

Inviting Bids from eligible Firms/Contractors/Agency /Individual for Civil & Structural works for The Slurry Processing Plant at Maloibari-Assam under WAMUL

INVITATION FOR BID (IFB)



Purabi





The West Assam Milk Producers' Co-operative Union Ltd.

PURABI DAIRY

INVITATION FOR BID

WAMUL/Admin/SPP/2023-2024/01

Dated: 30-05-2023

Sub: Inviting Bids from eligible Firms/Contractors/Agency/Individual for Civil & Structural Works at Slurry Processing Plant, Maloibari-Assam

West Assam Milk Producers' Cooperative Limited (WAMUL) is pleased to invite eligible Firms/Contractors /Agency/Individual for construction of Various Civil and Structural Works at Slurry Processing Plant, Maloibari-Assam as details mentioned below:

S.No.	Brief Description of works	Technical Speciation (along with Drawing)and BOQ	Location	Completion Time
1	Civil & Structural Works for Slurry Processing Plant	Attached Annexure- 1	Maloibari, Khetri, Kamrup(M) Guwahati, Assam, 782403	180 days from the date of issue of Work Order

Schedule of bidding:

The bidding shall be done on the basis of two envelopes (technical and financial envelopes), single stage tendering process and shall be having the following timelines:

Sl. No.	Particulars	Date	Time
1.	Commencement of bid publishing of Tender	30-05-2023	-
2.	Last date of submission of technical and financial bids	20-06-2023	12.00 HRS
3.	Date of technical bid opening	20-06-2023	12.30 HRS

Terms and Conditions

1. Eligibility criteria of the bidder

The Bidder shall have successfully executed/completed contracts of preferably similar nature of work** during last five years ending last day of the month previous to the month in which bid is opened, either of the following:

- One contract/work of preferably similar nature costing not less than INR. 1 Cr

OR

Two contracts/works of preferably similar nature each costing not less than INR. 60 Lakhs

OR

Three contracts/works of preferably similar nature each costing not less than INR. 50 Lakhs.

- ii. The average annual financial turnover should not be less than INR. 2 crores in the last 3 financial years (FY 2019-2020,2020-2021 & 2021-2022)

(Relevant Documents: CA certificate copy having valid UDIN No. or audited balance sheets of last 3 FY as mentioned)

- iii. Valid GST No., PAN No., Address Proof & Cancelled Cheque.

Notes:

** Civil & Structural works for RCC framed or Load bearing structure/RCC Roads/ Paver block Roads/Bitumen Road / Industrial buildings of Dairy Plant/MS Roofing shed/ Food & Beverage / Pharma / Chemical / Hospital / Electronics /Frozen semen station having clean room laboratory/ bio containment laboratory/ University/ Educational Institute.

Bidders shall submit the following details to support their claim for meeting the minimum eligibility requirement:

- a) Name / Names of project to be considered for meeting minimum eligibility criteria.
- b) Nature of each project / work completed.
- c) Value of work of each project / work completed.
- d) Location of execution of each project/work completed. The copy of purchase order/ work order, completion certificate and abstract sheet of final bill/ invoice showing the cumulative value of work done should be submitted in order to support aforesaid details. In case, the final bill/invoice, does not contain cumulative value of work done, copy of all the bills/ invoices submitted prior to the final bill should be attached.

2. Earnest Money Deposit: The Bidders shall submit EMD amounting to Rs.90,000/- in the form of Bank Draft in in favor of "West Assam Milk Producers Cooperative Union Limited" Payable at Guwahati. If the bidder is not earnest about the bid, then the bid security is liable to be forfeited.

3.Performance Security: The successful bidder shall furnish to the WAMUL a performance security of 5% of the contract value in the form of Bank Guarantee or a Bank Draft from any Nationalized/Scheduled Bank in favor of "West Assam Milk Producers Cooperative Union Limited", Payable at Guwahati within 30 days after the issue of Work and shall be valid for one year from the date completion of work. The Performance Security furnished by the successful bidder will be retained by the office up to 60 days after expiry of Performance Obligation Period/PBG. The PBG held by the office till it is returned to the successful bidder will not earn any interest.

4.Work Completion time: within 180 days from the issue of work order.



5. Payment terms:

The payment will be made on the basis of total 4 (four) Nos of running accounts (RA) bills.

The 1st RA bill payment will be made 25% after completing the 30 % of the entire work. The 2nd RA bill payment will be made 25% after completing the 60 % of the entire work. The 3rd RA bill payment will be made 25% after completing the 90 % of the entire work. The 4th and final RA bill will be made after completion of the entire work. The payment will be paid of the said work within the stipulated time subject to bill certification by competent authority of WAMUL.

6. Validity of the Bids: Bids must be valid for 120 days from the due date of Submission. The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

7. Liquidated Damages: If the bidder fails to deliver any or all the goods or perform the services within the time period(s) specified in the purchase order/contract, the WAMUL shall, without prejudice to its other remedies under the purchase order/contract, deduct from the purchase order/contract price, as liquidated damages, a sum equivalent to the following clauses which is applicable as per Order.

b) 0.5% of the delayed items for each completed week of delay.

The total amount so deducted shall not exceed 10% of the purchase order/contract value. Once the maximum is reached, the WAMUL may consider cancellation/termination of purchase order/contract, and forfeiture of performance/ deposit bond

8. Price Bid

8.1. The Prices shall be quoted in Indian Rupees only.

8.2. Each bidder shall submit only one Bids. Bidder shall not contact other Bidders in matters relating to this Bids

8.3. Documents: *The Bids shall comprise two Parts, namely the Technical Part and the Financial Part. Both Parts shall be submitted simultaneously in a single cover.*

i) The Technical Part of Bids shall comprise the following:

a) Letter of Bids – Technical Part Comprises of all relevant documents as mentioned at point 1 of eligibility criteria of the bidder.

b) Complete address and contact details of the Bidder having the following information:

Name of Firm

Address for communication

Telephone No(s): Office

Mobile No.

Electronic Mail Identification (E-mail ID)



ii. The Financial Part of Bids shall comprise the following:

(a) Price Schedule as per specified format (BOQ) Attached Annexure-1

9. Evaluation and Award of Contract:

9.1. The Purchaser will evaluate on overall basis and compare the Bids of the responsive bidders only to be responsive i.e. which are properly signed; and Conform to the terms and conditions, and specifications

9.2. The Bids would be evaluated for complete set/works to be executed under this RFB

9.3. GST, charges in connection with the services shall be taken into account in evaluation.

9.4. The Purchaser will award the contract to the bidder whose Bids has been determined to be responsive and who has offered the lowest evaluated Bids price.

9.5. Notwithstanding the above, the Purchaser reserves the right to accept or reject any Bids and to cancel the bidding process and reject all Bids at any time prior to the award of contract.

9.7. The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the Bids validity period. The terms of the accepted offer shall be incorporated in the supply order.

10. Cancellation of Contract: WAMUL shall be free to cancel the order either in full or in part, in the case of non-delivery/ non-completion of execution within the stipulated completion period.

11. Rejection: WAMUL reserves the right to reject the goods either in part or full if at the time of delivery, it is noticed that the services provided do not conform to the specifications/description given in the purchase order

12. For any dispute/legal issues, the jurisdiction is at Guwahati Only.

Bids can be submitted in person on or before the due date and time specified above. Such Bids should be dropped in the tender box only kept at the Office of the "West Assam Milk Producers Cooperative Union Limited, Juripar Panjabari-Guwahati-781037"

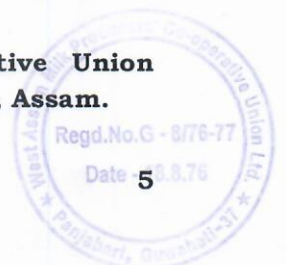
Alternatively, the bidder can submit the Bids by registered post so as to reach the above address on or before the due date and time specified above. Bids received after due date and time will not be considered and WAMUL shall not be liable or responsible for any postal delays.

The completed RFB document duly signed on all the scanned signed pages by WAMUL should be submitted by the bidder along with the offer letter.

13. The bidder should submit the bids (technical bid along with all the required supporting documents and the financial bid in the designated format mentioned in Annexure-I) in two (02) separately sealed envelopes and then insert them in a single large envelope duly sealed and shall address to on or before last date of submission of bid:


Managing Director

West Assam Milk Producers' Cooperative Union Limited (Purabi Dairy), Guwahati-781037, Assam.







BOQ FOR CIVIL & STRUCTURAL WORK FOR MALOIBARI BIOGAS PLANT, PURABIDAIRY

SR.NO.	Item Description	Unit	Rate (Rs.)	TOTAL Qty	TOTAL AMOUNT (INR.)
1	EXCAVATION FROM NGL UPTO 1.5M DEEP-ALL SOILS with filling of excavated earth.	CU.M.		700	
2	EXCAVATION FROM 1.5 M - 3.0 M DEEP-ALL SOILS with filling of excavated earth.	CU. M.		134	
3	P&F LOCAL SAND IN TRENCHES, PLINTH ETC	CU.M.		33	
4	P&F IN PLINTH and land development WITH EARTH/ MURRUM BROUGHT FROM OUTSIDE SITE	CuM		182	
5	P&L 150MM METAL SOLING IN PLINTH	CUM		90	
6	P&L ANTI-TERMITE TREATMENT	SQM		308	
7	TOTAL FOR EXCAVATION				
8	P&L M/C.MIXED PCC 1:4:8	CuM		157	
9	P&L M25 (DESIGN MIX) CONCRETE BELOW & UPTO HIGHEST PLINTH LEVEL	CUM		184	
10	P&L M-25 CONCRETE (DESIGN MIX) FOR ALL HEIGHTS UPTO 12MTR HEIGHT FROM HIGHEST PLINTH LEVEL	CUM		74	
11	P&E STEEL / PLY WOOD SHUTTERING BELOW GL & UPTO HPL	SQM		1364	
12	P&E STEEL / PLY WOOD SHUTTERING UPTO 12MTR FROM HIGHEST PLINTH LEVEL	SQM		665	
13	S&M WATER PROOFING CHEMICALS WITH CEMENT	Litre		10	
14	P&G (GROUTING) FDN BOLT / POCKET FOR M/C. FDN. ETC.	CUM		0.5	
15	P/L 50 MM THICK PVC JOINT FILLER BOARD	SqM		2	
16	P&L SILICON SEALANT UPTO 50 MM WIDE & 12 MM DEEP	RM		11	
17	P&L M/C.MIXED PCC 1:1.5:3 FOR GAP FILLING AT ALL HEIGHTS	CUM		1	
18	P&L 150 MM X 150 MM CEMENT CONCRETE & CEMENT FINISH VATA IN 1:2:4 PROPORTION	RM		22	
19	P&F REINFORCEMENT STEEL DOWEL BAR 8 MM	No.		5	
20	P&F REINFORCEMENT STEEL DOWEL BAR 10 MM	NO.		5	
21	P&F REINFORCEMENT STEEL DOWEL BAR 12 MM	NO.		5	
22	P&F REINFORCEMENT STEEL DOWEL BAR 16 MM	NO.		5	
23	P&F REINFORCEMENT STEEL DOWEL BAR 20 MM	NO.		5	
24	P&F REINFORCEMENT STEEL DOWEL BAR 25 MM	NO.		5	
25	P&F TMT REINFORCEMENT STEEL OF FE 500 GRADE	Kg		31315	
26	P/A. concrete bonding compound S.B.R. Latex to old /new concrete surface at all level. Vertical & Horizontal	Litre		8	
27	TOTAL OF CONCRETE				
28	P&C BRICK MASONRY IN CM 1:6 UPTO HPL	CUM		79	
29	P&C BRICK MASONRY IN CM 1:6 IN SS AT ALL HT. ABOVE HPL	CuM		58	
30	P&C BRICK MASONRY FOR PARTITION WALLS IN CM 1:4 - 115MM THICK	SqM		25	
31	TOTAL OF BRICK WORK				
32	P&F POWDER COATED ALUMINIUM FRAME WORK FOR DOORS, WINDOWS, VENTILATORS & PARTITIONS WITH EXTRUDED BUILT-UP STANDARD TUBULAR SECTION/ Z SECTION & OTHER SECTIONS	KG		652	
33	P & F SATIN SS GRADE 316 PULL HANDLE OF KICH OR EQUIVALENT MAKE FOR SIZE 150 MM	NO		25	

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34	P & F SATIN SS GRADE 316 PULL HANDLE (ARTICLE NO. PHS) OF KICH OR EQUIVALENT MAKE FOR SIZE 300 MM	NO		4	
35	P & F SATIN STAINLESS STEEL GRADE 316 KITCH MAKE OR EQUIVALENT MORTICE LATCH LOCK CONSISTING OF LOCK CYLINDER WITH HALF CYLINDER ONE SIDE KEY	NO		5	
36	P & F OF ADDITIONAL DOOR AND WINDOW HINGES	NO		49	
37	P & F 5.5 MM THICK TOUGHENED GLASS IN ALUMINUM WORKS.	SqM		86	
38	P & F 4MM THICK COMPACT SHEET FOR ALUMINUM WORKS.	SqM		10	
39	P & F CONCEALED LOCK IN THE ALUMINUM SLIDING WINDOW.	NO		37	
40	P & F SAL WOOD DOOR FRAME OF SIZE 125MM X 62 MM	RMT		11	
41	FLOOR MOUNTED DOOR CLOSER	NO		6	
42	P & F LAMINATED SHEET 1 MM THICK ON FLUSH DOOR SHUTTERS	SQ.M.		4	
43	P & F SS 316 ALDROP.	NO.		6	
44	P & F SATIN SS FINISH GRADE 304 TOWER BOLT OF KICH/ SUZU / APPROVED MAKE	NO.		10	
45	P & F SATIN SS FINISH GRADE 316 FLOOR MOUNTED DOOR STOPPER (ARTICLE NO. DST75S)	NO.		10	
46	P & F HYDRAULIC DOOR CLOSER	NO.		10	
47	PROVIDING AND FIXING FLY PROOF SS WIRE MESH	KG		49	
48	TOTAL OF WOOD WORK				
49	P&A 12 MM TH PLASTER IN CM 1:4 AT ALL HT. & BELOW PL	SqM		139	
50	P&A 19 MM TH PLASTER IN CM 1:4 AT ALL HT. & BELOW PL	SqM		639	
51	P&A 19 MM TH. SAND FACED CEMENT PLASTER AT ALL HT.	SqM		437	
52	P&A 25 MM TH. WATER PROOF CEMENT PLASTER AT ALL HT.	SqM		88	
53	P&A NEAT CEMENT FINISH AT ALL HEIGHT	SqM		43	
54	P&A WHITE WASHING WITH LIME AT ALL HEIGHT	SqM		69	
55	PLASTIC EMULSION PAINT ON NEW/OLDWORK AT ALL HT	SqM		356	
56	FGM in Concrete and brick masonry joint	SqM		133	
57	P&A DRY DISTEMPER ON NEW / OLD SURFACES	SqM		191	
58	Providing and applying acrylic based Anti fungus exterior paint of approved make of desired shade on new work of smooth / sand faced / rough cast plaster finish.. Preparation of surface to be painted should be free from dust, grease any growth of fungus, algea or moss needs to be removed thoroughly by vigorous wire brushing and washing the surface with water, Freshly plastered surface to be allowed to cure completely. In case of surface imperfections such as holes, dent and cracks are to be filled only by using mixture of white cement and fine sand in the ratio of 1 : 3 at no extra cost (note - Any kind of putty is not recommended) for painting, applying primer of approved make, applying 2 coats of approved make paint as per specification at all heights below and above highest plinth level, scaffolding etc. complete as directed. (Measurement to be of the treated surface & nothing extra for rough / sand face surface)	SqM		623	
59	P & F 12.5 MM THICK TAPERED EDGE GYPSUM BOARD	SqM		259	

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60	Providing and fixing high tensile strength acid and alkali resistant latex metal free composition nontoxic Fiber Glass Mesh (FGM) of minimum density of 145 GSM (Gram per SqM) and 5mm X 5mm meshing size for reinforcement of surfaces during all kinds of plaster works at the junction of masonry work and RCC work or on any other place as directed to receive plaster including fixing the FGM in 300mm wide patta with Cement mortar (1 part cement :1 part fine sand) stretched properly and at all the heights below and above highest plinth level including scaffolding etc complete as directed.	SqM	133
61	TOTAL OF FINISHING		
62	P&L POLISHED HAND / M/C. CUT GREEN KOTA STONE IN FLOOR 25 TO 30MM THICK	SqM	38
63	P&L POLISHED M/C.CUT GREEN KOTA STONE IN SKIRTING/ DADO	SqM	5
64	P&L PRE POLISHED M/C. CUT GREEN KOTA STONE 20 TO 25MM THICK IN TREADS FOR STONE UPTO 1.0M LONG IN SINGLE PIECE	SqM	1
65	P&L PRE POLISHED M/C.CUT GREEN KOTA STONE 25 TO 40MM THICK IN TREADS FOR STONE FROM 1.0M TO 1.5 M LONG IN SINGLE PIECE	SqM	23
66	50 MM TH IPS FLOORING- UNDERLAYER 38MM & TOP LAYER 12MM	SqM	38
67	19MM TH IPS IN SKIRT/DADO-UNDERLAYER 12MM & TOP LAYER 7MM	SqM	4
68	Providing and laying 75 mm thick IPS flooring with under layer of 28 mm thick Cement concrete 1:2:4 (1 part cement, 2 part coarse sand and 4 part stone aggregate 12.5 mm and down graded) finished smooth with top layer of 12 mm thick mortar in CM 1:2 (1 part cement : 2 part coarse sand) and cement slurry @ 2.2 Kg / Sq.M including rubbing/ grinding the top surface to match, including rounding off the junction and corners with floors and walls, necessary construction joints, finishing the top surface smooth / chequered or broom, curing etc. complete as directed. UNDER LAYER OF 63 MM THICK INSTEAD OF 28 MM THICK.	SqM	123

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69	<p>Providing and laying 18 - 20 mm thick pre-polished to mirror finish machine cut approved quality Granite stone Flooring of required size (length and width of the stone slab), colour in approved pattern including bands, strips patta in flooring, platform top, treads / cills of uniform colour, texture and pattern over 20 mm thick cement mortar 1:4 (1 part cement : 4 part sand) with cement paste @ 4.4 Kg/SqM filling of joints with white cement / cement mixed with colour pigments to match the shade, applying epoxy based damp proof coating on the base concrete surface, rounding off the exposed edges as per the drawing, necessary curing, polishing, protection of finished surface, cleaning the same finally etc. complete as directed.</p> <p>Note:-Basic rate of granit stone shall be Rs. 2500/Sqm The item also includes providing narrow bands up to 150mm width wherever required as per the drawing. If required, granite shall also be fixed by leaving 4mm x 4mm joints through spacers. The item also includes vanity counters etc. Granite stone shall be mirror polished, premoulded and prepolished and machine cut. Item rate shall also be inclusive of making V grooves as per drawing where ever required, full/half round moulding of the exposed edges as per the drawing, fixing grit aggregates back on stone with araldite/equivalent solution for bonding etc are included. Cement slurry/paste shall be applied @ 4.4 Kg/SqM or more if required for required thickness.</p>	SqM	17	
70	PROVIDING & LAYING POLYTHENE SHEET 500 MICRON	SqM	198	
71	P&L CEMENT WATER PROOFING-AV 115MM TH WITH CHINA MOSAIC ON TOP -BALCONY, TERRACE ETC .	SqM	18	
72	PROVIDING & LAYING OF POURABLE GRADE POLYSULPHATE SEALANT - 6 MM WIDTH PER 10MM DEPTH	RM	75	
73	P&L POLYSULPHIDE SEALANT 25 MM WIDTH X 25 MM DEPTH	RM	12	
74	LABOUR CHARGES FOR HALF ROUND MOULDING TO KOTA STONE	RM	25	
75	LABOUR CHARGES FOR FULL ROUND MOULDING TO KOTA EDGES	RM	11	
76	Providing & laying 8-10mm premium /1st quality vitrified tiles of approved make having size 600x600 mm or any approved size and shade having plain edges in flooring/dado/skirting over average 20 mm thk. Cement mortar 1:4 (1 part cement: 4 part coarse sand) bed laid to requisite ,line, level & slope, fixed with cement slurry @ 4.4kg/sqm of honey like consistency, making 3-5mm grooves using spacers & filling of joints with pigmented tile grout of approved make to match the shade etc. in flooring, providing & fixing skirting/ dado in line and level over the 12 mm thk. cement plaster in neat cement slurry @ 4.4kg/sqm of honey like consistency, with cleaning the area with water or water with mild acid etc. all complete as directed	RM	69	
77	PROVIDING & LAYING 10-12 MM VITRIFIED TILES IN SKIRTING	RM	75	
78	P & L FLOOR PROTECTION SHEET USING POLY PROPLYLENE (PP) SHEET OF 250 GSM	SqM	60	
79	P&F POLISHED GRANITE STONE PARDI - 18 MM TH.	SqM	1	
80	PROVIDING & FIXING PVC STRIPS 3/5 MM & 50MM WIDE IN IPS	RM	65	
81	TOTAL OF FLOORING		0	
82	P & F MS GRILL RAILING , LADDER ETC.	Kg	1916	
83	PROVIDING, FABRICATING & FIXING MS INSERTS.	Kg	122	
84	F & E MS CHEQUERED PLATES FOR COVERS OF TRENCHES	Kg	255	

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85	P&F 18 G INTERLOCKING MS ROLLING SHUTTER - MECHANICAL TYPE	SqM		7
86	TOTAL OF STEEL WORK			
87	F & E MS SECTION FOR STRUCTURAL GIRDERS WITH ROLLED STEEL SE	KG		5246
88	F & E MS SECTION FOR STRUCTURAL GIRDERS WITH MS B CLASS TUBU	KG		6280
89	P & F MS HOLDING DOWN BOLTS	KG		164
90	TOTAL OF ROOFING WORK			
91	P & F 6 LEVER MORTICE LOCK	No		3
92	P & F ELECTRICAL JHARIES 150 TO 250MM WIDE & 50 TO 75MM DEEP WITH CEMENT MORTAR 1:3	RM		15
93	DISMANTLING STONE/ BRICK MASONRY WALL / PARTITION WALL	CuM		1
94	DISMANTLING RCC BEAMS, SLABS, LINTELS, COLUMN, PARDI, WALL, PLATFORM ETC.	CuM		1
95	P & F ELECTRICAL JHARIES 25 TO 150MM WIDE & 50 TO 100MM DEEP WITH PCC 1:2:4	RM		15
96	DSMANTLING PLAIN CEMENT CONCRETE IN FLOOR/ PAVEMENT/ ROOF/ WALL FOUNDATION/ WATER PROOFING	CuM		1
97	P & F ALUMINUM SHEET 22 GAUGE, 300MM WIDE ON EXPANSION JOINT	RM		308
98	CORE CUTTING 100 MM DIA	NO		1
99	CORE CUTTING 150 MM DIA	NO		1
100	100 MM DIA PVC PIPE PIECES/ SLEEVES	NO		2
101	PROVIDING & LAYING POLYTHENE SHEET 500 MICRON	SqM		308
102	Providing and Fixing heavy duty PVC rungs of around 350 mm long and around 180 mm wide complete as directed.	NO		4
103	MAKING CUTOUTS IN BRICK WORK & FINISHING WITH 19MM THICK CEMENT PLASTER CM 1:4 AT HEIGHT FROM 12.0 M TO ALL HEIGHTS	Sqm		1
104	MAKING CUTOUTS IN BRICK WORK & FINISHING WITH 19MM THICK CEMENT PLASTER CM 1:4 AT HEIGHT FROM 12.0 M TO ALL HEIGHTS	Sqm		1
105	CHARGES FOR MAKING HOLES IN BRICKWALL FROM 201 MM TO 300 MM DIA	NO		1
106	TOTAL OF MISCLENIOUS WORK			
107	SURFACE DRESSING UPTO 300 MM TH.	SqM		361
108	P&L BASE COURSE IN TWO LAYERS EACH 100 MM TH.	CUM		72
109	P&L INTERLOCKING PAVEMENT BLOCK TH. 80MM WITH MIN COMPRESSIV	Sqm		50
110	P&L PRECAST/ CAST-IN-SITU M 20 CEMENT CONCRETE IN KERBS, EDGINGS ETC. (IN RM)	RM		144
111	TOTAL OF ROAD WORK			
112	P&F GM WHEEL VALVE FOR 25 MM NB PIPE	NO		1
113	Providing and fixing chromium plated brass Bib Cock With Wall Flange of approved make with chromium plated flange (disc) etc. for 15 mm dia NB pipeline, complete as directed. Make:JAQUAR, Series: FLORENTINE, code: FLR-5047N (page no. 71) . Basic Rate Rs. 1150/= Per No.	No		1
114	LONG BODY CP BRASS BIB COCK FOR 15 MM NB PIPE	NO		1
115	CP CONCL. BRASS STOP COCK FOR 15 MM NB PIPE	NO		1
116	Providing and fixing chromium plated brass heavy duty angle valve of approved make with chromium plated flange (disc) etc. complete as directed - For 15 mm dia NB pipeline.	No		1
117	P&L CHROMIUM PLATED BRASS METAL PILLAR COCK	NO		1

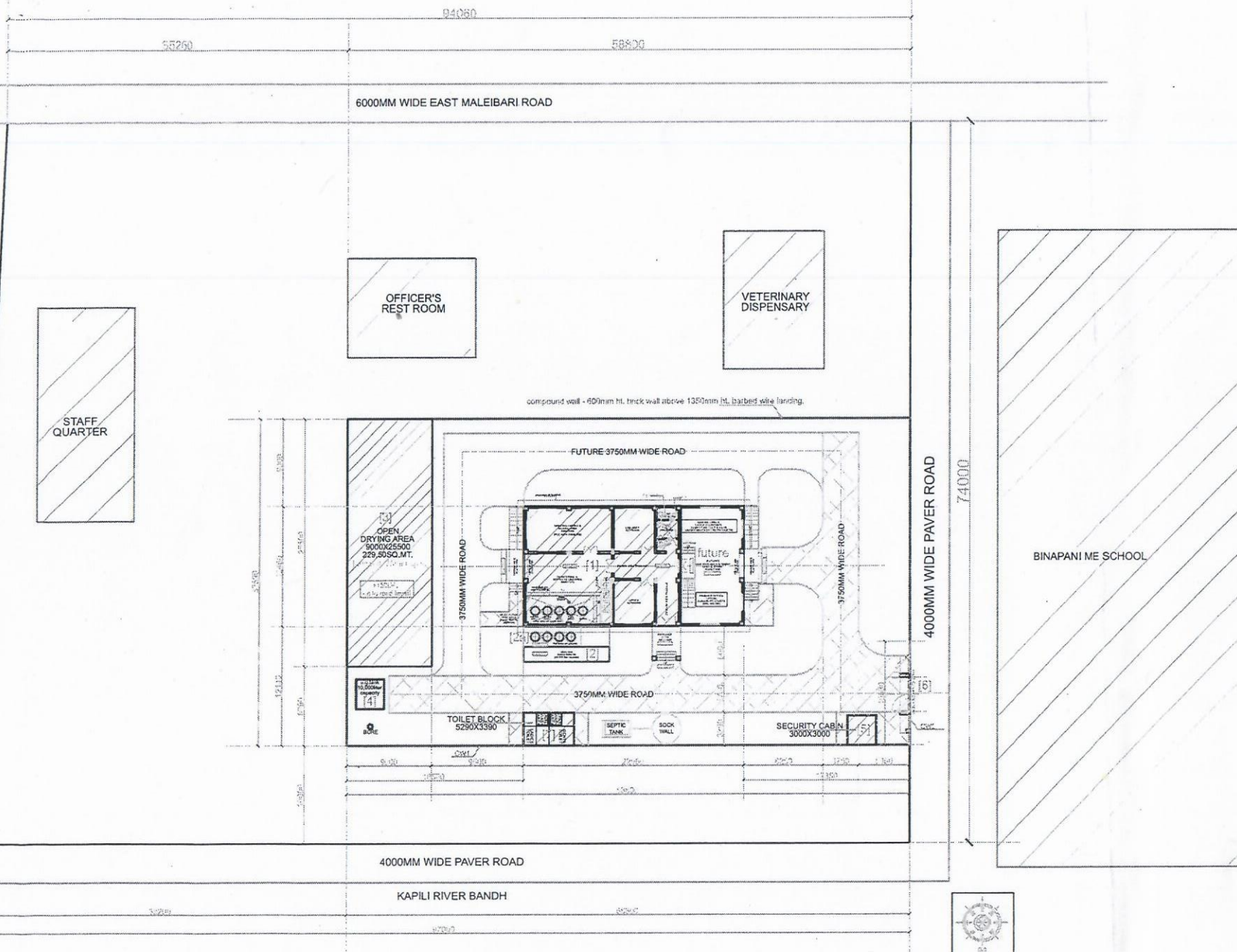


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118	P & F CP HEALTH FAUCET (HAND SHOWER) WITH 1 MT FLEXIBLE TUBE & WALL HOOK	NO		1	
119	P&F CI MAN HOLE COVER (IN KG)	KG		50	
120	P & L open SCH 80 UPVC WATER PIPELINE OF 150MM DIA.	RM		20	
121	P & I MULTILAYERED PVC WATER STORAGE TANKS OF VARIOUS CAPACITIES.	Ltr.		1000	
122	P&L CONCEALED / OPEN 50 MM DIA 10 KG/CM2 PRESSURE CPVC PIPE	RM		3	
123	P&L CONCEALED / OPEN 25 MM DIA 10 KG/CM2 PRESSURE CPVC PIPE	RM		3	
124	TOTAL OF WATER SUPPLY WORK				
125	P & F FLAT BACK WHITE GLAZED URINAL WITH AUTO CLOSING CONCEALED FLUSH VALVE.	NO		1	
126	P & F WHITE GLAZED WASH BASIN WITH WALL HUNG CP BRASS AUTO CLOSING COCK.	NO		1	
127	P & F WALL MOUNTED WC WITH ALL FITTINGS & FIXTURES INCLUDING HEALTH FAUCET.	NO		1	
128	P & F SINK WHITE GLAZED VITREOUS CHINA	NO		1	
129	P & F KITCHEN SS SINK (685MM X 510MM) WITH ALL FITTINGS & FIXTURES.	NO		1	
130	P&L REINFORCED CONCRETE HEAVY DUTY NON PRESSURE PIPE 300MM	RM		25	
131	P & L REINFORCED CONCRETE HEAVY DUTY NON PRESSURE PIPE 250MM	RM		5	
132	P&L REINFORCED CONCRETE HEAVY DUTY NON PRESSURE PIPE 150MM	RM		5	
133	Providing and fixing GI 'B' class water spout of 50 mm dia NB and length 200 to 450 mm, including cutting the Brickwork or RCC and fixing the same, making good the surface after work is complete, including painting of pipe etc. complete as directed.	NO		2	
134	P&F CP SAWAN NECK TAP	NO		1	
135	P&F CP BRASS TOWEL RING	NO		1	
136	P&F 32MM DIA CP BOTTLE TRAP	NO		1	
137	P & F CP BRASS COAT HOOK	NO		1	
138	PROVIDING & CONSTRUCTING 100MM DIA GULLY TRAP 160MM X 110MM SIZE	NO		2	
139	P&F STAINLESS STEEL PERFORMATED TRAP 150 X 150 MM	NO		2	
140	P & F SS PERFORATED TRAP COVER 100 X 100MM	NO		1	
141	P&F uPVC TYPE B RING FIT SWR PIPE 75 MM	RM		2	
142	P&F uPVC TYPE B RING FIT SWR PIPE 110 MM	RM		3	
143	P&F LOOKING MIRROR 5MM	Sqm		1	
144	P&F 125MM PVC NAHANI TRAP	NO		3	
145	P&L uPVC RAIN WATER LINE - 110 MM DIA. .	RM		8	
146	Providing and fixing JAQUQR or Equivalent make Metropole Flush Valve of 40mm dia size (concealed body) with exposed shut off provision of approved make including cutting and making good the walls etc complete as directed. Jaquar - Code : FLV - 1093SQ. Basic Rate Rs. 3000/ = Per No.	RM		1	
147	P & L 250 MM DIAMETER "FOAMCORE" UPVC PIPE	RM		3	
148	P&F uPVC ECO DRAIN OR FOAMCORE SN8 PIPE 160 MM	RM		3	
149	P&F uPVC ECO DRAIN OR FOAMCORE SN8 PIPE 110 MM	RM		3	
	TOTAL OF SANITARY WORK				
	TOTAL OF CIVIL & STRUCTURAL WORK				
	GRAND TOTAL (Inclusive of 18% GST)				

Shibasish Das.





SITE LAYOUT PLAN

Shiba Sish Das

NO.	BUILDING NAME	BUILTUP AREA IN SQ.MT.
0	PLOT AREA	1975.10
1	OFFICE, LAB. & STORE, DEWATERING, MIXING-GRINDING & PACKING AREA	221.33
	[future area]	94.13
2	SLURRY TANK [10,000LIT.] [9000x1500x750]	315.47
2a	TANK AREA	12.50
3	OPEN DRYING AREA	229.50
4	U.G. TANK [10,000LITER]	
5	SECURITY CABIN	9.00
6	ENTRANCE GATE	
7	TOILET BLOCK	18.00

ROAD AREA	
(1) PAV. ROAD	66.48 SQ.MT.
(2) PAV. ROAD	66.48 SQ.MT.
(3) WBM ROAD	66.48 SQ.MT.
(4) BITUMEN ROAD AREA	
(5) LANDSCAPE AREA	

LENGTH OF COMPOUND WALL [MT.]	LENGTH
*CW1- COMPOUND WALL	184.75
*CW2- COMPOUND WALL	10.53
MAIN ENTRANCE GATE	

REVISION DETAILS:	
REV. NO.	DESCRIPTION

FOR APPROVAL
DATE: 08.05.2023

CLIENT:
PROPOSED LIQUID MILK PLANT AT GUWAHATI, ASSAM

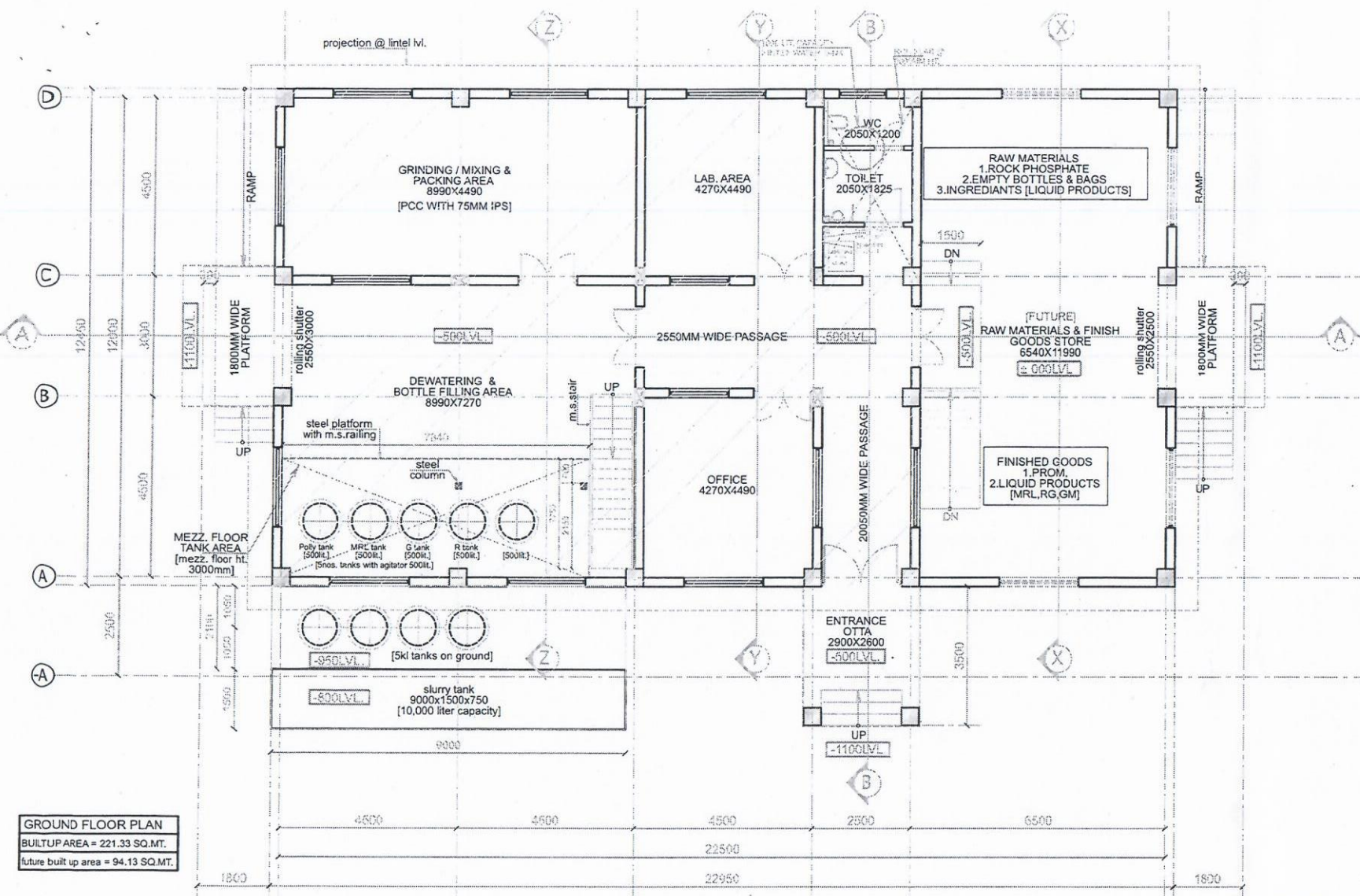
PROJECT CONSULTANT:
 NATIONAL DAIRY DEVELOPMENT BOARD
ANAND, GUJARAT

 TORSION ENGINEERS & CONSULTANTS
ARCHITECTURE, STRUCTURE, INTERIOR
406/502, FORTUNE BUSINESS HUB,
NO. 5, HILL PETROL PUMP, SCIENCE CITY ROAD,
SOLA, AHMEDABAD, GUJARAT
CONTACT: +91 8320222835 E-MAIL: uptorson@gnfos.co.in

TITLE: SITE LAYOUT PLAN		
DWG NO.	AR-00-01	NAME OF BUILDING:
DEALT	NMA	
PRJCT. CODE	2218	
CHKD. BY		PROJECT NAME:
DATE	14.12.2022	BIOGAS PLANT AT DIHARI DAIRY, GUWAHATI, ASSAM



projection @ lintel lvl.



GROUND FLOOR PLAN
 BUILTUP AREA = 221.33 SQ.MT.
 future built up area = 94.13 SQ.MT.

REVISION DETAILS:	
REVNO.	DESCRIPTION

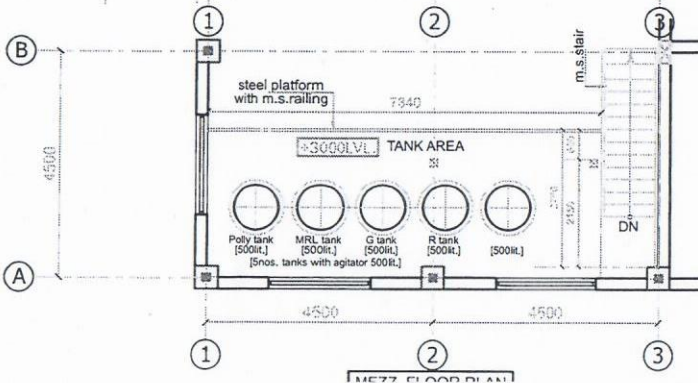
FOR APPROVAL
 DATE: 08.05.2023

CLIENT:
 PROPOSED LIQUID MILK PLANT AT GUWAHATI, ASSAM

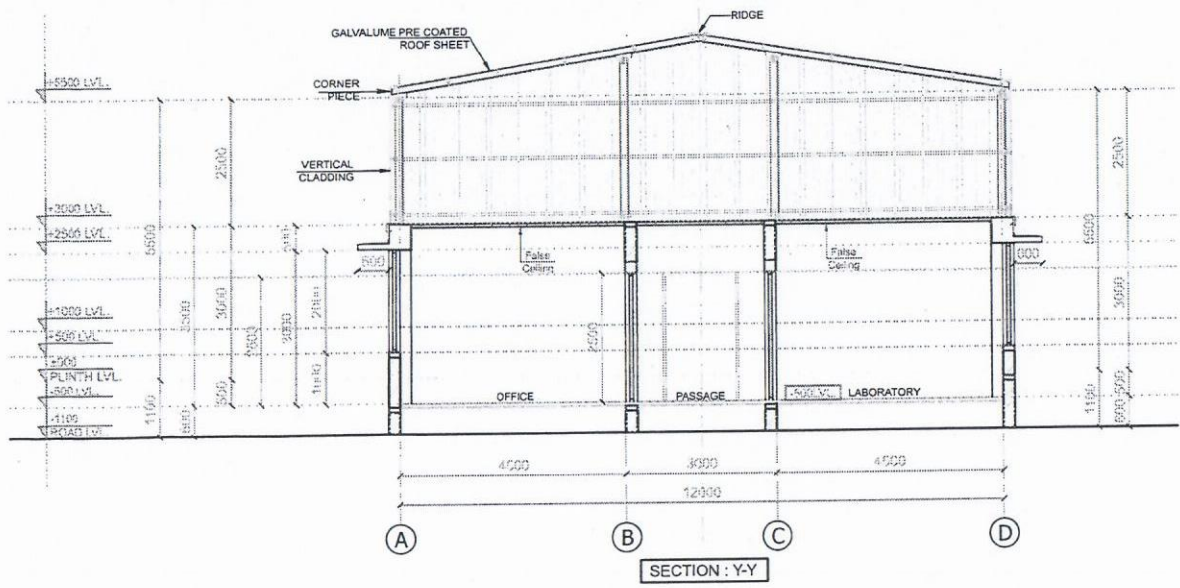
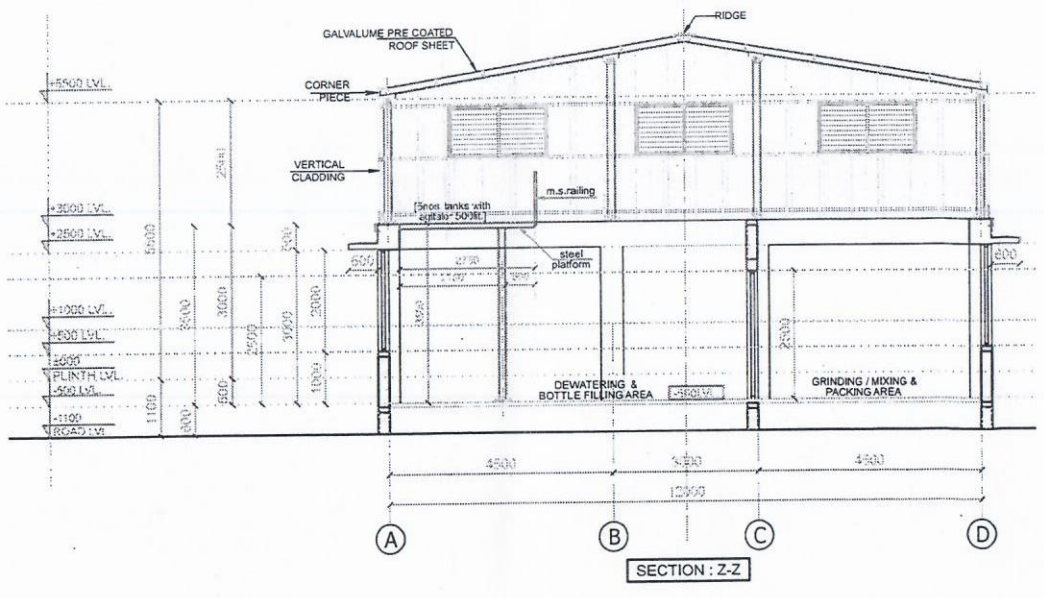
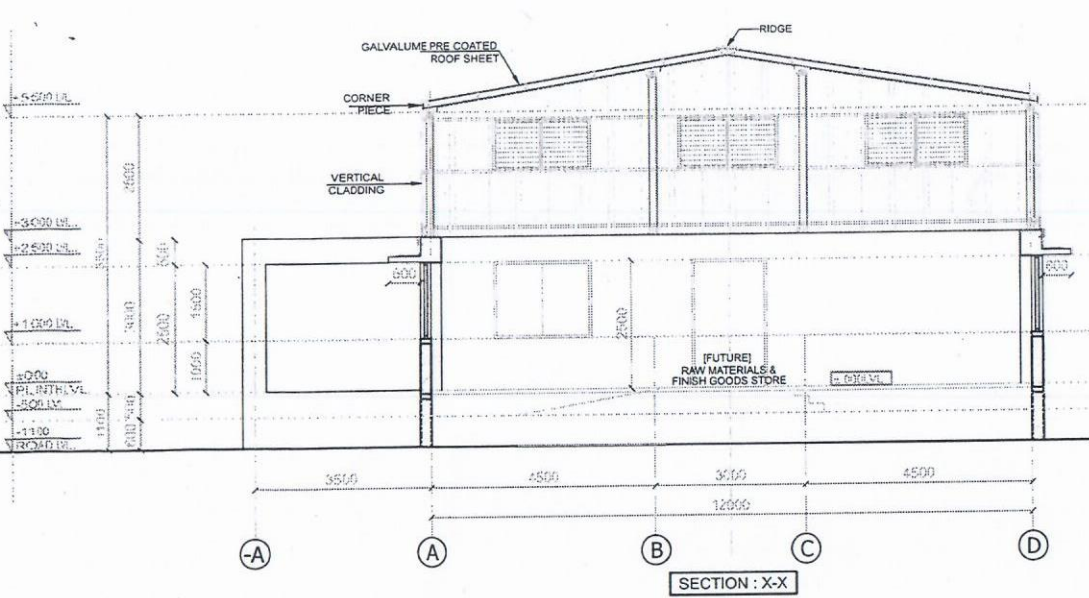
PROJECT CONSULTANT:
NATIONAL DAIRY DEVELOPMENT BOARD
 ANAND, GUJARAT

TORSION
 ENGINEERS & CONSULTANTS
 ARCHITECTURE - STRUCTURE - INTERIOR
 899-897 FORTUNE BUSINESS HALL
 NR. SHELL PETROL PUMP, SCIENCE CITY ROAD,
 S.S.L. VIKAS ENCLAVE, BHUMI,
 CONTACT - 91 83022235 EMAIL - vtorsion@yahoo.co.in

TITLE:	
GROUND FLOOR PLAN	
DWG NO.	AR-01-01
DEALT	NMA
PRJCT. CODE	2218
CHKD. BY	-
DATE	14.12.2022
NAME OF BUILDING: (1) OFFICE, LAB. & STORE, DEWATERING, MIXING-GRINDING & PACKING AREA	
PROJECT NAME: BIOGAS PLANT AT DIBARI DAIRY GUWAHATI, ASSAM	



Shibasish Das



Hibasish Das

REVISION DETAILS :		
REV. NO.	DATE	DESCRIPTION

FOR APPROVAL
DATE: 06.05.2023

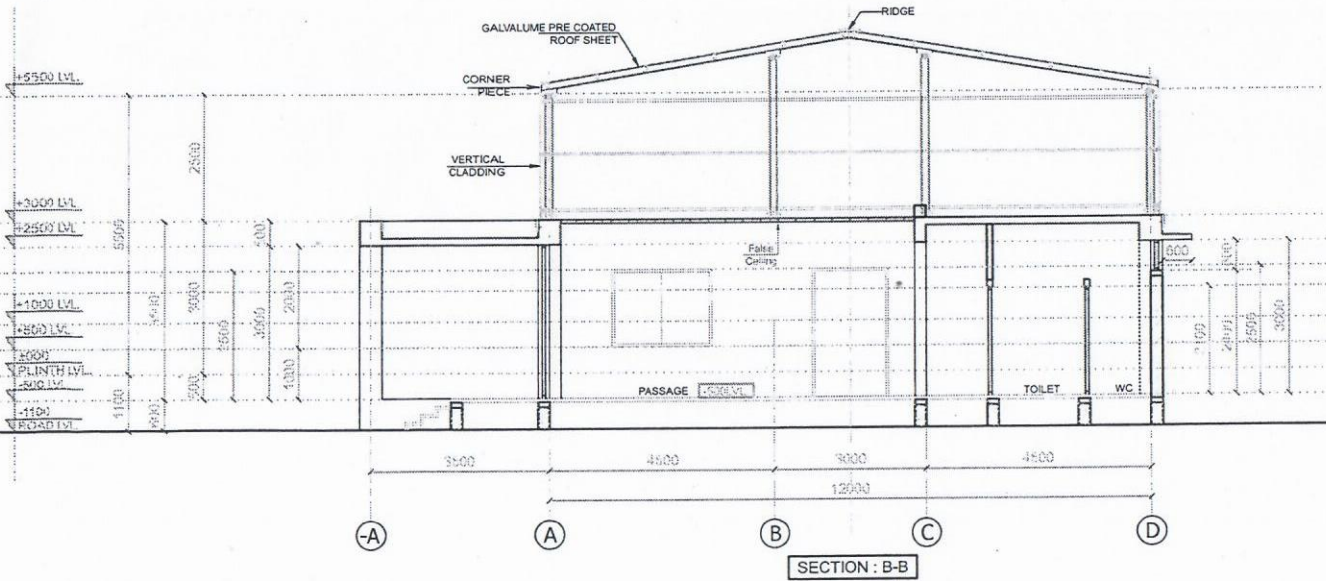
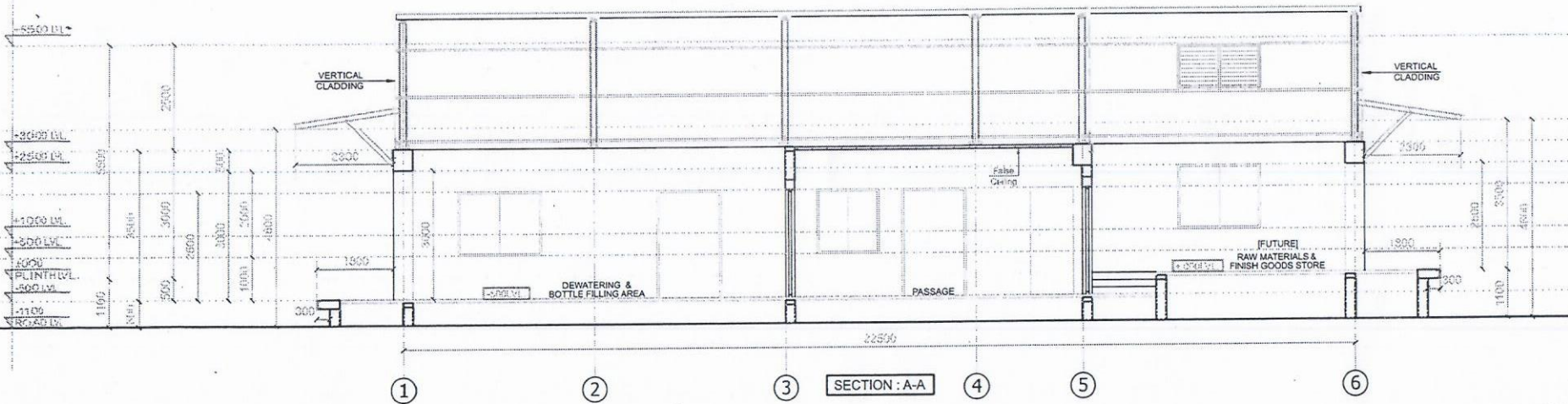
CLIENT:
PROPOSED LIQUID MILK PLANT AT GUWAHATI, ASSAM

PROJECT CONSULTANT:
 NATIONAL DAIRY DEVELOPMENT BOARD
ANAND, GUJARAT

 **TORSION**
ENGINEERS & CONSULTANTS
ARCHITECTURE STRUCTURE INTERIOR
99-97, FORTUNE BUSINESS HUB
HD, SHELL PETROL PUMP, SCIENCE CITY ROAD,
SOLA JAMNEDAR-388001
CONTACT: +91 8220226355 EMAIL: vtg@torsion.com

TITLE:
SECTION : X-X, Y-Y, Z-Z

DWG NO.	AR-01-02	NAME OF BUILDING:
DEALT	NIMA	[1] OFFICE, LAB. & STORE, DEWATERING, MIXING-GRINDING & PACKING AREA
PRJCT. CODE	2218	PROJECT NAME
CHKD. BY	-	BIOGAS PLANT AT PURABI DAIRY, GUWAHATI, ASSAM
DATE	14.12.2022	



Shikarish Das

REVISION DETAILS:

REV. NO.	DATE	DESCRIPTION

FOR APPROVAL
DATE: 05.02.2023

CLIENT:
PROPOSED LIQUID MILK PLANT AT GUWAHATI, ASSAM

PROJECT CONSULTANT:

NATIONAL DAIRY DEVELOPMENT BOARD
 ANAND, GUJARAT


TORSION
 ENGINEERS & CONSULTANTS
 ARCHITECTURE-STRUCTURE INTERIOR
 108-87, FORTUNE BUSTE 25 HUB,
 9th, PHELL PETROL PUMP, SCIENCE CITY ROAD,
 SOLA AHMEDABAD 380015,
 CONTACT: +91 800522555 E-MAIL: info@torsion.in

TITLE:
SECTION : A-A , B-B

DWG NO.	AR-01-03	NAME OF BUILDING:
DEALT	NIMA	[1] OFFICE, LAB. & STORE, DEWATERING, MIXING-GRINDING & PACKING AREA
PRJCT. CODE	2218	PROJECT NAME:
CHKD. BY	-	BIOGAS PLANT AT
DATE	14.12.2022	PURABI DAIRY, GUWAHATI, ASSAM