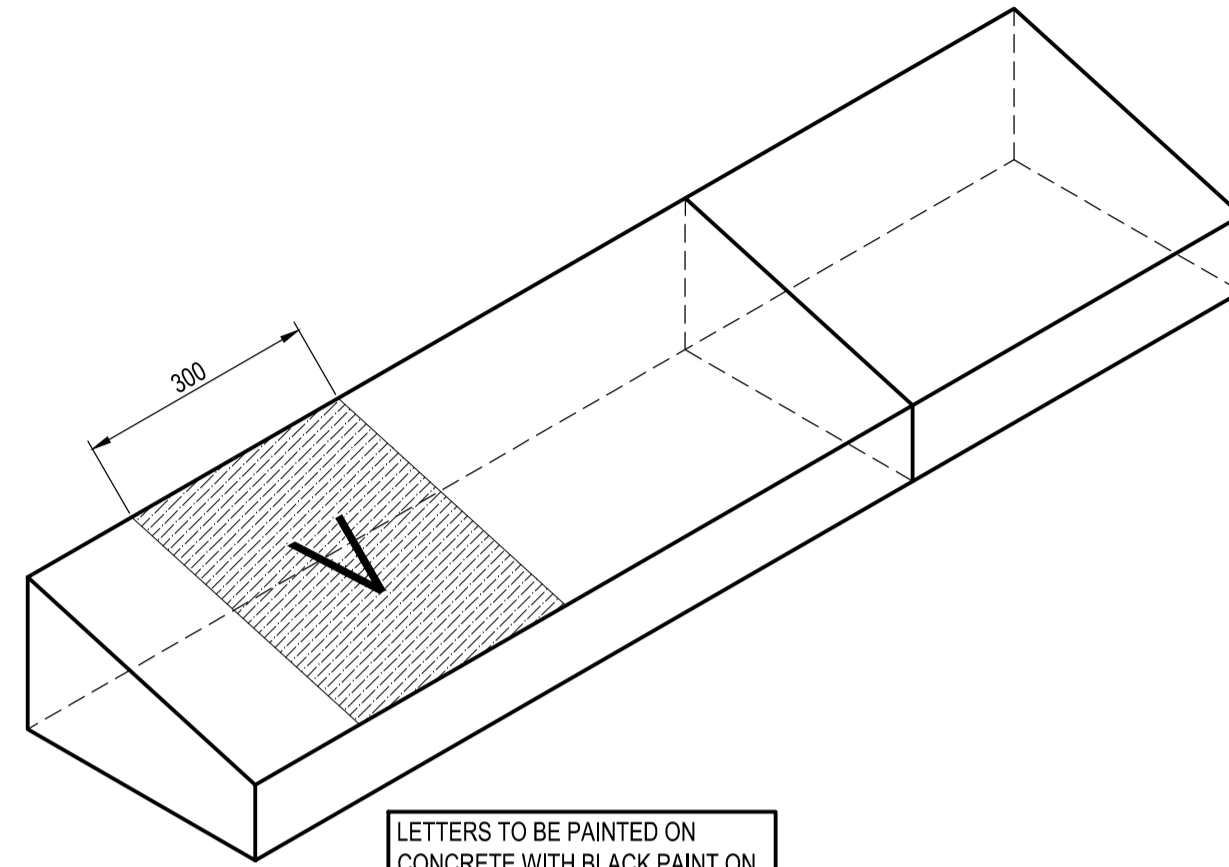
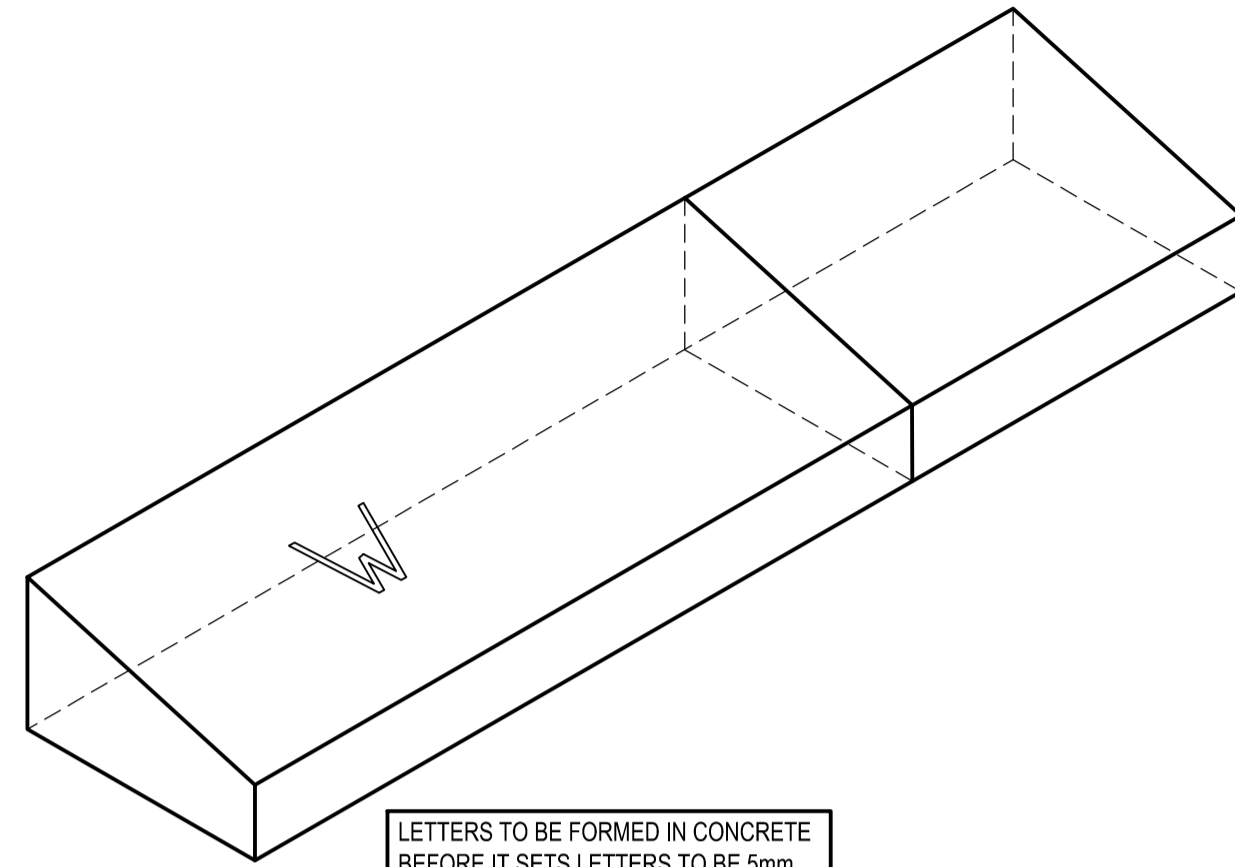
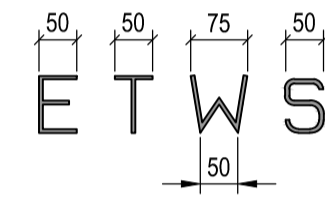


IDENTIFICATION OF PIPE & SLEEVE POSITIONS:
 E = ELECTRICAL
 T = TELKOM
 W = WATER
 S = SEWER

IDENTIFICATION OF VALVES AND FIRE HYDRANTS:
 V = VALVE
 FH = FIRE HYDRANT

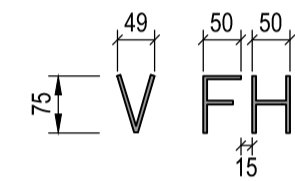


LETTERS TO BE FORMED IN CONCRETE BEFORE IT SETS. LETTERS TO BE 5mm WIDE & DEEP

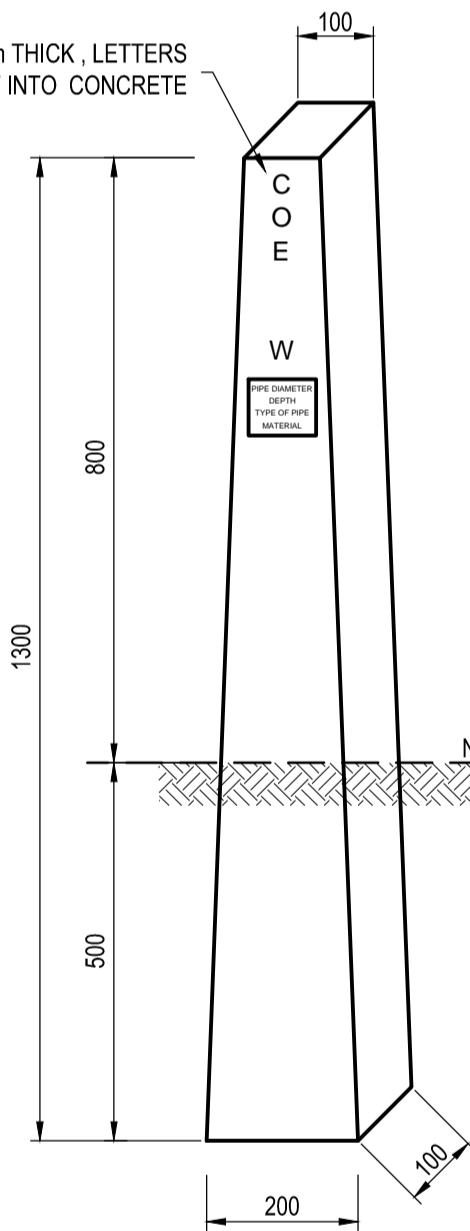


MARKERS ON CONCRETE KERBS
 SCALE 1:10

LETTERS TO BE PAINTED ON CONCRETE WITH BLACK PAINT ON WHITE PAINTED BACKGROUND (ROAD MARKING PAINT)

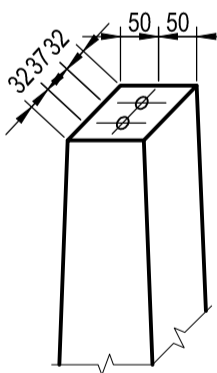


26x26x3mm THICK, LETTERS CAST INTO CONCRETE



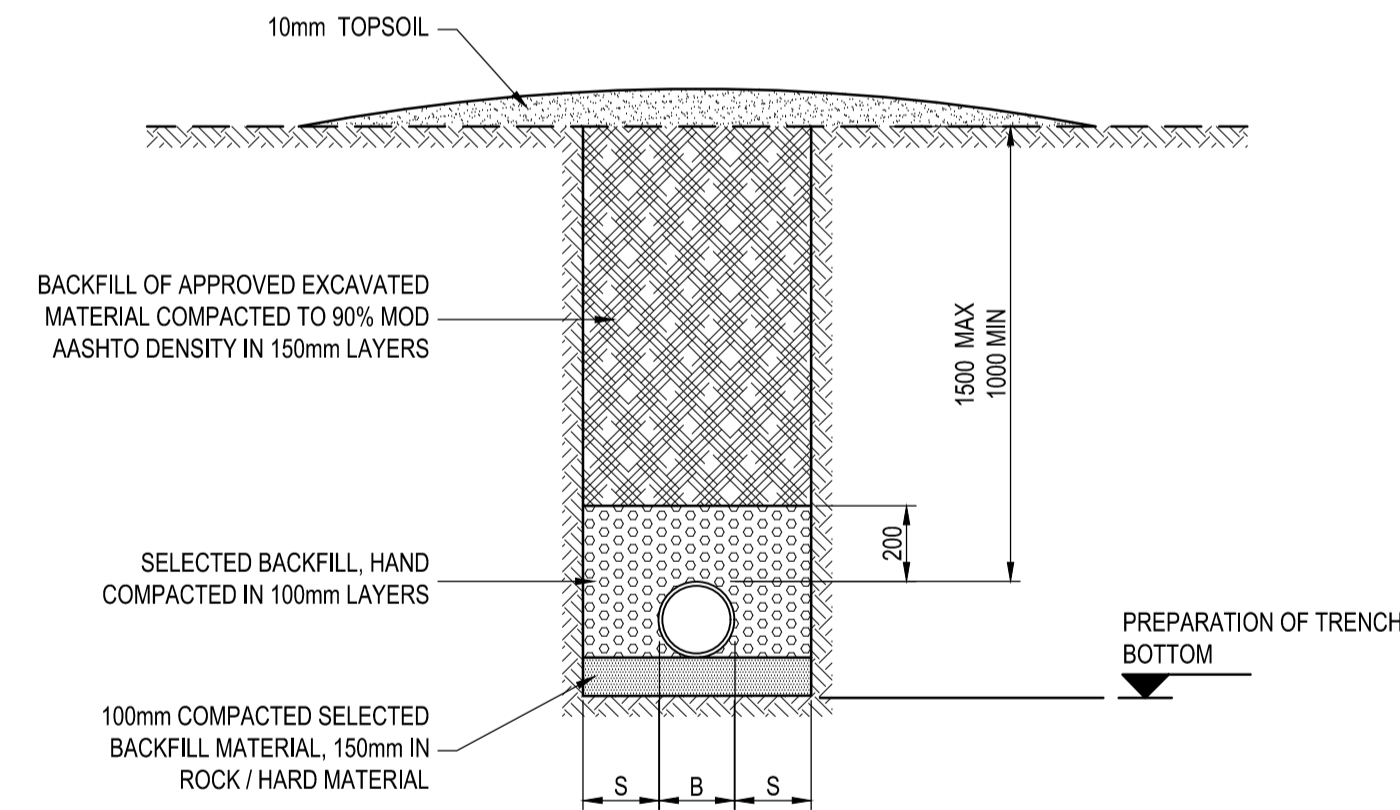
PIPE DIAMETER DEPTH TYPE OF PIPE MATERIAL

ENLARGED DETAIL OF INFORMATION REQUIRED ON ENGRAVED PLATE

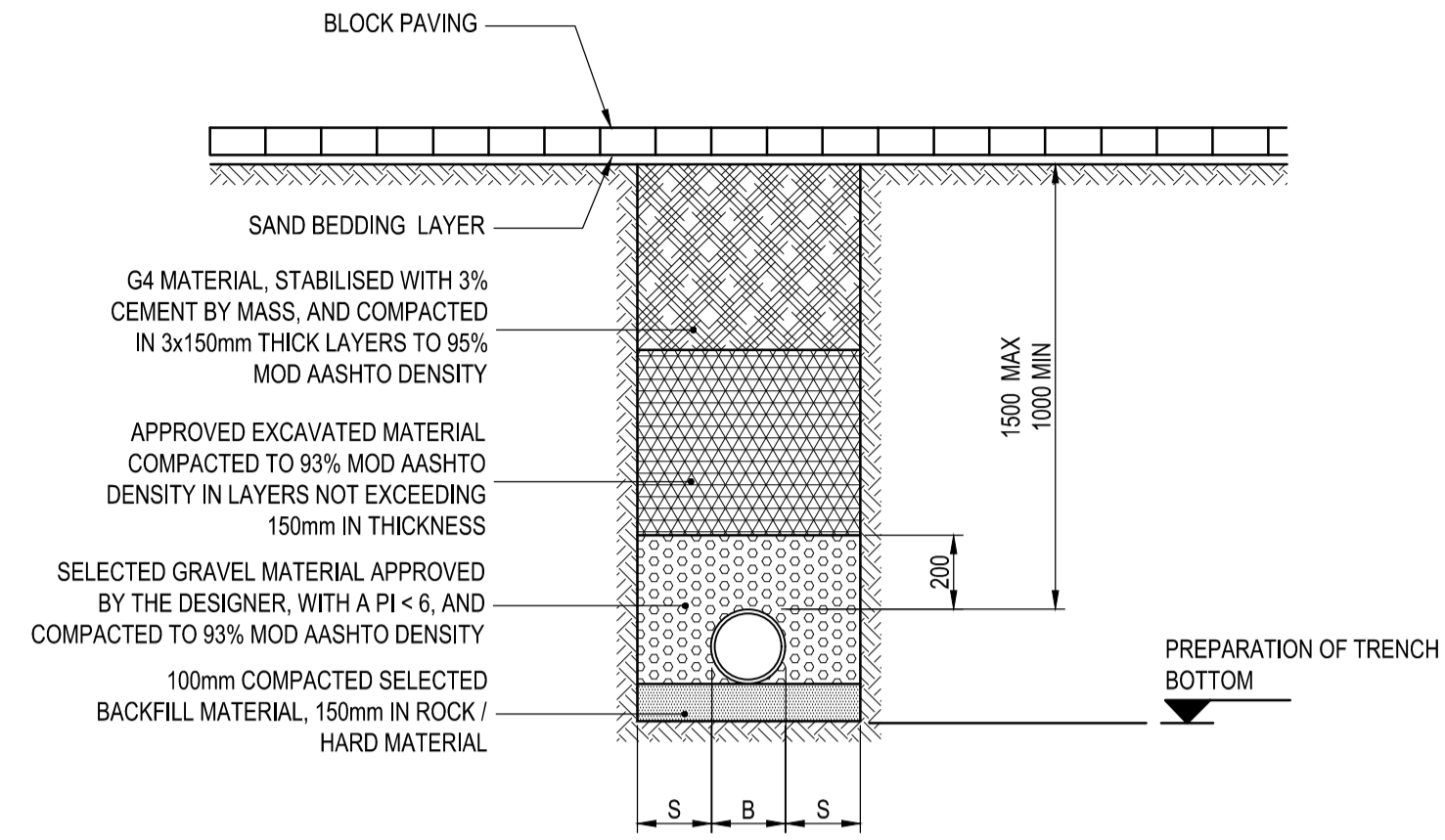


POSITION OF REINFORCING

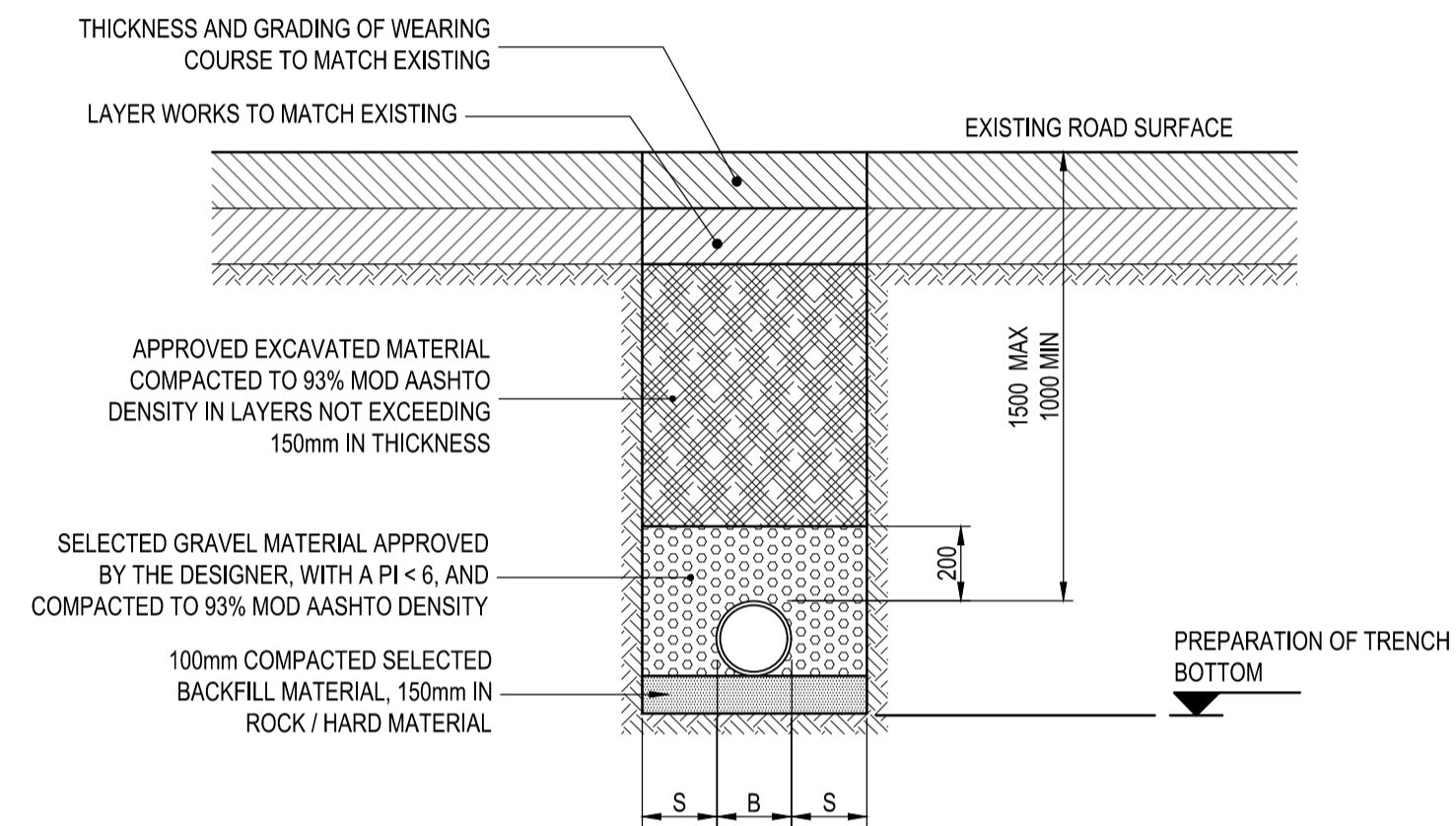
CONCRETE MARKER BLOCK
 SCALE 1:10



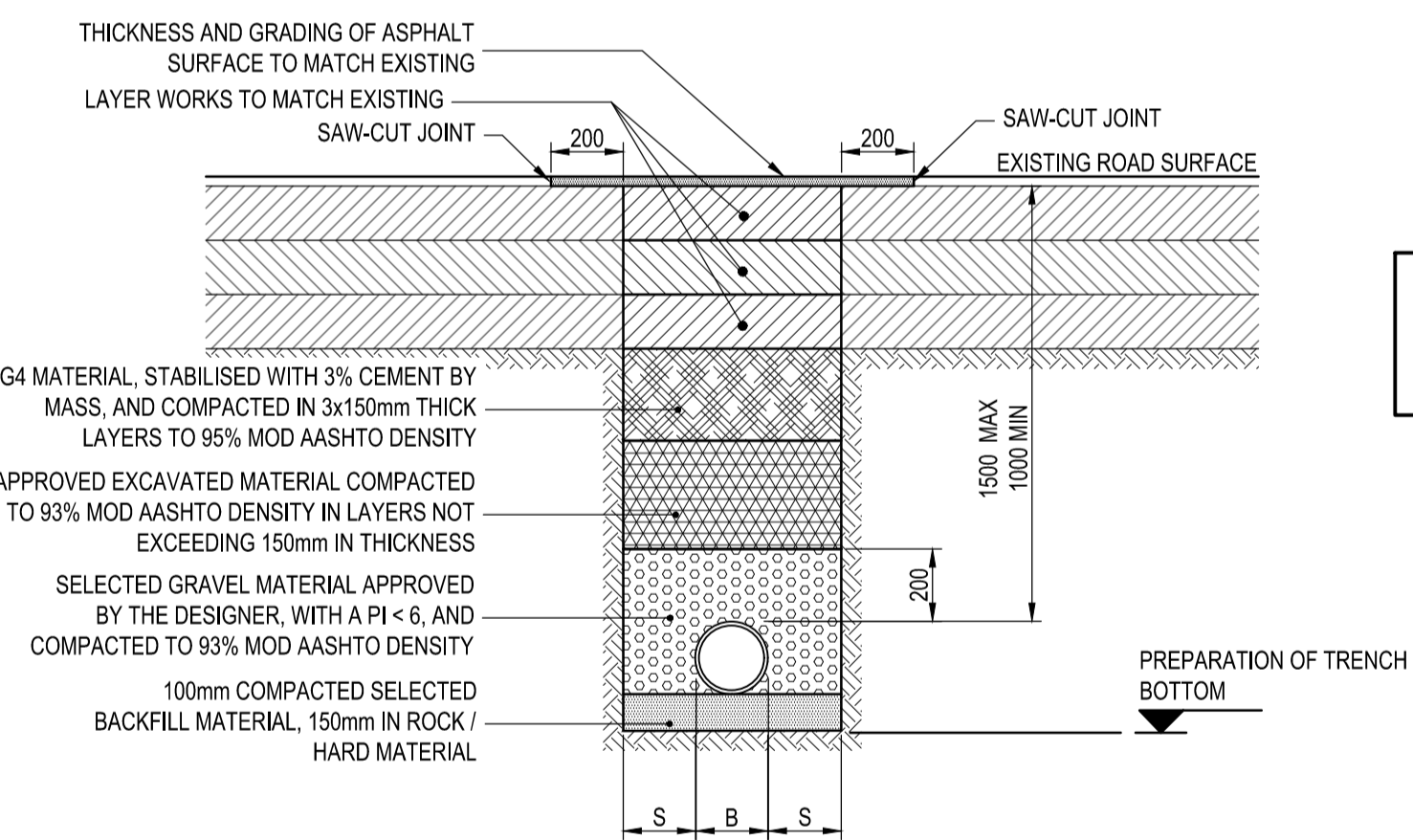
TRENCHING
 D) SIDE WALKS



TRENCHING
 A) PAVED AREAS



TRENCHING
 B) GRAVEL ROADS



TRENCHING
 C) SURFACED ROADS

LEGEND:
 S = WORKING SPACE EACH SIDE OF PIPE, MIN 200mm
 B = OD OF PIPE

TYPICAL BEDDING & BACKFILL DETAILS FOR WATER PIPES
 SCALE 1:20

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).
- ALL JOINTS BETWEEN THE PIPE AND THE CHAMBER WALL AND BETWEEN BRICK WALL AND CONCRETE FLOOR TO BE SEALED TO PREVENT WATER LEAKING INTO THE CHAMBER. METHOD OF SEALING TO BE SUBMITTED TO THE DESIGNER FOR APPROVAL.
- FLANGE DRILLING TO BE IN ACCORDANCE WITH SANS 1123. DESIGNER TO SPECIFY FLANGE TABLE.
- ALL BOLTS, WASHERS AND NUTS TO BE HOT DIPPED GALVANISED IN ACCORDANCE WITH SANS 763.
- ALL STEEL PIPE ITEMS TO BE GRIT BLASTED TO SA 3 OF ISO 8501-1 AND PAINTED WITH EPOXY COMPLYING WITH SANS 1217 WITH A MINIMUM DRY FILM THICKNESS OF 500 MICRON (LINING AND COATING). UNDERGROUND STEEL PIPE ITEMS TO BE WRAPPED WITH PETROLATUM TAPE (APPROVED BY DESIGNER) OVER THE EPOXY COATING.
- CONCRETE SUPPORTS ARE REQUIRED UNDERNEATH VALVES AND PIPE WORK WHERE INDICATED BY THE DESIGNER.
- DESIGNER TO SPECIFY STEP IRONS OR LADDER INSIDE CHAMBER. STEP IRONS TO BE SALBERG AND BUILT-IN.
- THERE MUST BE NO CONTACT BETWEEN STEEL PIPE ITEMS AND CONCRETE OR BRICK REINFORCEMENT.



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:.....

DESIGNED		CONTRACT No.	PROJECT TITLE
NAME:.....	DATE:.....		
DRAWN		PROJECT No.	DRAWING TITLE
NAME:.....	DATE:.....		
APPROVED		SHEET No.	STANDARD DRAWING: WATER RETICULATION MARKERS, TYPICAL BEDDING AND BACKFILL DETAILS
NAME:.....	DATE:.....		
CONSULTANT DRAWING NUMBER		PAPER SIZE	COE DRAWING NUMBER
		A1	
		SCALE	STD-WR-003

CONSULTANT DETAILS TO BE PLACED HERE