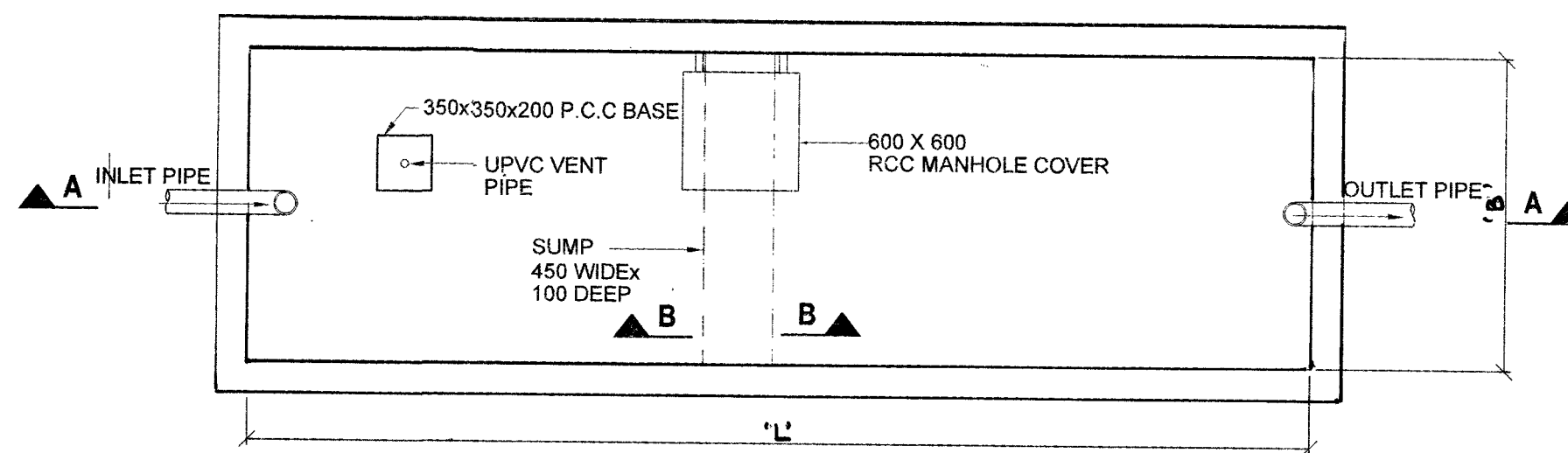
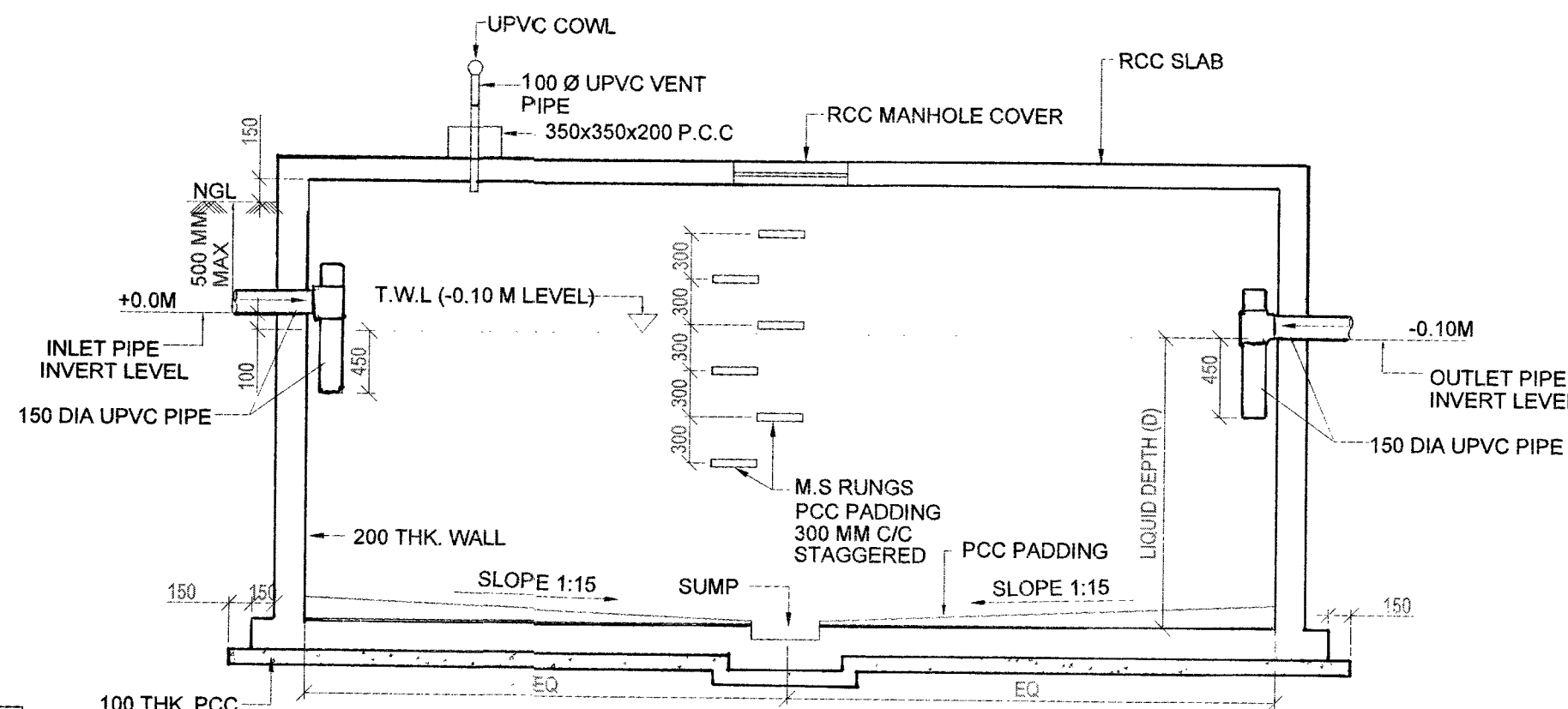


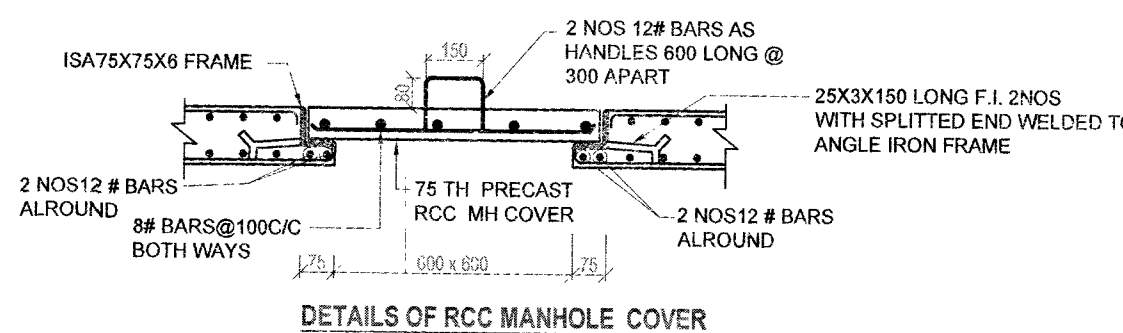
SCHEMATIC LAYOUT OF SEPTIC TANK SEWERAGE SYSTEM



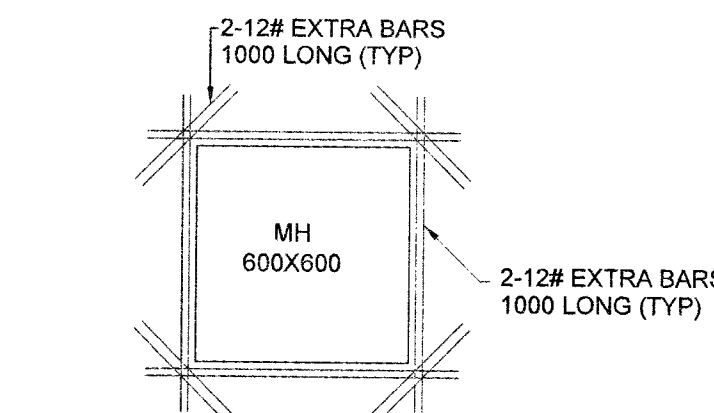
PLAN OF SEPTIC TANK



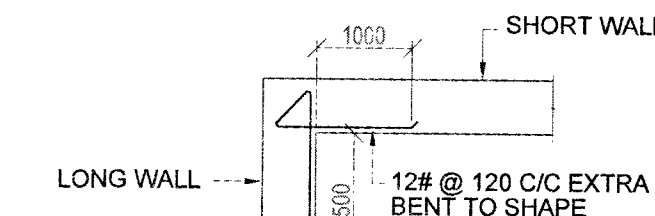
SECTION A-A OF SEPTIC TANK



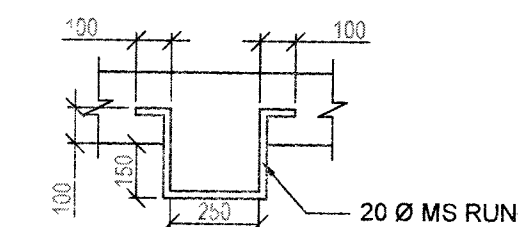
DETAILS OF RCC MANHOLE COVER



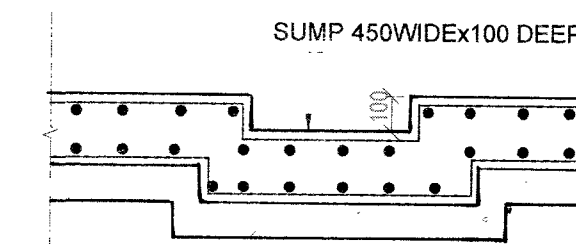
DETAIL OF EXTRA REINFORCEMENT AROUND MANHOLE COVER OPENING



TYPICAL DETAIL AT JUNCTION OF RCC WALL (PLAN VIEW)



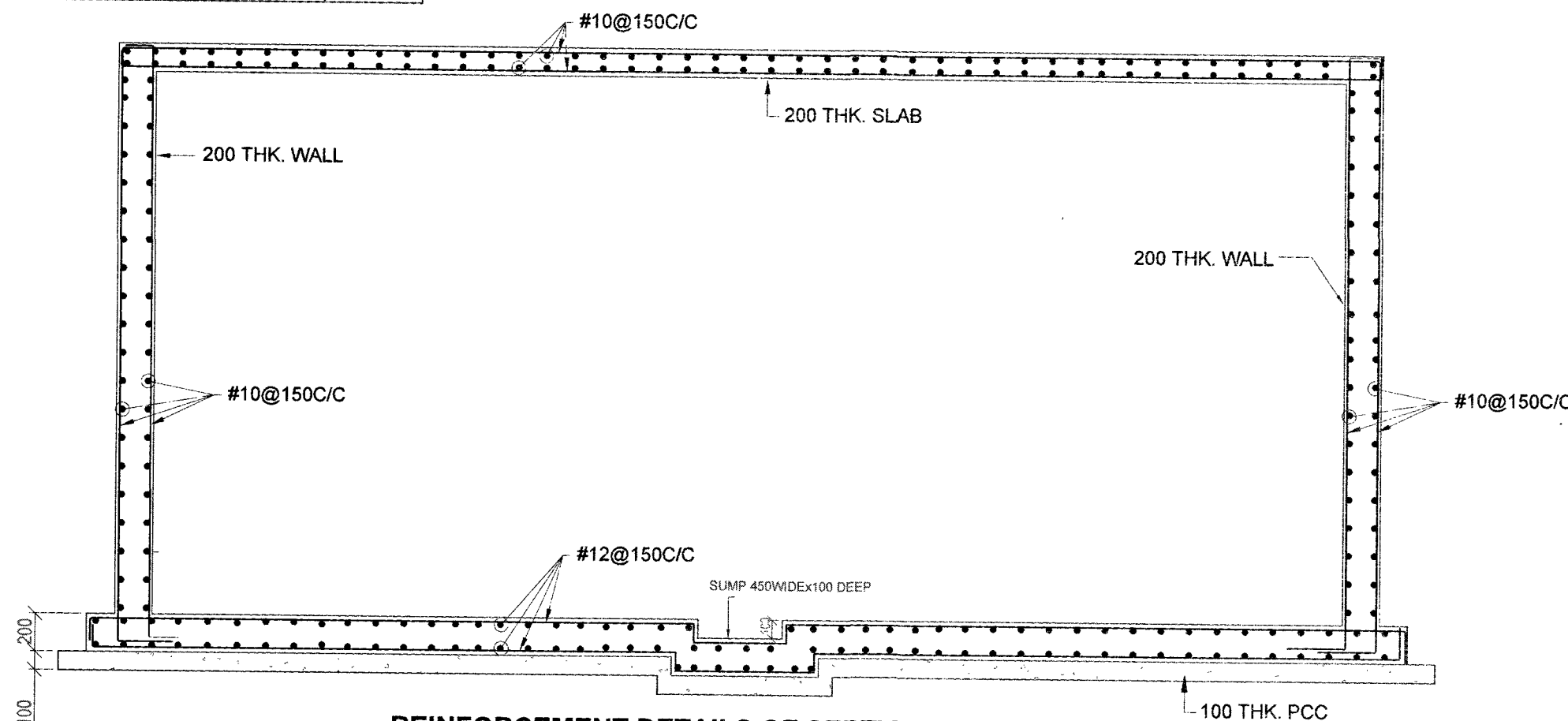
DETAIL OF M.S. RUNG



DETAIL OF SUMP SECTION B-B

DIMENSIONS OF SEPTIC TANKS

| S.No. | NUMBER OF USERS | LENGTH 'L' | BREADTH 'B' | LIQUID DEPTH 'D' |
|-------|-----------------|------------|-------------|------------------|
| 1 | 50 | 5000 | 2000 | 1200 |
| 2 | 100 | 7500 | 2650 | 1200 |
| 3 | 150 | 10000 | 3000 | 1350 |
| 4 | 200 | 12000 | 3300 | 1500 |
| 5 | 300 | 15000 | 4000 | 1500 |



REINFORCEMENT DETAILS OF SEPTIC TANK

GENERAL NOTES:

- CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS BEFORE EXECUTION OF WORK.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
- FIGURED DIMENSIONS ONLY SHALL BE FOLLOWED.
- THE FOUNDATION HAS BEEN DESIGNED BY CONSIDERING SAFE BEARING CAPACITY OF 100 KN/SQM AT A DEPTH OF 1.5M FROM NATURAL GROUND LEVEL. CASE ANY CHANGE IN SAFE BEARING CAPACITY OF SOIL AT THE LOCATION, THE SAME SHALL BE INTIMATED FOR RE-DESIGNING OF FOUNDATION.
- MINIMUM DEPTH OF GROUND WATER TABLE HAS BEEN ASSUMED AS 1.5M BELOW GL.
- THE DESIGN HAS BEEN MADE ASSUMING A CLEANING INTERVAL OF ONE YEAR.
- HIGH STRENGTH DEFORMED STEEL CORROSION RESISTANT BARS PRODUCED BY THE TMT PROCESS OF GRADE Fe-500/500D HAVING ELONGATION NOT LESS THAN 18% AND CONFORMING TO OTHER REQUIREMENTS OF IS-1786:1985 SHALL BE USED FOR THE REINFORCEMENT.
- THE GRADE OF CONCRETE FOR ALL RCC WORKS SHALL BE M-30 DESIGN MIX AS PER IS-456:2000. & THE GRADE OF PCC SHALL BE M-10 NOMINAL MIX.
- THE ACCEPTANCE CRITERIA OF CONCRETE SHALL BE AS PER CLAUSE 16 OF IS 456:2000.
- NOMINAL CONCRETE COVER SHALL BE AS UNDER:-
WALL - 50 MM
SLAB - 50 MM
- ALL JOINTS OF UPVC CHANNELS TO BE JANTED USING SYNTHETIC BE AS PER CLAUSE 16 OF IS 456:2000.
- 20 MM THK. WATER PROOFING PLASTER IN TWO LAYERS OF 10MM EACH SHALL BE APPLIED ON INTERIOR FACES OF WALLS AND SLABS INSIDE THE TANK. THE MIX SHALL BE 1:2:4 WITH INTEGRAL WATER PROOFING COMPOUND AS PER IS STANDARDS/ MANUFACTURERS INSTRUCTIONS
- UPVC VENT PIPE SHALL BE TAKEN TO A HEIGHT OF 2 M ABOVE TOP SLAB
- UPVC VENT COWL SHALL BE MADE MOSQUITO PROOF.
- FILTER MEDIA SHALL BE AS PER IS-8417. FILTER MEDIA SHALL BE CONSIST OF WELL GRADED COURSE AGGREGATE OF SIZES 63MM TO 10MM.
- CLEAR DISTANCE BETWEEN ADJACENT DISPERSION TRANCHES SHALL NOT LESS THAN 2M.

DATE DESCRIPTION SIGN

RCC SEPTIC TANK FOR 50 TO 300 USERS

| | | |
|---------|------------|--|
| SHT NO. | S-01 | HELIOUS ENGINEERING CONSULTANTS #38-34-66 FCI COLONY MARRIPALEM VISAKHAPATNAM - 530018 |
| SCALE. | AS NOTED | |
| DRN BY. | VIJAY | |
| DATE. | 24-09-2019 | |

DESIGNED BY *DVT* CHECKED BY *Sanjay*

CHIEF ENGINEER (NAVY) VISAKHAPATNAM

REF.DRG.NO:- TD- 389(S) Sht.No. 1/3

M. Venu Gopal
M VENU GOPAL
AECCIV
AAD (DESIGN)

(PK SINGH, IDSE)
SE
DIRECTOR (DESIGN)
FOR CHIEF ENGINEER