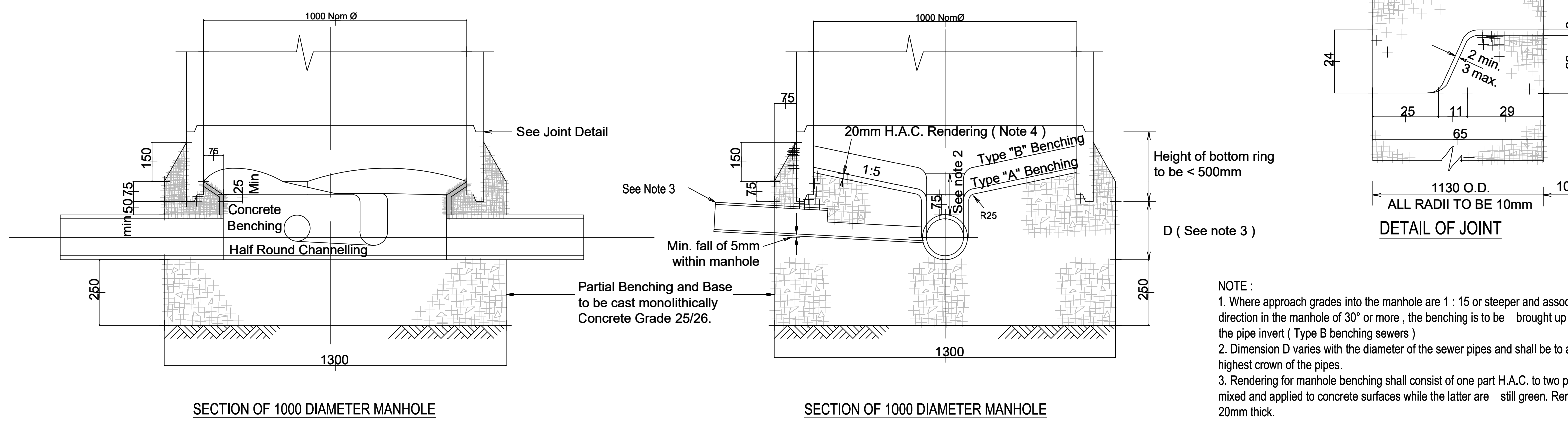
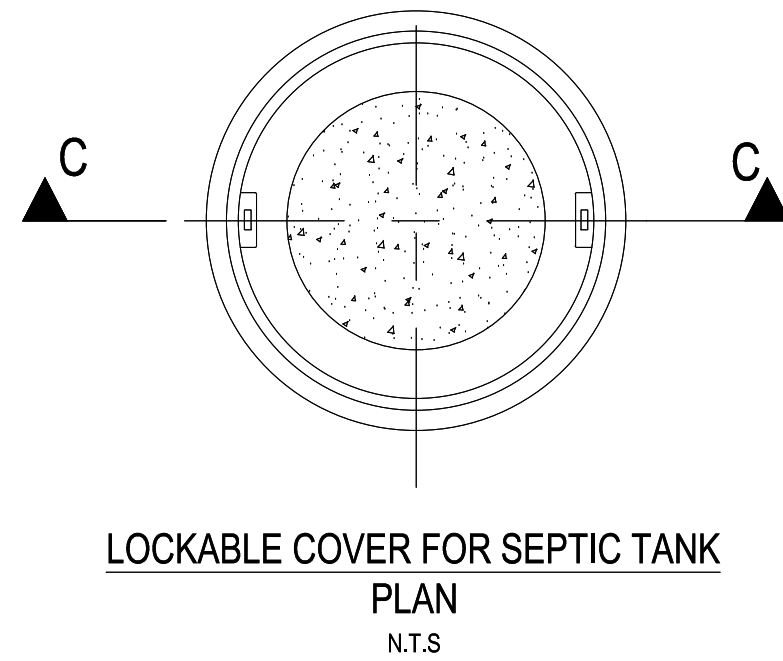
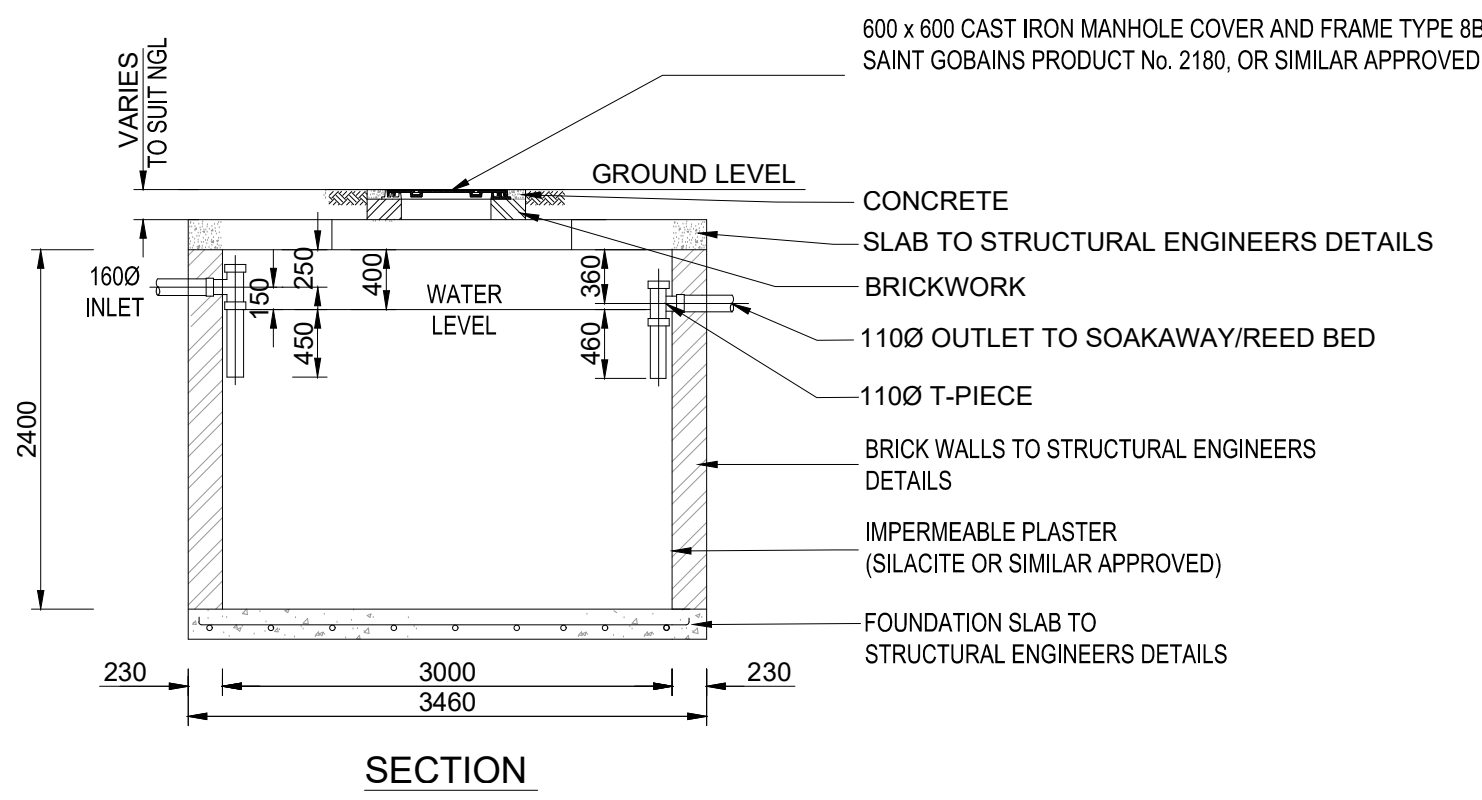


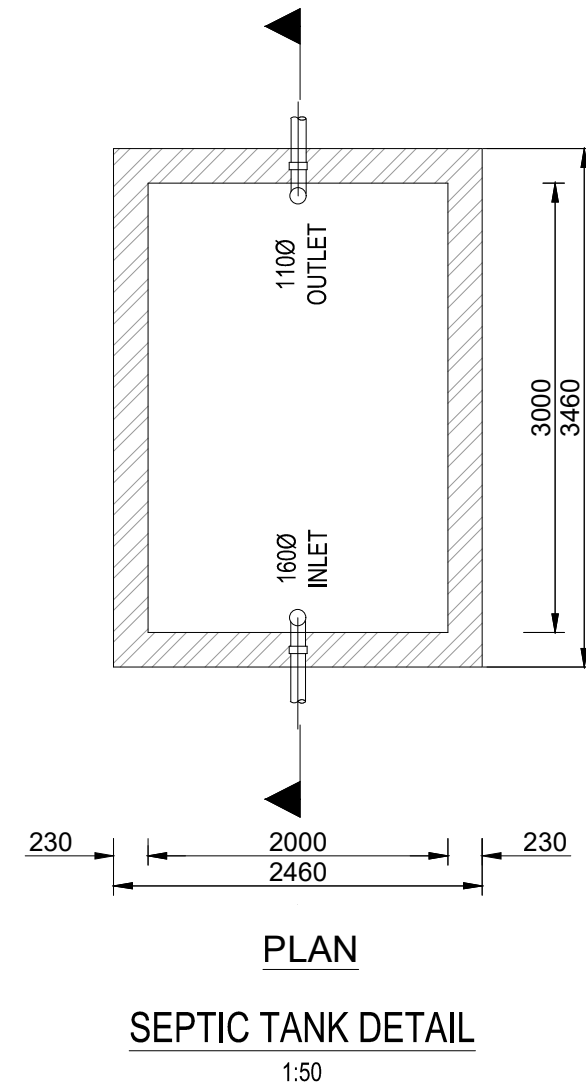
STANDARD CHANNELLING IN PRECAST CONCRETE MANHOLES



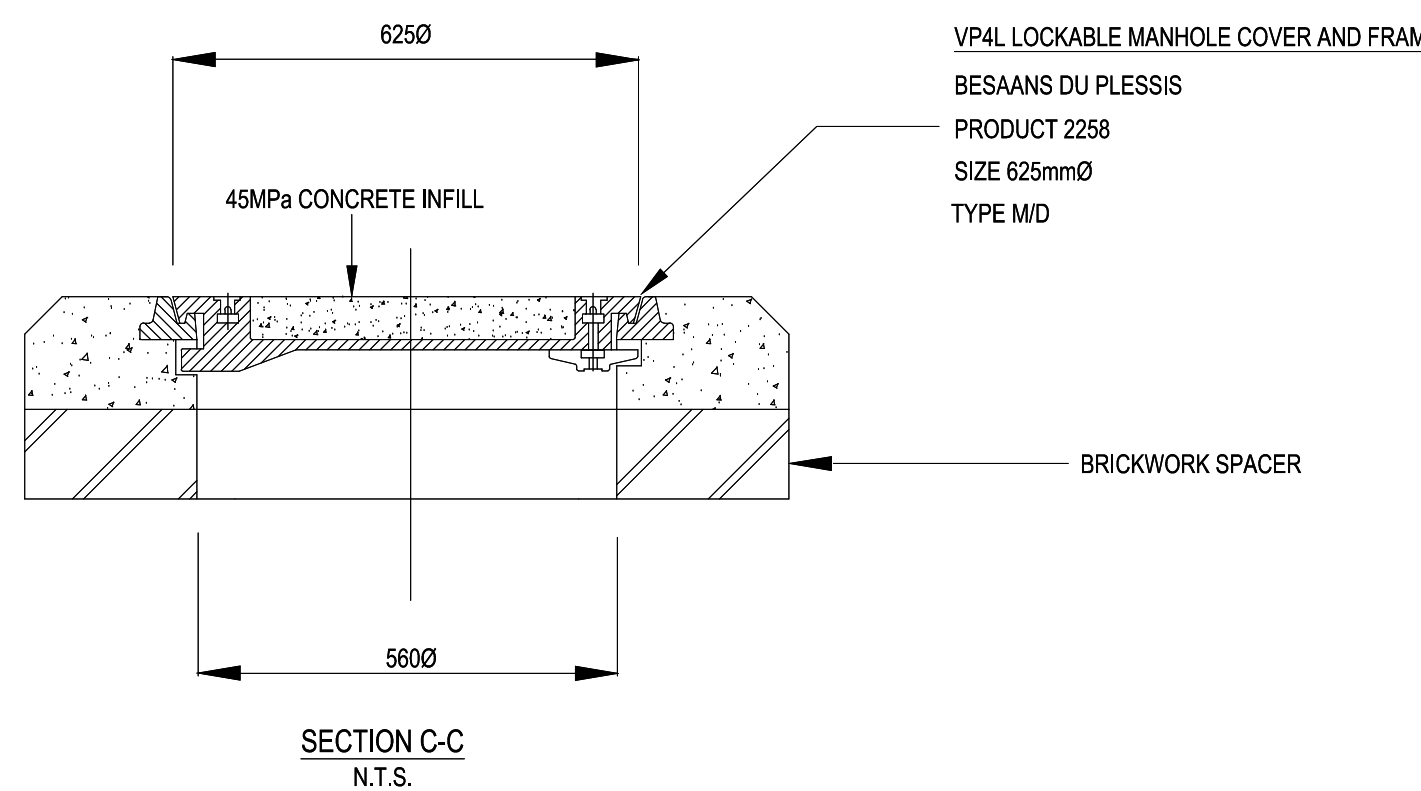
NOTE:  
1. Where approach grades into the manhole are 1:15 or steeper and associated with a change in direction in the manhole of 90° or more, the benching is to be brought up two pipe diameters above the pipe invert (Type B benching sewers).  
2. Dimension D varies with the diameter of the sewer pipes and shall be a point 50mm above the highest crown of the pipes.  
3. Rendering for manhole benching shall consist of one part H.A.C. to two parts sand thoroughly mixed and applied to concrete surfaces while the latter are still green. Rendering shall be at least 20mm thick.



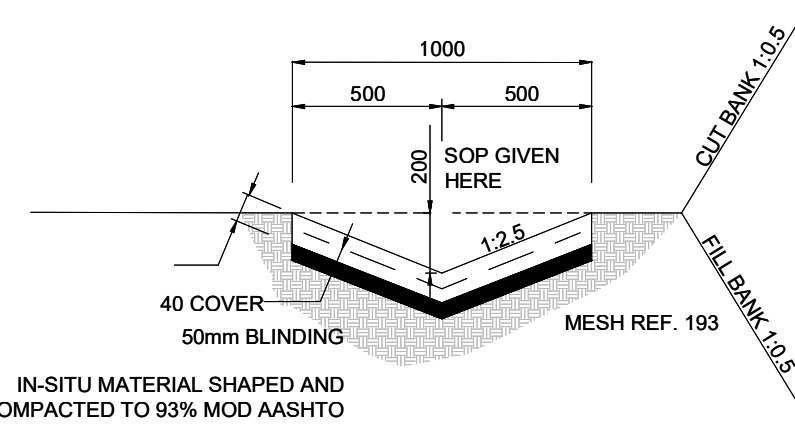
LOCKABLE COVER FOR SEPTIC TANK



NOTES:  
1. ALL PIPEWORK TO BE CLASS 34 UPVC.  
2. INLET TO BE 1600.  
3. ALL OTHER PIPEWORK TO BE 1100.

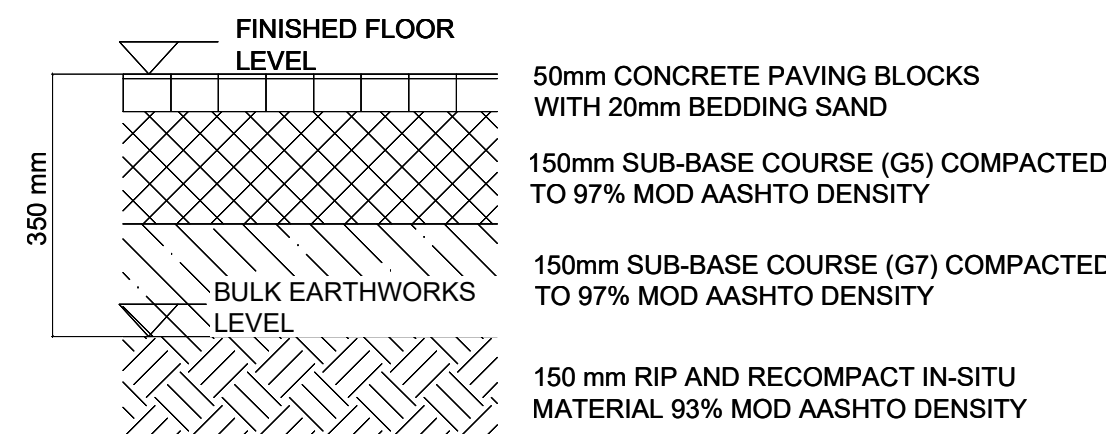


SECTION C-C

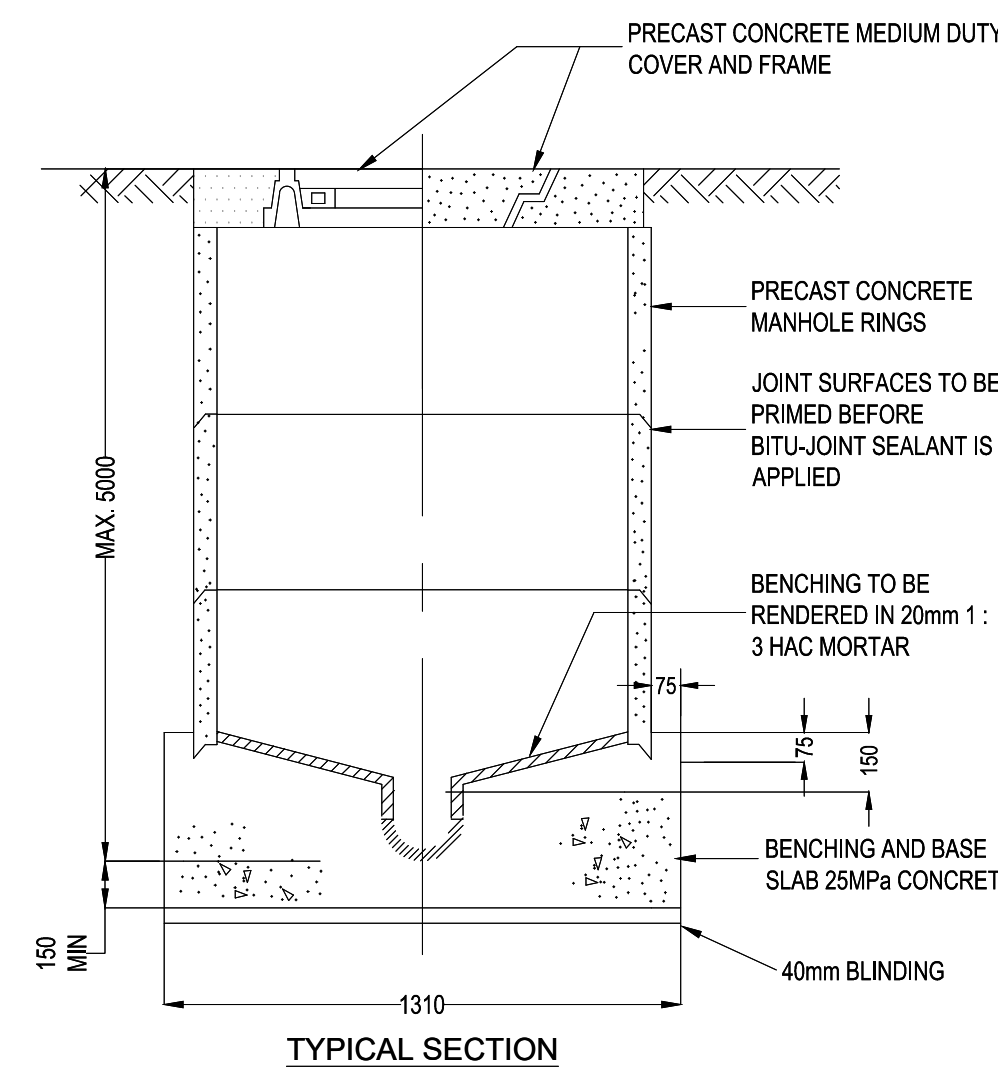


CONCRETE V-DRAIN

NOTE:  
1. CONCRETE CHANNEL TO BE 100mm THICK USING 19/25 MPa CONCRETE. CONCRETE TO BE CAST IN 2.0m ALTERNATE PANELS WITH EXPANSION JOINTS AT 10m INTERVALS (EVERY 5m PANEL).  
2. CONCRETE CHANNEL TO BE REINFORCED WITH MESH REF. 193 MINIMUM COVER = 40mm.

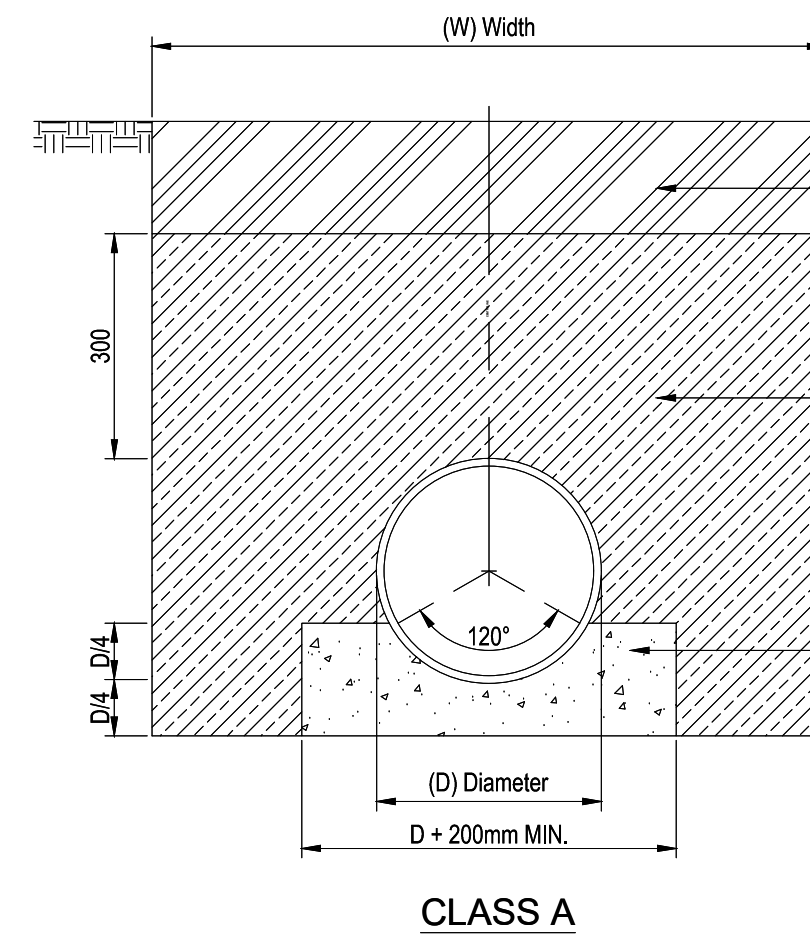


BLOCK PAVING LAYERWORKS DETAIL



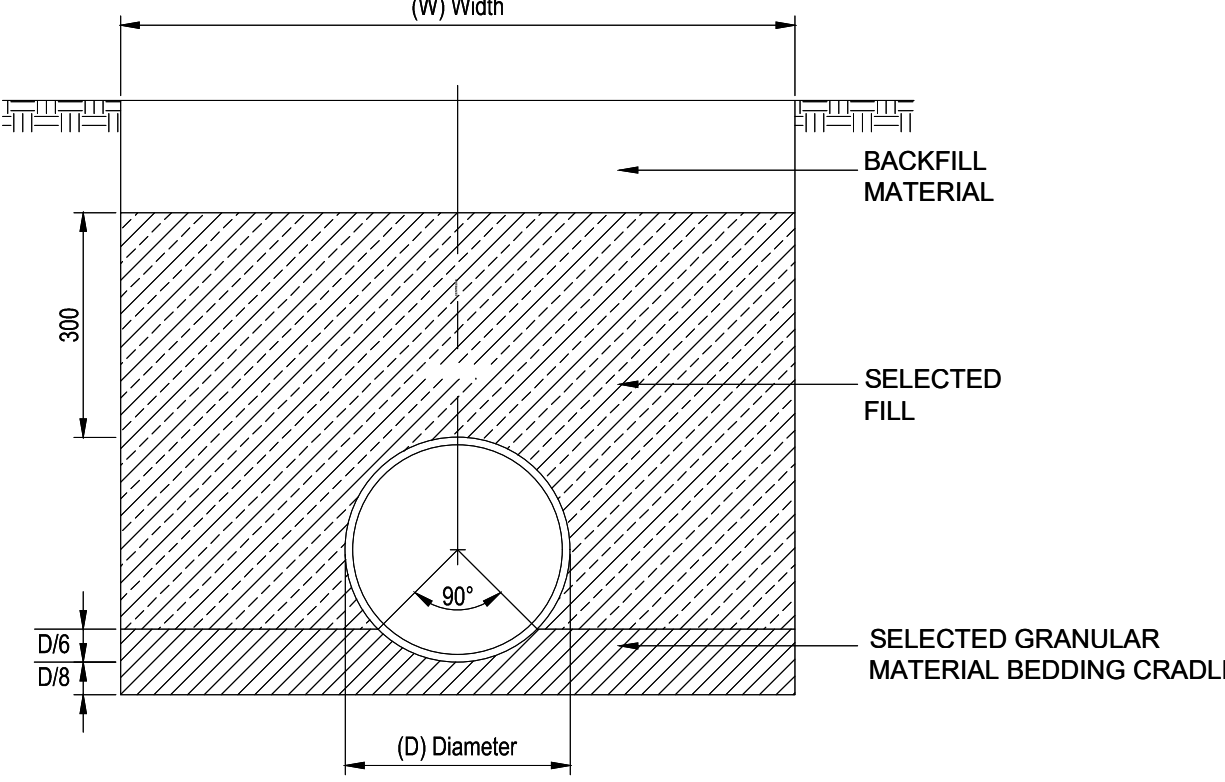
PRECAST CONCRETE SEWER RING MANHOLE DETAIL

D/4 = 300 MAX. WITH  
a) 100 MIN. TRENCH IN SOIL  
b) 50 MIN. FOR TRENCH IN ROCK



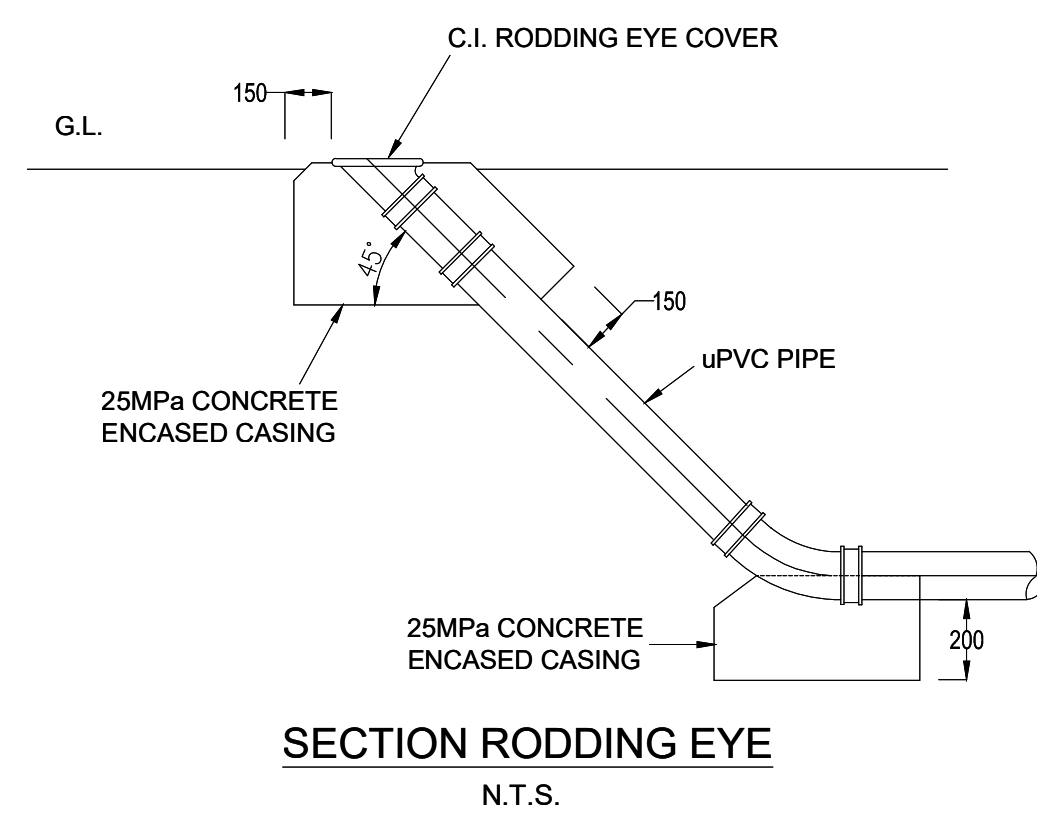
CLASS A

a) IN SOIL  
X = D/8: 75 MIN. 200 MAX.  
b) IN ROCK  
X = D/8: 100 MIN. 200 MAX.



CLASS C

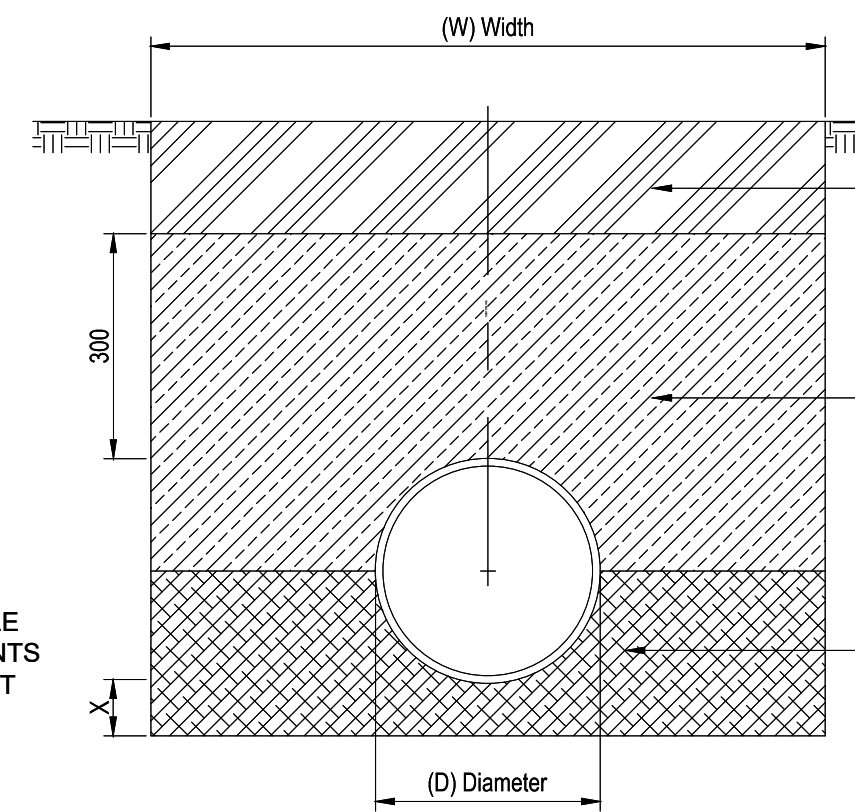
W = TRENCH PAY WIDTH  
D = OUTSIDE DIAMETER OF PIPE



SECTION RODDING EYE

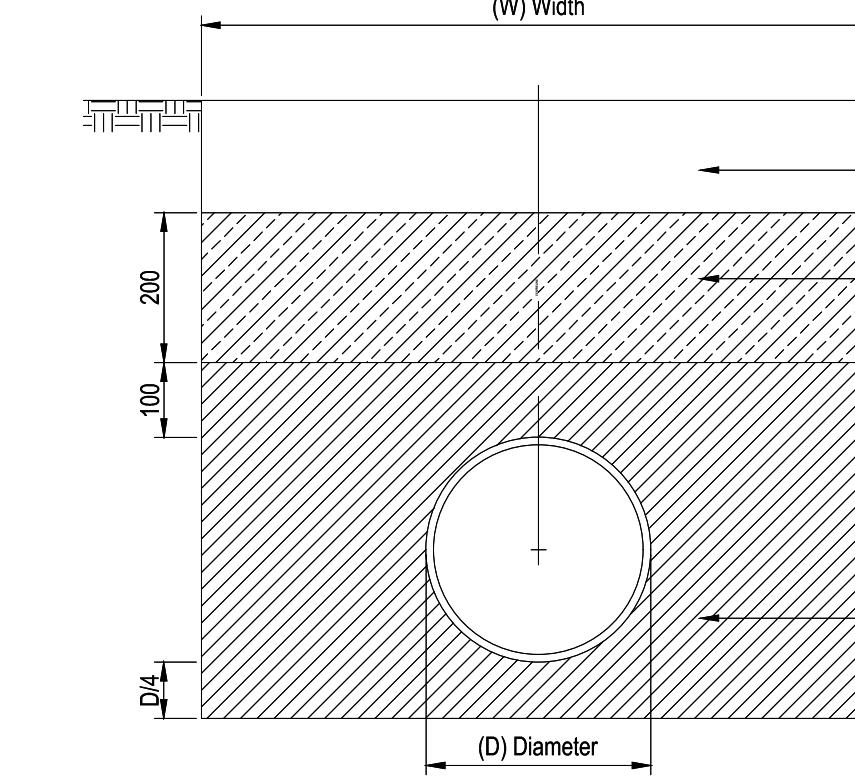
N.T.S.

a) IN SOIL  
X = D/6: 75 MIN. 200 MAX.  
b) IN ROCK  
X = D/4: 150 MIN. 200 MAX.



CLASS B

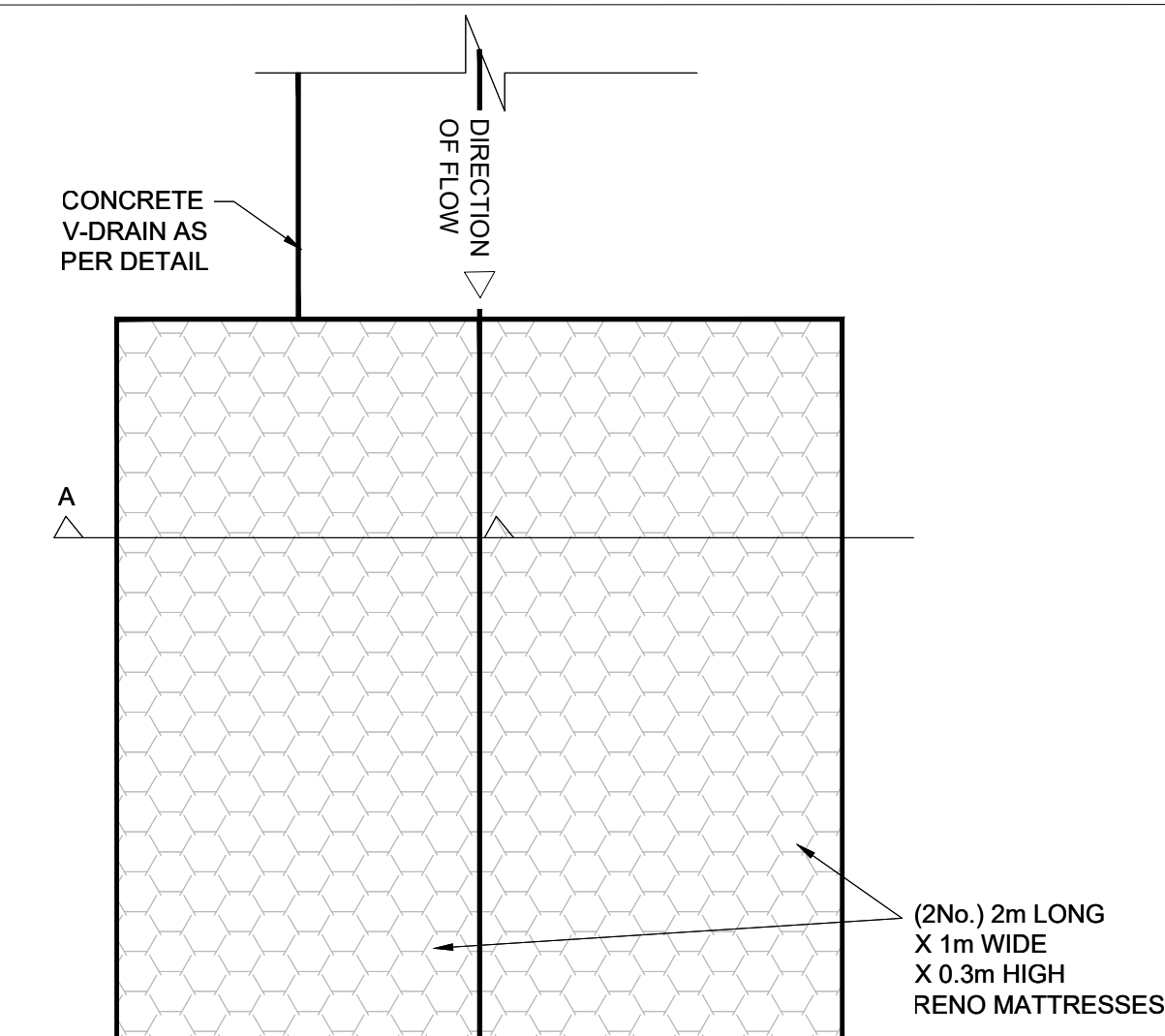
D/4: 100 MIN. 200 MAX.



FLEXIBLE PIPE

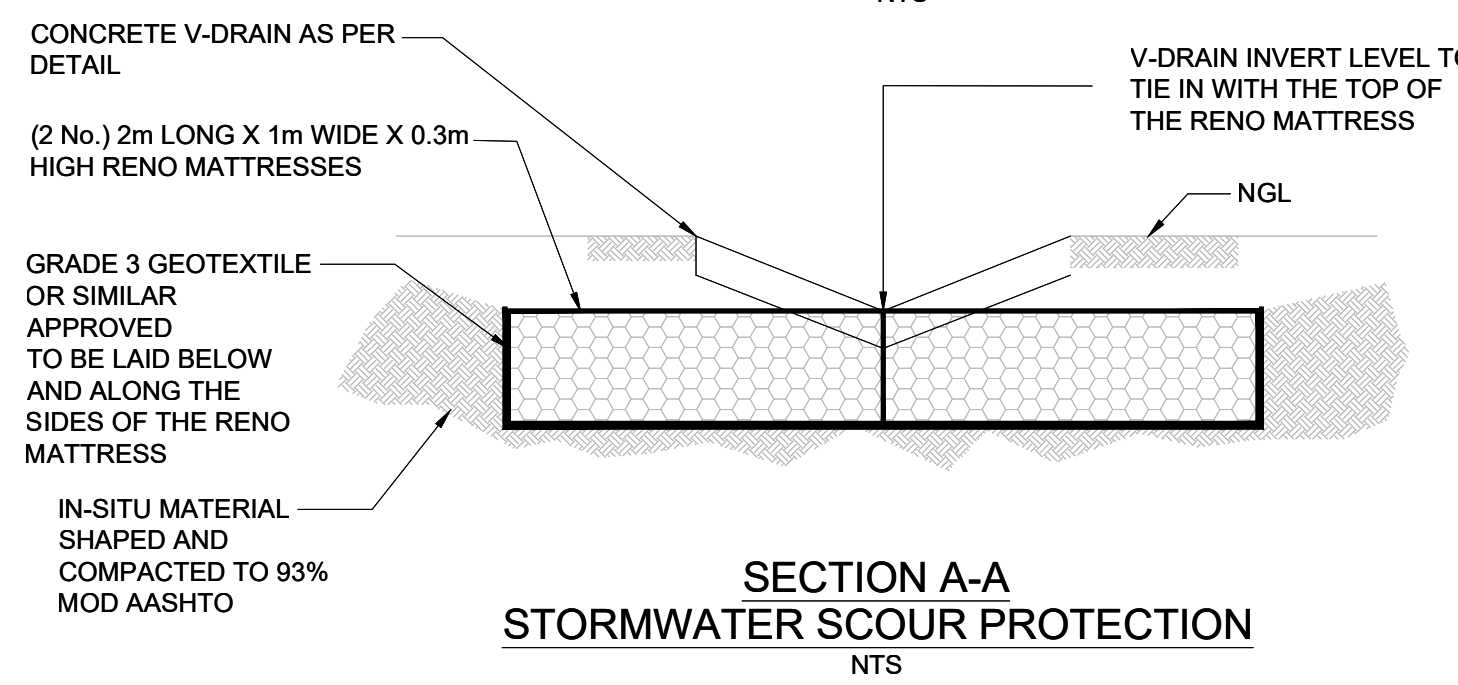
PIPE BEDDING DETAILS

SCALE: 1:10



PLAN OF STORMWATER SCOUR PROTECTION

N.T.S.



SECTION A-A

N.T.S.

## REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
SIST22101-ST-200-C1-A	STANDARD DETAILS

NOTES:  
1. DRAWINGS ARE NOT TO BE SCALED. ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE BROUGHT TO THE ENGINEER / ARCHITECT'S ATTENTION IMMEDIATELY.  
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, SCHEDULES AND SPECIFICATIONS RELATED TO THIS PROJECT.  
3. ALL BUILDING WORK AND MATERIALS ARE TO COMPLY WITH LOCAL AUTHORITY'S REQUIREMENTS AND ARE TO BE IN ACCORDANCE WITH SANS 1580 NATIONAL BUILDING REGULATIONS AND SANS 1200.  
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE WORKS FROM SURFACE WATER RUNOFF THAT MAY CAUSE EROSION DAMAGE, USING CHANNELS, BERMS, PUMPS, WEIRS AND WHEN REQUIRED, DIRECT GROUND WATER AWAY FROM THE WORKS.  
5. ALL CUT AND FILL BANKS ARE 1V: 2H UNLESS OTHERWISE STATED.

## LEGEND

- SEWER MANHOLE
- 160mm DIAMETER SEWER PIPE
- PROPOSED SEPTIC TANK
- PROPOSED SOAKAWAY
- 1m CONCRETE V-DRAIN CHANNEL
- EXISTING BUILDING
- NEW BUILDING
- PROPOSED BLOCK PAVED WALKWAY
- PROPOSED DISABLED RAMP
- NEW FENCE REFER TO ARCHITECTURAL FOR FENCE DETAILS
- EXISTING FENCE
- ELEVATED WATER TANK
- 25mm Dia WATER PIPE
- STAND PIPE
- 50mm Dia WATER PIPE
- BOREHOLE
- FLOW DIRECTION
- RENO-MATRESS
- 1:2 FILL EMBANKMENT
- 1:2 CUT EMBANKMENT

A	14-11-2022	SIST	FOR TENDER
NO.	DATE	INT	DESCRIPTION

## ISSUE / REVISIONS

## DRAWING CHECK

DESIGNED	BY	DRAWN	CHECKED
	M.MKHIZE	M.MKHIZE	T.MUDAU

## PROFESSIONAL APPROVAL

NAME	REG NO.	SIGNATURE	DATE
T. MUDAU	PRNO 201403310		14-11-2022

## CLIENT



## CLIENT APPROVAL

NAME	DIVISION	ROLE	SIGNATURE

PROJECT NAME  
PROPOSED PERMANENT SANITATION FACILITIES FOR MPHEKATHI PRIMARY SCHOOL

EMIS 911360283

SITE ADDRESS

LIMPOPO PROVINCE

## DRAWING TITLE

## STANDARD DETAILS

PROJECT NO.	TYPE	NUMBER	DISCIPLINE	STATUS	REV
SIST221102	ST -	200 -	C -	T -	A

P - PRELIMINARY, T - TENDER, C - CONSTRUCTION, A - AS-BUILT SCALE: AS SHOWN

## DISCIPLINE

## CIVIL INFRASTRUCTURE

## CONSORTIUM

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22 Simso Nwampana/Godde Road  
PO BOX 3333 Durban 3333  
KwaZulu-Natal, South Africa  
+27 (0) 31 555 2864 Tel  
www.sistengineers.co.za



FOR TENDER