

THE SINGARENI COLLIERIES COMPANY LTD

(A Government Company)



SINGARENI THERMAL POWER PROJECT STAGE-II (1 X 800 MW)

TECHNICAL SPECIFICATION

FOR

EPC PACKAGE

PART - E

(TENDER DRAWINGS)

SECTION - VI

BIDDING DOCUMENT NO.: CW-CM-11159-C-O-M-001

(This document is meant for the exclusive purpose of bidding against this Package and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued).

CLAUSE NO.	LIST OF TENDER DRAWINGS		
	<u>APPLICABLE DRAWINGS FOR THE PACKAGE</u> The drawings listed below and forming part of the specification shall be supplement to the requirements specified herein. The scope and terminal points of the equipment to be furnished under this package shall be as identified in these drawings and read in conjunction with the text of the specification.		
	Sl. No.	Drawing Title	Drawing No.
	1.	GENERAL LAYOUT PLAN	CW-MK-21244-999-POC-F-001
	2.	TOPOGRAPHIC SURVEY	CW-MK-21244-999-POC-F-002
	3.	SAFETY PARK - ARCHITECTURAL DETAILS & SPECIFICATIONS	CW-MK-21244-001-POC-A-001
	4.	LAYOUT OF ROAD	CW-MK-21244-001-POC-A-003
	5.	LAYOUT OF DRAINS	CW-MK-21244-001-POC-A-004
	6.	DETAIL OF ROADS	CW-MK-21244-001-POC-A-005
	7.	LAYOUT, SECTION AND ALLIED DETAILS OF INTERMEDIATE STARTER DYKE	CW-MK-21244-331-POC-A-001
	8.	WORKER'S ACCOMODATION	CW-MK-21244-001-POC-A-019 (4 Sheets)
	9.	WORKER'S REST ROOM	CW-MK-21244-001-POC-A-020
	10.	Main Steam, Hot Reheat & Cold Reheat P&ID	CW-21244-999-POM-A-004
	11.	HP & LP Bypass System P&ID	CW-21244-999-POM-A-005
	12.	Auxiliary Steam System P&ID	CW-21244-999-POM-A-006
	13.	Extraction Steam P&ID for Heaters	CW-21244-999-POM-A-007
	14.	Extraction Steam P&ID for BFP Turbine	CW-21244-999-POM-A-008
	15.	Condensate System P&ID	CW-21244-999-POM-A-009
	16.	Feed Water P&ID	CW-21244 -999-POM-A-010
	17.	Heater Vent and Drains P&ID	CW-21244-999-POM-A-011
	18.	Steam Drain System P&ID	CW-21244 -999-POM-A-012
	19.	Symbol / Legends	CW-21244 -999-POM-A-013
	20.	Central Turbine lube oil storage and purification system	CW-21244-001-POM-A-015
	21.	Proposed Scheme for Plant Effluent Separation TG Area	CW-21244-001-POM-A-015A
	22.	Centralised Nitrogen filling System	CW-21244-001-POM-A-015B
	23.	Air extraction system and Condenser on load tube cleaning system	CW-21244-001-POM-A-016
SINGARENI THERMAL POWER PROJECT STAGE-II (1X800 MW) EPC PACKAGE	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.:CW-CM-11159-C-O-M-001		LIST OF TENDER DRAWINGS PAGE 1 OF 8

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Sl. No.	Drawing Title	Drawing No.	
24.	Fuel Oil Scheme	CW-21244-370-POM-A-017	
25.	Scheme of Air & Flue Gas Path with Instrumentation (With BISECTOR AH)	CW-21244-370-POM-A-018a, Sh. 1 of 2	
26.	Scheme of Air & Flue Gas Path with Instrumentation (With BISECTOR AH)	CW-21244-370-POM-A-018a, Sh. 2 of 2	
27.	Scheme of Air & Flue Gas Path with Instrumentation (With TRISECTOR AH)	CW-21244-370-POM-A-018b, Sh.1 of 2	
28.	Scheme of Air & Flue Gas Path with Instrumentation (With TRISECTOR AH)	CW-21244-370-POM-A-018b, Sh. 2 of 2	
29.	Start-up Drain System	CW-21244-370-POM-A-019	
30.	Scheme for Pulveriser (Vertical Mill)	CW-21244-370-POM-A-020	
31.	Section of ESP Hopper	0000-104-POM-A-003	
32.	Scheme of Gypsum Dewatering System	CW-21244-001-POM-A-021	
33.	Scheme of FGD- Absorber System	CW-21244-001-POM-A-022	
34.	Scheme of FGD Milling System	CW-21244-001-POM-A-023	
35.	Single Line Flow Diagram of Bottom Ash Handling System (Jet Pump System) Ash Disposal & Ash Water System	9596-155-POM-A-025	
36.	Single Line Flow Diagram of Bottom Ash Handling System (Submerged Scraper Chain Conveyor) Ash Disposal & Ash Water System)	9755-001(R)-POM-A-026	
37.	Single Line Flow Diagram For Fly Ash Handling System (Vacuum System) (Applicable For ESP Hoppers)	9596-155-POM-A-027	
38.	Single Line Flow Diagram for Fly Ash Handling System (Pressure System)	9596-155-POM-A-028	
39.	Coal Flow Diagram	9596-155-POM-A-002	
40.	Plant Water Scheme	9755-001-POM-A-001	
41.	P&I Diagram of Equipment Cooling Water System	9755-001-POM-A-003	
42.	Scheme of Circulating Water System	9755-133-POM-A-001	
43.	Scheme for Raw Water System	9755-133-POM-A-002	
44.	P&ID of RO System	9755-136-POM-A-001 (sheet 1 of 2)	
45.	P&ID of RO System	9755-136-POM-A-001 (sheet 2 of 2)	
46.	P&ID of Pre-Treatment Plant & CSSP	9755-137-POM-A-001	
47.	P&ID of PT-CW Chlorination System	9755-137-POM-A-002	
48.	P&ID of Demineralising Plant	9755-154-POM-A-001	
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49.	P&ID of CW Chemical Treatment System	9755-154-POM-A-002		
50.	Schematic diagram of Compressed Air System	CW-21244-001-POM-A-047		
51.	P&I Diagram of HVW/MVW Spray System	CW-21244-001-POM-A-048		
52.	P&I Diagram of Fire Water Booster Pump House	CW-21244-001-POM-A-050		
53.	Miscellaneous Details of Fire Detection System	CW-21244-001-POM-A-051		
54.	Schematic Diagram for A/C System for Main Plant TG Building	CW-21244-001-POM-A-054		
55.	Schematic Diagram for A/C System for ESP/FGD/AHP	CW-21244-001-POM-A-055		
56.	Fixing Detail of Wall Mounted Axial Fan and Roof Extractor Fan	CW-21244-001-POM-A-058		
57.	Single Line Diagram- Main Plant	XXXX-999-POE-J-001		
58.	Single Line Diagram – 400kV Switchyard (Stn. Transformer Scheme)	XXXX-999-POE-J-001		
59.	Buried Cables Trench for HT & LT Cables	0000-211-POE-A-050		
60.	Typical Section of Cable Tray Arrangement in Trestle	XXXX-999-POE-J-004		
61.	Legend Detail	0000-206-POE-A-003		
62.	Scheme for Feeder Type-DAET (Incomer from Transformer)	0000-206-POE-A-004		
63.	Scheme for Feeder Type-DAE (Incomer/ Outgoing/ Bus Coupler)	0000-206-POE-A-005		
64.	Scheme for Feeder Type – DG (Incomer From DG)	0000-206-POE-A-006		
65.	Scheme for Module Type-G1 (Bus PT)	0000-206-POE-A-007		
66.	Typical Schematic For VM Type	0000-206-POE-A-020		
67.	Scheme for Module Type-DK21 (Contractor Controlled Motor)	0000-206-POE-A-008B		
68.	Scheme for Module Type-CC (Incomer with Auto Changeover)	0000-206-POE-A-009		
69.	Scheme For Module Type-CS (Control Supply Module)	0000-206-POE-A-010		
70.	Scheme for Module Type-DN1 (Reversible	0000-206-POE-A-019		
SINGARENI THERMAL POWER PROJECT STAGE-II (1X800 MW) EPC PACKAGE		TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.:CW-CM-11159-C-O-M-001		LIST OF TENDER DRAWINGS PAGE 3 OF 8

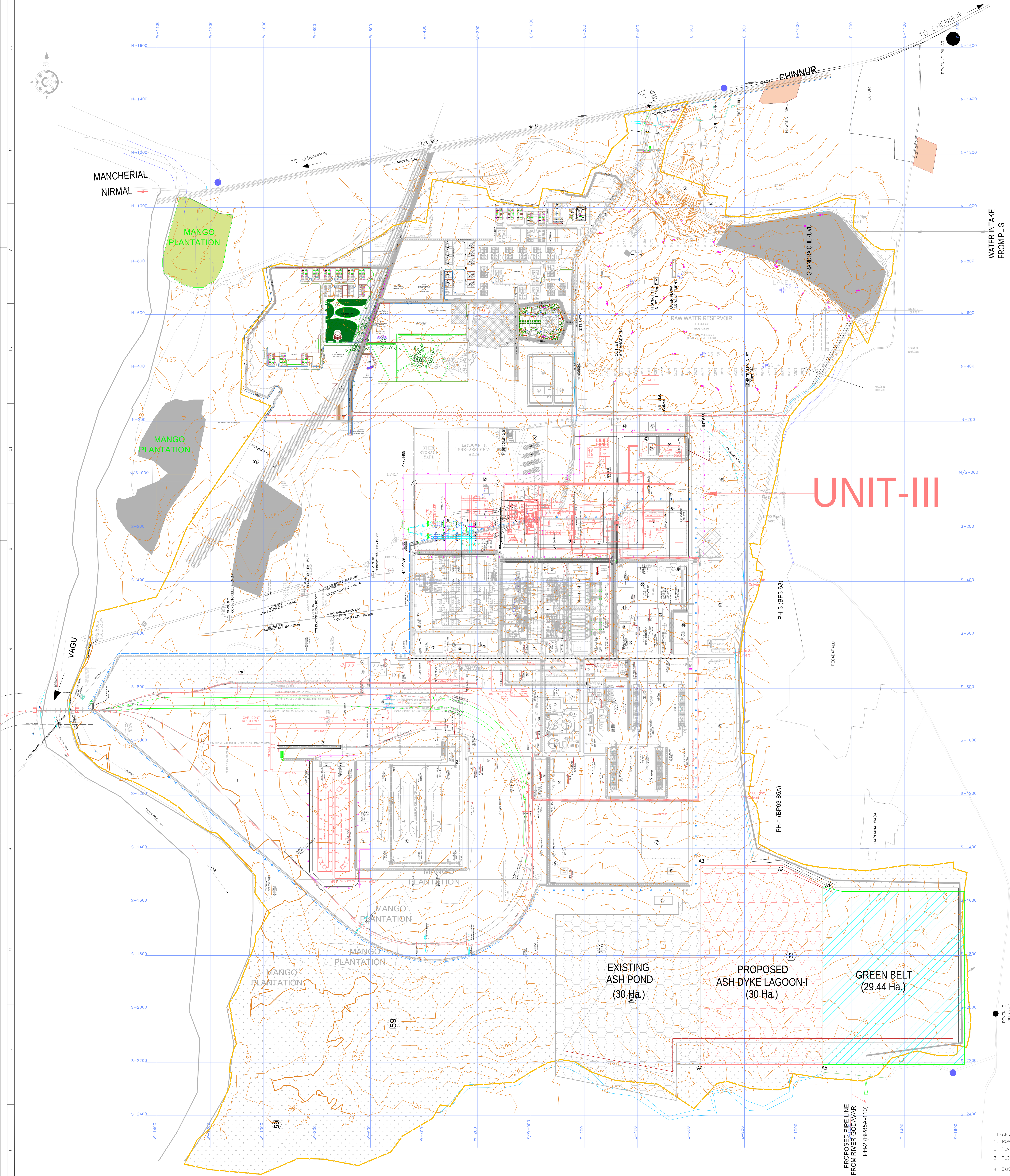
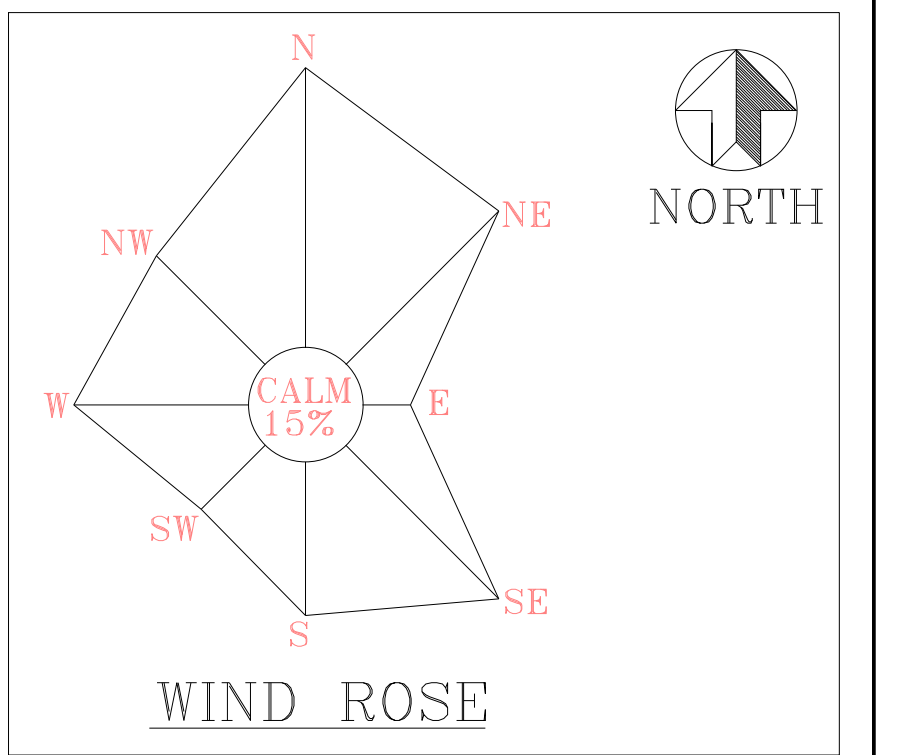
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	Motor)			
71.	Typical Arrangement of Feeders In 220V DCDB	0000-206-POE-A-012		
72.	Scheme for Feeder Type-DM (Motor Rating 110kW and above)	0000-206-POE-A-014		
73.	Typical Schematic for M/M1/M2	0000-206-POE-A-018		
74.	Scheme for Module Type-HTR (Contractor Controlled Heater)	0000-206-POE-A-021		
75.	Standard “D” Terminals (For Cabling between SWGR & DCS) for LT SWGR	0000-206-POE-A-022		
76.	Standard “E” Terminals (For Cabling between SWGR to Motor-SWGR to TRF & Interboard Cabling) for LT SWGR	0000-206-POE-A-023		
77.	Scheme for Feeder Type-DA (Motor)	0000-205-POE-A-004		
78.	Scheme for Feeder Type – DAF (Motor with diff. Protection)	0000-205-POE-A-005		
79.	Scheme for MV SWGR Feeder Type –DB (Transformer)	0000-205-POE-A-006		
80.	Scheme for MV SWGR Feeder Type –DBF (Transformer with Diff. Protection)	0000-205-POE-A-007		
81.	Scheme for MV SWGR Feeder Type – DC (Incomer)	0000-205-POE-A-008		
82.	Scheme for MV SWGR Feeder Type-DE (Tie Feeder)	0000-205-POE-A-009		
83.	Scheme for MV SWGR Feeder Type-DD (Bus Coupler)	0000-205-POE-A-010		
84.	Scheme for Feeder Type – CC (Contractor Controlled Motor)	0000-205-POE-A-011		
85.	Scheme for MV Switchgear Module Type – G (Bus PT)	0000-205-POE-A-012		
86.	Typical Control Supply Scheme for MV Switchgear Panels	0000-205-POE-A-013		
87.	Scheme for MV SWGR Feeder Type-DB1 (Stand Alone Panel)	0000-205-POE-A-014		
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Sl. No.	Drawing Title	Drawing No.		
88.	Scheme for MV SWGR Feeder Type-DBF1 (Stand alone Panel with Diff. Protection)	0000-205-POE-A-015		
89.	Scheme for MV SWGR Feeder Type-CCT (S/R Transformer)	0000-205-POE-A-016		
90.	Standard “D” Terminals (for Cabling between SWGR & DCS) for MV SWGR	0000-205-POE-A-017		
91.	Standard “G” Terminals (for Cabling between SWGR to Motor, SWGR to FRF & Interboard Cabling) For MV SWGR	0000-205-POE-A-018		
92.	SAS	(04 Sheets)		
93.	Configuration Diagram for Station LAN	0000-999-POI-A-001 Sh. 1 of 2		
94.	DDCMIS configuration Diagram	0000-999-POI-A-001 Sh. 2 of 2		
95.	BMS Configuration Diagram	0000-999-POI-A-002, Sh.1 of 2		
96.	BMS (MFT subgroup) Configuration Diagram	0000-999-POI-A-002, Sh. 2 of 2		
97.	Scheme for programmer room hardware multiplexing	0000-999-POI-A-006		
98.	Standard Configuration Diagram for PLC Based Offsite Control System	0000-999-POI-A-013		
99.	Instrumentation cabling diagram Grounding Scheme For Cabinets/ Panels/ Power Supply	0000-999-POI-A-019A, Sh.1 of 2		
100.	Instrumentation cabling diagram Grounding Scheme For Cabinets/ Panels/ Power Supply	0000-999-POI-A-019A, Sh. 2 of 2		
101.	Scheme for 24V DC Power Supply System	0000-999-POI-A-019B		
102.	Scheme for Uninterrupted Power Supply System-Configuration-A	0000-999-POI-A-019C, Sh.1 of 2		
103.	Scheme for Uninterrupted Power Supply System-Configuration-B	0000-999-POI-A-019C, Sh. 2 of 2		
104.	Typical GA of Local Instrument Enclosure, Purging Scheme, DP Transmitter	0000-999-POI-A-036		
105.	Sketch of Control Room Concept showing LVS & OWS	0000-999-POI-A-061		
106.	Interfacing of Actuators	0000-999-POI-A-063		
107.	TYPICAL GA of local instrument enclosure/rack Sh. 1 of 3	0000-999-POI-A-064		
108.	TYPICAL GA of local instrument enclosure/rack Sh. 2 of 3	0000-999-POI-A-064		
109.	TYPICAL GA of local instrument enclosure/rack Sh. 3 of 3	0000-999-POI-A-064		
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110.	Interfacing of Field Instruments/ Swgr Switch (COC) Termination Details	0000-999-POI-A-065	SH 1 OF 14	
111.	Interfacing of Field Instruments Switch Termination details NO/NC	0000-999-POI-A-065	SH 2 OF 14	
112.	Interfacing of Field Instruments Control Valve	0000-999-POI-A-065	SH 3 OF 14	
113.	Interfacing of Field Instruments 4-20mA	0000-999-POI-A-065	SH 4 OF 14	
114.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (LT Motors)	0000-999-POI-A-065	SH 5 OF 14	
115.	Interfacing of Field Instruments Typical RTD connection with Temp Transmitters in JB's	0000-999-POI-A-065	SH 6 OF 14	
116.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (HT Motors)	0000-999-POI-A-065	SH 7 OF 14	
117.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (Single Coil Solenoid)	0000-999-POI-A-065	SH 8 OF 14	
118.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (Double Coil Solenoid)	0000-999-POI-A-065	SH 9 OF 14	
119.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (Elect. Bkr. – Sync - LT)	0000-999-POI-A-065	SH 10 OF 14	
120.	Interfacing of Field Instruments Typical T/C connection with Temp TXs in JB's	0000-999-POI-A-065	SH 11 OF 14	
121.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (Elect. Bkr. – Non Sync - LT)	0000-999-POI-A-065	SH 12 OF 14	
122.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (Elect. Bkr. – Sync - HT)	0000-999-POI-A-065	SH 13 OF 14	
123.	Interfacing of Field Instruments Interface of DDCMIS with MCC/ SWGR/ Actuator (Elect. Bkr. – Non Sync - HT)	0000-999-POI-A-065	SH 14 OF 14	
124.	Acoustic Hood Out Line	0000-999-POI-A-070		
125.	Block diagram of Public Address System	0000-999-POI-A-071A		
126.	Block diagram of CCTV System	0000-999-POI-A-072		
127.	Annexure-I for CHP drives			
128.	Interface of DDCMIS with MC/SWGR/LCP (BW)	0000-155-POI-A-065	SH 01	
129.	Interface of DDCMIS with MC/SWGR/LCP (ELECT.BKR.-SYNC-LT)	0000-155-POI-A-065	SH 02	
130.	Interface of DDCMIS with MC/SWGR/LCP (MD)	0000-155-POI-A-065	SH 03	
131.	Interface of DDCMIS with MC/SWGR/LCP (SM)	0000-155-POI-A-065	SH 04	
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132.	Interface of DDCMIS with MC/SWGR/LCP (ILMS)	0000-155-POI-A-065		SH 05
133.	Interface of DDCMIS with MC/SWGR/LCP (LTCHP-DOL)	0000-155-POI-A-065		SH 06
134.	Interface of DDCMIS with MC/SWGR/LCP (REV-II)	0000-155-POI-A-065		SH 07
135.	Interface of DDCMIS with MC/SWGR/LCP (VWF)	0000-155-POI-A-065		SH 08
136.	Interface of DDCMIS with MC/SWGR/ACTUATOR (HTCHP MOTORS)	0000-155-POI-A-065		SH 09
137.	Interface of DDCMIS with MC/SWGR/ACTUATOR (Elect. Brkr.-Sync-HT)	0000-155-POI-A-065		SH 10
138.	Interface of DDCMIS with MC/SWGR/ACTUATOR (Elect. Brkr.-Non Sync-HT)	0000-155-POI-A-065		SH 11
139.	Interface of DDCMIS with MC/SWGR/ LCP (REV-I)	0000-155-POI-A-065		SH 12
140.	INSTRUMENT INSTALLATION DIAGRAM(FOR PRESSURE GAUGE)	0000-999-POI-A-022		
141.	INSTRUMENT INSTALLATION DIAGRAM(PRESSURE MEASUREMENT USING PRESS/DP TRANSMITTERS	0000-999-POI-A-023		
142.	INSTRUMENT INSTALLATION DIAGRAM(PRESSURE TRANSMITTER FUEL OIL)	0000-999-POI-A-024		
143.	INSTRUMENT INSTALLATION DIAGRAM (PRESSURE MEASUREMENT USING PRESS/DP TRANSMITTERS STEAM/LIQUID VACUUM)	0000-999-POI-A-025		
144.	INSTRUMENT INSTALLATION DIAGRAM FLOW MEASUREMENT (USING FLOW NOZZLES) STEAM & FEEDWATER	0000-999-POI-A-026		
145.	INSTRUMENT INSTALLATION DIAGRAM FLOW MEASUREMENT (USING ORFICE PLATES) CONDENSATE & SERVICE WATER	0000-999-POI-A-027		
146.	INSTRUMENT INSTALLATION DIAGRAM(FLOW MEASUREMENT AIR/GAS)	0000-999-POI-A-028		
147.	INSTRUMENT INSTALLATION DIAGRAM(FLOW MEASUREMENT DIRTY AIR/FLUE GAS)	0000-999-POI-A-029		
148.	INSTRUMENT INSTALLATION DIAGRAM DIFF.PRESS.MEASUREMENT (LIQUID,OIL,AIR/GAS SERVICE)	0000-999-POI-A-030		
149.	INSTRUMENT INSTALLATION DIAGRAM (LEVEL GAUGE & SWITCHES)	0000-999-POI-A-031		
150.	INSTRUMENT INSTALLATION DIAGRAM (LEVEL MEASUREMENT USING D/P TRANSMITTERS) DETAILS Sh. 1 of 2	0000-999-POI-A-032		
151.	INSTRUMENT INSTALLATION DIAGRAM (LEVEL MEASUREMENT USING DISPLACER TYPE TRANSMITTERS) DETAILS Sh. 2 of 2	0000-999-POI-A-032		
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152.	INSTRUMENT INSTALLATION DIAGRAM (LEVEL MEASUREMENT-OPEN VESSEL)	0000-999-POI-A-033	
153.	INSTRUMENT INSTALLATION DIAGRAM TYPICAL PURGE AIR CONNECTION & BLOWDOWN HEADER CONNECTION INSIDE INSTRUMENT RACK	0000-999-POI-A-034	
154.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 1 of 14	0000-999-POI-A-035	
155.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 2 of 14	0000-999-POI-A-035	
156.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 3 of 14	0000-999-POI-A-035	
157.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 4 of 14	0000-999-POI-A-035	
158.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 5 of 14	0000-999-POI-A-035	
159.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 6 of 14	0000-999-POI-A-035	
160.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 7 of 14	0000-999-POI-A-035	
161.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 8 of 14	0000-999-POI-A-035	
162.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 9 of 14	0000-999-POI-A-035	
163.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 10 of 14	0000-999-POI-A-035	
164.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 11 of 14	0000-999-POI-A-035	
165.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 12 of 14	0000-999-POI-A-035	
166.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 13 of 14	0000-999-POI-A-035	
167.	INSTRUMENT SOURCE CONNECTION DETAILS Sh. 14 of 14	0000-999-POI-A-035	
168.	TYPICAL GA OF LOCAL INSTRUMENT ENCLOSURE/ RACK Sh. 1 of 3	0000-999-POI-A-064	
169.	TYPICAL GA OF LOCAL INSTRUMENT ENCLOSURE/ RACK Sh. 2 of 3	0000-999-POI-A-064	
170.	TYPICAL GA OF LOCAL INSTRUMENT ENCLOSURE/ RACK Sh. 3 of 3	0000-999-POI-A-064	
Note : All the above drawings indicates Employer’s requirements to enable the bidder to make a suitable offer. All variations / alternations shall be clearly brought out in the technical deviation scheduled with implications, if any. Such variations may be acceptable, after assessment of its implication and shall be subjected to the Employer’s approval.			
SINGARENI THERMAL POWER PROJECT STAGE-II (1X800 MW) EPC PACKAGE		TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.:CW-CM-11159-C-O-M-001	LIST OF TENDER DRAWINGS PAGE 8 OF 8



UNIT-III

- NOTES:
1. ALL CO-ORDINATES ARE IN METRES.
 2. FOR DETAILS IN MAIN PLANT BLOCK REFER MAIN PLANT LAYOUT DRAWING.
 3. FORMATION LEVEL OF VARIOUS BLOCKS SHALL BE AS INDICATED IN THE DRAWING.
 4. EL(+10.00M) CORRESPONDS TO RL(+144.5M), WHICH IS FINISHED FLOOR LEVEL (FTL) OF MAIN POWER HOUSE (MPH) GROUND FLOOR.
 5. THIS DRAWING DOES NOT INDICATE SCOPE, DEMARCATION OF OWNERS AND BIDDERS FACILITIES.

- LEGEND:
1. ROAD
 2. PLANT BOUNDARY WALL
 3. PLOT BOUNDARY WALL
 4. EXISTING NALA
 5. FENCING
 6. RAIL TRACK
 7. FUTURE RAIL TRACK
 8. STAGE-I EXISTING FACILITIES
 9. STAGE-II 1X800MW
 10. FENCING
 11. CONTOUR LINE
 12. FINISHED GROUND LEVEL: RL(+144.0M, 143.0M, 142.5M, 142.0M, 141.5M, 141.0M)

FOR TENDER PURPOSE ONLY

OWNER
THE SINGARENI COLLIERIES COMPANY LTD.

CONSULTANT
NTPC Limited
(A GOVERNMENT OF INDIA ENTERPRISE)
CONSULTANCY WING

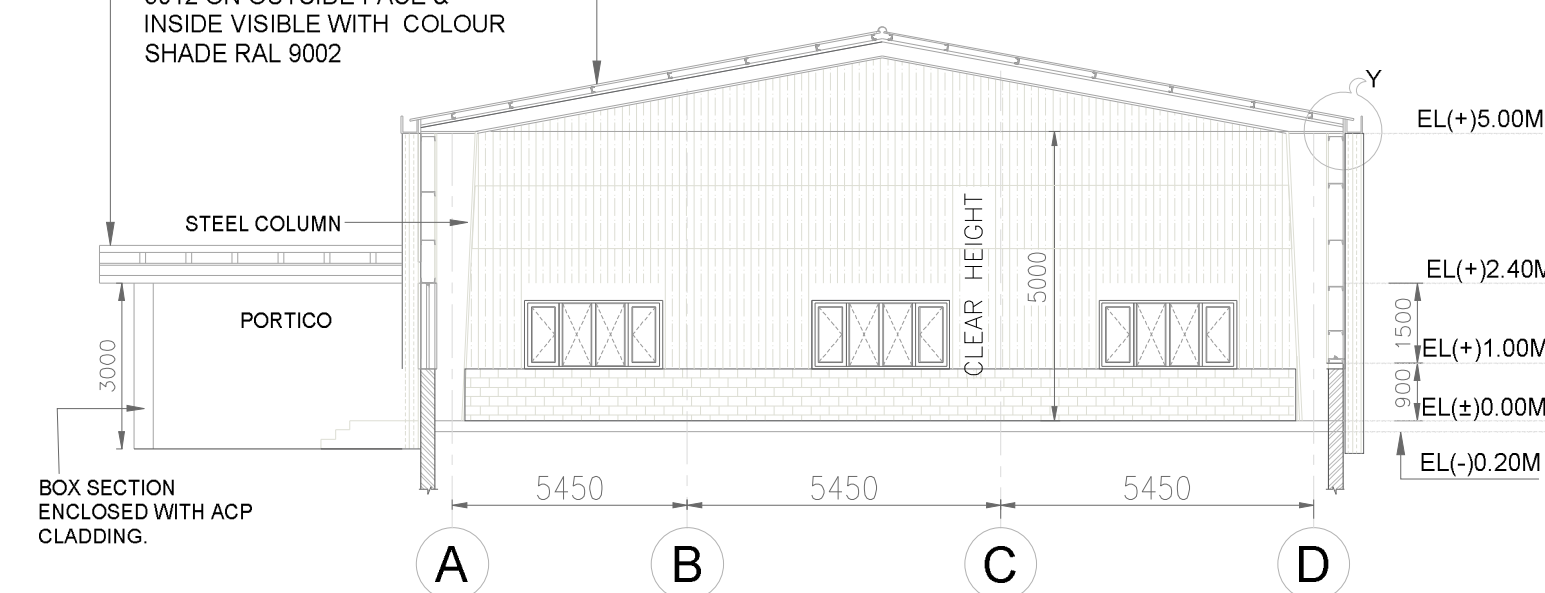
PROJECT
SCCL COAL BASED THERMAL POWER PLANT
(1X800MW)

TITLE
TOPOGRAPHICAL SURVEY

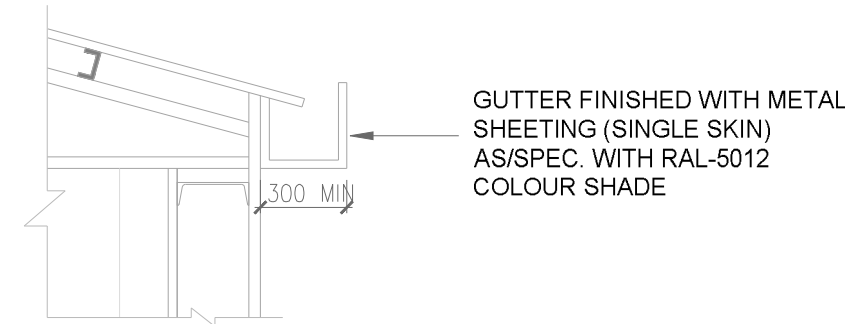
DRG. NO.
CW-MK-21244-999-POC-F-002

REV. NO.
0

REV.	DESCRIPTION	DATE	BY	CHECKED BY	APPROVED BY
1	FOR TENDER PURPOSE				



DETAIL AT - Y



SAFETY PARK

THIS BUILDING SHALL BE A SINGLE STOREYED BUILDING WITH FLOOR AREA AS / DRG. THE PLAN LAYOUT/ BUILDING PROFILE SHALL BE AS SHOWN OF PRE-ENGINEERED BUILDING TYPE WITH STEEL FRAME CONSTRUCTION AND INSULATED SANDWICH CLADDING FOR WALLS AND SANDWICHED METAL SHEET ROOFING. THE DESIGN OF THE BUILDING SHALL BE SUCH SO AS TO HAVE FASTER CONSTRUCTION OF BUILDING AND SO AS TO PROVIDE A READY TO USE BUILDING, COMPLETE AND FINISHED IN ALL RESPECTS TO THE OWNER AND SO AS TO ENABLE SHIFTING AND RELOCATION OF SUPERSTRUCTURE AT LATER DATE.

SCOPE OF WORK

1. DESIGNING, MANUFACTURING, SUPPLYING, PACKING, LOADING, TRANSPORTATION, UNLOADING, INSTALLING AND COMMISSIONING OF PRE-ENGINEERED BUILDING WITH SANDWICHED METAL SHEET WALL & ROOFING, & RAIN WATER DOWN COMER AS PER LAYOUT INCLUDING R.C.C FOUNDATIONS/PEDESTALS, (INCLUDING ANY FOUNDATION REQUIRED FOR EQUIPMENTS) EMBEDMENT OF FOUNDATION BOLTS USING TEMPLATES, ENCASEMENT OF COLUMN BASES, SUPPLY & ERECTION OF DOOR/WINDOWS/VENTILATORS/ROLLING SHUTTERS, MASONRY WORK, PLASTERING, PAINTING (INTERIOR & EXTERIOR) FLOORING, FINISHING, PAVING SLAB, PLINTH PROTECTION ETC.
2. WALL CLADDING, ROOFING SHALL BE IN PRE-FABRICATED INSULATED METAL SANDWICH PANELS
3. DOOR & WINDOWS SHALL BE PROVIDED AS PER THE LAYOUT SHOWN. POWDER COATED AL. FRAMES WITH MINIMUM WALL THICKNESS OF 2 MM FOR DOORS, WINDOWS & VENTILATORS WITH 6 MM THICK TOUGHENED GLASS FOR WINDOWS AND 8 MM THICK TOUGHENED GLASS FOR GLAZED DOORS & PARTITION. MAIN ENTRANCE DOOR SHALL BE ALUMINUM GLAZED. FOR TOILET LAMINATED FLUSH DOOR SHUTTER SHALL BE PROVIDED. STEEL DOOR SHALL BE PROVIDED IN STORE ROOM. ALL THE NECESSARY ACCESSORIES AND HARDWARE SHALL BE PROVIDED. VERTICAL VENETIAN BLINDS IN PREMIUM FABRIC QUALITY SHALL BE PROVIDED FOR WINDOWS OF CLASS ROOM.
4. EXTERNAL FACE OF BRICK WALL SHALL BE FINISHED WITH 20 MM THICK PLASTER (1:5 CEMENT : SAND) AND PREMIUM ACRYLIC SMOOTH EXTERIOR PAINT WITH SILICONE ADDITIVES OVER SUITABLE PRIMER OF WATER PROOF CEMENT PAINT. INTERNAL FACE AND INTERNAL BRICK WALLS SHALL BE FINISHED WITH 12 MM THICK CEMENT SAND PLASTER (1:5) AND ACRYLIC EMULSION PAINT OVER WALL PUTTY OF MINIMUM 2 MM THICKNESS
5. FALSE CEILING IN MINERAL FIBRE BOARDS (600 X 600) SHALL BE PROVIDED IN CLASS ROOM & STORE, WHICH IS SUSPENDED FROM CATWALK CONSISTING OF MS STEEL MEMBER HAVING MAXIMUM GRID SIZE OF 1200MM X 600MM FOR SUPPORTING PANELS OF SPECIFIED SIZE. THE STEEL MEMBER SHALL BE PAINTED WITH SUITABLE PAINTING SYSTEM
6. FLOORING IN SAFETY PARK HALL SHALL BE OF MINIMUM 18 MM THICK (600MMX600MM) JHONSON ENDURA INDUSTRIAL TILES OR EQUIVALENT. FOR CLASS ROOM MATT FINISHED VITRIFIED TILE FLOORING MINIMUM 10 MM THICK (SIZE 600 MM X 600 MM) OF KAJARIA / JHONSON MAKE SHALL BE PROVIDED. TOILET SHALL BE PROVIDED WITH DUST PRESSED CERAMIC TILES FLOORING AND DESIGNER DECORATIVE CERAMIC TILE ON WALL DADO UP TO FALSE CEILING / TRUE CEILING. INTERNAL WALLS SHALL BE FINISHED WITH ACRYLIC EMULSION PAINT OVER 2MM THICK WALL PUTTY
7. ALL THE FURNITURE AS SHOWN IN LAYOUT (CHAIR & DESKS IN CLASS ROOM ETC) OF GODREJ / FEATHERLITE / JASANI OR EQUIVALENT MAKE SHALL BE PROVIDED.
8. TOILET IN WORKING CONDITION COMPLETE IN ALL RESPECTS WITH SENSOR BASED WASH BASIN SET IN GRANITE COUNTERS, DUAL FLUSH WALL HUNG W.C WITH SENSOR BASED TAPS OF JAGUAR OR EQUIVALENT. ALL THE NECESSARY ACCESSORIES OF PREMIUM QUALITY SHALL BE PROVIDED 2 NOS. PVC OVERHEAD LOFT WATER TANK CAPACITY 500 LITER SHALL BE PROVIDED. ALL THE WALLS OF TOILET SHALL BE IN BRICK MASONRY, RUST PROOF AND LEAK PROOF PLASTIC UNDERGROUND SEPTIC TANK OF ADEQUATE CAPACITY AND OF MAKE SINTEX SEPTIC TANK OR EQUIVALENT SHALL BE PROVIDED.
9. INTELLIGENT AND ENERGY EFFICIENT LED LIGHTING WITH MINIMUM LUX LEVEL AS MENTIONED BELOW WITH RECESSED OPTIC LUMINAIRES / LED DOWN LIGHTERS/ MEDIUM BAY/ PENDANT LIGHT/ ASCENT LIGHT OF PHILIPS/ WIPRO/ CROMPTON GREAVES/ HAVELL OR EQUIVALENT, COMPLETE IN ALL RESPECTS WITH ASSOCIATED CABLING, FIXTURES LIKE FANS, SWITCHES, MCB, ENERGY MANAGEMENT SYSTEM LIKE DIMMERS / SENSORS ETC.
 - a) CLASS ROOM-300 LUX, DECORATIVE MIRROR OPTIC TYPE LED LUMINAIRES, LED DOWN LIGHTER
 - b) PORTICO -50 LUX, INDUSTRIAL TYPE LED LUMINAIRES.
 - c) CORRIDOR / PASSAGE: 50 LUX, LED LUMINAIRES.
 - d) BUILDING PERIPHERY LIGHTING -50 LUX, LED LUMINAIRES / LED STREET LIGHT FIXTURES.
 - e) OTHER AREAS NOT COVERED ABOVE :- LIGHTING PRINCIPLES SHALL BE BASED AS MENTIONED ABOVE
 - f) OTHER SPACE AREA (NONA/C AREA-200 LUX-MEDIUM BAY LED LUMINAIRES)
 - g) STORE- 150 LUX, LED LUMINAIRES.
 - h) CEILING FANS & BRACKET FAN:- TENTATIVELY ONE NUMBER OF CEILING FAN SHALL BE PROVIDED FOR 10 SQ.M AREA AT SUITABLE MOUNTING HEIGHT. FAN SHALL BE 1200MM SWEEP, CLASS -E OR BETTER INSULATED COPPER WOUND SINGLE PHASE MOTOR ALONG WITH DOWN RODS ETC & NOS OF 400MM BRACKET CEILING FANS SHALL BE PROVIDED AT STRATEGIC LOCATIONS.

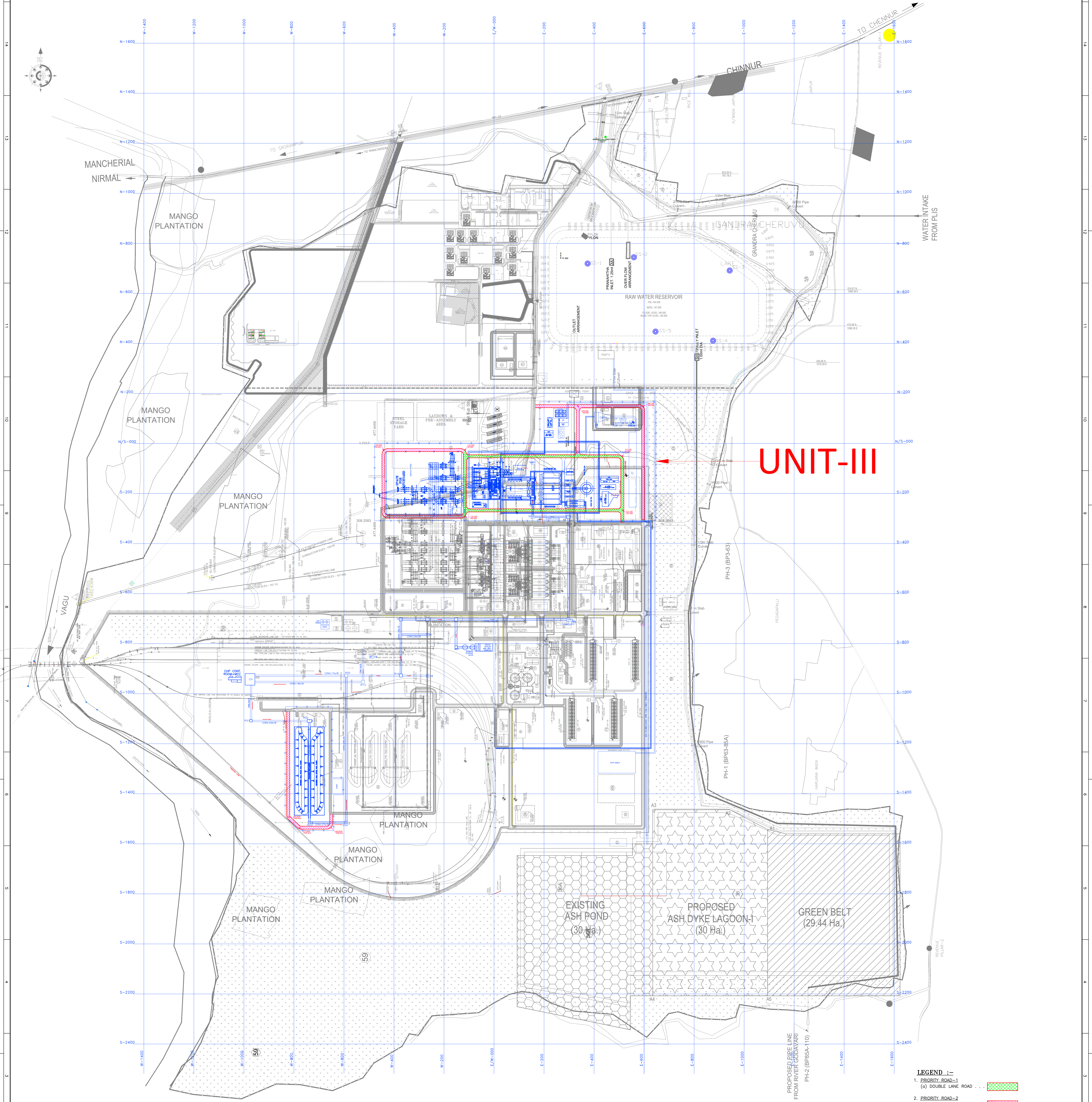
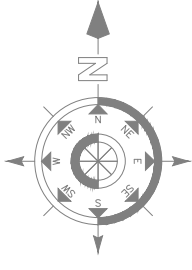
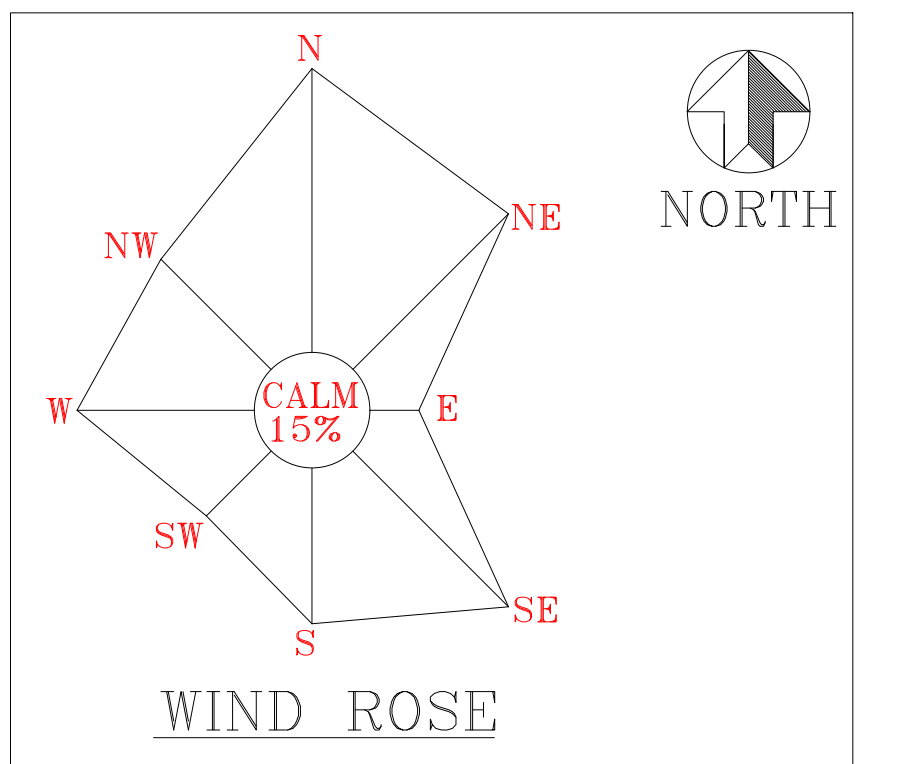
EXCLUSIONS

- 1.SAFETY EQUIPMENTS AS SHOWN IN THE DRAWING

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ELEVATIONS ARE IN METERS.
2. DRAWING SHALL NOT BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
3. THE SIZE/LEVELS OF THE BUILDINGS SHOWN ARE TENTATIVE AND SHALL BE
FINALIZED DURING DETAIL ENGINEERING.
4. WORK TO BE EXECUTED AS PER APPROVED FINAL WORKING DRAWING.

		एन टी पी सी लिमिटेड NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE) (ENGINEERING DIVISION)	
PROJECT		<u>SINGRENI THERMAL POWER PROJECT</u> (1X800 MW)	
TITLE		<u>SAFETY PARK</u> ARCH. DETAILS & SPECIFICATIONS	
SIZE	SCALE	DRG. NO.	REV. NO.
A1	1:100	CW-MK-21244-001-POC-A-001	A



NOTES:-

1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METRES.
2. TOP OF ROAD CREST LEVEL SHALL BE 350MM ABOVE THE FINISHED GROUND LEVEL (FGL).
3. THE CREST LEVEL OF THE ROAD SHALL CORRESPOND TO THE LEVEL AT THE TOP OF CONCRETE PAVEMENT AT THE CENTRE OF ROAD.
4. CAMBER SHALL BE PROVIDED AT SUBGRADE LEVEL.
5. THE LAYOUT OF ROAD SHOWN IN THE DRAWING IS PRELIMINARY LAYOUT AND DETAIL LAYOUT WILL BE FINALISED DURING DETAILED ENGINEERING STAGE.
6. APPROACH ROAD TO ALL BUILDING/FACILITIES SHALL BE PROVIDED BY BIDDER. APPROACH ROAD TO ALL BUILDING IS NOT SHOWN IN DRAWING FOR MORE CLARITY.
7. TURNING CIRCLE RADIUS ADEQUATE FOR 16 WHEEL TRUCK SHALL BE PROVIDED AT ALL RELEVANT POINTS INCLUDING APPROACH (ENTRY/ EXIT) AND ACCESS ROAD FOR TRUCK MOVEMENT AT LOADING/UNLOADING/WEIGHMENT FACILITIES OF LIME STONE, GYPSUM, ASH, BIOMASS FOR EFFICIENT AND SAFE MOVEMENT OF TRUCK.

LEGEND :-

1. PRIORITY ROAD-1
(a) DOUBLE LANE ROAD . . .
2. PRIORITY ROAD-2
(a) DOUBLE LANE ROAD . . .
3. FINISHED GROUND LEVEL (FGL)
RL+1144.0M, 143.0M, 142.5M,
142.0M, 141.5M, 140.0M

REFERENCE DRAWING

1.CW-MK-21244-999-POC-F-001 TITLED 'GENERAL LAYOUT PLAN'

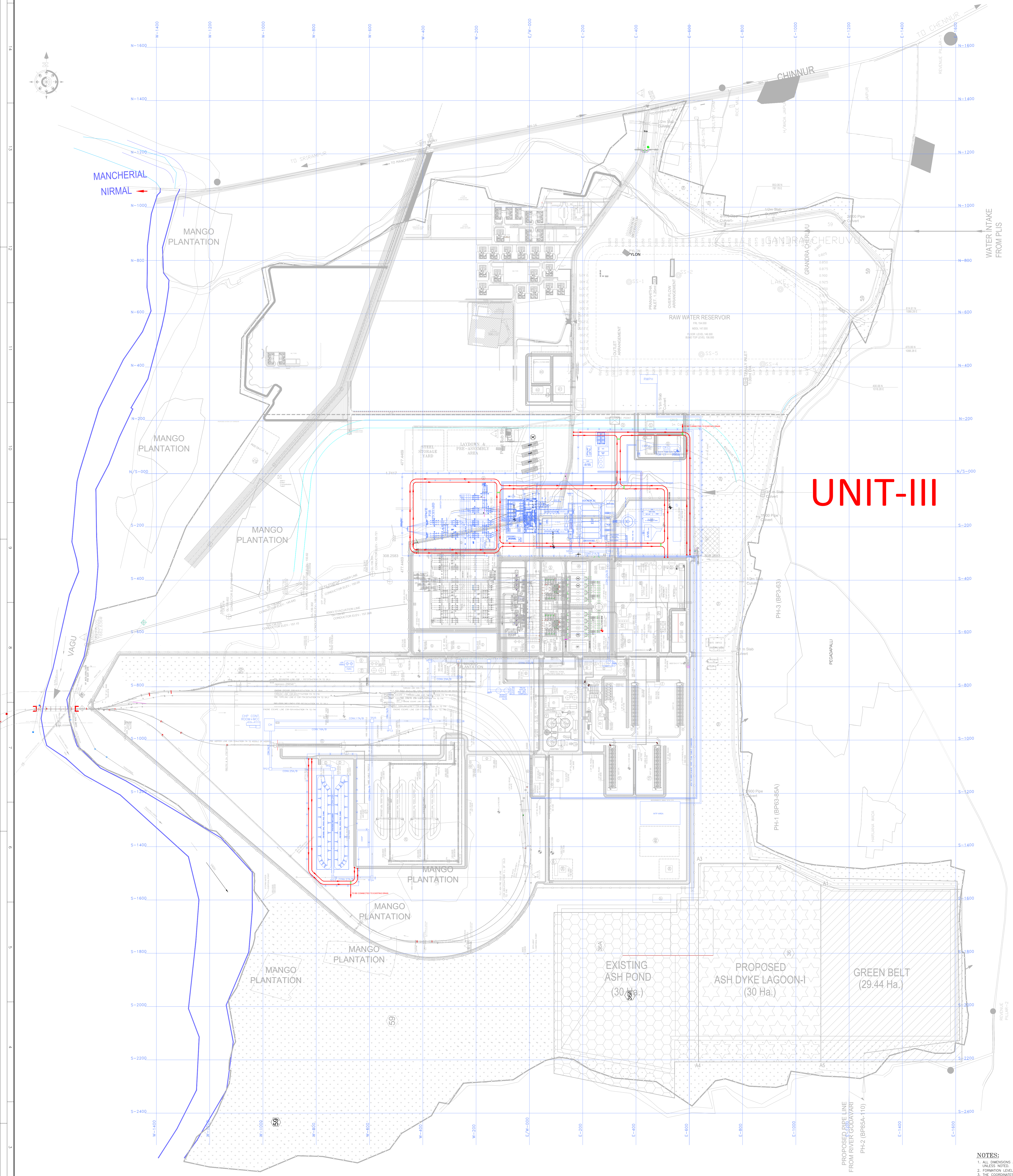
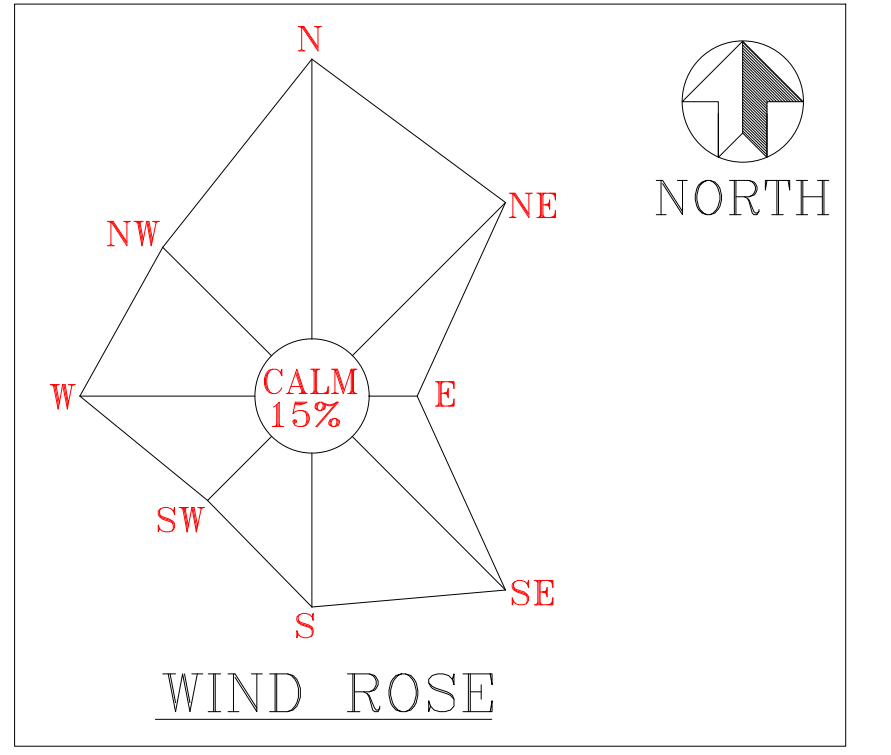
FOR TENDER PURPOSE ONLY

OWNER THE SINGARENI COLLIERIES COMPANY LTD.
CONSULTANT NTPC Limited
(A GOVERNMENT OF INDIA ENTERPRISE)
CONSULTANCY WING

PROJECT SCCL COAL BASED THERMAL POWER PLANT (1X800MW)
TITLE LAYOUT OF ROAD
DWG. NO. CW-MK-21244-001-POC-A-003
REV. NO. A

DATE 02/01/25
SCALE 1:1000
DRAWN BY
CHECKED BY
APPROVED BY

0 40 80 120 160 200M
SCALE



UNIT-III

- NOTES:
1. ALL DIMENSIONS ARE IN MM. LEVELS AND COORDINATES ARE IN METRES, UNLESS NOTED.
 2. FORMATION LEVELS OF VARIOUS BLOCKS IS AS SHOWN IN THE DRAWING.
 3. THE COORDINATES OF BRICKS AS SHOWN IN THE DRAWING IS BRICK SIZE OF DRAIN.
 4. ALL EXCAVATION WORK, BACK FILLING, LAYING OF VARIOUS LAYERS OF LEVEL (FILL).
 5. THE SURROUNDING GROUND SHALL BE ADEQUATELY SLOPED TOWARDS THE ADJACENT DRAIN DITCHES.
 6. DRAIN LAYOUT IS BASED ON GENERAL LAYOUT PLAN DRAWING NO. 9596-000-POC-1-001 LATEST AS ON DATE. A AREA DRAINAGE STUDY.
 7. DRAINAGE CONSTRUCTION SHALL BE DONE AS PER DETAIL DRAWING OF DRAIN.

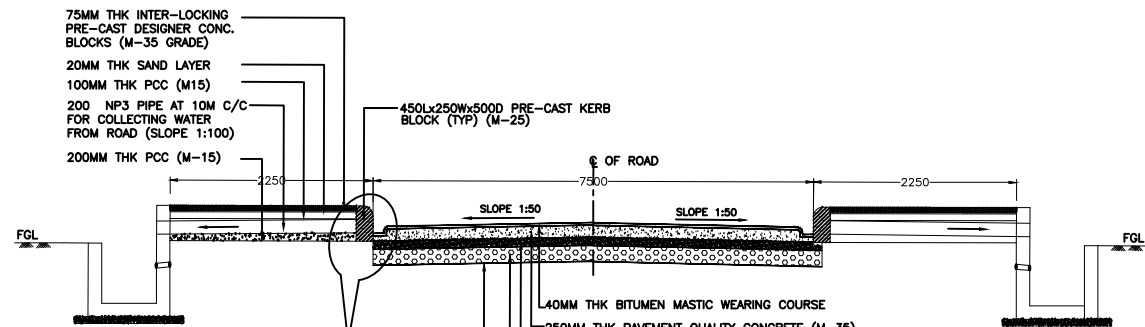
- LEGEND:
1. CATCH DRAIN
 2. ROADS (DOUBLE LANE)
 3. ROADS (SINGLE LANE)
 4. RCC CULVERTS

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OWNER
THE SINGARENI COLLIERIES COMPANY LTD.
CONSULTANT
NTPC Limited
A GOVERNMENT OF INDIA ENTERPRISE
CONSULTANCY WING

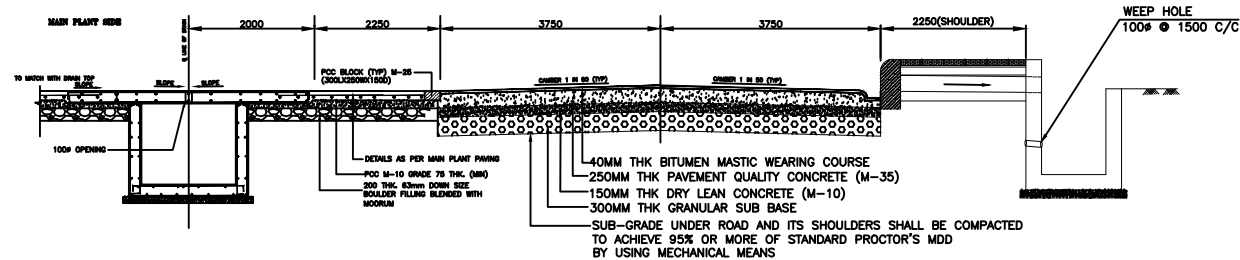
PROJECT
SCCL COAL BASED THERMAL POWER PLANT
(1X900MW)
TITLE
LAYOUT OF DRAIN

REV.	DESCRIPTION	DATE	BY	CHECKED BY	SCALE	DATE	REV.
0	FOR TENDER PURPOSE						

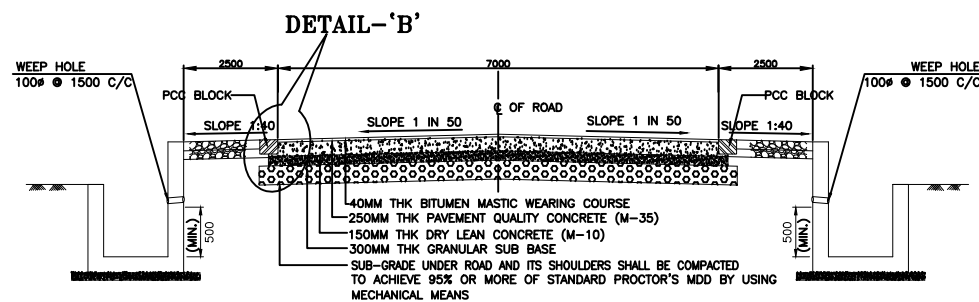


DETAIL-'A'

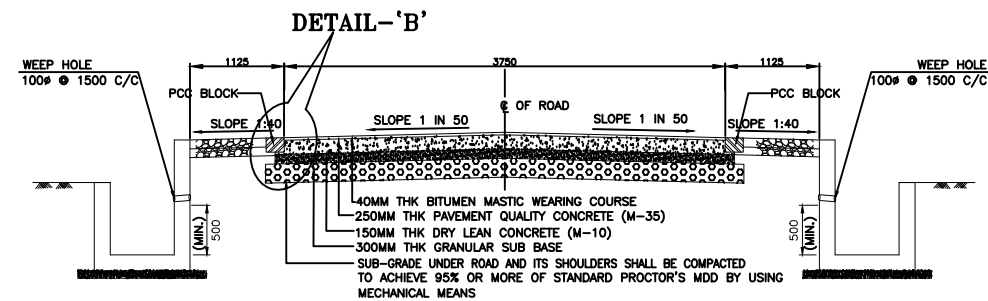
TYPICAL CROSS SECTION OF DOUBLE LANE ROAD
(WITH RAISED SHOULDERS)



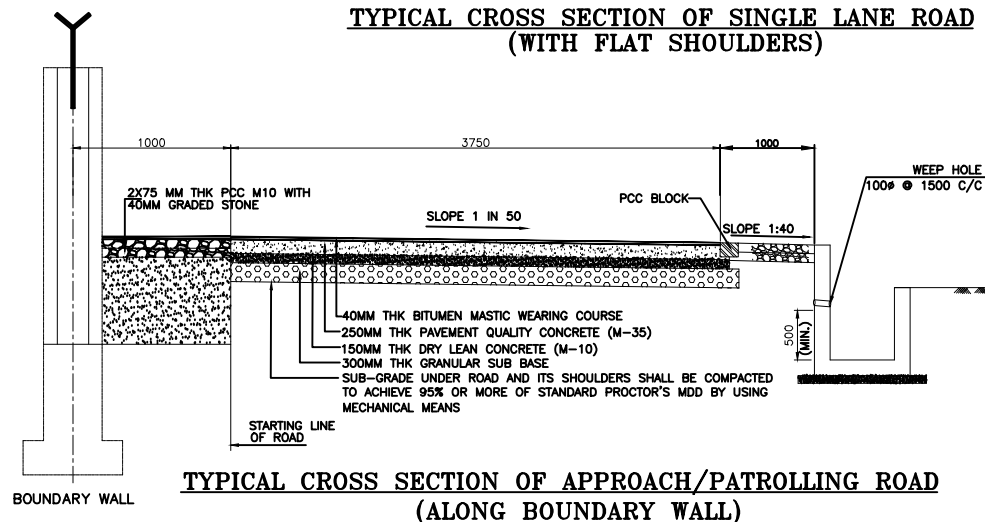
TYPICAL CROSS SECTION OF DOUBLE LANE
SURROUNDING MAIN POWER HOUSE



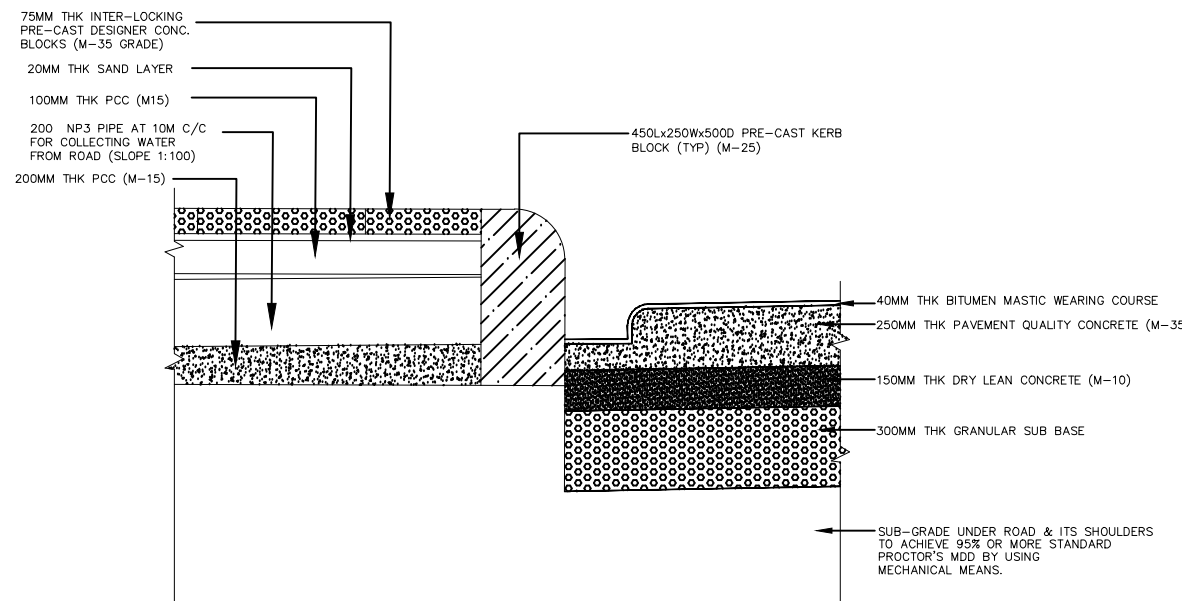
TYPICAL CROSS SECTION OF DOUBLE LANE ROAD
(WITH FLAT SHOULDERS)



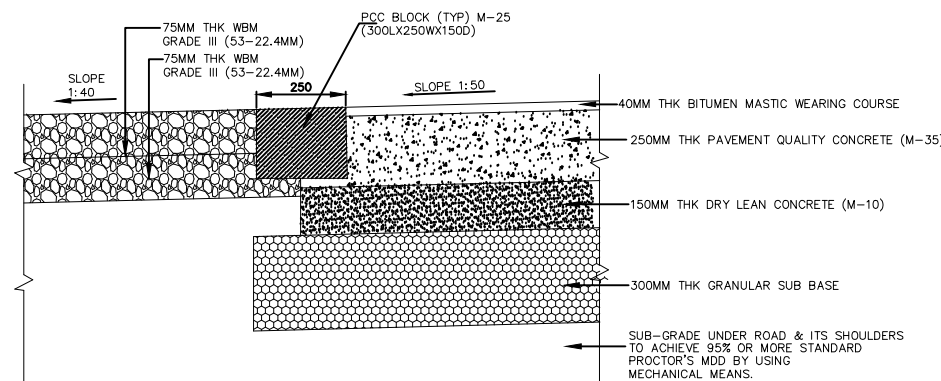
TYPICAL CROSS SECTION OF SINGLE LANE ROAD
(WITH FLAT SHOULDERS)



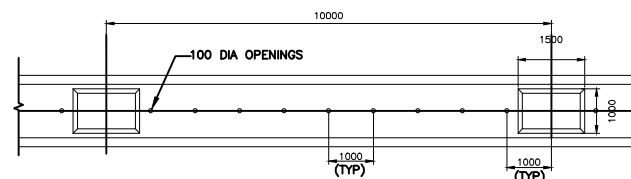
TYPICAL CROSS SECTION OF APPROACH/PATROLLING ROAD
(ALONG BOUNDARY WALL)



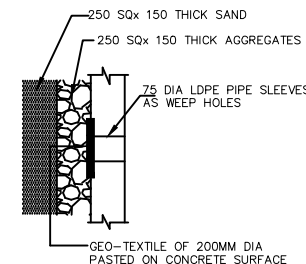
DETAIL-'A'



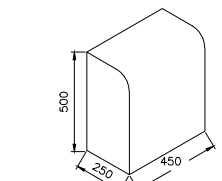
DETAIL-'B'



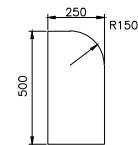
MANHOLE/DRAIN COVER LAYOUT PLAN
IN MAIN PLANT AREA (TYPICAL)



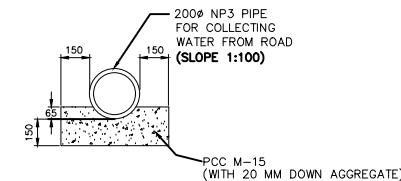
DETAILS OF
WEEP HOLES



ISOMETRIC VIEW OF
KERB BLOCK



DETAILS OF
KERB BLOCK



SECTION B
DETAILS OF 200 DIA NP3
PIPES LAYING AT 10M C/C
(CONTINUOUS CRADLE BEDDING)

NOTES

1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METRES.
2. TOP OF ROAD CREST LEVEL SHALL BE 350MM ABOVE THE FINISHED GROUND LEVEL (FGL).
3. THE CREST LEVEL OF THE ROAD SHALL CORRESPOND TO THE LEVEL AT THE TOP OF CONCRETE PAVEMENT AT THE CENTRE OF ROAD.
4. CAMBER SHALL BE PROVIDED AT SUBGRADE LEVEL.
5. ALL EXCAVATION WORK, BACK FILLING, LAYING OF VARIOUS LAYERS OF ROAD CONSTRUCTION SHALL BE AS PER TECHNICAL SPECIFICATIONS.
6. NO MATERIAL WITH CBR VALUE LESS THAN 100% SHOULD BE USED IN BASE CONSTRUCTION.
7. THE SHOULDERS ON BOTH SIDES OF THE ROAD SHALL BE PROPERLY COMPACTED.
8. ROAD CONSTRUCTION SHALL BE DONE AS PER DETAIL DRAWING OF ROAD.
9. CONCRETE SHALL BE OF GRADE M25 FOR DRAINS AND CULVERTS AS PER IS: 456-2000.

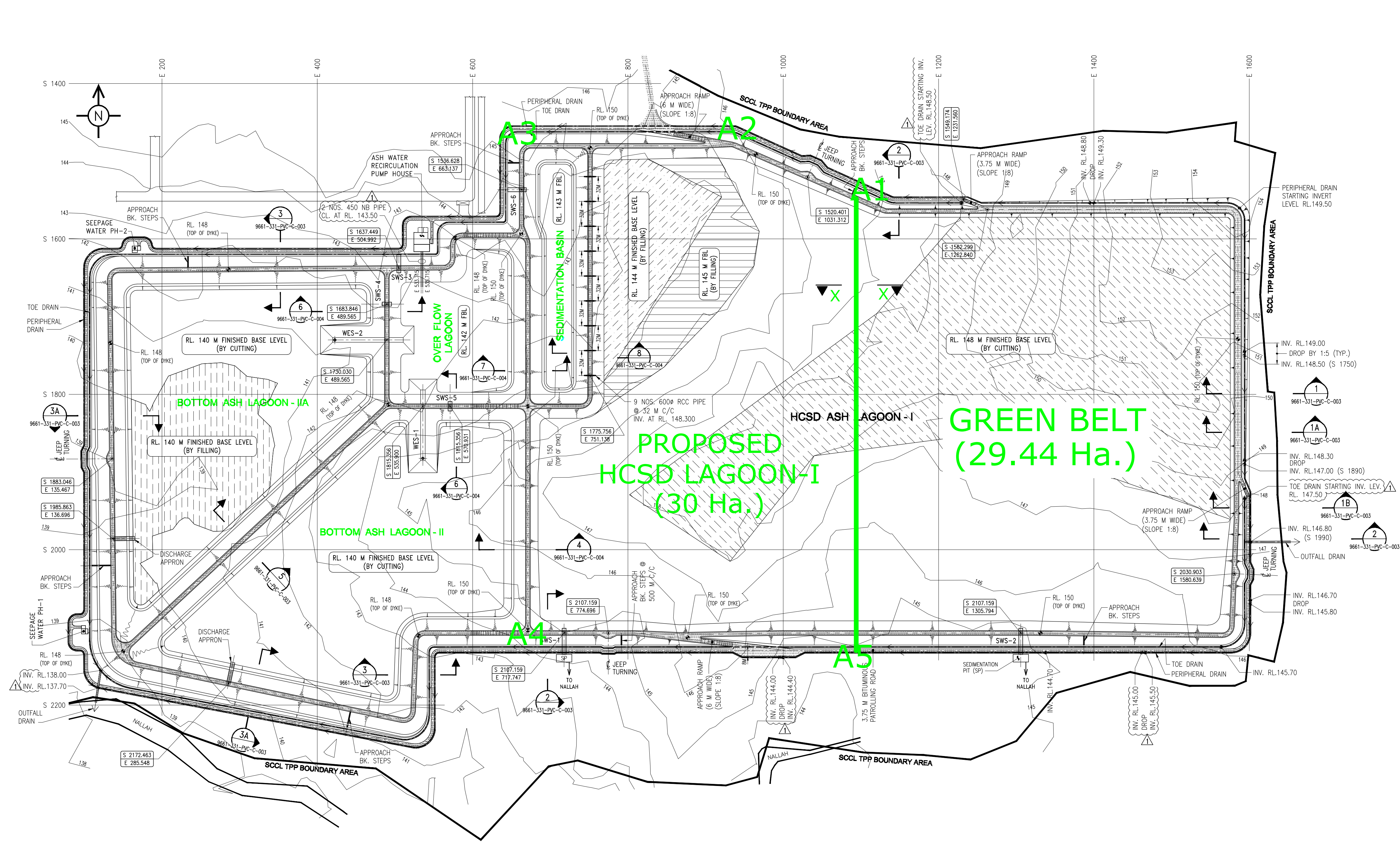
REFERENCE DRAWING

1. CW-MK-21244-999-POC-F-001 TITLED 'GENERAL LAYOUT PLAN'
2. CW-MK-21244-001-POC-A-003 TITLED 'LAYOUT OF ROADS'

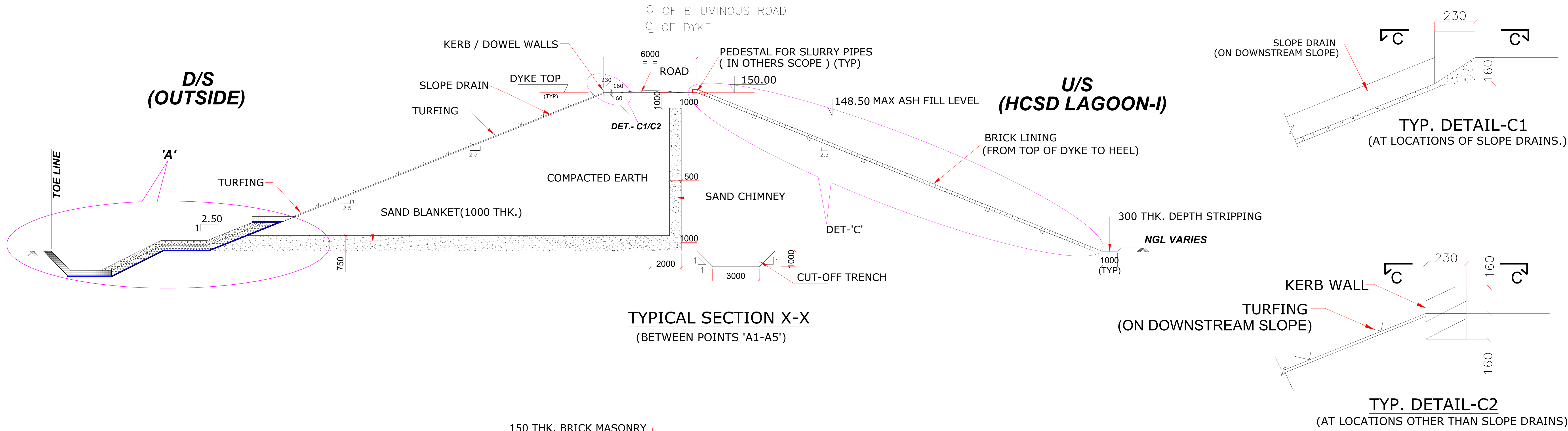
FOR TENDER PURPOSE ONLY

OWNER THE SINGARENI COLLIRIES COMPANY LTD.		CONSULTANT NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE) ENGINEERING DIVISION	
PROJECT SCCL COAL BASED THERMAL POWER PLANT (1x800 MW)		TITLE DETAILS OF ROADS	
SIZE A1	SCALE NTS	DRG. NO. CW-MK-21244-001-POC-A-005	REV. NO. A

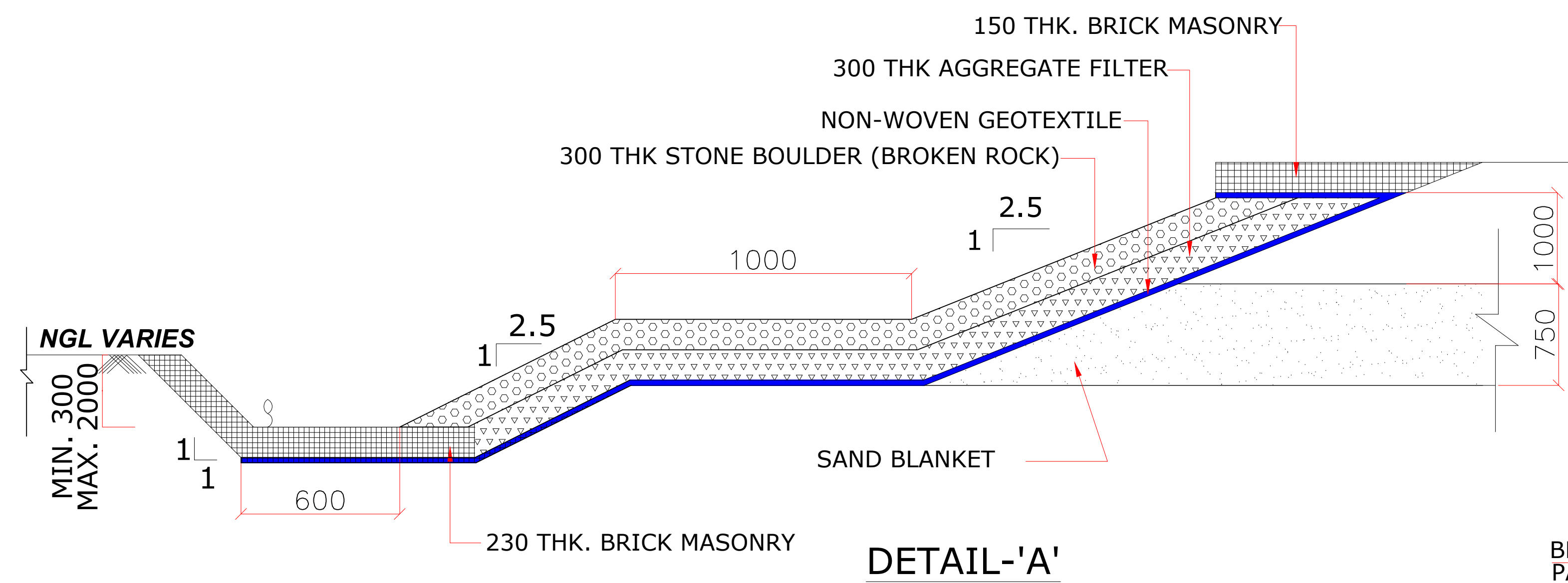
REV. NO.	DESCRIPTION	DRN	DESIGN	CHKD.	M	E	C	C&I	ES	APPD	DATE
A	FOR TENDER PURPOSE ONLY	TSY	KK		-	-	-	-	-		02.01.23
O	FOR TENDER PURPOSE ONLY	MANOU	KK		-	-	-	-	-		12.05.22
CLEARED BY											



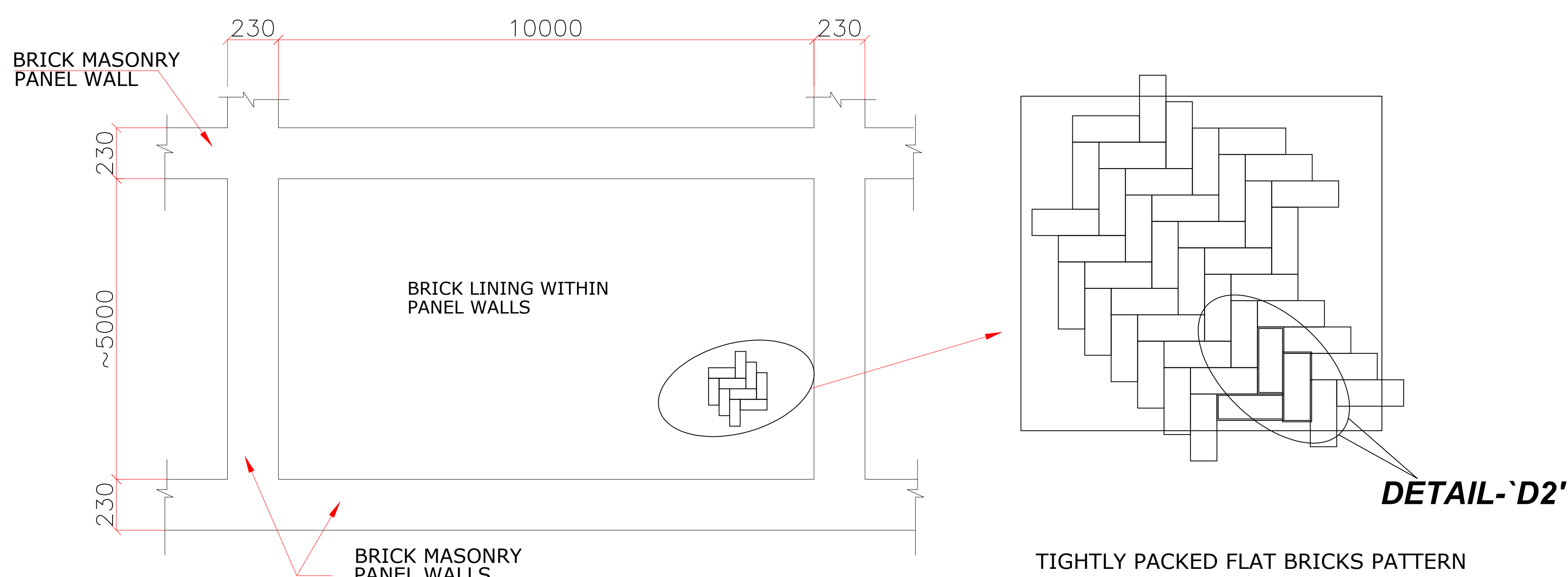
LAYOUT PLAN OF ASH POND AREA



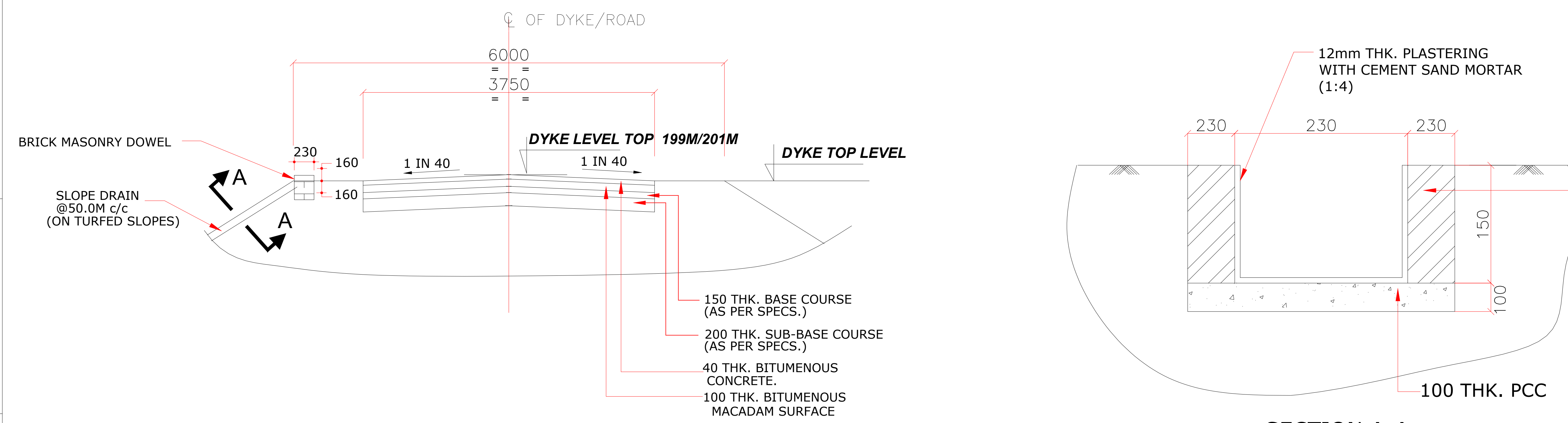
TYPICAL SECTION X-X
(BETWEEN POINTS 'A1-A5')



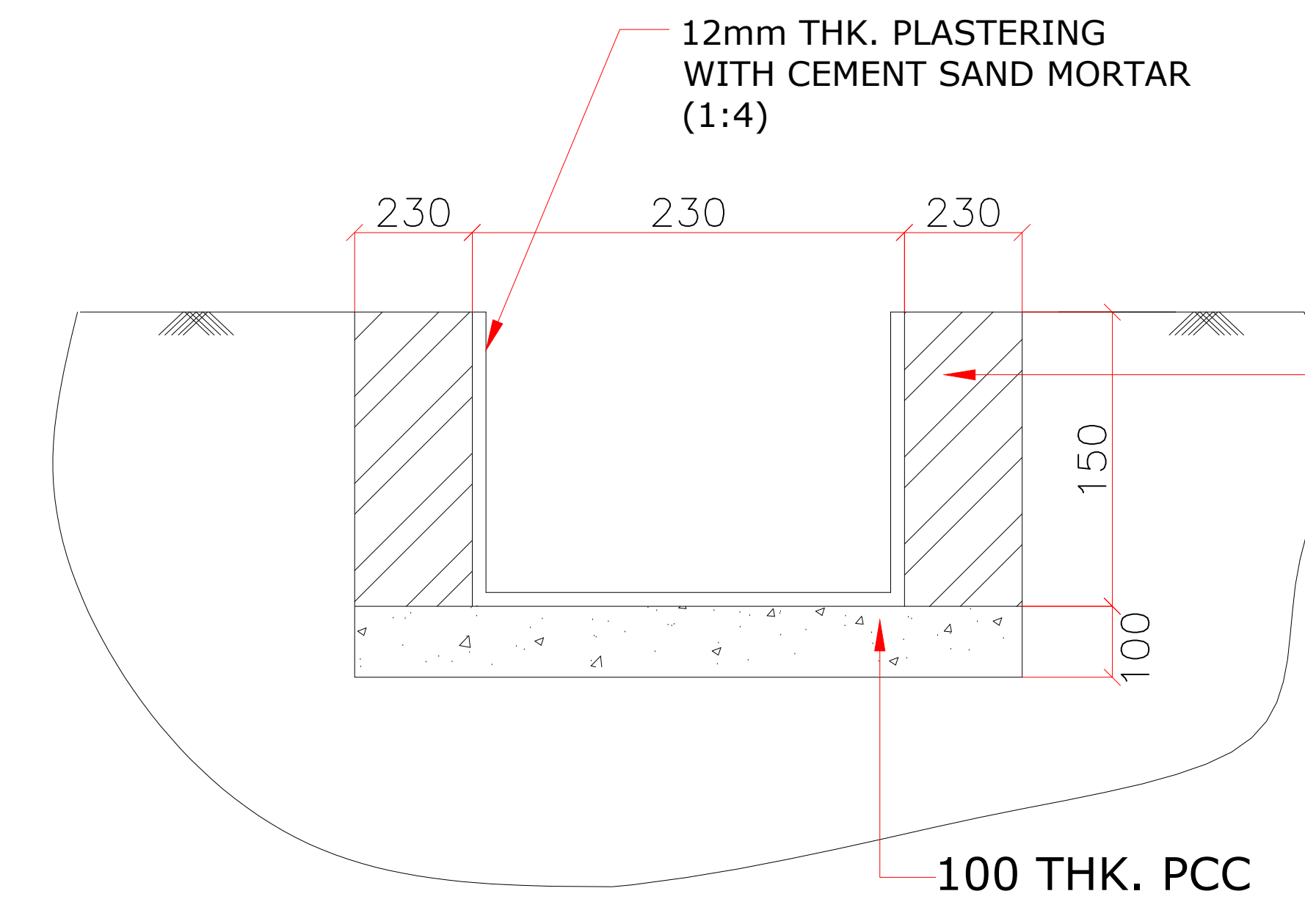
DETAIL-'A'



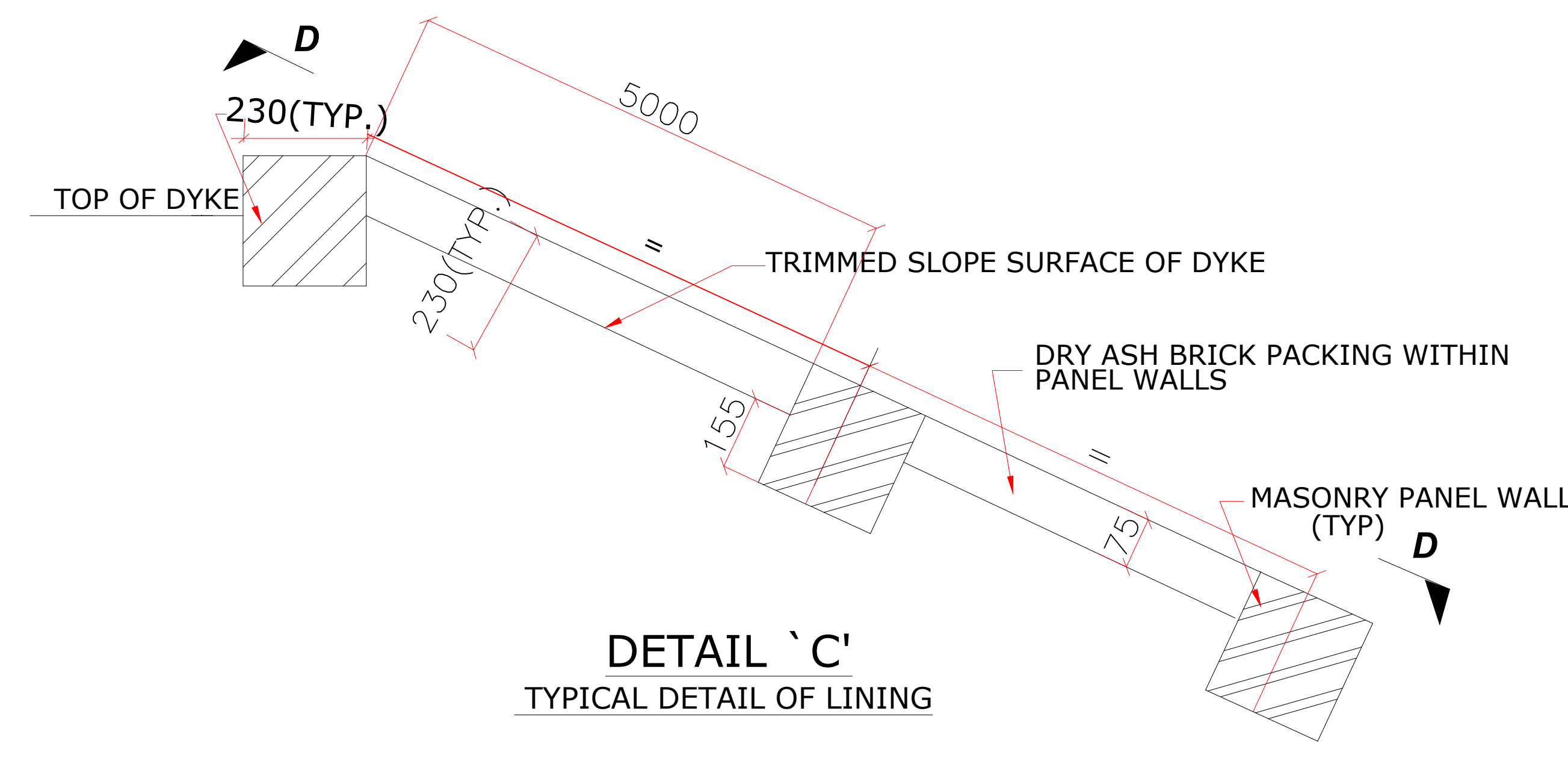
VIEW D - D
(TYPICAL)



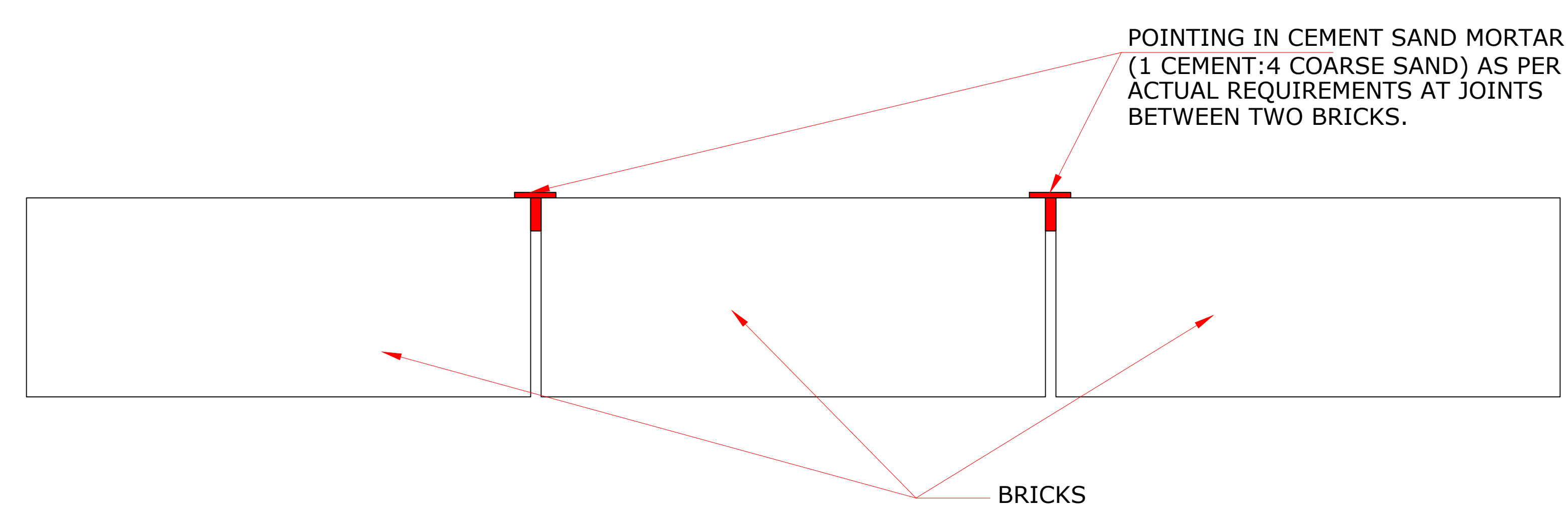
DETAIL OF BITUMINOUS ROAD
(FOR DYKE TOP ROADS/INSIDE APPROACH RAMP)



SECTION A-A
(IN TURFING PORTION)



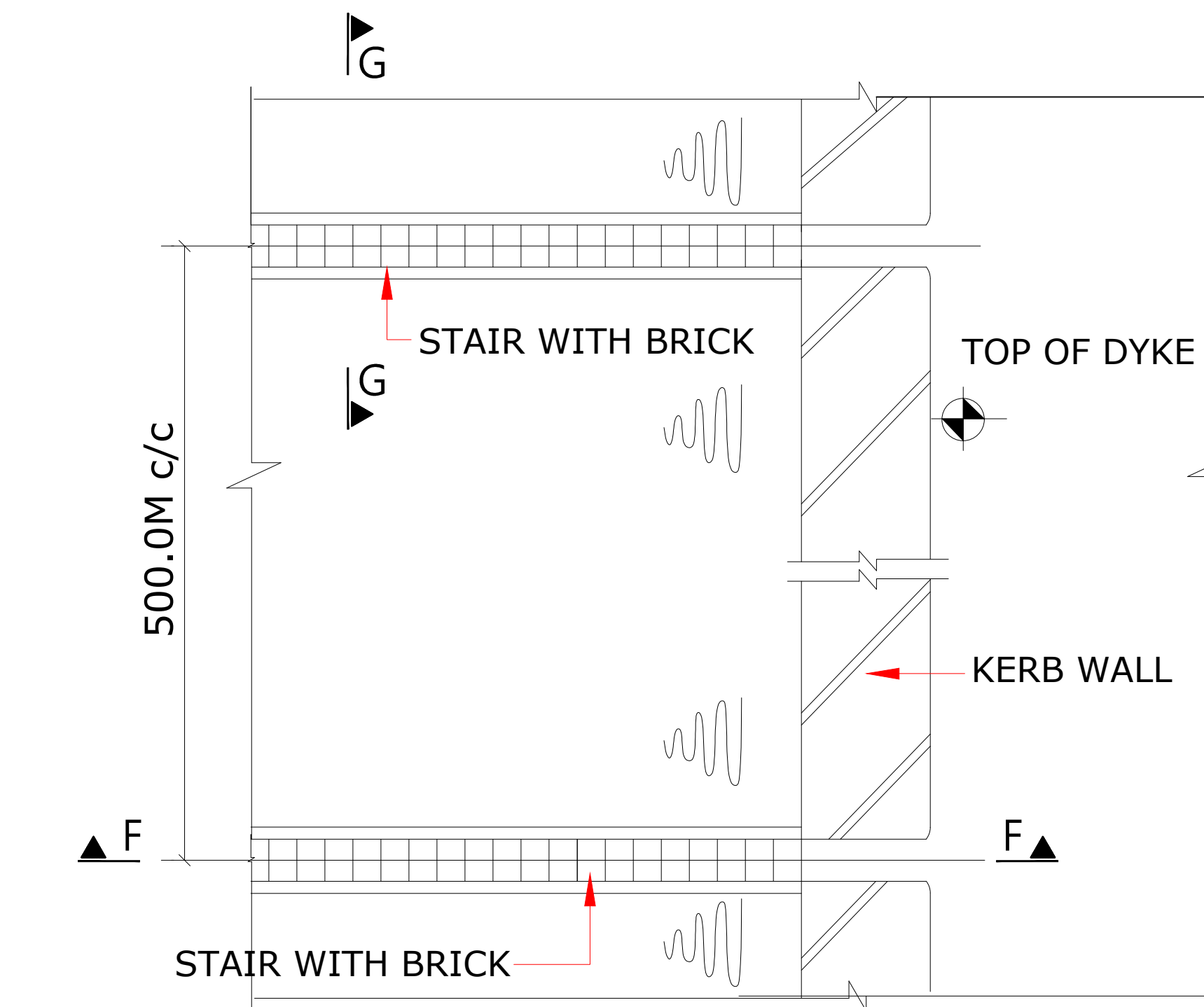
DETAIL 'C'
TYPICAL DETAIL OF LINING



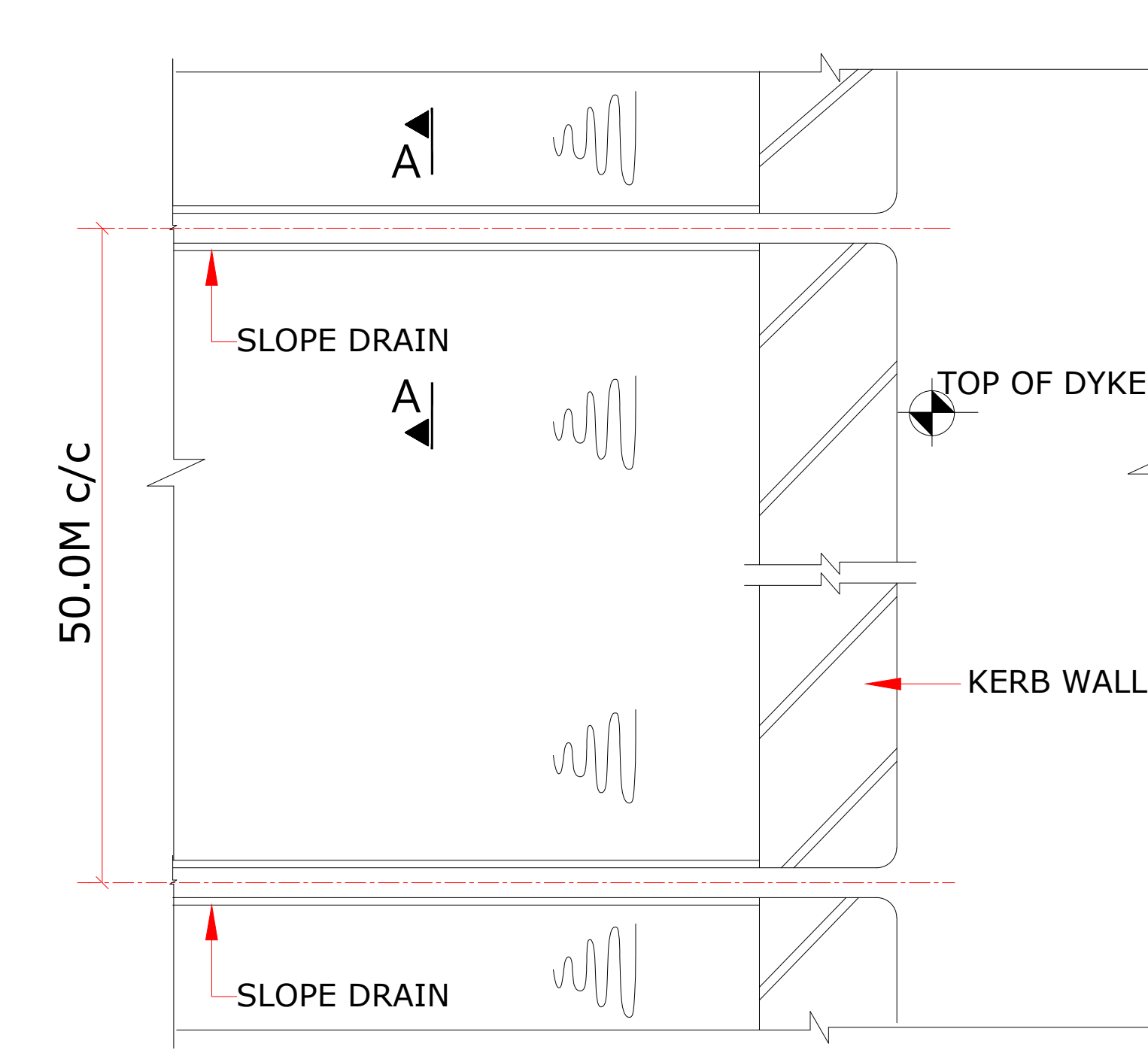
DETAIL-'D2'
FLAT BRICK LINING (TYP)

NOTES:

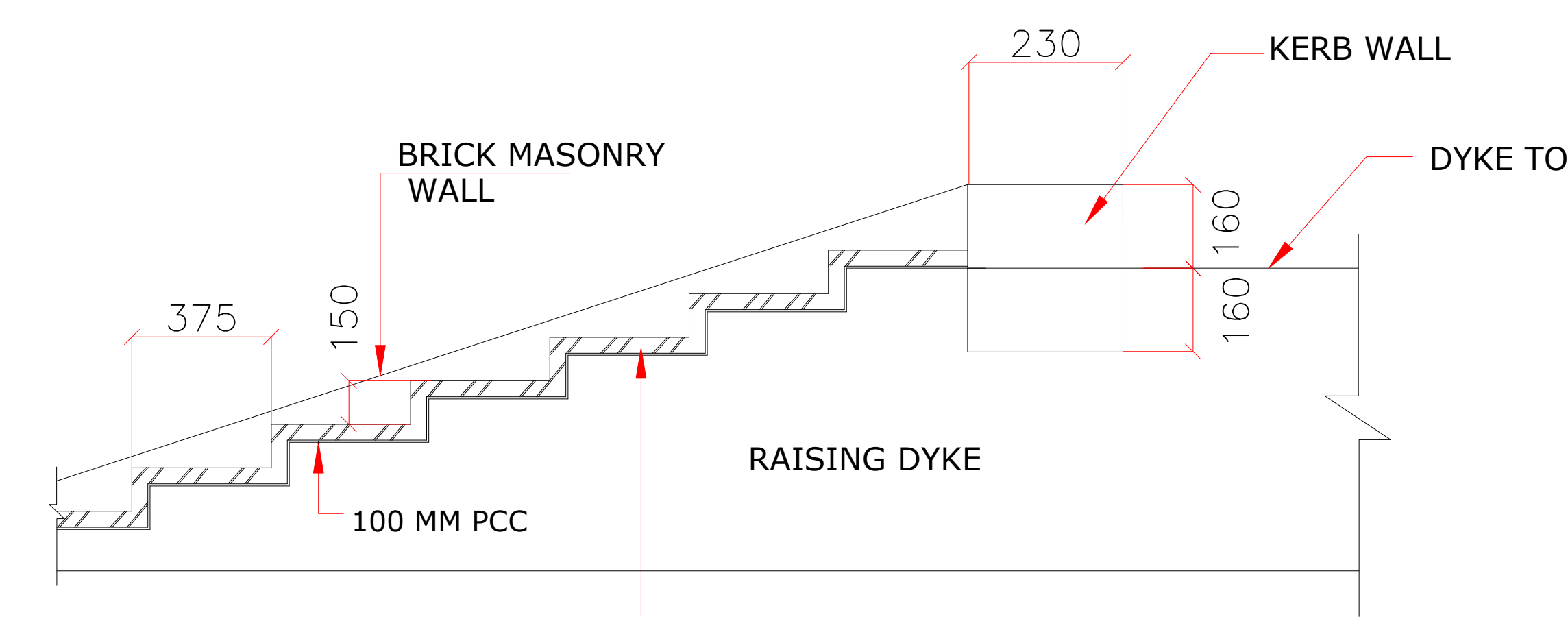
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS NOTED OTHERWISE.
- EXISTING HCSD LAGOON (59.44 Ha) IS TO BE BIFURCATED IN TWO PARTS TO CREATE ONE PART AS ASH DYKE LAGOON-I (30 Ha) AND OTHER PART AS GREEN BELT (30 Ha). IN THE PROPOSED CREATION OF HCSD LAGOON, PRESENTLY FROM THREE SIDES (NAMESLY 'A1-A2-A3', 'A3-A4' & 'A4-A5') STARTER DYKE IS ALREADY CONSTRUCTED UPTO RL. 150.0 AND ONLY AN INTERMEDIATE STARTER DYKE (UPTO RL. 150.0M) & ASSOCIATED WORKS BETWEEN POINTS 'A1-A5' IS TO BE CARRIED OUT UNDER THIS PACKAGE.
- THE ALLOCATED AREA FOR PROPOSED ASH DYKE LAGOON-I IS ABOUT 30 Ha AND THE NATURAL GROUND LEVEL AT THE PROPOSED ASH DYKE AREA IS VARYING FROM ABOUT RL (+) 144.0M TO ABOUT RL (+) 148.0M.
- THE DETAILS SHOWN IN THE TENDER DRAWINGS ARE THE MINIMUM REQUIREMENTS, WHICH THE BIDDER HAS TO FULFIL. BIDDER TO CARRY OUT DETAILED DESIGN OF ASH DYKE AS PER TECHNICAL SPECIFICATION, STANDARDS AND OTHER FUNCTIONAL REQUIREMENTS OF ASH DYKE. THE FINAL DETAILS TO BE PROVIDED IN CONSTRUCTION DRAWINGS SHALL BE HIGHER OF THE DETAILS SHOWN IN THE TENDER DRAWINGS AND THE ACTUAL DESIGN.
- FOR ALL OTHER DETAILS PLEASE REFER GENERAL LAYOUT PLAN (DRG.NO.CW-MK-999-POC-F-001).



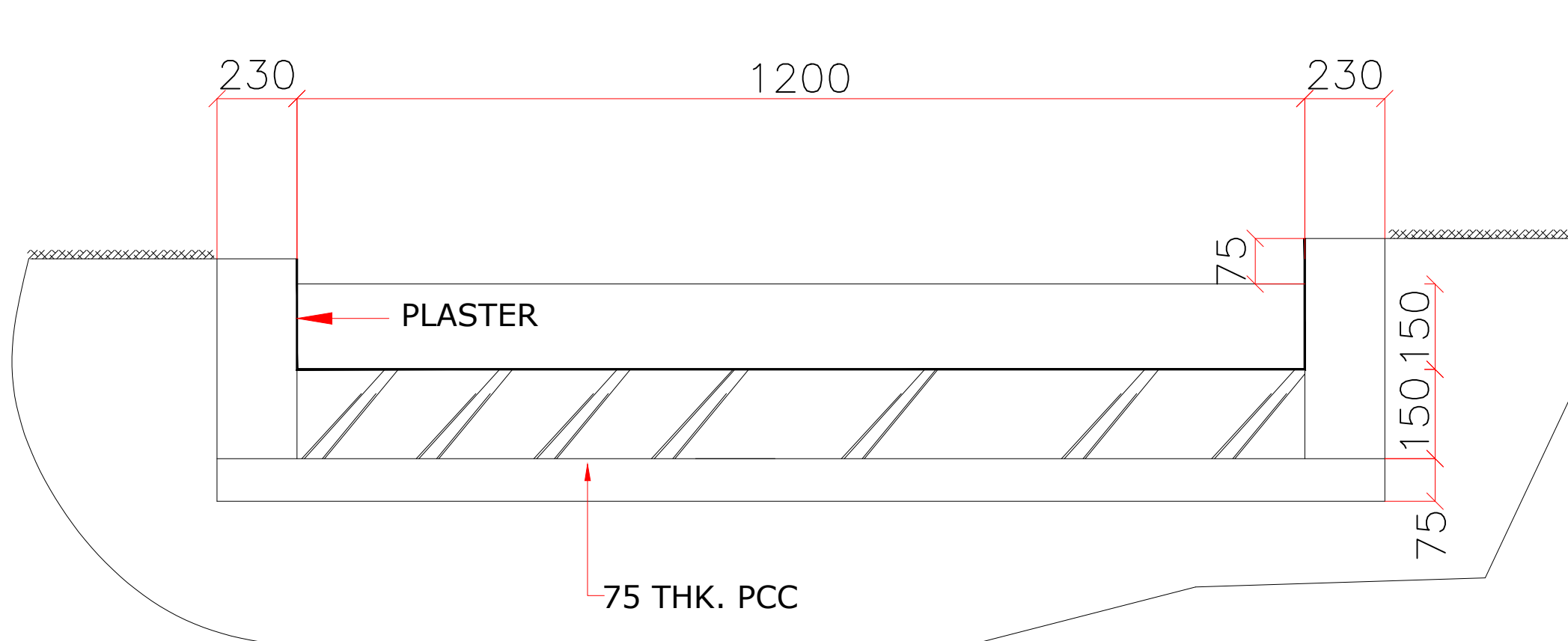
(PART PLAN SHOWING THE STAIR ON D/S SLOPE OF THE DYKE)



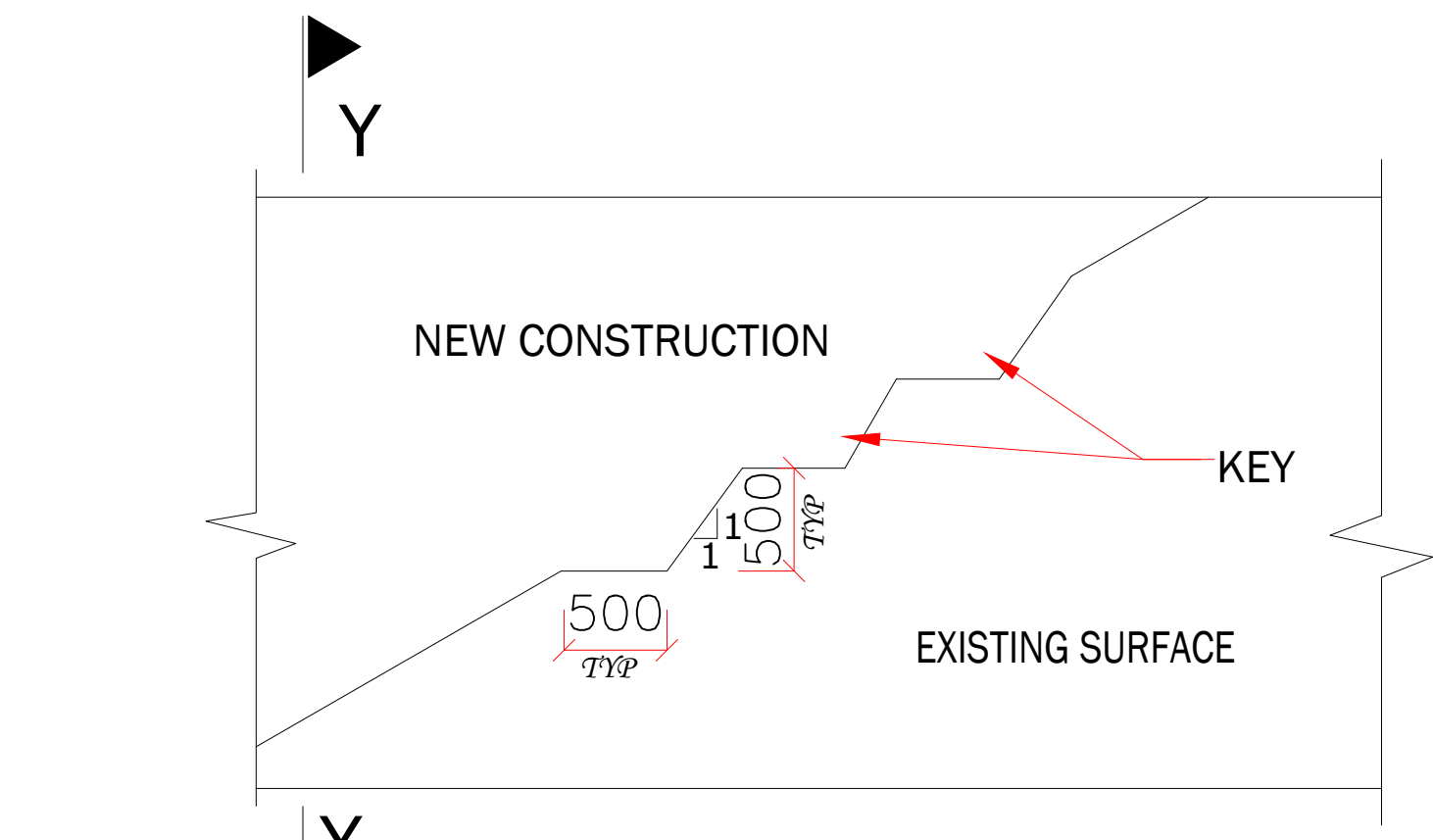
VIEW C-C



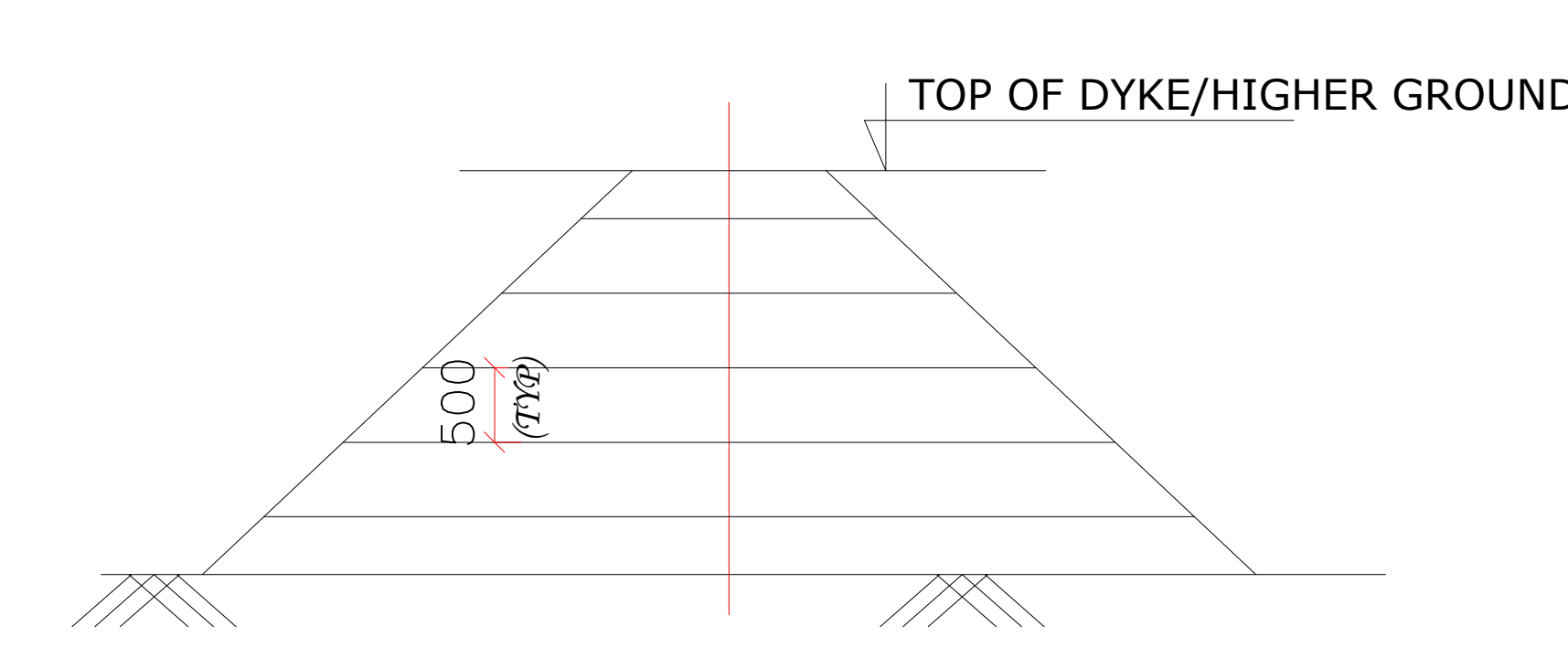
SECTION F-F
(ON DOWNSTREAM SLOPE)



SECTION G-G
(TYPICAL)



TYP KEY DETAILS AT JUNCTION OF NEW CONSTRUCTION WITH EXISTING SURFACE
(ENTIRE SURFACE)



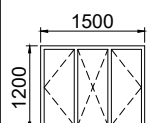
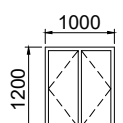
SECTION Y-Y

OWNER		THE SINGARENI COLLIRIES COMPANY LTD.	
CONSULTANT		NTPC Limited	
PROJECT		SCCL COAL BASED THERMAL POWER PLANT	
TITLE		LAYOUT, SECTION AND ALLIED DETAILS OF INTERMEDIATE STARTER DYKE	
REV. NO.		REV. NO.	
DESCRIPTION		CW-MK-21244-331-POC-A-001	
DATE		23.04.2022	
DRAWN		V.K.MAURIA	
DESIGN		S.KHADANGA	
CHKD.		S.KHADANGA	
APPRD.		S.KHADANGA	
SIZE		1 : 4000	
SCALE		CW-MK-21244-331-POC-A-001	
DRG. NO.		A	

FOR TENDER PURPOSE ONLY

FRONT ELEVATION

SIDE ELEVATION

WINDOW SCHEDULE						
LEGEND	WIDTH	HEIGHT	CILL. LEV.	LINTEL LEV.	DESCRIPTION	REMARKS
V1	600	600	1500	2100		STEEL FRAME VENTILATOR WITH FIXED GLASS SHUTTER (6MM THK. TINTED GLASS)
W1	1500	1200	900	2100		MS FRAME COATED WITH PROTECTIVE PAINT WINDOW WITH OPENABLE WINDOW WITH 4mm THK. CLEAR FLOAT GLASS
W2	1000	1200	900	2100		MS FRAME COATED WITH PROTECTIVE PAINT WINDOW WITH OPENABLE WINDOW WITH 4mm THK. CLEAR FLOAT GLASS

1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS.
2. SUITABLE STRUCTURAL ARRANGEMENTS SHALL BE DEVELOPED BY THE BIDDER.
3. SEWERAGE TREATMENT PLANT OF ADEQUATE SIZE AS PER NORMS SHALL BE PROVIDED.

FOR TENDER PURPOSE ONLY

एन टी पी सी NTPC एन टी पी सी लिमिटेड NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE) (ENGINEERING DIVISION)			
PROJECT		SINGRENI THERMAL POWER PROJECT (1X800 MW)	
TITLE		WORKERS ACCOMMODATION FLOOR PLAN & ELEVATIONS	
SIZE	SCALE	DRG. NO.	REV. NO.
A1	1:100	CW-MK-21224-001-POC-A-019-SH-1	A

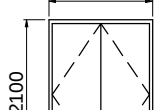
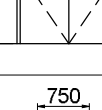
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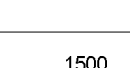
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TYPICAL PLAN OF SHELTER FOR FAMILY WORKERS

FRONT ELEVATION

SIDE ELEVATION

DOOR SCHEDULE					
LEGEND	WIDTH	HEIGHT	LINTEL LVL.	DESCRIPTION	REMARKS
D1	1500	2100	2100		COLD ROLLED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER
D2	750	2100	2100		COLD ROLLED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER
D3	900	2100	2100		COLD ROLLED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER

WINDOW SCHEDULE						
LEGEND	WIDTH	HEIGHT	CILL. LEV.	LINTEL LEV.	DESCRIPTION	REMARKS
V1	600	600	1500	2100		STEEL FRAME VENTILATOR WITH FIXED GLASS SHUTTER (6MM THK. TINTED GLASS)
W1	1500	1200	900	2100		MS FRAME COATED WITH PROTECTIVE PAINT WINDOW WITH OPENABLE WINDOW WITH 4mm THK. CLEAR FLOAT GLASS
W2	1000	1200	900	2100		MS FRAME COATED WITH PROTECTIVE PAINT WINDOW WITH OPENABLE WINDOW WITH 4mm THK. CLEAR FLOAT GLASS

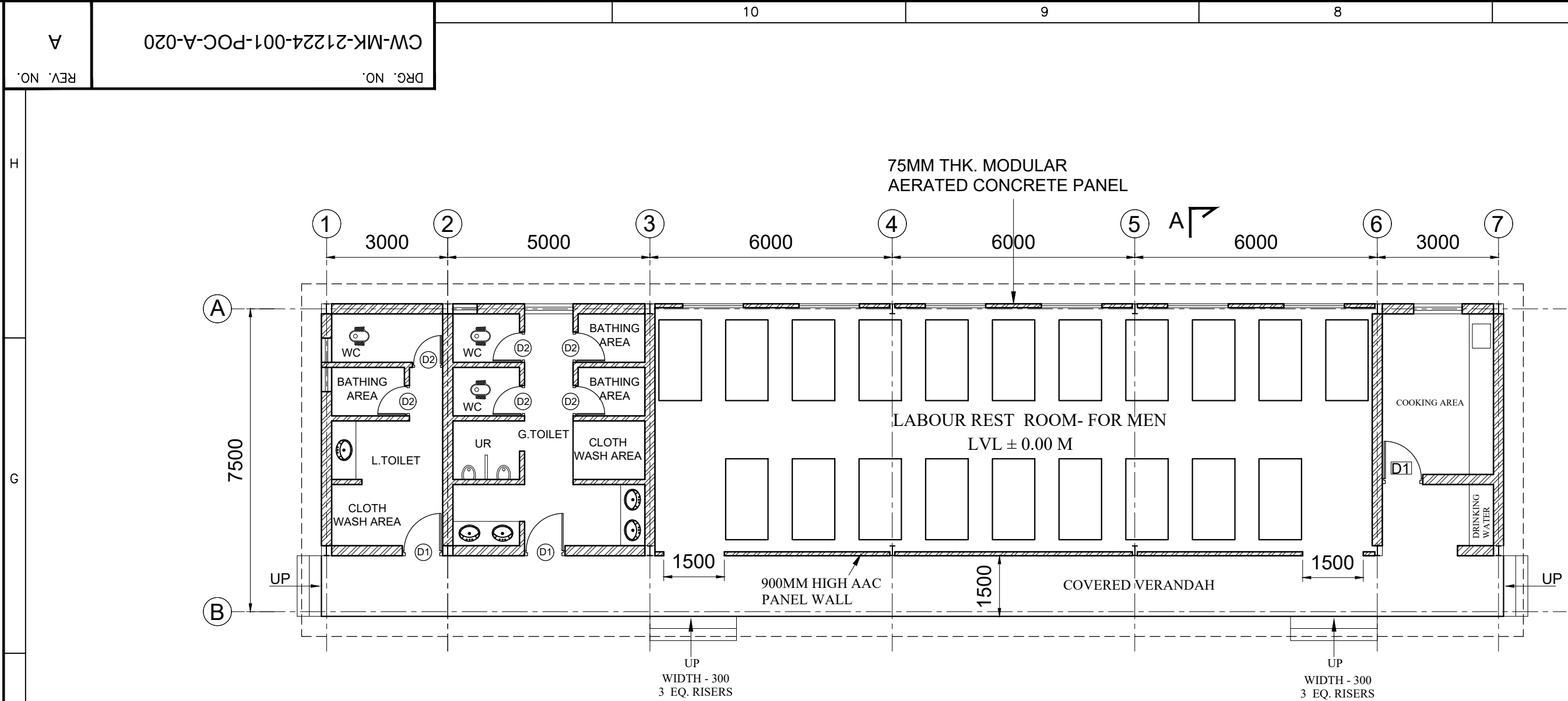
NOTES:

1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS.
2. SUITABLE STRUCTURAL ARRANGEMENTS SHALL BE DEVELOPED BY THE BIDDER.
3. SEWERAGE TREATMENT PLANT OF ADEQUATE SIZE AS PER NORMS SHALL BE PROVIDED

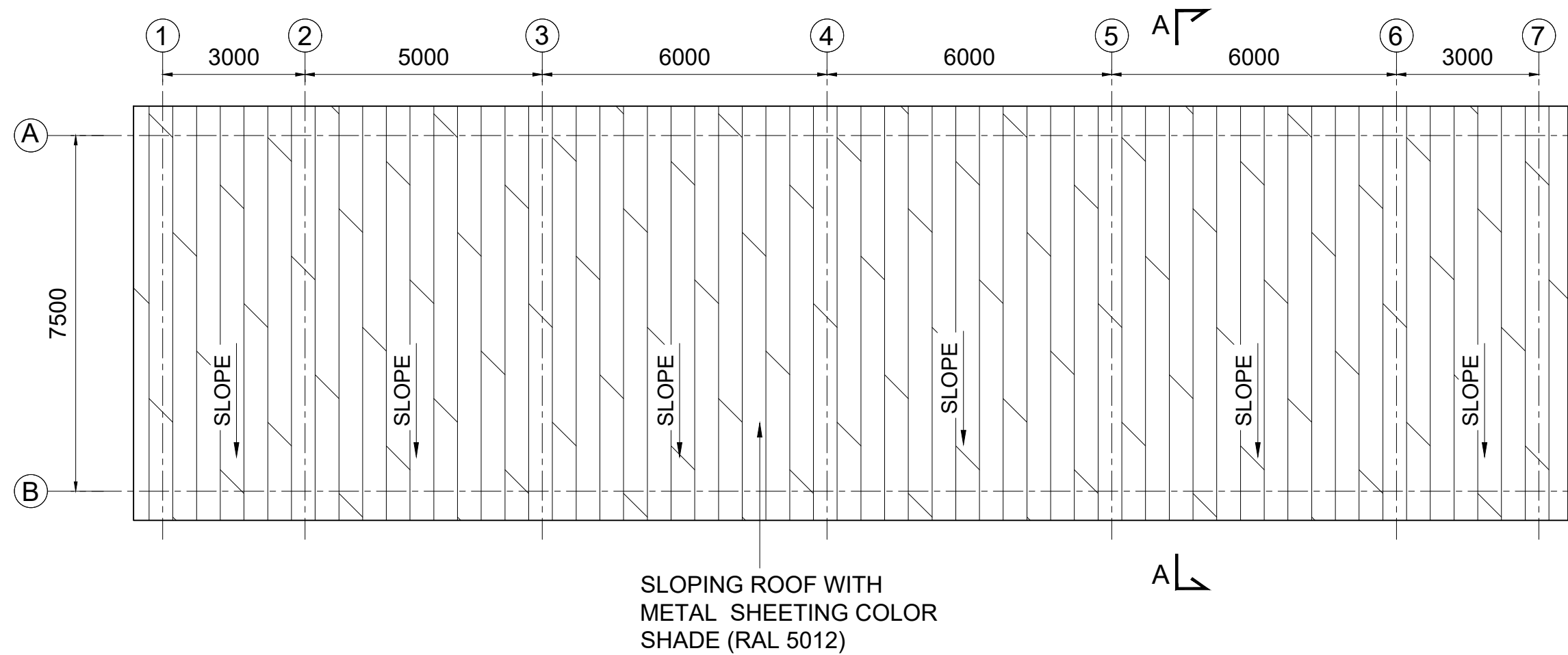
FOR TENDER PURPOSE ONLY

													PROJECT SINGRENI THERMAL POWER PROJECT (1X800 MW)			
													TITLE WORKERS ACCOMODATION FLOOR PLAN & ELEVATIONS			
A	RELEASED FOR TENDER PURPOSE			ARSHI	DK							27/06/22				
REV.	NO		DRAWN	DESIGN	CHKD.	MECH (L/O)	MECH (WS)	ELEC.	C&I	STR.	APPD.	DATE	SIZE	SCALE	DRG. NO.	REV. NO.
	DESCRIPTION					CLEARED BY										
													A1	1:100	CW-MK-21224-001-POC-A-019-SH-3	A

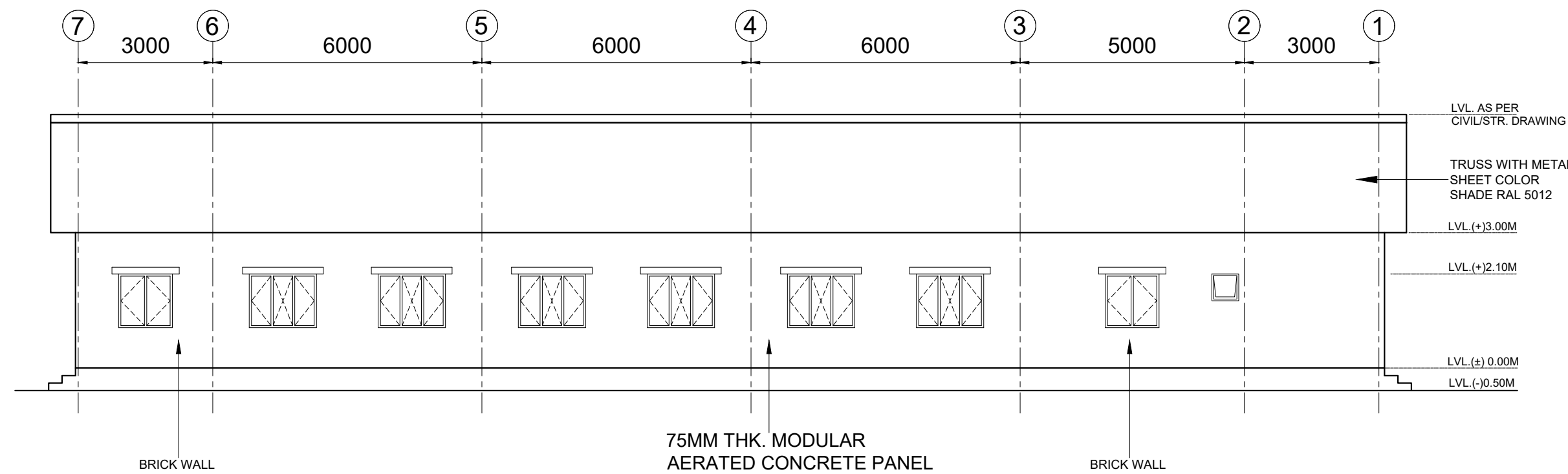
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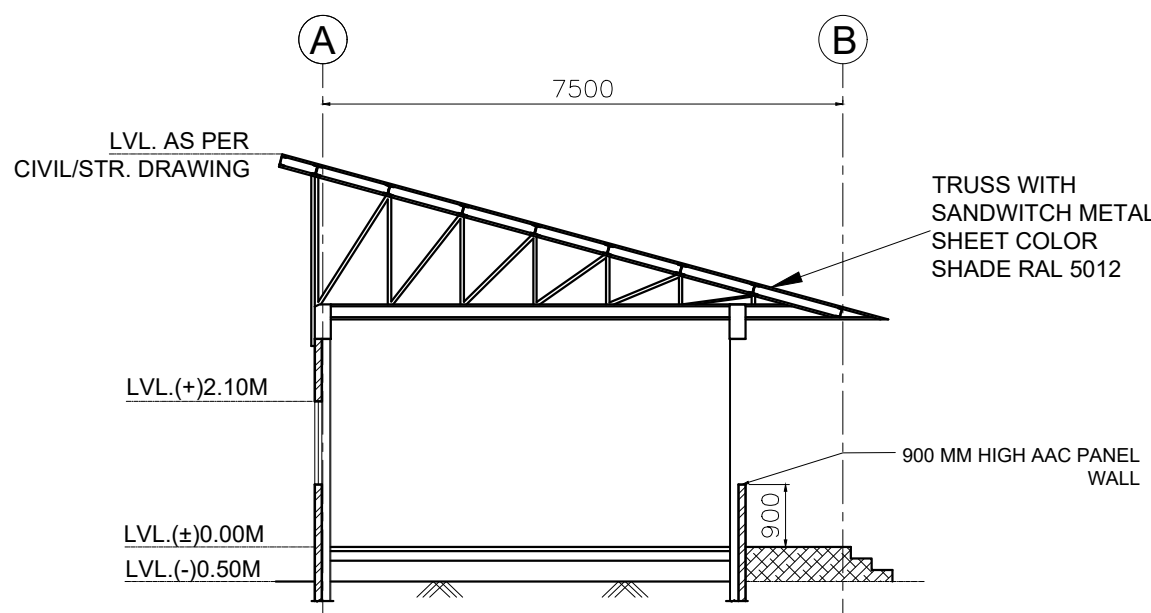
TYP. PLAN OF SHELTER FOR MEN



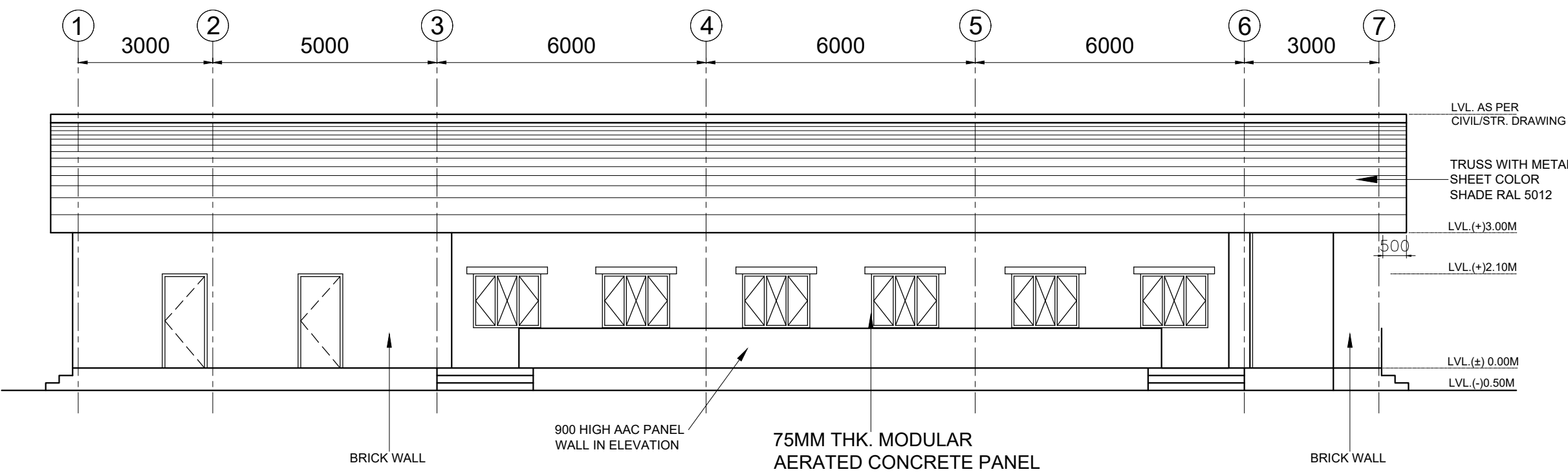
TERRACE PLAN



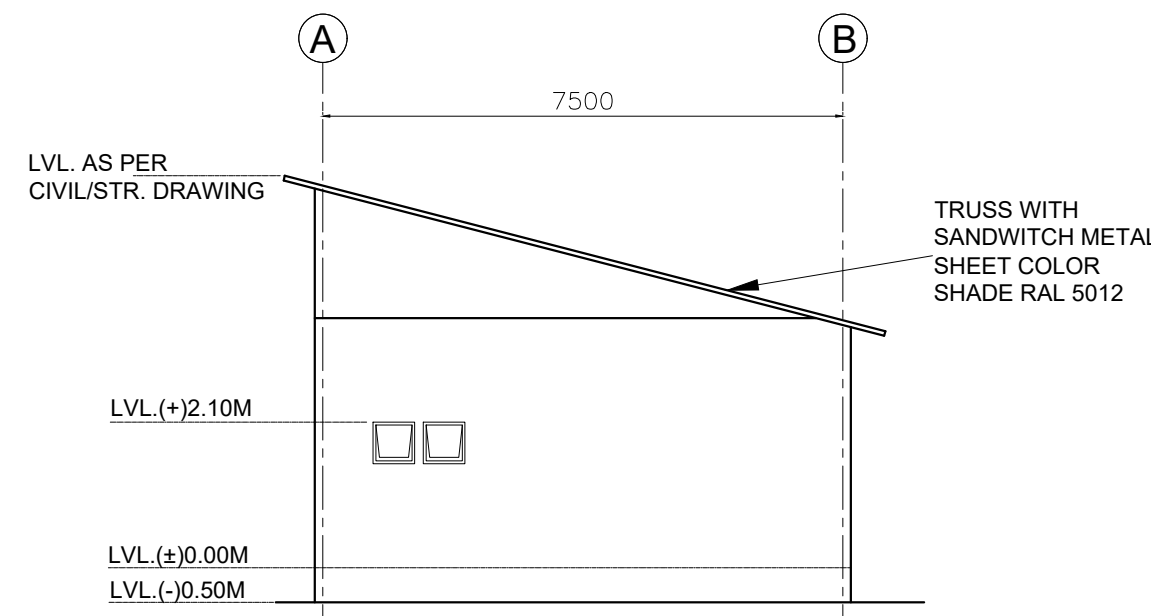
ELEVATION ALONG GRID - A



SECTION-AA

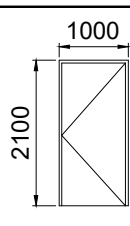
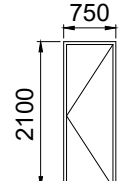


ELEVATION ALONG GRID - B



ELEVATION ALONG AXIS - 1

DOOR SCHEDULE

LEGEND	WIDTH	HEIGHT	LINTEL LVL.	DESCRIPTION	REMARKS
D1	1000	2100	2100		COLD ROLLED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER
D2	750	2100	2100		COLD ROLLED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER

WINDOW SCHEDULE

LEGEND	WIDTH	HEIGHT	CILL LEV.	LINTEL LEV.	DESCRIPTION	REMARKS
V1	600	600	1500	2100		STEEL FRAME VENTILATOR WITH FIXED GLASS SHUTTER (6MM THK. TOUGHENED GLASS)
W1	1200	1200	900	2100		ALUMINIUM GLAZED WINDOW WITH OPENABLE WINDOW WITH 4mm THK. CLEAR FLOAT GLASS
W2	1500	1200	900	2100		ALUMINIUM GLAZED WINDOW WITH OPENABLE & FIXED WINDOW WITH 4mm THK. CLEAR FLOAT GLASS

FINISHING SCHEDULE

FLOOR LEVEL	SPACE DESIGNATION	FLOORING		SKIRTING 150 HIGH/DADO		WALL		CEILING	
		CEMENTED IPS FLOORING	CERAMIC TILES 300X300mm	REMARKS	CEMENT PLASTER SKIRTING	CERAMIC GLAZED WALL TILES	REMARKS	DISTEMPERING WITH 1ST QUALITY ACRYLIC DISTEMPER	REMARKS
FLOOR AT LVL (+)0.00M	REST ROOM	●			●			●	
	TOILET		●			●	DADO 2100MM HIGH	●	ABOVE DADO

EXTERIOR FINISH

FINISHING WALLS WITH ACRYLIC SMOOTH-1 EXTERIOR PAINT

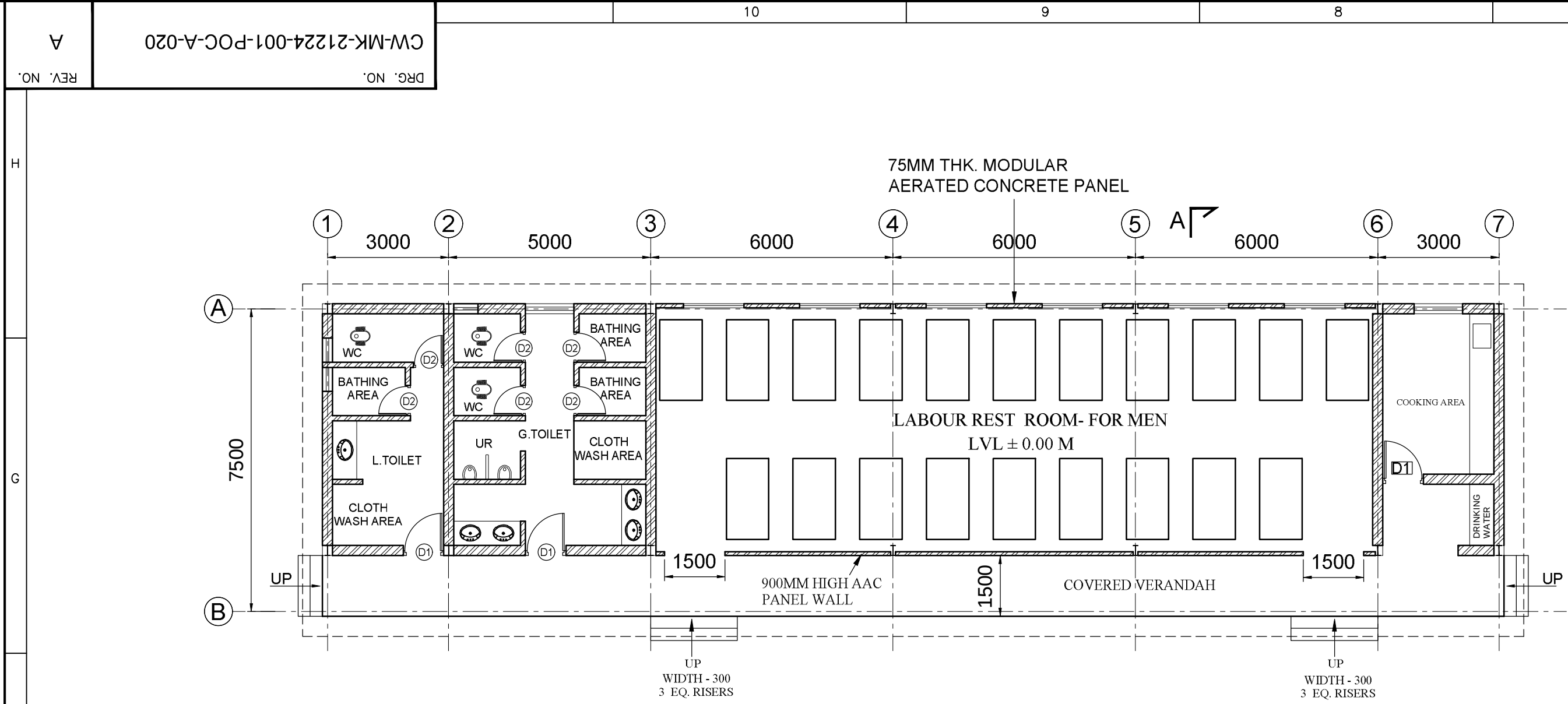
FOR TENDER PURPOSE ONLY

NOTES:-

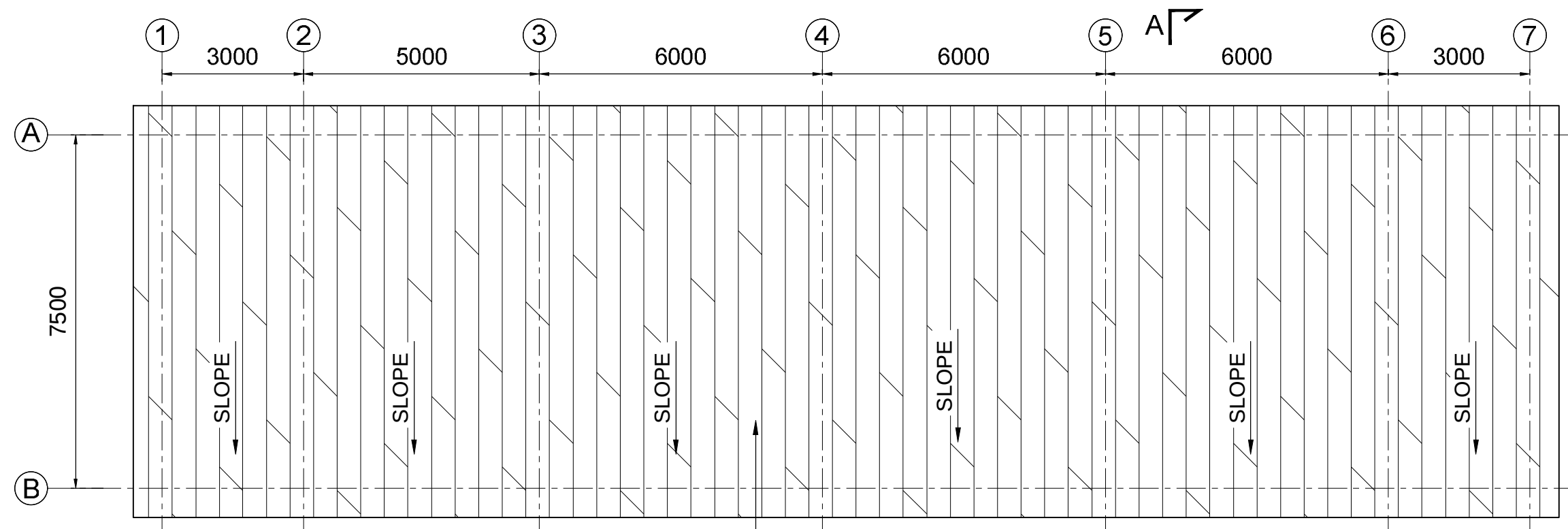
- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS.
- SUITABLE STRUCTURAL ARRANGEMENT SHALL BE DEVELOPED BY BIDDER.

एन टी पी सी NTPC एन टी पी सी लिमिटेड NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE) (ENGINEERING DIVISION)																
										PROJECT	SINGRENI THERMAL POWER PROJECT (1X800 MW)					
										TITLE	WORKER'S REST ROOM TYPICAL ARCHITECTURAL DETAILS					
A	RELEASED FOR TENDER PURPOSE		Rakesh	DK							27.06.23					
REV.NO			DRAWN	DESIGN	CHKD.	MECH (L/O)	MECH (WS)	ELEC.	C&I	STR.	APPD.	DATE	SIZE	SCALE	DRG. NO.	REV. NO.
D E S C R I P T I O N						C L E A R E D B Y							A1	1:100	CW-MK-21224-001-POC-A-020	A

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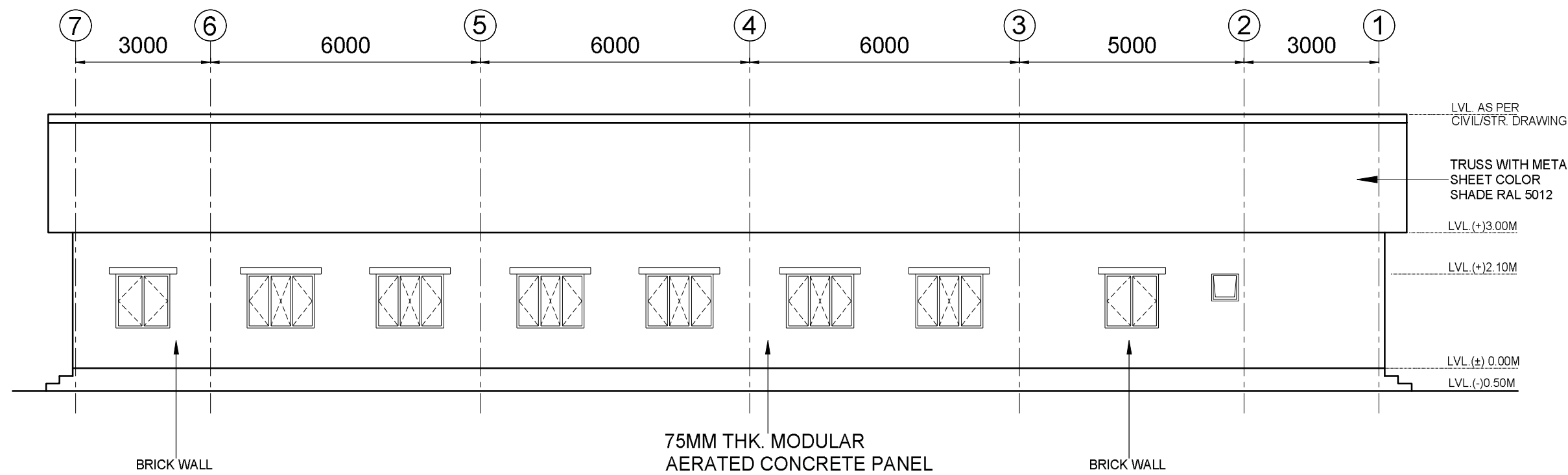


TYP. PLAN OF SHELTER FOR MEN

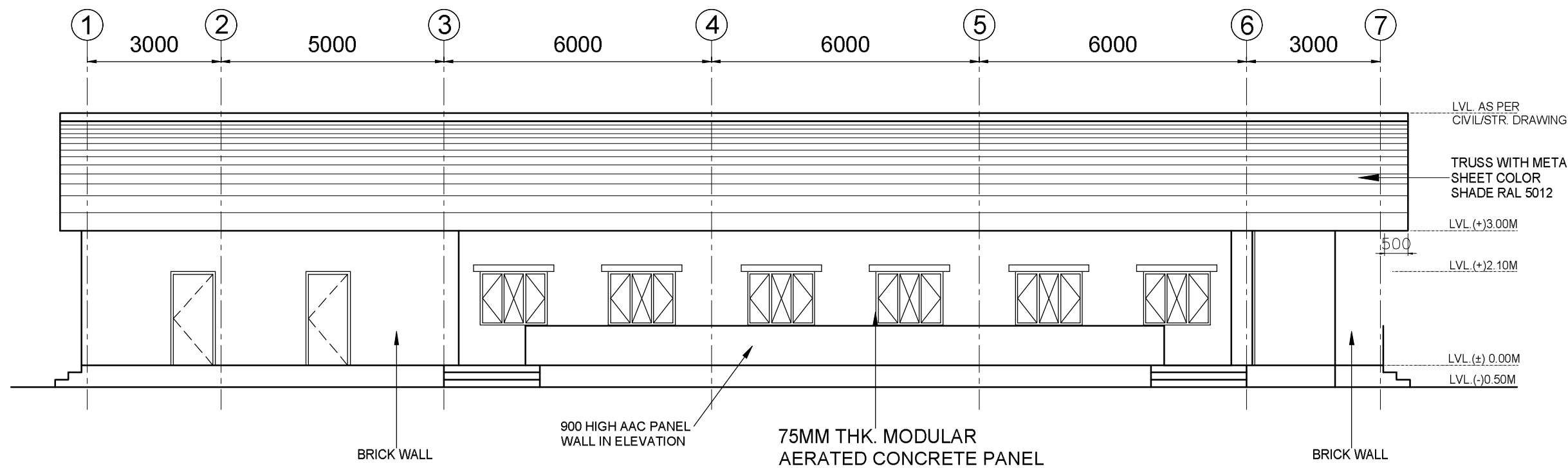


SLOPING ROOF WITH METAL SHEETING COLOR SHADE (RAL 5012)

TERRACE PLAN



ELEVATION ALONG GRID - A



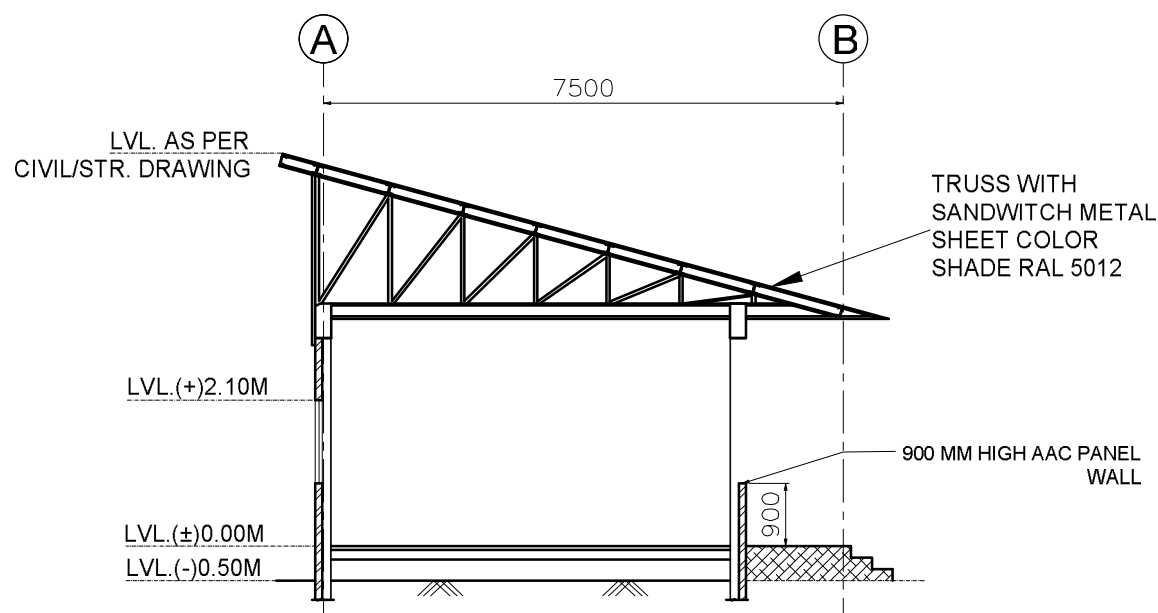
ELEVATION ALONG GRID - B

DOOR SCHEDULE

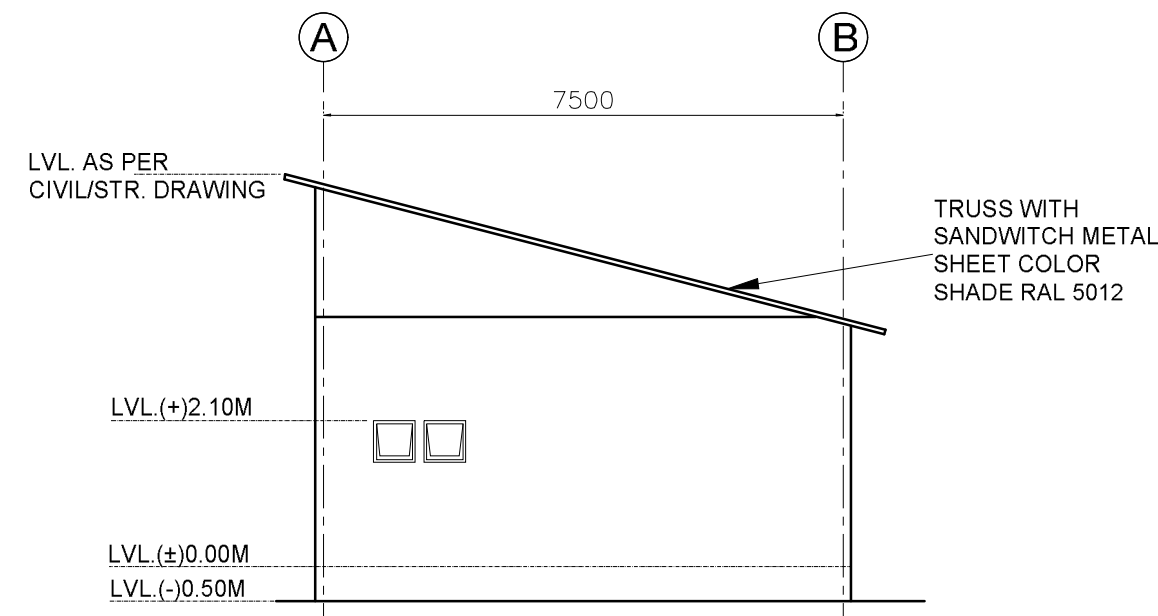
LEGEND	WIDTH	HEIGHT	LINTEL LVL.	DESCRIPTION	REMARKS
D1	1000	2100	2100		COLD ROLLED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER
D2	750	2100	2100		COLD ROLLED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER

WINDOW SCHEDULE

LEGEND	WIDTH	HEIGHT	CILL LEV.	LINTEL LEV.	DESCRIPTION	REMARKS
V1	600	600	1500	2100		STEEL FRAME VENTILATOR WITH FIXED GLASS SHUTTER (6MM THK. TOUGHENED GLASS)
W1	1200	1200	900	2100		ALUMINIUM GLAZED WINDOW WITH OPENABAL WINDOW WITH 4mm THK. CLEAR FLOAT GLASS
W2	1500	1200	900	2100		ALUMINIUM GLAZED WINDOW WITH OPENABAL & FIXED WINDOW WITH 4mm THK. CLEAR FLOAT GLASS



SECTION-AA



ELEVATION ALONG AXIS - 1

FINISHING SCHEDULE

FLOOR LEVEL	SPACE DESIGNATION	FLOORING	SKIRTING 150 HIGH/DADO	WALL	CEILING
		CEMENTED IPS FLOORING	CERAMIC TILES 300X300mm	CEMENT PLASTER SKIRTING	CERAMIC GLAZED WALL TILES
		REMARKS	REMARKS	REMARKS	REMARKS
FLOOR AT LVL (+) 0.00M	REST ROOM	●	●	●	●
	TOILET	●	●	●	●
			DADO 2100MM HIGH	ABOVE DADO	

EXTERIOR FINISH

FINISHING WALLS WITH ACRYLIC SMOOTH-1 EXTERIOR PAINT

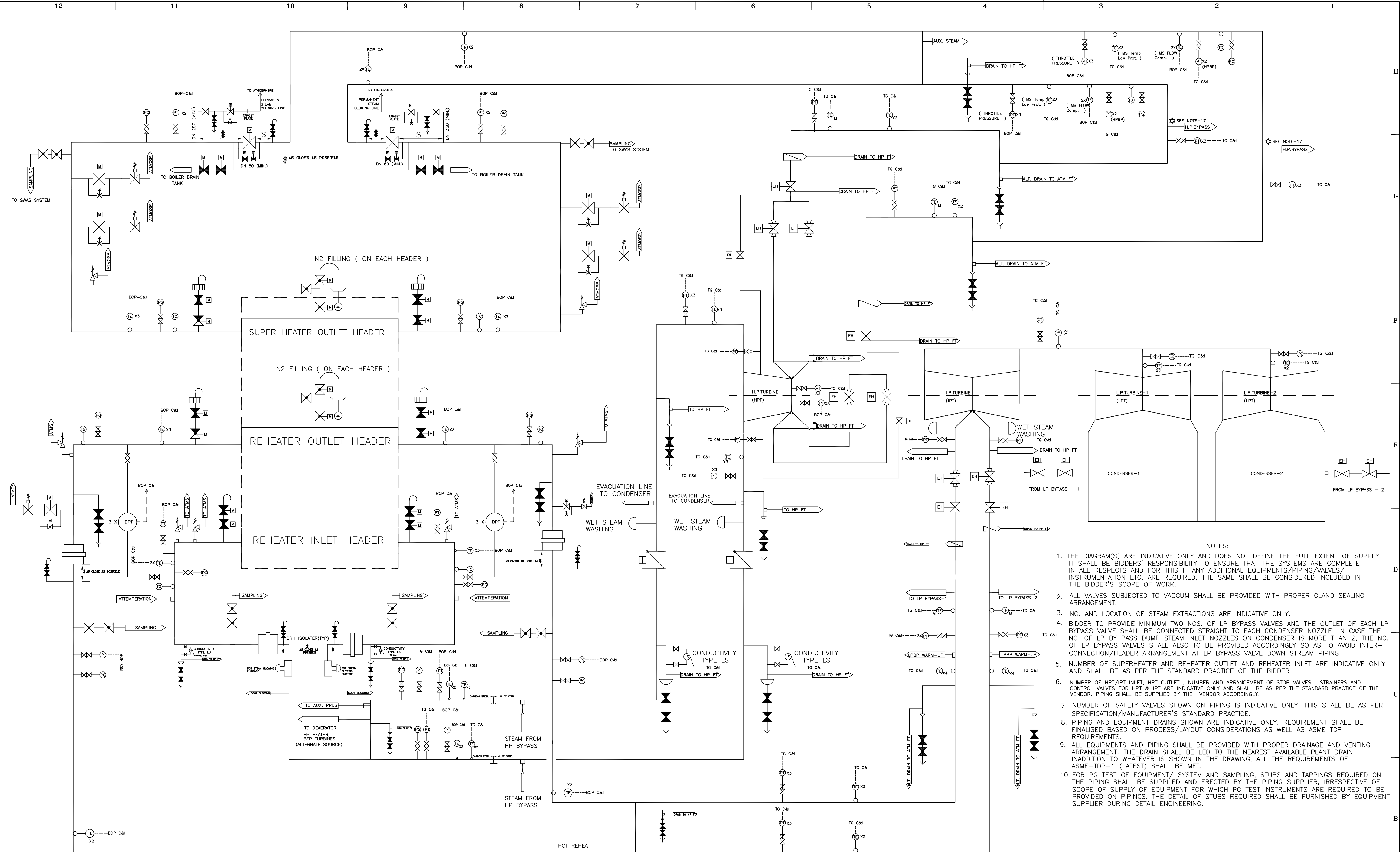
FOR TENDER PURPOSE ONLY

NOTES:-

- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS.
- SUITABLE STRUCTURAL ARRANGEMENT SHALL BE DEVELOPED BY BIDDER.

एन टी पी सी लिमिटेड NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE) (ENGINEERING DIVISION)																			
PROJECT SINGRENI THERMAL POWER PROJECT (1X800 MW)																			
TITLE WORKER'S REST ROOM TYPICAL ARCHITECTURAL DETAILS																			
A	RELEASED FOR TENDER PURPOSE					Rakesh	DK					27.06.23							
REV.NO	DESCRIPTION					DRAWN	DESIGN	CHKD.	MECH (L/O)	MECH (WS)	ELEC.	C&I	STR.	APPD.	DATE	SIZE	SCALE	DRG. NO.	REV. NO.
											CLEARED BY							A1	1:100

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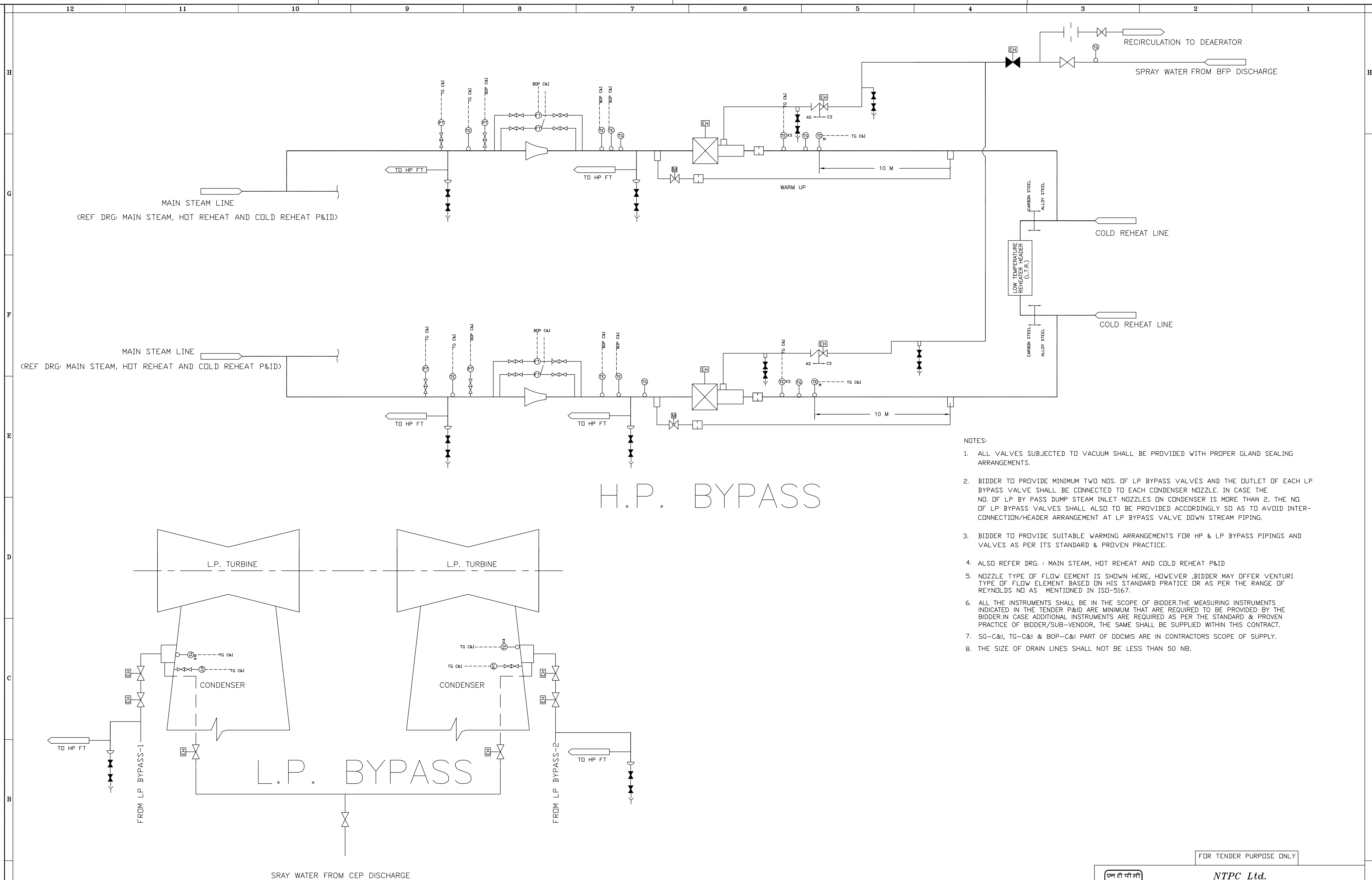
11. IN CASE STEAM TURBINES ARE HAVING STEAM INLET NOZZLES ON ITS TOP HALF PORTION, FLANGE JOINTS SHALL BE PROVIDED ON EACH PIPING CONNECTED TO THESE NOZZLES TO FACILITATE REMOVAL OF TURBINE TOP CASING DURING MAINTENANCE WITHOUT CUTTING THE PIPES. ACCORDINGLY, IN THE ABOVE CASE, THESE FLANGES (COMPLETE FLANGE ASSEMBLY) INCLUDING MATERIAL MATCHING PIECES, IF ANY, REQUIRED FOR CONNECTION OF THESE FLANGES WITH CONNECTING PIPING SHALL BE SUPPLIED AND ERECTED BY CONTRACTOR.
12. ALL THE INSTRUMENTS SHALL BE IN THE SCOPE OF BIDDER. THE MEASURING INSTRUMENTS INDICATED IN THE TENDER P&ID ARE MINIMUM THAT ARE REQUIRED TO BE PROVIDED BY THE BIDDER. IN CASE ADDITIONAL INSTRUMENTS ARE REQUIRED AS PER THE STANDARD & PROVEN PRACTICE OF BIDDER, THE SAME SHALL BE SUPPLIED WITHIN THIS CONTRACT.

13. IN PLACE OF DOUBLE LEADS FOR COLD REHEAT, AS SHOWN, THE BIDDER MAY ALSO OFFER SINGLE LEAD AFTER CRH NRVS. THE INSTRUMENTATION SHALL BE AS PER THE PHILOSOPHY MENTIONED IN THE TECHNICAL SPECIFICATION.
14. * BIDDER MAY ALSO OFFER TAP-OFF FOR HP & LP BYPASS FROM MS & HRH EQUALISING LINES RESPECTIVELY IN PLACE OF INDEPENDENT TAP-OFFS FROM BOTH MAIN STEAM & HRH LEADS AS SHOWN.
15. SG-C&I, TG-C&I & BOP-C&I PART OF DDCMIS ARE IN CONTRACTORS SCOPE OF SUPPLY.
16. THE SIZE OF DRAIN LINES SHALL NOT BE LESS THAN 50 NB.

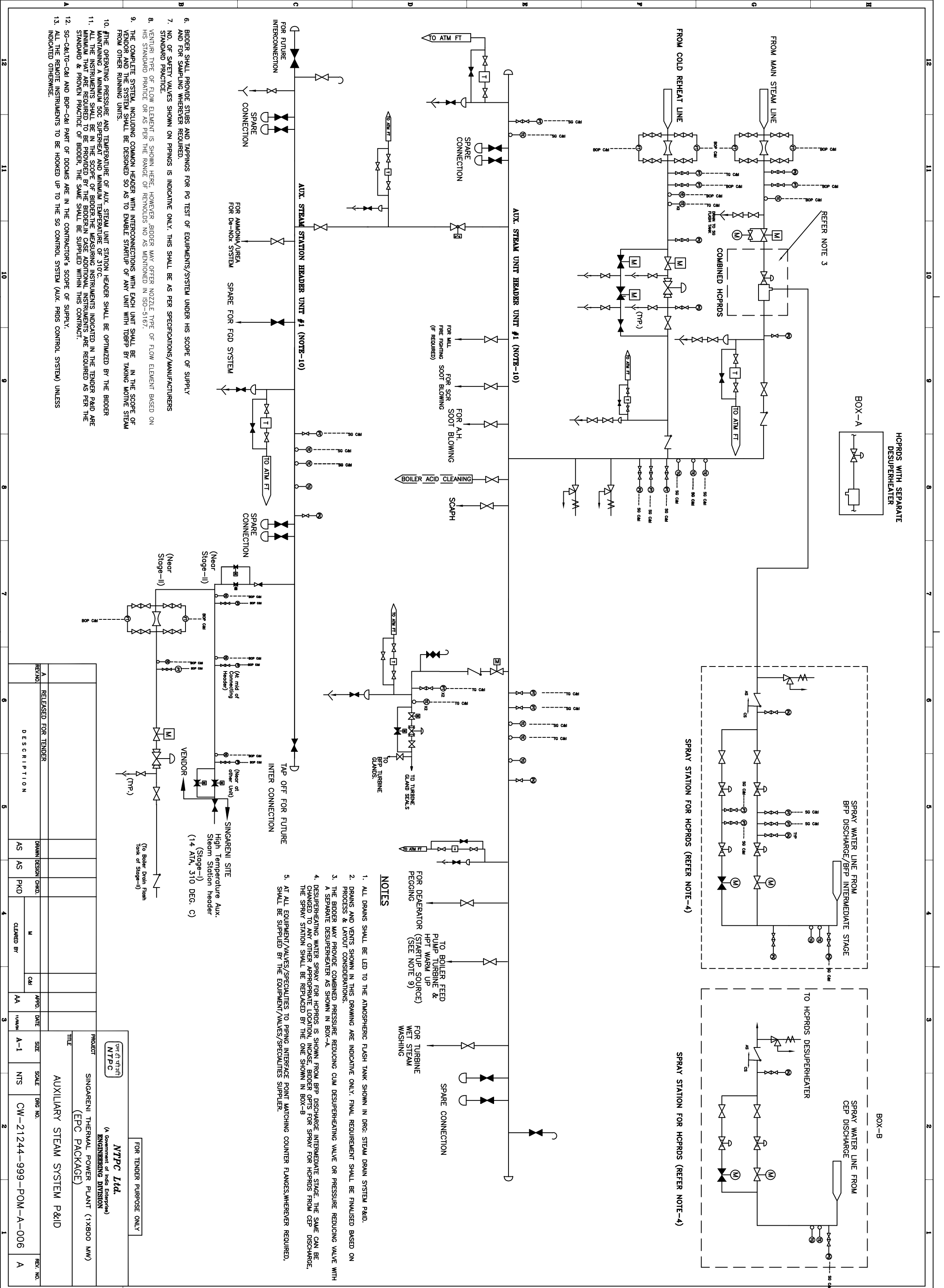
- NOTES:
- THE DIAGRAM(S) ARE INDICATIVE ONLY AND DOES NOT DEFINE THE FULL EXTENT OF SUPPLY. IT SHALL BE BIDDERS' RESPONSIBILITY TO ENSURE THAT THE SYSTEMS ARE COMPLETE IN ALL RESPECTS AND FOR THIS IF ANY ADDITIONAL EQUIPMENTS/PIPING/VALVES/INSTRUMENTATION ETC. ARE REQUIRED, THE SAME SHALL BE CONSIDERED INCLUDED IN THE BIDDER'S SCOPE OF WORK.
 - ALL VALVES SUBJECTED TO VACUUM SHALL BE PROVIDED WITH PROPER GLAND SEALING ARRANGEMENT.
 - NO. AND LOCATION OF STEAM EXTRACTIONS ARE INDICATIVE ONLY.
 - BIDDER TO PROVIDE MINIMUM TWO NOS. OF LP BYPASS VALVES AND THE OUTLET OF EACH LP BYPASS VALVE SHALL BE CONNECTED STRAIGHT TO EACH CONDENSER NOZZLE. IN CASE THE NO. OF LP BY PASS DUMP STEAM INLET NOZZLES ON CONDENSER IS MORE THAN 2, THE NO. OF LP BYPASS VALVES SHALL ALSO TO BE PROVIDED ACCORDINGLY SO AS TO AVOID INTER-CONNECTION/HEADER ARRANGEMENT AT LP BYPASS VALVE DOWN STREAM PIPING.
 - NUMBER OF SUPERHEATER AND REHEATER OUTLET AND REHEATER INLET ARE INDICATIVE ONLY AND SHALL BE AS PER THE STANDARD PRACTICE OF THE BIDDER.
 - NUMBER OF HPT/IPT OUTLET, NUMBER AND ARRANGEMENT OF STOP VALVES, STRAINERS AND CONTROL VALVES FOR HPT & IPT ARE INDICATIVE ONLY AND SHALL BE AS PER THE STANDARD PRACTICE OF THE VENDOR. PIPING SHALL BE SUPPLIED BY THE VENDOR ACCORDINGLY.
 - NUMBER OF SAFETY VALVES SHOWN ON PIPING IS INDICATIVE ONLY. THIS SHALL BE AS PER SPECIFICATION/MANUFACTURER'S STANDARD PRACTICE.
 - PIPING AND EQUIPMENT DRAINS SHOWN ARE INDICATIVE ONLY. REQUIREMENT SHALL BE FINALISED BASED ON PROCESS/LAYOUT CONSIDERATIONS AS WELL AS ASME TDP REQUIREMENTS.
 - ALL EQUIPMENTS AND PIPING SHALL BE PROVIDED WITH PROPER DRAINAGE AND VENTING ARRANGEMENT. THE DRAIN SHALL BE LED TO THE NEAREST AVAILABLE PLANT DRAIN. IN ADDITION TO WHATEVER IS SHOWN IN THE DRAWING, ALL THE REQUIREMENTS OF ASME-TOP-1 (LATEST) SHALL BE MET.
 - FOR PG TEST OF EQUIPMENT/ SYSTEM AND SAMPLING, STUBS AND TAPPINGS REQUIRED ON THE PIPING SHALL BE SUPPLIED AND ERECTED BY THE PIPING SUPPLIER, IRRESPECTIVE OF SCOPE OF SUPPLY OF EQUIPMENT FOR WHICH PG TEST INSTRUMENTS ARE REQUIRED TO BE PROVIDED ON PIPINGS. THE DETAIL OF STUBS REQUIRED SHALL BE FURNISHED BY EQUIPMENT SUPPLIER DURING DETAIL ENGINEERING.

FOR TENDER PURPOSE ONLY

NTPC Ltd. (A Government of India Enterprise) ENGINEERING DIVISION									
PROJECT SINGARENI THERMAL POWER PLANT (1x800 MW) EPC PACKAGE									
TITLE MAIN STEAM, HOT REHEAT & COLD REHEAT P&ID									
A-1		SCALE NTS		DRG NO. CW-21244-999-POM-A-004		REV. NO. A			



								ENGINEERING DIVISION					
								PROJECT	SINGARENI THERMAL POWER PLANT (1X800 MW) (EPC PACKAGE)				
								TITLE	HP & LP BYPASS SYSTEM P&ID				
A	RELEASED FOR TENDER	AS	AS	PKD		AA	15/06/22						
REV.NO.	DESCRIPTION	DRAWN	DESIGN	CHKD.	M	C&I	APPD.	DATE	SIZE	SCALE	DRG NO.	REV. NO.	
					CLEARED BY				A-1	NTS	CW-21244-999-PDM-A-005	A	



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NOTE:

1. NO. AND LOCATIONS OF STEAM EXTRACTIONS ARE INDICATIVE ONLY.
2. NUMBER OF HEATERS SHOWN IS THE MINIMUM TO BE SUPPLIED BY THE BIDDER.
3. PIPING AND EQUIPMENT DRAINS/VENTS SHOWN ARE INDICATIVE ONLY. REQUIREMENT SHALL BE FINALISED BASED ON PROCESS/LAYOUT CONSIDERATION.
4. VENTURI TYPE OF FLOW ELEMENT IS SHOWN HERE, HOWEVER, BIDDER MAY OFFER NOZZLE TYPE OF FLOW ELEMENT BASED ON HIS STANDARD PRACTICE OR AS PER THE RANGE OF REYNOLDS NO. AS MENTIONED IN ISO-5167.
5. ALL THE INSTRUMENTS SHALL BE IN THE SCOPE OF BIDDER. THE MEASURING INSTRUMENTS INDICATED IN THE TENDER P&ID ARE MINIMUM THAT ARE REQUIRED TO BE PROVIDED BY THE BIDDER. IN CASE ADDITIONAL INSTRUMENTS ARE REQUIRED AS PER THE STANDARD & PROVEN PRACTICE OF BIDDER, THE SAME SHALL BE SUPPLIED WITHIN THIS CONTRACT.
6. SG-C&I, TG-C&I & BOP-C&I PART OF DDCMIS ARE IN CONTRACTORS SCOPE OF SUPPLY.

FOR TENDER PURPOSE ONLY

NTPC **NTPC Ltd.**
(A Government of India Enterprise)
ENGINEERING DIVISION

PROJECT SINGARENI THERMAL POWER PLANT (1X800 MW)
(EPC PACKAGE)

TITLE EXTRACTION STEAM P&ID FOR HEATERS

REV. NO.	DESCRIPTION	DRAWN	DESIGN	CHKD.	M	C&I	APPD.	DATE
		AS	AS	PKD				
		CLEARED BY			AA			15/06/22

SIZE	SCALE	DRG. NO.	REV. NO.
A-1	NTS	CW-21244-999-POM-A-007	A

1. NO. AND LOCATIONS OF STEAM EXTRACTIONS ARE INDICATIVE ONLY.
2. NUMBER OF HEATERS SHOWN IS THE MINIMUM TO BE SUPPLIED BY THE BIDDER.
3. PIPING AND EQUIPMENT DRAINS/VENTS SHOWN ARE INDICATIVE ONLY. REQUIREMENT SHALL BE FINALISED BASED ON PROCESS/LAYOUT CONSIDERATION.
4. VENTURI TYPE OF FLOW ELEMENT IS SHOWN HERE, HOWEVER, BIDDER MAY OFFER NOZZLE TYPE OF FLOW ELEMENT BASED ON HIS STANDARD PRACTICE OR AS PER THE RANGE OF REYNOLDS NO. AS MENTIONED IN ISO-5167.
5. ALL THE INSTRUMENTS SHALL BE IN THE SCOPE OF BIDDER.THE MEASURING INSTRUMENTS INDICATED IN THE TENDER P&ID ARE MINIMUM THAT ARE REQUIRED TO BE PROVIDED BY THE BIDDER.IN CASE ADDITIONAL INSTRUMENTS ARE REQUIRED AS PER THE STANDARD & PROVEN PRACTICE OF BIDDER, THE SAME SHALL BE SUPPLIED WITHIN THIS CONTRACT.
6. SG-C&I, TG-C&I & BOP-C&I PART OF DDCMIS ARE IN CONTRACTORS SCOPE OF SUPPLY

								PROJECT SINGARENI THERMAL POWER PLANT (1X800 MW) (EPC PACKAGE)					
								TITLE EXTRACTION STEAM P&ID FOR HEATERS					
A	RELEASED FOR TENDER												
REV.NO.	DESCRIPTION		DRAWN	DESIGN	CHKD.	M	C&I	APPD.	DATE	SIZE	SCALE	DRG NO.	REV. NO.
			AS	AS	PKD	CLEARED BY		AA	15/06/22	A-1	NTS	CW-21244-999-POM-A-007	A