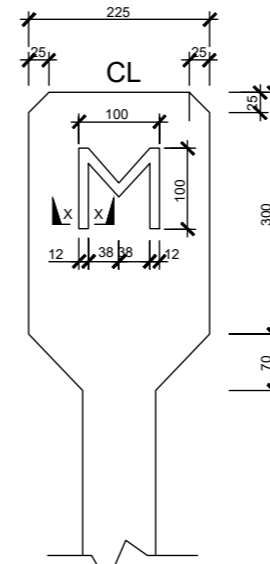
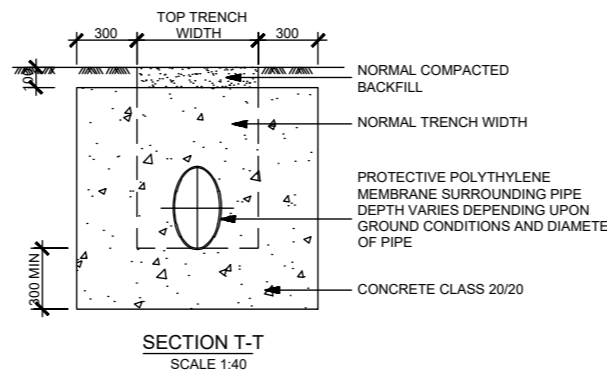


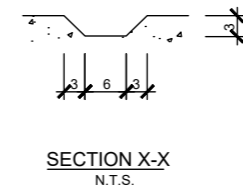
ANCHOR BLOCK FOR STEEP GRADIENTS (SLOPES > 1:6)

RANGE OF GROUND SLOPE (1:n)	MAXIMUM DISTANCE BETWEEN ANCHOR BLOCKS (m)
1:6 - 1:5	24
1:5 - 1:4	18
1:4 - 1:2	12
>1:2	EVERY PIPE LENGTH TO BE ANCHORED (BASED ON PIPE LENGTH OF 6m)

- NOTES**
- SAME ARRANGEMENT CAN BE USED AS SUPPORTS FOR PIPES LAID IN VERY SOFT GROUND BUT BLOCKS TO BE CAST ON SOUND ROCK OR HARD STRATUM
 - SOCKETTED JOINT TO BE LAID WITH SOCKET FACING UPSTREAM OF GRADE
 - ANCHOR BLOCK TO BE CONSTRUCTED ON LOWER SIDE OF JOINT



BULK METER POST
SCALE 1:10



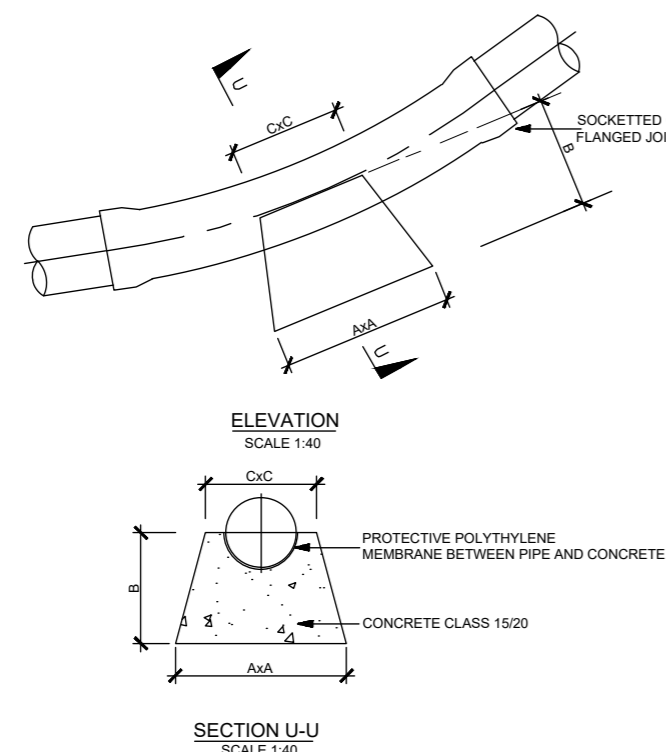
NOTE:- ALL DETAILS TO BE SAME AS GATE VALVE BUT THE SIGN TO BE CHANGED AS INDICATED

NOTES

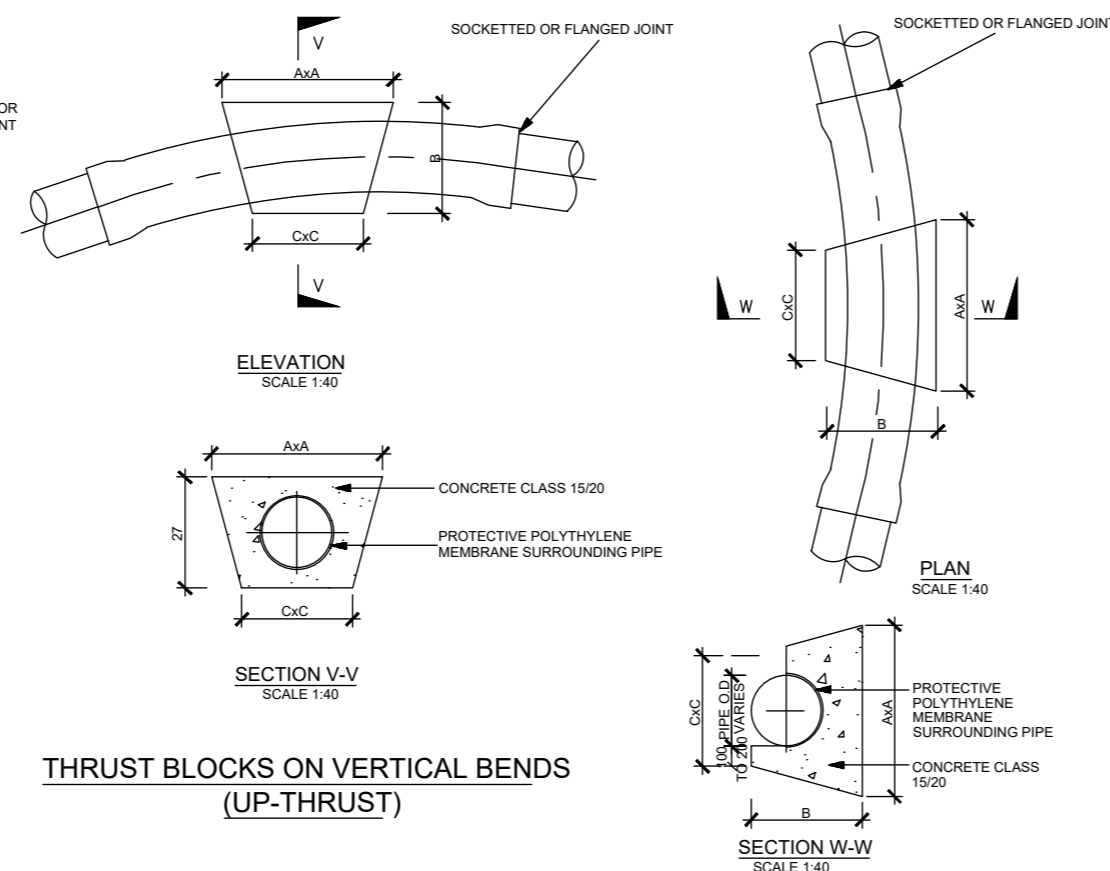
- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED
 - ANCHOR BLOCKS TO BE INSTALLED FOR PIPES LAID AT SLOPES EXCEEDING 1:6 SLOPE
 - THRUST BLOCKS TO BE INSTALLED AT ALL HORIZONTAL AND VERTICAL BENDS, CAPPED ENDS, TEES, TAPERS AND GATE VALVES
 - DETAILS FOR ALL INDICATOR POSTS TO BE AS FOR GATE VALVE BUT LETTERING TO BE AS FOLLOWS:
- | FOR | USE |
|-----------------|-----|
| GATE VALVE | GV |
| AIR VALVE | AV |
| WASHOUT | WO |
| WATER MAIN | WM |
| BULK METER | M |
| 'Y'- JUNCTION Y | |
- ALL INDICATOR POSTS TO BE PAINTED WITH 2 COATS BLUE OIL BASED PAINT AND WHITE LETTERING TO ENGINEER'S APPROVAL

ABBREVIATIONS

- mm - MILLIMETRES
- OD - OUTSIDE DIAMETER
- ND - NOMINAL DIAMETER
- Dia - DIAMETER
- c/c - CENTRE TO CENTRE
- No. - NUMBER
- m - METRE
- CL - CENTRE LINE
- GV - GATE VALVE
- AV - AIR VALVE
- WO - WASH OUT
- WM - WATER MAIN
- M - BULK METER
- m3 - CUBIC METER



THRUST BLOCKS ON VERTICAL BENDS (DOWN-THRUST)

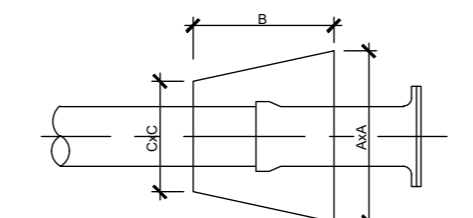


THRUST BLOCKS ON VERTICAL BENDS (UP-THRUST)

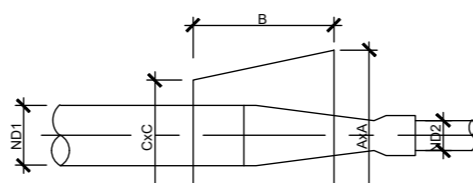
(ND) NOMINAL DIAMETER (mm)	THRUST BLOCK DIMENSIONS A X B X C (m)						
	11° BENDS	22° BENDS	30° BENDS	45° BENDS	CAPPED ENDS AND 90° TEE	90° BENDS	REDUCERS ND=ND1-ND2
80	0.2x0.2x0.2	0.25x0.2x0.2	0.25x0.2x0.2	0.3x0.2x0.2	0.35x0.2x0.2	0.4x0.2x0.2	0.35x0.2x0.2
100	0.2x0.2x0.2	0.3x0.2x0.2	0.35x0.2x0.2	0.4x0.2x0.2	0.45x0.25x0.25	0.55x0.3x0.3	0.45x0.25x0.25
150	0.3x0.25x0.25	0.4x0.25x0.25	0.5x0.3x0.3	0.55x0.3x0.3	0.65x0.35x0.35	0.8x0.4x0.35	0.65x0.35x0.35
200	0.4x0.3x0.3	0.55x0.35x0.35	0.6x0.4x0.4	0.75x0.4x0.4	0.85x0.45x0.4	1.0x0.5x0.4	0.85x0.45x0.4
250	0.5x0.35x0.35	0.65x0.4x0.4	0.75x0.45x0.45	0.9x0.45x0.45	1.1x0.55x0.45	1.2x0.6x0.45	1.1x0.55x0.45
300	0.55x0.45x0.45	0.8x0.5x0.5	0.9x0.5x0.5	1.1x0.6x0.5	1.25x0.65x0.5	1.5x0.75x0.5	1.25x0.65x0.5
350	0.6x0.5x0.5	0.85x0.55x0.55	1.0x0.55x0.55	1.2x0.6x0.55	1.4x0.7x0.55	1.6x0.8x0.55	1.4x0.7x0.55
400	0.7x0.6x0.6	0.95x0.6x0.6	1.1x0.6x0.6	1.3x0.65x0.6	1.6x0.8x0.6	1.8x0.9x0.6	1.6x0.8x0.6
450	0.8x0.65x0.65	1.1x0.65x0.65	1.3x0.65x0.65	1.5x0.75x0.65	1.8x0.9x0.65	2.0x1.0x0.65	1.8x0.9x0.65
500	0.9x0.7x0.7	1.2x0.7x0.7	1.4x0.7x0.7	1.7x0.85x0.7	2.0x1.0x0.7	2.3x1.2x0.7	2.0x1.0x0.7
600	1.1x0.8x0.8	1.5x0.8x0.8	1.7x0.9x0.8	2.0x1.0x0.8	2.3x1.2x0.8	2.7x1.4x0.8	2.3x1.2x0.8

NOTE:- THE ABOVE VALUES APPLY FOR SOCKETTED UPVC AND FLANGED OR COUPLED LINED STEEL PIPES SUBJECT TO A WORKING PRESSURE HEAD OF 12 BAR

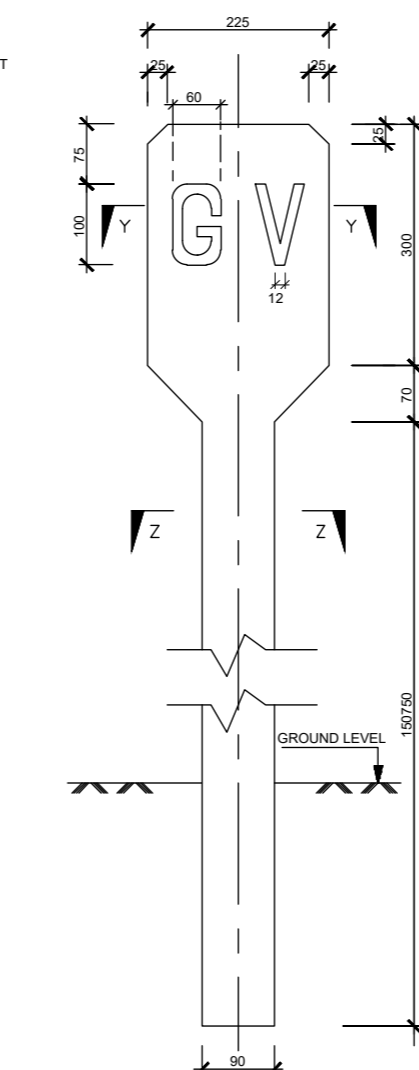
THRUST BLOCK ON HORIZONTAL BENDS AND TEES



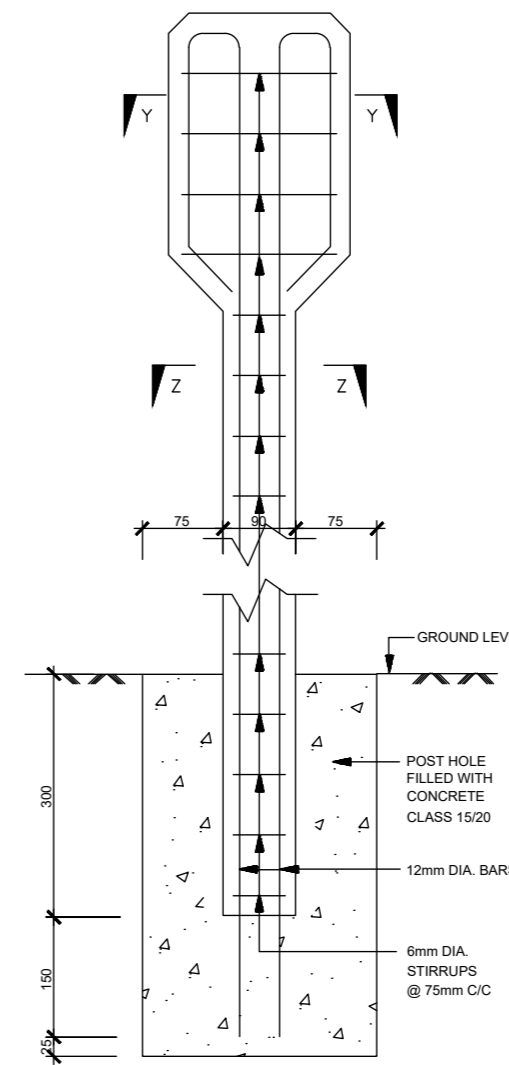
THRUST BLOCK AT CAPPED ENDS



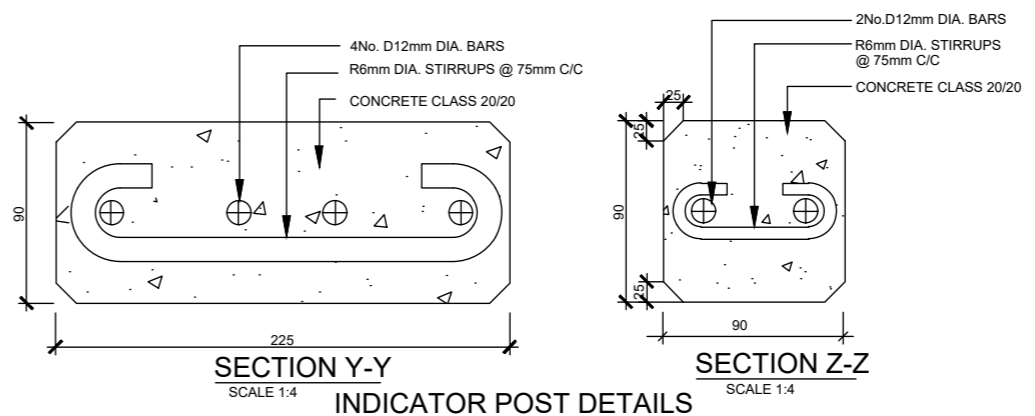
THRUST BLOCK AT REDUCER



GATE VALVE INDICATOR POST
SCALE 1:10



INDICATOR POST REINFORCEMENT DETAILS
SCALE 1:10



SECTION Y-Y INDICATOR POST DETAILS
SCALE 1:4

SECTION Z-Z INDICATOR POST DETAILS
SCALE 1:4

REVISIONS

REV.No.	DATE	DESCRIPTION

DESIGN DRAWING

DRAWN BY PLC	DATE AUGUST 2024
APPROVED BY NRWM/PDCE	SCALE(S) AS SHOWN
SHEET 1/2	DRAWING NO. WFL/SD/003



KISUMU WATER & SANITATION
P.O BOX 3210-40100
KISUMU, KENYA

PROJECT TITLE

NYAMASARIA AQUA UPLIFT
LIFTING COMMUNITIES OUT OF WATER & SANITATION STAGNATION

DRAWING TITLE

ANCHOR BLOCK AND MARKER POST DETAILS

PARTNERS

