



TAMILNADU INDUSTRIAL DEVELOPMENT CORPORATION LIMITED

Tender Notice NIT.No.TIDCO/Fintech City/STP/2025-26

e-TENDER

FOR

**CONSTRUCTION OF 4000 KLD CAPACITY SEWAGE TREATMENT PLANT (STP)
BASED ON MEMBRANE BIOREACTOR (MBR) TECHNOLOGY WITH 2 YEARS OF
OPERATION AND MAINTENANCE ON TURNKEY BASIS AT FINTECH CITY IN
NANDAMBAKKAM VILLAGE, ALANDUR TALUK, CHENNAI DISTRICT.**

PRICE BID

COVER-II

APRIL 2025

**Managing Director,
Tamilnadu Industrial Development Corporation Limited,
No.19-A, Rukmini Lakshmipathy Road,
Egmore, Chennai-600 008
Phone No:044-2855 4479/80**

CONTENTS

DESCRIPTION	SECTION NO.	CONTENT
COVER II – PRICE BID	I	INSTRUCTIONS TO TENDERERS
	II	DETAILED TENDER NOTICE FOR PRICE BID
	III	FORM OF TENDER
	IV	CONDITIONS OF CONTRACT
	V	CONTRACT DATA
	VI	APPROVED MAKE LIST
	VII	TECHNICAL SPECIFICATIONS
	VIII	TENDER DRAWINGS
	IX	SCHEDULE A: BILL OF QUANTITIES

SECTION -I
INSTRUCTIONS TO TENDERERS

SECTION - I

INSTRUCTIONS TO TENDERERS

1. SCOPE OF THE TENDER:

This is an "Lumpsum Contract" and the contractor is responsible for the E - Tender for CONSTRUCTION OF 4000 KLD CAPACITY SEWAGE TREATMENT PLANT (STP) BASED ON MEMBRANE BIOREACTOR (MBR) TECHNOLOGY WITH 2 YEARS OF OPERATION AND MAINTENANCE ON TURNKEY BASIS AT FINTECH CITY IN NANDAMBAKKAM VILLAGE, ALANDUR TALUK, CHENNAI DISTRICT applicable and testing in accordance with the specifications stipulated in the Bid Document and in conformity with the Quality Parameters laid down in the relevant BIS, MORTH, TNBP, TWAD, CEIG, IE & TNEB rules & regulations etc. and completing the entire works in all respects satisfactorily and commissioning within the stipulated period.

- 1.1. The Managing Director, TIDCO (hereinafter referred as "Employer" in these documents) invites bids for the STP - Civil & Electromechanical works. (as defined in these documents and referred as "the works") as detailed in the Bill of Quantities. The bidder shall submit unit price both in figures and in words for all the items of work detailed in the Bill of Quantities. Line total, page total and cumulative total tender amount shall be worked out and furnished in figures without fail.
- 1.2. The successful bidder should complete the works within the period stipulated for completion of project.
- 1.3. In these tender documents, the terms bid and tender and their derivatives (bidder, tenderer, bid, tender, bidding, tendering etc.) are synonymous.
- 1.4. The Bidders should carefully go through the tender document and quote their rates for all the items.

2. ONE BID PER BIDDER

- 2.1. Each bidder shall submit only one bid for the whole scheme and in the case of packages, only one bid for a package.

3. COST OF BIDDING

- 3.1. The bidder shall bear all the costs associated with the preparation and submission of his bid. The Employer will in no case be responsible for those costs, regardless of the conduct or the outcome of the bidding process.
- 3.2. The unit rates offered shall be inclusive of All Taxes and levies by the Central or State Governments or Local Authority as applicable excluding GST including any variation during contract period and any agreed extension of time. No claim in respect of Tax and levies by the Central or State Governments or Local Authority

whether existing or future shall be entertained. Rates shall also be inclusive of all incidental charges and charges for taking all Insurance Policies, such as CAR Policy, Workmen's Compensation, Third Party Liability, Transport Policy, etc. All the insurance covers mentioned above shall be kept alive during the complete period of the Contract until the end of the Defects Liability Period.

- 3.3. The tenderer shall quote the rates and prices for all the items of the works described in the bill of quantities excluding GST at the end (both in figure and words).
- 3.4. The unit rates offered shall be for finished work at site.

4. SITE VISIT

- 4.1. The bidder, at the bidder's own responsibility and risk is advised to visit and ascertain the ground reality and its surroundings and obtain on his own, all information that may be necessary for preparing the bid and entering into contract for the construction of the works. The costs of visiting the site and its surroundings shall be at the bidder's expense.
- 4.2. The bidder and any of his personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the bidder, his personnel or agents, will release and indemnify the Employer and his personnel or agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs and expenses incurred as a result of the inspection.

5. JURISDICTION OF COURT

In the event of any dispute arising between the parties hereto in respect of any matter comprised in the contract, the same shall be settled by High Court having jurisdiction over the place at Chennai where the contract is awarded, and agreement is concluded and by no other Court.

6. ARBITRATION

- a. **APPEAL:** Except in the matters where the decision of the Managing Director is said to be final, if the contractor believes that the decision of the Managing Director was either outside the authority given to the Managing Director by the contract or that decision was wrongly taken inviting extra expenditure over the price stipulated or not contemplated in the agreement, then the contractor shall appeal to the Employer within thirty days of the decision of the Managing Director. During the appeal, the Employer will give an opportunity to the Contractor for being heard and adduce evidence if the latter so desires, in support of his appeal. The Employer shall give his decision within forty-five days.

- b. If the Contractor is dissatisfied with the decision of the Employer, the contractor shall within thirty days from the receipt of the decision, give notice to the Employer for appointment of arbitrator failing which the said decision of the Employer shall be final and conclusive not referable to Arbitration.
- c. On receipt of notice from the Contractor, the Employer within thirty days shall send to the Contractor, a panel of three serving or retired officers not below the rank of Managing Director. The Contractor shall within fifteen days of the date of receipt of such panel, select one name from the panel and communicate the same to the Employer, who will appoint the sole arbitrator immediately.
- d. If the Contractor fails to communicate his selection of name within the stipulated time, the Employer shall without delay select one from the panel and appoint the sole arbitrator under intimation to the Contractor.
- e. The arbitration shall be conducted in accordance with the Provisions of Arbitration and Conciliation (Amendment) 2019.
- f. Performance under the contract shall continue during arbitration and payments due to the contractor shall not be withheld unless they are subject matter of arbitration proceedings or ordered by the arbitrator to the contrary.
- g. It is also a term of this contract that if the contractor does not make any demand for appointment of arbitrator in respect of any claims in writing within thirty days of the decision in appeal from the Employer, the claim of the contractor shall be deemed to have been settled absolutely and the Employer shall be discharged and released from all liabilities under this contract.

SECTION -II
DETAILED TENDER NOTICE FOR PRICE BID

SECTION - II

DETAILED TENDER NOTICE FOR PRICE BID

1. For and on behalf of Tamilnadu Industrial Development Corporation Limited, e-tenders are invited by The Managing Director, TIDCO, Chennai-8 for the CONSTRUCTION OF 4000 KLD CAPACITY SEWAGE TREATMENT PLANT (STP) BASED ON MEMBRANE BIOREACTOR (MBR) TECHNOLOGY WITH 2 YEARS OF OPERATION AND MAINTENANCE ON TURNKEY BASIS AT FINTECH CITY IN NANDAMBAKKAM VILLAGE, ALANDUR TALUK, CHENNAI DISTRICT. Price Bid (Cover-II) of the pre-qualified tenderers alone will be opened at a date to be fixed and communicated only to the pre-qualified tenderers. The tenderers or their authorised agents are expected to be present at the time of opening of the Price Bid. The Tender Evaluation Committee duly authorised by Employer will open Price Bid and prepare a statement of the attested and unattested corrections therein and hand it over to the tenderer concerned and initial all such corrections in the presence of the tenderer. If any of the tenderers or their agents find it inconvenient to be present at the time, then in such a case, the tender receiving officer will open the tender of the absentee tenderer, make out a statement of the unattested corrections and communicate it to him. The absentee tenderer shall then accept the statement of corrections without any question whatsoever.
2. When a tender is to be accepted, the tenderer whose tender is under consideration shall attend the TIDCO Office, Chennai-8 before the end of the period specified by written intimation to him. If the tenderer fails to attend the office before the end of the period so specified, his tender will not be considered. He shall forthwith upon intimation being given to him by the Employer, of acceptance of his tender, shall produce the Performance Security Deposit as specified in Clause 7 of the Pre-Qualification Tender Notice and Additional Performance Security Deposit if applicable as specified in Clause 7A of the Pre-Qualification Tender Notice and Nonjudicial Stamp Paper for a value of Rs.100/- for preparing agreement. He shall then sign the original agreement first, which will be accepted and signed by the Competent Authority of Employer. The performance security deposit shall be retained as security for the due fulfilment of his contract. Failure to enter into the required agreement or to make the performance security deposit as defined in this paragraph within 15 days from the date of receipt of Work Order or Letter of Award shall entail forfeiture of the earnest money. The written agreement to be entered into between the contractor and Employer shall be the foundation of the rights of both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by the contractor and then by the proper officer authorised to enter into contract on behalf of Employer.
3. The tenderer shall examine closely the Tamilnadu Building practice specifications and its amendments before signing the contract documents. Unit rates shall be for finished work in the site. He shall also carefully study the drawings and specifications and all the documents, which form part of the agreement to be entered into by the accepted tenderer

4. Every tenderer is expected before quoting his/their rates to inspect the site of the proposed work, and the quarries where the materials, conforming to the standards and specifications is available sufficiently and he /they also shall have to examine and ascertain the lead involved from the quarries selected by them to the work site before quoting his rates and satisfy himself/themselves about the quality and availability of materials. Once the tenderer has quoted his/their rates, it is to be concluded that he / they have taken into account all the leads involved, availability of sufficient quantity of materials etc. Any litigation, later on in this regard will not be entertained. The best class of materials to be obtained from the quarries or other source defined shall be used on the work. In every case the materials must comply with relevant standard specifications or as specified in this tender notice or as required by the PMC/Project Officer. In any case, samples shall be submitted for the approval of the PMC/Project Officer for the above work before the supply to site of work. The Employer will not however after acceptance or contract rates, pay any extra charges for lead or for any other reason in case the contractor has found later on to have misjudged the materials available.
5. A schedule of quantities accompanies this Price Bid Documents. It shall be understood that the Employer does not accept any responsibility for the correctness or completeness of this schedule and that this schedule is liable to alteration by omissions, deductions or additions at the discretion of the Project Officer/PMC, or as set-forth in the conditions of contract. The tenderer will however, base his tender on this schedule of quantities. He should quote specific rates for each item in the schedule and the rates should be in rupees and paise. The rates should be written both in words and in figures and the units in words. The tenderer should also show the totals of each item, page total and the grand total of the whole contract and quote in the tender for which he will undertake to do the whole work subject to the conditions of contract. This schedule accompanying the tender shall be written legibly and free from erasures, overwriting or conversions of figures. Corrections, where unavoidable, should be made by scoring out, initiating, dating and re-writing.
6. Tenders offering a percentage deduction from or increase on the estimate amount and those not submitted in proper form/or in due time will be rejected. Rates of for items not called for shall not be included in the tender. No alteration which is made by the tenderer in the contract data, the conditions of contract, the drawings, specifications or quantities accompanying the same will be recognized and if any such alterations are made, the tender will be deemed to be void.
7. The tenderer should workout his own rates without reference being made to the Employer estimate rates which are not open for inspection by tenderers.
8. No material will be supplied by Employer. All materials conforming to the standard and specification should be procured. Rates should be quoted taking into account the quality and lead involved from quarry to work site.
9. The attention of the tenderers is directed to the contract requirements as to the time of beginning work, the rate of progress and the dates for the completion of

the whole work and its several parts. The milestones in days to be achieved as indicated in below table. However, Contractor shall submit a detailed construction program (for the construction period of 9 months) and get it signed off from Project Officer/PMC within 7 days from receipt of Work Order or Letter of Award.

10. CONSTRUCTION PROGRAM

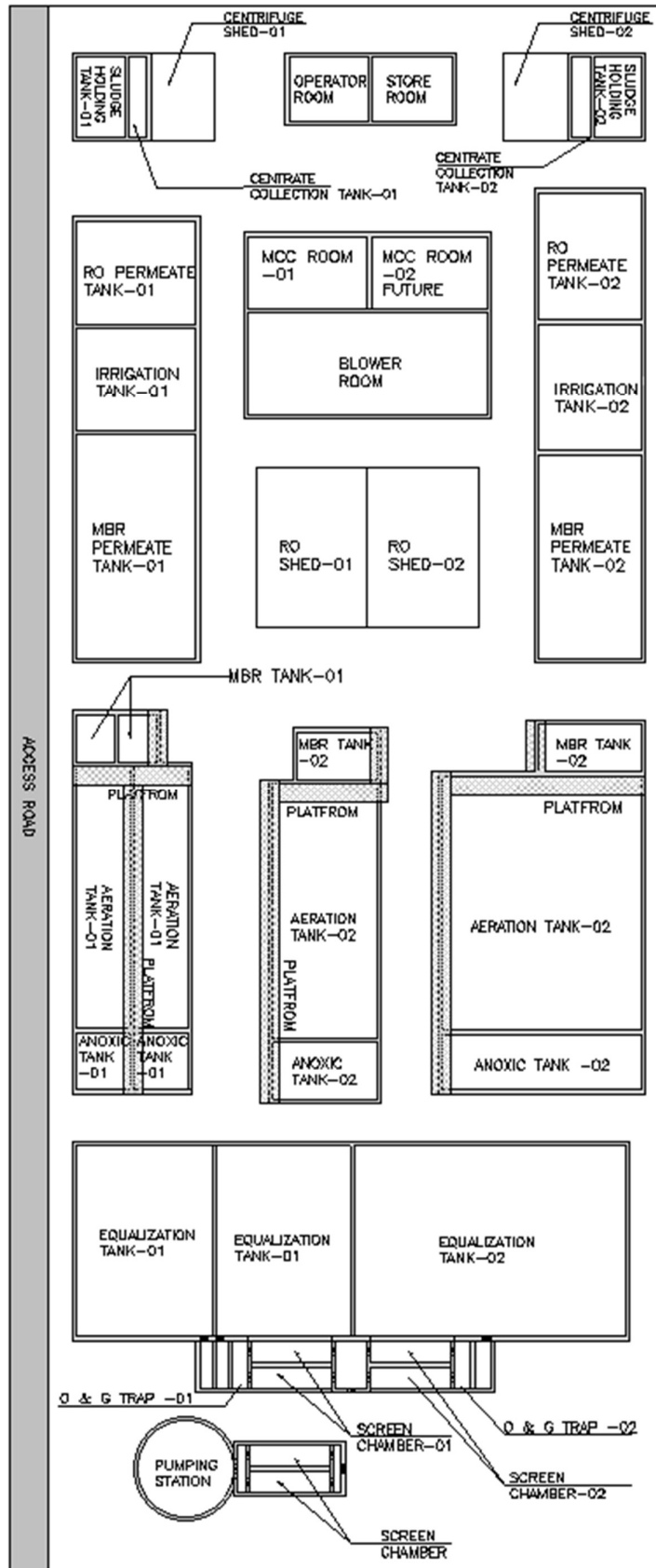
PERIOD OF COMPLETION – **(9 MONTHS The completion period is inclusive of the monsoon period also.)** CALENDAR MONTHS

S No	Description of Works	M1	M2	M3	M4	M5	M6	M7	M8	M9
I	Approval of Drawings and Documentation									
1	Approval of Basic Engineering Design & Drawings (4MLD)									
2	Approval of Detailed Engineering Design & Drawings (4 MLD)									
3	Operation and Maintenance Manuals, As-built Drawings etc.									
II	Civil Works and Related works									
A	Preliminary & Primary Treatment Units: Pumping Station, coarse screen chamber, Fine Screen, O&G trap chamber, Equivalisation Tank, etc.									
4	Pumping Station and coarse Screen Chamber, including waterproofing, related civil works, etc.									
5	Equivalisation Tank-1 including tank and O&G trap chamber-1, including waterproofing, related civil works, etc.									
6	Equivalisation Tank-2 including O&G trap chamber-2, including waterproofing, related civil works, etc.									
B	Biological Treatment Units: Anoxic tank, Aeration tank, MBR tank, etc									
B1	For 500+500KLD									
7	Anoxic tank-1, Aeration tank-1, MBR tank-1 and related civil works, etc.									
8	Platform, Handrails, Shed for tank and other Miscellaneous works									
B2	For 1000 and 2000KLD									
9	Anoxic Tank-2, Aeration Tank-2, MBR tank-2 and related civil works, etc.									

S No	Description of Works	M1	M2	M3	M4	M5	M6	M7	M8	M9
10	Platform, Handrails, Shed for tank and other Miscellaneous works									
C	All Buildings as per Layout: MBR Permeate Tank, Irrigation Tank, RO Permeate Tank, Blower room, MCC room, RO Shed, Store room, operator room, Centrifuge Shed, Sludge Holding Tank.									
11	MBR Permeate Tank-1, Irrigation Tank-1, RO Permeate Tank, RO Shed-1 and related civil works, etc.									
12	Blower room, MCC room and related civil works, etc.									
13	Operator Room, Store room and related civil works, etc.									
14	Centrifuge Shed-1, Sludge Holding Tank-1 and related civil works, etc.									
15	MBR Permeate Tank-2, Irrigation Tank-2, RO Permeate Tank-2, RO Shed-2 and related civil works, etc.									
16	Centrifuge Shed-2, Sludge Holding Tank-2 and related civil works, etc.									
	Note - Related civil works refers to, but not limited to following: all waterproofing, Brickwork, Internal & External Plastering, Flooring, Painting, Plumbing, Sanitary works, Landscaping, Site Development works in STP area and any other misc required works.									
III	Mechanical, Electrical and Instrumentation Works									
A1	For First 500 KLD									
17	Supply of Machinery/Equipment, accessories, piping works, etc.									
18	Supply of Electrical & Instrumentation equipment & accessories/items like cables, earthing materials, Power Transformer, HT Substation & allied works, Switch gear incldg. PCC, MCC, Lighting protection, Instrumentation, PLC/SCADA system etc.									

S No	Description of Works	M1	M2	M3	M4	M5	M6	M7	M8	M9
19	Erection of Machinery/Equipment, accessories, piping works, etc.									
20	Erection of Electrical & Instrumentation, accessories/items, etc.									
21	Testing & Commissioning of Equipment									
22	Complete Commissioning and operation of the Plant									
A2	For Second 500 KLD									
23	Supply of Machinery/Equipment, accessories, piping works, etc.									
24	Supply of Electrical & Instrumentation equipment & accessories/items like cables, earthing materials, Power Transformer, HT Substation & allied works, Switch gear incldg. PCC, MCC, Lighting protection, Instrumentation, PLC/SCADA system etc.									
25	Erection of Machinery/Equipment, accessories, piping works, etc.									
26	Erection of Electrical & Instrumentation, accessories/items, etc.									
27	Testing & Commissioning of Equipment									
28	Complete Commissioning and operation of the Plant.									

Note: "Construction of the 500 KLD plant, including all electromechanical works, shall commence immediately upon receipt of document approval from the Employer/PMC. The 500 KLD plant, including commissioning, shall be completed within SIX (6) months from the date of signing the Agreement.



Milestone Reference Drawing

11. The Employer reserves the right to reject any tender or all the tenders.
12. The tenderers shall undertake to employ technical personnel as detailed under Minimum Criteria for Pre-qualification accompanying in the Technical Bid

NOTE:

1. For non-employment of such technical personnel penalty of Rs.2000/- per month for Diploma Holder and Rs.5,000/- per month for Degree Holder will be levied.
 2. An attendance register for the technical personnel is to be maintained. Every technical personnel should sign their initials in the register whenever they leave and arrive. The Register should be produced for inspection by the officials of Employer as and when required.
 3. One Technical Assistant may be employed by the contractor for more than one work situated within one kilometre, provided the monetary limit prescribed for the nature of technical staff to be employed is adhered to by one and the same contractor.
13. A tenderer submitting a quotation which the tender accepting authority considers excessive (more than 15% of Department rate for each item) and / or indicative of the insufficient knowledge of current prices or definite attempt of profiteering will render himself liable to be debarred permanently from tendering or for such period as the tender accepting authority may decide. The tender rates should be based on the controlled price for materials, if any fixed by Government or the reasonable price permissible for the tenderer to charge a private purchaser under the provision of the Hoarding and Profiteering Prevention Ordinance, 1943 as amended from time to time and on similar principles to labour and supervision in the construction.
 14. The fact of submitting the tender implies that the tenderers have actually inspected the site of work and have examined before tendering, the nature and extent of various kinds of soil at various depths and have based their tender on such examination by them and no future representation in this regard will be considered.
 15. The Employer reserves to itself the right of allotting the different sub works to the different contractor or to one and the same contractor as it may decide after the receipt of tenders.
 16. **PERFORMANCE SECURITY DEPOSIT (SD) AND ADDITIONAL PERFORMANCE SECURITY DEPOSIT (ASD)**
 - a. Within 15 days from the date of receipt of Work Order or Letter of Award, the successful tenderer shall deliver to the Employer Performance Security Deposit as specified in Clause 7, Section-II of Technical Bid Documents.

- b. On evaluation of tender, if it is found that if the overall quoted amount of the tender is less than 5% to 15% of the value put to tender, the contractor shall pay additional performance security deposit at 2% of Department Value put to Tender strictly in the shape of Demand Draft /Irrevocable bank guarantee valid for Contract period + 24 Months. If the tender savings exceeds 15%, the contractor shall pay an additional performance security deposit of 50% of the difference between quoted amount and Department value strictly in the shape of Demand Draft / Irrevocable bank guarantee valid for contract period + 24 Months. Failure to produce Performance Security Deposit and additional performance security deposit within 15 days from the date of receipt of Work Order or Letter of Award shall entail cancellation of award of tender and forfeiture of EMD.

The Performance Security Deposit and Additional Performance Security Deposit Amount will not carry any interest and shall be refunded only after 24 months from the completion of the entire work and on production of indemnity bond until completion of defect liability period.

SECTION -III
FORM OF TENDER

SECTION-III

FORM OF TENDER

To

The Managing Director,
Tamilnadu Industrial Development Corporation Limited,
No.19-A, Rukmini Lakshmipathy Road,
Egmore, Chennai-600 008.

Sir,

I/We do hereby tender and, if this tender be accepted, undertake to execute the following works viz. E - Tender for CONSTRUCTION OF 4000 KLD CAPACITY SEWAGE TREATMENT PLANT (STP) BASED ON MEMBRANE BIOREACTOR (MBR) TECHNOLOGY WITH 2 YEARS OF OPERATION AND MAINTENANCE ON TURNKEY BASIS AT FINTECH CITY IN NANDAMBAKKAM VILLAGE, ALANDUR TALUK, CHENNAI DISTRICT as shown in the drawings and described in the specifications of the Tamilnadu Industrial Development Corporation Limited with such variations by way of alterations or additions to and omission from the said works and method of payment as are provided for in the conditions stipulated in tender documents (Cover I and Cover II) for the sum of Rs...../- (Rupees only) or such other sum as may be arrived at under the Clauses of the "Conditions of Contract relating to payment on Lumpsum rate.

I/We have also completed the priced list of items in Schedule-A annexed (in words and figures) for which I / WE agree to execute the work when the payment under the terms and conditions of the agreement is varied by payment for measured quantities.

I/We hereby distinctly and expressly declare and acknowledge that, before the submission of my / our tender I / WE have carefully followed the instructions in the tender notice and have read the TNBP and Conditions of Contract therein and that I / WE have made such examination of the contract documents and of the plans, specifications and quantities and of the location where the said work is to be done and such investigation of the work required to be done, and in regard to the material required to be furnished as to enable me/us to thoroughly understand the intention of same and the requirement, covenants, agreements, stipulations and restrictions contained in the contract and in the said plans and specifications and distinctly agree that I / WE will not hereafter make any claim or demand upon the Tamilnadu Industrial Development Corporation Limited based upon or arising out of any alleged misunderstanding or misconception or mistake on my/our part of the said requirements, covenants, agreements, stipulations, restrictions and conditions.

I/We are being a registered in Government Department/ Organisations enclose TAX verification certificate in respect of (the particulars of the previous occasion on which the certificate was produced should be given).

I/We herewith enclose the proof of bank transaction details for the payment of Rs. 6,36,600 as an Earnest Money Deposit along with the tender document.

If my/our tender is not accepted, this sum shall be refunded to me/us after completion of selection process or at the expiration of bid validity period of 90 days from the last date of Submission of Tender, whichever is earlier. If my/our tender is accepted, the earnest money will be returned after I / We have furnished the required performance security deposit and signed the agreement. If upon written intimation to me/us by Employer, I/we fail to attend the said office before the end of the period specified on such intimation, the tender will not be considered and if upon intimation being given to me/us by the Employer of acceptance of my/our tender, I / We fail to make the performance security deposit or to enter into the required agreements, then I / We agree to the forfeiture of the earnest money. Any notice required to be served on me/us hereunder shall be sufficiently served on me/us if delivered to me/us personally or forwarded to me/us by post to me/us (Registered or ordinary) or left at my/our address given herein. Such notices shall if sent by post be deemed to have been served on me/us at the time when in due course of post, it would be delivered at the address to which it is sent.

I/We agree that the time shall be considered as the essence of this contract and to commence the work, as soon as this contract is accepted by the competent authority and the site is handed over to me/us and agree to complete the work within **9 Months (Nine Months - The completion period is inclusive of the monsoon period also.)** from the signing of the Agreement and to show good progress as defined in the tabular statement "Construction Program", furnished under Clause-10, Section II of Cover -II.

I/We fully understand that the written agreement to be entered into between me/us and the Tamilnadu Industrial Development Corporation Limited, shall be the foundation of rights of both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by me/us and then by the proper officer authorised to enter into contracts on behalf of Tamilnadu Industrial Development Corporation Limited.

I am/We are professionally qualified and my/our qualifications are given below:

S.No	Position	Name

I/We will employ the following technical staff for supervising the work and will see that all of them is always at site during working hours personally checking all items of works and paying extra attention to such works as may require special attention.

S.No.	Name of Technical Staff Proposed to be Employed	Qualification

SECTION - IV
CONDITIONS OF CONTRACT

SECTION - IV

CONDITIONS OF CONTRACT

1. Location of the work at Fintech City Site, Adjacent to CHENNAI TRADE CENTRE, Nandambakkam, Alandur Taluk, Chennai District.
2. Attached here to are the tender drawing giving the general layout, details and sections of the proposed works. Further details and working drawings necessary for execution of the construction of work will be prepared and issued by Employer from time to time. All the works shall be carried out in accordance with the instructions and directions given by the Project Officer/PMC.
3. Submission of the tender shall mean that the contractor has visited the site and studied the site conditions, plans, specifications, conditions and instructions and agree to abide by the same and execute an agreement with the Employer. Before offering tender for the work, the tenderer must satisfy himself to the nature of the soil, facilities for access and storing of materials and other site condition.
4. A schedule of probable quantities is attached herewith but it must be clearly understood that these quantities are liable to alterations, omissions, deductions or additions at the discretion of the Employer and the unit rates quoted by the tenderer shall be valid irrespective of fluctuations in quantities.
5. If the tenderer withdraws his bid after issue of Work Order or Letter of Award or after acceptance of Work Order or failure to execute the contract agreement or fails to pay the required Security Deposit amount within the time specified in the Work Order or Letter of Award, the Earnest Money Deposit submitted with the Technical Bid will be forfeited.
6. In complying with these conditions and the specifications, schedule of quantities and contract agreement, the following works shall have the meaning herein assigned to them except where the subject or context otherwise requires.
 - a. "Employer" shall mean "Managing Director", TIDCO, CHENNAI-8 and shall include his representatives / assignees / or successors.
 - b. "Contractor" shall mean the Person, Firm, Company or, whose tender is accepted by the Employer and shall include his / their (tenderer's) legal representatives / permitted assignees / or successors.
 - c. "TIDCO" shall mean Tamilnadu Industrial Development Corporation Limited and shall include their legal representatives / and assignees / or successors.
 - d. "Site" shall mean the site of the contract works including any building and erections thereon and any other land (inclusively) as aforesaid allotted by the Employer for the contractor's use.

- e. "The contract" or "This Contract" shall mean the tender documents both Technical Bid Documents and Price Bid Documents comprising Notice Inviting Tender, Form of Tender, Information and Instructions to Tenderers, Conditions of Contract, Drawings, Technical Specifications, Priced Bill of Quantities (Schedule-A), All the Correspondences between the Employer and the Successful Tenderer, the Letter of Acceptance of the successful tenderer and contract agreement with its Appendix and also the Specifications, Designs, Drawings and Instructions issued from time to time by the Employer and all these documents taken together are deemed to form one contract and shall be complimentary to each other.
- f. "Notice in Writing" or "Written Notice" shall mean a notice in written, typed or printed characters sent (unless delivered personally or otherwise provided to have been received) by registered post to the last known place of abode, private or business address or to the Registered Office of the addressee and shall be deemed to have been sufficiently served / received when in the ordinary course of post it would have been delivered.
- g. "Act of Insolvency" shall mean an Act of Insolvency as defined by the Presidency Towns Insolvency Act or the Provincial Insolvency Act or any other Act amending such original Acts.
- h. "Net Prices": If in the arriving at the contract amount, the contractor shall have added to or deducted from the total of the items in the tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in tender as the price of that item, a similar percentage or proportionate sum provided always that in determining the percentage or proportion of the sum so added or deducted by the contractor, the total amount of any provisional sums of money shall be deducted from the total amount of the tender. The expression "Net Rates" or "Net Prices" when used with reference to the contract or accounts shall be held to mean "Rates" or "Prices" so arrived at".
- i. "Project Officer" shall mean the Engineer/Officer-in-Charge duly assigned by Employer.
- j. "PMC" shall mean Project Management Consultant, duly appointed by Employer for project management and supervision
- k. Words importing persons include Firms and Corporations and Consortium of Contractors. Words importing the singular also include the plural and vice versa where the context so requires.

6A Errors, Omissions and Descriptions

- a. In case of errors, omissions and/ disagreement between written and scaled dimensions on the Drawings or between the Drawings and Specifications etc., the following order of precedence shall apply:
 - i) Between scaled and written dimension (or description) on a drawing, the later shall be adopted.
 - ii) Between the written or shown description and dimensions in the Drawings and the corresponding one in the Specification, the former shall be taken as correct.
- b. In case of discrepancy between the quoted rates in figures and in words, the lower value of two shall be considered.
- c. In the case of any class of work for which there is no specifications as referred in tender, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications with approval of PMC/Project Officer. If not available, then the work shall be carried out in all respects in accordance with the instructions and requirements of the PMC/Project Officer.
- d. In case of discrepancy between "Bill of Quantities", "Technical specifications" and "Drawings" the following order of preference shall be observed:
 - Bill of Quantities
 - Technical Specifications
 - Drawings
 - TWAD/PWD of Tamil Nadu state /TNBP
 - CPWD Specifications
 - Indian Standard Specifications of B.I.S
 - Manufacturers recommendations

7. Scope of Contract

The contractor shall carry out and complete the said work in every respect in accordance with this contract and with the directions or and to the satisfaction of Employer. The Employer may from time-to-time issue further drawings and / or instructions, details, directions, and explanation through PMC which are hereafter collectively referred to as instructions, in regard to.

- a. The variation or modification of the design, quality or quantity or works or the addition or omission or substitution of any work.
- b. Any discrepancy in the drawings in between the schedule of quantities and / or drawings and / or specification.
- c. The removal from the site of any materials brought thereon by the contractor and the substitution of any other materials thereof.

- d. The removal and / or re-execution of any works executed by the contractor.
- e. The dismissal from the works of any persons employed there upon
- f. The opening up for inspection of any work covered up.
- g. The amending and making good of any defect under Clause 24, the contractor shall forthwith comply with and duly execute any work comprised in each such Employer instructions, directions and explanations given to the contractor or his representatives upon the works by the Employer shall, if involving a variation, be confirmed in writing by the contractor within seven days.
- h. The contractor shall submit the shop drawing, Vendor technical documents and get approval from PMC/Employer prior to start any assessment or work at site.
- i. The Contractor shall provide all the As-built Drawings and required documents on the completion of his Works on his own cost prior to issue of Virtual Completion Certificate by the PMC and the Employer.

7A LETTER OF ACCEPTANCE (LOA)

The Employer will issue Work Order or Letter of Award to the successful bidder to plan for resources, site logistics, etc. The Contractor shall issue Letter of Acceptance within 7 days from the date of Work Order or Letter of Award.

7B CONTRACT AGREEMENT

Contractor shall sign the Contract agreement within 7 Days from the date of Letter of Acceptance. The original Contract Agreement shall remain in the custody of the Employer and a duplicate copy of the Contract Agreement shall remain in the custody of the PMC and Contractor.

8. DRAWING AND SCHEDULE OF QUANTITIES

The contractor on the signing thereof shall be furnished by the Employer, a copy of the priced schedule of quantities, one copy of each of the said drawings, the specifications and one copy of all further drawings free of cost issued during the progress of the works. Any further copies of such drawings required by the contractor shall be paid for by him. The contractor shall always keep one copy of all drawings in the works and the PMC/ Project Officer shall, during office hours have access to the same.

9. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The contractor shall provide everything necessary for the proper execution of the works according to the intent and meaning of the drawings, schedule of quantities and specification taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the contractor finds any discrepancy in the drawings, in between the drawings, schedule of quantities and specification, he shall

immediately and in writing refer the same to the project officer/PMC who shall decide in consultation with the Employer which is to be followed.

10 AUTHORITIES, NOTICES AND PATENTS

The contractor shall conform to the provisions of any Act of the legislature relating to the works and to the regulations and bye-laws of any authority and/or any water, lighting and other companies and/or authorities with those system, the structure is proposed to be connected and shall before making any variations from the drawings or specification that may be necessitated by so conforming give to the Employer written notice, specifying the variations from the proposed to be made and the reason for making and apply for instructions thereon. In case, the contractor shall not within the 15 days receive such instructions, he shall proceed with the work, conforming the provision, regulations or bye law in question and any variation so necessitated shall be dealt with under Clause 18. The contractor shall bring to the attention of the Employer any notices required by the said Act/s, Regulations, or bye laws to be given any authority and pay to such authority, or to any public office, all fees that may be properly chargeable in respect of the works and lodge the receipts with the Employer. The contractor shall indemnify the Employer against all actions arising from such claims and shall himself pay all royalties, license fees, damages, costs and charges of all and every sort/s that may be legally incurred in respect thereof.

11. SETTING OUT

The contractor shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the position, levels, dimensions and alignment of all parts thereof. If at any time error in this respect shall appear during the progress of the works, the contractor shall at his own expense rectify such error if so, required to the satisfaction of the Employer.

12. MATERIALS AND WORKMANSHIP TO CONFORM TO DESCRIPTION

All materials and workmanship shall so far as procurable be of the respective kinds described in the schedule of quantities and/or specifications and in accordance with the Employer's instructions and the contractor shall upon the request of Employer furnish him with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The contractor shall at his own cost arrange for and/or carry out any test of any materials which the Employer may require.

- a. Clean M. Sand & P. Sand shall be used in all cases.
- b. Only clean and fresh water shall be used on the work. The contractor shall make his own arrangements for water and power supply required for the execution of the work and shall meet all charges therefor. The special attention of the contractor is drawn to Clauses of TNBP regarding water and lighting.

- c. The broken stones for concrete and RCC work should be of hard blue granite and passed by the Engineer/Employer.
- d. The work shall be carried out with least hindrance to the adjoining building and the contractor will be responsible for any damages caused to the existing fixtures, electric fittings etc. in the course of execution and the contractor shall make good to original condition any damage, without any claim for extra.
- e. Employer reserves the right, to split up the work and entrust the split-up portions to different contractors if found necessary on valid reasons.
- f. The arrangement of TMT / RTS /M.S. rods for all RCC works shall be in accordance with the working drawing supplied.
- g. Payment for centering works for all RCC items shall be made only after the concrete is laid.
- h. All cement concrete for RCC works shall be machine mixed and vibrated.
- i. The Contractor shall procure 43 grade (Conforming to IS: 8112) Ordinary Portland Cement for all works, for production of Batch Mixed Concrete from the 'On-site' automatic batch mix plant. The cement shall be procured from reputed manufactures as approved by the PMC/Project Officer. Samples of cement arranged by the Contractor shall be got tested by contractor in accordance with provisions of the relevant BIS codes. In case test results indicate that the cement arranged by the Contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the Contractor at his own cost forthwith. Procurement of cement of other type and grade shall be on prior approval of the PMC/Project Officer for specific area of application.
- j. Wherever dewatering of sub soil water is necessary for the execution of works the cost of the same should be borne by the contractor only and no extra claim whatsoever on this account will be admitted.
- k. The Contractor shall not be paid for any extra working space beyond concrete dimensions during excavation of foundations. Any damage done to the work due to the contractor's operation beyond the excavation lines shall be repaired at the expense of the contractor. Any and all excess excavation or over breaking performed by the contractor for any purpose or reason except as may be ordered in writing by the Engineer/Employer and whether or not due to the fault of the contractor shall be at the expense of the contractor. Cost of refilling for all such excavation with materials as specified by the Engineer/Employer has to be done by the contractor at his expense.
- l. All Materials and workmanship shall be new, unused and best of the respective kinds described in the Contract, IS Codes and in accordance with the PMC/EMPLOYER instructions and shall be subjected from time to time to such tests as the PMC/EMPLOYER may direct at an Approved testing laboratory. The CONTRACTOR shall order all the materials required for the execution of work as early as necessary and ensure that such materials are on site well ahead of requirement for use in the work

- m. The CONTRACTOR shall upon the instruction of the PMC/EMPLOYER/ representative furnish him with documentation to prove that the Materials & goods comply with the requirements of Contract and for requirement stated above. The PMC/EMPLOYER may issue instruction in regard to removal of material from Site or any work, if these are not in accordance with the Contract. The CONTRACTOR shall provide such assistance instruments, machinery, labour and Materials as are normally required for examining, measuring, sampling and testing any material or part of work before incorporation in the Works for testing as may be selected and required by the PMC/EMPLOYER Representative.

(I) SAMPLES

- a. All samples of adequate numbers, sizes, shades & pattern as per Specification shall be supplied by the CONTRACTOR without any extra charge. Apart from adhering to any special provision made in the Specifications regarding submission of samples the CONTRACTOR shall within 10 Days of approval of shop Drawings and Technical Data sheets, provide to the PMC samples along with the detailed literature of all Materials proposes to use in the Works irrespective of the fact that a specific make/material might have been stipulated. If certain items, proposed to be used, are of such nature that samples cannot be presented or prepared at the Site, detailed literature/test certificate of the same shall be provided instead, to the satisfaction of the PMC/EMPLOYER. Before submitting the samples/literature the CONTRACTOR shall satisfy himself that the material/equipment for which he is submitting the samples/literature meet with the requirement of the Specification. The PMC/EMPLOYER shall check the samples and give his comments and/or approval to the same. Only when the PMC/EMPLOYER/approves the samples in writing, the CONTRACTOR shall proceed with the procurement and installation of the particular material/ equipment. The Approved samples shall be signed by the PMC for identification and shall be kept on record at Site office until the completion and acceptance of the Works and shall be available at the Site for inspection/comparison at any time. The CONTRACTOR shall keep with him a duplicate of such samples to enable him to process the matter.
- b. For items of work where the samples are to be made at the Site, the same procedure shall be followed. All such samples shall be prepared at a place where it can be left undisturbed until the completion of the project.
- c. The PMC/EMPLOYER shall communicate his comments/approval to the CONTRACTOR to the samples at his earliest convenience. Any delay that might occur in approving of the samples for reasons of its not meeting with the Specifications or other discrepancies, inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the Materials/equipment, etc. shall be to the account of the CONTRACTOR. In this respect the decision of the PMC/ EMPLOYER shall be final.
- d. On or before delivery of the supplies of Materials/equipment for permanent Works at the Site, the CONTRACTOR shall specifically arrange to get the supply inspected by the PMC/EMPLOYER if necessary, at his/ manufacturer's workshop/s and

compared with the Approved sample and his specific approval obtained before using the same in the work.

- e. If the CONTRACTOR wants to take back the samples after it serves the purpose at Site, it shall be taken back with the approval of PMC / EMPLOYER.

(II) COST OF TESTS

- a. The cost of making any test shall be borne by the CONTRACTOR if such test is intended by or provided for in the Specification or Bill of quantities. If after any such test the work or portion of works is found in the opinion of the PMC/EMPLOYER to be defective or unsound, the CONTRACTOR shall pull down and redo the same at his own cost. Defective materials shall immediately be removed from the site at his own cost.

(III) QA PLAN

- a. CONTRACTOR shall, within twenty days of issue of Letter of Award submit for the review and approval of PMC, a Quality Assurance Plan (QAP) along with relevant QC formats detailing out the tests that he proposes to conduct for the compliance of the specified standards. PMC shall within seven Days review and convey his comments/approval which shall be implemented by CONTRACTOR.
- b. Wherever a specific Quality Assurance Plan is provided with the RFQ or agreed as part of the commercial discussions, the same shall be binding on the CONTRACTOR. Wherever any specific QAP is either not agreed or specified, the EMPLOYER reserves the right to depute its representative for inspection of items during various stages of manufacture. The CONTRACTOR shall provide an advance notice of minimum 7 Days to the EMPLOYER to enable it to depute its representative for stage inspections whenever requested. EMPLOYER also reserves the right to inspect the material on receipt and reject material/s found defective/not complying with the Specifications/standards stated in the Contract. CONTRACTOR shall arrange to collect the rejected material from the delivery location and replace it with quality material in compliance to the Contract Specifications at its own costs and risks within maximum 1 Week of such intimation.

13. CONTRACTOR'S SUPERINTENDENCE AND REPRESENTATIVE OF THE WORK

The contractor shall give all necessary personal superintendence during the execution of the works and as long thereafter as the Employer may consider necessary until the expiration of the "Defects Liability period", stated in the Contract Data. The contractor shall also during the whole time, when the works are in progress employ a competent representative (Project Engineer) who shall be constantly in attendance at the site. Any direction, explanations, instructions or notices given by Employer to such representatives shall be held as given to the contractor.

14. DISMISSAL OF WORKMAN

The contractor shall on the request of the Employer immediately dismiss from the work any person employed thereon by him who may in their opinion be incompetent or misconduct himself and such person shall not be again employed on the worksite without the permission of the Employer.

15. ACCESS TO WORKS

The Employer/Project officers/PMC shall, at all reasonable times, have free access to the works and/or to the workshops, factories or other places where materials are lying or from which they are being obtained and the contractor shall give every facility to the Employer/Project officer/PMC necessary for inspection and examination/test of the material and workmanship. No person unauthorized by the Employer except the representatives of public authorities shall be allowed on the works at any time.

16. PROJECT MANAGEMENT CONSULTANT (PMC)

The term PMC shall mean the consultant appointed by Employer and authorised to inspect the work. The contractor shall offer the PMC every facility and assistance for inspecting the works and materials and for checking and measuring items and materials. The PMC shall have power to give notice to the contractor or to his representatives of non-approval of any work or materials and such work shall be suspended or the use of those of such materials shall be discontinued until the decision of the Employer is obtained. The work will from time to time be examined by the PMC not in any way to exonerate the contractor from the obligation to remedy any defects, which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this Clause the contractor shall take instructions only from the Employer.

The duties of the Project Management Consultant (PMC) or his authorized representatives generally are as below but not restricted to these only:

- Watch, monitor and supervise the Works.
- Review and demand test reports of Materials to be used in the Works.
- Check workmanship of the items executed.
- Check the measurements.
- Order variation and quantities, items etc.
- Determine extension of time limits in consultation with the Employer as may be applicable and recommend for the Employer to issue.
- Record extra items of the work, if any.
- Invoice certification

17. ASSIGNMENT AND SUB-LETTING

The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly transfer, assign or underlet/sublet

the contract or any share thereof or interest therein without the prior written consent of the Employer and no undertaking shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the works during their progress.

18. VARIATION NOT TO VITIATE CONTRACT

No alteration, omission or variation shall vitiate this contract. But in case the Employer thinks proper at any time during the progress of the works to make any alterations and addition to or omissions from the works or any alterations in the kind and quality of the materials to be used therein and shall give notice thereof in writing under his hand to the contractor, shall alter and add to or omit from as the case may be, required in accordance with such notice. But the contractor who shall not do any work extra or any deviation from any of the provisions of the contract, stipulations, specification or contract drawing without the previous consent in writing of the Employer and the value of such extras, alterations, additions or omissions authorised by the Employer shall in all cases be determined by the Employer in accordance with the provisions of Clause-22 thereof and such of the sum shall be added to or deducted from the contract amount accordingly.

19. SCHEDULE OF QUANTITIES

The schedule of quantities unless otherwise stated shall be deemed to have been prepared in accordance with the standard method of measurement of such works as per the Tamil Nadu Building Practice.

Any error in description or in quantity or in omission of items from the schedule of quantities shall not vitiate this contract but shall be rectified and the value thereof as ascertained under Clause-22 thereof shall be added to or deducted from the contract amount (as the case may be) provided there shall be no rectification of errors in the contractor's schedule of rates.

20. SUFFICIENCY OF SCHEDULE OF QUANTITIES

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the schedule of quantities and/or the schedule of rates and prices which rates and prices shall cover all his obligations under the contract, and all matters and things necessary for the proper completion of the works.

21. TAKING MEASUREMENTS

The PMC may from time to time intimate to the contractor that he requires the works to be measured and the contractor shall forthwith attend and send a qualified agent to assist the PMC in taking such measures, measurements and calculations and to furnish the particulars or to give all assistance required by either of them.

Should the contractor fail to attend or neglect or omit to send such Agent then the measurement taken by the PMC shall be taken to be correct measurements of the works. Such measurement shall be taken in accordance with the standard method of measurement for building works.

The contractor or his agent may at the time of measurement take such note and measurements as he may require.

All authorised extra works, omissions and all variations made without the PMC/Project Officer's knowledge, if subsequently sanctioned by the Employer in writing shall be included in such measurements.

22. PRICES FOR EXTRAS/ ASCERTAINMENT

Should it be found after the completion of the works from measurements taken in accordance with the previous paragraph that any of the quantities or amounts of works thus ascertained are less or greater than the quantities or amounts specified for the works in price-schedule of quantities and (or) tender or that any variation is made, the calculation of such quantities / amounts or variation unless previously or otherwise agreed upon, shall be made in accordance with the Employer's instructions. The measurement and valuation in respect of the contract shall be completed within the 'period of final measurements' stated in Contract Data.

Materials, when taken into account will be the property of the Employer. Wherein any payment certificate on which the contractor has received payment, the Employer has included the value of any unfixed materials intended for and/or advance payment to the works, such materials shall become the property of the Employer and they shall not be removed except for use upon the works, without approval from Project Officer/PMC. The contractor shall be liable for any loss or damage to such materials.

23. REMOVAL OF IMPROPER WORK

The Employer shall during the progress of works, have power to order in writing from time to time removal from the works, within such reasonable times as may be specified in the order, of any materials which in the opinion of the Employer are not in accordance with the specification or the instruction of the Employer, the substitution of proper materials and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the drawings and specifications or instructions and the contractor shall forthwith carryout such order at his own cost. In case of default on the part of the contractor to carry out such order, the Employer have the power to employ and pay other person etc. to carry out the same and all expenses consequent on incidental thereto shall be borne by the contractor or may be deducted by the Employer for any money due or that may become due to the contractor.

24. DEFECTS AFTER COMPLETION:

Any defect, shrinkage, settlement or other faults which may appear within the defects Liability period stated in the Contract Data, arising in the opinion of the Employer and from materials or workmanship not in accordance with the contract shall upon the directions in writing of the Employer and within such reasonable time as shall be specified therein be amended and made good by the contractor at his own cost such defects, shrinkage, settlements or other faults and all damages loss and expenses consequently thereon or incidental thereto shall be made good and borne by the contractor and such damage, loss and expenses shall be recoverable from him by Employer or may be deducted from any money due or that may become due to the contractor the Employer may in lieu of such amending and making good by the contractor, deduct a sum to be determined by the Employer equivalent to the cost of amending such work and in the event of the amount retained under Clause-36 being insufficient recover the balance from the contractor, together with any expense the Employer may have incurred in connection therewith. Should any defective work have been done or materials supplied by any sub-contractor employed on the works who has been nominated or suggested by the Employer, as provided in Clause-26 of the contract shall be liable to make good in the same manner as if such work or materials had been done or supplied by the contractor and been subject to the provision of this Clause and Clause-26 thereof. The contractor shall remain liable under the provisions of this Clause notwithstanding the signing of the Employer or any certificate of the passing of the accounts.

25. CERTIFICATE OF COMPLETION

The work shall not be considered as completed until the PMC has certified in writing that they have been virtually completed and the defects liability period shall commence from the date of such certificate.

26. NOMINATED SUB-CONTRACTOR

All specialists, Merchants, Tradesman, and others executing any work or supplying and filling any goods for which time cost prices or provisional sums are included in the schedule of quantities and / or specifications may be nominated or selected by the Employer are hereby declared to be sub-contractor are employed by the contractor and are therein referred to as nominated subcontractor. No nominated sub-contractor shall be employed on or in connection with the works against whom the contractor shall make reasonable objection or save where the Employer and contractor shall otherwise agree, who will not enter into a contract provided,

- a. That the nominated sub-contractor shall indemnify the contractor against the same conditions in respect of the subcontract as the contractor is under, in respect of his contract.

- b. That the nominated sub-contractor shall indemnify the contractor against claims in respect of any negligence by the sub-contractor/ his servants or agents or any issues by him or them of any Workmen- Compensation Act in force.
- c. Payment shall be made to the nominated sub-contractor within fourteen days of the receipt of the PMC certificate provided that before any certificate is issued, the contractor shall upon request to furnish to the PMC's proof that all nominated sub-contractor accounts included in previous certificates have been duly discharged, in default whereof the Employer may pay the same upon a certificate of the PMC and deduct the amount thereof from any sums due to the contractor. The exercise of this power shall not create privity of contracts as between Employer and sub-contractor.

27. OTHER PERSONS ENGAGED BY EMPLOYER

The Employer reserves the right to use the premises and any portion of the site for the execution of any work not included in this contract which he may desire to carry out by other persons and the contractors to allow all reasonable facilities for the execution of such work but is not required to provide any plant or materials for the execution of such work except by special arrangements with the Employer. Such work shall be carried out in such a manner as not to impede the progress of works included in the contract and the contractor shall not be responsible for any damage or delay, which may happen to or be occasioned by such work.

28. INSURANCE IN RESPECT OF DAMAGE TO PERSONS AND PROPERTY

The contractor shall be responsible for all injury to persons animals or things and for all structural and destructive damage to property which may arise from the operation or neglect of himself or of any nominated sub-contractor's employees, whether such injury or damage arise from carelessness, accident, or any other cause whatsoever, in any way connected with the carrying out of this contract. This Clause shall be held to include inter-alia, any damage to buildings whether immediately adjacent or otherwise, any damage to roads, streets, footpaths, bridges, or ways as well as damage caused to the buildings and works forming the subject of this contract by frost or other inclemency of weather. The contractor shall indemnify the Employer and hold him harmless in respect of all and expenses arising from any such injury or damages to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any such Acts of Government or otherwise and also in respect of any award of compensation or damages consequent upon such claim. The contractor shall reinstate all damage of every source mentioned in this Clause, so as to deliver up the share of the contract works completed and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties. The contractor shall indemnify the Employer against all claims which may be made against the Employer by any number of the public or other third party in respect of anything which may arise in respect of the contract, with an approved office, a policy of insurance in the joint names of the Employer and the

contractor against such arise and deposit such policy or policies with the Employer from time to time during the currency of this contract. The contractor shall similarly indemnify the Employer against all claims which may be made upon whether under the workmen's Compensation Act or any other statutes in force during the currency of this contract or in common law in respect of any employees of the contractor or any sub-contractor and shall at his own expenses effect and maintain, until the virtual completion of the contract, with an approved office, a policy of insurance in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with Employer from time to time during the currency of the contract.

The contractor shall be responsible for anything, which may exclude from the insurance policies above referred to and also for all other damages to any property arising out of and incidental to the negligent or effective carrying out of this contract. He shall also indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings and also in respect of any award of or compensation of damage arising there from, arising from any such industry or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any Acts of Government or otherwise and also in respect of any award of compensation or damages consequent upon such claim.

The Employer shall be at liberty and is hereby empowered to deduct the amount of any damage, compensation, costs, charges and expenses and or occurring from or in respect of any such claim or damage from any sum due or to become due to the contractor.

- 29.** The contractor shall at the time of signing the contract insure the works and keep them insured until the virtual completion of the contract against loss or damages by fire in an office, to be approved by the Employer in the joint names of the Employer and contractor (the name of the former being placed first in the policy) for the full amount of the contract and for any further sum if called upon to do so by the Employer, the premium for such further sum being allowed to the contractor as an authorized extra such policy shall cover the property of the Employer only. The contractor shall deposit the policy and receipt for the premium with the Employer within twenty-one days from the date of signing the contract. Unless otherwise instructed by the Employer in default of the contractor, insuring as provided above, the Employer on his behalf may so insure and may deduct the premium paid from any amount due or which may become due to the contractor. The contractor shall as soon as the claim under the policy is settled, the work reinstated by Insurance Office should they elect to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire had not occurred and in all respects under the same conditions of contract. The contractor in case of rebuilding or Employer in default of the contractor insuring as provided above, the Employer on his behalf may so insure and may deduct the premium paid from any money due or which may become due to contractor. The contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Office, should they elect

to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire had not occurred and in all respects under the same conditions of contract. The contractor in case of rebuilding or reinstatement after fire, shall be entitled to such extension of time for completion as Employer deems fit.

30. DATE OF COMMENCEMENT AND COMPLETION

The date of commencement will be reckoned from the signing of the Agreement. The contractor shall be allowed admittance to the site on the "Date of commencement" stated above and Contractor shall there upon complete the same on or before the 'Day of completion' stated in the Clause 25 subject nevertheless to the provision for extension of time hereinafter contained.

If the contractor fails to commence the work as instructed by Employer or fails to complete the entire work within 9 Months (Nine Months - The completion period is inclusive of the monsoon period also) from the signing of the Agreement, Contractor shall be liable for all the damages and consequences arising there from and the same should be rectified by the contractor at his own risk and cost.

31. DAMAGE FOR NON-COMPLETION

Liquidated damages to be levied on non-achievement of milestones (mentioned in Clause 10-Construction Program, Section-II, Cover II), which is 0.03% (Zero decimal Zero three percent) of the contract sum per day of delay subject to a maximum of 10% of the contract value (inclusive of GST). The period of delay shall be as opined by the PMC/Project Officer which is final and binding on the contractor.

32. DELAY AND EXTENSION OF TIME

If in the opinion of the Employer the works be delayed due to following reasons, necessary instructions from the Employer on the recommendation of the PMC for which he shall have specially applied in writing, the Employer shall make a fair and reasonable extension of time for completion of the contract shall, as soon as may be given written notice within 7 days thereof to the Employer the contractor shall nevertheless continue his endeavours to prevent delay and shall do all that may reasonably be required to the satisfaction of Employer to proceed with work.

(a) by force majeure

(b) by reason of any exceptionally inclement weather conditions

(c) by reasons of proceedings taken or threatened by or dispute with adjoining or neighbouring owners by Public Authorities arising otherwise than through the contractor's own default or

(d) by the works or delays of other contractors or tradesmen engaged or nominated by the Employer and not referred to in the schedule of quantities and/or specification of or

(e) by reason of project officer/PMC instructions

- (f) by reason of Civil Commotion, local combination of workmen or strike or lockout effecting any of the building trades or
- (g) in consequences of the contractor not having received confirmation in due time.

33. FAILURE BY CONTRACTOR TO COMPLY WITH EMPLOYER INSTRUCTIONS

If the contractor after receipt of written notice from the Employer requiring compliance within ten days, fails to comply with such further drawings/and/or PMC instructions, the Employer with the advice of the PMC, may employ and pay other persons to execute any such work whatsoever that may be necessary to the effect thereto and all costs incurred in connection therewith shall be recoverable from the contractor by the Employer on the certificate of the PMC as a debit or may be deducted by him from any money due or to become due to the contractor.

34. TERMINATION / DETERMINATION OF CONTRACT BY THE EMPLOYER

- a. If the contractor,
 - (i) being an individual or firm commit any "act of insolvency" or shall be adjudged insolvent or being an Incorporated Company shall have an order for compulsory winding up made, against with or pass an effective resolution for winding up voluntarily or subject to the liquidation, such acts of insolvency or winding up shall be liable within seven days after notice to him inquiring him to do so, show to the reasonable satisfaction of the Employer that he is able to carry out and full fill the contract, and to give security, therefore, if so required by the Employer or if the contract (whether an individual, firm or incorporated company) shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor, or shall assign or sublet to this contract without the consent in writing of the Employer first obtained or shall charge or encumber this contract for any payments due or which may become due to the contractor there-under or if the PMC shall certify in writing to the Employer that the contractor.
 - (ii) has abandoned the contract, or
 - (iii) has failed to commence the works, or had without any lawful excuse under these conditions, suspended the progress of the works for 14 days after receiving from the Employer/PMC written notice to proceed or
 - (iv) has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon or
 - (v) has failed to remove materials from the site or pull down and replace work for seven days after receiving from the Employer/PMC written notice that the

said materials or work were condemned and rejected by the Employer/ PMC under these conditions or

(vi) has neglected or failed persistently to observe and perform all or any of the facts, matters or things by this contract to be observed and performed by the contractor for seven days after written notice shall have been given to the contractor requiring the contractor to observe or perform the same or

(vii) has to the detriment of good workmanship or in defiance of the Employer / PMC's instructions to the contrary subject any part of the contract.

Then and in any of the said cases the PMC with the written consent of the Employer, may notwithstanding any previous waiver, after giving seven days' notice in writing to the contractor determine the contract, but without hereby affecting the functions of the PMC or the obligations and liabilities of the contractor, the whole of which shall/continue in force as fully as if the contract had not been so determined and as if the work subsequently executed had been executed by or on behalf of the contractor, and further the Employer on the recommendation of the PMC may enter upon and take possession of the works and all plant, tools, scaffoldings, sheds, machinery, steam and other power utilities and materials lying upon the premises or the adjoining lands or roads, and use the same as his own property nor may employ the same by means of his own servants and workman-in-carrying "on" and completing the works or by employing any other contractor or other person or persons to complete the works and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractor or other person or persons employed for completing the finishing or using the materials and plant for the works. When the Employer/PMC shall give a notice in writing to the contractor to remove his surplus materials, tools and plant, and should the contractor fail to do so within a period of 14 days after receipt thereto by him, the Employer shall sell the same by public auction and shall give credit to the contractor for the amount realized. The PMC shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to or by the Employer for the value of the said plant and materials so taken possession of by the Employer and the expense or loss which the Employer shall have been put to, in procuring the works to be completed and the amount, if any, owing to the contractor and the amount which shall be so certified shall thereupon be paid by the Employer, as the case may be and the certificate of the PMC shall be final and conclusive between the parties.

b. After, determining the contract, Employer shall have the right to give any part or whole of the unexecuted balance work to any other contractor, in which case any expenses which may be incurred in excess of such amount which would have been paid to the original contractor if the whole work had been executed by him, will be recovered from him. For this purpose, the amount will be deducted from the money due to him from Employer on any account whatsoever. But if the expenses incurred by Employer are less than the amount works out as per original agreement rate, then the difference will not be paid to the Contractor, as he is a defaulter.

35. PRIME COST AND PROVISIONAL SUMS

- a. Where 'Prime Cost' (PC) prices or Provisional Sums of money or Non-SOR items are provided for any goods or work in the specification or schedule of quantities the same are exclusive of any trade discounts or allowances, discount for cash, or profit which the contractor may require and of carriage and fixing.
- b. All goods or works for which prime cost prices or provisional sums of money are provided may be selected or ordered from any manufacturers or firms at the discretion of the PMC or Employer and the Employer reserves to himself the right of paying direct to any such goods, or work and deducting the said prices or sums, from the amount of contract. Should any goods or work for which prime cost prices or provisional sums are provided or portions of same be not required, such prices or sums, together with the profits allowed for the same and such additional amounts as the contractor may have allowed for carriage and fixing will be deducted in full from amount of the contract whether the goods be ordered by the contractor or otherwise, the contractor shall, at his own cost fix the same if called upon to do so and the contractor shall also receive and sign for such goods and be responsible for their safe custody as and from the date of their delivery upon the works.
- c. In cases in which provisional quantities of materials are contained in the contract, the contractor shall provide such materials to such amounts or to greater or less amounts as the PMC shall direct in writing as the net rates at which he shall have priced such items in his schedule of quantities. Should however any such item be entirely omitted which omission shall be at the Employer / PMC's discretion, no profit on such items shall be allowed to the contractor.
- d. If the contractor neither produces the receipt nor gives authority to the Employer to issue a certificate in favour of such sub-contractor direct, the Employer/PMC may upon giving the contractor seven days' notice in writing of his intention to do so, issue to the sub-contractor such certificate direct. The Employer may obtain the receipt from the subcontractor which receipt shall be deemed as a discharge for the amount of such certificate as though given by the contractor. In the event of such default on the part of the contractor, he shall not be allowed any profit he may have added in the schedule of quantities upon such sub-contract.
- e. The exercise of the option before referred to by the contractor and the issue of certificates as before described to sub-contractor upon the contractor's request of the issue to the sub-contractor director of certificate by the Employer shall not, however relieve the contractor from any of the liabilities in respect of insufficient/faulty or incomplete work of the sub-contractor for which he may be liable under the terms of contract.

- f. If any provisional items provided for work of a nature usually carried out by the contractor in the ordinary course of his business, the Employer shall give the contractor an opportunity of tendering for the same without prejudice to the right to accept the lowest or any tender.

36. CERTIFICATE AND PAYMENTS

The Contractor shall be paid by the Employer under the certificate issued by the PMC as per the payment terms and conditions. however, In addition to the Performance Security Deposits, TIDCO shall deduct from the Running Account Bills equivalent to 5% (Five Percent) of the total value of each bill as retention money. 50% of retention money deposit (with GST) amount recovered from the bills would be paid to the contractor along with final bill. Balance 50% of Retention Money deposit (with GST) will be released after expiry of two year from the date of completion of work.

The PMC shall with the concurrence of the Employer include in the interim certificate such amount as he may consider proper on account of materials delivered upon the site by the contractor for use in the work. The Employer shall have full power on the advice of the PMC withhold any certificate if the works or any parts thereof are not being carried out to his satisfaction. The PMC may by any certificate make any correction in any previous certificate, which shall have been issued by him.

A Third-party inspection constituted by faculties of any reputed agencies/institution appointed by Employer will inspect/ supervise the STP - Civil & Electromechanical works. The Third-party inspection will be conducted twice/as directed by the Employer during the execution of works. The fee for the third-party inspection will be borne by the Employer. Contractor shall cooperate/coordinate during third party inspection without any extra time or cost.

37. FORFEITURE OF PERFORMANCE SECURITY

The performance security is liable to be forfeited in case, where the contractor fails to carry out the work in accordance with the specifications, terms and conditions of the Contract, leading to termination of the contract.

- 38.** Notwithstanding anything contained in the agreement, instructions of the Employer shall be final and binding on the contractor.

39. SETTLEMENT OF DISPUTES

In case of any difference or dispute shall arise between the parties hereto in respect of any of the matter comprised in this contract, the jurisdiction of the court shall be at Chennai.

- 40.** The contractor shall be responsible for the safe custody and storage of the materials under dry condition at the place of the work spot approved by the Project Officer/PMC.
- 41.** No plot rent will be charged for materials stacked on the Employer land during the course of construction provided all such materials are removed within a month after the work is completed.
- 42.** Royalty charges due for the use of private quarries and private land shall be paid by the contractor.
- 43.** The contractor shall form his own approach road in the works site for which no extra will be due to him. On completion of work, the contractor shall not be permitted to remove the materials laid for formation of road. If the contractor is allowed to use the existing roads, he shall maintain them in good condition at his own cost throughout the period of the contract.
- 44.** Any surplus materials remaining at the site, will not generally be taken over by Employer, whether before or after the completion or determination of contract. Such materials which were originally procured by the contractors are the property of the contractors and can however be taken over by the Employer if required, for use on other works which are in progress only by special arrangements and at the prevailing market rates viz. the rates at which the articles or articles of a similar description can be procured at a given time at the storage godown from public market suitable in the division for obtaining supply thereof.
- 45.** The contractor's special attention is invited to the General Conditions to the Contract of TNBP and he is requested to provide shed, latrine and urinal for his workmen at his own expenses.
- 46.** If night work is required to fulfil the agreed rate of progress, all arrangements shall made by the contractors inclusive of lighting without any claim for extra.
- 47.** The contractor shall not employ the labour below the age 14 years and shall also note that he must offer employment to ex-servicemen, ex-toddy tapers and unemployed agricultural labourers as far as possible.
- 48.** Any of the items in the schedule may be omitted or radically altered. No variation in a rate shall become payable to contractors on account of such omissions or variation in quantities.
- 49.** NOT USED
- 50.** The formation of roads will be deemed to be completed only if all the items of works including finishing items contemplated herein are executed.

- 51.** The contractor shall abide by the contractor's labour regulations of the PWD framed by the Tamil Nadu Government.
- 52.** The contractor shall at his own expenses provide arrangements for the provision of footwear for any labour doing cement mixing work and all other similar type of work involving the use of tar, mortar, etc. to the satisfaction of Employer / PMC and on his failure to do so the Employer shall be entitled to provide the same and recover the cost from the contractor.
- 53.** When there are complaints of non-payment or wages to the labour, bills of the contractor may be withheld pending a clearance certificate from the labour Department.
- 54. RULES FOR THE PROVISION OF HEALTH AND SANITARY FOR WORKERS EMPLOYED BY THE EMPLOYER CONTRACTORS**

The contractor's special attention is invited to relevant Clauses of General Conditions to contract in Tamilnadu Building Practice and he is requested to provide at his own expenses, the following amenities to the satisfaction of the Project officer/PMC.

a. First Aid

At the work site, there shall be maintained in a readily accessible place, first aid appliances and medicines including adequate supply of sterilized dressings and sterilized cotton wool. The appliances shall be kept in a good order. They shall be placed under the charge of a responsible person who shall be readily available during working hours.

b. Drinking Water

- i. Water of good quality fit for drinking purpose shall be provided for the work people on a scale of not less than a gallon per head per day.
- ii. Where drinking water is obtained from an intermittent public water supply, each workplace shall be provided with storage tank where such drinking water shall be stored.
- iii. Every water supply and storage shall be at a distance not less than 50 feet away from any latrine, drain or other existing well which is within such proximity of latrine, drain or any other source of pollution. The well shall be properly closed, if water is drawn from it for drinking. All such wells shall be entirely closed and be provided with a trap door and shall be dust and waterproof.
- iv. A reliable pump shall be fitted to each covered well. The trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

c. Washing and Bathing Places

Adequate washing and bathing places shall be provided separately for men and women. Such places shall be kept in clear and drained condition. Bathing or washing should not be allowed in or near the drinking water well.

d. Latrine and Urinals flooring

There shall be provided within the premises of every workplace and accommodation for labourer's latrines and urinals in an accessible place separately for each of them. The number of toilets to be provided shall not be less than the following in any particular case.

- | | | |
|----------------------------------------------------------------------------|---|-------|
| i. Where the number of persons employed does not exceed 50 | - | 2 Nos |
| ii. Where the number of persons employed exceed 50 but does not exceed 100 | - | 3 Nos |
| iii. For every additional 100 persons | - | 3 Nos |

If women are employed, separate latrine and urinals screened from those for men shall be provided on the same scale. Except in workplaces provided with water flushed latrine connected with a water borne sewerage system, all latrines shall be provided with receptacle dry earth system which will be cleared at least four times daily and at least twice during working hours and kept in a strictly sanitized condition.

The latrine and urinals shall be tarred inside and outside at least once a year. The excreta from the latrines shall be disposed of at the contractor's expenses in outside pits approved by the local Public Health Authority. The contractor shall also employ adequate number of scavengers, conservancy staff to keep the latrine and urinals in a clear condition.

e. Shelter During Rest

At the work site there shall be provided, at free of cost, two suitable sheds one for meals and another for rest for the use of labour.

f. Creches

At every workplace at which 25 or more women are working there shall be provided two huts of suitable size for the use of children under the age of 6 years belonging to such women. One hut shall be used for infant's games and play and the other as their bedroom. The huts shall not be constructed on a lower standard than the following:

- i. Light roofs
- ii. Concrete floor and block walls

The size of the crèches should vary according to the number of women workers. The crèches should be properly maintained and necessary equipment like toys, etc. should be provided and huts shall be provided with suitable and sufficient sweepers to keep the place clean. There shall be two Ayas in attendance.

Sanitary facilities shall be provided to the satisfaction of the health Officer of the area concerned. Two number of huts shall be constructed to children and attendants of the children.

g. Canteen

A cooked food canteen on a moderate scale shall be provided for the benefit of the workers, if it is considered expedient.

h. Sheds for Workmen

The Employer will not provide living accommodation for the use of the Contractor or any of his staff or labour employed on the Works.

The contractor should provide at his own expense, shed for housing the workmen. The sheds be on a standard not less than the clean shelter type to live in which the workers pertaining to the locality are accustomed to. Floor area of about 6' x 5' for 2 persons shall be provided. The sheds are to be in a row with 5' clear space between sheds and 80' clear space between row if conditions permit. The work people's camp shall be laid out in units of 400 persons each. Each unit is to have clear space of 48' all-round. Sheds shall be maintained clean always.

- a. The Contractor, shall, at his own expense, make adequate arrangements for the housing with supply of drinking water, provision of bathrooms, latrines and urinals, with adequate water supply, for his staff and workmen employed on the Works at the location authorized by the Employer. Workers are not allowed to sleep inside project premises, irrespective of any working shifts.
- b. Camp facility shall need to comply with local and State Health Department Regulatory requirements. Presence of a doctor to address health / Hygiene requirements is essential
- c. The Contractor at his own cost shall maintain all campsites in a clean and sanitary condition. The Contractor shall obey all health and sanitary rules and regulations and carry out at his cost all health and sanitary measures that may from time to time be prescribed by the Local/Medical Authorities and permit inspection of all health and sanitary arrangements at all times by the PMC/Employer and the staff of the local municipality or other Authorities concerned.
- d. The Contractor shall at his own cost, provide First Aid and Medical facilities at the Labour Camp and at work sites on the advice of the Medical Authority in relation to the experience, and number of the Contractor's staff and workmen.
- e. The Contractor shall at his own cost, provide minimum requirements for fire precautions.
- f. The Contractor at his own cost shall provide necessary arrangements for keeping the camp area sufficiently illuminated to avoid accidents to the workers. He should also ensure that electrical installations are done by Trained

Electricians. These installations shall be maintained, and daily maintenance records must be made available for inspection of the PMC/EMPLOYER.

- g. Employer/PMC has the right to access the labour colony at any point of time for inspection.
- h. Contractor to take own arrangements for workers to travel to site. Employer will not provide any support on this.

Camp Discipline

- a. The Contractor shall take requisite precautions and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst his workmen, and others, employed directly or through Sub-Contractors. These precautions shall be for the preservation of the peace and protection of the inhabitants and security of property in the neighbourhood of the Works.
- b. The sale of alcoholic drinks or other intoxicating drugs or beverages upon the work, in any labour camp, or in any of the buildings, encampments or tenements owned or occupied by, or within the control of, the Contractor or any of his employees directly or through Sub-Contractors employed on the work, shall be forbidden, and the Contractor shall exercise his influence and authority to secure strict compliance with this condition. The Contractor shall also ensure that no labour or employees are permitted to work at the site in an intoxicated state or under the influence of drugs.
- c. The Contractor shall remove from his camp such labour and their families, who refuse to accept protective inoculation and vaccination when called upon by the Medical Authority. Should Cholera, Plague or any other infectious disease break out, the Contractor shall at his own cost burn the huts, bedding, clothes and other belongings of, or used by, the infected parties.

Labour Accommodation

The Contractor shall provide living accommodation that is equal to or exceeds the minimum criteria established in the following sub-sections, needed to house his staff, workers employed directly or through Sub-Contractors.

Accommodation Buildings

- a. The buildings shall be constructed so as to have a minimum life of not less than the length of the Contract.
- b. The roofs shall be watertight and laid with suitable non-flammable materials permissible for residential use under local regulations.
- c. Each hut shall have suitable ventilation. All doors, windows, and ventilators shall be provided with security leaves and fasteners.

- d. The minimum height of each unit shall be 2.10 m and shall have separate cooking place.
- e. Suitable number of common toilets/bath facilities shall be provided.

Water supply

- a. The Contractor shall provide an adequate supply of water for the use of labourers in the Camp.
- b. The Contractor shall also at his expense make arrangements for the provision and laying of water pipelines from the existing mains wherever available and shall pay for all the fees and charges therefore.

Drainage

The Contractor shall provide efficient arrangements for draining away spillage water so as to keep the camp neat and tidy. Surface water shall be drained away from paths and roads and shall not be allowed to accumulate into ditches or ponds where mosquitoes can breed. Installation of STP to handle the sewage effluent treatment is essential

Sanitation

- a. The Contractor shall make arrangements for conservancy and sanitation in the labour camps according to the rules and regulations of the Local Public Health and Medical Authorities.
- b. The Contractor shall provide a sewage system that is adequate for the number of residents in the camp, and which meets the requirements of the Municipality Authorities.

55. GENERAL RULES TO SAFETY EQUIPMENT AND FIRST AID:

- 1. All necessary personal safety equipment's shall be kept available for the use of the persons employed on the site and be maintained in a condition suitable for immediate use.
- 2. The workers shall be required to use the equipment thus provided and the Employer shall take adequate steps to ensure proper use of the equipment by those concerned.
- 3. When work is carried on in proximity to any place where there is a risk of drowning, all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.
- 4. Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.
- 5. Where large workplaces are situated in cities, town or in their suburban and no beds are considered necessary owing to the proximity of city or town hospital, suitable transport shall be provided to facilitate removal of urgent cases to the hospitals. At the workplaces, some conveyance facilities such as car, shall be

kept readily available to the injured person or persons suddenly taken seriously ill to the nearest hospital.

6. Proper barricading shall be erected all-round the site before commencement of the work. All construction barricading will be in the scope of bidder.
7. It is necessary that Contractor's employees from deployed at site follow the safety procedures such as using the PPE's. Contractor shall provide his employees required PPE meeting the requirements of the stated IS Specifications and Guidelines or equivalent International Standards as may be prescribed by the Engineer from time to time. Contractor shall have instituted good working procedures and practices in providing PPE, maintenance, issue, and training on their use. All PPE shall be periodically checked to ensure worn, damaged equipment are replaced expeditiously.
8. COVID Vaccinated personnel only to be deployed on site. All on-site personnel shall be compulsorily vaccinated against COVID and shall download Arogya setu app showing vaccinated and safe status and MUST follow all social distancing norms as well as safety mask as per Regulations of Union /State Government.

56. SPECIAL CONDITION FOR GST

The unit rates offered shall be inclusive of all taxes, except GST and levies by the Central or State Govt. Or local authorities as applicable including any variation during contract period and any agreed extension of time.

57. RECOVERY OF MONEY FROM CONTRACTOR IN CERTAIN CASES

In every case in which provision is made for recovery of money from the contractor, Government shall be entitled to retain or deduct the amount thereof from any money, that may be due or may become due to the contractor under these presents and or under any other contract or contracts or any other account whatsoever.

57A. RECOVERY/UNDER REVENUE RECOVERY ACT

Whenever any amount has to be paid by the contractor in view of determination of the contract by virtue of relevant clause of General Conditions of Contract (TNBP Volume-II) or any amount that may be due or may become due from the contractor under these presents and the contractor is not responding, the Employer shall be entitled to recover the said amount under the provision of the Tamil Nadu Revenue Recovery Act 1864 (Tamil Nadu Act V of 1864).

58. CONTRIBUTION TO WORKERS WELFARE FUND

Towards contribution of fund for the benefit of manual workers employed in the construction works an amount equivalent to 1% of estimate amount will be paid by the Employer direct to the Labour Welfare Board as per G.O. Ms. No. 283 /

- 59.** The Contractor should facilitate their employees and workers under EPF & MP Act, 1952 for this work.
- 60.** The Govt. of India has notified vide notification No:20/2017-Central Tax (Rate) dated: 22nd August 2017 and Notification: 21 No.24/20017-Central Tax (Rate) dated 21st September 2017, the concessional rate of the Goods and Services Tax (GST) at 18% (CGST9%+SGST9%) is leviable for any Government Contract, irrespective of the Goods and Service Tax (GST) rate applicable on purchase of goods used in the execution of Government contract.

And GST amount will be calculated at 18% from the sum of total tendered value quoted by the tenderer for construction cost (excluding GST) specified in the BOQ, subject to GST rate applicable from time to time as recommended by the GST Council.

"All duties, taxes, and other levies except GST, payable by the contractor under the contract, or for any other clause shall be included in the rates, prices and total Bid Price submitted by the bidder".

61. NOT USED

62. CONTRACTOR'S GENERAL RESPONSIBILITIES

The Contractor shall provide at his cost everything necessary for the proper execution of the Works according to the intent and meaning of the Bill of Quantities, Specifications and Drawings taken together, whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from, and if the Contractor finds any discrepancy in the Drawings or between the Bill of Quantities, Specifications and Drawings, he shall immediately and in writing refer the same to the Project Officer/PMC who shall decide which is to be followed.

The Contractor is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the quantities and rates. The Project Officer/PMC will issue instructions in respect of such additional items and their quantities in writing with the prior consent in writing of the Employer.

The Contractor must co-operate with the other Contractors appointed by the Employer so that the Work shall proceed smoothly to the satisfaction of the PMC / Project Officer.

The Contractor must bear in mind that all the Work shall be carried out in the most sound, substantial and workmanlike manner and strictly in accordance with the Specifications as given in these documents supplemented by latest

versions of relevant provisions of the Indian standard specifications, the code of practice; etc., both as regards to materials and workmanship prior to bidding. All work shall also be carried out in compliance of the requirements of the local public authorities and to the requirements / satisfaction / direction of the PMC/Employer and no deviation on any account will be permitted. The Contractor shall have to use Materials of the makes/manufacturers as shall be Approved by PMC/ Project Officer. The Contractor shall also conform exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work.

63. SECURITY & LIGHTING

The Contractor shall in connection with the Works provide and maintain at his own cost adequate lights, guards, fencing, warning signs and watch & ward staff when and where necessary or as directed by the PMC/Project Officer or for the safety and convenience of the public or others round the clock on all days including Sundays and holidays at his own risk and cost.

64. CARE OF WORKS

The Contractor shall ensure that all technology, equipment, tools and tackles used to perform and deliver the Services are not obsolete and is kept in good working order at all times.

From the commencement to the certified completion of the whole of Works, the Contractor shall take full responsibility for the care thereof and of all Temporary Works and in case any damage, loss or injury shall happen to the Works or to any part thereof or to any Temporary Works from any cause whatsoever. The Contractor shall at his own cost repair and make good the same so that on completion, the Works shall be in good order and condition and in conformity to every respect with the requirements of the Contract and the PMC's/Project Officer instructions. The Contractor shall indemnify Employer from all risks on this account.

65. POWER, WATER & OTHER FACILITIES

1. The Contractor shall make his own arrangements for the supply of good quality potable water at Site, for his labour at Site, and all charges for water shall be borne by the Contractor.
2. Facilities for Construction Water shall be arranged by the Contractor at his own cost. Contractor is not permitted to dig bore wells required at work site.
3. Electricity required for construction shall be arranged by the Contractor himself. Electricity if supplied to the Contractor by the Employer, will be metered and amount will be recovered in the Bills as per actual at rates fixed by the Employer. Supply of electricity from the Employer is not mandatory. Non-supply of electricity by the Employer cannot be held as reason for shortfall in progress.

4. Only needful documents to avail construction power shall be issued by Employer. However, no applicable cost for deposits, cable costs, or any expenses incurred, shall be eligible for payment to Contractor. Any penalty levied by TNEB on account of such construction power connection, shall be recovered from Contractors bills. If for reasons, construction power is unavailable through TNEB, Contractor to arrange equivalent capacity of DG for construction needs. No relaxations or timelines admissible on account of power cuts in construction phase.
5. The rate quoted in the tender shall also include electric charges for power and construction water. Contractor is responsible for availability of power and water at Site for construction. No delay will be acceptable for non-availability of power and water.

66. CONTRACTOR TO KEEP SITE CLEAR

1. During the progress of the Works the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose of any constructional plant and surplus Materials and clear away and remove from the Site any wreckage, rubbish or Temporary Works which are no longer required.
2. On the completion of the Works the Contractor shall clear away and remove from the Site all constructional plant, surplus Materials, rubbish, soak pit, sumps, septic tanks, left over materials, debris, RMC plant/ labour camp and Temporary Works of every kind or any other such installations as identified by PMC/Employer at his own expense and leave the whole of the Site and Works clean and in a workmanlike condition to the full satisfaction of the PMC/ Employer not later than 10 Days from the Completion of Works or by such other later date as fixed by the PMC/Employer.

67. STORAGE

The Contractor shall make arrangements for his own stores at a location jointly identified by PMC/Employer at the Site. The Contractor shall be responsible for the security of his goods. Establishment of stores shed and compliance to statutory requirements for such stores shall be in Contractor's scope. Also, it is the obligation of Contractor to return the space utilized for such temporary stores in its original condition of handing over. Any corrective action which may require for regaining to its original condition shall be at Contractor's cost.

The Contractor shall ensure that no explosive or inflammable material is used or stored at the Contract Site. In the event such material is essential as part of execution of the Contract work, written permission shall be sought from the PMC/Employer's representative and it shall be the sole responsibility of the Contractor to ensure acquisition of necessary statutory permits and clearances and proper storage and handling of such material.

The Contractor shall provide for necessary sheds of adequate dimension for storage and protection of materials like cement, steel, lime, timber and such

other materials including tools and equipment which are likely to deteriorate by the action of sun, wind, rain or other natural causes due to exposure in the open. All such sheds shall be cleared away and the whole area left in good order on completion of the contract to the satisfaction of the PMC/Employer. All materials which are stored on the site such as bricks, aggregates etc., shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials.

68. SITE OFFICE

1. The Contractor shall make necessary arrangements for Site office for PMC and Employer.
2. The Contractor shall provide at his own expense adequate office accommodation for PMC of works preferably contiguous to his office and shall maintain the same in a satisfactory condition and shall provide light, fan and attendant etc., for the same and shall remove them after completion of the works. He shall arrange to provide latest survey Instruments and at all times maintain the same in good working order at site, to enable the PMC of works or other representative of Employer to check the lines and levels of the work. Site office for PMC and Employer shall be operated by Contractor till receipt of final bill certification by PMC.

69. FORCE-MAJEURE

Force Majeure should be herein defined as any cause which is beyond the reasonable control of the EMPLOYER or the CONTRACTOR, as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the Contract, such as:

- a. War and other hostilities (whether war be declared or not), invasion, act of foreign enemies, mobilization, requisition of embargo.
- b. Rebellion, revolution, insurrection, military or usurped power and civil war.
- c. Ionizing radiation or contamination by radio-activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosives, or other hazardous properties of any nuclear assembly or nuclear components thereof.
- d. Acts of God such as earthquake (above magnitude of 7 on the Richter Scale), lightning, unprecedented floods.

The foregoing provisions shall apply only where the Contractors obtained from the PMC/Employer recognition of the same event.

The PMC/Employer or the Contractor shall not be liable for delays in performing their respective obligations resulting from any Force Majeure cause as referred to and/or defined above.

The party affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its performance of the Contract and to fulfil its or their obligations under the Contract but without prejudice to either party's right to terminate the Contract.

70. MOCK-UP

1. The concept of Mock Ups is to assess the performance parameters / quality standards specified for specified item in the project. The main objective of the section is to address issues prior to construction to minimize disruption to the critical path of construction program and is as follows;
 - a. Determine whether the Contractor possesses required skill level necessary to construct the activity, assemblies or systems such that the as-built construction will satisfy specified requirement.
 - b. To understand the sequence of operation and discuss alternative sequencing options if any.
 - c. To assess the standard of workmanship and aesthetics to be replicated throughout the project.
 - d. To recognize and resolve potential areas of conflict prior to the commencement of construction.
2. The Contractor shall prepare the full-scale mock up at site for activity along with other vendors showing the following but not limited to:
 - a. STP- Civil & Electromechanical works
3. To determine the acceptable standard of workmanship, the Contractor shall execute a sample unit (one of each type decided by the PMC/Project Officer) completing all items of works and services such as walls, floors, plastering, joinery including fittings, painting, doors, windows etc. complete in all respects in association with other vendors.
4. The brands of various materials incorporated as well as finishes will be approved by the PMC/Project Officer. These will be guiding samples for future execution of the rest of the Units.
5. Mock up shall be constructed by the same personnel and/or tradesmen who will be physically involved in the actual construction of the said activity or system on the project along with the respective site supervisors, key personnel who will also be available during actual construction.
6. The Contractor shall furnish the Mock up schedule taking care to ensure that sufficient time period is available between erection / installation of the mock up and actual execution of that item of work to enable the PMC/Project Officer to incorporate changes and take corrective actions if any.

7. The Contractor shall establish the acceptable quality of workmanship as desired by the PMC/ Project Officer for each of the items of the Works and their elements by preparing specimens and mock ups as directed by the PMC/ Project Officer.
8. All rectifications, modification and/or reconstruction, if any that will be ordered by the PMC/ Project Officer on account of quality issues or other reasons attributable to the Contractor, shall be carried out by the Contractor until such time the Mock-up serves the purpose.
9. All costs, expenses and time incurred by the Contractor in complying with all the above shall be deemed to be included at the appropriate section/s of the Bill of Quantities. No claims, whatsoever including extension of time will be entertained under this head.
10. Mock up shall be at site only, unless otherwise mentioned.
11. Approved mock up with method statement shall be part of QA/QC plan, to follow / execute the works at site.

71. DRAWINGS / SHOP DRAWINGS FOR APPROVAL

1. Drawings for approval, which is also referred to as "Shop Drawings" elsewhere, shall be submitted to the PMC for approval. Once approval has been obtained these drawings shall be deemed to be final drawings to which the plant/installation shall be manufactured and installed.
2. The Contractor shall prepare shop drawings based upon tender requirements. The work shall be carried out only in accordance with the approved Shop drawings.
3. Wherever implied, specified, and/or required by the PMC/ Project Officer, the shop drawings submitted for approval shall be accompanied by or provided with calculations and computations justifying the strength and stability, the sizing of the components, and the like that are shown on the submitted drawings
4. Drawings for approval shall consist of, but not be limited to the following:
 - a. Unit Arrangement Drawings
 - b. Fully detailed and dimensioned drawings of each major components of the works for which the drawings are prepared.
 - c. Sectional Arrangement Drawings.
 - d. Fully detailed sectional view of the major components indicating the name, material and specification of each component.
 - e. Wherever required by the specification, design drawings shall be accompanied by appropriate calculations establishing that the structure or the Temporary works so designed shall withstand all the anticipated loads and satisfies the criteria and the intended purpose.

- f. These shall consist of a plan, together with such elevations that are deemed necessary to give a clear and precise indication of the works as it is to be installed.
 - g. All these drawings shall be fully dimensioned.
 - h. Contractor shall submit approved 6 set of Colour hardcopies of (A0 / A1 size) shop drawings and 6 Set of approved technical data sheets to PMC/EMPLOYER
- 5. Any amendments to the drawings consequent upon the coordination of the various installations shall be made by the Contractor prior to such shop drawings being submitted to the PMC for approval.
- 6. All shop drawings prepared by the Contractor, shall be submitted, in accordance with the Approved Construction Schedule, to PMC by the Contractor and this will be the only accepted and contractual method. The PMC shall review and approve these drawings and issue them to the Contractor as "Approved. Proceed with Fabrication/Construction". Such approval shall not relieve the Contractor of his responsibility for any discrepancies, errors or omissions in his submittals.
- 7. If the PMC/Project officer shall instruct the re-drawing, alteration or amending or any of the submitted drawings, which in his sole opinion, do not properly interpret the intent of the contract or for any reason do not comply with good construction practice, then the Contractor shall ensure the carrying out of the PMC/Project Officer's instructions and no claim for extra time or payment shall be allowed for any reason in this respect.
- 8. The Contractor shall prepare a detailed program for the production of the shop drawings immediately upon receipt of the PMC/Project Officer's order to commence the works. The programme, which will be subject to the scrutiny of the PMC/Project Officer, shall be compatible with the programme for the construction works.
- 9. All shop drawings shall be oriented to match with the drawings given by PMC /EMPLOYER and shall have a key plan identifying the location or area of the Works to which they apply.
- 10. When a shop drawing is revised, the particulars of the current revision shall be clearly marked or circled to facilitate checking. All prior revision numbers and references of drawings possibly superseded by the current issue shall also be clearly shown.
- 11. When the drawings are submitted for approval without complying with these requirements, they may be rejected.

72. NOT USED

73. INFORMATION PROVIDED IN THE DRAWINGS ISSUED

1. All dimensions, levels, etc., must be thoroughly checked before commencing work and any discrepancies shall be reported to the PMC/Project Officer for a decision. The Contractor must ensure that the works are constructed in accordance with the latest revision of any drawing issued; where two drawings exist showing any part of the building, the works shall be constructed from that having the larger scale.
2. Anything mentioned in the specification but not shown on the drawings, or vice versa, shall be equally binding on the Contractor as though both are specified and shown. The omission from both the specification and drawings of express reference to any detail or work necessary and obviously intended shall not relieve the Contractor of the obligation of providing the same. The intent of the works to be done, as specified and/or as shown on drawings or as implied thereby, shall in all cases rule.
3. Additional information or details which may be required by the Contractor shall be requested for in writing, from the PMC/Officer at least three weeks before the work proceeds.

74. AS-BUILT DRAWINGS OR COMPLETION DRAWINGS

1. Upon completion of works, all the Shop drawings / Drawings by Contractor shall be amended as per the work actually executed at site. The Contractor shall prepare the As-built drawings. The Contractor shall furnish one original and two prints of all these amended drawings (As-built drawings) for the reference and record of the Employer. The Contractor shall also submit soft copies of these drawings in editable format.
2. On completion of the Work, the Contractor shall submit required details and "Mark- up" of changes if any in all Drawings of the project to the PMC/Project Officer. The Contractor shall render all required assistance in getting the As-Built drawings prepared from the concerned Interfacing Agencies. These drawings shall include and show all the changes / deviations made from the working drawings during the course of construction and also the other details as called for by the PMC/Project Officer.
3. Adequate records shall be kept at site during the construction to ensure the accuracy of the final drawings.
4. The Contractor shall not be entitled to any extra payment or extension of time for correction, preparation and supplying of the drawings.

75. METHOD STATEMENTS

1. For all major items of construction and/or wherever required by the PMC/Project Officer the CONTRACTOR shall submit a method statement.

2. The method statement shall be in sufficient details to enable the PMC/project Officer to decide whether, if the methods are adhered to, the Works can be executed in accordance with the drawings and specifications. Method statements may be required for both permanent and temporary works.
3. As a minimum, the method statement shall include
 - a. Description of method of construction
 - b. Description of temporary works
 - c. Details of construction of plant to be used
 - d. Details of materials to be used
 - e. Details of materials to be Installed, Tested and commissioned at site.
 - f. Details of supervision to be provided
 - g. List of all foreseeable risks and precautionary measures taken.
 - h. Calculations for temporary works, staging and the like
 - i. Proposed method and sequence of removal of formwork, wherever applicable and in cases of special structural elements.
 - j. Quality assurance and management system to be adopted
 - k. Details about implementation and monitoring of HSE activities
 - l. The Contractor shall take such steps or make such changes in the said methods as may be necessary to meet the PMC/Project Officer's requirement. The Contractor shall not change the methods which have received the PMC/Project Officer's consent without the further consent of the PMC Project Officer.
 - m. Consent of the PMC/ Project Officer to the Contractor's proposed methods of construction shall not relieve the Contractor of any of his duties or responsibilities under the Contract.
 - n. The Contractor shall maintain at his site office a record in the form of drawings of all temporary works constructed with plans showing their location on site. The record shall be open for inspection at any reasonable time and copies shall be furnished when required.

76. QUALITY ASSURANCE/CONTROL (QA/QC)

1. The Contractor shall submit to the PMC/Employer, three hard copies and one soft copy of the QA/QC Manual addressing the specific requirements of this Contract and enumerating his proposal/s to adhere to, but not limited to, the following aspects.
2. The implementation of Quality Assurance and Control on all the activities shall be such that the quality and durability of the completed works shall endeavour to exceed the expectations posed by the Contract Specifications.
3. The manual furnished by the Contractor shall carry vision statements and summaries of policies adopted by his company in ensuring Quality Assurance and improving and Control on and off-sites

4. The Contractor's QA/QC procedures, with respect to the specifics of this Contract shall provide, but not limited to, the following:
- a. Details of the QA/QC team on site, which shall as a minimum comprise of a Manager, five each of inspectors and technicians, appropriately qualified and with adequate experience in similar type of projects, all of whom will be responsible in ensuring round-the-clock Quality Control and Assurances.
 - b. Chapters on each Section of work, in each discipline and for each project identified in the Construction programme.
 - c. Each chapter shall list out the stages of every item of work, at which sampling and testing would be undertaken.
 - d. All the relevant and applicable codes, specifications and standards, as well as the acceptance criteria for various items of work, workmanship, materials and process employed shall be included.
 - e. Procedure of sampling and testing shall be elaborated as much as possible and shall include the frequency of the same.
 - f. Check lists and formats of reports that would be used in the day to day activities of quality checks.
 - g. Listing of all tests, either as part of the respective chapters or as a separate chapter, that will be carried out, along with the reference documents which explain the requirements of sampling testing procedures for the respective test, including the individual test reporting format, which format shall carry, but not limited to the following:
 - i. Name of Contract and Date of the Report
 - ii. Date of sampling
 - iii. Date of testing
 - iv. Quantity sampled and/or tested, if applicable
 - v. Codal references and the criteria specified.

Written confirmation of whether the tested sample is satisfying or not the specified criteria and whether the material/work is acceptable or rejected.

77. LIMITATIONS OF WORKING SPACE

1. The Contractor will be allocated the site and he must allow for setting of all necessary temporary site facilities, as approved by the PMC/Project Officer within such allocated areas.
2. The Contractor shall take all measures necessary to confine his activities to be within the confines of space available, and to prevent his workmen from trespassing beyond the site area, and cause or become a cause for any nuisance or detriment to the public, the Employer, or the occupant of existing adjacent premises or land. Such trespass by the Contractor or those employed by him, shall be stopped immediately if any complaint is made. If such trespass does occur the Contractor shall make good at his own cost any loss or damage arising by reason of such trespass.

3. The Contractor will be held solely responsible for ensuring that no nuisance arises through neglect of proper precautions and the Contractor shall indemnify the Employer against all claims which may be made in this respect.
4. The Contractor shall not use the site for any purpose other than carrying out this Contract and the siting of spoil heaps, sheds etc., necessary for the execution of the works.
5. The Contractor shall be entirely responsible for complying with any/all latest regulations of Statutory bodies and Employer requirements regarding fencing the site, storage of materials and spoil heaps, disposal of surplus materials and waste, unloading of materials, temporary buildings and facilities, sanitary arrangements, etc. No claims for delay or cost will be entertained in the event of work being stopped for a breach of any regulations.
6. The Contractor's specific attention is drawn to the clauses in the specification relating to restriction of placement of certain items of work in certain weathers/temperature conditions and he is to allow for complying with these requirements.
7. The Contractor shall be deemed to have made allowance in his price and programme for the impact on the Works as a result of any delay due to the provision of access to, and through the site generally, for other Agencies, relocation of temporary works, provision of security, lighting, signage, barriers, complying with all government and local authority regulations, etc.

78. EXISTING SERVICES ON, UNDER OR OVER THE SITE

1. The Contractor shall ascertain for himself the location of existing services on, under or over the site (like electrical, water supply, sewer lines, telephone lines etc). Contractor shall take precautions to protect all such services within the confines of the site, temporarily divert as required, reinstate on completion, and immediately make good any damage at his own expense all to the satisfaction of the PMC/Project Officer.
2. Prior to undertaking any work to existing services, the Contractor must consult with the PMC/Project Officer giving full details of the services discovered and the proposed work. No work on existing services shall be commenced until the Contractor has received the PMC/Project Officer's written instructions to proceed.
3. Approval shall be obtained for any planned interruption of services in a manner so as to send appropriate notices to all concerned a minimum of two weeks in advance of the proposed disruptions.
4. Existing services and their locations may not be fully shown on the drawings and the Contractor shall liaise with the relevant authorities to determine the exact nature and full extent of such services which require protection and maintenance.

5. During the course of execution of the Works under this Contract, the Contractor is bound to undertake shifting of any Utility line(s) that are required to complete the Works satisfactorily. However, the Employer reserves the option to get such work carried out by other agency, but this shall not relieve the Contractor of any of his responsibilities and obligations under this Contract implying that this shall not be treated as compensation event for extension of time unless otherwise consented by PMC/Employer.
6. Contractor should deploy adequate / appropriate dust control measures at site during the execution of the project, constant watering of the project site is basis requirement to control the dust

79. CRANES AND LIFTING/HOISTING PLANT

1. Mobile cranes, Stationary cranes, lifting plants and hoisting plants and the like, shall be deployed at appropriate locations in required numbers and capacities, from time to time, in order to facilitate carriage, movement, setting in position, erection and installation of the various work components, materials, plants and equipment, etc. as would be required by the Contractor to handle the type and quantum of works in progress.
2. All these plants shall be appropriately and adequately augmented, if and when required by the PMC/Employer, for the purposes of overcoming delays and/or expediting any particular process of construction.
3. The Contractor shall keep these plants always in good working condition and shall subject these to rigorous safety inspections and submit such inspection reports to the PMC/Project Officer, as part of the weekly progress report.
4. If at any time, any of these equipment are served with a Non- Compliance Report (NCR) by the safety inspector, the Contractor shall ensure that the non-compliant equipment shall be immediately put out of use, until the required repair and maintenance work on the equipment are completed and safety officer certifies that the equipment is now compliant.
5. The Contractor shall be responsible for the replacement of those equipment that are deemed Non-compliant with safety requirements, all at his own cost.
6. Contractor to submit fitness certificate from an engineer empanelled by Employer / PMC for all the cranes, lifting hoists, lifting tools like metal ropes etc. used at site.
7. Eye testing / Vertigo Testing is mandatory for all the crane operators, testing has to be done with qualified personnel.
8. Vertigo testing and Clearance by a qualified person is mandatory for the labourers employed at site.

80. SCAFFOLDING/WORKING PLATFORMS

1. The Contractor shall provide all necessary temporary scaffolding and working platforms for the proper execution and completion of the Contract. These shall be altered, relocated and adapted from time to time as would be necessary.
2. If the Contractor should strike any of his scaffolding or working platform and it is so required it shall be re-erected at his own expenses.

81. ACCESS TO PROPERTY AFFECTED BY THE WORKS

1. Wherever any property has its access cut off owing to the ongoing works the Contractor shall provide and maintain pedestrian, and wherever required, vehicular access to such locations.
2. Such temporary access shall be provided at all times with the use of steel plates, ramps, ducts etc. all to the approval of the PMC/Project Officer.

82. MEASURING AND SURVEYING EQUIPMENTS

1. All surveying equipment and measuring instruments, accessories and stationeries that would be required to carry out and complete all the setting out of each and every component of every item of work at every stage during the entire duration of the Construction Process and as and when required by the PMC/Project Officer shall be provided by the Contractor and the cost incurred on account of these are deemed to be included in the prices quoted in the Contract.
2. The surveying equipment and measuring instruments shall be supplied in adequate numbers and quantities, and shall be, but not limited to the following,
 - a. Permanent DGPS,
 - b. Total Stations,
 - c. Theodolites
 - d. Dumpy Level instruments,
 - e. Measuring tapes etc.
3. The Contractor shall also provide DGPS instrument with other required precision Survey Instruments as per site requirement and/or as directed by the PMC/Project Officer.
4. These shall include all the required materials, tools, plants, equipment, labour, etc., for performing such functions necessary and ancillary thereto for the commencement of relevant activity and during the progress of the work and till the physical completion of the work.

83. DEWATERING

1. The Contractor shall make provision for all pumping, dewatering, dredging or bailing out water, if necessary, irrespective of the source of water. The water so pumped out shall be discharged as per local byelaws and as approved by the PMC/Employer.
2. The Contractor shall also take all necessary precautions in diverting channels and in discharging the drained water as not to cause damage to the works, crops or any other property within/outside the plot. Excavated area for the basement/ foundation trenches shall be kept free from water while all the works below Ground level are in progress.

84. ELECTRO- MECHANICAL WORKS

1. General
 - a. The CONTRACTOR shall leave such recesses, holes, openings, etc., as may be required for the electric, elv, air-conditioning and other related works. For this purpose any required inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be arranged by the CONTRACTOR and fix the same at the time of casting of concrete, stone work & brick work, if required.
 - b. The CONTRACTOR shall give a trial run of the equipment and machinery for establishing its capability to achieve the specifications within laid down tolerances to the satisfaction of the PMC/EMPLOYER before commencement of work.
 - c. All tools, plant and machinery provided by the CONTRACTOR shall, when brought at the site, be deemed to be exclusively intended for the construction and completion of this work and the CONTRACTOR shall not remove the same or any part thereof (save for the purpose of moving it from one part of the site to another) without the consent of the PMC/EMPLOYER .
 - d. All materials shall be got checked by the PMC/EMPLOYER on receipt of the same at site before use.
 - e. Samples of all materials, conduits, accessories, switches, wires, control cables fittings and other materials/articles required for execution of the work shall be got approved from the PMC/EMPLOYER/ prior to procurement. Materials/articles manufactured by the firms of repute as indicated in tender documents and approved by the PMC/EMPLOYER/ shall only be used.
 - f. These shall be submitted for approval and retention by PMC/EMPLOYER his representative and shall be kept in CONTRACTOR's mock-up/Sample room for reference and verification till the completion of the Project.
 - g. The CONTRACTOR shall be required to make a sample of each item of work at the earliest opportunity using all approved materials for approval of PMC/EMPLOYER/ in charge before mass scale finishing works are taken up.
 - h. Even ISI marked materials shall be subjected to quality test at the discretion of the PMC/EMPLOYER besides testing of other materials as per the specifications described for the item/material. Whenever ISI marked materials are brought to the site of work; the CONTRACTOR shall, if required by the PMC/EMPLOYER, furnish manufacturers test certificates to establish that the material procured by the CONTRACTOR for incorporation in the work

satisfy the provisions of IS codes relevant to the material and/or the work done.

- i. The CONTRACTOR will have to ensure that the skilled labour i.e. wireman etc., engaged in the execution of the work must possess valid electrical license, otherwise he will not be permitted to execute the work.
2. Associated Civil works
 - a. If required, the CONTRACTOR needs to execute all Minor civil works associated with Electromechanical equipment's, installation including all minor civil work like wall chasing by wall chaser, making holes etc. for installation of conduits/cables and making good. These shall be executed in accordance with approved shop drawings.

85. INSPECTION AND TESTING

1. Inspection and testing of Electromechanical equipment's, allied fittings and specials as per BOQ and drawings at manufacturer's works is at discretion of the PMC/Employer. Inspection team for the same may constituted by PMC/Employer. Electromechanical equipment's shall not be delivered without prior written confirmation from the PMC/Employer. All expenses related to testing vendors works shall be to Contractor account.
2. No additional payment shall be made to the Contractor for inspection/testing at the manufacturer's works by the representative of the Employer/PMC. Also the Contractor will bear the travel, boarding & lodging expenses of Employer/ PMC's representative deputed for carrying out inspection/testing. The Contractors Representative Shall also be part of the inspection team.
3. Tests on site of completed works shall demonstrate the following:
 - a. That the items installed complies with specification in all respect and is of the correct rating for the duty and site conditions
 - b. That all items operate efficiently and quietly to meet the specified requirements.
 - c. That all circuits are fully protected and that protective devices are properly coordinated.
 - d. That all non-current carrying metal parts are properly and safely grounded in accordance with the specification and appropriate Codes of Practice.
4. The Contractor shall provide all necessary instruments and labour for testing, shall make adequate records of test procedures and readings, shall repeat any tests requested by the PMC/Employer and shall provide test certificate signed by an authorised person. Such test shall be conducted on all materials and equipment and tests on completed work as called for by the PMC/Employer at Contractor's expenses unless otherwise called for.
5. If it is proved that the installation or part thereof is not satisfactorily carried out then the Contractor shall be liable for the rectification of the same. PMC/Employer's decision as to what constitutes a satisfactory installation shall be final.

86. FACILITIES FOR EMPLOYER AND PMC

The Contractor shall provide and maintain the following facilities for the Employer/PMC and their representatives as per the requirement given below for the entire duration of project. The Contractor shall provide all the listed facilities compliant with standards of an operational office premises.

General Instructions:

- i All debris to be carted out from the site premises (to non-objectionable places/Government notified area)
- ii The office premises shall be identified in such a way that the set-up is not disturbed till the completion of all activities and handover of project site.
- iii The temporary buildings and other facilities shall be maintained in a clean and orderly condition by providing suitable housekeeping workers and consumables.
- iv The Contractor's proposals for the design and location of the site offices and temporary buildings shall be submitted within one week of the award of the contract and erected within four weeks from the date of commencement of works at site.
- v Site office shall be furnished and made fully operational, including uninterrupted Power supply with UPS back up, internal and external lighting with fixtures, water supply, sanitation facilities, computers etc.,
- vi The Contractor shall allow for the altering, shifting and adapting of the temporary buildings from time to time as required by the PMC/Project Officer, at no extra cost for shifting or alteration. The Contractor shall comply fully with the requirements of the Employer with regard to temporary building, as necessary.
- vii Suitable first-aid equipment is to be kept at the site and the Contractor is to arrange for all necessary medical aids.
- viii These buildings shall be dismantled and removed, and the site shall be made good within two (2) weeks of receipt of an order from the PMC/Project officer for the removal of the said buildings. The project office and all other temporary facilities shall be made at elevated level of at least 900mm from existing ground level.
- ix All works must be carried out inclusive of supply / installation / loading / unloading / necessary site preparation etc.,
- x The Contractor shall construct the project office of around 1200 sq.ft for Employer and PMC. The contractor shall operate and maintain the same with related facilities till the Completion of the Project in all respects and settlement of all bills. All costs towards installation and operation including consumables, spares,

salaries for office boys /pantry attendants and any other expenses shall be deemed to have been included in the quoted rates for the project. All items/manpower provided shall be subject to approval of the Employer/PMC.

- xi Site office shall be completed including furnishing and making it fully operational, including uninterrupted Power supply with UPS back up, internal and external lighting with fixtures, water supply, sanitation facilities, computers Network facilities, internet connections etc., within 4 weeks from the date of commencement of works at site.
- xii The facilities such as furnitures, storage cabinets, display boards, work stations, meeting halls, projectors, internet connectivity etc as required and Refreshment arrangements, Housekeeping arrangements, safety equipment, Helpers shall be provided by Contractor for offices of PMC and Employer in the respective areas as indicated. The details are indicative and may vary marginally depending on requirements.
- xiii The bidder shall visit the site to assess the site conditions, services requirements, access to the location etc., and include in the quoted price appropriately.
- xiv The Contractor shall include the cost of building, the stated facilities, replenishing the consumables and maintaining the same in the price bid submitted and not cost for it separately.
- xv In case of default alternate premises shall be hired and all expenses including additional transport expenses, telephones etc. shall be deducted from the Contractor's dues.

87. PROGRAM OF WORKS

1. Detailed Program to be furnished

Within 7 Days of receipt of Work Order or Letter of Award the Contractor shall prepare, submit and get it signed off from PMC/Project Officer a detailed program of Works using Industry Standard Scheduling Software like MS Project or Primavera showing all activities & the order of procedure in which he proposes to carry out the Works. As per the detailed drawings and schedule of quantities; the Contractor shall work out concurrent activities with start and finish times, integrating of all tasks with interface and milestone event drawn and to evaluate for reduction in total project duration through improved over lapping of tasks and activities where feasible. The Contractor shall plan for improved planning and scheduling of activities and forecasting of resource requirements, ability to use the Computer effectively to produce timely valid information for Project Management purpose. Accordingly, PERT; CPM Networking shall be drawn. GANT charts shall also be furnished. The Contractor shall be required to submit the bar chart for the various activities involved in this work including dependencies etc., and regularly monitor the progress of execution accordingly.

2. Program to be modified

If at any time it should appear to the PMC that the actual progress of the Works does not conform to the Approved program referred to in sub-clause (1) of this Clause, the Contractor shall produce a revised & detailed program showing the modifications to the original program necessary to ensure the completion of the Works within the time for completion.

3. Cash Flow

The detailed program shall also show the estimated cash flow required for each Month to complete the Works.

4. Progress Report / Photograph

Four copies of Weekly progress reports containing the following shall be submitted by the Contractor to the Employer through the PMC on or before the 2nd Day of the next Week.

- (i) Weekly detailed progress report showing the progress of individual activities of program as achieved at his office/workshop/Site till such period and being suitably marked on the Approved program, or as directed by the PMC, shall be provided by the Contractor indicating the actual state of progress during the course of the Contract, together with other details of procurement & delivery schedules of Materials / equipment, as required by the PMC.
- (ii) Labour report during installation in the form prescribed by the PMC
- (iii) Equipment & machinery report in the form prescribed by the PMC.
- (iv) Supervisory staff reports in the form prescribed by the PMC.
- (v) Report should contain at least five progressive photographs to be taken from different corners of the Site. The Contractor shall at his own expense supply to the Employer photographs in duplicate copies not less than 25 cm x 20 cm. (10" x 8") along with soft copy, of the works taken from all the portions of the building at intervals of not more than one week during the progress of the work, or at every important stage of construction, as directed by the PMC/Employer.

88. ADDITIONAL CONDITIONS OF CONTRACT

- 1. The works should be carried out strictly in accordance with the relevant BIS / MORTH / TNBP / TWAD / CEIG / TNEB Rules / Standard / Specifications, and also as per the conditions of contract.
- 2. The materials used for this work is inclusive of all taxes and duties. If any exemption is claimed at a later date, the amount so claimed should be passed on to the Employer.

3. The tender conditions should also be returned along with the tender duly signed by the tenderer in all pages.
4. Project Completion period is 100% completion including completion of snag works and handing over of the entire works as certified by the PMC/EMPLOYER.
5. If required before the payment of final bill, the contractor shall also produce a certificate from the income tax authority that all the income tax payable by him up to date had been paid.
6. The contractor engaging the labourers for the work is wholly responsible for any accidents or death occurring to the labour while carrying out the work awarded by the Employer and the Employer shall not be held responsible for such occurrence and also for payment of compensation to labourers.
7. **Risk Insurance:** The work under the contract shall be maintained at the contractor's risk until the work is taken over by the P.O. The contractor shall accordingly arrange his own insurance against all natural calamities, fire and other acts of GOD during such period and the Employer shall not be liable for any loss or damage.
8. **Safety code:** The safety measures and all amenities for the labourers shall be made by the contractors at their cost as indicated in the relevant safety codes of practice.
9. CONTRACTOR to proceed for procurement with preferred make, only upon approval from Project Officer/PMC. Without written consent from Project Officer/PMC, no procurement should be affected even if it is from list of approved makes.
10. No applicable idling charges for Men, Machinery, unbilled work of contractor, unutilized raw materials, unfinished construction works etc., on account of site closure due to possible lockdown during pandemic times, as advised by State Government. No compensation in any form, except provision of additional timelines without any cost escalation is applicable for those lockdown days. A record will be maintained for such lockdown notification issued by Government, applicable for the site location.

89. GOVERNMENT REGULATIONS

The CONTRACTOR shall comply with and ensure strict compliance by his subcontractors, servants and agents of all applicable Central, State, municipal and local laws and regulations of any Central, state or local bodies and authorities and undertakes to indemnify the EMPLOYER from and against all levies, damages, penalties and payments whatsoever as may be imposed by reason of any breach or violation of law, rule or regulation whatsoever and all actions, claims and demands arising therefrom and/or relative thereto.

CONTRACTOR shall be responsible and shall comply with the provision of all the

Statutory Acts Applicable. Special attention of the CONTRACTOR is drawn towards the compliance of provision of the following statutes: (along with the latest amendments/additions, as applicable):

- a) The Child Labour (Prohibition and Regulation) ACT, 1986.
- b) The Contract Labour (Regulation and Abolition) ACT, 1970
- c) The Employee's Pension Scheme, 1995.
- d) The Employee's Provident Funds and miscellaneous provisions Act, 1952
- e) The Employees State Insurance Act, 1948 or enactment relating thereto and rules framed there under from time to time.
- f) The Equal Remuneration Act, 1976.
- g) The Industrial Disputes Act, 1947.
- h) The Maternity Benefit Act, 1961.
- i) The Minimum Wages Act, 1948.
- j) The Payment of Bonus Act, 1965
- k) The Payment of Gratuity Act, 1972.
- l) The Payment of Wages Act, 1936.
- m) The Workmen's Compensation Act, 1923
- n) The EMPLOYER 's Liability Act, 1938.
- o) Apprentices Act 1961
- p) Industrial Employment (standing order) Act, 1946 (Amended)
- q) Indian Factories Act 1948
- r) Personal Injuries (Compensation Insurance) Act, 1963 and any modifications thereof

90. GUARANTEES / WARRANTIES

a) Wherever in this specification guarantees / warranties are called for the Tenderer shall obtain a written guarantee addressed to the Employer from the firm supplying the materials or doing the work or both, and shall deliver this to PMC / Employer or its Representative.

The guarantees shall be valid for at least the period specified measured from the date of Completion of the works (and not unless they coincide, the date of completion of the works relevant subcontract) and any defect which shall arise during this period shall be made good and any expense or other work entailed by either defects or making good old defects shall be borne by the guarantor. Guarantees will not be enforced by the PMC / Employer or its Representative during the Defects Liability Period during which time the relevant provisions of the Conditions of Contract shall apply.

b) Besides guarantees required elsewhere, the Tenderer shall guarantee the work in general for two year as noted under the Conditions DLP.

All required guarantees shall be submitted to PMC / Employer or its Representative by the Tenderer when requesting certification of accounts for payment by the Employer.

SECTION - V
CONTRACT DATA

SECTION - V

CONTRACT DATA

Sl. No.	Details	Reference Clause	Data
1	Earnest Money Deposit	Clause 6, Section-II of Technical Bid	6,36,600 /-
2.	Period of completion	Clause 30, Conditions of Contract, Section-IV, Price Bid	The period of completion of the project shall be 9 Months (Nine Months) from the signing of the Agreement. The completion period is inclusive of the monsoon period also.
3.	Date of commencement of the work	Clause 30, Conditions of Contract, Section-IV, Price Bid	The date of commencement will be reckoned from the signing of the Agreement.
4.	Letter of Acceptance (LOA) by Contractor	Clause 7A, Conditions of Contract, Section-IV, Price Bid	7 days from the date issue of Work Order or Letter of Award
5.	Contract Agreement	Clause 7B, Conditions of Contract, Section-IV, Price Bid	7 days from date of Letter of Acceptance
6.	Master Construction Program	Clause 10, Section-II, Price Bid	Contractor shall submit the Master Construction Program and get it signed off from PMC/Project Officer within 7 days from receipt of Work Order or Letter of Award
7.	Liquidated damages	Clause 31 of Conditions of Contract, Section-IV, Price Bid	Liquidated damages to be levied on non-achievement of milestones (mentioned in Clause 10-Construction Program, Section-II, Cover II), which is 0.03% (Zero decimal Zero three percent) of the contract sum per day of delay subject to a maximum of 10% of the contract value (inclusive of GST). The period of delay shall be as opined by the

Sl. No.	Details	Reference Clause	Data
			PMC/Project Officer which is final and binding on the contractor.
8	Defects Liability Period	Clause 24, Conditions of Contract, Section-IV, Price Bid	24 months period after 100% completion including completion of snag works and handing over of the entire works as certified by the PMC/EMPLOYER.
9	Performance Security Deposit	Clause 7, Section-II of Technical Bid	An amount equivalent to 3% (Three Percent) of the contract value
10	Additional Performance Security Deposit	Clause 7A, Section-II of Technical Bid	i. <u>5% to 15 % less Tender:</u> 2% of Department value put to tender ii. <u>More than 15% less Tenders:</u> 50% of difference between quoted amount and Department value
11	Retention Money	Clause-8, Section-II of Technical Bid	a) In addition to the Performance Security Deposits, TIDCO shall deduct from the Running Account Bills equivalent to 5% (Five Percent) of the total value of each bill as retention money. b) 50% of retention money deposit (with GST) amount recovered from the bills would be paid to the contractor along with final bill. c) Balance 50% of Retention Money deposit (with GST) will be released after expiry of two year from the date of completion of work. d) The retention money deducted in cash from the running account bills will not bear any interest.
12	Running Bills	-	<ul style="list-style-type: none"> Contractor shall submit monthly measurement sheets ("Measurement Sheet") for certification by PMC, not later than the 15th of every month for works completed in the preceding calendar month. The first Measurement Sheet shall be submitted not before 30 days from WO/LOA date. Contractor shall submit invoice with certified measurement

Sl. No.	Details	Reference Clause	Data
			<p>sheets, abstract and statutory compliance statement before 15th of every month for the works completed in the preceding month.</p> <ul style="list-style-type: none"> No part payment on BOQ items (or) material advance will be entertained while certifying the RA Bills or Measurement Sheets.
13	Withheld Amount	-	<p>Any shortfall/ backlog of progress from MCP shall be quantified by PMC, on a quarterly basis. In case of any shortfall / backlog, the Employer shall retain 10% of the budgeted cost of unfinished portion from the immediately next payment being released to the Contractor either by the Employer or by the Designated Bank. This amount shall be eligible for release upon completion of backlog works.</p>
14	Frequency of Billing	-	<ul style="list-style-type: none"> Based on Milestone completion. No Adhoc release of RA Bills will be entertained.
15	Certification of Running and Final Bill	-	<ul style="list-style-type: none"> The PMC shall certify the Measurement Sheets / RA Bills within 15 working days from the date of submission along with all supporting documentation and reconciliation statements. Final bill shall be certified by the PMC within 45 working days of the receipt of bill along with all supporting documentation and reconciliation statements.
16	Period for payment of Running Bill	-	<p>Payments shall be made by the EMPLOYER within 30 working days from the date of submission of RA Bill by contractor (provided all supporting documents are submitted in prescribed format correctly without errors and missing details)</p>
17	Period of raising Final bill	-	<p>Within 4 weeks from the receipt of Final completion certificate issued by EMPLOYER / PMC along with handing over documents duly approved by the PMC / EMPLOYER.</p>
18	Period for payment of Final Bill	-	<p>Payments shall be made by the EMPLOYER within 45 working days from the date of submission of final</p>

Sl. No.	Details	Reference Clause	Data
			Bill by contractor (provided all supporting documents are submitted in prescribed format correctly without errors and missing details)
19	Supporting Documents	-	Measurement Sheets / Bills will be accepted / received by PMC/ EMPLOYER only if they are in the prescribed format as advised by the PMC/ EMPLOYER, along with requisite material invoices/ delivery challans, certified measurement sheets etc.
20	Tax Deduction at Source	-	As per prevailing statutory norms.
21	GST	-	As per prevailing statutory norms.
22	Income Tax Deductions	-	As per prevailing statutory norms.

23. Payment Terms

PRICE BREAK UP FOR CONSTRUCTION OF STP(SUMMARY)		
Sr.No.	Particulars	Total Amount
		(In % of total value)
1	Approval of Drawings and Documentation	5%
2	Civil Works and Related works	30%
3	Mechanical Works	30%
4	Electrical & Instrumentation Works	25%
5	After Commissioning and Trail Run	10%
	Total Cost (Including Taxes and Exclusive of O & M)	100%
MILESTONE PAYMENT TERM BREAKUP FOR CONSTRUCTION OF STP		
Sr. No.	Items	Release of Payments
I	Approval of Drawings and Documentation	5% of the Total Contract Value
1	Approval of Basic & Detailed Engineering Design & Drawings (4MLD)	80%
2	Operation and Maintenance Manuals, As-built Drawings etc.	20%
	Total	100%
II	Civil Works and Related works	30% of the Total Contract Value
A	Preliminary & Primary Treatment Units: Pumping Station, coarse screen chamber, Fine Screen, O&G trap chamber, Equivalisation Tank, etc. (10% of the Total Contract Value payable on pro rata basis as decided by Employer / PMC)	
1	Pumping Station and coarse Screen Chamber, including waterproofing, related civil works, etc.	20%
2	Equivalisation Tank-1 including tank and O&G trap chamber-1, including waterproofing, related civil works, etc.	40%
3	Equivalisation Tank-2 including O&G trap chamber-2, including waterproofing, related civil works, etc.	40%
	Total of A	100%
B	Biological Treatment Units: Anoxic tank, Aeration tank, MBR tank, etc (10% of the Total Contract Value payable on pro rata basis as decided by Employer / PMC)	

B1	For 500+500KLD	
1	Anoxic tank-1, Aeration tank-1, MBR tank-1 and related civil works, etc.	35%
2	Platform, Handrails, Shed for tank and other Miscellaneous works	15%
B2	For 1000 and 2000KLD	
1	Anoxic Tank-2, Aeration Tank-2, MBR tank-2 and related civil works, etc.	35%
2	Platform, Handrails, Shed for tank and other Miscellaneous works	15%
	Total of B	100%
C	All Buildings as per Layout: MBR Permeate Tank, Irrigation Tank, RO Permeate Tank, Blower room, MCC room, RO Shed, Storeroom, operator room, Centrifuge Shed, Sludge Holding Tank. (10% of the Total Contract Value payable on pro rata basis as decided by Employer / PMC)	
1	MBR Permeate Tank-1, Irrigation Tank-1, RO Permeate Tank, RO Shed-1 and related civil works, etc.	30%
2	Blower room, MCC room and related civil works, etc.	10%
3	Operator Room, Storeroom and related civil works, etc.	10%
4	Centrifuge Shed-1, Sludge Holding Tank-1 and related civil works, etc.	10%
5	MBR Permeate Tank-2, Irrigation Tank-2, RO Permeate Tank-2, RO Shed-2 and related civil works, etc.	30%
6	Centrifuge Shed-2, Sludge Holding Tank-2 and related civil works, etc.	10%
	Total of C	100%
	Total Civil Works (A+B+C)	100%
III	Mechanical Works	30% of the Total Contract Value
A1	For First 500 KLD (15% of the Total Contract Value)	
1	Supply of Machinery/Equipment, accessories, piping works, etc.	65%
2	Erection of Machinery/Equipment, accessories, piping works, etc.	20%
3	Testing & Commissioning of Equipment / Plant	15%

	Total Mechanical Works- A1	100%
A2	For Second 500 KLD (15 % of the Total Contract Value)	
1	Supply of Machinery/Equipment, accessories, piping works, etc.	65%
2	Erection of Machinery/Equipment, accessories, piping works, etc.	20%
3	Testing & Commissioning of Equipment / Plant	15%
	Total Mechanical Works A2	100%
	Total Mechanical Works (A1+A2)	100%
4	Electrical and Instrumentation Works	25% of the Total Contract Value
A1	For First 500 KLD (12.5 % of the Total Contract Value)	
1	Supply of Electrical & Instrumentation equipment & accessories/items like cables, earthing materials, Power Transformer, HT Substation & allied works, Switch gear including. PCC, MCC, Lighting protection, Instrumentation, PLC/SCADA system etc.	65%
2	Erection of Electrical & Instrumentation, accessories/items, etc.	20%
3	Testing & Commissioning of Equipment / Plant	15%
	Total Electrical and Instrumentation Works A1	100%
A2	For Second 500 KLD (12.5 % of the Total Contract Value)	
1	Supply of Electrical & Instrumentation equipment & accessories/items like cables, earthing materials, Power Transformer, HT Substation & allied works, Switch gear incldng. PCC, MCC, Lighting protection, Instrumentation, PLC/SCADA system etc.	65%
2	Erection of Electrical & Instrumentation, accessories/items, etc.	20%
3	Testing & Commissioning of Equipment / Plant	15%
	Total Electrical and Instrumentation Works A2	100%
	Total of Electrical & Instrumentation works (A1 + A2)	100%
5	After Commissioning and Trial Run	10% of the Total Contract Value

Sr. No.	Items	Release of Payments
1	Operation and Maintenance work for STP during 2 years of defect liability period for 1000 KLD STP Plant	
	Every month in equal instalment based on Contract value of O & M	