

BNPM/NCB/RO SYSTEM/275/2019-20	BANK NOTE PAPER MILL PRIVATE LIMITED	
	CORRIGENDUM NO. 2	

**CORRIGENDUM No. 2, DATED 21.08.2019**

**FOR**

**BNPM/NCB/RO SYSTEM/275/2019-20 Dated 06.07.2019**

**TENDER FOR SUPPLY, ERECTION, TESTING, COMMISSIONING, PERFORMANCE TESTING OF 65m<sup>3</sup>/HR SYSTEM AT BNPM PLANT, MYSURU**

**Client: BANK NOTE PAPER MILL INDIA PRIVATE LIMITED, MYSURU,  
KARNATAKA**



**Administrative Office Building,  
Entry Gate-1, Paper Mill Compound,  
Note Mudran Nagar,  
Mysuru-570003**



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**SCOPE OF THIS CORRIGENDUM:**

**1. Revision:**

Sr. No.	Reference Clause of the Tender	Previous Provision in Tender	Current Provision to be considered
<b>MECHANICAL</b>			
1.	Section VII- Technical Specification & Scope of Work: Clause :A: RO Feed Water Parameter: Sl No 7	The temperature of effluent is 44 °C.	Temperature of effluent shall be read as maximum 40°C.
2.	Section VII- Technical Specification & Scope of Work	MOC of cartage filter housing is not defined in the tender.	The MOC of cartridge filter housing shall be SS304 (material test certificates to be submitted at the time of delivery).
3.	Section VII- Technical Specification & Scope of Work	Source of effluent is not defined in the tender	Source of effluent is treated Effluent after UF system.

**2. Clarification:**

Sr. No.	Reference Clause of the Tender	Description	Clarification sought by prospective Bidders	Response from Client
1.	Section VII- Technical Specifications/ Scope of Work: Sl No 2 under Clause C - General terms and Conditions & Part A	RO Feed Water parameters.	Value of bicarbonate, pH, Sulphate, chloride, phosphate value of feed water analysis is to be provided	pH shall be considered as 8 (maximum). As mentioned in the tender (Sl No 2 under Clause C - General terms and Conditions under Section VII- Technical Specifications/ Scope of work) the bidder shall check the feed water parameters. Based on previous analysis following are the values obtained for the parameters requested: Bicarbonate alkalinity as CaCO <sub>3</sub> : 419 mg/l; Sulphate as SO <sub>4</sub> :318 mg/l Chlorides: 279 mg/l.

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Sr. No.	Reference Clause of the Tender	Description	Clarification sought by prospective Bidders	Response from Client
2.	Section VII-C. General Terms & Conditions: Sl No 7 under Clause C - General terms and Conditions	The Feed pumps is required to be VFD driven	VFD is not required in feed pump. For the process point of view VFD require only HPP (High pressure pump) please confirm.	The provision has been given considering the variation in the TDS (1500 to 500ppm) of feed water and to avoid reduction in suction pressure of the high pressure pump. Bidder is required to comply to the tender terms and to provide VFD provision and ensure that the system/pumps won't fail even if the TDS reduces to as low as 350ppm. Confirmation to be submitted from the pump manufacturer stating that the high pressure pump will work between the above mentioned points with the designed suction pressure provided by feed pump.
3.	Section VII-C. General Terms & Conditions: Sl No 17 under Clause C - General terms and Conditions	Bidder has to submit the system plan / layout with clear area requirement of the new RO plant. The bidder is to visit the site before quoting to verify the space availability.	Existing plant layout may be provided to understand the accommodation of new RO plant.	Attached plant layout may be referred to.
4.	Section VII-C. General Terms & Conditions:	Conductivity (in RO feed, reject and permeate)	Feed & permeate conductivity is all right but reject conductivity	Reject conductivity meter is required as mentioned in tender (Sl No 24 under Clause C - General terms

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Sr. No.	Reference Clause of the Tender	Description	Clarification sought by prospective Bidders	Response from Client
	Sl No 24 under Clause C - General terms and Conditions		transmitter is not required.	and Conditions under Section VII- Technical Specifications/ Scope of work.) Range of conductivity meters to be selected appropriately considering the variation in TDS.
5.	Section V- SCC - Sr No 4, Point ii	Performance Warranty: 3 years of warranty to be provided for minimum 92% recovery from the date of commissioning.	At the feed water analysis COD -110, BOD5- 25 PPM, at this high value of COD & BOD, RO will not get 92% such high recovery for the three years It is require UF system for the pre-treatment of RO System. Please confirm.	The water fed into RO system is pretreated using UF. The warranty requirement mentioned in the tender should be complied.
6.	Section VII- Technical Specification & Scope of Work:	Battery limit. ( Not specified in tender)	The battery limit is not defined in tender document. whether 10 m piping in suction, 10m discharge & 10m permeate of RO skid may be considered.  Please confirm.	The party should visit the site and check for routing of pipes and cables and quote accordingly.
7.	Section VII- Technical Specification & Scope of Work: Sl No 26 under Clause C - General terms and Conditions	The system should be provided with a provision to bypass the last stage (this would then go to reject tank directly) if the TDS at the feed to last stage reaches below 2,000ppm. This system for bypassing the last stage (when the TDS falls below	Purpose to direct reject if the TDS below 2000ppm may be clarified.  At the 92% recovery constrained in tender the reject TDS will be atleast 18750ppm.	It has been mentioned in the tender that the feed TDS would vary between 1500 to 500ppm. For calculation purpose both upper and lower limits shall be considered. RO Projections at both limits should be submitted.  The query pertains to a condition arising mainly when operating with a low TDS feed water. Vendor

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Sr. No.	Reference Clause of the Tender	Description	Clarification sought by prospective Bidders	Response from Client
		2,000ppm) should work automatically by incorporating auto valve, TDS sensor etc.		shall provide the provision as required in the tender.
8.	Essential Spares Sec - XI Price Schedule ( Refer Form B1, B2, B3)	List of Essential Spares, Recommended Spares	Essential Spare List is not available in the Tender, kindly provide the same for electro-mechanical scope.	The list of essential spares & recommended spares are to be provided by the bidder only & rates are to be mentioned in the price bid , however rates for Recommended Spares(Refer Form B3: Sec -:XI , Price Schedule) will not be considered for evaluating the lowest bidder.  Ordering of any kind of spares will be under discretion of BNPM.
9.	Section VII- Technical Specification : SI No 15 under Clause C - General terms and Conditions	The bidder is required to do the necessary interconnection between the new RO system and exiting PLC. Necessary programming, SCADA development shall be carried out in the existing PLC to accommodate the new RO system	As per tender there is integration of new RO Plant with existing PLC System, following data of existing PLC System as listed below are needed  1. Make is GE, required Model No. of Processor with Memory capacity is required. 2. Memory utilized and spare memory is required. 3. Clarification is required regarding IO cards for new RO System, 4. It is understood that that there will be RIO panel for new RO System with	1. PLC Brand : GE PLC CPU: GE - RX3i CPU 1 GHz With 5MB memory (Catalog No- IC695CPE305); Ge IP Software : GE Proficy Machine Edition 8.60 ( Engineering Software ) GE Proficy HMI/SCADA - SIMPLICITY 9.0 ( SCADA software )

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Sr. No.	Reference Clause of the Tender	Description	Clarification sought by prospective Bidders	Response from Client
			<p>communication card and same shall be communicate with existing PLC, to be confirmed.</p> <p>5. Existing SCADA details i.e. Wincc or any other is required.</p> <p>6. No of SCADA tags are utilized and No of SCADA tags are available I sto be defined.</p> <p>7. If SCADA tags are not available for development of new RO system pages / programme, it has to be upgraded. Upgradation of SCADA scope is not clear.</p> <p>8. Any possibility of existing SCADA system to be absolute and discontinued.</p> <p>9. Details of existing ethernet switch, spare port availability whether to integrate with new RO RIO Panel is required.</p> <p>10. If RIO is not to be considered, then details of sufficient space is availability to install new IO Banks in existing PLC Panel. Is required</p>	<p>2. Controller memory Utilized - 3 MB , Free Memory - 2 MB</p> <p>3. Digital &amp; Analog cards were already available in the PLC System. Spare I/O's were available in the system and the same shall be used for the new RO system</p> <p>4. Remote Input Output (RIO) Panel is not considered &amp; the I/O's shall be connected directly to PLC system</p> <p>5. GE Proficy HMI/SCADA - CIMPLICITY 9.0</p> <p>6 &amp; 7. Enough SCADA tags are available for the development, If upgradation is required for SCADA, same shall be taken up by BNPM.</p> <p>8. SCADA Software - GE CIMPLICITY 9.0 &amp; the software is not obsolete</p> <p>9. Already confirmed in Point no -04</p>

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Sr. No.	Reference Clause of the Tender	Description	Clarification sought by prospective Bidders	Response from Client
				<p>10. RIO Panel is not considered &amp; the I/O's shall be connected directly to PLC system. Available I/O Spares in PLC</p> <p>a.Digital Inputs – 100 Nos</p> <p>b.Digital Output- 100 Nos</p> <p>c.Analog Input- 20 Nos</p> <p>d.Analog Output - 10 Nos</p>

**3.Extension of Tender submission due date:**

<u>Sl No.</u>	<u>Previous Provisions</u>	<u>Action/Clarification incorporated in this Corrigendum</u>	<u>Reason for Amendment</u>
1.	Offer Submission Closing Date: 21.08.2019 at 14:00 Hours	Offer Submission Closing Date:15.09.2019 at 14:00 Hours	Within the tender submission due date no bids have been received. Only one party has shown interest but not submitted the bid.

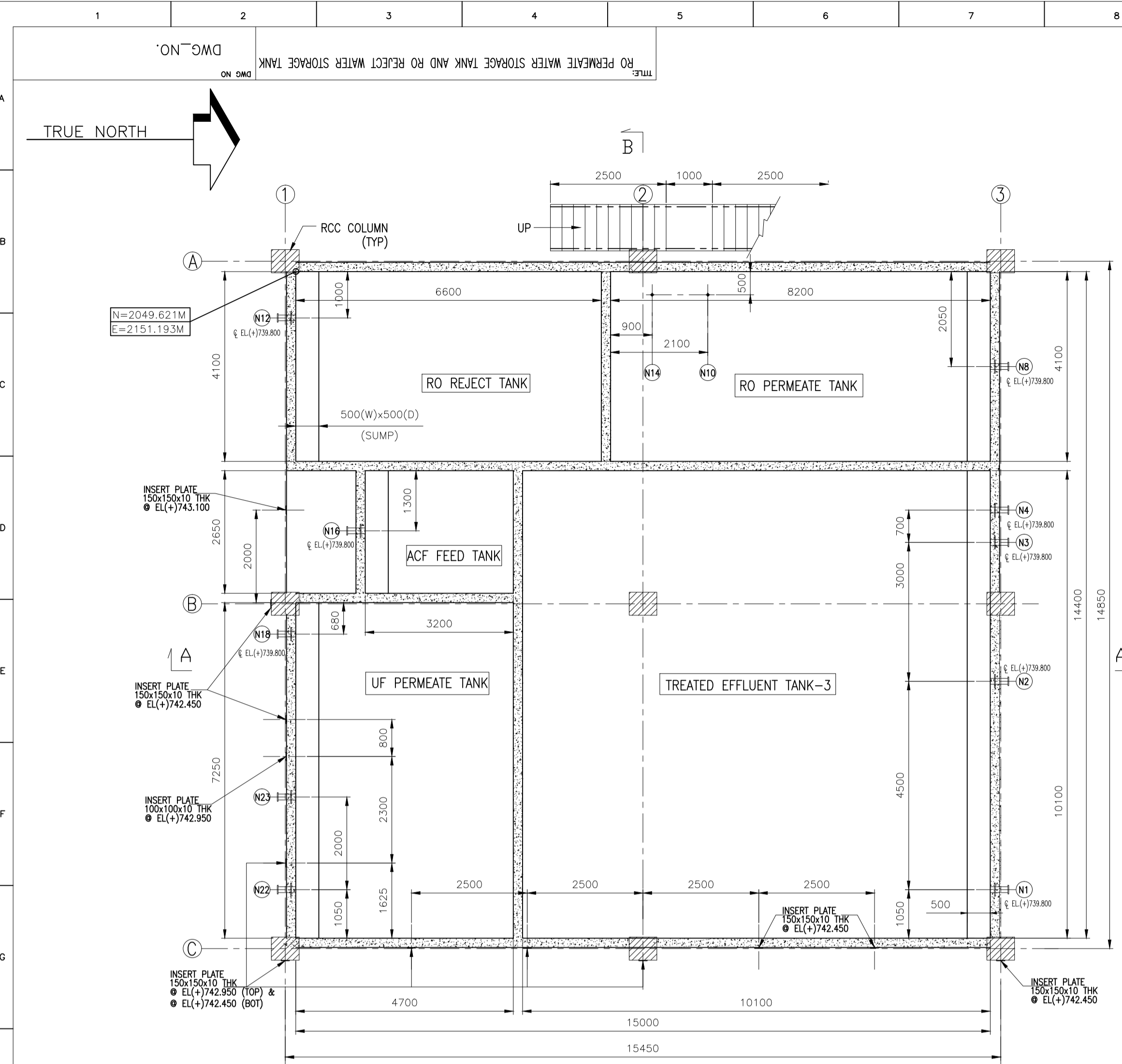
EXCEPT FOR DETAILS MENTIONED HEREIN, ALL OTHER DETAILS CONTAINED IN **BNPM/NCB/RO SYSTEM/275/2019-20 Dated 06.07.2019, CORRIGENDUM 1** SHALL REMAIN APPLICABLE AND UNCHANGED.

ENCLOSED DRAWINGS FOR REFERENCE:

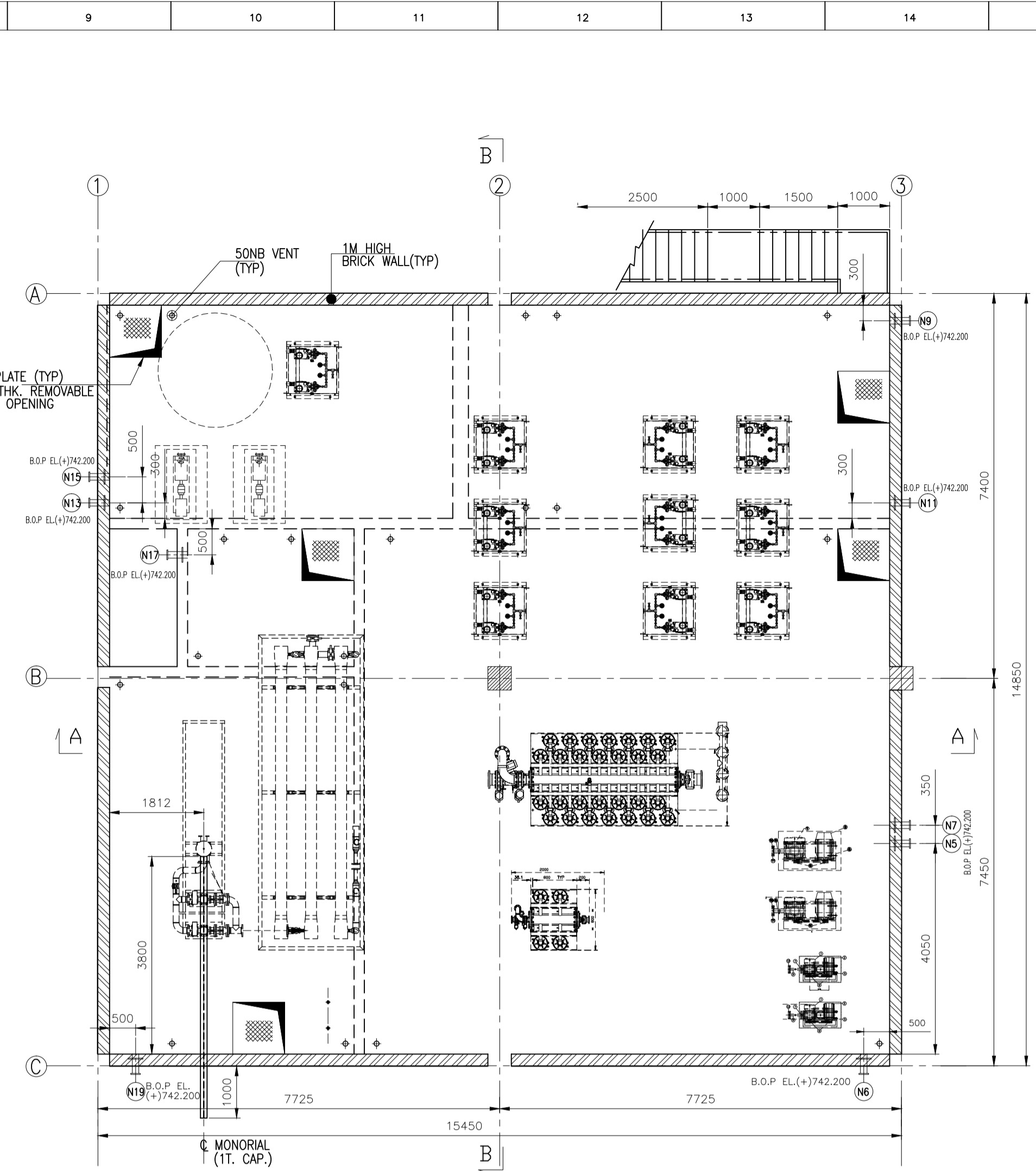
1. PLANT LAYOUT OF UF+RO, 2. GA DRAWING OF TREATED EFFLUENT TANK, UF PERMEATE TANK, RO PERMEATE WATER STORAGE TANK



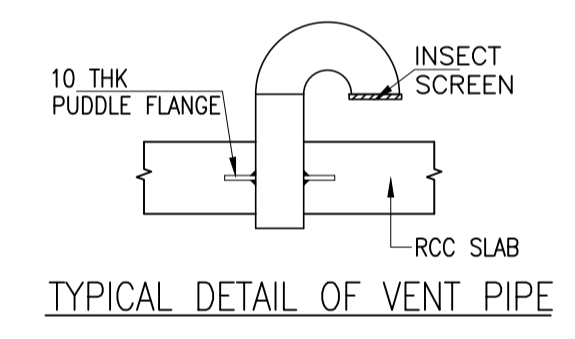
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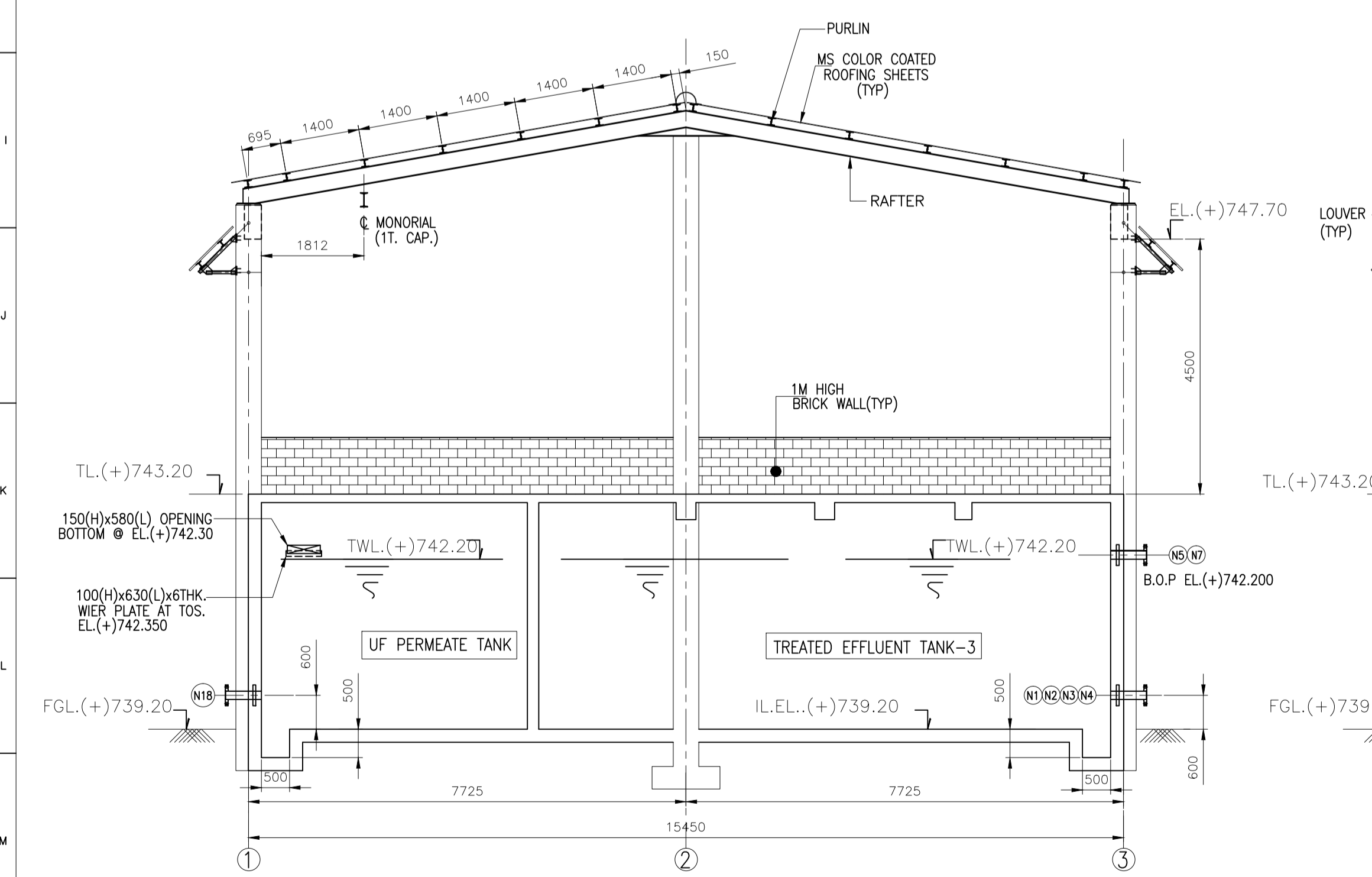
PLAN AT INVERT LEVEL AT EL. (+)739.20



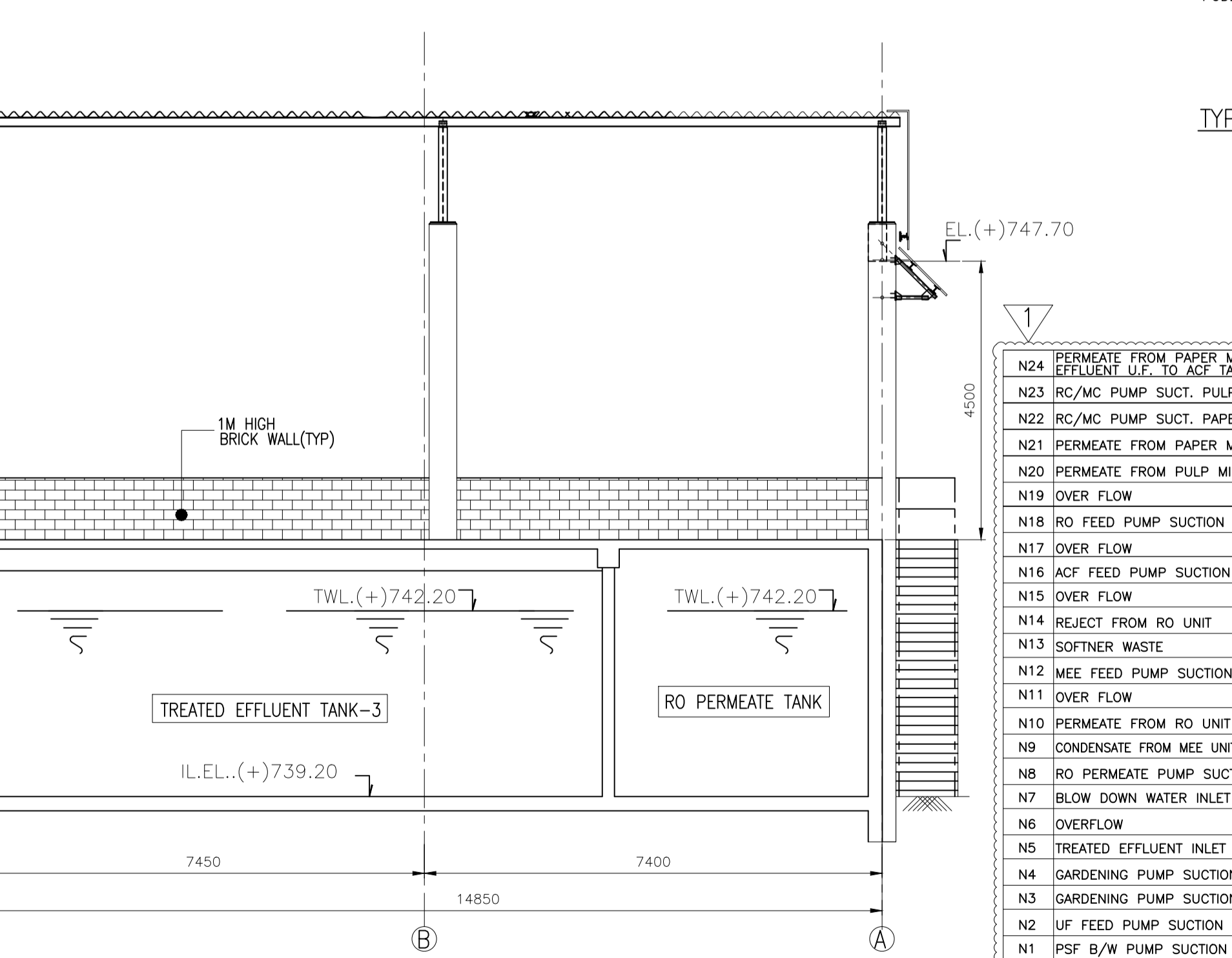
PLAN AT TOP OF TANK AT EL. (+)743.20



TYPICAL DETAIL OF VENT PIPE



SECTION A-A



SECTION B-B

NOZZLE MARK	SERVICES	SIZE NB	RATING	TYPE	FACING	PROJ	REMARKS
N24	PERMEATE FROM PAPER M/C EFFLUENT U.F. TO ACF TANK	100	150#	SO	RF	200	FROM TOP
N23	RC/MC PUMP SUCT. PULP	65	150#	SO	RF	200	
N22	RC/MC PUMP SUCT. PAPER	200	150#	SO	RF	200	
N21	PERMEATE FROM PAPER M/C EFF. UF	80	150#	SO	RF	200	FROM TOP
N20	PERMEATE FROM PULP MILL EFF. UF	50	150#	SO	RF	200	FROM TOP
N19	OVER FLOW	100	150#	SO	RF	200	
N18	RO FEED PUMP SUCTION	150	150#	SO	RF	200	
N17	OVER FLOW	100	150#	SO	RF	200	
N16	ACF FEED PUMP SUCTION	150	150#	SO	RF	200	
N15	OVER FLOW	100	150#	SO	RF	200	
N14	REJECT FROM RO UNIT	100	150#	SO	RF	200	FROM TOP
N13	SOFTNER WASTE	80	150#	SO	RF	200	
N12	MEE FEED PUMP SUCTION	80	150#	SO	RF	200	
N11	OVER FLOW	100	150#	SO	RF	200	
N10	PERMEATE FROM RO UNIT	150	150#	SO	RF	200	FROM TOP
N9	CONDENSATE FROM MEE UNIT	50	150#	SO	RF	200	
N8	RO PERMEATE PUMP SUCTION	100	150#	SO	RF	200	
N7	BLOW DOWN WATER INLET	50	150#	SO	RF	200	
N6	OVERFLOW	200	150#	SO	RF	200	
N5	TREATED EFFLUENT INLET	200	150#	SO	RF	200	
N4	GARDENING PUMP SUCTION-1	80	150#	SO	RF	200	
N3	GARDENING PUMP SUCTION-2	50	150#	SO	RF	200	
N2	UF FEED PUMP SUCTION	200	150#	SO	RF	200	
N1	PSF B/W PUMP SUCTION	200	150#	SO	RF	200	

**LEGEND:**  
 C — CENTRE LINE  
 TYP — TYPICAL  
 UNO — UNLESS NOTED OTHERWISE  
 EL — ELEVATIONAL LEVEL  
 NTS — NOT TO SCALE  
 TOP — TOP OF PLATFORM  
 FGL — FINISHED GROUND LEVEL  
 IL — INVERT LEVEL  
 HP — HIGH POINT  
 LP — LOW POINT  
 R — RISER  
 T — TREAD  
 TWL — TOP WATER LEVEL  
 BL — BOTTOM LEVEL  
 TL — TOP LEVEL  
 OD — OUTER DIMETER

**NOTES:**  
 1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRES UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE

BANK NOTE PAPER MILL INDIA PRIVATE LIMITED  
 Mysore - 570003

SCALE: \_\_\_\_\_ DATE: 20.08.2019

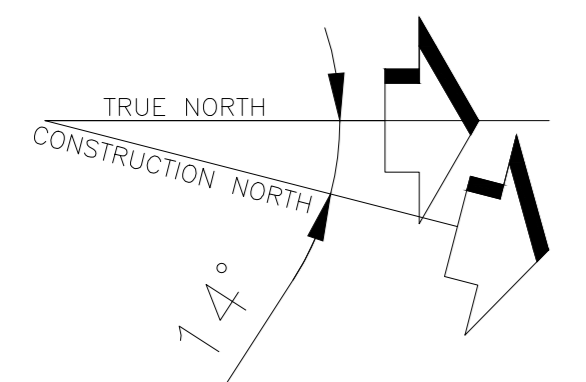
OFFICE-DWG: \_\_\_\_\_

DRN: DRN. \_\_\_\_\_

CHD: \_\_\_\_\_

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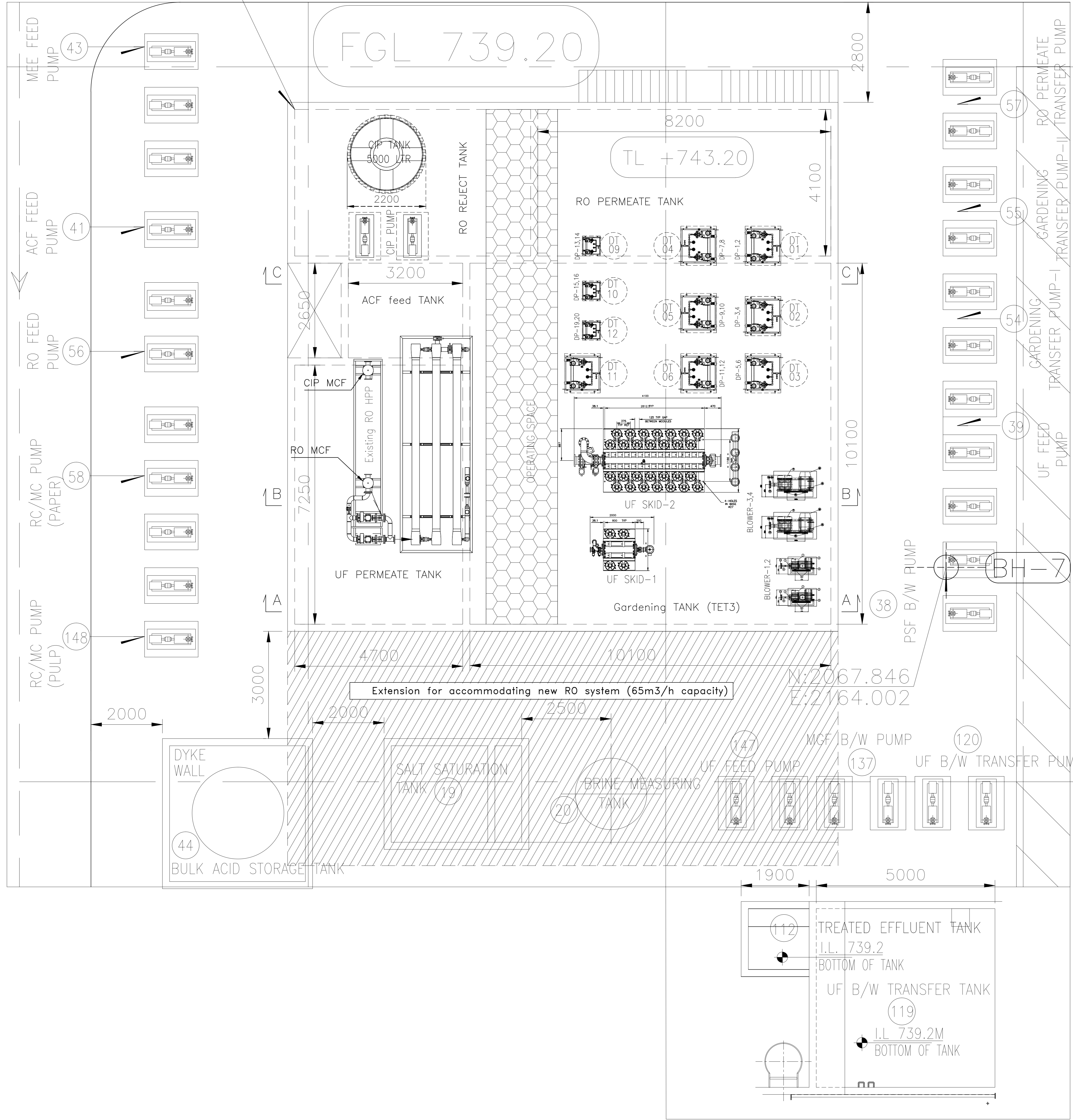




N:2049.621  
E:2151.193

FGL 739.20

TL +743.20



NOTE :-

01. The Source of water for the 65m3/h RO system is UF permeate water.
02. The feed water should be pumped from the UF permeate tank to the new RO system.
03. Permeate from the new system should be routed to the existing RO permeate tank
04. The reject from the new system should be routed to the existing RO reject tank.
05. By-pass arrangement to be provided for diverting the RO reject after 3rd stage to gardening tank if TDS less than 2000 ppm.
06. Design and drawing of civil structure to be submitted by the bidder, area requirement to be analyzed by the bidder after visiting site.
07. The routing of pipe line from the UF permeate tank to the RO system and the permeate and concentrate pipe lines to the permeate and reject tanks (inclusive of puddle flanges) will be in the scope of party.
08. The shown extension (hatched area) is just for representational purpose, the party has to check the space requirement and design the civil structure accordingly.

NOTE :- ALL DIMENSIONS ARE IN mm.  
UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE		
 <b>BANK NOTE PAPER MILL INDIA PRIVATE LIMITED</b> Mysore - 570003		
SCALE: -SCALE		DATE: 20/08/2019
OFFICE-DWG:		
DRN:	TITLE: LAYOUT DRAWING OF UF+RO	
CHD:	DWG NO: BNPM\URR\ETP\UF&RO layout - 1	ISSUE