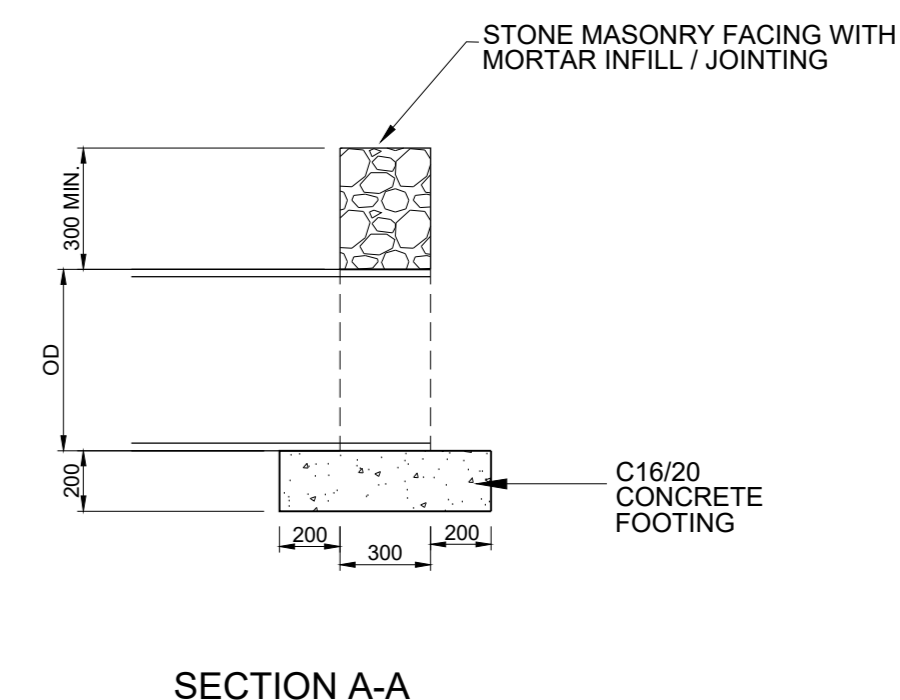
NOTE:  
1. ALL PIPE CONNECTIONS MUST BE RING SEALED.  
2. ALL OUTLET PIPES MUST BE INSTALLED AND THE TRENCH BACKFILLED AND COMPACTED TO 95% OF MOD AASHTO MAXIMUM DENSITY WITHIN 16 HOURS OF TRENCH EXCAVATION.  
3. THE DIMENSIONS OF THE LEACHATE DRAINAGE PIPE CONNECTIONS AND BENDS MUST BE DETERMINED ON SITE.



FRONT ELEVATION

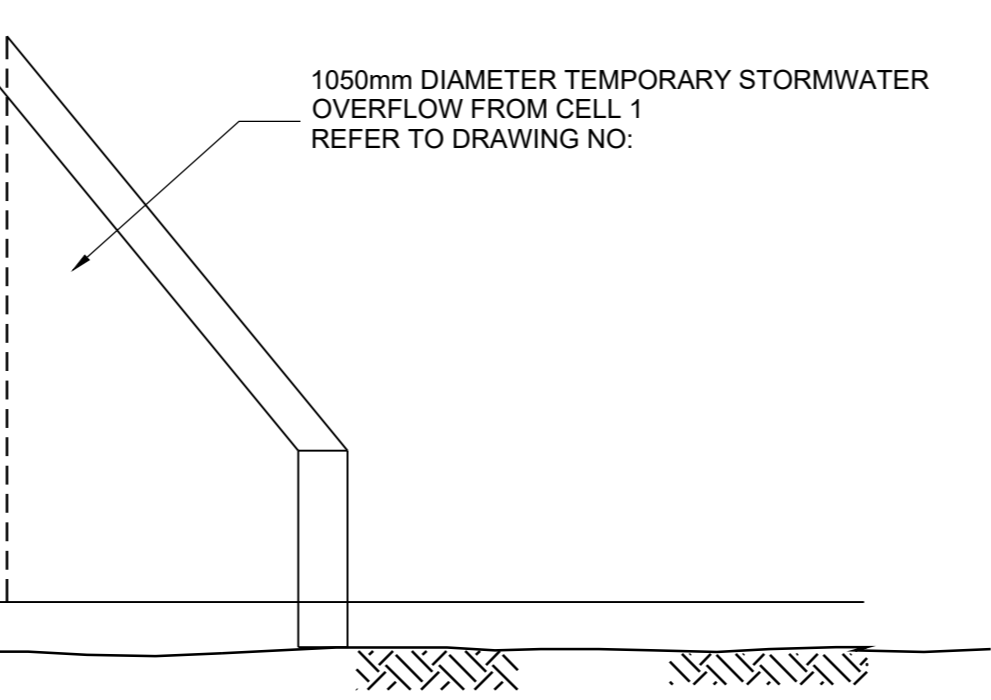
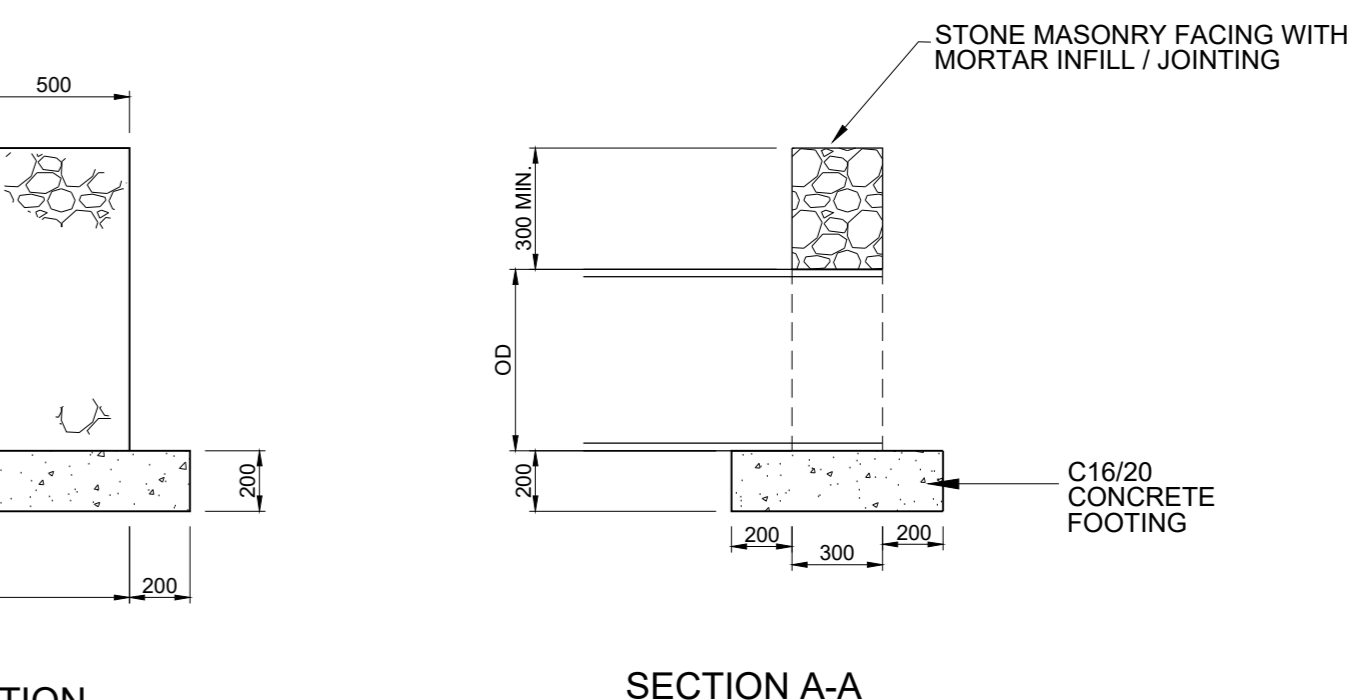
MASONRY PIPE HEADWALL DETAIL

SCALE 1 : 25

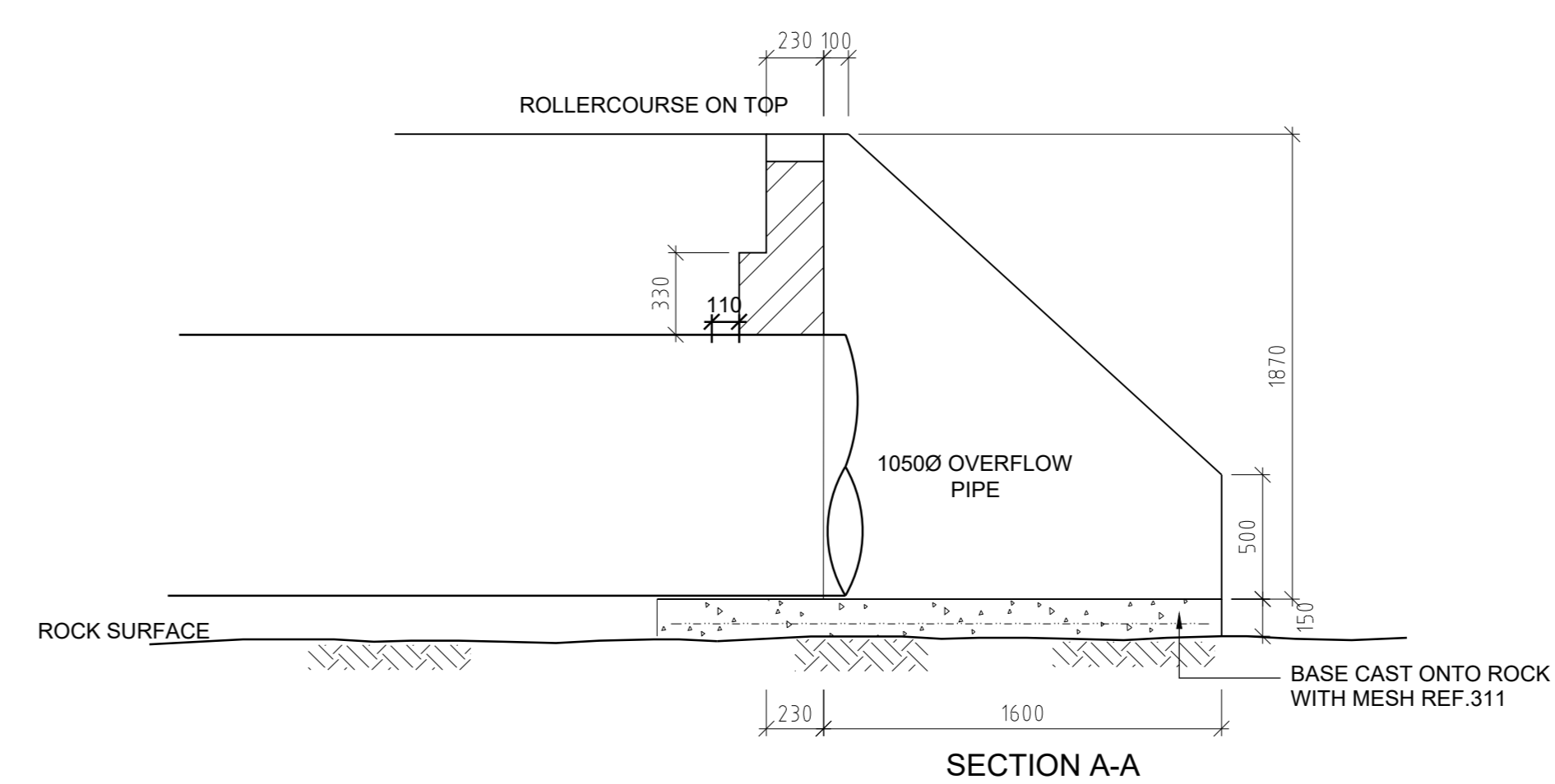


SECTION A-A

NOTES : HEADWALLS  
1. CONCRETE MIX 15/19  
2. MIN. COVER TO REINFORCEMENT = 40mm  
3. WOODFLOAT FINISH TO ALL EXPOSED CONCRETE SURFACES.  
4. ALL EXPOSED BRICKWORK TO BE FACEBRICK (SATIN HORIZON VARIATION OR SIMILAR).  
5. GALVANISED BRICKFORCE TO BE PROVIDED TO EVERY SECOND COURSE OF BRICKWORK.  
6. DRAWING TO BE READ IN CONJUNCTION WITH DRAWINGS EDM3001-02 AND EDM301-03 FOR PIPE LAYOUTS



FRONT ELEVATION



SECTION A-A

Design Consultants  
**ix / Wilson & Pass Inc JV**  
ix Engineers, Eastwood Office Park | Private House  
270 Lynnwood Service Road | Lynnwood Ridge  
Pretoria 0001 | Tel: +27 12 782 2000  
Local Manager Tel: +27 31 254 5700

**ix Engineers**  
1818 Infrastructure Solutions  
CK No. 2016/21543/07  
M.E. 10250/09/09/CONSULTING ENGINEERS  
Western Office Park | 21 The Boulevard | Westville | Durban | 3650  
Tel: +27 31 254 5700 | Fax: 081 537 7933  
www.ixengineers.co.za

**Wilson & Pass Inc**  
P.O. Box 641 | Westville | 3650 | SA  
email: g.p@wilsonandpass.co.za  
Tel: +27 31 254 5700

Revision Date Description  
A 06/03/2023 FOR APPROVAL

DATE 27/10/2023 FOR TENDER ONLY

Acquisitions completed  
DATE: 27/10/2023  
Engineer: [Signature]  
NORTH POINT

UNDERGROUND SERVICES CHECKED		
SERVICE	DATE	SIGNATURE
S.W DRAINS		
SEWERS		
WATER MAINS		
G.P. CABLES		
ELECTRIC CABLES		
S.A.R. CABLES		
E.S.C. CABLES		
OIL PIPE LINE		

NOTE: Only underground services affected by new construction work are shown. Care must be taken during excavations for road foundations, berms etc. to avoid damage to underground services such as sewers, drains, cables, water mains and connections. Wherever possible these must be located before work proceeds.

L. Moodley  
Deputy Head: Cleansing & Solid Waste - DSW

6W-30109  
Contract No.

FOR TENDER

Project Title  
WWMF Contract B - Landfill Cell 1, Lined Dams and Platforms Construction

Drawing Title  
TYPICAL LEACHATE DETECTION MAHOLE AND COLLECTION MANHOLE DETAILS

AS SHOWN	Reference
Designed	Date
N. DOOKHUIJ PASS	06/03/2023
Checked	Drawn by
M. RICHMOND	L. DU PLESSIS

Drawing No 301837-02-WS-DT-001-002  
Revision B