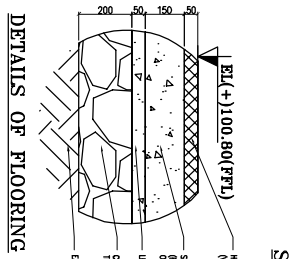
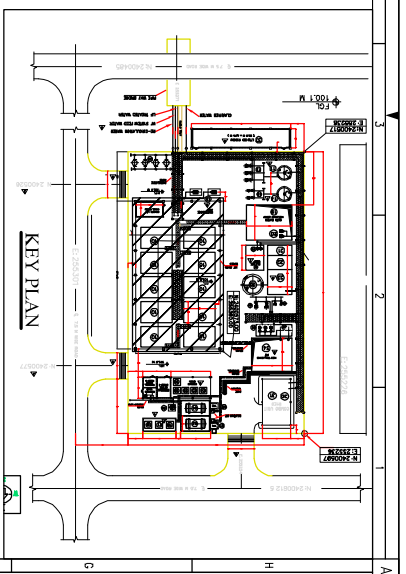
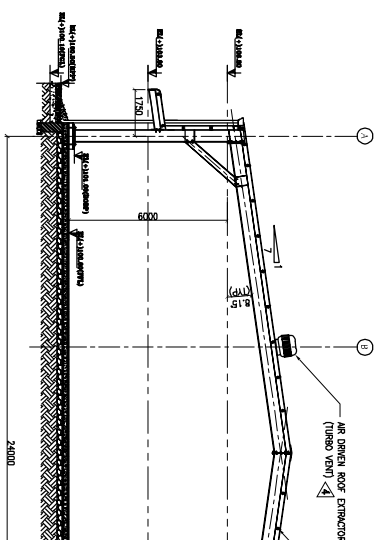
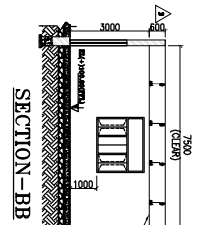


PLAN @ EL(+100.80(FRL))

TENDER PURPOSE ONLY



FOR SPECIFICATION AND SCHEDULE OF JOINTS REFER - I-WF-221-00288

SL. NO	SIZE	SPECIFICATIONS
01	600 WIDE X 75/75 LONG	POLY CARBONITE SHEET ON ROOF
02	1100 X 1800	MS STEEL GLAZED WINDOWS, BOTH FIXED AND OPERABLE SHUTTERS
03	1800 X 2150	PROMER COATED THIN PROFILED STEEL PANELS

DRAWING NO.	DRAWING NAME/TITLE	SCALE	DATE
1-WF-220-00280	RAW WATER TREATMENT PLANT LAYOUT		
1-WF-221-00288	ELEVATION SHEED - ARCHITECTURAL PLAN & ELEVATION SHEED 2/2		
1-WF-221-00289	ELEVATION SHEED - FOUNDATION DETAILS		
1-WF-221-00291	FILTRATION SHEED - STRUCTURAL, GA DETAILS SH 1/2		
1-WF-221-00292	FILTRATION SHEED - STRUCTURAL, GA DETAILS SH 2/2		

NO.	DATE	DESCRIPTION	BY	CHKD.	APPD.
01	18/12/2013	ISSUED AS PER COMPANY USE	...	...	...
02	23/12/2013	ISSUED AS PER COMPANY USE	...	...	...
03	18/12/2013	ISSUED AS PER COMPANY USE	...	...	...
04	07/01/2014	ISSUED AS PER COMPANY USE	...	...	...

PROJECT NAME/NO.	CLIENT NAME/PROJECT/LOCATION	SCALE	DATE
...	...	...	...

DESIGNATION	NAME	DATE
...	...	...

REVISION	NO.	DATE	DESCRIPTION
...	...	...	...

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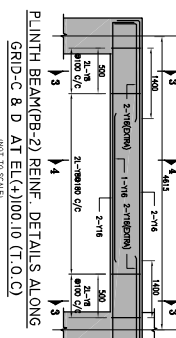
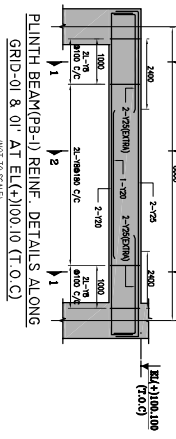
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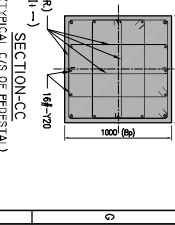
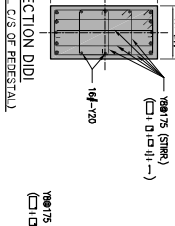
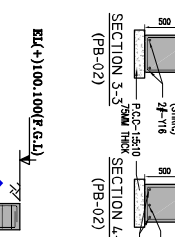
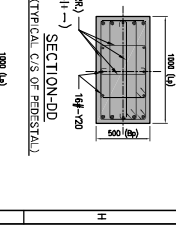
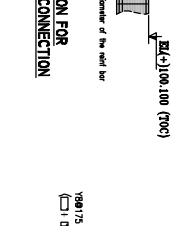
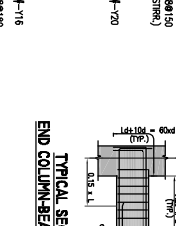
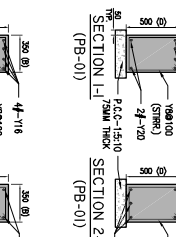
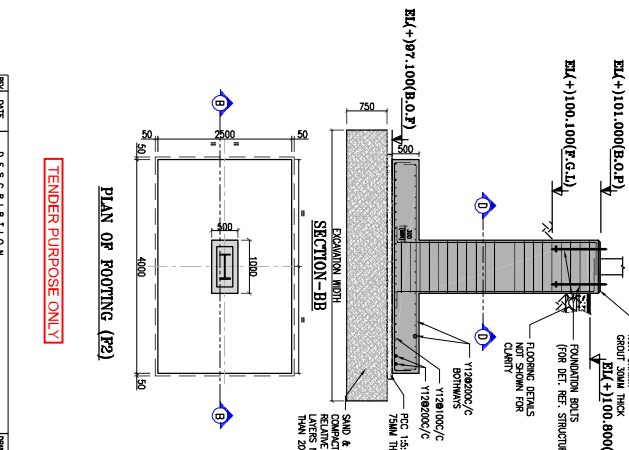
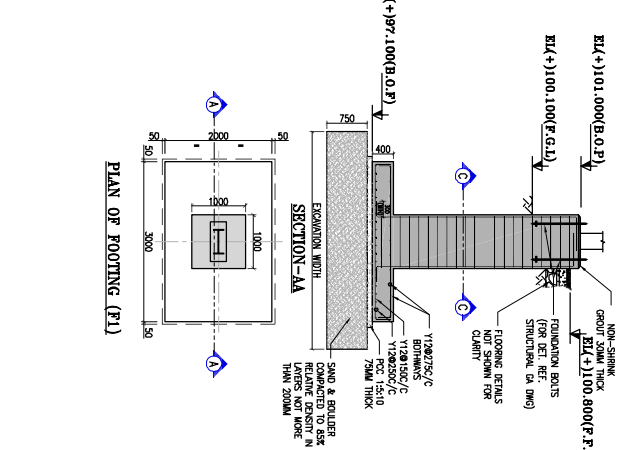
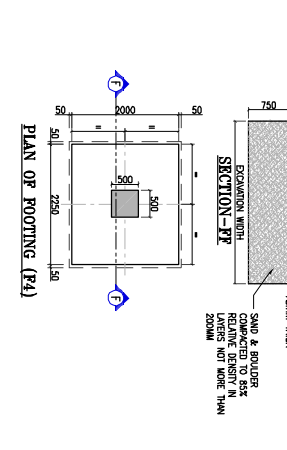
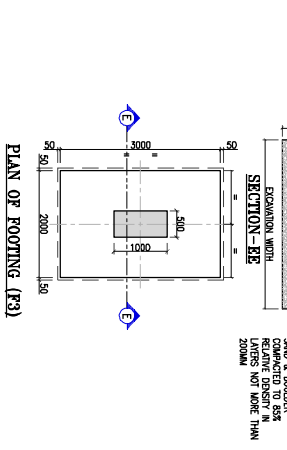
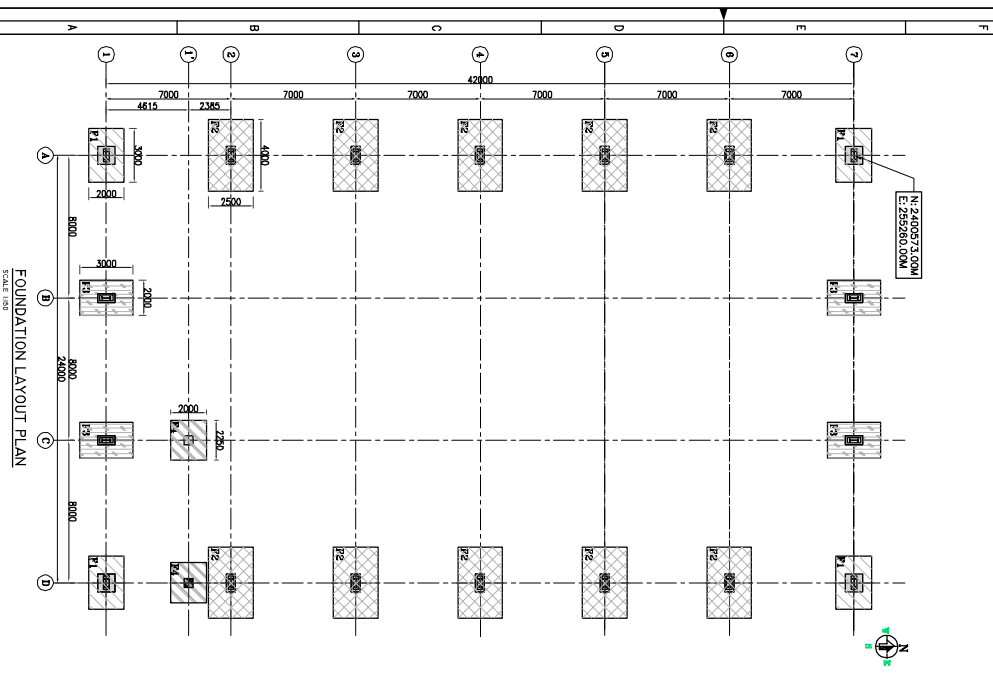
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PLINTH BEAM LAYOUT PLAN  
 SCALE: 1:50



LEGEND:  
 B.O.F. - BOTTOM OF FOUNDATION  
 F.F.L. - FINISHED FLOOR LEVEL  
 F.G.L. - FINISHED GROUND LEVEL  
 B.O.P. - BOTTOM OF BASE PLATE  
 M.S.L. - MEAN SEA LEVEL

NOTES:  
 1. ALL DIMENSIONS ARE IN MILLIMETER & METERS ARE IN METERS UNLESS NOTED OTHERWISE.  
 2. ALL DIMENSIONS ARE TO FACE UNLESS SPECIFIED OTHERWISE.  
 3. CONCRETE SHOULD BE OF THE GRADE OF M20 WITH 20MM DOWN GRADED SAND.  
 4. ALL LAPS REINFORCEMENT SHALL BE STROUGED, NOT MORE THAN 50 PERCENT OF BAR SHALL BE STROUGED IN ONE SECTION.  
 5. CLEAR COVER TO THE REINFORCEMENT - TOP | BOTTOM | SIDE | END

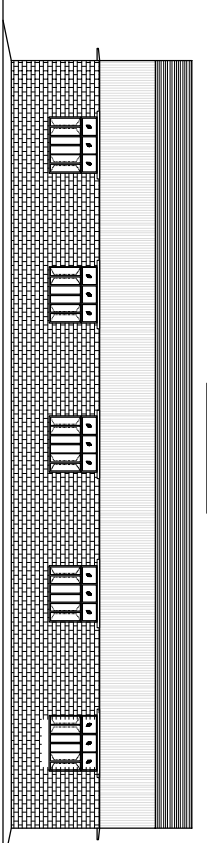
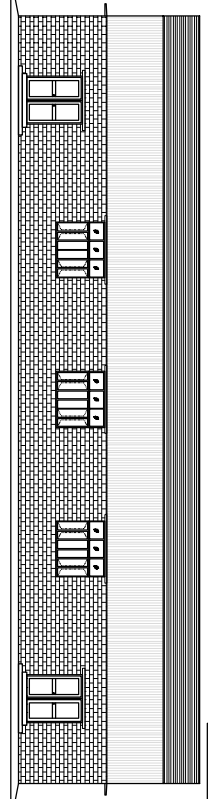
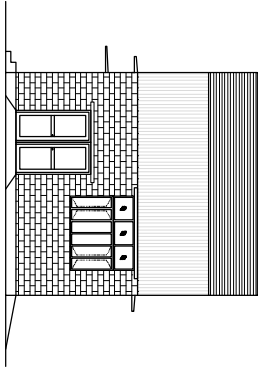
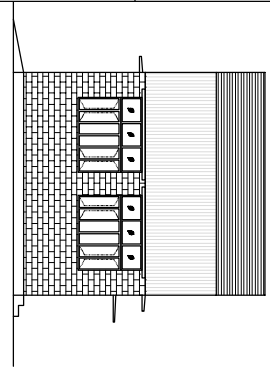
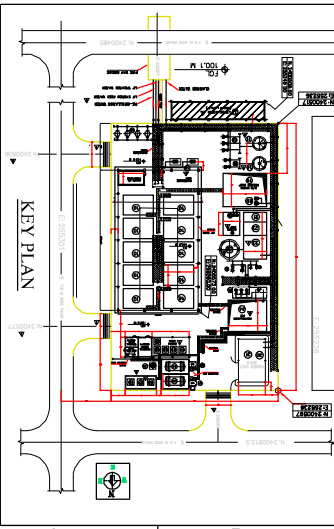
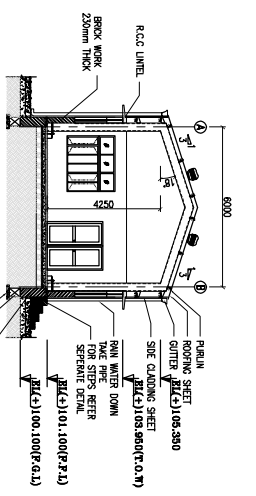
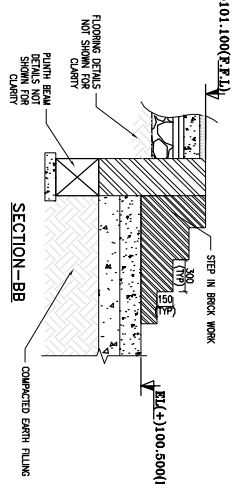
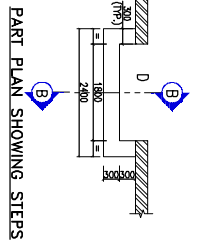
ENV.	20	20	20	20
FOUND.	50	50	50	50
PLINTH BEAM	50	50	50	50

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING NAME/TITLE
1-WF-220-00280	RAW WATER TREATMENT PLANT LAYOUT
1-WF-221-00287	ELEVATION SHED - 1/2 - ARCHITECTURAL PLAN & ELEVATIONS SH 1/2
1-WF-221-00288	ELEVATION SHED - 2/2 - ARCHITECTURAL PLAN & ELEVATIONS SH 2/2
1-WF-221-00291	FLUTATION SHED - STRUCTURAL GA DETAILS SH 1/2
1-WF-221-00292	FLUTATION SHED - STRUCTURAL GA DETAILS SH 2/2
1-WF-221-00297	FLUTATION SHED - TRENCHES AND FLOORING DETAILS

DESIGNED BY: [Signature]  
 CHECKED BY: [Signature]  
 DATE: 23.01.2014

TENDER PURPOSE ONLY



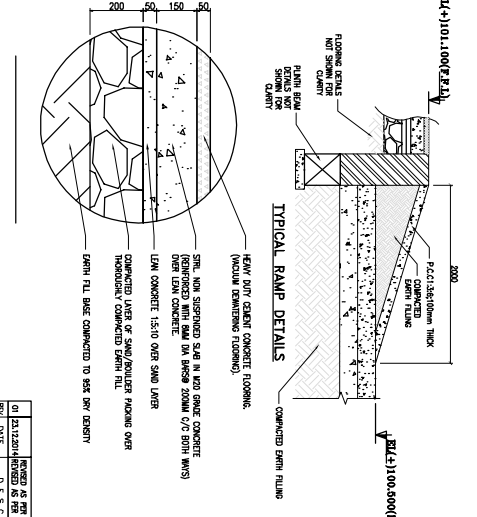
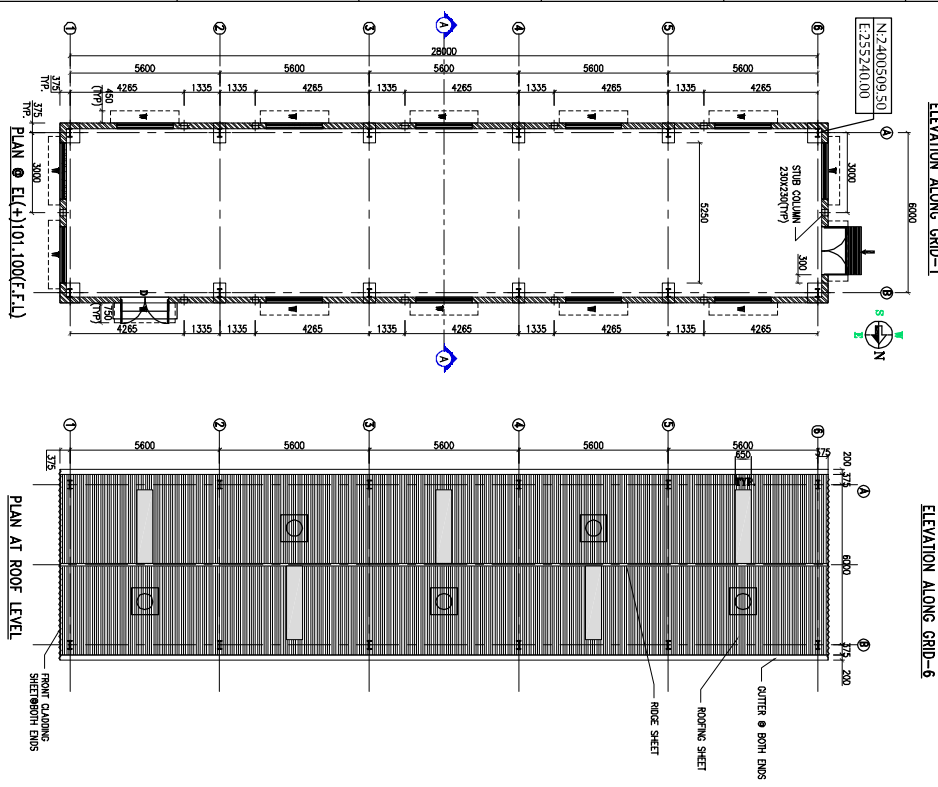
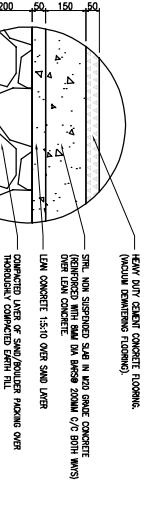
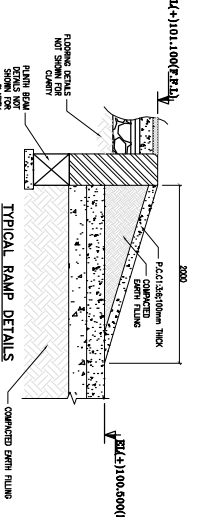
SL. NO	DESCRIPTIONS	SPECIFICATION
1	ROOFING	READY MIX ROOFING
2a	BRICK WORKING ABOVE FIN. (100 THICK)	IN CEILING WORKING 1:6
2b	BRICK WORKING ABOVE FIN. (200 THICK)	IN CEILING WORKING 1:6
3	PLASTERING	15MM THICK PLASTERING IN CEILING WORKING 1:4 AS PER SPEC 15MM THICK PLASTERING IN CEILING AS PER SPEC
4	PAINTING	APPLYING PRIMER COAT WITH READY MIXED RED OXIDE ZINC CHROMATE STEEL WORK, SPANDED BRAND ON PAINTING 2 BR. MORE COATS ON NEW OF APPROVED BRAND TO ONE IN EACH SHADE ON STEELWORK.
5	ROOFING SHEET	CEMENT CONCRETE ROOFING ZINCALUME/CALVALUME SHEETING & POLYURETHANE SHEETING
6	ROOFING SHEET	CEMENT CONCRETE ROOFING ZINCALUME/CALVALUME SHEETING & POLYURETHANE SHEETING

SL. NO	ID/NO	DESCRIPTION	SIZE	NO. OF OPENINGS	LEVEL	SPECIFICATION	
1	D	DOOR-DOUBLE LEAF	1800X2100	2	EL(+100.800)	POWER COATED PRESSED STEEL FRAME WITH STEEL GLAZED WINDOWS, BOTH FIXED AND OPERABLE SHUTTERS	
2	W	WINDOW	2100X800	12	EL(+101.840)	EL(+103.450)	POWER COATED PRESSED STEEL FRAME WITH STEEL GLAZED WINDOWS, BOTH FIXED AND OPERABLE SHUTTERS
3	ROD		650 WIDE X 2890 LONG	5		PAINT CONCRETE SHEET	

DATE:	21.01.2012
SCALE:	AS SHOWN
PROJECT:	AS SHOWN
CLIENT:	AS SHOWN
DESIGNER:	AS SHOWN
CHECKER:	AS SHOWN
APPROVER:	AS SHOWN

**NOTES:**

- ALL DIMENSIONS ARE IN MILLIMETER & LEVELS ARE IN METER UNLESS NOTED OTHERWISE.
- ANY DISCREPANCY IS FOUND IN THE DRAWING SHALL BE MINOR.
- THIS DRAWING IS FOR ARCHITECTURAL PURPOSE ONLY.
- THE ELEVATION EL(+100.000) CORRESPONDS 750MM ABOVE M.S.L.
- THE ELEVATION EL(+100.800), EL(+101.840), EL(+103.450) CORRESPONDS TO THE TOP OF DOORS, T.O.W., TOP OF WINDOW M.S.L., MEAN SEA LEVEL.
- ALL WALLS BELOW FIN. SHALL BE OF 300MM THICK BRICK WALL.
- NO FIRE PROOFING FOR STRUCTURE IS INDICATED IN THIS DRAWING FOR REFERENCE ONLY. FOR DETAILS OF THE SAME REFER STRUCTURAL DRAWINGS.
- ALL ITEMS SHALL BE AS PER SPECIFICATIONS.



NO.	DATE	DESCRIPTION	BY	CHECKED	APPROVED
01	21.01.2012	ISSUED AS PER DRAWING	AS SHOWN	AS SHOWN	AS SHOWN

NO.	REVISION	DESCRIPTION	DATE
1	-	ISSUED AS PER DRAWING	21.01.2012

**LEGEND:**

- H.P.P. - HIGHEST PAVEMENT POINT
- F.F.L. - FINISHED FLOOR LEVEL
- F.G.L. - FINISHED GROUND LEVEL
- T.O.W. - TOP OF WINDOW
- T.O.M. - TOP OF MOUNTING
- M.S.L. - MEAN SEA LEVEL

**PROJECT INFORMATION:**

PROJECT NAME: TRANSFORMER FOUNDATION LAYOUT & DETAILS

CLIENT: TRANSFORMER FOUNDATION LAYOUT & DETAILS

DESIGNER: TRANSFORMER FOUNDATION LAYOUT & DETAILS

CHECKER: TRANSFORMER FOUNDATION LAYOUT & DETAILS

APPROVER: TRANSFORMER FOUNDATION LAYOUT & DETAILS

DATE: 21.01.2012

SCALE: AS SHOWN

PROJECT NO: TRANSFORMER FOUNDATION LAYOUT & DETAILS

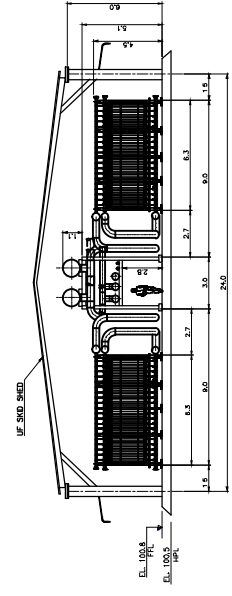
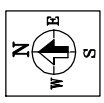
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DESIGNER NO: TRANSFORMER FOUNDATION LAYOUT & DETAILS

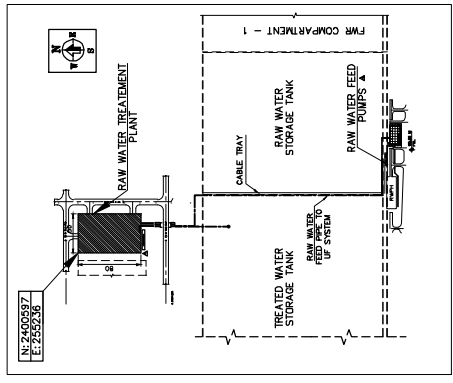
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APPROVER NO: TRANSFORMER FOUNDATION LAYOUT & DETAILS





SECTION - AA  
(D-2)



KEY PLAN

EQUIPMENT LIST:-

Sl. No.	DESCRIPTION	QUANTITY	CAPACITY
01	HCL UNLOADING PUMP	1(C/W)	20 m <sup>3</sup> /hr
02	BULK HCL STORAGE TANK	1(C/W)	20 m <sup>3</sup>
03	INSTR. UNLOADING PUMP	1(C/W)	25 m <sup>3</sup> /hr
04	BULK H2O2 STORAGE TANK	1(C/W)	25 m <sup>3</sup>
05	REMOVED-		
06	REMOVED-		
07	CO2 GENERATOR	2(I/W+1S)	10 kg/hr
08	UF FEED PUMP	2(I/W+2S)	476 m <sup>3</sup> /hr
09	SELF CLEANING STRAINER	4(3W+1S)	1500 m <sup>3</sup> /hr
10	UF SKIDS	10(I/W)	400 m <sup>3</sup> /hr
11	BACKWASH TANK	1	35 m <sup>3</sup>
12	BACKWASH PUMPS	3(2W+1S)	400 m <sup>3</sup> /hr
13	AIR SCOURING BLOWERS	2(I/W+1S)	480 Nm <sup>3</sup> /hr
14	CP TANK	1	35 m <sup>3</sup>
15	CP REGULATION PUMPS	2(I/W+1S)	600 m <sup>3</sup> /hr
16	HCL DOSING SKID FOR CP	1(C/W)	
17	AKALI DOSING SKID FOR CP	1(C/W)	
18	H2O2 DOSING SKID FOR CP	1(C/W)	
19	BACKWASH WASTE HOLDING SUMP	1	250 m <sup>3</sup>
20	BACKWASH WASTE TRANSFER PUMPS	2(I/W+1S)	350 m <sup>3</sup> /hr
21	FRESH WATER	1(C/W)	
22	ELECTROLATOR	1(C/W)	
23	LAMELLA CLARIFIER	1(C/W)	350 m <sup>3</sup> /hr
24	POLYMER DOSING SKID	1	
25	POLY ALUMINUM CHLORIDE DOSING SKID	1	
26	LINE DOSING SKID	1	
27	SUBGE. TRANSFER PUMPS	2(I/W+1S)	20 m <sup>3</sup> /hr
28	DP POLY DOSING SKID	1(C/W)	
29	BELT GRANULY INDOOR	1(C/W)	
30	BELT FILTER PRESSES	1(C/W)	
31	CLARIFIED WATER STORAGE TANK	1	100 m <sup>3</sup>
32	CLARIFIED WATER TRANSFER PUMPS	2(I/W+1S)	400 m <sup>3</sup> /hr
33	REDUCING PT	1	200 m <sup>3</sup>
34	INSTR. EFFLUENT TRANSFER PUMPS	3(2W+1S)	96 m <sup>3</sup> /hr
35	CHEM STORES, 10L	2	
36	LINEC ROOM	1	
37	UTILITY WATER TANK	2	2.5 m <sup>3</sup>
38	FRUING CHAMBER	2	
40	DILUTION WATER TRUMPUP TO CHLORINE GENR.	2(I/W+1S)	10 m <sup>3</sup> /hr

NOTES:-

1. ALL DIMENSIONS, CO-ORDINATES ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. IN OPAL COMPLEX LEVEL 100.00 CORRESPONDS TO 7.50 M ABOVE MSL.
3. UF SYSTEM AREA FCL IS 100.10, HPL IS 100.50 AND FFL IS 100.80.
4. SITE LOCATION & ORIENTATION OF THE SYSTEM / TANKS ARE TENTATIVE AND WILL BE FINALIZED DURING DETAILED DESIGN.
5. DETAILS OF OTHER MCC BUILDINGS, SS-14, FWHM AND CENTRAL CONTROL ROOM ARE SHOWN IN THE PLAN DRAWING.
6. UTILITY WATER TANKS (EOP:110.39) HAVE BEEN KEPT ON THE ELEVATED STRUCTURAL PLATFORM.
7. ALL ROAD CROSSINGS FOR STORM WATER CULVERTS, BURIED PIPE/CABLE ETC. ACROSS THE APPROACH ROADS, PIPEWAY BRIDGE TO RWTP SHALL BE SHOWN DESIGNED DURING DETAILED ENGINEERING.

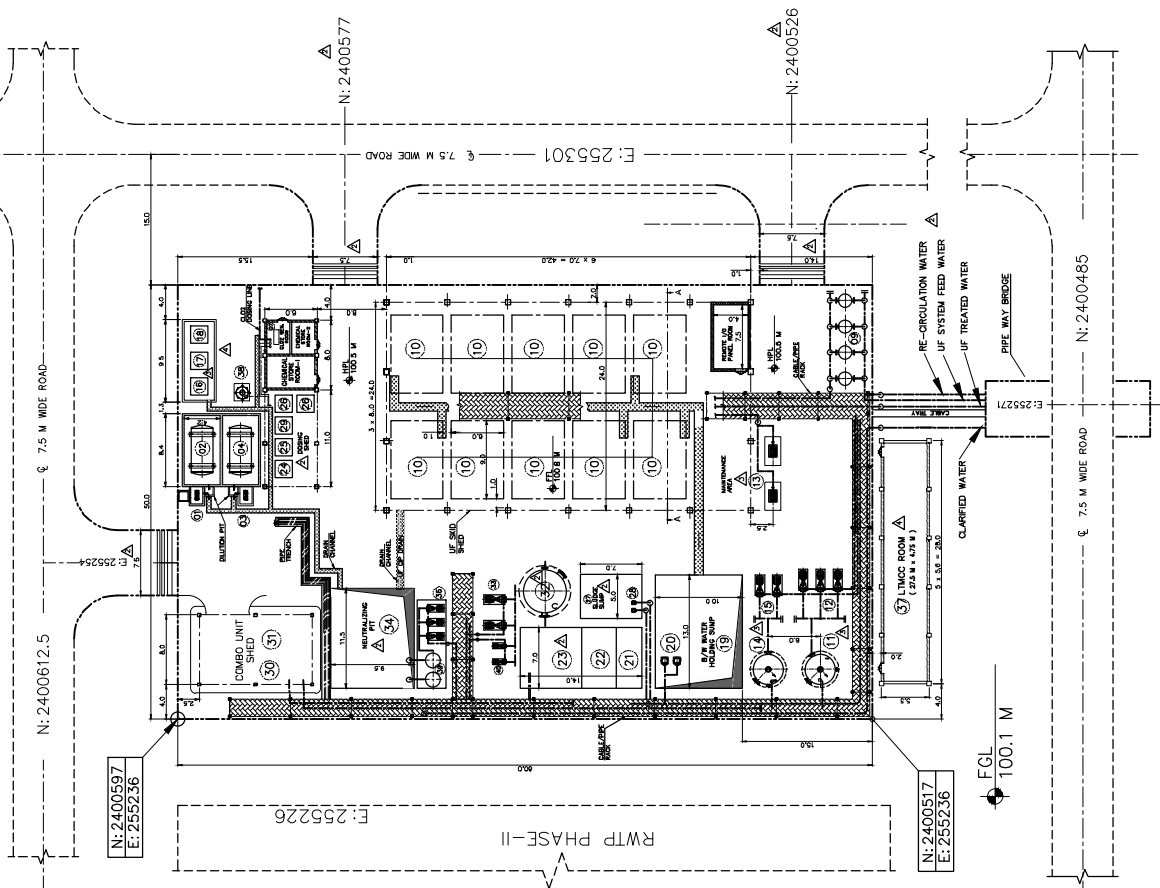
REFERENCE DRAWINGS:-

1. EL DRG. NO : 0203 REV/D
2. EL DRG. NO : 0204 REV/B
3. PFD DRG. NO : 2-WT-220-00084 REV/1
4. KEY PLAN DRG. NO. : 1-WT-220-00351 REV/2

LEGEND:-

- FCL - FINISHED GRADED LEVEL
- FFL - FINISHED FLOOR LEVEL
- HPL - HIGH PAVED LEVEL
- BY BHSL
- BY CUSTOMER
- PIPE LINE
- DRAIN CHANNEL
- CABLE/PIPE RACK
- PIPE TRENCH

TENDER PURPOSE ONLY



PLANT LAYOUT - PLAN

REV	DATE	ALTERED	G.R	REV	DATE	ALTERED	G.R
04	03.01.14	CHECKED	M.N	02	14.12.13	CHECKED	M.N
				01	10.12.13	CHECKED	M.N

LAYOUT REVISED AS PER MOM DT.31.12.13  
 TRANSMITTAL NO. 6987/8A/P7-007 & MAIL DT. 03.01.14  
 FROM 11 TO 18 ALTERED. SAFETY CHOMER ADDED.

LAYOUT REVISED AS PER M/S. EL COMMENTS TRANSMITTAL NO. 6987/8A/P7-004  
 FROM 11 TO 18 ALTERED. SAFETY CHOMER ADDED.

OWNER: ONGC PETRO additions LIMITED VADODARA, INDIA

OWNER'S CONSULTANT: ENGINEERS INDIA LIMITED

EPC CONTRACTOR: BHARAT HEAVY ELECTRICALS LTD. UNIT: BOILER AUXILIARIES PLANT, RAIPUR - 832 406.

RAW WATER TREATMENT PLANT

TITLE: RAW WATER TREATMENT PLANT LAYOUT

DATE: 20.11.13

SCALE: 1:100

DRAWING NO: 1-WT-220-00280

REV: 04