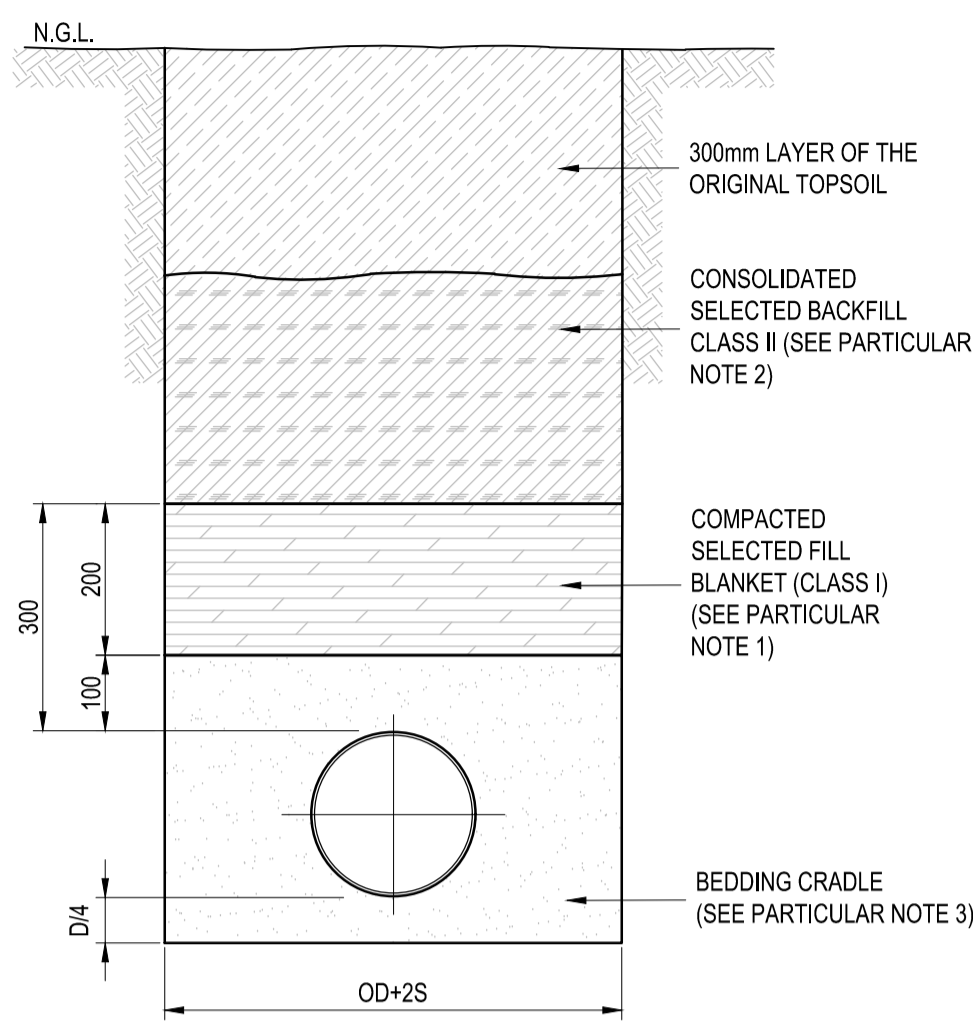
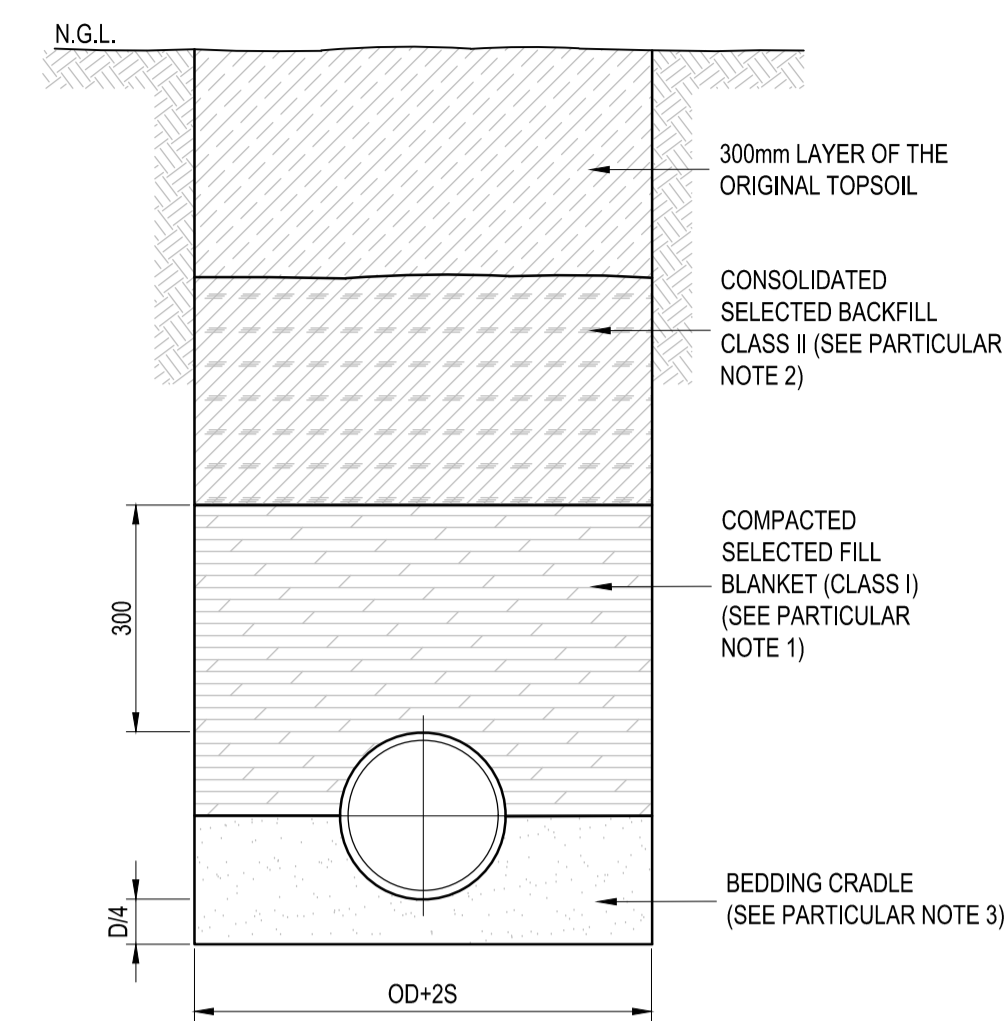


CLASS A BEDDING FOR RIGID PIPES
SCALE 1:10

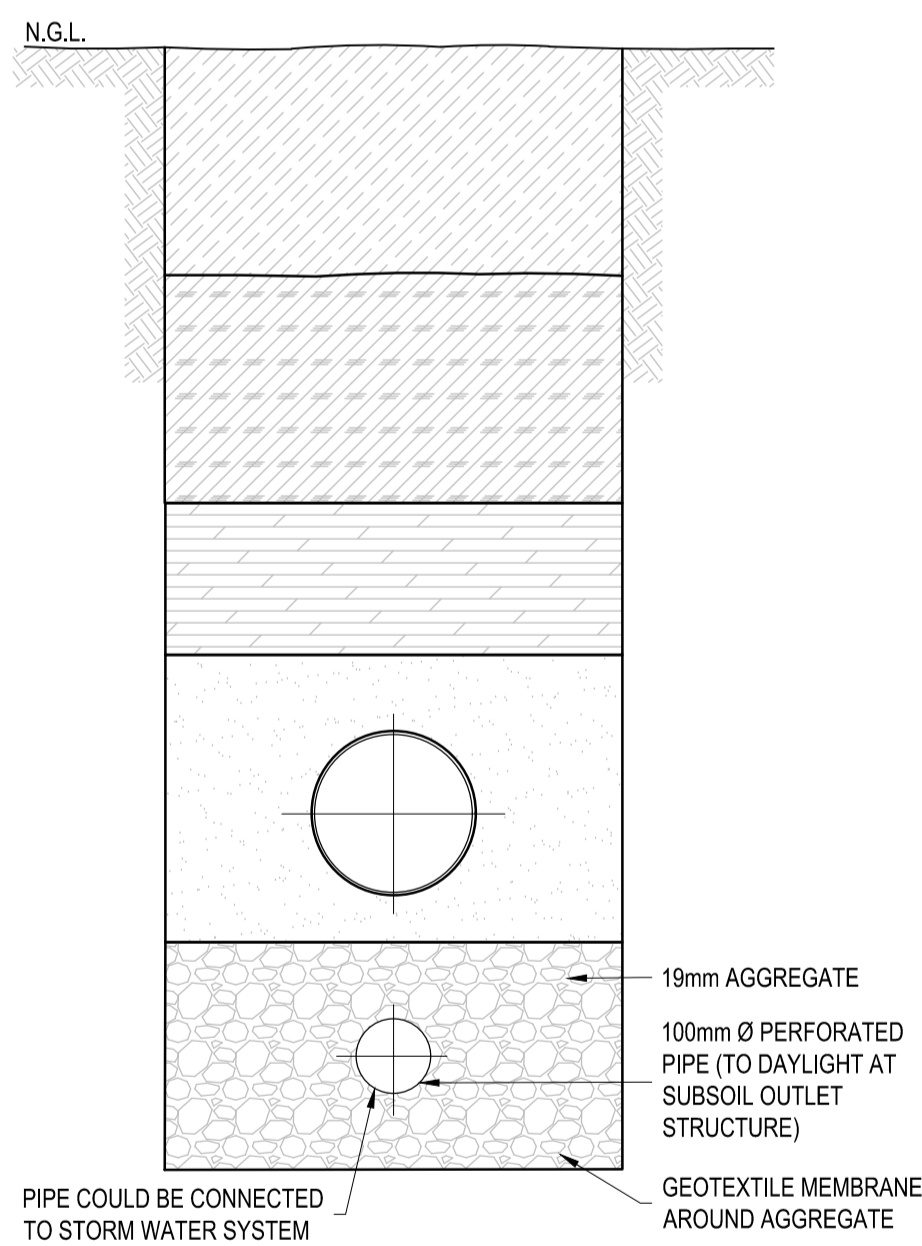
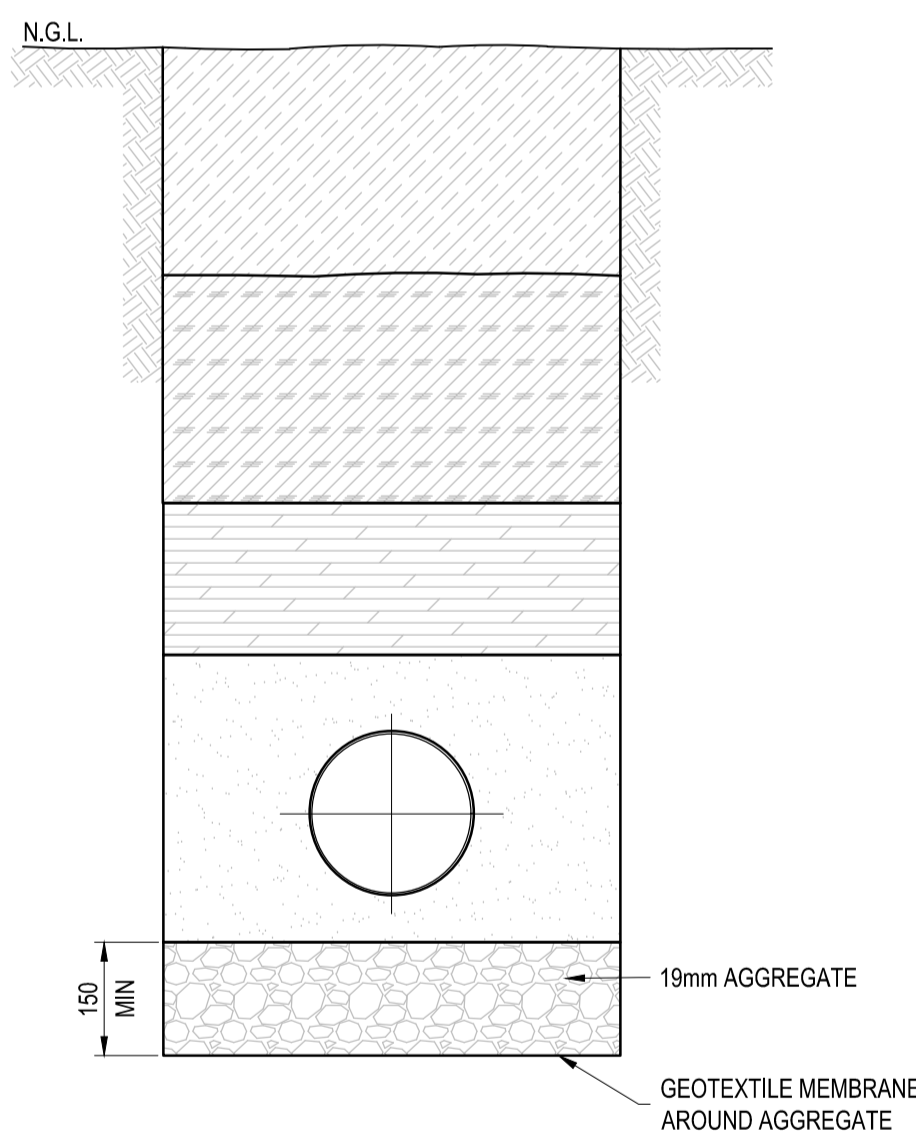


CLASS B BEDDING FOR FLEXIBLE PIPES
SCALE 1:10



CLASS B BEDDING FOR RIGID PIPES
SCALE 1:10

S-VALUES (IN mm)			
PIPE	RIGID	RIGID	FLEXIBLE
BEDDING	CONCRETE	SOIL	SOIL
ND=600mm	200	300	300
ND=800mm	300	450	450



TYPICAL SUBSURFACE DRAINS
SCALE 1:10

GEOTEXTILE MEMBRANE DEPENDANT ON SOIL PERMEABILITY & GRADING - TO BE SPECIFIED BY THE DESIGNER

NOTES AND SPECIFICATIONS

GENERAL

- MINIMUM REQUIREMENTS ARE INDICATED ON THE DRAWING. THE CONSULTANT / DESIGNER IS RESPONSIBLE AND LIABLE FOR FURTHER DETAILS AND TO ENSURE EFFECTIVE OPERATION AND MAINTENANCE OF THE INSTALLATION.
- THE SIGNATURE OR INITIALS ON THIS DRAWING OF COE OFFICIAL DOES NOT REMOVE ANY RESPONSIBILITY WHATSOEVER FROM THE CONSULTANT / DESIGNER.
- THE CONSULTANT / DESIGNER REMAINS RESPONSIBLE TO ENSURE THAT ALL THE GUIDELINES, STANDARD DRAWINGS, STANDARDS AND SPECIFICATIONS OF THE WATER AND SANITATION DEPARTMENT HAVE BEEN MET AND ARE COMPLIED WITH IN THE DESIGN.
- ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS STANDARD.
- FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.
- ALL DIMENSIONS TO BE CHECKED AND APPROVED ON SITE.
- ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED).
- DO NOT SCALE FROM THESE DRAWINGS.
- CLASS OF CONCRETE UNLESS OTHERWISE SPECIFIED ON DRAWING DETAILS:
REINFORCED CLASS 30/19
THRUST BLOCKS CLASS 20/19
BLINDING CLASS 15/19
FLOOR SCREED SAND : CEMENT = 3 : 1
- PRE-CAST CONCRETE RINGS AND COVER SLABS TO COMPLY WITH SANS 1294.
- JOINTS BETWEEN CONCRETE RINGS AND BETWEEN COVER SLABS AND BETWEEN RINGS AND FLOORS TO BE SEALED WITH BITUMEN SEALANT (APPROVED BY THE DESIGNER).
- SEWERS INSTALLED WITHIN ROAD RESERVE BOUNDARIES MUST BE POSITIONED IN ACCORDANCE WITH THE APPLICABLE SERVICES LAYOUT DRAWING.

PARTICULAR:

- SELECTED BACKFILL CLASS I : IMPLIES APPROVED SELECTED MATERIAL FROM TRENCH EXCAVATION, FREE FROM STONES AND WITH AN OPTIMUM MOISTURE CONTENT
- SELECTED BACKFILL CLASS II : IMPLIES SELECTED BACKFILL FROM TRENCH EXCAVATION, WHICH SHALL NOT CONTAIN ANY STONES LARGER THAN 150mm Ø
- CLASS B BEDDING CRADLE SHALL CONSIST OF AN APPROVED SELECTED GRAVEL MATERIAL WITH A PI NOT EXCEEDING 6, FREE FROM STONES EXCEEDING 20mm, ORGANIC MATTER & LUMPS OF CLAY
- CLASS A BEDDING / ENCASING CONCRETE BETWEEN JOINTS SHALL BE POURED IN ONE CONTINUOUS OPERATION USING CLASS 20/19 MPa CONCRETE. MEASURES REQUIRED TO PREVENT FLOATING OF PIPES.
- FLEXIBLE JOINTS MUST BE PROVIDED AT EACH PIPE JOINT IN A CLASS A CONCRETE BEDDING / ENCASING, WITH A 12mm THICK SOFTBOARD PLACED VERTICALLY FOR THE ENTIRE CONCRETE AREA. PIPE JOINTS MUST BE SEALED WITH WET CLAY TO PREVENT SLUSH FROM PENETRATING THE JOINT
- EXPECT FOR THE 300mm BACKFILL ON THE TOP OF THE PIPE. THE BALANCE OF THE TRENCH MAY BE BACKFILLED WHEN THE CLASS A BEDDING / ENCASING HAS OBTAINED THE COMPRESSIVE STRENGTH OF 15MPa



City of Ekurhuleni
WATER AND SANITATION DEPARTMENT

AMENDMENTS			
NR	DATE	APPROVED	DESCRIPTION

WATER AND SANITATION	
APPROVED ON BEHALF OF:	
OPERATIONS DIVISION	
NAME:.....	PROF REG No:.....
SIGNATURE:.....	DATE:.....
PROJECTS DIVISION	
NAME:.....	PROF REG No:.....
SIGNATURE:.....	DATE:.....
PLANNING DIVISION	
NAME:.....	PROF REG No:.....
SIGNATURE:.....	DATE:.....

CONSULTANT DETAILS TO BE PLACED HERE

DESIGNED	
NAME:.....	DATE:.....
SIGNATURE:.....	DATE:.....
DRAWN	
NAME:.....	DATE:.....
SIGNATURE:.....	DATE:.....
APPROVED	
NAME:.....	PROF REG No:.....
SIGNATURE:.....	DATE:.....
CONSULTANT DRAWING NUMBER	

CONTRACT No.	PROJECT TITLE
PROJECT No.	DRAWING TITLE
SHEET No.	STANDARD DRAWING: SEWER RETICULATION PIPE TRENCH AND BEDDING DETAILS
PAPER SIZE	A1
SCALE	COE DRAWING NUMBER

STANDARD GUIDELINE DRAWINGS	
DRAWING TITLE	
STANDARD DRAWING: SEWER RETICULATION PIPE TRENCH AND BEDDING DETAILS	
COE DRAWING NUMBER	STD-SR-003