

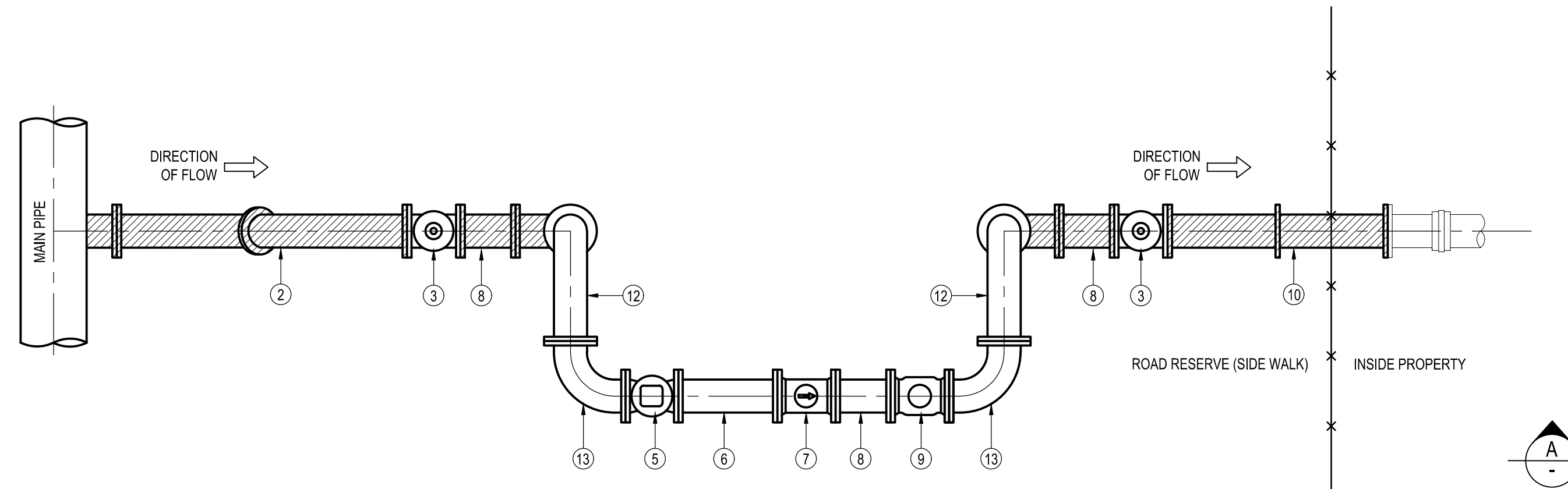
**NOTES AND SPECIFICATIONS**

**GENERAL**

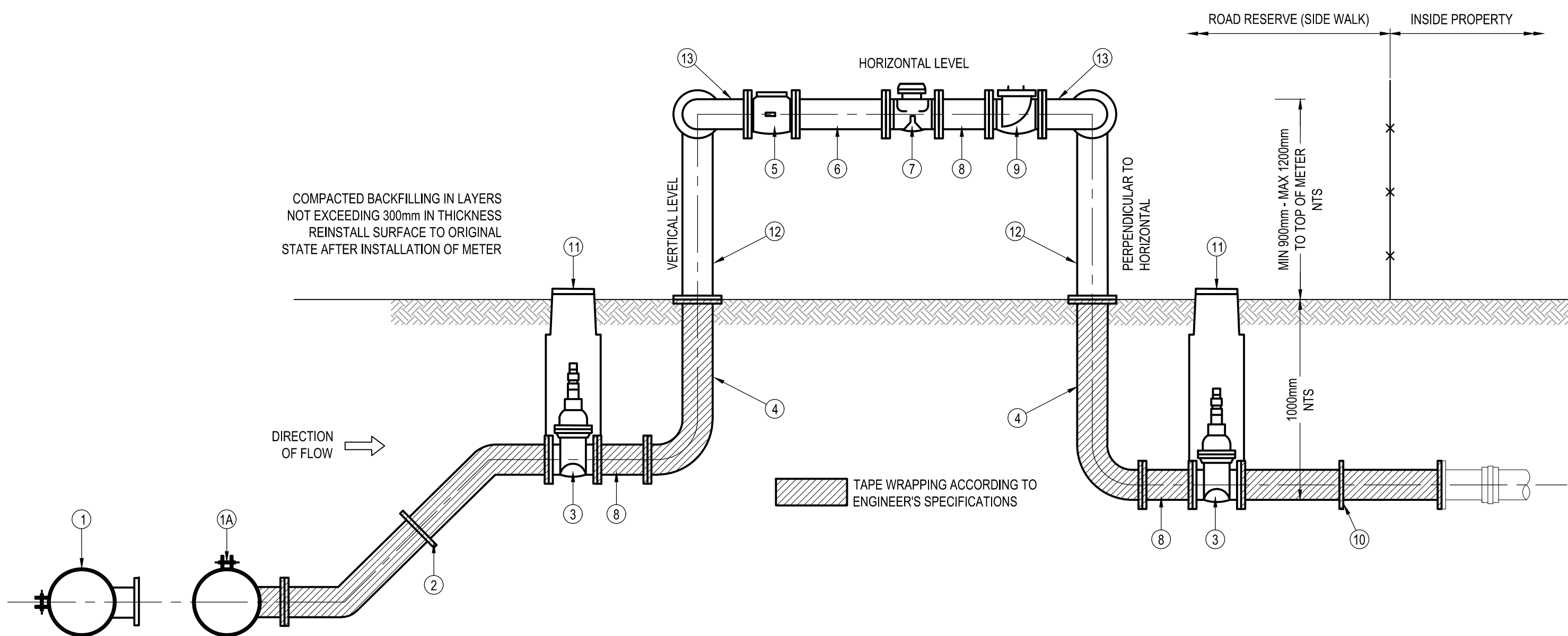
- MINIMUM REQUIREMENTS ARE INDICATED ON THE DRAWING. THE CONSULTANT / DESIGNER IS RESPONSIBLE AND LIABLE FOR FURTHER DETAILS AND TO ENSURE EFFECTIVE OPERATION AND MAINTENANCE OF THE INSTALLATION.
- THE SIGNATURE OR INITIALS ON THIS DRAWING OF COE OFFICIAL DOES NOT REMOVE ANY RESPONSIBILITY WHATSOEVER 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.

**PARTICULAR:**

- ALL FLANGES TO BE TABLE 1600/3.
- ALL DIMENSIONS TO BE CHECKED BEFORE MANUFACTURE / FITTING.
- ALL PIPES AND FITTINGS TO HAVE MINIMUM WORKING PRESSURE OF 16 BAR.
- ITEM 9 NOT NEEDED FOR COMPOUND AND COMBINATION METERS TO BE APPROVED BY CoE.
- METER INSTALLATIONS BIGGER THAN 200mm INSTALLATION ON MERIT.
- ALL BURIED MILD STEEL PIPES, FLANGES AND COUPLINGS MUST BE PROTECTED USING APPROPRIATE TAPE WRAPPING.
- ALL PIPES TO BE FUSION BONDED EPOXY POWDER COATED (BLUE) TO SANS 1217:1986 TYPE 2 DRY FILM THICKNESS (DFT) : 300 TO 500 MICRON WITH POLYURETHANE COATING TO SANS 1578 ON G.I. TO DRY FILM THICKNESS OF 50 TO 100 MICRON.



**PLAN**  
SCALE 1:20



**SECTION**  
SCALE 1:20

**TYPICAL DETAIL FOR METER INSTALLATIONS FOR EKURHULENI METROPOLITAN MUNICIPALITY**

PIPE SCHEDULE AND FITTINGS - 50mm - 150mm DIA. WATER METER INSTALLATION

ITEM	DIA	No. OFF	DESCRIPTION
1A	50 - 150	1	EPOXY COATED SADDLE TYPE WITH SEALS AND SIX BOLTS FOR EXISTING STEEL AND ASBESTOS PIPES UP TO 150mm
1	50 - 150	1	STAINLESS STEEL SADDLE TYPE WITH RUBBER SEALS AND BOLTS FOR EXISTING PVC PIPES UP TO 150mm
2	50 - 150	1	FLANGED STEEL PIPE AT 45 DEG. 1000mm LONG WITH CENTRAL PUDDLE FLANGE (THRUST BLOCK AFTER INSPECTION)
3	50 - 150	2	RESILIENT SEAL NON RISING SPINDLE GATE VALVE, FLANGED BOTH ENDS.
4	50 - 150	2	1000mm LONG FLANGED STEEL PIPE, WITH LONG 90 DEG BEND
5	50 - 150	1	IN LINE STRAINER, FLANGED BOTH ENDS, FACING SIDEWAY
6	50 - 150	1	3 x Dia. LONG STEEL FLANGED DISTANCE PIECE, 50mm: 5 x DIA STEEL FLANGED DISTANCE PIECE MIN 250mm
7	50 - 150	1	SENSUS MEISTREAM (SINGLE ELEMENT) WATER METER, FLANGED BOTH ENDS FOR 50mm, 80mm AND 100mm
8	50 - 150	3	250mm STEEL FLANGED DISTANCE PIECE
9	50 - 150	1	SWING CHECK VALVE, FLANGED BOTH ENDS
10	50 - 150	1	FLANGED STEEL PIPE 1000mm LONG WITH CENTRAL PUDDLE FLANGE (THRUST BLOCK AFTER INSPECTION)
11	50 - 150	2	EKURHULENI VALVE BOXES WITH BLUE LID, WITH 160mm uPVC PIPE OVER VALVE
12	50 - 150	2	±1000mm x 500mm LONG FLANGED STEEL 90 DEG LONG RADIUS BEND (POWDER COATED)
13	50 - 150	2	90 DEG LONG RADIUS BEND



**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:.....  
SIGNATURE:..... DATE:.....

**DRAWN**

NAME:.....  
SIGNATURE:..... DATE:.....

**APPROVED**

NAME:..... PROF REG No:.....  
SIGNATURE:..... DATE:.....

CONSULTANT DRAWING NUMBER



**CONTRACT No.**

**PROJECT No.**

**SHEET No.**

**PAPER SIZE**

A1

**SCALE**

**PROJECT TITLE**

**STANDARD GUIDELINE DRAWINGS**

**DRAWING TITLE**

**STANDARD DRAWING: WATER RETICULATION WATER METER INSTALLATION FOR COMMERCIAL AND GROUP HOUSING DEVELOPMENTS (OPTION 1)**

**COE DRAWING NUMBER**

STD-WR-007

