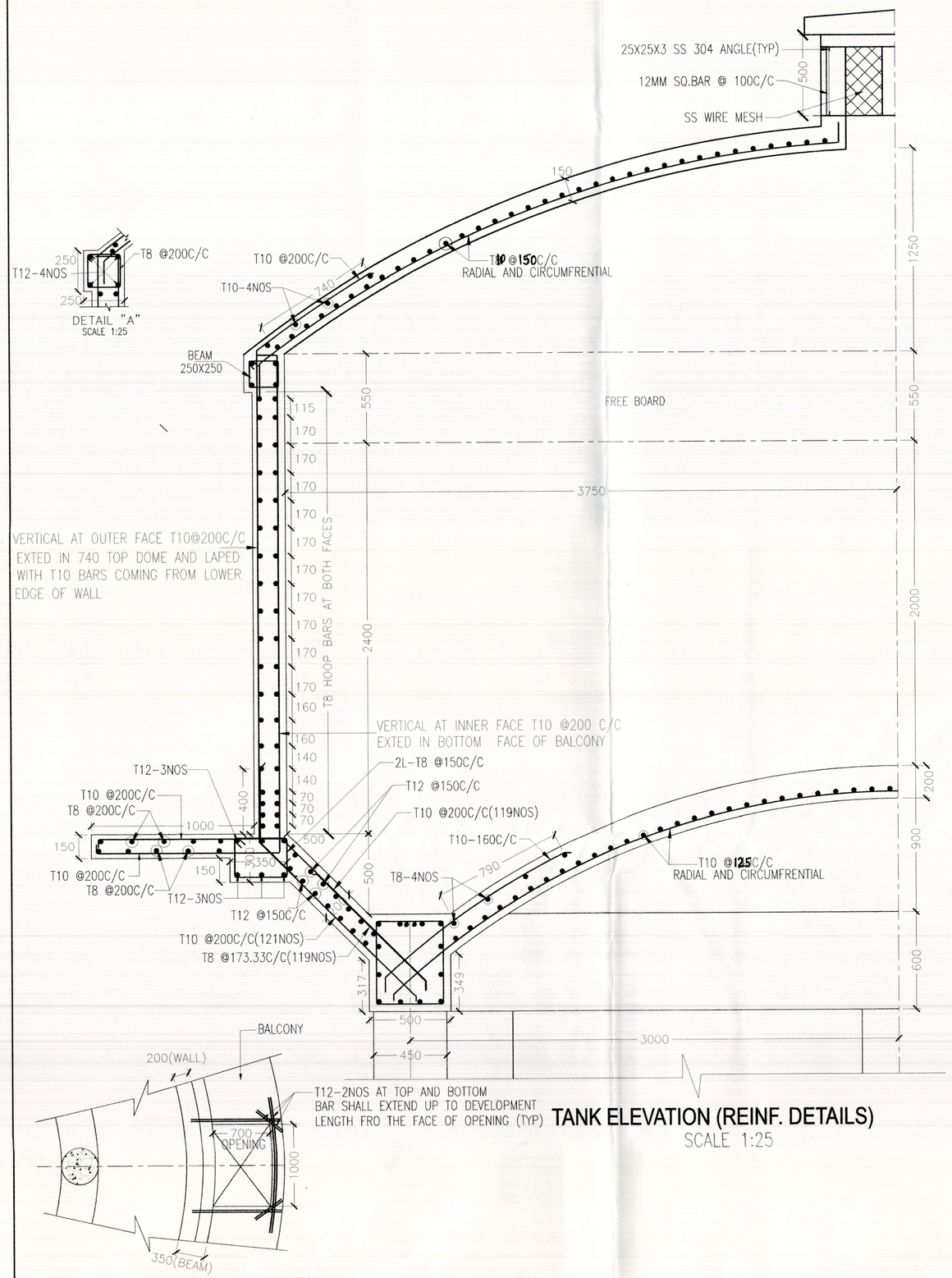
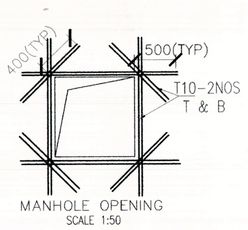
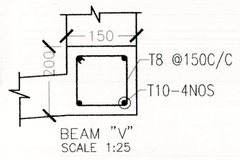


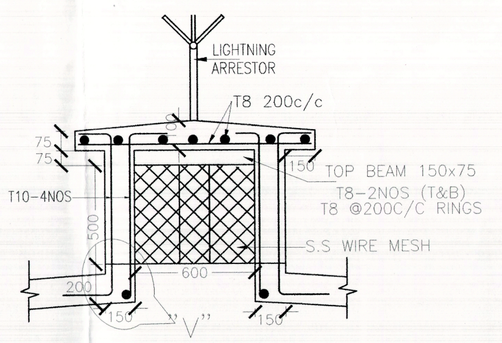
TANK ELEVATION (REINF. DETAILS)
SCALE 1:25

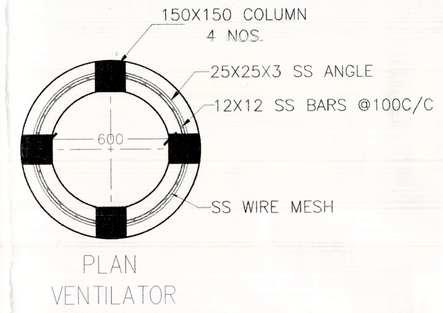
EXTAR REINF. DEATIL AROUND OPENING
BALCONY SLAB FOR LADDER

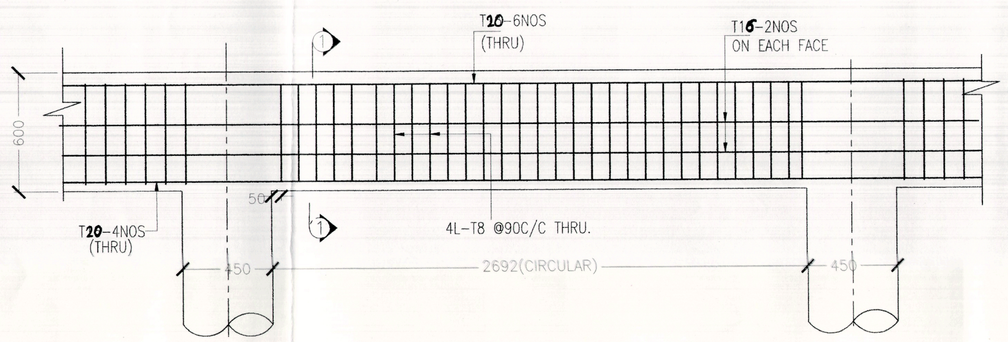


TOP DOME REINF. PLAN
SCALE 1:25

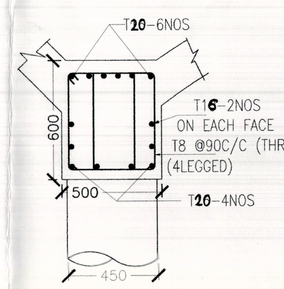








RING BEAM OVER COLUMNS (500X650)
SCALE 1:25



RING BEAM OVER COL.
SEC.1-1
SCALE 1:25

ITEM	CONC.MIX.M	TYPE OF BAR	LAP LENGTH	CLEAR COVER
TOP DOME	M35	REDIAL	30 * D	45MM
		CIRCUMFERENCE	72 * D	
BOTTOM DOME	M35	REDIAL	30 * D	45MM
		CIRCUMFERENCE	72 * D	
EDGE BEAM	M35	HOOPS	72 * D	45MM
VERTICAL WALL	M35	VERTICAL	36 * D	45MM
		HOOPS	72 * D	45MM
PLATFORM	M35	MESH	72 * D	45MM
CONE WALL	M35	VERTICAL	36 * D	45MM
		HOOPS	72 * D	45MM
MAIN BEAM	M35	TOP FACE	40 * D	45MM
		BOTTOM FACE	47 * D	45MM
		SIDE FACE	47 * D	30MM
COLUMN	M35	MAIN BAR	41 * D	40 MM
BRACE	M35	TOP & BOTT.	47 * D	30 MM
FOUND.& BEAM	M35	ALL TYPE	50 * D	50 MM
PCC	M15	–	–	–

TYPE PLAN NO.:	W-49
N.R.H.Q.E. PLAN NO.:	HQ/18/11-2025
CANCELLED PLAN NO.:	W-41 (HQ/06/04-98/R1)

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. ALL R.C.C WORK SHALL BE IN DESIGN MIX CONCRETE **M-35,** AS PER IS 456-2000 (CODE OF PRACTICE FOR PLAIN AND REINFORCED CONCRETE).
3. **Fe 500D** REINFORCEMENT BARS CONFORMING TO IS 1786-2008 TO BE USED.
4. THIS DESIGN IS APPLICABLE FOR SITE WHERE SAFE BEARING CAPACITY IS **8 T/M2** AT DEPTH OF **3 M.**
5. BASIC WIND SPEED HAS BEEN ASSUMED AS **50 M/S.**
6. THE DESIGN HAS BEEN PREPARED FOR SEISMIC FORCES AS PER LATEST CODE IS 1893: PART-1 2016 & PART-2 2014 FOR SEISMIC ZONE-IV.
7. PROPER CURING OF CONCRETE SHALL BE ENSURED TO ACQUIRE HARDNESS, STRENGTH AND OTHER PROPERTIES, ESSENTIAL FOR SATISFACTORY SERVICE.
8. ALL CONCRETE SHALL BE MECHANICALLY MIXED AND VIBRATED.
9. COVER TO REINFORCEMENT SHALL BE NO WHERE LESS THAN THAT SHOWN ON THE PLAN OR AS SPECIFIED IN IS:456-2000.
10. PARTICULAR CARE MUST BE TAKEN TO ENSURE THAT:
11. NO SAG OCCURS IN THE REINFORCING BARS DURING CONSTRUCTION.
    a. STIRRUPS ARE EFFECTIVELY TIED WITH WIRE TO THE MAIN REINFORCING BARS.
    b. ALL R.C.C WORK MUST BE CARRIED OUT UNDER THE PERSONAL SUPERVISION OF AN SSE/WORKS.
12. IN CASE, SOIL AT SITE IS NOT SAFE FOR THE ASSUMED SOIL PRESSURE, SEPARATE DESIGN TO PREPARED.
13. FOR GENERAL REQUIREMENTS AND OTHER INFORMATION, IS 3370: 2021 (PART-1 & PART-2) SHALL BE FOLLOWED.
14. ALL EDGES SHALL BE ROUNDED OR CHAMFERED.
15. DIAMETER OF INLET, OUTLET, OVERFLOW AND CLEANING PIPE MAY BE DECIDED DEPENDING UPON DIAMETER OF RISING MAINS, DISTRIBUTION MAINS ETC.
16. FOR INSULATION OF LIGHTNING CONDUCTOR IS: 2309-1989 (CODE OF PRACTICE OF BUILDING AND ALLIED STRUCTURE AGAINST LIGHTING) MAY BE REFERRED. DETAILS MAY BE WORKED OUT WITH THE CONSULTATION OF LOCAL ELECTRICAL OFFICE.
17. DETAILING OF REINFORCEMENT BARS TO BE AS PER IS : 13920-2016 & IS : 456-2000.
18. ALL TYPES OF JOINTS VIZ. EXPANSION JOINTS / CONSTRUCTION JOINTS (IF ANY) SHOULD BE AS PER IS: 3370-2021. (PART-1)
19. ADEN/XEN/AXEN SHOULD PERSONALLY INSPECT THE REINFORCEMENT AND SHUTTERING, IT NEEDS TO BE ENSURED THAT SHUTTERING IS WATER-PROOF.
20. SCAFFOLDING AND SHUTTERING ARRANGEMENT SHOULD BE AS PER THE DRAWING NUMBER-N.R.H.Q.E- HQ/19/12-2025
21. PLEASE REFER SHEET-01/03 & 03/03 OF THE SAME N.R.H.Q.E NO. WITH THIS DRAWING.

STRUCTURAL DESIGNER	PROOF CHECKING CONSULTANT	VETTED BY	NORTHERN RAILWAY HEAD QUATERS
THIS STRUCTURAL DESIGN HAS BEEN PREPARED BY ME. THE RESPONSIBILITY OF CONTROL, CHECK AND VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION AND FULL COMPLIANCE OF RELEVENT PROVISION OF CODES AND DBR REST WITH ME.	THESE STRUCTURAL DRAWINGS INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED 100% BY ME. THE SAME IS FOUND SUITABLE FOR THE EXECUTION PURPOSE.	THESE STRUCTURAL DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN CHECKED 100% BY ME. THE SAME IS VETTED INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE.	"NOTICE OF NO OBJECTION" FROM NR-HQ IS BEING ACCORDED FOR DESIGN PRINCIPLES BASED ON RECOMMENDATION OF THE PROOF CHECKING CONSULTANTS (**ACHINTYA MOHNISH** , CEO & DESIGN DIRECTOR, PACIFIC CONSULTANTS, PATNA) AND VETTING BY PROFESSOR R.N DUBEY/IITR. HOWEVER, THE RESPONSIBILITY FOR DESIGN ACCURACY LIES WITH THE DESIGNER (RAJIV SHARMA, A ONE INFRACONSULTANTS PVT.LTD , JAIPUR). OVERALL RESPONSIBILITY FOR PROPER QUALITY WORK AND SAFETY OF THE STRUCTURE WILL BE ON THE EXECUTING AGENCY I.E, CONCERENED SR.DEN
		Structure Design Vetted 12-11-25 डॉ. आर. एन. दुबे / Prof. R. N. Dubey प्रोफेसर / Professor Civil Engineering IIT Roorkee, Roorkee - 247 667	
RAJIV KUMAR SHARMA	ACHINTYA MOHNISH	PROF. R.N DUBEY	Monu Kumar / Akash deep / (Suneel Kumar) / Mantesh Kumar Meena
A ONE INFRACONSULTANTS PVT. LTD.	PACIFIC CONSULTANTS, PATNA	IIT ROORKEE	JE/DRG / SSE/Design / AEN/Design/P&D / Dy. CE/P&D

NORTHERN RAILWAY

PROJECT: TYPE PLAN OF RCC OVERHEAD TANK 110 KL CAPACITY WITH 20M HIGH STAGING FOR SEISMIC ZONE IV (SBC OF 8 T/m²).

DRAWING TITLE : TANK BODY,TOP DOME DETAILS

SCALE: AS MENTIONED	SHEET SIZE : A1
N.R.H.Q.E PLAN NO. HQ/18/11-2025	SHEET NO. - 02/03