

**Design, Construction, Testing, Commissioning and
Operation & Maintenance of Infrastructure Works at
Puduserry Central & Kannambra of Palakkad Node in
Kerala under extension of Chennai Bengaluru Industrial
Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"**

The Kerala Industrial Corridor Development Corporation Limited

Volume I: RFQ cum RFP

TKI/IMC/EPC/01/2025-2026

May 2025



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Notice Inviting RFQ cum RFP

Ref. No. TKI/IMC/EPC/01/2025-2026

Dated: 13th May 2025

Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works for Roads including cross drainage structures, bridges, , potable water supply network including Firefighting System and Clear Water Transmission main and Pumping station, Recycle water supply network, storm water drainage, Residential Sewage network, Industrial Effluent collection network, Power, Sewage/effluent Pumping Stations and Rising Main, Sewerage Treatment Plant and Common Effluent Treatment Plant at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "through Engineering, Procurement & Construction ("EPC").

A Special purpose vehicle viz "The Kerala Industrial Corridor Development Corporation Limited" is formed with the equity participation of Central and State Governments for procurement and construction of trunk Infrastructure in Palakkad Industrial Area in Kerala.

The Kerala Industrial Corridor Development Corporation Limited (KICDC) represented by Managing Director now invites BIDs from eligible Contractors for Development of Palakkad Node under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore, as follows

State	Location	Name of Work	Time period	Defect Liability/ Maintenance period	Estimated Cost (Excluding O&M & GST)
Kerala	Pudukkottai Central & Kannambra of Palakkad Node under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore	Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node under extension of Chennai Bengaluru Industrial Corridor (CBIC) "On EPC Basis" <ul style="list-style-type: none"> Roads, Utilities and Area Landscaping <ul style="list-style-type: none"> Roads including cross drainage structures, bridges, and area landscaping Potable water supply network including Firefighting System Recycle Water Supply network Storm water drainage network Residential Sewerage Network 	42 Months	4 years from the date of issue of completion certificate for construction works	Rs. 1100.00 Cr.

State	Location	Name of Work	Time period	Defect Liability/ Maintenance period	Estimated Cost (Excluding O&M & GST)
		<ul style="list-style-type: none"> – Industrial Effluent collection network – Power distribution network – Sewage/ Effluent Pumping Stations and Rising Main • Sewage Treatment Plant (STP) • Common Effluent Treatment Plant (CETP) 			

Instructions to Bidder for e-Tendering

Guidelines for e-procurement

Prospective bidders willing to participate in this tender shall necessarily register themselves with e-procurement portal (www.etenders.kerala.gov.in). The tender timeline is available in the critical date section of this tender published in www.etenders.kerala.gov.in. For more details visit the web site www.kinfra.org.

A) Online Bidder registration process:

Bidders should have a Class II or above Digital Signature Certificate (DSC) to be procured from any Registration Authorities (RA) under the Certifying Agency of India. Details of RAs will be available on www.cca.gov.in. Once, the DSC is obtained, bidders have to register on www.etenders.kerala.gov.in website for participating in this tender. Website registration is a one-time process without any registration fees. However, bidders have to procure DSC at their own cost.

Bidders may contact e-Procurement support desk of Kerala State IT Mission over telephone at 0471- 2577088, 2577188, 2577388 or 0484 – 2336006, 2332262 - through email: etendershelp@kerala.gov.in for assistance in this regard.

B) Online Tender Process:

The tender process shall consist of the following stages:

- i. Downloading of tender document: Tender document will be available for free download on www.etenders.kerala.gov.in. However, non-refundable tender document fees shall be payable at the time of bid submission as stipulated in this tender document.
- ii. Pre-bid meeting: As per NIT
- iii. Publishing of Corrigendum: All corrigenda shall be published on www.etenders.kerala.gov.in and shall not be available elsewhere.
- iv. Bid submission: Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document on www.etenders.kerala.gov.in.
- v. Opening of Technical Bid and Financial Bid: The technical bid will be opened at same time mentioned in Information & instruction to the bidders.
- vi. Time of opening of financial bids of pre-qualified bidders will be intimate later.

C) Tender Document Fees (non-refundable) and Bid Security/Earnest Money Deposit (EMD)

The Bidder shall pay, a tender document fees (non-refundable) and Earnest Money Deposit. The Bid security is required to protect the purchaser against risk of Bidder's conduct, which would warrant the forfeiture of security.

Online Payment modes:

All online payments specified in the tender document shall be made through Multi Option Payment System (MOPS) as per the requirement.

Steps for making tender payments in e-tender system via SBI MOPS gateway

(SBI AND NON SBI ACCOUNT HOLDERS)

Step 1	:	Click "Pay Online" when you reach the payment page while Online Bid Submission
Step 2	:	Click "Confirm to Pay" to proceed with the payment gateway.
Step 3	:	Verify that the Tender fee and Bid Security shown are correct, as per tender document. Then, select the payment option SBI MOPS and Submit. Note: In case of any mismatch in tender payments, with reference to tender documents, please contact TIA for clarifications.
Step 4	:	Check and Follow the Terms and Conditions, and then Submit.
Step 5	:	Bidders may choose their respective bank for accessing Internet Banking Facility

a) SBI

- i. Bidders with SBI account may click SBI option to proceed to its Net Banking Page.
- ii. Bidders may enter SBI Net banking user ID and Password and Click on Login to proceed.
- iii. Please ensure that your account has sufficient balance, before proceeding further. After checking the same, Click Confirm button, to transfer payment. After account debit, MOPS gateway will automatically re-direct to the e-Procurement System, with the Success transaction.
- iv. You will receive bank response immediately by verifying the payment status, whether Success or not. In case, payment was debited from account and further, Payment Failure is shown, immediately contact the e-Procurement helpdesk, for resolution, before tender closing time. Click Next to go to Bid Preparation details.
- v. Please ensure that the Pay Online option is not shown after successful payment, for confirmation. From here, you may proceed with Encrypt and Upload to upload tender documents, and further submission process.

b) OTHER BANKS :

- i. Bidders with other bank account may click Other Banks option to proceed to SBI Net Banking Page. You may select the appropriate Bank from selection page. As an example, we are proceeding with ICICI Bank in the provided dropdown box of All Banks.
- ii. After selecting ICICI Retail Banking, Click Make Payment Button to proceed to its internet banking page. Further steps may depend on the Bank Procedure.
- iii. After, successful payment, system will direct you to payment confirmation page.
- iv. You will receive bank response immediately by verifying the payment status, whether Success or not. In case, payment was debited from account and further, Payment Failure is shown, immediately contact the e-Procurement helpdesk, for resolution, before tender closing time. Click Next to go to Bid Preparation details.
- v. Please ensure that the Pay Online option is not shown after successful payment, for confirmation. From here, you may proceed with Encrypt and Upload to upload tender documents, and further submission process.

D) SUBMISSION PROCESS:

For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their Technical bid and Financial bid online on www.etenders.kerala.gov.in along with online payment of tender document fees and Bid Security.

For page by page instructions on bid submission process, please visit www.etenders.kerala.gov.in and click "Bidders Manual Kit" link on the home page.

It is necessary to click on "Freeze bid" link/ icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/ opening during bid opening process.

Accessing/Purchasing of BID documents

- i. It is mandatory for all the Bidders to have class-III Digital Signature Certificate (DSC) (with both DSC components, i.e. signing and encryption in the name of authorized signatory who will sign the BID) from any of the licensed Certifying Agency (Bidders can see the list of licensed CAs from the link www.etenders.kerala.gov.in) to participate in e-tendering of the Employer (Managing Director, The Kerala Industrial Corridor Development Corporation).
- ii. DSC should be in the name of the authorized signatory as authorized in Appendix II or Appendix III of the submitted BID. It should be in corporate capacity (that is in Bidder capacity / in case of JV in the Lead Member capacity, as applicable). Please ensure that the submission of document certifies the class III of the DSC.
- iii. The Tender will be published through Govt. of Kerala e-procurement Portal. Bidders must register with e-portal of Kerala to participate in the tender.
- iv. The following points may kindly be noted:
 - a) Registration should be valid at least up to the date of submission of BID.
 - b) BIDs can be submitted only with valid registration.
 - c) The amendments / clarifications to the BID document, if any, will be hosted on the Employer's website. www.etenders.kerala.gov.in
 - d) If the firm / Joint Venture is already registered with e-tendering portal of Employer and validity of registration has not expired the firm / Joint Venture is not required to apply for a fresh registration.
- v. The complete BID document can be viewed / downloaded from above e-tender portal or from "KINFRA / NICDC website", from the date & time mentioned in the "Schedule of Bidding Process" section under **Clause 1.3**.
- vi. Bid Security: Rs. 28.00 Crores
- vii. Bid Security: The bidder shall furnish the Bid Security as below
- viii. The bidder may pay full Bid Security amount of Rs. 28.00Cr through the e-Procurement portal in the Government of Kerala using any of the following payment modes:
 - Credit Card
 - Direct Debit
 - National Electronic Fund Transfer (NEFT)

OR to be furnished only in the form of Bank Guarantee (B.G) of any Nationalized Bank/Scheduled Bank payable to the "Managing Director, KERALA INDUSTRIAL CORRIDOR DEVELOPMENT CORPORATION LTD, payable at Kerala" or in the form of Insurance surety bond (issued by an Insurance Company authorized by the Insurance Regulatory and Development Authority of India). The Bid Security shall have to be valid for 60 days beyond the validity of the tender. The scanned copy of the Bid Security should be uploaded to the tender in the e-procurement platform. The Original Bid Security should compulsorily be produce & submitted for verification after the last date of bid submission & on or before 5.00 pm on 14/07/2025 as specified in e-portal to the Financial Advisor.
- ix. The bidder shall also pay Rs. 1.3 Lakhs only towards non-refundable tender processing fee of documents through the e-Procurement portal in the Government of Kerala
- x. No Bid Security amount shall be deposited/paid to any account by the bidder.

Preparation & Submission of BIDs:

The Bidder may submit his BID online following the instruction appearing on the screen. A buyer manual containing the detailed guidelines for e-procurement is available on e-procurement portal.

- i. The documents listed at **Clause 2.13** shall be prepared and scanned in different files (in PDF or JPEG format such

that file size is not more than 10 MB) and uploaded during the on-line submission of BID.

- ii. BID must be submitted online only through e-procurement portal of the Employer, using the digital signature of authorized representative of the Bidder as per schedule given in **Clause 1.3 (“Schedule of Bidding Process”)**.

Modification / Substitution / Withdrawal of BIDs:

- i. The Bidder may modify, substitute or withdraw its e- BID after submission prior to the BID Due Date. No BID shall be modified, substituted or withdrawn by the Bidder on or after the BID Due Date & Time.
- ii. Any alteration / modification in the BID or additional information supplied subsequent to the BID Due Date, unless the same has been expressly sought for by the Employer shall be disregarded.
- iii. For modification of e-BID, Bidder has to detach its old BID from e-tendering portal and upload / resubmit digitally signed modified BID.
- iv. For withdrawal of the BID, the Bidder has to click on withdrawal icon at e-tendering portal and can withdraw its e-BID.
- v. Before withdrawal of a BID, it may be specifically noted that after withdrawal of a BID for any reason, Bidder cannot re-submit the e-BID.

Opening & Evaluation of BIDs.

- i. Opening and Evaluation of BIDs will be done through online process.
- ii. The Employer shall open on-line received Technical BIDs as per **Clause 1.3** in the presence of the Bidders, who choose to attend. Technical BID of those Bidders only shall be opened, online whose documents listed at **Clause 2.13.2** of the RFQ cum RFP have been physically received. The Employer will subsequently examine and evaluate the BIDs in accordance with the provisions of Section 3 of RFQ cum RFP.
- iii. Prior to evaluation of the BIDs, the Employer shall determine whether each BID is responsive as per clause **2.19** of this Instruction to Bidders as per e-tendering process.
- iv. The online payment facility for the submission of registration Fee and non-refundable Tender Processing Fee, which is payable to e-tender service provider, has been enabled on e - Tender Portal www.etenders.kerala.gov.in. The Bidders can pay the Registration Charges as applicable and non-refundable Tender Processing Fees on-line.

Disclaimer

This Tender is not an Agreement and is neither an offer nor invitation by the Employer to the prospective Bidders or any other person. The information contained in this tender document or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Employer or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this tender and such other terms and conditions subject to which such information is provided.

The purpose of this tender is to provide interested parties with information that may be useful to them in making their financial offers (BIDs) pursuant to this tender. This tender includes statements, which reflect various assumptions and assessments arrived at by The Employer in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This tender may not be appropriate for all persons, and it is not possible for the Employer, its employees or advisors to consider the objectives, financial situation and particular needs of each party who reads or uses this tender. The assumptions, assessments, statements and information contained in the Bidding Documents, especially the Preliminary Design details/ information/investigations, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this tender and obtain independent advice from appropriate sources.

Information provided in this tender to the Bidder is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Employer accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Employer, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this tender or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the tender and any assessment, assumption, statement or information contained therein or deemed to form part of this tender or arising in any way for participation in this Bidding Process.

The Employer also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this tender.

The Employer may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this tender. The issue of this tender does not imply that the Employer is bound to select a Bidder or Contractor, as the case may be, for the Project and The Employer reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its BID including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by The Employer or any other costs incurred in connection with or relating to its BID. All such costs and expenses shall remain with the Bidder and The Employer shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the BID, regardless of the conduct or outcome of the Bidding Process.

Nothing in this tender shall constitute the basis of a contract which may be concluded in relation to the Project nor shall such documentation/information be used in construing any such contract. Each Bidder must rely on the terms and conditions contained in any contract, when, and if, finally executed, subject to such limitations and restrictions which may be specified in such contract.

The Bidders are prohibited from any form of collusion or arrangement in an attempt to influence the selection and award process of the Bid. Giving or offering of any gift, bribe or inducement or any attempt to any such act on behalf of the Bidder towards any officer/employee of Employer or to any other person in apposition to influence the decision of the Employer for showing any favor in relation to this tender or any other contract, shall render the Bidder to such liability/penalty as the Employer may deem proper, including but not limited to rejection of the Bid of the Bidder and forfeiture of its Bid Security.

Laws of the Republic of India are applicable to this tender.

Each Bidder's procurement of this tender constitutes its agreement to, and acceptance of, the terms set forth in this Disclaimer. By acceptance of this tender, the recipient agrees that this tender and any information herewith supersedes documents(s) or earlier information, if any, in relation to the subject matter hereto.

Part A: Introduction

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1. Introduction

1.1 Project Background

- 1.1.1 The Government of India has embarked on a transformative journey to revolutionize the country's industrial landscape through the approval of 12 Industrial Smart Nodes under the National Industrial Corridor this ambitious initiative is poised to create a "Grand Necklace" of Industrial Smart Cities, strategically located along the backbone of the Golden Quadrilateral. This development is a cornerstone of the broader vision of "Viksit Bharat" (Developed India), aimed at fostering industrial growth, creating employment opportunities, and enhancing India's role in global value chains. Aligned with the principles of PM Gati Shakti, these nodes will integrate 'plug-n-play' infrastructure and 'walk-to-work' concepts, ensuring planned urbanization and sustainable generating approx. 10 lakh direct and up to 30 lakh indirect jobs.
- 1.1.2 To connect central parts of the country with southern parts and build up strong industrial environments, National Industrial Corridor Development Corporation (NICDC) has undertaken to develop the Kochi Bengaluru Industrial Corridor as an extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore Industrial Corridor is to achieve accelerated development and regional industry agglomeration in the states of Tamil Nadu, Kerala and Andhra Pradesh. The extension of CBIC to Kochi via Coimbatore covers parts of two states, (viz. Tamil Nadu and Kerala) addresses the infrastructure bottlenecks through a holistic approach while benefiting from the inherent strengths and competitiveness of each of the states.

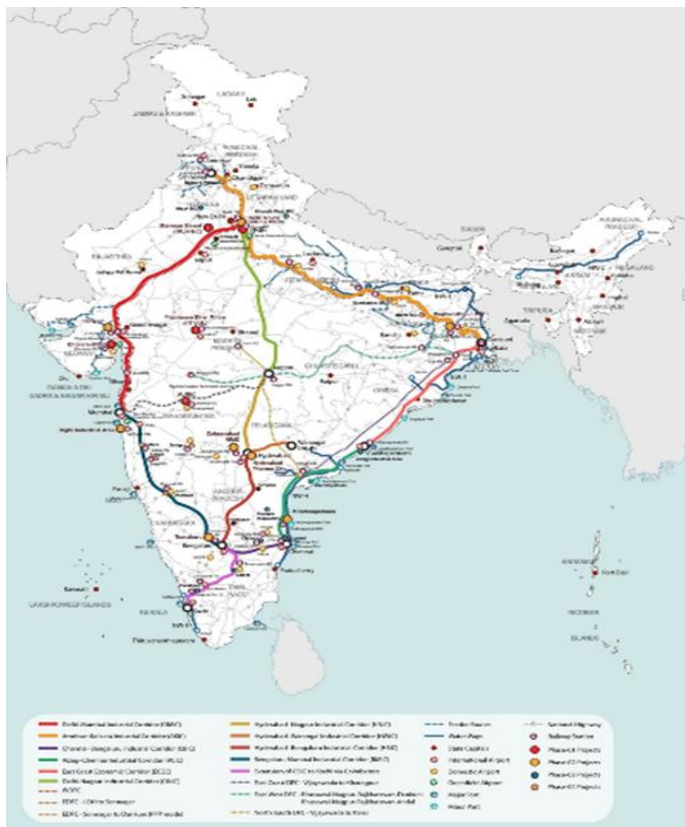


Figure 1.1: Proposed Industrial Corridors

- 1.1.3 Palakkad Node shown in the **Figure 1.2** below is located across three sites in Palakkad District with 1137 acres in Pudukkery Central village, 240 acres in Pudukkery West and 313 acres in Kannambra village. Pudukkery sites lie in Kanjikode industrial area and Kannambra site sits between Palakkad and Thrissur Districts. All sites are along National highway 544 and can be easily accessed.

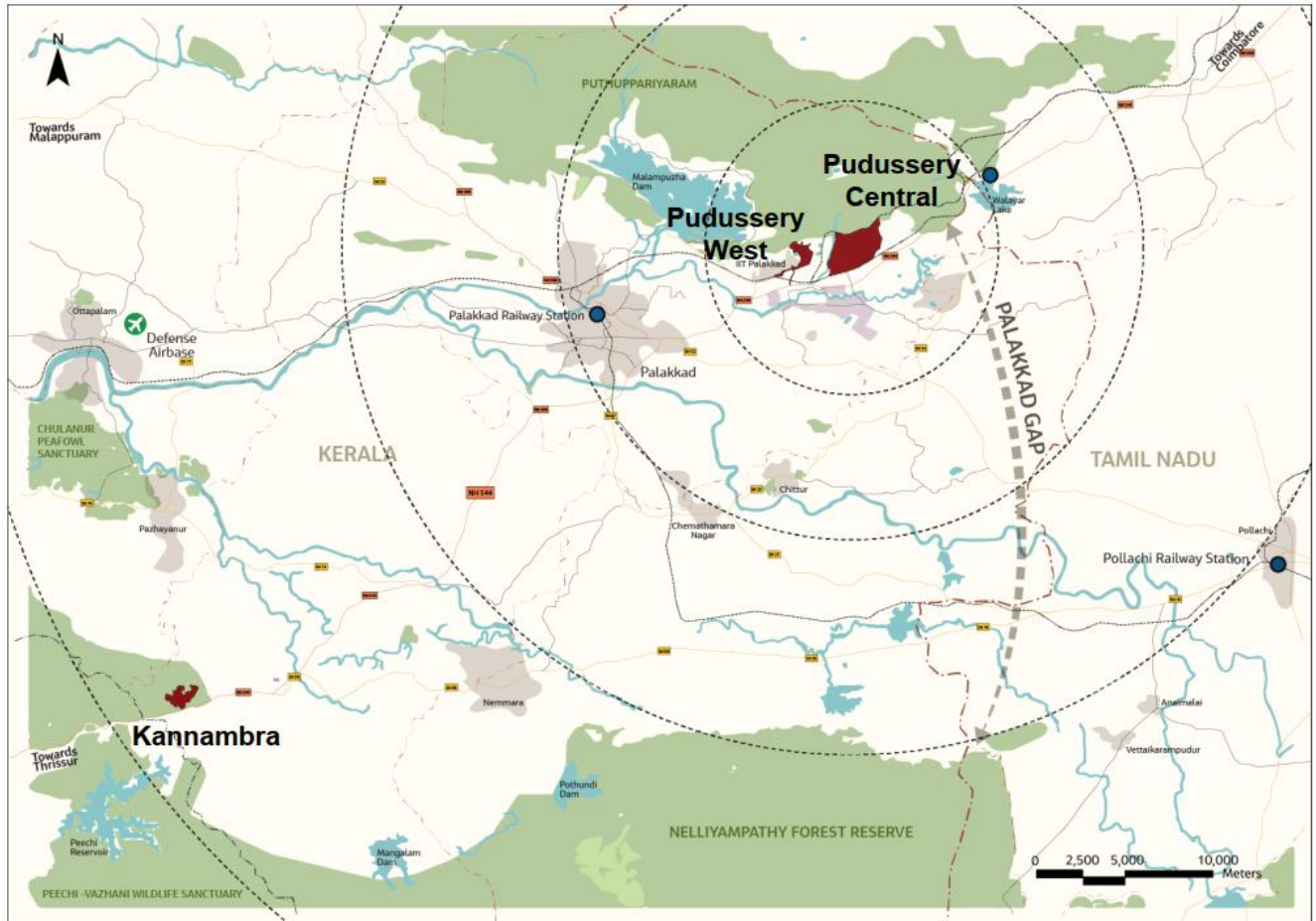


Figure 1.2: KBIC's Palakkad Node

- 1.1.4 Kannambra site has a direct connectivity to NH544. Pudukkery Central will require a greenfield alignment to the site. At present a 30m primary access and 24m secondary access has been proposed. Pudukkery West site includes a 24m ROW which connects the site to NH544. There is also a proposal to connect the Pudukkery Central with Pudukkery West in future for interconnectivity. Pudukkery Central, Pudukkery West & Kannambra are greenfield area which will be planned and engineered into a world class industrial development. However, **this tender is produced for Pudukkery Central & Kannambra land parcels to be developed as first phase of the project.**
- 1.1.5 The project is being implemented through a joint venture Partnership between National Industrial Corridor Development Corporation (NICDC) – an agency appointed by Government of India for planning and implementing the National Industrial Corridor project and the Kerala Industrial Infrastructure Development Corporation (KINFRA). The SPV formed for this “The Kerala Industrial Corridor Development Corporation” is based on 50:50 equity partnership between NICDC and KINFRA, which will undertake the planning and implementation of the Node.

- 1.1.6 As part of this endeavor, the Employer has decided to undertake this work (the "Project") through EPC procurement for Construction, and has decided to carry out the Bidding Process for selection of a Bidder (The "Bidder," which expression shall, unless repugnant to the context, include all members of the Joint Venture) to whom the Project may be awarded.
- 1.1.7 The selected Bidder (the "Contractor") shall be responsible for Designing, Engineering, Procurement and Construction of the Project under and in accordance with the provisions of an Engineering, Procurement and Construction contract (the "EPC Agreement") to be entered into between the Contractor and The Employer in the form provided by The Employer as part of the Bidding Documents pursuant hereto. The Contractor shall also be responsible for the maintenance of the Project during the Defects Liability Period, specified as per the tender document.
- 1.1.8 The scope of work will broadly include survey, investigations, designing, supplying, Construction, testing and commissioning of Infrastructure Works for Roads, Drains, Culverts, Bridges, Water Supply, Sewerage & Power Systems including Water, Sewage and Common Effluent Treatment Plants for Pudukkottai Central & Kannambra of Palakkad on EPC Basis including testing, commissioning. Scope of work also includes operation and maintenance including Defects Liability Period of four years from the date of issue of completion certificate for construction.
- 1.1.9 The assessment of actual costs, however, will have to be made by the Bidders.
- 1.1.10 The Agreement sets forth the detailed terms and conditions for award of the Project to the Contractor, including the scope of the Contractor's work and obligations.
- 1.1.11 The Statements and explanations contained in this tender are intended to provide a better understanding to the Bidders about the subject matter of this RFQ cum RFP and should not be construed or interpreted as limiting in any way or manner the scope of work and obligations of the Contractor set forth in the Agreement or The Employer's rights to amend, alter, change, supplement or clarify the scope of work, the work to be awarded pursuant to this RFQ cum RFP or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents including this RFQ cum RFP are to be noted, interpreted and applied appropriately to give effect to this intent, and no claims on that account shall be entertained by the Employer.
- 1.1.12 The Employer shall receive BIDs pursuant to this RFQ cum RFP in accordance with the terms set forth in this RFP and other documents to be provided by The Employer pursuant to this RFQ cum RFP, as modified, altered, amended and clarified from time to time by the Employer (collectively the "**Bidding Documents**"), and all BIDs shall be prepared and submitted in accordance with such terms on or before the BID Due Date specified in NIT for submission of BIDs (the "**BID Due Date**")

1.2 Brief description of Bidding Process

- 1.2.1 The Employer has adopted a single stage two-part process (collectively referred to as the "**Bidding Process**") for selection of the Bidder for award of the Project. Under this process, the Bid shall be invited under two parts Eligibility and qualification of the Bidder will be first examined based on the details submitted under first part ("**Technical Bid**") with respect to eligibility and qualifications criteria prescribed in this RFQ cum RFP. The second part ("**Financial Bid**") shall be opened only for those Bidders whose Technical BIDs are responsive as per the eligibility and qualifications requirements set forth in this RFQ cum RFP.

Prior to Bidding, the Bidder shall pay to the Employer a sum of **Rs. 1.3 Lakhs only including Applicable**

GST as the cost of non-refundable Tender Fee.

- 1.2.2 Government of India has issued guidelines (**see Appendix-II**) for qualification of Bidders seeking to acquire stakes in any public sector enterprise through the process of disinvestment. The guidelines shall apply mutatis mutandis to this Bidding Process. The Employer shall be entitled to disqualify a Bidder in accordance with the aforesaid guidelines at any stage of the Bidding Process. Bidders must satisfy themselves that they are qualified to BID, and should give an undertaking to this effect in the form at **Appendix-IA**.
- 1.2.3 In the Bid Stage, the aforesaid Technical qualified Bidders, including their successors (the "**Bidders**"), are being called upon to open their Financial Bids in accordance with the terms specified in the Bidding Documents. The Bid shall be valid for a period of not less than 180 days from the Bid Due Date.
- 1.2.4 The Bidding Documents include the Disclaimer set forth hereinabove, the contents as listed below, and will additionally include any Addenda issued in accordance with Clause 2.10
- i) Volume 1: RFQ cum RFP
 - ii) Volume 2: Technical Specifications
 - iii) Volume 3: Tender Indicative Drawings

The Draft Contract Agreement provided by Employer as part of the Bid Document shall be deemed to be part of this Tender.

- 1.2.5 A Bidder is required to deposit, along with its BID, a BID security for **Rs. 28.00 Crore** Only (Rupees Twenty Eight Crore Only/-) (the "**BID Security**"), refundable after signing of contract with successful Bidder or after 180 days from BID Due Date whichever is earlier. In the case of the Selected Bidder whose BID Security shall be retained till the Bidder has provided a Performance Security under the Agreement. The Bidders will have to provide BID Security in the form of a Bank Guarantee issued by any Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore) in India or any other bank acceptable to the Employer, or in form an Insurance surety bond (issued by an Insurance Company authorized by the Insurance Regulatory and Development Authority of India) and in such event, the validity period of the Bank Guarantee/Insurance Surety Bond, shall not be less than 240 (Two hundred and forty) days from the BID Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the Employer and the Bidder from time to time. The BID shall be summarily rejected if it is not accompanied by the BID Security.

Bank Details of Employer "**The Kerala Industrial Corridor Development Corporation Limited**" required for Bid Security Bank Guarantee:

Beneficiary Name – The Kerala Industrial Corridor Development Corporation Limited

Address - Managing Director, The Kerala Industrial Corridor Development Corporation Limited, KINFRA Hi Tech Park HMT Colony P.O. Kalamassery, Ernakulam, Kerala - 683503

DPR of the project shall not be provided & the Bidders are advised to examine the Project in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective BIDs for award of the contract including implementation of the Project.

- 1.2.6 BIDs are invited for the Project on the basis of the lowest quoted price by a Bidder for implementing the Project (the "**BID Price**"). The total time allowed for completion of construction under the Agreement (the "**Construction Period**") and the period during which the Contractor shall be liable for Operation & Maintenance (the "**Maintenance Period**") and rectification of any defect or deficiency in the Project after completion of the Construction Period (the "**Defects Liability Period**") shall be pre-determined, and is as specified in the draft Agreement forming part of the Bidding Documents.
- 1.2.7 In this RFQ cum RFP, the term "**Lowest Bidder**" shall mean the Bidder who is quoting the lowest BID price.
- 1.2.8 Generally, the Lowest Bidder shall be the selected Bidder. The remaining Bidders shall be kept in reserve and may, in accordance with the process specified in the RFQ cum RFP, be invited (in sequence of their due selection) to match the BID submitted by the Lowest Bidder in case such Lowest Bidder withdraws or is not selected for any reason. In the event that none of the other Bidders match the BID of the Lowest Bidder, the Employer may, in its discretion, invite fresh BIDs from the remaining Bidders or annul the Bidding Process, as the case may be.
- 1.2.9 Any queries or request for additional information concerning this RFQ cum RFP shall be submitted in writing or by fax and e-mail to the officer designated in this RFQ cum RFP. The envelopes/ communication shall clearly bear the following identification/Title: "Queries/Request for Additional Information: RFQ cum RFP for "Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore on EPC Basis"

1.3 Schedule of Bidding Process

The Employer shall endeavor to adhere to the following schedule:

S. No.	Event Description	Tentative Date
1	Date of availability of RFQ cum RFP	14-05-2025
2	Site Visit for Bidders	24-05-2025
3	Last date for receiving queries	04-06-2025
3	Pre-BID meeting	05-06-2025
4	The Employer response to queries latest by	13-06-2025
5	BID Due Date (BDD)	14-07-2025
6	Physical submission of BID security/ POA/etc.	14-07-2025
7	Opening of Technical BIDs	16-07-2025
11	Validity of BID	180 Days from BDD
12	Signing of Contract	30 Days from LOA

(*The Employer shall inform the venue and time of online opening of the Financial BIDs to the technically responsive Bidders through e-procurement portal of the Employer.)

1.4 Pre-Bid Conference

The date, time and venue of the Pre-Bid Conference shall be:

Date: 05-06-2025; Time: 10.30 AM.

Venue: Park Center,

KINFRA Mega Food Park,

Elapully, Pudussery

Palakkad , Kerala - 678 557

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Part B: Instruction to Bidders

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2. General

2.1 Brief Scope of Bid

- 2.1.1 The Brief Scope under this Contract shall comprised of ETS Survey, Geo Tech Investigation, Design, approval of detailed Engineering GFC (Good for Construction) drawings and Construction, testing and commissioning and O&M for Roads, Storm water Drains, Culverts, Water Supply, Sewerage & STP/CETP, Utility Ducts for Power, Power system,, Reuse waterline & Avenue Plantation on EPC Basis including Performance based O&M for 4 Years (inclusive of 4 years DLP).
- 2.1.2 For detailed scope Refer Volume II, Section 1.5.
- 2.1.3 The Contractor shall be fully responsible to ensure that the whole of the Works, including each individual component, is designed and constructed in a manner so that the System as a whole operates as a fully integrated system which is capable of achieving the required output in an efficient and economical manner, and to include all plant, equipment and accessories required for the safe and satisfactory operation of the facilities. To achieve this, the Contractor shall ensure that each individual component performs in a manner which is complimentary to that of all other components. Any accessories which are not specifically mentioned in the specifications, but which are usual or necessary for completion of the Works and successful performance of the System and facilities shall be provided by the successful Bidder within the tendered cost. The Contractor shall, to the maximum extent practical and feasible, endeavor to standardize on the manufacture and supply of plant and equipment so as to minimize the operation and maintenance requirements. The Contractor shall ensure that his designs are "maintenance-friendly" and that all items of plant and equipment are designed and installed in a manner which will facilitate routine and periodic maintenance operations.

2.2 Eligibility of Bidders

- 2.2.1 For determining the eligibility of Bidders and their qualification, the following shall apply:
- a) Bidder to note that provisions of Govt. of Kerala Finance (Expenditure – B) Department's Circular No 47 / 2021 / Fin dt Thiruvananthapuram 18/06/2021 – Global tender enquiry and restrictions on public procurement from the bidders of certain countries (enclosed as Appendix XI) will be applicable.
 - b) The Bidder may be a single entity or a group of entities (the "**Joint Venture**"), coming together to implement the Project. However, a Bidder, applying individually or as a member of a Joint Venture, as the case may be, cannot be member of another group of entities. The term Bidder used herein would apply to both a single entity and a Joint Venture.
 - c) A Bidder may be a company incorporated under the Indian Companies Act, 1956 & 2013 or under an existing agreement to form a Joint Venture. A Joint Venture shall be eligible for consideration subject to the conditions set out in **Clause 2.2.6** below
 - d) A Bidder shall not have a conflict of interest (the "**Conflict of Interest**") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:
 - i. the Bidder, its Joint Venture Member (or any constituent thereof) and any other Bidder, its Member or any Member of its Joint Venture thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases

where the direct or indirect shareholding of a Bidder, or its Joint Venture Member thereof (or any shareholder thereof having a shareholding of more than 5% (five percent) of the paid up and subscribed share capital of such Bidder, or its Joint Venture Member, as the case may be), in the other Bidder, its Joint Venture Member is less than 5% (five percent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 4A of the Companies Act 1956 & 2013. For the purposes of this **Clause 2.2.1(d)**, indirect shareholding held through one or more intermediate persons shall be computed as follows:

- a) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and
 - b) subject always to sub-clause (a) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (b) if the Shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or
 - ii. a constituent of such Bidder is also a constituent of another Bidder; or
 - iii. such Bidder, or any of its Joint Venture Member thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, or any of its Joint Venture Member thereof or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any of its Joint Venture Member thereof; or
 - iv. such Bidder has the same legal representative for purposes of this BID as any other Bidder; or
 - v. such Bidder, or any of its Joint Venture Member thereof has a relationship with another Bidder, or any of its Joint Venture Member thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's' information about, or to influence the BID of either or each other; or
 - vi. such Bidder, or any of its Joint Venture Member thereof has participated as a consultant to the Employer in the preparation of any documents, Design or technical specifications of the Project.
- e) A Bidder shall be liable for disqualification if any legal, financial or technical adviser of the Employer in relation to the Project is engaged by the Bidder, or any of its Members, as the case may be, in any manner for matters related to or incidental to the Project. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RFQ cum RFP.
- f) Without prejudice to the satisfaction of the above requirements and any other prerequisites as per the terms of this document by the Bidder, its Joint Venture Member (or any constituent thereof), a Bid may still be disqualified if it has, in the sole and exclusive opinion of the Employer:
- i. made any misleading or false representation or deliberately suppressed the information in the technical schedules/enclosures required to be submitted with /in support/as a clarification with respect to its Bid; and/or
 - ii. has been black-listed/debarred by any government/semi-government department/ public sector company in India or in any other foreign country; and/or
 - iii. has a record of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses; and/or

- iv. engaged in Fraud & Corrupt practices as mentioned under this Tender
 - g) Bidder/ any member of Joint Venture shall not be under suspension from tendering by the Government (“the Government” means Central/State Government in India, or any entity controlled by it, or Government of the country where the Bidder or in case the Bidder is a Joint Venture, member(s) of the Joint Venture, is/are incorporated) as the result of the execution of a Bid–Securing Declaration.
 - h) Any entity which has been barred by the Central/ State Government, or any entity controlled by it, from participating in any Project, and the bar subsists as on the date of BID, would not be eligible to submit a BID, either individually or as member of a Joint Venture.
 - i) In regard to matters relating to security and integrity of the country, the Bidder / any Member of the Joint Venture should not have been charge-sheeted by any agency of the Government of India or any State in India or convicted by a Court of Law.
 - j) No investigation, related to security and integrity of the country, by a regulatory authority should be pending either against the Bidder / any Member of the Joint Venture or against Applicant’s CEO or any of its directors/ managers/ employees.
 - k) No corporate debt restructuring, or insolvency and Bankruptcy Proceedings is in process and/or no unresolved debt restructuring issues with the Banks/Institutions as of **31st March 2025**. The Statutory Auditor’s Certificate in this regard shall be furnished with the Application (refer to **ANNEXURE VIII**)
 - l) An Bidder including any Member of the Joint Venture should, in the last 3 (three) years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial Employer or a judicial pronouncement or arbitration award against the Bidder or any Member of the Joint Venture, as the case may be, nor has been expelled from any Project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder or any Member of Joint Venture.
 - i. The Bidder including any Member of the Joint Venture shall provide details of all their on-going Projects along with stage of litigation or Arbitration cases, if so, against the Employer/ Governments.
 - ii. The Bidder including any member of the Joint Venture shall also provide details of on-going process of blacklisting if so, under any contract with Employer / Government.
 - iii. The Employer reserves the right to reject an otherwise eligible Bidder on the basis of the information provided under **Clause 2.2.1(f)**. The decision of the Employer in this case shall be final.
- 2.2.2 To be eligible to BID, a Bidder shall fulfill the conditions of eligibility stated in Section 3: Eligibility & Qualification Criteria
- 2.2.3 Deleted
- 2.2.4 Deleted.
- 2.2.5 The Bidder should submit a Power of Attorney as per the format at **Appendix-XII**, authorizing the signatory of the BID to commit the Bidder. In the case of a Joint Venture, the Members should submit a Power of Attorney in favor of the Lead Member as per format at **Appendix-XIII**.
- 2.2.6 In case the Bidder is a Joint Venture, it shall comply with the following additional requirements:
- a) Number of members in a Joint Venture shall not exceed 3 (three) including lead partner;
 - b) subject to the provisions of clause (a) above, the BID should contain the information required for each

Member of the Joint Venture;

- c) Members of the Joint Venture shall nominate one member as the lead member (the “**Lead Member**”). The nomination(s) shall be supported by a Power of Attorney, as per the format at **Appendix-XIII**, signed by all the other Members of the Joint Venture. The BID should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial, technical and defects liability obligations;
- d) Share of the Lead Member and Other Members in the JV shall be as follows:

Joint Venture Member	Percent Share in Joint Venture
Lead Member	Not less than 51%
Other Members	Not less than 25%
Total of all members of Joint Venture shall be	100%

- e) The lead partner & other partners share can never be below 51% & 25% respectively both during Construction as well as during O&M period.
- f) In the event the lead partner of the JV undergoes ownership change due to Merger and Acquisition, the new entity so formed shall continue to hold 51% share in the JV/ Consortium till the completion of O&M period.
- g) The lead partner cannot sell or sublet or pledge its share to any new entity or the balance partners till the completion of O&M period.
- h) The Lead Partner shall be authorized to incur liabilities and receive instructions for himself as well as other partner of the Joint Venture and the entire execution of the Contract including payment shall be done exclusively with the Lead Partner
- i) An individual Bidder cannot at the same time be member of a Joint Venture submitting for BID. Further, a member of a particular Bidder Joint Venture cannot be member of any other Bidder Joint Venture submitting for BID;
- j) The Lead Member shall itself undertake and perform at least 51 % (fifty one percent) scope of the proposed Project.
- k) Members of the Joint Venture shall have entered into a binding Joint Bidding Agreement, substantially in the form specified at **Appendix-XIV** (the “**Jt. Bidding Agreement**”), for the purpose of making the BID and submitting a BID. The Jt. Bidding Agreement, to be submitted along with the BID, shall, inter alia:
 - i. convey the commitment(s) of the Lead Member in accordance with this RFQ cum RFP, in case the contract to undertake the Project is awarded to the Joint Venture;
 - ii. clearly outline the proposed roles and responsibilities, if any, of each member;
 - iii. commit the approximate share of work to be undertaken by each member of Joint Venture;
 - iv. include a statement to the effect that all members of the Joint Venture shall be jointly and severally liable for all obligations of the Contractor in relation to the Project until the Defects Liability Period is achieved in accordance with the Agreement; and
- l) except as provided under this RFQ cum RFP and the Bidding Documents, there shall not be any amendment to the Jt. Bidding Agreement without the prior written consent of the Employer.

- 2.2.7 Deleted.
- 2.2.8 Deleted.
- 2.2.9 Deleted.
- 2.2.10 The following conditions shall be adhered to while submitting the BID:
- a) Bidders should attach clearly marked and referenced continuation sheets in the event that the space provided in the prescribed forms in the Annexes is insufficient. Alternatively, Bidders may format the prescribed forms making due provision for incorporation of the requested information;
 - b) information supplied by the Bidder (or other constituent Member if the Bidder is a Joint Venture) must be applicable to the Bidder, Member named in the BID.;
 - c) in responding to the BID submissions, Bidders should demonstrate their capabilities in accordance with **Clause 3** below; and
 - d) in case the Bidder is a Joint Venture, each Member should substantially satisfy the BID requirements to the extent specified herein.
- 2.2.11 While Qualification is open to persons from any country, the following provisions shall apply
- a) Where, on the date of the BID, not less than 15% (fifteen percent) of the aggregate issued, subscribed and paid up equity share capital in a Bidder or its Member is held by persons resident outside India or where a Bidder or its Member is controlled by persons resident outside India (Details are to be furnished in as prescribed); or
 - b) if at any subsequent stage after the date of the BID, there is an acquisition of not less than 15% (fifteen percent) of the aggregate issued, subscribed and paid up equity share capital or control, by persons resident outside India, in or of the Bidder or its Member/ Partner; then the Qualification of such Bidder or in the event described in sub clause (b) above, the continued Qualification of the Bidder shall be subject to approval of the Employer from national security and public interest perspective. The decision of the Employer in this behalf shall be final and conclusive and binding on the Bidder.
 - c) The holding or acquisition of equity or control, as above, shall include direct or indirect holding/ acquisition, including by transfer, of the direct or indirect legal or beneficial ownership or control, by persons acting for themselves or in concert and in determining such holding or acquisition, the Employer shall be guided by the principles, precedents and definitions contained in the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 1997, or any substitute thereof, as in force on the date of such acquisition.
 - d) The Bidder shall promptly inform the Employer of any change in the shareholding, as above, and failure to do so shall render the Bidder liable for disqualification from the Bidding Process.
- 2.2.12 Notwithstanding anything to the contrary contained herein, in the event that the BID Due Date falls within 3 (three) months of the closing of the latest financial year of a Bidder, it shall ignore such financial year for the purposes of its BID and furnish all its information and certification with reference to the 5 (Five) years, preceding its latest financial year. For the avoidance of doubt, financial year shall, for the purposes of a BID hereunder, mean the accounting year followed by the Bidder in the course of its normal business.

2.3 Change in composition of the Joint Venture

- 2.3.1 Change in the composition of a Joint Venture will not be permitted by the Employer after submission of the bid.

2.4 Number of BIDs and costs thereof

- 2.4.1 No Bidder shall submit more than one BID for the Project. A Bidder applying individually or as a member of a Joint Venture shall not be entitled to submit another BID either individually or as a member of any Joint Venture, as the case may be.
- 2.4.2 The Bidders shall be responsible for all of the costs associated with the preparation of their BIDs and their participation in the BID Process. The Employer will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

2.5 Site visit and verification of information

- 2.5.1 Bidders shall submit their respective BIDs after acquainting themselves with the Project site and ascertaining themselves with the site conditions, traffic, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws and regulations, and any other matter considered relevant by them.

2.6 Acknowledgement by Bidder

- 2.6.1 It shall be deemed that by submitting a BID, the Bidder has:
- a) made a complete and careful examination of the Bidding Documents and the prevailing site conditions;
 - b) received all relevant information requested from the Employer;
 - c) Accepted the risk of inadequacy, error or mistake in the information provided in the Bidding Documents or furnished by or on behalf of the EMPLOYER relating to any of the matters referred to in **Clause 2.5.1** above.
 - d) satisfied itself about all matters, things and information including matters referred to in **Clause 2.5.1** hereinabove necessary and required for submitting an informed BID, execution of the Project in accordance with the Bidding Documents and performance of all of its obligations there under;
 - e) acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in the Bidding Documents or ignorance of any of the matters referred to in **Clause 2.5.1** herein above shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc. from the Employer, or a ground for termination of the Agreement by the Contractor;
 - f) acknowledged that it does not have a Conflict of Interest; and
 - g) agreed to be bound by the undertakings provided by it under and in terms hereof.
- 2.6.2 The Employer shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFQ cum RFP, the Bidding Documents or the Bidding Process, including any error or mistake therein or in any information or data given by the Employer.

2.7 Right to accept or reject any or all BIDs

- 2.7.1 Notwithstanding anything contained in this RFQ cum RFP, the Employer reserves the right to accept or reject any BID and to annul the Bidding Process and reject all BIDs at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefor. In the event that the Employer rejects or annuls all the BIDs it may, in its discretion, invite all eligible Bidders to submit fresh BIDs hereunder and as specified in **Clause 2.21** of this RFQ cum RFP.
- 2.7.2 The Employer reserves the right to reject any BID:
- at any time, a material misrepresentation is made or uncovered, or
 - the Bidder does not provide, within the time specified by the Employer, the supplemental information sought by the Employer for evaluation of the BID.
 - If the Bidder is a Joint Venture, then the entire Joint Venture and each Member of the Joint Venture may be disqualified/ rejected. If such disqualification/rejection occurs after the BIDs have been opened and the Lowest Bidder gets disqualified / rejected, then the Employer reserves the right to
 - invite the remaining Bidders to match the Lowest Bidder/ submit their BIDs in accordance with the RFQ cum RFP; or
 - take any such measure as may be deemed fit in the sole discretion of the Employer, including annulment of the Bidding Processes.
- 2.7.3 In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of defects liability, subsistence thereof, that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Contractor either by issue of the LOA or entering into of the Agreement, and if the Selected Bidder has already been issued the LOA or has entered into the Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFQ cum RFP, be liable for termination, by a communication in writing by the Employer to the Selected Bidder or the Contractor, as the case may be, without the Employer being liable in any manner whatsoever to the Selected Bidder or the Contractor. In such an event, the Employer shall be entitled to forfeit and appropriate the BID Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to the Employer under the Bidding Documents and/ or the Agreement, or otherwise.
- 2.7.4 The Employer reserves the right to verify all Statements, information and documents submitted by the Bidder in response to the RFQ cum RFP. Any such verification or lack of such verification by the Employer shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the Employer thereunder

2.8 Content of Bidding Documents

- 2.8.1 This tender comprises the Disclaimer set forth hereinabove, the contents as listed below, and will additionally include any Addenda issued in accordance with **Clause 2.9**
- Volume 1: RFQ cum RFP
 - Volume 2: Technical Specifications

c) Volume 3: Tender Indicative Drawings

- 2.8.2 The Draft Contract Agreement provided by Employer as part of the Bid Document shall be deemed to be part of this Tender.

2.9 Clarifications

- 2.9.1 Bidders requiring any clarification on the RFQ cum RFP may notify the Employer in writing or by fax and e-mail in accordance with **Clause 1.2.9**. They should send in their queries on or before the date mentioned in the Schedule of Bidding Process specified in **Clause 1.3**. The Employer shall endeavor to respond to the queries within the period specified therein, but no later than 7 (Seven) days prior to the BID Due Date. The responses will be uploaded in the e-procurement platform. The Employer will upload all the queries and its responses thereto, to all Bidders without identifying the source of queries.
- 2.9.2 The Employer shall endeavor to respond to the questions raised or clarifications sought by the Bidders. However, the Employer reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring the Employer to respond to any question or to provide any clarification.
- 2.9.3 The Employer may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by the Employer shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by The Employer or its employees or representatives shall not in any way or manner be binding on the Employer.

2.10 Amendment of Bidding Documents

- 2.10.1 At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by issuing addenda.
- 2.10.2 Any addendum thus issued shall be part of the bidding documents and shall be communicated by email / online to all purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum by online mode to the Employer within one working day of receipt. Even though the same is not acknowledged within the specified time it shall be deemed that the addendum is received by the Bidder.
- 2.10.3 In order to afford the Bidders a reasonable time for taking an Addendum into account, or for any other reason, the Employer may, in its sole discretion, extend the Bid Due Date.

2.11 Language of Bid

The Bid and all related correspondence and documents in relation to the Bidding Process shall be in English language. Supporting documents and printed literature furnished by the Bidder with the Bid may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the bidder. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Bid, the English language translation shall prevail.

2.12 Format and Signing of Bid

- 2.12.1 The Bidder shall provide all the information sought under this Tender. The Employer will evaluate only those BIDs that are received online in the required formats and complete in all respects and payment of Bid Security, non-refundable processing fee (paid online) and POA are received in hard copies. Incomplete and/or conditional Bids shall be liable to rejection.
- 2.12.2 The Bid shall be typed or written in indelible ink and shall be signed and sealed by a person or persons duly authorized to sign on behalf of the bidder who shall also initial each page, in blue ink. All pages of the bid and all entries where amendments have been made shall be initialed by the person or persons signing the bid.
- 2.12.3 The bid shall contain no alterations, omissions or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be numbered and initialed by the person or persons signing the bid.

2.13 Sealing, Marking and submission of BIDs

- 2.13.1 The Bidder shall submit the Technical and Financial BID online through e- procurement portal comprising of the following documents along with supporting documents as appropriate.

Technical BID (Envelope No. 1)

- a) Appendix – IA (Letter comprising the Technical BID)
- b) Particulars of the Bidder/Joint venture members (**Annexure I: Details of Bidder**)
- c) Similar Works Experience details (**Annexure II: Similar Work Experience**) along with supporting documents such as Client's Certificate etc.
- d) Construction Experience in Key Activities details (**Annexure III: Construction Experience in Key Activities**); along with supporting documents such as Client's Certificate etc.
- e) Financial Situation of the Bidder (**Annexure IV: Financial capacity of the Bidder**)
- f) Average Annual Construction Turnover (**Annexure V: Average Annual Construction Turnover**);
- g) Details of Current Contracts Commitments (**Annexure VI: Current Contract Commitments**);
- h) Data and calculations for Tendering Capacity (**Annexure VII: Tendering Capacity**);
- i) Certificate for Corporate Debt Restructuring (**Annexure VIII: Certificate for Corporate Debt Restructuring**);
- j) An Undertaking for Key Personnel (**Annexure IX: Key Personnel**)
- k) An Undertaking for Key Equipment's (**Annexure IX: Key Equipment**)
- l) Statement of Legal Capacity (**Annexure XI: Statement of Legal Capacity**)
- m) Power of Attorney in favour of Authorised Representative (**Annexure XII: Power of Attorney for Attorney for Signing the Bid**) along with extract of Board's Resolution or equivalent document in favour of the person executing the Power of Attorney;
- n) If case the Applicant is a Joint Venture, the Power of Attorney for Lead Member of the Joint Venture (**Annexure XIII: Power of Attorney for Lead Member of Joint Venture**) along with extract of Board's Resolution or equivalent document in favour of the person executing the Power of Attorney.

- o) Joint Bidding Agreement, in case of a JV, substantially in the format given in **Annexure XIV: Joint Bidding Agreement for Joint Venture**
- p) Banker Certificate as per **Annexure XV: Evidence of Access to or Availability of Credit Facilities - Bank Certificate**
- q) The tenders are published through e-portal of Kerala. The non-refundable tender processing fee and Bid Security which will be maintained by Government of Kerala central pooling account. non-refundable Tender processing fees **Rs. 1.3 Lakhs** Only and Bid Security of **Rs. 28.00 Crore** Only.
- r) Signed Integrity Pact as per **Annexure XVII.**
- s) Affidavit from Bidder for Non- Blacklisting and action under Indian Penal Code for false/ fraudulent documents as per **Annexure XVIII.**
- t) Work Methods statement as per **Annexure XIX**
- u) Organisation And Management as per **Annexure XX**
- v) Work Programme as per **Annexure XXI**
- w) Outline Health & Safety Management Plan as per **Annexure XXII**
- x) Outline Quality Management System as per **Annexure XXIII**
- y) Copy of Memorandum of Association and Articles of Association or equivalent documents, if the Applicant is a body corporate, and in case of partnership firm a copy of its partnership deed
- z) Copies of Bidders/Members of Joint Venture Audited Balance Sheets, other Financial Statements duly certified as acceptable to the Employer of the last five financial years
- aa) Any other document required in accordance with the RFQ-cum-RFP Document

Financial BID (Envelope No. 2)

- a) Appendix-1B (Letter comprising the Financial Bid).

2.13.2 The documents supporting the BID shall be submitted (physically in a separate envelope marked as "Enclosures of the BID". The documents shall include:

- a) Original Power of Attorney for signing the BID as per format at **Annexure XII.**
- b) if applicable, original Power of Attorney for Lead Member of Joint Venture as per the format at **Annexure XIII.**
- c) if applicable, Original Joint Bidding Agreement for Joint Venture as per the format at **Annexure XIV.**
- d) BID Security of **Rs. 28.00 Crore** in the form of original Bank Guarantee in the format at **Annexure XVI** from a Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore) or in the form of Insurance Surety Bond (issued by an Insurance Company authorized by the Insurance Regulatory and Development Authority of India).
- e) Evidence of Access to or Availability of Credit Facilities for this project from any nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore) as in the format at **Annexure XV.**
- f) **Acknowledgement copy of Bid Processing Fee paid online**

2.13.3 Each of the envelopes shall clearly bear the following identification:

Application/Bid for Qualification: Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis" and shall clearly indicate the name and address of the Bidder. In addition, the BID Due Date should be indicated on the right hand corner of each of the envelopes.

- 2.13.4 Each of the envelopes shall be addressed to "The Kerala Industrial Corridor Development Corporation"
- Managing Director,
The Kerala Industrial Corridor Development Corporation Limited,
KINFRA Hi Tech Park HMT Colony P.O. Kalamassery
Ernakulam, Kerala - 683503
- 2.13.5 If the envelopes are not sealed and marked as instructed above, the Employer assumes no responsibility for the misplacement or premature opening of the contents of the BID submitted and consequent losses, if any, suffered by the Bidder.
- 2.13.6 BIDs submitted by fax, telex, telegram or e-mail shall not be entertained and shall be rejected.

2.14 BID Due Date

- 2.14.1 Technical and Financial BID comprising of the document listed at **Clause 2.13.1** of the RFQ cum RFP shall be submitted online through e-procurement portal on or before 1500 hours IST on the BID Due Date. Documents listed at **Clause 2.13.2** of the RFQ cum RFP shall be physically submitted on or before 1700 hours IST on the BID Due Date, at the address provided in **Clause 2.13.4** in the manner and form as detailed in RFQ cum RFP. A receipt thereof should be obtained from the person specified in **Clause 2.13.4**.
- 2.14.2 The Employer may, in its sole discretion, extend the BID Due Date by issuing an Addendum in accordance with **Clause 2.10** uniformly for all Bidders.

2.15 Late BIDs

BIDs/ Enclosures of the BID received physically by the Employer after the specified time on the BID Due Date shall not be eligible for consideration and shall be summarily rejected.

2.16 Modifications/ Substitution/ Withdrawal of BIDs

- 2.16.1 For modification of e-BID, Bidder has to detach its old BID from e-procurement portal and upload / resubmit digitally signed modified BID. For withdrawal of BID, Bidder has to click on withdrawal icon at e-procurement portal and can withdraw its e-BID. Before withdrawal of a BID, it may specifically be noted that after withdrawal of a BID for any reasons, Bidder cannot re-submit e-BID again.
- 2.16.2 Any alteration/modification in the BID or additional information supplied subsequent to the BID Due Date, unless the same has been expressly sought for by the Employer, shall be disregarded.

2.17 Opening and Evaluation of Bids

- 2.17.1 The Employer shall open the BIDs at 10.30 hours IST on(Bid Due Date +2 Days), at the place specified in **Clause 2.13.4** and in the presence of the Bidders who choose to attend. "If for any reason, the opening could not be done on BID Due Date, the new date and time of opening shall be communicated separately".
- 2.17.2 Technical BIDs of those Bidders, who have not submitted their BID online, shall not be considered for opening and evaluation.
- 2.17.3 The Employer will subsequently examine and evaluate Technical BIDs in accordance with the provisions set out in Section 3: Eligibility & Qualification Criteria
- 2.17.4 Bidders are advised that qualification of Bidders will be entirely at the discretion of the Employer. Bidders will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.
- 2.17.5 To facilitate evaluation of Technical BIDs, the Employer may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Technical BID. Such clarification(s) shall be provided within the time specified by the Employer for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.
- 2.17.6 If a Bidder does not provide clarifications sought under **Clause 2.17.5** above within the prescribed time, its BID may be liable to be rejected. In case the BID is not rejected, the Employer may proceed to evaluate the BID by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of the Employer.
- 2.17.7 The Employer reserves the right to reject any Technical BID which is non-responsive as per **Clause 2.19** and no request for alteration, modification, substitution or withdrawal shall be entertained by the Employer in respect of such BID.
- 2.17.8 Any information contained in the BID shall not in any way be construed as binding on the Employer, its agents, successors or assigns, but shall be binding against the Bidder if the Project is subsequently awarded to it on the basis of such information.
- 2.17.9 The Employer reserves the right not to proceed with the Bidding Process at any time without notice or liability and to reject any or all BID(s) without assigning any reasons.
- 2.17.10 If any information furnished by the Bidder is found to be incomplete, or contained in formats other than those specified herein, the Employer may, in its sole discretion, exclude the relevant Project from computation of the Eligibility of the bidder.
- 2.17.11 In the event that a Bidder claims credit for an Completed Project, and such claim is determined by the Employer as incorrect or erroneous, the Employer shall reject such claim and exclude the same from computation of the Eligibility of the bidder . Where any information is found to be patently false or amounting to a material misrepresentation, the Employer reserves the right to reject the BID in accordance with the provisions of Clauses **2.7.2** and **2.7.3**.

- 2.17.12 The Employer will get the BID security verified from the issuing authority and after due verification, the Authority will evaluate the Technical BIDs for their compliance to the eligibility and qualification requirements pursuant to **Clause 2.2.1 & 2.2.2** of this RFQ cum RFP.
- 2.17.13 After evaluation of Technical BIDs the Employer will publish a list of technically responsive Bidders whose financial BIDs shall be opened. The Employer shall notify other Bidders that they have not been technically responsive. The Employer will not entertain any query or clarification from Bidders who fail to qualify.
- 2.17.14 The Employer shall inform the venue and time of online opening of the Financial BIDs to the technically responsive Bidders through e-procurement portal of the Employer. The Employer shall online open the Financial BIDs on date and time to be informed in this clause in the presence of the authorized representatives of the Bidders who may choose to attend. The Employer shall publicly announce the BID Price quoted by the technically responsive Bidder. The Employer shall prepare a record of opening of Financial Bids.

2.18 Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the qualified Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the Employer in relation to, or matters arising out of, or concerning the Bidding Process. The Employer will treat all information, submitted as part of BID, in confidence and will require all those who have access to such material to treat the same in confidence. The Employer may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Employer or as may be required by law or in connection with any legal process.

2.19 Tests of responsiveness

- 2.19.1 Prior to evaluation of BIDs the Employer shall determine whether each BID is responsive to the requirements of the RFQ cum RFP. A BID shall be considered responsive only if:
- a) It is received as per format at Appendix-I (A) and 1(B) including all Annexures.
 - b) It is received by the BID Due Date including any extension thereof pursuant to **Clause 2.14.2**;
 - c) It is signed and submitted as stipulated in Clauses **2.12** and **2.13**;
 - d) It is accompanied by the Power of Attorney as specified in **Clause 2.2.5**, and in the case of a Joint Venture, the Power of Attorney as specified in **Clause 2.2.6 (c)**;
 - e) It contains all the information and documents (complete in all respects) as requested in this RFQ cum RFP;
 - f) It contains information in Annexures/formats same as those specified in this RFQ cum RFP;
 - g) It contains certificates from its statutory auditors in the formats specified in the RFQ cum RFP;
 - h) It contains online payment receipt of **Rs. 1.3 Lakhs only** as RFQ cum RFP non-refundable processing fee and Original Bank Guarantee of Bid Security as per **Clause 1.2.5**;
 - i) It contains Evidence of Access to or Availability of Credit Facilities for this project from any Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore).
 - j) It is accompanied by the Jt. Bidding Agreement (for Joint Venture), specific to the Project, as stipulated in **Clause 2.2.6 (k)**;

- k) It is accompanied by Signed Integrity Pact as per **Annexure - XVII**.
- l) It contains Affidavit from Bidder for Non- Blacklisting and action under Indian Penal Code for false/ fraudulent documents as per **Annexure XVIII**.
- m) It does not contain any condition or qualification; and
- n) It is not non-responsive in terms hereof.

2.19.2 The Employer reserves the right to reject any BID which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Employer in respect of such BID.

2.20 Clarification of Bids

2.20.1 To facilitate evaluation of Bids, the Employer may, at its sole discretion, seek clarifications from any Bidder regarding its Bid. Such clarification(s) shall be provided within the time specified by the Employer for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing but no change in the price or substance of the bid shall be sought, offered or permitted, except to get additional information to fully understand the proposals of the bidder and to confirm that the requirements of the bidding documents will be met.

2.20.2 If a Bidder does not provide clarifications sought under **Clause 2.20.1** above within the prescribed time, its BID shall be liable to be rejected. In case the BID is not rejected, the Employer may proceed to evaluate the BID by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of the Employer.

2.21 Selection of Bidder

2.21.1 Subject to the provisions of **Clause 2.7** the Bidder whose BID is adjudged as responsive in terms of **Clause 2.19** and who quotes lowest price shall be declared as the selected Bidder (the "Selected Bidder").

2.21.2 If the Financial BID, which results as the lowest evaluated BID price, is seriously unbalanced, in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Project to demonstrate the internal consistency of those prices with the proposed construction methods and schedules. After evaluation of the price analysis, taking into consideration the schedule of estimated contract payments, the Employer may require the amount of the Performance Guarantee to be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract. The level of increase in the Performance Guarantee, if any, shall be decided solely by the Employer, up to a maximum of 50% (Fifty Percent) of the prescribed performance guarantee.

2.21.3 In the event that the Employer rejects or annuls all the BIDs, it may, in its discretion, invite all eligible Bidders to submit fresh BIDs hereunder.

2.21.4 In the event that two or more Bidders quote the same BID price (the "Tie BIDs"), the Employer shall ask the tie Bidders to submit the revised financial Bids.

- 2.21.5 In the event that the Lowest Bidder withdraws or is not selected for any reason in the first instance (the “first round of Bidding”), the Employer may invite all the remaining Bidders to revalidate or extend their respective BID Security, as necessary, and match the BID of the aforesaid Lowest Bidder (the “second round of Bidding”). If in the second round of Bidding, only one Bidder matches the Lowest Bidder, it shall be the Selected Bidder. If two or more Bidders match the said Lowest Bidder in the second round of Bidding, then the Bidder whose BID was lower as compared to other Bidders in the first round of Bidding shall be the Selected Bidder. For example, if the third and fifth highest Bidders in the first round of Bidding offer to match the said Lowest Bidder in the second round of Bidding, the said third Lowest Bidder shall be the Selected Bidder.
- 2.21.6 In the event that no Bidder offers to match the Lowest Bidder in the second round of Bidding as specified in above clause, the Employer may, in its discretion, invite fresh BIDs (the “third round of Bidding” from all Bidders except the Lowest Bidder of the first round of Bidding, or annul the Bidding Process, as the case may be. In case the Bidders are invited in the third round of Bidding to revalidate or extend their BID Security, as necessary, and offer fresh BIDs, they shall be eligible for submission of fresh BIDs provided, however, that in such third round of Bidding only such BIDs shall be eligible for consideration which are lower than the BID of the second Lowest Bidder in the first round of Bidding.
- 2.21.7 After selection, a Letter of Award (the "**LOA**") shall be issued, in duplicate, by the Employer to the Selected Bidder and the Selected Bidder shall, within 3(Three) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Bidder is not received by the stipulated date, the Employer may, unless it consents to extension of time for submission thereof, appropriate the BID Security of such Bidder as Damages on account of failure of the Selected Bidder to acknowledge the LOA.
- 2.21.8 After acknowledgement of the LOA as aforesaid by the Selected Bidder, it shall cause the Bidder to execute the Agreement within the period prescribed in **Clause 1.3**. The Selected Bidder shall not be entitled to seek any deviation, modification or amendment in the Agreement.

2.22 Proprietary data

All documents and other information supplied by the Employer or submitted by a Bidder to the Employer shall remain or become the property of the Employer. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their BID. The Employer will not return any BID, or any information provided along therewith.

2.23 Correspondence with the Bidder

Save and except as provided in this RFQ cum RFP, the Employer shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any BID.

2.24 Contacts during BID Evaluation

BIDs shall be deemed to be under consideration immediately after they are opened and until such time the Employer makes official intimation of award/ rejection to the Bidders. While the BIDs are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain, save and except as required under the Bidding Documents, from contacting by any means, the Employer and/ or their employees/ representatives on matters related to the BIDs under consideration.

2.25 Other Conditions

- 2.25.1 A Bidder is eligible to submit only one BID for the Project. A Bidder Bidding individually or as a lead member of a Joint Venture shall not be entitled to submit another BID either individually or as a member of any Joint Venture, as the case may be.
- 2.25.2 Notwithstanding anything to the contrary contained in this RFQ cum RFP, the detailed terms specified in the draft Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Agreement.
- 2.25.3 The Bidding Documents including this RFQ cum RFP and all attached documents are and shall remain the property of the Employer and are transmitted to the Bidders solely for the purpose of preparation and the submission of a BID in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their BID. The Employer will not return any BID, or any information provided along therewith.
- 2.25.4 This RFQ cum RFP is not transferable
- 2.25.5 Any award of concession pursuant to this RFQ cum RFP shall be subject to the terms of Bidding Documents.

2.26 Bid Security

- 2.26.1 The Bidder shall furnish as part of its BID, a BID Security referred to in **Clause 1.2.5** hereinabove in the form of an irrevocable and unconditional Bank Guarantee issued by a Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore) in India, in favor of the Employer in the format at Appendix-XVI (the "Bank Guarantee") or in the form of an Insurance surety bond (issued by an Insurance Company authorized by the Insurance Regulatory and Development Authority of India) and having a validity period of not less than 240 days (Two Hundred and Forty days) from the BID Due Date, inclusive of a claim period of 60 (Sixty) days, as may be extended by the Bidder from time to time. In case the Bank Guarantee is issued by a foreign bank outside India, confirmation of the same by any Nationalized bank in India is required. For the avoidance of doubt, nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore) shall mean a bank as defined under Section 2(e) of the Reserve Bank of India Act, 1934.
- 2.26.2 BID Security can also be furnished by the Bidder in the form of a demand draft drawn on a Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore) in India, drawn in favor of Managing Director, The Kerala Industrial Corridor Development Corporation and payable at Kerala (the "Demand Draft"). The Employer shall not be liable to pay any interest on the BID Security deposit so made and the same shall be interest free.
- 2.26.3 Any BID not accompanied by the BID Security shall be rejected by the Employer as non-responsive.

- 2.26.4 The BID Security of unsuccessful Bidders will be returned by the Employer, without any interest, as promptly as possible on signing of an agreement with selected bidder or when the Bidding Process is cancelled by the Employer. Where BID Security has been paid by deposit, the refund thereof shall be in the form of an account payee demand draft in favor of the unsuccessful Bidder. Bidders may be specific instructions in writing to the Employer give the name and address of the person in whose favor the said Demand Draft shall be drawn by the Employer for refund, failing which it shall be drawn in the name of the Bidder and shall be mailed to the address given on the BID.
- 2.26.5 The Selected Bidder's BID Security will be returned, without any interest, upon the Bidder signing the EPC Contract and furnishing the Performance Security in accordance with the provisions thereof.
- 2.26.6 The Employer shall be entitled to forfeit and appropriate the BID Security as Damages inter alia in any of the events specified in **Clause 2.26.7** herein below. The Bidder by submitting its BID pursuant to this RFQ cum RFP, shall be deemed to have acknowledged and confirmed that the Employer will suffer loss and damage on account of withdrawal of its BID or for any other default by the Bidder during the period of BID validity as specified in this RFQ cum RFP. No relaxation of any kind on BID Security shall be given to any Bidder.
- 2.26.7 The BID Security shall be forfeited and appropriated by the Employer as damages payable to the Employer for, inter alia, time, cost and effort of the Employer without prejudice to any other right or remedy that may be available to the Employer under the Bidding Documents and/or under the Agreement or otherwise, under the following conditions:
- a) If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in Section **3.3** of this RFQ cum RFP;
 - b) If a Bidder withdraws its BID during the period of BID validity as specified in this RFQ cum RFP and as extended by mutual consent of the respective Bidders and the Employer;
 - c) In the case of Selected Bidder, if it fails within the specified time limit
 - i. To sign and return the duplicate copy of LOA;
 - ii. To sign the EPC Contract; or
 - iii. To furnish the Performance Security within the period prescribed therefor in the EPC Contract; or

In case the Selected Bidder, having signed the EPC Contract, commits any breach thereof prior to furnishing the Performance Security.

3. Eligibility and Qualification Criteria

3.1 Evaluation parameters

- 3.1.1 The Employer shall use the factors, methods, criteria, and requirements defined in Section 3: Eligibility and Qualification Criteria read in conjunction with **Clause 2.19.1** of Section 2, to evaluate the qualifications of the Bidders, and no other methods, criteria, or requirements shall be used. The Employer reserves the right to waive minor deviations from the qualification criteria if they do not materially affect the technical capability and financial resources of a Bidder to perform the contract.
- 3.1.2 The Bidders meeting the qualification requirements as per this RFQ cum RFP shall be notified officially after due verification of their credential information in support of qualification.
- 3.1.3 The Bidders meeting the qualification criteria shall be eligible for opening of the financial BIDs

3.2 Qualification of Bidders

- 3.2.1 The credentials of eligible Bidders shall be measured in terms of their Experience. All Bidders who fulfil the conditions of eligibility & Qualification Criteria specified in this **Clause 3.2** and meet the other conditions specified in this RFQ cum RFP shall be qualified.
- 3.2.2 The Bidders meeting the qualification requirements as per this RFQ cum RFP shall be notified officially after due verification of their credential information in support of qualification.
- 3.2.3 The Bidders meeting the qualification criteria shall be eligible for opening of the financial BIDs.

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	Any One Member		
1	ELIGIBILITY						
1.1	Conflict between Single Entity Applicant and member of JV Applicant	No Single entity Applicant is a member of another JV Applicant or vice versa in accordance with Clause 2.2.1(b) and 2.2.1(c)	Must meet requirement	Must meet requirement	Must meet requirement	N/A	APPENDIX-IA: LETTER COMPRISING THE TECHNICAL BID
1.2	Indian Registered Companies	The Applicant shall be Indian registered companies incorporated under the Companies Act 1956 & 2013.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	APPENDIX-IA: LETTER COMPRISING THE TECHNICAL BID
1.3	Conflict of Interest	No conflicts of interest in accordance with Clause 2.2.1(d)	Must meet requirement	Must meet requirement	Must meet requirement	N/A	APPENDIX-IA: LETTER COMPRISING THE TECHNICAL BID
1.4	Suspension Based on Execution of Bid Securing Declaration by the Government	Not under suspension based on execution of a Bid Securing Declaration in accordance with Clause 2.2.1(e)	Must meet requirement	Must meet requirement	Must meet requirement	N/A	APPENDIX-IA: LETTER COMPRISING THE TECHNICAL BID
1.5	Barred by Government	Not barred by Government as on the Application Due Date in accordance with Clause 2.2.1(f)	Must meet requirement	Must meet requirement	Must meet requirement	N/A	ANNEXURE XVIII: AFFIDAVIT FROM BIDDER FOR NON-BLACKLISTING
1.6	Not Charge Sheeted, or Convicted by a court of Law	Not charge sheeted by any agency of the Government / convicted by a court of Law in relation to Security and	Must meet requirement	Must meet requirement	Must meet requirement	N/A	APPENDIX-IA: LETTER COMPRISING THE TECHNICAL BID

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
		Integrity of the country in accordance with Clause 2.2.1(g)					APPENDIX-IA: LETTER COMPRISING THE TECHNICAL BID
1.7	No Investigation, related to Security and Integrity of the Country	No investigation, related to security and integrity of the country, by a regulatory authority, is pending in accordance with Clause 2.2.1(h)	Must meet requirement	Must meet requirement	Must meet requirement	N/A	
1.8	Corporate Debt Restructuring	No corporate debt restructuring or Insolvency and Bankruptcy proceeding is in process and/or no unresolved debt restructuring issues with the Banks/ Institutions as of 31 March 2025 in accordance with Clause 2.2.1(i)	Must meet requirement	Must meet requirement	Must meet requirement	N/A	
1.9	General Finance Rule (GFR) Compliance	Compliant to Rule 144(xi) of the General Financial Rules (GFRs), 2017 including amendment / revision issued vide Order (Public Procurement No. 4), Office Memorandum No. F.7/10/2021-PPD (1) dated 23-02-2023.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	APPENDIX-IA: LETTER COMPRISING THE TECHNICAL BID
2	FINANCIAL SITUATION AND PERFORMANCE						

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
2.1	Financial Capabilities	The audited balance sheets, for the last 5 (five) financial years shall be submitted and must demonstrate the current soundness of the Applicant's financial position. *Note: The information submitted by the Applicant must mention Total Assets, Current Assets; Total Liabilities; Current Liabilities; Share Capital, Profit Before Taxes, Profit After Taxes	Must be submitted	Must be submitted	Must be submitted	N/A	Audited balance sheets/financial statements of the last five years
		(i) Evidence of Access to or Availability of Credit Facilities for this project from any Nationalized bank (incorporated in India and approved by RBI) of not less than Rs. 79 Crore. (Rupees Seventy Nine Crore only).	Must meet requirement	Must meet requirement	Must meet requirement in proportion to its financial share in the JV	N/A	ANNEXURE IV: FINANCIAL CAPACITY OF THE BIDDER & ANNEXURE XV: BANK CERTIFICATE
		(ii) The Applicant shall have a minimum Net Worth (the "Financial Capacity") of Rs. 275 Crore (Rupees Two Hundred and Seventy Five Crore Only/-) at the close of the preceding financial year.	Must meet requirement	Must meet requirement	Must meet requirement in proportion to its financial share in the JV	N/A	ANNEXURE IV: FINANCIAL CAPACITY OF THE BIDDER

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
		(iii) Applicant has not incurred any loss in more than two financial years during the last five financial years.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	ANNEXURE IV: FINANCIAL CAPACITY OF THE BIDDER
2.2	Average Annual Construction Turnover	Minimum average annual construction turnover ¹ equivalent to Rs 1650 Crore (Rupees One Thousand Six Hundred Fifty Crore Only/-) calculated as total certified payments received for contracts in progress and/or completed within the last five (5) financial years, divided by five (5).	Must meet requirement	Must meet requirement	Must meet requirement in proportion to its financial share in the JV	N/A	ANNEXURE V: AVERAGE ANNUAL CONSTRUCTION TURNOVER
2.3	Tendering Capacity	The Applicant should have minimum available Tendering Capacity of Rs 1100 Crore (Rupees Eleven Hundred Crore Only/-) in accordance with the formula stated in FORM-13: CAPACITY	Must meet requirement	Must meet requirement	Must meet requirement in proportion to its financial share in the JV	N/A	ANNEXURE VII: TENDER CAPACITY & ANNEXURE VI: CURRENT CONTRACT COMMITMENTS

¹ If the annual construction turnover is not clearly stated in the Audited Balance Sheets / Financial Statements of the Applicant / JV member, specific certificate issued by its Statutory Auditors, should be submitted.

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
3	EXPERIENCE						
3.1	Similar Work(s) Experience²	A minimum number ³ of similar works specified below that have been successfully completed ⁴ as a prime contractor or joint venture member ⁵ , or sub-contractor ⁵ between 01st May 2015 to 30th April 2025 .	Must meet requirement of at least one (01) contract of minimum value of Rs. 880 Crore (Rupees Eight Hundred Eighty Crore Only/-)	N/A	N/A	Must meet requirement of at least one (01) contract of minimum value of Rs. 880 Crore (Rupees Eight Hundred Eighty Crore Only/-)	ANNEXURE II: SIMILAR WORK EXPERIENCE
		“Similar Work(s)” mean Construction of Integrated infrastructure development project of industrial parks/townships/SEZs/IT parks/Roads (4 Lane & above)/Airport/ Utilities in urban areas like (water, wastewater, drainage, power distribution, water treatment plants, sewerage treatment plants). These projects should	OR	OR	OR	OR	ANNEXURE II: SIMILAR WORK EXPERIENCE
			Must meet requirement of at least two (02) contracts each of minimum value Rs. 550 Crore (Rupees Five	Must Meet requirement	Must meet requirement of at least One (01) contract each of minimum value Rs. 550 Crore	N/A	

² The Similar Works experience(s) of Group Companies, Parent Companies or Sister Companies, Concessionaires and Developers shall not be considered for evaluation. The Bidders are advised to strictly adhere to their requirement and submit the Similar Works experience(s) from the client(s) of the Bidder Only.

³ Summation of number of small value contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted.

⁴ Only such works shall be considered which are completed as evidenced by the client certificate. The cost of land shall not be considered to determine the cost of the works.

⁵ For contracts under which the Bidder participated as a member of a joint venture/consortium; or as a sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
		comprise of roads and at least 2 components out of storm water, water supply, wastewater, power infrastructure, ICT Infrastructure.	Hundred and Fifty Crore Only/-)		(Rupees Five Hundred and Fifty Crore Only)		ANNEXURE II: SIMILAR WORK EXPERIENCE
			OR	OR	OR	OR	
			Must meet requirement of at least three (03) contracts each of minimum value Rs. 440 Crore (Rupees Four Hundred and Forty Crore Only/-)	Must Meet requirement	Must meet requirement of at least one (01) contract of minimum value of Rs. 440 Crore (Rupees Four Hundred and Forty Crore Only/-)	Must meet requirement of at least two (02) contracts each of minimum value of Rs. 440 Crore (Rupees Four Hundred and Forty Crore Only/-)	
3.2	Construction Experience ⁶ in Key Activities	For the above and / or any other contracts completed and /or under implementation as prime contractor, or joint venture /consortium member, or sub-contractor ⁵ between 01 st May 2015 to 30 th April 2025, a minimum construction					ANNEXURE III: CONSTRUCTION EXPERIENCE

⁶ The construction experience(s) of Group Companies, Parent Companies or Sister Companies, Concessionaires and Developers shall not be considered for evaluation. The Bidders are advised to strictly adhere to their requirement and submit the construction experience(s) from the client(s) of the Bidder Only.

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
		experience in the following key activities successfully completed ⁷ :					ANNEXURE III: CONSTRUCTION EXPERIENCE
		Key Construction Activity No. 1: construction of power substations and laying of power transmission/distribution network and the Bidder shall have satisfactorily completed and commissioned during last 10 years from the Bid Due Date Projects involving construction of minimum 33 KV GIS substations with SCADA connectivity and laying of minimum 60 km of power transmission/distribution network cables from multiple packages of the project executed.	Must meet requirement	N/A	N/A	Must meet requirement	
		Key Construction Activity No. 2: Construction of similar nature of works like integrated infrastructure projects in	Must meet requirement	N/A	N/A	Must meet requirement	ANNEXURE III: CONSTRUCTION EXPERIENCE

⁷ Quantity of key activity can be demonstrated in one or more contracts.

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
		sectors like industrial parks/townships/SEZs/IT parks/Roads/Airfields/ Utilities in urban areas like (water, waste water, drainage, power distribution, water treatment plants, sewerage treatment plants) for any area not less than 725 Acres or Rs. 550 Crore (Rupees Five Hundred and Fifty Crore Only/-). These projects should comprise of roads and at least 4 components out of storm water, water supply, wastewater, power, treatment plants (Water, STP, CETP) & ICT.					ANNEXURE III: CONSTRUCTION EXPERIENCE
		Key Construction Activity No. 3: Design of similar nature of works like integrated infrastructure projects for any area not less than 725 Acres or Rs. 550 Crore (Rupees Five Hundred and Fifty Crore Only/). These projects should comprise of roads and at least	Must meet requirement	N/A	N/A	Must meet requirement	

ELIGIBILITY AND QUALIFICATION CRITERIA			COMPLIANCE REQUIREMENTS				DOCUMENTATION
Criteria No.	Subject	Requirement	Single Entity	JV (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	Any One Member	
		4 components out of storm water, water supply, wastewater, power, treatment plants (Water, STP, CETP) & ICT.					
4	Personnel & Equipment Capabilities						
4.1	Personnel Capabilities	An undertaking to be provided by the Applicant, as per ANNEXURE VIII: KEY PERSONNEL. Minimum 50 engineers.	Must meet requirement	Must meet requirement	N/A	N/A	ANNEXURE IX: KEY PERSONNEL
4.2	Equipment Capabilities	An undertaking to be provided by the Applicant, as per ANNEXURE IX: KEY EQUIPMENT. Equipment standard list.	Must meet requirement	Must meet requirement	N/A	N/A	ANNEXURE X: KEY EQUIPMENT

3.3 Technical Submittal

3.3.1 Methods Statement

- 3.3.1 The Bidders shall submit a method statement, using Annexure XIX: METHODS STATEMENT as provided in this RFQ-cum-RFP, which demonstrates the Tenderer's-understanding of the Project and comprehension of the Works involved
- 3.3.2 The Method Statement shall detail the sequence and method of working he intends to adopt for various items of work including but not limited to site clearance and demolition (if any), earthworks, Road works, Water Supply Network, Sewerage Network, reuse waterline, Power infrastructure, Avenue plantation, Temporary works etc. procurement, installation and commissioning of equipment CETP/STP/WTP and operation & maintenance of facilities during the O&M Period(s) and any other items as per the RFQ-cum-RFP requirement.

3.3.2 Organization and Management

The Bidder shall submit an organization chart, using Annexure XX: ORGANISATION AND MANAGEMENT as provided in this RFQ-cum-RFP, identifying the management and reporting structure for key positions and all site teams.

The Bidder shall also submit a commentary that describes the roles and responsibilities of the various key positions in the organization structure, the minimum qualifications, channels of communication, organization they come from and how this organization structure will manage the execution of the works within the scheduled period.

3.3.3 Work Programme

The Bidders shall submit a Work Programme, using Annexure XXI: WORK PROGRAMME as provided in this RFQ-cum-RFP, which shall indicate how the Bidder intends to organize and carry out the Works, achieve Sub Milestones/Milestones, if any, and complete whole of the Works by the time as stipulated in Conditions of Contract. The Work Programme shall be prepared in terms of days from the Date of Commencement of Works, taking D as the Commencement Date and other time schedules marked in D+ format.

The Work Programme shall show how the Bidders proposes to organize and carry out the Works and to achieve Milestone(s) and complete the whole of the Works by the time as stipulated in Conditions of Contract.

The Work Programme shall be accompanied by a narrative statement that shall describe Programme activities, assumptions and logic, and highlight the Bidder's perception of the major constraints and critical areas of concern in the organization, construction and completion of the Works. This narrative statement shall also indicate which elements of the Works the Bidders intends to carry out off-Site with details of the proposed locations of where any such work is to be carried out, the facilities available and any third party undertakings the Bidders may have in this regard. In particular, the Bidders must state the assumptions made in respect of the interfaces with the Employer, other contractors and third parties both in detail and time, and any requirements for information on matters which would affect his works.

All programmes shall include procurement of long lead items, Bulk materials, fabrication and erection for structural steel elements/equipments, temporary construction, Integration of all work including but not limited to utilities and infrastructure interfaces, Authorities' permits and approvals, Testing, commissioning, as-built documentation and any other specified Contract deliverables and activities related to Taking-Over of the Works, integrated testing along with any other training and trial running information, all significant events in

relation to the Authorities, other contractors, owners, tenants of adjacent properties, and any other Stakeholder.

The proposed submission of the Work Programme shall not, in any event, be construed as a submission under Clause 49. Schedule N of the Conditions of Contract.

3.3.4 Documents for Health, Safety & Environment and Quality Management Plans

The Bidder shall submit the following Documents, which shall demonstrate clearly the Bidder's proposals for achieving effective and efficient Safety, Quality and Environment protection procedures

(a) Outline Health, Safety and Environment Management Plan (HSE)

The Bidder shall submit as part of his Bid an Outline Health, Safety and Environment Management Plan, using Annexure XXII: HSE Plan as provided in this RFQ-cum-RFP, which shall contain sufficient information to demonstrate clearly the Bidder's proposals for achieving effective and efficient health & safety procedures. The Outline HSE plan should include an outline of the health & safety procedures and regulations to be developed and the mechanism by which they will be implemented for ensuring health, safety and Environment as required as per the Clause 48 – Schedule M - Guideline for Health, Safety and Environment Plan.

(b) Outline Quality Management System (QMS)

The Bidder shall submit as part of his BID an Outline Quality Management System (QMS), using Annexure XXIII: QMS Plan as provided in this RFQ-cum-RFP, which shall contain sufficient information to demonstrate clearly the Bidder's proposals for achieving effective and efficient Quality Assurance and Control System. The Outline QMS should include an outline of the procedures and regulations to be developed and the mechanism by which they will be implemented for ensuring Quality as required in terms of the General Specifications – Quality Management System. It shall also include an outline of procedures, verification and validation for all tests and materials for all the Works being done by him under this Contract

4. Fraud and Corrupt Practices

The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process and subsequent to the issue of the LOA and during the subsistence of the Agreement. Notwithstanding anything to the contrary contained herein, or in the LOA or the Agreement, the Employer may reject a BID, withdraw the LOA, or terminate the Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder or the Contractor, as the case may be, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, the Employer shall be entitled to forfeit and appropriate the BID Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to the Employer under the Bidding Documents and/ or the Agreement, or otherwise.

Without prejudice to the rights of the Employer hereinabove and the rights and remedies which the Employer may have under the LOA or the Agreement, or otherwise if a Bidder or Contractor, as the case may be, is found by the Employer to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, or after the issue of the LOA or the execution of the Agreement, such Bidder or Contractor shall not be eligible to participate in any tender or RFP issued by the Employer during a period of 2 (two) years from the date such Bidder, or Contractor, as the case may be, is found by the Employer to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be.

For the purposes of this Section 4, the following terms shall have the meaning hereinafter respectively assigned to them:

- a) "Corrupt practice" means
 - i. the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Employer who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Agreement or arising therefrom, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Employer, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or
 - ii. save and except as permitted under **Clause 2.2.1** of this RFQ cum RFP, engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Contract Agreement, who at any time has been or is a legal, financial or technical adviser of the Employer in relation to any matter concerning the Project;
- b) "Fraudulent practice" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
- c) "Coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Bidding Process;
- d) "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by the Employer with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest;
- e) "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

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5. Pre-BID Conference

Pre-BID conference of the Bidders shall be convened at the designated date, time and place. A maximum of two representatives of each prospective Bidder shall be allowed to participate on production of authority letter from the Bidder. Prebid queries from the interested bidders shall be entertained in writing through online mode, two (2) days prior to Prebid conference. The Prebid queries can be raised in the format as per Appendix IV.

During the course of Pre-BID conference, the Bidders will be free to seek clarifications and make suggestions for consideration of the Employer. The Employer shall endeavor to provide clarifications in writing to all the bidders and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process.

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6. Miscellaneous

- 6.1.1 The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Ernakulam shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
- 6.1.2 The Employer, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
- suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
 - consult with any Bidder in order to receive clarification or further information;
 - pre-qualify or not to pre-qualify any Bidder and/ or to consult with any Bidder in order to receive clarification or further information;
 - retain any information and/ or evidence submitted to the Employer by, on behalf of, and/ or in relation to any Bidder; and/ or
 - independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.
- 6.1.3 It shall be deemed that by submitting the BID, the Bidder agrees and releases the Employer, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder and the Bidding Documents, pursuant hereto, and/ or in connection with the Bidding Process, to the fullest extent permitted by applicable law, and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.

6.1.4 Integrity Pact (IP)

Bidder shall submit the Integrity pact (**Annexure XVII**) duly signed by Authorized signatory with the RFP Bid & shall be part of the Contract Agreement;

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Part C: Appendices

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APPENDIX IA: Letter Comprising the Technical Bid

To

Managing Director,
The Kerala Industrial Corridor Development Corporation Limited,
KINFRA Hi Tech Park HMT Colony P.O. Kalamassery
Ernakulam, Kerala - 683503

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudussery Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

Dear Sir,

With reference to your RFQ cum RFP document dated we, having examined the document and understood its contents, hereby submit our BID for the aforesaid Project. The BID is unconditional and unqualified. We acknowledge that the Employer reserves the right of "Assignment" of ownership during BID process or after award of contract, to SPV in its post formation.

- 1) We undertake to fully co-operate with The Employer for any documentation Legally enforceable for recognition and effectuation of such transfer of ownership.
- 2) We acknowledge that the Employer will be relying on the information provided in the BID and the documents accompanying such BID for selection of the Bidders for the aforesaid Project, and we certify that all information provided in the BID and in Annexures I to IV is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying such BID are true copies of their respective originals.
- 3) This Statement is made for the express purpose of qualifying as a Bidder for the Design and construction of the aforesaid Project and Operation & Maintenance of the Project during the Defects Liability Period.
- 4) We shall make available to the Employer any additional information it may find necessary or require to supplement or authenticate the Qualification Statement.
- 5) We acknowledge the right of the Employer to reject our BID without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
- 6) We certify that in the last three years, any of the Joint Venture Members have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial Employer or a judicial pronouncement or arbitration award, nor been expelled from any Project or contract by any public Employer nor have had any contract terminated by any public Employer for breach on our part.
- 7) We declare that:
 - a) We have examined and have no reservations to the RFQ cum RFP document, including any Addendum issued by the Employer.
 - b) We do not have any conflict of interest in accordance with Clauses **2.2.1** (c) and **2.2.1** (d) of the RFQ cum RFP document; and
 - c) We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Section **3.3** [or obstructive practice as defined in Appendix V] of the RFQ cum RFP document, of any tender or request for proposal issued by or any agreement entered into with the Employer or any other public sector enterprise or any Government, Central or State; and
 - d) We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 4 of the RFQ cum RFP document, no person acting for us or on our behalf has engaged or will engage in any

corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

- 8) We understand that you may cancel the Bidding Process at any time and that you are neither bound to accept any BID that you may receive nor to invite the Bidders to BID for the Project, without incurring any liability to the Bidders, in accordance with **Clause 2.17.9** of the RFQ cum RFP document.
- 9) We believe that we/ our Joint Venture/ proposed Joint Venture satisfy(ies) the Net Worth criteria and meet(s) all the requirements as specified in the RFQ cum RFP document and are qualified to submit a BID.
- 10) We declare that we/ any Member of the Joint Venture are not a Member of a/ any other Joint Venture applying for BID.
- 11) We certify that in regard to matters other than security and integrity of the country, we/ any Member of the Joint Venture have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory Employer which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
- 12) We further certify that in regard to matters relating to security and integrity of the country, we/ any Member of the Joint Venture have not been charge-sheeted by any agency of the Government or convicted by a Court of Law.
- 13) We further certify that no investigation by a regulatory Employer is pending either against us/ any Member of the Joint Venture or against our CEO or any of our directors/ managers/ employees.
- 14) We further certify that we/ any Member of the Joint Venture are not barred by the Central/ State Government or any entity controlled by it, from participating in any Project (EPC or otherwise), and that no bar subsists as on the date of BID.
- 15) We further certify that we are qualified to submit a BID in accordance with the guidelines for qualification of Bidders seeking to acquire stakes in Public Sector Enterprises through the process of disinvestment issued by the GOI vide Department of Disinvestment OM No. 6/4/2001-DD-II dated 13th July, 2001 which guidelines apply mutatis mutandis to the Bidding Process. A copy of the aforesaid guidelines forms part of the RFP at Appendix-V thereof.
- 16) We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the provisions of this RFQ cum RFP, we shall intimate the Employer of the same immediately.
- 17) The Statement of Legal Capacity as per format provided at Annexure -V in Appendix- IA of the RFQ cum RFP document, and duly signed, is enclosed. The power of attorney for signing of BID and the power of attorney for Lead Member of Joint Venture, as per format provided at Appendix II and III respectively of the RFQ cum RFP, are also enclosed.
- 18) We certify that the {Bidder} is an existing Company incorporated under the Indian Companies Act, 1956 & 2013
- 19) We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Employer in connection with the selection of Bidders, selection of the Bidder, or in connection with the selection / Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.
- 20) We hereby confirm our Compliance to Rule 144(xi) of GFRs, 2017 including amendment / revision issued vide Order (Public Procurement No. 4), Office Memorandum No. F.7/10/2021-PPD (1) dated 23-02-2023.
- 21) The documents accompanying the Technical BID, as specified in **Clause 2.13.1** of the RFQ cum RFP, have been submitted in separate files.
- 22) We offer a BID Security of Rs.----- (Rupees ----- only) to the Employer in accordance with the RFQ cum RFP Document.
- 23) The BID Security in the form of a Bank Guarantee/Insurance surety Bond is attached.
- 24) We agree and undertake to abide by all the terms and conditions of the RFQ cum RFP document.
- 25) We certify that in terms of the RFQ cum RFP, our Net Worth is Rs. (Rupees. In words)

- 26) We undertake to engage personnel specialized/ sub-Contractors for Design and construction of those elements of the Project for which we do not have adequate experience.
- 27) {We agree and undertake to be jointly and severally liable for all the obligations of the Contractor under the EPC Agreement.}\$
- 28) We hereby submit our BID and offer a BID Price as indicated in Financial BID for undertaking the aforesaid Project in accordance with the Bidding Documents and the Agreement.
- 29) We shall keep this offer valid for 180 (one hundred and eighty) days from the BID Due Date specified in the RFQ cum RFP.

In witness thereof, we submit this BID under and in accordance with the terms of the RFQ cum RFP document.

For and on behalf of *[Name of the Bidder/name of the Joint Venture, as applicable]*

.....

[Signature]

.....

[Seal of the Bidder/Joint Venture]

.....

[Name of the person duly authorized to sign the Bid on behalf of the Bidder]

.....

[Designation of the person signing the Bid]

.....*[Date DD/MMM/YYYY]*

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ANNEXURE I: DETAILS OF BIDDER

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

- 1) Bidder details:
 - a) Name
 - b) Country of incorporation
 - c) Address of the corporate headquarters and its branch office(s), if any, in India:
 - d) Date of incorporation and/ or commencement of business
- 2) Brief description of the Company including details of its main lines of business and proposed role and responsibilities in this Project:
- 3) Details of individual(s) who will serve as the point of contact/ communication for the Employer:
 - a) Name
 - b) Designation
 - c) Company
 - d) Address
 - e) Telephone number
 - f) E-mail address
 - g) Fax Number
- 4) Particulars of the Authorized Signatory of the Bidder
 - a) Name
 - b) Designation
 - c) Address
 - d) Telephone number
 - e) Fax Number
- 5) In case of a Joint Venture
 - a) The information above (1-4) should be provided for all the Members of the Joint Venture.
 - b) A copy of the Jt. Bidding Agreement, as envisaged in **Clause 2.2.6 (K)** should be attached to the BID.
 - c) Information regarding the role of each Member should be provided as per table below:

S.No	Name of Member	Role* {Refer Clause 2.2.6 (d) & (k)}	Share of work in the Project {Refer Clauses 2.2.6 (a), & (c) & (d) & (k)}
1			
2			
3			

d) The following information shall also be provided for each Member of the Joint Venture:

Name of Bidder/ member of Joint Venture:

S.No.	Criteria	Yes	No
1.	Has the Bidder/ constituent of the Joint Venture been barred by the [Central/ State] Government, or any entity controlled by it, from participating in any Project (BOT, EPC or DB etc.)?		
2.	If the answer to 1 is yes, does the bar subsist as on the date of BID.		
3.	Has the Bidder/ constituent of the Joint Venture paid liquidated damages of more than 5% of the contract value in a contract due to delay or has been penalized due to any other reason in relation to execution of a contract, in the last three years?		
4.	Has the Bidder/constituent of the JV has applied for CDR during the last 5 financial years?		

e) The updated following information w.r.t **para 2.2.1(j)** for the Bidder and each Member of the Joint Venture:

Name of Bidder/ member of Joint Venture:

S.No	Criteria	1 st Last year	2 nd last year	3 rd last year
1	If Bidder have either failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Bidder or any of its Joint Venture Member, as the case may be, or has been expelled from any Project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder or any of its Joint Venture Member.			
2	Updated details of stage of litigation, if so, against the Authority / Governments on all the on-going Projects of the Bidder or any of its Joint Venture Member.			
3	Updated details of on-going process of blacklisting if so, under any contract with Authority / Government on the Bidder including any of its Joint Venture member.			

6) A Statement by the Bidder and each of the Members of its Joint Venture (where applicable) disclosing material non-performance or contractual non-compliance in past Projects, contractual disputes and litigation/ arbitration in the recent past is given below (Attach extra sheets, if necessary):

Attached are copies of original documents of:

- Articles of Incorporation/Registration in conformity with the provisions of the laws of the country where the Applicant is incorporated/registered (or equivalent documents of constitution of the Applicant)
- (a) Memorandum of Association and (b) Article of Association, or equivalent documents. In case of a partnership firm a copy of the partnership deed shall be submitted.
- Organizational chart and List of Board of Directors.

For and on behalf of *[Name of the Bidder/name of the Joint Venture, as applicable]*

.....
[Signature]

.....
[Seal of the Bidder/Joint Venture]

.....
[Name of the person duly authorized to sign the Bid on behalf of the Bidder]

.....
[Designation of the person signing the Bid]

.....*[Date DD/MMM/YYYY]*

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ANNEXURE II: SIMILAR WORK EXPERIENCE⁸

(Eligibility and Qualification Criteria No. 3.1)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

[The following table shall be filled in for contracts performed by the Bidder, each member of Joint Venture]

Bidder's Name: [insert full name]

Joint Venture Member's Name: [insert full name]

Similar work No. [insert number] of [insert number of similar works required]	Information		
Description of the similarity in accordance with similar work as defined in Section 3, Eligibility and Qualification Criteria No. 3.1			
Contract Identification	[insert contract name and number, if applicable]		
Award date	[insert day, month, year]		
Commencement date	[insert day, month, year]		
Completion date	[insert day, month, year]		
Role in Contract [check the appropriate box]	Prime Contractor <input type="checkbox"/>	Member in Joint Venture/Consortium of Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	[insert total contract amount in local currency]	INR [insert Exchange rate and total contract amount in INR equivalent]*	
Total Contract Amount after accounting for escalation as per provision given below **	[insert total contract amount in INR after escalation]		
If member in a joint venture/Consortium or sub-contractor, specify participation in total contract amount	[insert a percentage amount]	[insert total contract amount in local currency]	[insert exchange rate and total contract amount in INR equivalent]*
Employer's Name:	[insert full name]		

⁸ The Similar Works experience(s) of Group Companies, Parent Companies or Sister Companies, Concessionaires and Developers shall not be considered for evaluation. The Bidders are advised to strictly adhere to their requirement and submit the Similar Works experience(s) from the client(s) of the Bidder Only (see Section 3, Eligibility and Qualification Criteria No. 3.1).

Similar work No. <i>[insert number] of [insert number of similar works required]</i>	Information
Address: Telephone/fax number E-mail:	<i>[indicate street / number / town or city / country]</i> <i>[insert telephone/fax numbers, including country and city area codes]</i> <i>[insert e-mail address, if available]</i>

For and on behalf of [Name of the Bidder/name of the Joint Venture, as applicable]

.....
 [Signature] [Seal of the Bidder/Joint Venture]

.....
 [Name of the person duly authorized to sign the Bid on behalf of the Bidder]

.....
 [Designation of the person signing the Bid]

.....[Date DD/MMM/YYYY]

* Refer Appendix V for source of exchange rate.

**For completed works, escalation @ 5% per annum (applied from the date of completion of the works until 31st April 2025) shall be considered for equating the works of the previous years to the current year for Indian Rupees (INR).

In case of currencies other than INR, for equating the works of the previous years to the current year, an escalation of 2% per annum on the foreign currency amount shall first be applied (applied from the date of completion of the works until 31st April 2025). The resulting amount shall then be converted in to INR using the exchange rate applicable on 31st April 2025 (Refer Annexure-1 for source of exchange rate).

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ANNEXURE III: CONSTRUCTION EXPERIENCE IN KEY ACTIVITIES⁹

(Eligibility and Qualification Criteria No. 3.2)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudurssery Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

[The following table shall be filled in for contracts performed by the Bidder and/or each member of Joint Venture, as applicable]

[Each and every key construction activity and in case of more contracts pursuant to Criteria 4.3 of Section 3, each contract details, shall be filled in separate form]

Bidder's Name: [insert full name]

Joint Venture Member's Name: [insert full name]

Key Construction Activity No.:[insert respective key construction activity no. and description as given at Eligibility and Qualification Criteria No. 3.2 in Section 3]

Details of key construction activity executed under the contract:

	Information		
Contract Identification	[insert contract name and number, if applicable]		
Employer's Name	[insert full name]		
Address:	[indicate street/ number/ town or city/ country]		
Telephone/Fax Number	[insert telephone/ fax numbers, including country and city area codes]		
Email:	[insert e-mail address, if available]		
Contract awarded to	[insert name of firm to whom the contract was awarded]		
Contract Award date	[insert day, month, year]		
Contract Commencement date	[insert day, month, year]		
Contract Completion date	[insert day, month, year]		
Total Contract Amount	[insert total contract amount in contract currency(ies)]	INR [insert exchange rate* and total contract amount in INR equivalent]	
Role in Contract [check the appropriate box]	Prime Contractor <input type="checkbox"/>	Member in Joint Venture/Consortium of Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>

⁹ The construction experience(s) of Group Companies, Parent Companies or Sister Companies, Concessionaires and Developers shall not be considered for evaluation. The Bidders are advised to strictly adhere to their requirement and submit the construction experience(s) from the client(s) of the Bidder Only (see Section 3, Eligibility and Qualification Criteria No. 3.2).

	Information		
	<input type="checkbox"/>		
Applicant's participation (in percentage) in Contract	100% (in case of Contractor being a single entity).% (in case of Contractor being a JV/Consortium)	100% (in case of Sub-contractor being a single entity).% (in case of Sub-contractor being a JV/Consortium)	
Description and details of key activity executed under the Contract:			
Key activity no. ** and its start/ completion date as per contract or client's certificate	Component of Key Activity: <i>[insert description of key activity]</i> Quantity: <i>[insert number of such key activities executed]</i> Key activity start date: <i>[insert start date]</i> Key activity completion date: <i>[insert completion date]</i>		
	Total quantity in the contract (i)	Percentage participation (ii)	Actual Quantity Performed (i) x (ii)

Supporting documents submitted for the key activity along with this form.

[insert here the description of supporting document annexed with this form to substantiate the key activity]

1.
2.
3.

For and on behalf of *[Name of the Bidder/name of the Joint Venture, as applicable]*

.....

[Signature]

.....

[Seal of the Bidder/Joint Venture]

.....

[Name of the person duly authorized to sign the Bid on behalf of the Bidder]

.....

[Designation of the person signing the Bid]

.....

[Date DD/MMM/YYYY]

*** Refer Appendix V for source of exchange rate.**

**** For Key Construction Activity No. 1, 2 & 3 in case of Applicant's /JV Member's role in contract is/was as a member of Contractor's / Sub-contractor's JV, it shall substantiate that the key construction activity was in his scope under the contract. This substantiation could be through the client's certificate or Joint Venture agreement or other appropriate document.**

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ANNEXURE IV: Financial Capacity of the Bidder

(Eligibility and Qualification Criteria No. 2.1)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

[The following table shall be filled in for the Bidder and each member of Joint Venture, as applicable]

Bidder's Name: [insert full name]

Joint Venture Member's Name: [insert full name]

1) Financial Data

Type of Financial information in (currency)	Historic information for previous 5 (Five) Years (amount in currency, exchange rate*, INR equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
A. Total Assets (TA) (Excluding Deferred Expenditure and Losses)					
B. Total Outside Liabilities (TL) (Long Term Liabilities and Current Liabilities and Provisions)					
C. Revaluation Reserve					
D. Net Worth = A – B – C					
E. Current Assets (CA)					
F. Current Liabilities and Provisions (CL)					
G. Working Capital = E - F					
H. Proposed specific line of credit agreed by commercial Bank and/or any other source of finance for the subject contract					
I. Total Available Working Capital (G+H) for the subject contract					
J. Profit before taxes					
K. Profit after taxes					
L. Annual Construction Turnover					

According to the information, explanations and documents provided by the Bidder to us, we certify that the above information is correct to the best of our knowledge and belief.

(Applicable in case of form being certified by Statutory Auditor of the Bidder)

..... (Signature of the Statutory Auditor)

..... (Full Name of the Statutory Auditor)

..... (Name of the Statutory Auditor's Firm)

..... (Complete Address of the Statutory Auditor's Firm)

..... (Telephone/fax numbers, including country and city codes)

..... (E-mail of the Statutory Auditor)

..... (Seal of the Statutory Auditor)

Membership No. of the Statutory Auditor:

UDIN No.:

2) Financial documents

- a) The Audited Balance Sheets, Profit and Loss Account and cash flow statement of Group Companies, or Sister Companies shall not be considered for evaluation unless they are part of JV. The Applicants are advised to strictly adhere to this requirement and submit the above statements of the Applicant or of the each member of JV only.
- b) The Bidder or each member of Joint Venture shall attach copies of the Audited Balance Sheets for 5 (five) years preceding the Application Due Date, which shall:
 - i. reflect the financial situation of the Bidder, and not an affiliated entity (such as parent company or group member);
 - ii. be statutorily audited;
 - iii. be complete, including all notes attached thereto;
 - iv. correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).
- c) The Bidder shall also provide the name and address of the Bankers to the Bidder

Note:

1. Year 1 will be the latest completed financial year, preceding the Application Due Date. Year 2 shall be the year immediately preceding Year 1 and so on. For avoidance of doubt, financial year shall, for the purposes of the Application hereunder, mean the accounting year followed by the Applicant in the normal course of its business.

2. If the most recent set of Balance Sheet or the Financial Statement, as the case may be, is for a period earlier than 12 months from the date of application, justification should be provided for the same.

ANNEXURE V: AVERAGE ANNUAL CONSTRUCTION TURNOVER¹⁰

(Eligibility and Qualification Criteria No. 2.2)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

[The following table shall be filled in for the Bidder and each member of Joint Venture]

Bidder's Name: [insert full name]

Joint Venture Member's Name: [insert full name]

Annual Construction Turnover			
Year (Financial year to be indicated by Applicant)	Amount Currency	Exchange rate**	INR equivalent
[indicate financial year]	[insert amount and indicate currency]		
FY – 2024-25			
FY – 2023-24			
FY – 2022-23			
FY – 2021-22			
FY – 2020-21			
		Average Annual Construction Turnover ***	

According to the information, explanations and documents provided by the Bidder to us, we certify that the above information is correct to the best of our knowledge and belief.

..... (Signature of the Statutory Auditor)

..... (Full Name of the Statutory Auditor)

..... (Name of the Statutory Auditor's Firm)

..... (Complete Address of the Statutory Auditor's Firm)

..... (Telephone/fax numbers, including country and city codes)

..... (E-mail of the Statutory Auditor)

¹⁰ The Annual Construction Turnover of Group Companies, Parent Companies or Sister Companies shall not be considered for evaluation. The Bidders are advised to strictly adhere to this requirement and submit the Balance Sheets, specific certificate issued by its Statutory Auditors.

..... (Seal of the Statutory Auditor)

Membership No. of the Statutory Auditor:

UDIN No.:

* Annual Construction Turnover should be substantiated through (i) Audited Balance Sheets of the relevant financial years, provided the figures, are stated in the Balance Sheet(s) or (ii) Specific certificate(s) issued by its Statutory Auditors or in case the accounts of the Applicant or of the members of JV are not required to be statutorily audited, certified in accordance with local legislation or (iii) Certificate(s) issued by the Clients

** Refer Appendix V for date and source of exchange rate.

*** Total INR equivalent for 5 years divided by the 5.

ANNEXURE VI: CURRENT CONTRACT COMMITMENTS

(Eligibility and Qualification Criteria No. 2.1 & 2.3)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

[The following table shall be filled in for the Bidder and each member of Joint Venture]

Bidder's Name: [insert full name]

Joint Venture Member's Name: [insert full name]

S. No.	Name of the Contract	Joint venture/Consortium Percentage Share (%)	Commencement Date as per Contract	Completion Date as per Contract	Period of actual completion of work (in months)	Total Contract Value with currency	Currency Conversion Rate	Converted Contract Value (in INR Crore)	Work done up to 31 March 2025 (in INR Crore)	Value of works outstanding as on 31 March 2025 [Col. 9 minus Col. 10]	Converted Contract Value Share of Applicant (in INR Crore)	Value of works outstanding as on 31 March 2025 Share of Applicant (in INR Crore)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(A) List of all current contracts in progress which have started before the closing of the latest submitted Audited Balance Sheet												
1												
2												
3												
...												

S. No.	Name of the Contract	Joint venture/Consortium Percentage Share (%)	Commencement Date as per Contract	Completion Date as per Contract	Period of actual completion of work (in months)	Total Contract Value with currency	Currency Conversion Rate	Converted Contract Value (in INR Crore)	Work done up to 31 March 2025 (in INR Crore)	Value of works outstanding as on 31 March 2025 [Col. 9 minus Col. 10]	Converted Contract Value Share of Applicant (in INR Crore)	Value of works outstanding as on 31 March 2025 Share of Applicant (in INR Crore)
Total (A)												
(B) List of all current contracts in progress which have been started or to be started after the closing of the latest submitted Audited Balance Sheet till 31 March 2025												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1												
2												
3												
4												
...												
Total (B)												
Total (A+B)												

According to the information, explanations and documents provided by the Bidder to us, we certify that the above information is correct to the best of our knowledge and belief.

..... (Signature of the Statutory Auditor)

..... (Full Name of the Statutory Auditor)

..... (Name of the Statutory Auditor's Firm)
..... (Complete Address of the Statutory Auditor's Firm)
..... (Telephone/fax numbers, including country and city codes)
..... (E-mail of the Statutory Auditor)
..... (Seal of the Statutory Auditor)

Membership No. of the Statutory Auditor:

UDIN No.:

Note:

1. Applicants should provide information on their current commitments on all Construction contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued even if completion of such works spills over beyond completion period of this contract.
2. For the purpose of conversion of foreign currency into Indian Rupees (INR), Applicants shall use the Foreign Currency Reference Rates published on 31 March 2025. Refer Annexure-1 for source of Exchange rate.
3. The financial data in above prescribed format (Annexure - VI) shall be certified by the Statutory Auditors/ Chartered Accountants of the Applicant.

ANNEXURE VII: TENDERING CAPACITY

(Eligibility and Qualification Criteria No. 2.3)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

[The following table shall be filled in for the Bidder and each member of Joint Venture]

Bidder's Name: [insert full name]

Joint Venture Member's Name: [insert full name]

Maximum annual construction turnover in any one year during the last five (5) financial years	Value of works outstanding as on 31 March 2025 (in INR Crore)	No. of years prescribed for Completion of the works for which tenders are invited	Available Tendering Capacity (in INR Crore)	Remarks [minimum available Tendering Capacity shall be Rs 1660 Crore]
A	B	N	(A x N x 1.5 – B)	
Amount as per Annexure - V	Total as per Column 13 of Annexure - VI	3.5	1660	

Note:

Minimum Available Tendering Capacity of Rs. 1660 Crore for construction works

Available Tendering Capacity= (A x N x 1.5) – B;

For and on behalf of [Name of the Bidder/name of the Joint Venture, as applicable]

.....

[Signature]

[Seal of the Bidder/Joint Venture]

.....

[Name of the person duly authorized to sign the Bid on behalf of the Bidder]

.....

[Designation of the person signing the Bid]

.....

[Date DD/MMM/YYYY]

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ANNEXURE VIII: CERTIFICATE FOR CORPORATE DEBT RESTRUCTURING

(Eligibility and Qualification Criteria No. 1.8)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

TO WHOM IT MAY CONCERN

This is to certify that [Legal name of the Applicant and address]:

- (i) is not under the process of Resolution Plan of Debt Restructuring as per applicable law in the Applicant's country [name of the country] *,

or
- (ii) is not under the process of 'Insolvency and Bankruptcy' proceedings as per applicable law in the Applicant's country [name of the country] *,

or
- (iii) was under the process of Resolution Plan of Debt Restructuring and has resolved all debt restructuring issues with the Banks/Institutions as per applicable law in the Applicant's country [name of the country] *,

or
- (iv) is under the process of 'Insolvency and Bankruptcy' proceedings as per applicable law in the Applicant's country [name of the country] *,

as on 31 March 2025.

(* Strike through not applicable.)

According to the information, explanations and documents provided by the Bidder to us, we certify that the above information is correct to the best of our knowledge and belief.

..... (Signature of the Statutory Auditor)

..... (Full Name of the Statutory Auditor)

..... (Name of the Statutory Auditor's Firm)

..... (Complete Address of the Statutory Auditor's Firm)

..... (Telephone/fax numbers, including country and city codes)

..... (E-mail of the Statutory Auditor)

..... (Seal of the Statutory Auditor)

Membership No. of the Statutory Auditor:

UDIN No.:

Note:

1. *The information in above prescribed format (Annexure - VIII) shall be certified by the Statutory Auditors/ Chartered Accountants of the Applicant..*
2. *the applicable law is “The Insolvency and Bankruptcy Code 2016 and amendments thereof” for the purpose of this form.*

ANNEXURE IX: KEY PERSONNEL

(Eligibility and Qualification Criteria No. 4.1)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

I....., Authorized signatory of M/s.....having its registered /Head office atdo hereby confirm/declare that M/s have the below specified (Table-1) key personnel available/ employed in our organization. We also declare that we have 50 number of Engineers/Experts on our payroll in the last 2 years. We also declare that we have adequate manpower resources available for performing this project works. We also confirm that the expertise mentioned in the table below will be deployed at project site having Design and Construction of similar Projects with relevant experiences. We also understand that the figures indicated below are the minimum number of Project Personnel required which are to be deployed as per the minimum level of supervision and qualification/experience of site-staff as given in table. Any proposal with manpower less than as specified below will not be acceptable and considered as non-compliant to Tender requirements. The CVs of the below shall be approved by Employer / PMNC before deployment at project site.

Position	Min. No.	Min. qualification Required
Project Manager	1	Master's in civil engineering / MBA / M. Plan with B.Tech. in civil engineering with PMP certification and min. 20 years of relevant work experience with min. 5 years in a similar urban development project. Should have been PM/TL for at least three similar projects of min. value of Rs. 650 Cr.
Dy. Project manager	1	B.Tech. in civil engineering with a minimum of 15 years of relevant work experience with a minimum of 3 years in a similar urban development project. Should have been Dy.PM/ Dy. TL for at least three similar projects of min. value of Rs. 650 Cr.
Planning Engineer	1	B.Tech. with PMP certification/master's in construction management with min. 10 years of relevant work experience Should have been a Planning Engineer for at least three similar projects of min. value of Rs. 650 Cr.
Chief Interface Coordinator	1	B.Tech. in civil/electrical/mechanical engineering with min. 10 years of relevant work experience Should have experience in the interface between utilities for at least three similar projects.
Design Manager (Design Head)	1	M. Tech. (Transportation / Highway / PHE) and B.Tech. in civil engineering with min. 15 years of relevant work experience having min. 3 years in a similar urban development project. Should have been in a similar role for at least three similar projects of min. value of Rs. 650 Cr.

Position	Min. No.	Min. qualification Required
QA/QC Manager	2	B. Tech. in civil engineering with min. 10 years of relevant work experience along with a Diploma in QA. Should have worked as a QA/QC expert for at least three similar projects.
Mechanical, Electrical & Plumbing (MEP) Expert	1	B.Tech. (Electrical / Mechanical) with min. 10 years of relevant work experience Should have relevant experience for at least three similar projects.
Electrical Expert	1	B.Tech. (Electrical) with min. 10 years of relevant work experience Should have relevant experience for at least three similar projects.
Information, Communication & Technology (ICT) Expert	1	B.Tech. (Electronics & Communication / Electrical / CS / IT) with min. 10 years of relevant work experience. Should have relevant experience in at least three similar projects.
Fire & HSE Manager (Safety Manager)	1	Relevant Degree or Diploma in Construction Safety with 10 years of min. relevant work experience for at least three similar projects.
- Construction Experts - Roads - Power - Water Supply - Sewerage - Mechanical & Instrumentation	Each One	Relevant Degree with min. 10 years of relevant work experience for at least three similar projects in their field. - B.E. / B.Tech. in civil Engineering - B.E. / B.Tech. in Electrical Engineering - B.E. / B.Tech. in civil Engineering - B.E. / B.Tech. in civil Engineering - B.E. / B.Tech. in Mechanical Engineering
Field Surveyor	1	Diploma in Civil Engineering with 10 years of minimum relevant work experience in surveying on at least three similar projects.

For and on behalf of [Name of the Bidder/name of the Joint Venture, as applicable]

.....

[Signature]

.....

[Seal of the Bidder/Joint Venture]

.....

[Name of the person duly authorized to sign the Bid on behalf of the Bidder]

.....

[Designation of the person signing the Bid]

.....

[Date DD/MM/YYYY]

ANNEXURE X: KEY EQUIPMENT

(Eligibility and Qualification Criteria No. 4.2)

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudussery Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

I....., Authorized signatory of M/s.....having its regd/Head office atdo hereby confirm/declare that M/s..... have ownership/ possession through rent/ lease agreement of the below specified (Table) key equipment. We also declare that we have adequate plant and machinery available for performing the above subject works. We also understand that requirements specified below are the minimum key equipment required for the execution of the project. We also confirm that adequate plant, machinery and equipment shall be deployed at site for successful completion of the project works.

Sr. No	Equipment Details	Min. Numbers
1	JCB/Excavators	8
2	Automatic Batching Plant of 30 m ³ /hr	2
3	Pneumatic Tyre Rollers	4
4	Concrete Pumps	8
5	Concrete Transit Mixers	4
6	Jib Cranes/eq.	4
7	Electrofusion jointing machine for PE pipes	2
8	Vibratory Compactor	10
9	Asphalt Concrete Plant	4
10	Tippers	20
11	Crushers	4
12	Submerged Arc Welding Unit	10
13	Automatic Welding Set	2
14	Pneumatic Pumps for Hydro test	4
15	Any other relevant machinery	

For and on behalf of *[Name of the Bidder/name of the Joint Venture, as applicable]*

.....

[Signature]

.....

[Seal of the Bidder/Joint Venture]

.....
[Name of the person duly authorized to sign the Bid on behalf of the Bidder]

.....
[Designation of the person signing the Bid]

.....
[Date DD/MM/YYYY]

ANNEXURE XI: Statement of Legal Capacity

(To be forwarded on the letterhead of the Bidder/ Lead Member of Joint Venture)

Ref. Date:

To,

Dear Sir,

We hereby confirm that we/ our members in the Joint Venture (constitution of which has been described in the bid) satisfy the terms and conditions laid out in the RFQ cum RFP document.

We have agreed that (insert member's name) will act as the Lead

Member of our Joint Venture.*

We have agreed that (insert individual's name) will act as our representative/ will act as the representative of the Joint Venture on its behalf* and has been duly authorized to submit the RFQ cum RFP. Further, the authorized signatory is vested with requisite powers to furnish such letter and authenticate the same.

Thanking you,

Yours faithfully,

(Signature, name and designation of the authorized signatory)

For and on behalf of.....

*Please strike out whichever is not applicable.

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ANNEXURE XII: Power of Attorney for Signing the Bid

Know all men by these presents, we (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. (name), son/daughter/wife ofand presently residing at, who is presently employed with us/ the Lead Member of our Joint Venture and holding the position of,as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our BID for the Project proposed or being developed by the (the "Employer") including but not limited to signing and submission of all applications, BIDs and other documents and writings, participate in Pre-BID and other conferences and providing information/ responses to the Employer, representing us in all matters before the Employer, signing and execution of all contracts including the agreement and undertakings consequent to acceptance of our BID, and generally dealing with the Employer in all matters in connection with or relating to or arising out of our BID for the said Project and/ or upon award thereof to us and/or until the entering into of the EPC Agreement with the Employer. AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE,....., THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS.....DAY OF.....2025.

For

(Signature, name, designation and address)

Witnesses:

1. _____ 2. _____

Accepted (Signature)

(Name, Title and Address of the Attorney) (Notarized) Person identified by me/ personally appeared before me/

Seal of the Notary Registration No. of the Notary

Date:.....

Notes:

The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.

Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/power of attorney in favor of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.

For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate

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ANNEXURE XIII: Format for Power of Attorney for Lead Member of Joint Venture

Whereas the ***** ("Employer") has invited BIDs from prequalified Bidders for the ***** Project (the "Project").

Whereas,,, and..... (collectively the "Joint Venture") being Members of the Joint Venture are interested in Bidding for the Project in accordance with the terms and conditions of the Request for Qualification (RFQ) and Request for Proposal (RFP) and other BID documents including agreement in respect of the Project, and

Whereas, it is necessary for the Members of the Joint Venture to designate one of them as the Lead Member with all necessary power and the Employer to do for and on behalf of the Joint Venture, all acts, deeds and things as may be necessary in connection with the Joint Venture's BID for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

We, having our registered office at, M/s..... having our registered office at, M/s..... having our registered office at (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorize M/S having its registered office at, being one of the Members of the

Joint Venture, as the Lead Member and true and lawful attorney of the Joint Venture (hereinafter referred to as the "Attorney"). We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Joint Venture and any one of us during the Bidding Process and, in the event the Joint Venture is awarded the contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Joint Venture, all or any of such acts, deeds or things as are necessary or required or incidental to the pre-qualification of the Joint Venture and submission of its BID for the Project, including but not limited to signing and submission of all applications, BIDs and other documents and writings, participate in pre BID and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the BID of the Joint Venture and generally to represent the Joint Venture in all its dealings with the Employer, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Joint Venture's BID for the in all respect Project and/ or upon award thereof till the EPC Agreement is entered into with the Employer & Compelled. AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Joint Venture.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF 2025.

For

(Signature) (Name & Title)

For

(Signature) (Name & Title)

Witnesses:

- 1.
- 2.

(Executants)

(To be executed by all the Members of the Joint Venture)

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/power of attorney in favor of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.
- For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.

ANNEXURE XIV: Format for Joint Bidding Agreement for Joint Venture

(To be executed on Stamp paper of appropriate value)

THIS JOINT BIDDING AGREEMENT is entered into on this the day of.....2025.

AMONGST

- 1) {.....Limited, a company incorporated under the Companies Act, 1956 & 2013} and having its registered office at (Hereinafter referred to as the "First Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

- 2) {.....Limited, a company incorporated under the Companies Act, 1956 & 2013} and having its registered office at (herein after referred to as the "Second Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

- 3) {..... Limited, a company incorporated under the Companies Act, 1956 & 2013 and having its registered office at (hereinafter referred to as the "Third Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)}
- 4) The above mentioned parties of the FIRST, {SECOND and THIRD} PART are collectively referred to as the "Parties" and each is individually referred to as a "Party"

WHEREAS,

- a) [....., incorporated under the Act , represented by its and having its principal offices at.....] (hereinafter referred to as the "Employer" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited BIDs (the Bids") by its Request for Qualification & Request for Proposal No. dated..... (the "RFQ cum RFP") for of Bidders.....Project (the "Project") through an EPC Agreement.
- b) The Parties are interested in jointly Bidding for the Project as members of a Joint Venture and in accordance with the terms and conditions of the RFQ cum RFP document and other BID documents in respect of the Project, and
- c) It is a necessary condition under the RFP document that the members of the Joint Venture shall enter into a Joint Bidding Agreement and furnish a copy thereof with the BID.

NOW IT IS HEREBY AGREED as follows:

- 1) Definitions and Interpretations

In this Agreement, the Capitalized terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFP.

- 2) Joint Venture

- a) The Parties do hereby irrevocably constitute a Joint Venture (the "Joint Venture") for the purposes of jointly participating in the Bidding Process for the Project.
- b) The Parties hereby undertake to participate in the Bidding Process only through this Joint Venture and not individually and/ or through any other Joint Venture constituted for this Project, either directly or indirectly.

3) Covenants

The Parties hereby undertake that in the event the Joint Venture is declared the selected Bidder and awarded the Project, it shall enter into an EPC Agreement with the Employer for performing all its obligations as the Contractor in terms of the EPC Agreement for the Project.

4) Role of the Parties

The Parties hereby undertake to perform the roles and responsibilities as described below:

- a) Party of the First Part shall be the Lead member of the Joint Venture and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Joint Venture during the Bidding Process and until the Appointed Date under the EPC Agreement;
- b) Party of the Second Part shall be {the Member of the Joint Venture; and}
- c) {Party of the Third Part shall be the Member of the Joint Venture.}

5) Joint and Several Liability

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFQ cum RFP, and the EPC Agreement, till such time as the completion of the Defects Liability Period in accordance with the EPC Agreement.

The Parties do hereby undertake and declare that the Lead Member shall represent all the members of the Joint Venture and shall at all times be liable and responsible for discharging the functions and obligations of the Joint Venture; and that each member of the Joint Venture shall be bound by any decision, communication, notice, action or inaction of the Lead Member on any matter related to this Agreement and the Employer shall be entitled to rely upon any such action, decision or communication of the Lead Member. The Employer shall have the right to release payments solely to the Lead Member and shall not in any manner be responsible or liable for the inter se allocation of payments among members of the Joint Venture.

6) Share of work in the Project

The Parties agree that the proportion of construction in the EPC Agreement to be allocated among the members shall be as follows:

First Party: [should have at-least 51% percentage participation]

Second Party: [should have at -least 25% percentage participation]

{Third Party:}: [should have at -least 25% percentage participation]

The Parties undertake that they shall collectively hold 100% (hundred percent) of the percentage participation of the JV at all times until the Defects Notification Period/Maintenance period of the Works. However, responsibility of carrying out the entire works up to completion including O&M shall be of the Lead member.

7) Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

- a) Such Party is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement;
- b) The execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or Governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favor of the person executing this Agreement for the

delegation of power and authority to execute this Agreement on behalf of the Joint Venture Member is annexed to this Agreement, and will not, to the best of its knowledge:

- i. require any consent or approval not already obtained;
 - ii. violate any Applicable Law presently in effect and having applicability to it;
 - iii. violate the memorandum and articles of association, by-laws or other applicable organizational documents thereof;
 - iv. violate any clearance, permit, concession, grant, license or other Governmental authorization, approval, judgment, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or
 - v. create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;
- c) this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and
- i. there is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Affiliates is a party that presently affects, or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfillment of its obligations under this Agreement.

8) Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect until Project completion (the "Defects Liability Period") is achieved under and in accordance with the EPC Agreement, in case the Project is awarded to the Joint Venture. However, in case the Joint Venture is does not get selected for award of the Project, the Agreement will stand terminated in case the Bidder is not selected or upon return of the BID Security by the Employer to the Bidder, as the case may be.

9) Miscellaneous

- a) This Joint Bidding Agreement shall be governed by laws of {India}.
- b) The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Employer.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED SIGNED, SEALED AND DELIVERED

For and on behalf of

LEAD MEMBER by:

SECOND PART

(Signature)

(Signature)

(Name)	(Name)
(Designation)	(Designation)
(Address)	(Address)

SIGNED, SEALED AND DELIVERED

For and on behalf of THIRD PART

(Signature) (Name) (Designation) (Address)

In the presence of:

1. (Signature &Name)
2. (Signature & Name)

Notes:

- 1) The mode of the execution of the Joint Bidding Agreement should be in accordance with the procedure, if any, laid down by the Applicable Law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- 2) Each Joint Bidding Agreement should attach a copy of the extract of the charter documents and documents such as resolution / power of attorney in favor of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Joint Venture Member.
- 3) For a Joint Bidding Agreement executed and issued overseas, the document shall be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney has been executed.

ANNEXURE XV: Sample Format for Evidence of Access to or Availability of Credit Facilities - Bank Certificate

(Issued by any Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore))

This is to certify that M/s. _____ is a reputed company with a good financial standing. If the contract for the work " _____ "is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs _____ to meet their working capital requirements for executing the above contract during the contract period.

(Signature)

Name of Bank

Senior Bank Manager

Address of the Bank

Telephone No.

Fax No.

Email ID

Note: The Bidders are requested to upload the Bank Certificate containing above details in 1st envelope, failing which the 2nd envelope will not be opened.

ANNEXURE XVI: Bank Guarantee for BID Security

(Refer Clause 1.2.5)

B.G. No.

Dated:

- 1) In consideration of SPV, The Kerala Industrial Corridor Development Corporation, represented by Managing Director having its office in Kerala, (hereinafter referred to as the Employer, which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the BID of and having its registered office at.....(And acting on behalf of its JV) (hereinafter referred to as the "Bidder" which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns), for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis" Project (hereinafter referred to as "the Project") pursuant to the RFQ cum RFP Document dated issued in respect of the Project and other related documents including without limitation the draft contract Agreement (hereinafter collectively referred to as "Bidding Documents"), we (Name of the Bank) having our registered office at and one of its branches at (hereinafter referred to as the "Bank"), at the request of the Bidder, do hereby in terms of **Clause 1.2.5** of the RFQ cum RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfillment and compliance of the terms and conditions of the Bidding Documents (including the RFQ cum RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Employer an amount of Rs. ----- (Rupees ----- only) (hereinafter referred to as the "Guarantee") as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfill or comply with all or any of the terms and conditions contained in the said Bidding Documents.
- 2) Any such written demand made by the Employer stating that the Bidder is in default of the due and faithful fulfillment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
- 3) We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Employer is disputed by the Bidder or not, merely on the first demand from the Employer stating that the amount claimed is due to the Employer by reason of failure of the Bidder to fulfill and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its BID open during the BID validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not Exceeding Rs..... (In Words)
- 4) This Guarantee shall be irrevocable and remain in full force for a period of 240 (Two Hundred and Forty days) from the BID Due Date inclusive of a claim period of 60 (Sixty) days or for such extended period as may be mutually agreed between the Employer and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
- 5) We, the Bank, further agree that the Employer shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfillment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its BID open during the BID validity period set forth in the said Bidding Documents, and the decision of the Employer that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Employer and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other THE Employer.
- 6) The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
- 7) In order to give full effect to this Guarantee, the Employer shall be entitled to treat the Bank as the principal debtor.

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the BIDs or the BID validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Employer, and the Bank shall not be released from its liability under these presents by any exercise by the Employer of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Bidder or by any change in the constitution of the Employer or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.

- 8) Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
- 9) We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
- 10) It shall not be necessary for the Employer to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Employer may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.
- 11) We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Employer in writing.
- 12) The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
- 13) For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs.....The Bank shall be liable to pay the said amount or any part thereof only if the Employer serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [*** (indicate date falling 240 days after the BID Due Date)]

Signed and Delivered by.....Bank

By the hand of Mr. /Ms., it's an authorized Official.

(Signature of the Authorized Signatory)

ANNEXURE XVII: Integrity Pact Format

(To be executed on plain paper and submitted along with Technical Bid/Tender documents)

This integrity Pact is made at _____ on this _____ day of _____ 2025.

BETWEEN

The Kerala Industrial Corridor Development Corporation, represented by its Managing Director, The Kerala Industrial Corridor Development Corporation Limited , KINFRA Hi Tech Park HMT Colony P.O. Kalamassery Ernakulam, Kerala - 683503, (hereinafter referred to as the “Employer” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns)

AND

{Name and address of the Firm/Company}, (hereinafter referred to as “Bidder” and which expression shall unless repugnant to be meaning or context thereof include its successors and permitted assigns.)

Preamble

Whereas, the Employer has floated the Tender {NIT No.....dated... } (hereinafter referred to as “Tender/Bid”) and intends to award, under laid down organizational procedure, contract/s for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis" (hereinafter referred to as the “Contract”).

And Whereas the Employer values full compliance with all relevant laws of the land, rules of land, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder.

And whereas to meet the purpose aforesaid, both the parties have agreed to enter into this Integrity Pact (hereafter referred to as “Integrity Pact” or “Pact”) the terms and conditions of which shall also be read as integral part and parcel of the Tender documents and contract between the parties.

Now, therefore, in consideration of mutual covenants contained in this pact, the parties hereby agree as follows and this pact witnesses as under:

Article-1: Commitments of the Employer

- 1) The Employer commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 - a) No employee of the Employer, personally or through family members, will in connection with the Tender for, or the execution of a Contract, demand, take a promise for or accept, for self, or third person, any material or immaterial benefit which the person is not legally entitled to.
- 2) The Employer will, during the Tender process treat all Bidder with equity and reason. The Employer will in particular, before and during the Tender process, provide to all Bidder the same information and will not provide to any Bidder confidential/ additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.
 - a) The Employer will exclude all known prejudiced persons from the process, whose conduct in the past has been of biased nature.
- 3) If the Employer obtains information on the conduct of any of its employees which is a criminal offence under the

IPC/PC Act or any other Statutory Acts or if there be a substantive suspicion in this regard, the Employer will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions as per its internal laid down Rules/Regulations.

Article- 2: Commitments of the Bidder.

The Bidder commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

- 1) The Bidder will not, directly or through any other person or firm, offer, promise or give to any of the Employer's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2) The Bidder will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contract, submission or non-submission or bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 3) The Bidder will not commit any offence under the relevant IPC/PC Act and other Statutory Acts; further the Bidder will not use improperly, for purposes of completion or personal gain, or pass on to others, any information or document provided by the Employer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 4) The Bidder of foreign origin shall disclose the name and address of the Agents/ Representatives in India, if any. Similarly, the Bidder of Indian Nationality shall furnish the name and address of the foreign principle, if any.
- 5) The Bidder will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract. He shall also disclose the details of services agreed upon for such payments.
- 6) The Bidder will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 7) The Bidder will not bring any outside influence through any Govt. bodies/quarters directly or indirectly on the bidding process in furtherance of his bid.

Article- 3: Disqualification from tender process and exclusion from future contracts.

- 1) If the Bidder, before award or during execution has committed a transgression through a violation of any provision of Article- 2, above or in any other form such as to put his reliability or credibility in question, the Employer is entitled to disqualify the Bidder from the tender process.
- 2) If the Bidder has committed a transgression through a violation of Article-2 such as to put his reliability or credibility into question, the Employer shall be entitled to exclude including blacklist and put on holiday the Bidder for any future tenders/ contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Employer taking into consideration the full facts and circumstances of each case particularly taking into account the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a maximum of 3 years.
- 3) A transgression is considered to have occurred if the Employer after due consideration of the available evidence concludes that "On the basis of facts available there are no material doubts".
- 4) The Bidder with its free consent and without any influence agrees and undertakes to respect and uphold the Employer's absolute rights to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
- 5) The decision of the Employer to the effect that a breach of the provisions of this Integrity Pact has been committed

by the Bidder shall be final and binding on the Bidder, however, the Bidder can approach IEM(s) appointed for the purpose of this Pact.

- 6) On occurrence of any sanctions/ disqualification etc. arising out from violation of integrity pact, the Bidder shall not be entitled for any compensation on this account.
- 7) Subject to full satisfaction of the Employer, the exclusion of the Bidder could be revoked by the Employer if the Bidder can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system in his organization.

Article – 4: Compensation for Damages.

- 1) If the Employer has disqualified the Bidder from the tender process prior to the award according to Article-3, the Employer shall be entitled to suspend the bidder for participation in the tendering process for the work of TITL and work under other Centrally Sponsored Schemes for a period of One Year from the bid due date of this work apart from any other legal right that may have accrued to the Employer..
- 2) In addition to 1 above, the Employer shall be entitled to take recourse to the relevant provisions of the contract related to Termination of Contract due to Contractor's Default. In such case, the Employer shall be entitled to forfeit the Performance Bank Guarantee of the Contractor and/ or demand and recover liquidated and all damages as per the provisions of the contract agreement against Termination.

Article – 5: Previous Transgressions

- 1) The Bidder declares that no previous transgressions occurred in the last 3 years immediately before signing of this Integrity Pact with any other Company in any country conforming to the anti-corruption/ Transparency International (TI) approach or with any other Public Sector Enterprise/ Undertaking in India or any Government Department in India that could justify his exclusion from the tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action for his exclusion can be taken as mentioned under Article-3 above for transgressions of Article-2 and shall be liable for compensation for damages as per Article-4 above.

Article – 6: Equal treatment of all Bidders.

- 1) The Bidder undertake(s) to demand from all JV partners a commitment in conformity with this Integrity Pact, and to submit it to the Employer before contract signing.
- 2) The Employer will enter into agreements with identical conditions as this one with all Bidders.
- 3) The Employer will disqualify from the tender process all Bidders who do not sign this Pact or violate its provisions.

Article – 7: Criminal charges against violating Bidder.

If the Employer obtains knowledge of conduct of a Bidder, or of an employee or a representative or an associate of a Bidder, which constitutes corruption, or if the Employer has substantive suspicion in this regard, the Employer will inform the same to the Chief Vigilance Officer.

Article- 8: Independent External Monitor (IEM)

- 1) The Employer has appointed _____ as Independent External Monitor (herein after referred to as "Monitor") for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chief Execution Officer, National Industrial Corridor Development Corporation .
- 3) The Bidder accepts that the Monitor has the right to access without restriction to all project documentation of the

Employer including that provided by the Bidder. The Bidder will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder with confidentiality.

- 4) The Employer will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Employer and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 5) As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Management of the Employer and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 6) The Monitor will submit a written report to the Chief Execution Officer, National Industrial Corridor Development Corporation within 8 to 10 weeks from the date of reference or intimation to him by the Employer and, should the occasion arise, submit proposals for correcting problematic situations.
- 7) If the Monitor has reported to the Chief Execution Officer, National Industrial Corridor Development Corporation, a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chief Execution Officer, National Industrial Corridor Development Corporation has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- 8) The word 'Monitor' would include both singular and plural.

Article – 9: Pact Duration

This Pact begins when both parties have legally signed it (in case of EPC i.e. for projects funded by Employer and consultancy services). It expires for the Contractor, 12 months after his Defect Liability Period is over or 12 months after his last payment under the contract whichever is later and for all other unsuccessful Bidders, 6 months after this Contract has been awarded.

If any claim is made/ lodged during his time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by Chief Execution Officer, National Industrial Corridor Development Corporation.

Article – 10: Other Provisions.

- 1) This pact is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Employer, i.e. Ernakulam .
- 2) Changes and supplements as well as termination notices need to be made in writing.
- 3) If the Bidder is in a partnership or a consortium Joint Venture partner, this pact must be signed by all JV partners or consortium members.
- 4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) Any disputes/ differences arising between the parties with regard to term of this pact, any action taken by the Employer in accordance with this Pact or interpretation thereof shall not be subject to any Arbitration.
- 6) The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provision of the extent law in force relating to any civil or criminal proceedings.

In witness whereof the parties have signed and executed this Pact at the place and date first done mentioned in the presence of following witness:-

For & On behalf of the Employer

For & On behalf of the Bidder

(Office Seal)

Place _____

Date_____

Witness 1: (Name and Address)

Witness 2: (Name and Address)

Countersigned and Accepted By:

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ANNEXURE XVIII: Affidavit from Bidder for Non- Blacklisting and action under Indian Penal Code for false/ fraudulent documents

(Affidavit to be uploaded by bidder in envelope No. 1 and in case of JV, by lead partner & all Joint Ventures partners on Rs.500/- stamp paper duly notarized.)

Name of work-

I _____ age _____ address _____ (Authorized signatory to sign the contract), hereby submit, vide this affidavit in truth, that I am the owner of the contracting firm _____ / authorized signatory and I am submitting the documents in envelope No. 1 for the purpose of scrutiny of the contract. I hereby agree to the conditions mentioned below: -

- 1) Certify that all the statements made in the required attachments are true and correct
- 2) The undersigned also hereby certifies that neither our firm M/s-----PAN No.have abandoned any work nor any contract awarded to us for such works have been rescinded, during last 7 (seven) years prior to the date of this bid.
- 3) The undersigned hereby authorize (s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation
- 4) I, the undersigned declare that as on date neither our company is blacklisted/banned, nor any action of deregistration has been taken against our company by any Government / Semi Government / Public Sector Undertaking / Urban Local body/ Municipal Corporation etc.
- 5) The undersigned understand and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the Department, Project implementing agency within time frame as specified in this document.
- 6) I am liable for action under Indian Penal Code for submission of any false / fraudulent paper / information submitted in envelope no.1.
- 7) I am liable for action under Indian Penal Code if during contract period and defect liability period, any false information, false bill of purchases supporting proof of purchase, proof of testing submitted by my staff, subletting company or by myself, I will be liable for action under Indian Penal Code.
- 8) I am liable for action under Indian Penal Code if any papers are found false / fraudulent during contract period and even after the completion of contract (finalization of final bill).

(Signature) (Name & Title)

Date:

Note:

- 1) Nonperformance, as decided by the Employer, shall include all contracts where (i) Nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract; and (ii) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where the Employers decision was overruled by the dispute resolution mechanism. Nonperformance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where

all appeal instances available to the bidder have been exhausted.

- 2) The above requirement is also applicable to the contracts executed by the bidder as JV member.
- 3) Please note the contractor & in case of Joint Venture lead partner as well as all Joint Venture partners shall sign the Affidavit individually and upload the same in envelope no. 1, failing which their tender will not be opened & summarily rejected.

ANNEXURE XIX: METHODS STATEMENT

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

(Signature of Bidder with Seal)

ANNEXURE XX: ORGANISATION AND MANAGEMENT

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

(Signature of Bidder with Seal)

ANNEXURE XXI: WORK PROGRAMME

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

(Signature of Bidder with Seal)

ANNEXURE XXII: Outline Health, Safety & Environment Management (HSE) Plan

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

(Signature of Bidder with Seal)

ANNEXURE XXIII: Outline Quality Management System (QMS) Plan

Subject: Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

(Signature of Bidder with Seal)

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APPENDIX IB: Letter comprising the Financial BID

Ref:

Dated:

Sub: Financial Bid for Tender dated [date] for selection of contractor for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

Dear Sir,

With reference to your RFQ cum RFP document dated -----, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our BID for the aforesaid Project. The BID is unconditional and unqualified.

- 1) I / We acknowledge that the Employer will be relying on the information provided in the BID and the documents accompanying the BID for selection of the Contractor for the aforesaid Project, and we certify that all information provided in the BID are true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the BID are true copies of their respective originals.
- 2) The BID Price has been quoted by me/us after taking into consideration all the terms and conditions Stated in the RFQ cum RFP, draft Agreement, our own estimates of costs and after a careful assessment of the site and all own the conditions that may affect the Project cost and implementation of the Project.
- 3) I / We acknowledge the right of the Employer to reject our BID without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
- 4) In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into an Agreement in accordance with the draft that has been provided to me/us prior to the BID Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.
- 5) I / We shall keep this offer valid for 180 (one hundred and eighty) days from the BID Due Date specified in the RFQ cum RFP.

I / We hereby submit our Bid and offer a Bid Price (which is inclusive of Operation and Maintenance costs for 4 years and exclusive of GST of Rs. (Rs..... in words) for undertaking the aforesaid Project in accordance with the Bidding Documents and the Agreement. The Breakup of the above price is attached to this letter (Contractor to submit breakup which shall commensurate with Schedule C - Contract Price Weightages in this tender).

Yours faithfully,

Date: (Signature, name and designation of the Place: Authorized Signatory) Name & seal of Bidder/Lead Member:.....

Class III DSC ID of Authorized Signatory:.....

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APPENDIX II: Guidelines of the Department of Disinvestment

(Refer **Clause 1.2.1**)

No. 6/4/2001-DD-II

Government of India Department of Disinvestment

Block 14, CGO Complex

New Delhi.

Dated 13th July 2001.

OFFICE MEMORANDUM

Sub: Guidelines for qualification of Bidders seeking to acquire stakes in Public Sector Enterprises through the process of disinvestment Government has examined the issue of framing comprehensive and transparent guidelines defining the criteria for Bidders interested in PSE-disinvestment so that the parties selected through competitive Bidding could inspire public confidence. Earlier, criteria like net worth, experience etc. used to be prescribed. Based on experience and in consultation with concerned departments, Government has decided to prescribe the following additional criteria for the qualification/ disqualification of the parties seeking to acquire stakes in public sector enterprises through disinvestment:

- a) In regard to matters other than the security and integrity of the country, any conviction by a Court of Law or indictment/ adverse order by a regulatory authority that casts a doubt on the ability of the Bidder to manage the public sector unit when it is disinvested, or which relates to a grave offence would constitute disqualification. Grave offence is defined to be of such a nature that it outrages the moral sense of the community. The decision in regard to the nature of the offence would be taken on case to case basis after considering the facts of the case and relevant legal principles, by the Government of India.
- b) In regard to matters relating to the security and integrity of the country, any charge- sheet by an agency of the Government/ conviction by a Court of Law for an offence committed by the Bidding party or by any sister concern of the Bidding party would result in disqualification. The decision in regard to the relationship between the sister concern would be taken, based on the relevant facts and after examining whether the two concerns are substantially controlled by the same person/ persons.
- c) In both (a) and (b), disqualification shall continue for a period that Government deems appropriate.
- d) Any entity, which is disqualified from participating in the disinvestment process, would not be allowed to remain associated with it or get associated merely because it has preferred an appeal against the order based on which it has been disqualified. The mere pendency of appeal will have no effect on the disqualification.
- e) The disqualification criteria would come into effect immediately and would apply to all Bidders for various disinvestment transactions, which have not been completed as yet.
- f) Before disqualifying a concern, a Show Cause Notice why it should not be disqualified would be issued to it and it would be given an opportunity to explain its position.
- g) Henceforth, these criteria will be prescribed in the advertisements seeking Expression of Interest (EOI) from the interested parties. The interested parties would be required to provide the information on the above criteria, along with their Expressions of Interest (EOI). The Bidders shall be required to provide with their EOI an undertaking to the effect that no investigation by a regulatory authority is pending against them. In case any investigation is pending against the concern or its sister concern or against its CEO or any of its Directors/ Managers/ employees, full details of such investigation including the name of the investigating agency, the charge/ offence for which the investigation has been launched, name and designation of persons against whom

the investigation has been launched and other relevant information should be disclosed, to the satisfaction of the Government. For other criteria also, a similar undertaking shall be obtained along with EOI.

Sd/- (A.K. Tewari)

Under Secretary to the Government of India

APPENDIX III: Kerala Finance (Expenditure – B) Department’s Circular No 47 / 2021 / Fin dt Thiruvananthapuram 18/06/2021



**GOVERNMENT OF KERALA
FINANCE (EXPENDITURE – B) DEPARTMENT**

CIRCULAR

No.47/2021/FIN

Dated, Thiruvananthapuram 18/06/2021

- Sub: Amendment in General Financial Rules 2017 – Global Tender Enquiry and Restrictions on public procurement from the bidders of certain countries – Further amendment – reg.
- Ref: 1. OM No.F12/17/2019 – PPD dated 15/05/2020 and 28/05/2020 of Department of Expenditure, Ministry of Finance, GOI
2. OM F No.6/18/2019-PPD dated 23/07/2020 of Department of Expenditure, Ministry of Finance, GOI
3. Order (Public Procurement 1 & Public Procurement 2) dated, 23/07/2020 of MoF, Department of Expenditure, Public Procurement Division, GOI
4. Order (Public Procurement 3) dated, 24/07/2020 of MoF, Department of Expenditure, Public Procurement Division, GOI
5. Circular No.57/2020/Fin dated 06/10/2020
6. OM No.F12/1/2021 – PPD (Pt) dated 02/03/2021 of Department of Expenditure, Ministry of Finance, GOI

As per the reference 1st cited, Rule 161(iv) of the General Financial Rules 2017 was amended specifying that no Global Tender enquiry shall be invited for tenders up to Rs.200 Crore for all the procurements including Goods, Services (consultancy & non consultancy services) and Works(including turnkey projects).

As per the reference 2nd cited, it was informed that the Government of India amended Rule 144 of the General Financial Rules 2017, by inserting sub-rule (xi), to enable imposition of restrictions on bidders from countries which share a land border with India.

As per the reference 3rd cited, the Government of India imposed further restrictions on the bidders from the countries which share a land border with

India whereby the bidder is eligible to bid in any procurement, subject to the condition that the bidder should be registered with the Competent Authority constituted by the State Government and should get the political and security clearance from the Ministry of External and Home affairs.

Accordingly circular under reference 5th cited was issued for strict compliance of the above orders in all the procurements.

Now, as per the reference 6th cited, it has been informed that the Government of India exempted the procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC), including consumables for closed systems, from Original Equipment Manufacturers (OEMs) or their authorised agents, from the requirement of mandatory registration.

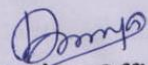
In the above circumstances, the procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC), including consumables for closed systems, from Original Equipment Manufacturers (OEMs) or their authorised agents, shall be exempted from the requirement of registration mandated in the 3rd reference cited.

RAJESH KUMAR SINGH IAS
ADDITIONAL CHIEF SECRETARY (FINANCE)

To

The Accountant General (A&E) , Kerala, Thiruvananthapuram
The Accountant General (Audit II), Kerala, Thiruvananthapuram
The Director of Treasuries, Thiruvananthapuram
All Heads of Departments, PSUs
All Departments of Secretariat (through e-office notice board)
The Nodal Officer, Finance Department (www.finance.kerala.gov.in)
Stock File/Office Copy (E -986100)

Forwarded/By Order


Section Officer

APPENDIX IV: Format for Pre-Bid Queries

Name of Work: Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudursey Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis"

S. No.	Section/Page/Clause No.	Clause Description	Query/Clarification requested	Employer's Response
1.				
2.				
3.				

APPENDIX V: Guidelines for Conversion to INR

Wherever requires an Bidder to state a monetary amount, Bidders should indicate the INR equivalent using the rate of exchange determined as follows:

1. For construction turnover or financial data required for each year - exchange rate prevailing on the last day of the respective Financial Year (in which the amounts for that year is to be converted) was originally established.
2. For the purpose of conversion of foreign currency to Indian rupees (INR), the Bidders shall use the reference rates of foreign currency published by:
 - (a) Reserve Bank of India (www.rbi.org.in).
 - (b) In case the exchange rate is not published by Reserve Bank of India, then the “selling rate” of such currency shall be taken from the web site: <http://www.oanda.com>.
 - (c) In case a particular currency rate is not available on the above website also, then the “mid-market” rate of such currency shall be taken from the following internet web site: <http://www.xe.com>.
3. Any error in determining the exchange rates in the Bidder may be corrected by the Employer

Part D: EPC Agreement
Section A-Preliminary

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7. Form of Contract Agreement

ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT

THIS AGREEMENT is entered into on this the day of, 2025.

BETWEEN

The Managing Director, The Kerala Industrial Corridor Development Corporation Limited, KINFRA Hi Tech Park HMT Colony P.O. Kalamassery Ernakulam, Kerala – 683503, incorporated under Indian laws having its registered office at [Kerala] (hereinafter referred to as the “Employer” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of one part;

AND

{-----} means the selected bidder incorporating under Indian laws having its registered office at, (hereinafter referred to as the “Contractor” which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) of the Other Part.

WHEREAS:

(A) A special purpose vehicle viz The Kerala Industrial Corridor Development Corporation, is set up (the “Employer”) with the equity participation of Central and State Governments for procurement and Construction of trunk infrastructure in Palakkad IMC Industrial Node, Kerala.

(B) Accordingly, the Employer has decided to undertake the “Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore “On EPC Basis”, (the “Project”), in accordance with the terms and conditions to be set forth in an Agreement to be entered into.

(C) The Employer had prescribed the qualification for technical and commercial terms and conditions, and invited bids (the “Request for Qualification (RFQ) cum Request for Proposals (RFP)”) from the bidders.

(D) After evaluation of the bids received, the Employer had accepted the Bid of the selected bidder and issued its Letter of Award No. Dated

..... (hereinafter called the “LOA”) to the selected bidder for “Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore “On EPC Basis”, at the contract price specified hereinafter, requiring the selected bidder to inter alia:

- i. deliver to the Employer a legal opinion from the legal counsel of the selected bidder with respect to the authority of the selected bidder to enter into this Agreement and the enforceability of the provisions thereof, within 10 (ten) days of the date of issue of LOA; and
- ii. Execute this Agreement within 30 (Thirty) days of the date of issue of LOA.

(E) The Contractor has fulfilled the requirements specified in Recital (D) above;

NOW THEREFORE in consideration of the foregoing and the respective covenants and Agreements set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, the Employer hereby covenants to pay

the Contractor, in consideration of the obligations specified herein, the Contract Price or such other sum as may become payable under the provisions of the Agreement at the times and in the manner specified by the Agreement and intending to be legally bound hereby, the Parties agree in subsequent sections.

8. Definitions and Interpretation

8.1 Definitions

The words and expressions beginning with capital letters and defined in this Agreement (including those in Section 35) shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.

8.2 Interpretation

8.2.1 In this Agreement, unless the context otherwise requires,

- a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
- b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;
- c) references to a “person” and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, Government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
- d) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the Construction or interpretation of this Agreement;
- e) the words “include” and “including” are to be construed without limitation and shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases;
- f) references to “Construction” or “building” include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement, supply of plant, Materials, equipment, labour, delivery, transportation, installation, processing, fabrication, testing, and commissioning of the Project Works, including Maintenance during the Construction Period, removing of defects, if any, and other activities incidental to the Construction and “construct” or “build” shall be construed accordingly;
- g) references to “development” include, unless the context otherwise requires, Construction, renovation, refurbishing, augmentation, upgradation and other activities incidental thereto during the Construction Period, and “develop” shall be construed accordingly;
- h) any reference to any period of time shall mean a reference to that according to Indian standard time;
- i) any reference today shall mean a reference to a calendar day;
- j) references to a “business day” shall be construed as a reference to a day (other than a Sunday) on which banks in Kerala are generally open for business;
- k) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;
- l) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;
- m) any reference to any period commencing “from” a specified day or date and “till” or “until” a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;

- n) the words importing singular shall include plural and vice versa;
 - o) references to any gender shall include the other and the neutral gender;
 - p) “lakh” means a hundred thousand (100,000) and “crore” means ten million (10,000,000);
 - q) “indebtedness” shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
 - r) references to the “winding-up”, “dissolution”, “insolvency”, or “reorganization” of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganization, dissolution, arrangement, protection or relief of debtors;
 - s) save and except as otherwise provided in this Agreement, any reference, at any time, to any Agreement, deed, instrument, license or document of any description shall be construed as reference to that Agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Clause shall not operate so as to increase liabilities or obligations of the Employer hereunder or pursuant hereto in any manner whatsoever;
 - t) any Agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Employer’s Engineer shall be valid and effective only if it is in writing under the hand of a duly authorized representative of such Party or the Employer’s Engineer, as the case may be, in this behalf and not otherwise;
 - u) the Schedules, any addendum/corrigendum and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
 - v) references to Recitals, Articles, Clauses, Sub-clauses or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses and Schedules of or to this Agreement, and references to a Paragraph shall, subject to any contrary indication, be construed as a reference to a Paragraph of this Agreement or of the Schedule in which such reference appears;
 - w) the Damages payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine per-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the “Damages”); and
 - x) Time shall be of the essence in the performance of the Parties’ respective obligations. If any time period specified herein is extended for the reasons specified in the Agreement, such extended time shall also be of the essence.
- 8.2.2 Unless expressly provided otherwise in this Agreement, any Documentation required to be provided or furnished by the Contractor to the Employer shall be provided free of cost and in five copies, and if the Employer is required to return any such Documentation with its comments and/or approval, it shall be entitled to retain two copies thereof.
- 8.2.3 The rule of Construction, if any, that a contract should be interpreted against the Parties responsible for the drafting and preparation thereof, shall not apply.

- 8.2.4 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

8.3 Measurements and arithmetic conventions

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.

8.4 Priority of Agreements and errors/discrepancies

- 8.4.1 This Agreement, and all other Agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and Agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:

- a) this Agreement; and
- b) All other Agreements and documents forming part hereof or referred to herein; i.e. this Agreement at (a) above shall prevail over the Agreements and documents at (b).

- 8.4.2 Subject to the provisions of **Clause 8.4.1**, in case of ambiguities or discrepancies within this Agreement, the following shall apply:

- a) between two or more Clauses of this Agreement, the provisions of a specific Clause/Stringent/better/higher specification relevant to the issue under consideration shall prevail over those in other Clauses;
- b) between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;
- c) between any two Schedules, the Schedule relevant to the issue shall prevail;
- d) between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;
- e) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and
- f) Between any value written in numerals and that in words, the latter shall prevail.

8.5 Joint and several liability^{\$}

- 8.5.1 If the Contractor has formed a Joint Venture of two or more persons for implementing the Project:
- a) these persons shall, without prejudice to the provisions of this Agreement, be deemed to be jointly and severally liable to the Employer for the performance of the Agreement; and
 - b) the Contractor shall ensure that no change in the composition of the Consortium is affected without the prior consent of the Employer.

- 8.5.2 Without prejudice to the joint and several liability of all the members of the Consortium, the Lead Member shall represent all the members of the Consortium and shall at all times be liable and responsible for discharging the functions and obligations of the Contractor. The Contractor shall ensure that each member of the Consortium shall be bound by any decision, communication, notice, action or inaction of the Lead Member on any matter related to this Agreement and the Employer shall be entitled to rely upon any such action, decision or communication of the Lead Member. The Employer shall have the right to release payments solely to the Lead Member and shall not in any manner be responsible or liable for the inter se allocation of payments among members of the Consortium[§].
- 8.5.3 This **Clause 8.5** may be omitted if the Contractor is not a JV/Consortium.

**Part D: EPC Agreement
Section B-Scope of Project**

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9. Scope of the Project

Under this Agreement, the scope of the Project (the “Scope of the Project”) shall mean and include:

- a) Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad IMC and the development of the Project together with provision of Project facilities shall be as specified in scope mentioned in **Clause 1.5** of Volume II and Specifications & Standards set forth in Volume II;
- b) Maintenance of the Project in accordance with the provisions of this Agreement and in conformity with the requirements set forth in tender; and
- c) Performance and fulfillment of all other obligations of the Contractor in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the Contractor under this Agreement.
- d) The Brief Scope under this Contract shall comprised of ETS Survey, Geo Tech Investigation, Design, approval of detailed Engineering GFC (Good for Construction) drawings and Construction, testing and commissioning and O&M for Roads, Storm water Drains, Culverts, Water Supply, Sewerage & STP/CETP, Utility Ducts for Power, Reuse waterline & Avenue Plantation on EPC Basis including Performance based O&M for 4 Years (inclusive of 4 years DLP).
- e) The Contractor shall be fully responsible to ensure that the whole of the Works, including each individual component, is designed and constructed in a manner so that the System as a whole operates as a fully integrated system which is capable of achieving the required output in an efficient and economical manner, and to include all plant, equipment and accessories required for the safe and satisfactory operation of the facilities. To achieve this, the Contractor shall ensure that each individual component performs in a manner which is complimentary to that of all other components. Any accessories which are not specifically mentioned in the specifications, but which are usual or necessary for completion of the Works and successful performance of the System and facilities shall be provided by the successful Bidder within the tendered cost. The Contractor shall, to the maximum extent practical and feasible, endeavor to standardize on the manufacture and supply of plant and equipment so as to minimize the operation and maintenance requirements. The Contractor shall ensure that his designs are "maintenance-friendly" and that all items of plant and equipment are designed and installed in a manner which will facilitate routine and periodic maintenance operations. For detailed scope Refer Volume II, Section 1.5.

9.1 Employer’s Proposed Integration Plan

The Project site has been notified in 3 parcels in Palakkad District with 1137 acres in Pudukkottai Central village, 240 acres in Pudukkottai West and 313 acres in Kannambra village. Pudukkottai sites lie in Kanjikode industrial area and Kannambra site sits between Palakkad and Thrissur Districts. All sites are along National highway 544 and can be easily accessed. Kannambra site has a direct connectivity to NH544. Pudukkottai Central will require a greenfield alignment to the site. At present a 30m primary access and 24m secondary access has been proposed. Pudukkottai West site includes a 24m ROW which connects the site to NH544. There is also a proposal to connect the Pudukkottai Central with Pudukkottai West in future for interconnectivity. Kannambra, Pudukkottai Central & West are greenfield area which will be planned and engineered into a world class industrial development. However, the infrastructure works being developed as per this tender is related to development of Pudukkottai Central & Kannambra only.

10. Obligations of the Contractor

10.1 Obligations of the Contractor

EPC contractor to provide preference to MSME and Make in India as per the Public Procurement (Preference to Make in India), Order 2017 and MSME policy.

- 10.1.1 Subject to and on the terms and conditions of this Agreement, the Contractor shall undertake the survey, investigation, design, engineering, procurement, Construction, and Maintenance of the Project Roads and Services/utilities as defined in Scope and observe, fulfill, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 10.1.2 The Contractor shall design, execute and complete the works in accordance with the contract terms, and shall also remedy any defects in the works. When completed, the works shall be fit for the purposes for which the works are intended as defined in the contract. The Contractor shall provide the Plant and Contractor's documents specified in the contract, and all Contractor's personnel, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects. The works shall include any work which is necessary to satisfy the Employer's requirements or is implied by the contract, and all works which (although not mentioned in the contract) are necessary for stability or for the completion, or safe and proper operation, of the works. The Contractor shall be responsible for the adequacy, stability, and safety of all site operations, of all methods of installation and of all the works (as it is based on his designs & drawings etc., submitted as the EPC contract with supplementary contracts). The Contractor shall, whenever required by the Employer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Employer and without the approval of the Employer/Employer's Representative of the Employer
- 10.1.3 The Contractor shall also to submit a quality assurance plan within no time from the contract commencement date for approval of the Employer. The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the contract. The system shall be in accordance with the details stated in the contract. The Employer or his representative shall be entitled to audit any aspect of the system. Details of all procedures and compliance documents shall be submitted to the Employer for information before each design and execution stage is commenced. When any documents of a technical nature are issued to the Employer, evidence of the prior approval by the Contractor himself shall be apparent on the document itself. Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations, or responsibilities under the contract. The Contractor has to make his own arrangements and at his own cost the manpower, water, drainage/sewerage and electricity or alternative power supply and any land for use and such other facilities and provisions including to site office etc., required for the works and to the accommodation of his workers and at work sites, fair wages/remuneration, statutory insurance of manpower, their security and safety measures, compliance of various statutory provisions for commencement, execution and completion of the works contract, save those specifically agreed to be provided by the Employer. The Contractor who has to engage the full-time key personnel in the works-shall instruct at least reasonable persons among them to work in the quality control area exclusively, that too in coordination with the field engineers and quality control wing of the Employer for ensuring qualitative and quantitative performance by checks and balances.

- 10.1.4 The Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement. All statutory permits to be obtained by the contractor shall be valid upto 1-year period post Defect Liability Period.
- 10.1.5 Subject to the provisions of Clauses **10.1.1** and **10.1.2**, the Contractor shall discharge its obligations in accordance with Good Industry Practice.
- 10.1.6 The Contractor shall remedy any and all loss or damage to the Project Roads and Services/utilities from the Appointed Date until the end of the Construction Period at the Contractor's cost, save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Employer.
- 10.1.7 The Contractor shall remedy any and all loss or damage to the Project Roads and Services/utilities during the Defects Liability Period at the Contractor's cost to the extent that such loss or damage shall have arisen out of the reasons specified in **Clause 24.3**.
- 10.1.8 The Contractor shall remedy any and all loss or damage to the Project Roads and Services/utilities including water supply, sewerage, storm water, Sewage Treatment Plant and Common Effluent Treatment plant etc. during the Maintenance Period at the Contractor's cost, including those stated in **Clause 21.1.2**, save and except to the extent that any such loss or damage shall have arisen on account of any default or neglect of the Employer or on account of a Force Majeure Event.
- 10.1.9 The Contractor shall not deposit materials at any site, which will cause inconvenience to the public. The Contractor shall protect adjoining sites against structural, decorative and other damages that could be caused by the execution of the works and make good at his cost any such damages. The Employer/Employer's Representative may direct the Contractor to remove such materials or may undertake the job at the cost of the Contractor. The Contractor shall dispose of the pollutants and waste if any time to time during the execution of the contract works as per PCB norms with the prior permission of the Employer or as and when required by the Employer.
- 10.1.10 The Contractor shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:
- a) make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining Applicable Permits set forth in Schedule-A and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;
 - b) procure, as required, the appropriate proprietary rights, licenses, Agreements and permissions for Materials, methods, processes and systems used or incorporated into the Project Roads and Services as cited above;
 - c) make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Sub-contractors in connection with the performance of its obligations under this Agreement;
 - d) ensure and procure that its Sub-contractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Contractor's obligations under this Agreement;
 - e) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;
 - f) support, cooperate with and facilitate the Employer in the implementation and operation of the Project in accordance with the provisions of this Agreement;

- g) ensure that the Contractor and its Sub-contractors comply with the safety and welfare measures for labor in accordance with the Applicable Laws and Good Industry Practice;
 - h) keep, on the Site, a copy of this Agreement, publications named in this Agreement, the Drawings, Documents relating to the Project, and Change of Scope Orders and other communications given under this Agreement. The Employer's Engineer and its authorized personnel shall have the right of access to all these documents at all reasonable times;
 - i) cooperate with other contractors employed by the Employer and personnel of any public authority; and
 - j) not interfere unnecessarily or improperly with the convenience of the public, or the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others.
 - k) the Contractor shall be responsible for development of 3D BIM model in all stages of Design and Construction as per the requirements mentioned in Schedule L.
 - l) the Contractor shall prepare Project specific Health, safety and Environment plan based on guidelines provided in Schedule-M for implementation.
 - m) Contractor and their sub-contractors shall comply with Project Management requirements as mentioned in Schedule-N.
 - n) the Contractor shall conduct the aerial photography of the Project as mentioned in Schedule O
 - o) the Contractor shall have to provide a project architectural model of size about 3 m x 1.5 m of the overall project area at a place designated by Employer/ Employer's Engineer depicting the master plan features using acrylic or any other approved durable material within 3 months from the date of issue of work order. The cost of the model shall be deemed to be included in the contract price.
- 10.1.11 The Contractor shall undertake all necessary superintendence to plan, arrange, direct, manage, inspect and test the Works.
- 10.1.12 The Contractor shall check the design criteria and calculations (if any) included in the Bid Documents and satisfy itself regarding their accuracy and adequacy. Contractor shall meet the minimum design and sizing requirements specified in the Bid Documents – a design that does not meet such minimum requirement shall not be acceptable and will result in rejection of the bid as non-responsive. Further, if Contractor believes that the minimum design and sizing requirements are not adequate to meet the minimum performance requirements specified, then Contractor shall make whatever upward adjustments to the design and sizing it deems necessary to meet the performance requirements and include these in the Bid Price. Contractor assumes full responsibility for meeting the specified performance requirements and ensuring the adequacy of the Works for this purpose.”
- 10.1.13 The design criteria provided in respective schedules of the same volume is basic design criteria and has to be met in totality. However, if the Contractor feels that, he requires additional work to meet the contractual conditions, the cost of same shall be deemed to be included in the Price and no extra cost shall be paid over and above the quoted price.

- 10.1.14 The Contractor shall establish a design liaison office headed by a Senior Design Manager and supported by a team of Mechanical, Electrical, Civil, Process, Engineer/s and reasonable numbers of CAD draughtsman etc. in Kerala within 45 days from the Appointed Date to facilitate preparation and submission of designs, drawings, construction documents, etc., for review and approval by the Employer's Engineer. The design liaison office shall preferably be located near the Employer's Engineer office to facilitate communications and frequent interactions with the Employer's Engineer and the Employer. The Contractor shall maintain the design liaison office until such time as all necessary designs and construction documents have been completed, reviewed, and approved by the Employer's Engineer. The cost of office and its running cost should have deemed to be included in the price bid.
- 10.1.15 The Contractor will be fully responsible for ensuring that its designs, drawings, and construction documents satisfy all requirements for constructing Works that are complete and fully functional in all respects and meet the Performance Guarantee requirements as well as Environmental requirements.
- 10.1.16 In addition to the above, The Contractor shall establish a Site office in project area, headed by its Construction Manager/Project Manager at Site, for which land will be provided by the Employer for construction activity in the project area till the completion of the work. Land shall be handed over back to Employer after removing & clearing the temporary or permanent structures, debris etc. if any. However, the cost of construction of site office, office equipment's including furniture etc. and its running cost should have deemed to be included in the price bid with no addition implication to Employer.
- 10.1.17 The set down area required by the Contractor for its construction equipment's and materials shall be provided by the Employer with no cost to the Contractor.
- 10.1.18 Project Office for the Employer's Engineer
- 1) The Contractor shall provide, furnish, equip, insure, service, maintain and clean a detached office as detailed in sub clause **10.1.18.1** to this Specification for the exclusive use of the Employer's Engineer. The office plan and located/position shall be approved by the Employer's Engineer.
 - 2) The office shall be ready for use and occupation and fully serviced within [28] days of the Appointment Date. The office shall be provided until a period of [28] days after the date of issue of the Project Completion cum Taking-Over Certificate in respect of the whole of the Works or an earlier date if instructed by the Employer's Engineer.
 - 3) The Contractor shall arrange at his own expense for the provision and disconnection on completion of power, potable water, sewerage, drainage, telephone and internet (minimum speed should be 10 Mbps for leased line with fiber optic line and minimum speed should be 50 Mbps for broad band lines with fiber optic line) to the Employer's Engineer's office including making all payments to utility providers for connection and use. Where a septic tank is provided, the Contractor shall be responsible for its installation, regular maintenance like emptying and the like, and removal on completion.
 - 4) The Contractor shall submit full details of the office building to the Employer's Engineer for approval prior to erection. The building shall be weatherproof, fire protected, heat-insulated, properly ventilated and secure. Windows shall give adequate light and ventilation [be protected with metal mosquito-proof gauze, have security bars] and have venetian, or other approved, blinds. Ceiling height shall be at least 2.4m above the floor level. All internal partition walls shall be sound insulated. Floors shall be PVC tile covered. Floors in toilets and other wet areas shall have drains. The internal decoration shall be of good standard and to the satisfaction of the Employer's Engineer. The Contractor shall be responsible for raising the ground where necessary, grading and drainage in the vicinity of the building and providing suitable access and walkways.
 - 5) Each room shall have at least four double gang 13 amp sockets and shall be adequately illuminated. Rooms used as offices or meeting rooms shall be air conditioned. The air conditioning shall be adequate to maintain a temperature of not more than [23°C (dry bulb) at a relative humidity of 50% during the hottest season of the year].

The noise level of the air conditioning while operating shall be sufficiently low to allow normal voice level discussions to take place.

- 6) The Contractor shall supply, install and maintain fittings, furnishings and equipment (including computers and related information technology equipment) for the Engineer's offices as described in Appendix [A] and replenish consumables as necessary. The fittings, furnishings and equipment shall be approved by the Engineer before being brought to the Site.
- 7) The Contractor shall arrange regular cleaning of the Engineer's office to the satisfaction of the Engineer and shall provide cleaners, cleaning equipment and consumables at his own expense.
- 8) The Employer's Engineer's office, fittings, furnishings and equipment supplied by the Contractor will remain the property of the Contractor and will revert to him upon completion of the Contract.

10.1.19 Project Office Specifications

1) Introduction

The following guidelines shall be considered as the main criteria for the safe design, construction, management and operation of the project site office. Where requirements of this guidance conflicts with Employer's requirements, regulatory authority, or other specifications, the more stringent requirements will prevail.

2) General requirements

A layout plan based on the guidelines for the site office and the Contract shall be submitted by the Contractor for review and approval by the Employer Engineer /PMNC prior to start construction works on the site office. All works shall be undertaken in line with the requirements of India HSE Legislation and relevant IS standards.

All certifications, permits and/or licensing that may be required for the site offices shall be obtained by the Contractor and made available for review to the Employer Engineer /PMNC.

Prior to occupation, the Contractor shall ensure that the site office has a valid occupational permit from the relevant authorities.

3) Site layout and location of offices

Site office and car park layout shall allow safe segregation of pedestrian and vehicular traffic, with unobstructed access for emergency vehicles. Adequate lighting is to be provided for the car park and pedestrian walkways.

4) Facility Construction

All materials used for the construction of the offices, shall conform to the requirements of the National Building Code and Local Fire regulations requirements. As a minimum, the materials used shall take into consideration the local climatic conditions and prevent dust, water and other elements from coming into the offices. The offices shall as a minimum have 30 minute fire rating.

The contractor shall ensure that as-built drawings for the construction of the site office, electricals, plumbing, firefighting and any other operations shall be submitted to the Employer Engineer /PMNC prior to or at the time of occupation.

5) Electrical safety

The design, operation and maintenance of electrical systems for the site office shall meet the requirements of the National Building Code. As a minimum the Contractor shall ensure that RCD's (residual circuit breaker) are used for protection of the circuits and take care to ensure that joints are minimized in the electrical cables.

If generators are to be used then they must be adequate for the site load, serviced and maintained and shall meet

the requirements of the Local Fire regulations for fire precautions and the Ministry of Environment for air emissions.

6) Lighting

Provisions shall be made for natural lighting through windows or through roof lights to be at least 10% of the office floor area. Ambient light levels in offices and surrounding areas including pathways, car park and emergency exits should conform to required lux levels. Lighting inside the site office shall be suitable for the works being undertaken in the site office environment.

7) Ventilation

The site offices shall be sufficiently ventilated and provide air circulation that is free of impurities. Windows shall be designed such that at least 50 % of the window shall be openable and have insect mesh screens.

8) Temperature

The temperatures inside offices should be capable of being maintained within 20°C to 25°C. The temperature shall be such that they should provide comfort without the need of special clothing.

9) Noise Levels

Provisions shall be made for noise levels inside the office to be less than 50Dba. Where noise levels inside the office exceed 50Dba, provisions shall be made for sound proofing (as required).

10) Sanitary facilities

Sufficient, adequately ventilated, sanitary conveniences must be provided with 1 x Toilet cubicle, 2x urinals and 1x hand wash basin per 10 occupants as a minimum. These facilities shall have a supply of clean hot and cold water for washing purposes, supply of soap and paper towels.

Separate facilities shall be provided for men & women and they shall have doors that are lockable from the inside. The surfaces of internal walls and floors of these facilities shall have a surface which permits wet cleaning.

One additional washroom directly accessible from the outside shall be provided for use by drivers/security staff. This washroom shall contain 1 urinals, 1 WCs and 1 wash basins.

These facilities shall be adequately ventilated and aerated with proper exhaust. Care shall be taken to ensure that air from these facilities do not mix or enter any facilities that may be used to prepare, cook and consume food.

11) Drinking water and Kitchen facilities

A dedicated facility for preparing and eating food must be provided, with suitable storage to store food. The kitchen facility shall not be placed adjacent to the sanitary facilities. As a minimum it shall be equipped with double drainer sink unit with adequate plumbing, work surfaces and storage cupboards, kettle, microwave, refrigerator, hot plate, etc.

The use of LPG shall be kept to a minimum and a hot plate shall be the preferred choice of cook top. Adequate supply of wholesome potable drinking water must be available at all times.

12) Shower & changing facility

Separate changing rooms (male and female) shall be provided for personnel to change their clothing for work. These rooms shall include facilities for shower.

13) Access and doors

Access to the office compound must have an adequate security, an access control presence to control entry to

the site.

Main access doors to the office facilities should have vision panels and access steps including the landing area must be constructed or coated with non-slip materials. Where there are two or more steps at entrances a handrail must be provided.

14) Pest Control

The site office shall have all necessary and effective measures to prevent rodents, insects and other pests inside and in the vicinity of the office. This shall include a maintenance contract with a company specialized in prevention of rodents & pests.

15) Car Park Facilities

The site office shall have a covered car park that can accommodate 10 vehicles (Exclusively for PMNC/Employer). The car park shall be well lit, in a hard-standing area, with appropriate surface drainage. The car park shall be adjacent to the site office separated at least by 10 meters and not more than 50 meters from the site office.

16) Space Requirements

The site offices shall either be in one block or separate blocks connected by covered walkways. The accommodation shall comprise the following separate rooms or zones:

Room	Area Consideration
Reception/secretarial area	20 m ²
Conference room (connecting to Project Manager's office)	60 m ²
Project Manager's/Employer's Manager office	30 m ²
Resident Engineers'/Employer offices (2 No)	each 20 m ²
Site engineers' and inspectors open configuration (10 No)	
Printing room	20 m ²
Filing and storage room with adequate racks for keeping all drawings and documents	100 m ²
Toilet/washroom/kitchen zone	minimum 80 m ²

17) Environmental Management

The office facilities shall be part of the contractors Environmental Management System (EMS) and managed accordingly. The site waste management plan should cover office facility environmental and waste issues such as:

- Water waste
- Food waste
- Recycling of paper, cardboard and printer cartridges
- Power saving
- Noise suppression where required
- Prevention of dust ingress from site

18) Maintenance and Cleaning

The office facilities shall have a routine maintenance and emergency repair protocols for the fire alarm system, air conditioning, water purification, emergency lighting, building electrical testing, drainage system, etc.

The contractor will be responsible for daily cleaning and maintenance of the field offices. The Contractor shall ensure that a cleaning regime will be in place to maintain acceptable levels of food hygiene standards and sanitation and cleanliness. The facilities should be routinely cleaned with suitable cleaning techniques appropriate for areas such as:

- General office area and windows
- Kitchen facilities
- Toilets and changing rooms
- General surroundings (car parks).

19) Fire safety

The office shall have a fire alarm system, conforming to local fire brigade requirements, installed, by an approved contractor and under a routine maintenance agreement. As a minimum the site office shall have - Fire detection in the form of smoke alarms and fire extinguishers. These shall be provided all across the site office including common areas and kitchen. The office shall have two designated exits as a minimum.

A fire muster point must be located away from the building, with clear signage and cover for shade. There should be a minimum of two exits to facilitate the egress.

20) First Aid

A first aid kit shall be provided in the office. The contents of the first aid kit shall meet the requirements of the 'Red Cross Society'. The first aid kit and its contents shall be maintained regularly.

21) Workstations & Seating Arrangements

The offices shall have workstations and seating arrangements that are suitable to the work being undertaken in the offices. As a minimum 'Wipro' and 'Featherlight' shall be the preferred brand for workstations and chairs. The desks and seating arrangements shall meet the following requirements:

- Desk Dimensions: All desks provided shall have a clear working space of 1200mm (length) x 800mm (depth). Leg space under the desk shall be a minimum of 1000mm. If materials such as a desktop computer, laptop, pedestals, inverter or such are to be used additional space shall be considered.
- Seating chairs: All seating chairs provided shall as a minimum have Height, Seat, Backrest and Arms adjustability. They shall provide good lumbar support and have adequate tilt mechanism.

22) Emergency Arrangements

An emergency plan shall be developed for the site office in line with accepted best practice and local regulations and issued to the Employer's Engineer for review and approval prior to occupation, including arrangement for Fire drills, periodic testing of equipment.

23) Fuel Storage Safety

Fuel and oil storage tanks should be in bunded storage areas that comply with environmental legislation (typically can contain 110% of maximum fuel tank capacity). They should be at least 6m safe distance from office facilities (more may be required for larger storage facilities).

24) Furniture Requirements for the site office

The following furniture shall be provided, as a minimum, in the Project Manager's office:

- 1 No executive desk
- 4 No swivel chairs on castors

- 1 No bookcase
- 1 No bulletin board
- 1 No lockable cupboard
- 1 No 4-drawer lockable filing cabinets
- Hooks for hanging safety jackets and hats

The following furniture shall be provided, as a minimum, in each of the remaining offices provided for the Engineer's staff:

- 2 No desks
- 3 No swivel chairs on castors for each desk in Resident Engineers' office and 2 No swivel chairs on castors for each desk in Site engineers' and inspectors' offices
- 2 No bookcases
- 2 No bulletin boards
- 2 No lockable cupboards
- 2 No 4-drawer lockable filing cabinets
- Hooks for hanging safety jackets and hats.

The following furniture shall be provided, as a minimum, in the reception/secretarial area:

- 1 No reception desk
- 1 No swivel chair on castors
- 2 No two-seater sofas
- 1 No coffee table
- 1 No bulletin board
- 1 No bookcase
- 1 No 4-drawer lockable filing cabinet.

The following furniture shall be provided, as a minimum, in the conference room:

- 1 No long conference table (min. 17 numbers seat capacity)
- 36 No swivel chairs
- White boards and bulletin boards of size, type and numbers to be approved by the Engineer.

The following furniture shall be provided, as a minimum, in the meeting room:

- 1 No long conference table
- 12 No swivel chairs
- White boards and bulletin boards of size, type and numbers to be approved by the Engineer.

The kitchen area shall be equipped with kettle/water boiler, cool drinking water dispenser, fridge, microwave oven, fire extinguisher, first aid kit, cups, plates and utensils, as necessary and in numbers adequate for the size of team occupying these facilities. The occupation of the site offices shall consider visitors to the office such as Employer's, Investors and other stake holders.

The kitchen, washroom and toilet facilities shall be provided with an adequate supply of essential materials including soap, towels and toilet paper, as required by the Engineer.

25) Other Facilities to be provided

- 2 Nos. combined 60 pages per minute black and white and 45 pages per minute full colour A4 and A3 multifunctional laser printer/scanner/copier, with document auto feeder, tandem paper trays, paper bypass, 2-sided printing, high capacity internal memory, network enabled, Windows compatible
- 1 No laser colour A0 paper size multifunction plotter/scanner/copier, minimum plotting resolution 2400 x 1200 dpi, with roll feed and collection basket, high capacity internal memory, network enabled, Windows compatible
- 1 No black and white and colour combined A4 and A3 photocopier, with document feeder, duplex and reduction/zoom capability
- 1 No facsimile machine (if a landline is available)
- 1 No telephone in the reception/secretarial area, Project Manager's and each of Resident Engineer's offices (if a landline is available) Providing Land line connection is in scope of bidder.
- 1 No LCD projector and screen and 1 No conference telephone with loudspeaker in the conference room and in the meeting room.
- All printers and the plotter shall be connected to the office computers via an internal network for print sharing.
- All computers shall be connected to the internet via high speed broadband with additional Wi-Fi connection available for visitors.
- All computers, printers, plotters and photocopier shall be connected to voltage regulators and UPS (uninterrupted power supply) units, the latter being able to bridge power cuts up to 15 minutes.
- Adequate Steel cabinets for storage of file and drawings separately in document control room.
- Adequate Drawing storage cabinets
- All stationery and office supplies as required by the PMNC/Employer
- All the different area of the site office shall be connected with an intercom facility.

10.1.20 The Contractor shall at any time during the contract period including O&M shall provide new at least 3 numbers of SUV (Air conditioned) vehicles with Driver, required Manpower, all fuel, lubricants (POL) etc. for PMNC/Employer/Employer staff/project staff and maintain and keep them in good condition at all times. The contractor shall also maintain all insurances with respect to the same throughout the contract period. The contractor shall provide the maintenance logs every quarter. The monthly travel per SUV shall be between 5000 km & 7000 km.

10.1.21 Labor Camp Guidelines

10.1.22 Background

These guidelines are aimed at providing practical guidance and basic standards to Contractors on the standards that should be applied to the planning, construction and provision of workers' accommodation on the Palakkad IMC Project.

All works shall be undertaken in accordance with India HSE legislation and IS standards. Where there is a conflict, the more stringent legislation shall apply.

10.1.23 General design requirements

When choosing the site intended for workers' accommodation, the Contractor shall ensure that the site is at least a 300

meters away from any construction works. Only single level buildings shall be built and the space between two buildings shall not be less than 5 meters. In case the Contractor proposes to build multi-level facility, detailed drawings/ design for the same including safety and firefighting services shall be submitted and approved by the local authorities.

All buildings, structures, life safety devices and safeguards and parts thereof of the worker accommodation, shall as a minimum meet the requirements of the 'National Building Code of India' and 'Kerala Health and Safety manual' and be maintained in a safe condition at all times.

The Contractor shall ensure that a drawing showing the details of the worker accommodation including general location, horizontal projections, facades, sections, constructional and electric plans, firefighting plans, sanitary drainage and roads is maintained and submitted to the PMNC. This drawing shall be kept up to date by the Contractor at all times.

Land will be provided within the site boundaries at no charge to the EPC Contractor. The successful bidder shall handover the land free of encumbrances after completion of the work.

10.1.24 Materials

The worker accommodation units (including kitchen & sanitary facilities) shall be built with concrete blocks or cement wall blocks. The flooring shall also be made of concrete and shall be non-slip. Nonflammable materials shall be used and the Contractor shall ensure that as far as practicable only sustainable materials are used.

The Contractor shall ensure that all materials used to build the workers accommodation (including roofing material) are weatherproof. The use of only GI sheets for roofing shall be prohibited.

10.1.25 Outdoor Requirements

The area leading from the workers accommodation buildings should be sufficient for safe movement of people and vehicles within the labor accommodation. All corridors within the labor accommodation shall be paved such that, as a minimum they are capable of supporting vehicle movements (including emergency vehicles such as ambulances and fire trucks) in all weather conditions. Corridors in between buildings shall be a minimum of 3 meters wide and shall allow for easy movement of an emergency vehicle (fire brigade/ambulance).

10.1.26 Lighting

All areas of the workers accommodation shall be lit adequately. The Contractor shall ensure that all outdoor lighting is suitable for the weather conditions. Consideration shall be given to sustainable/low power consumption light luminaries. Light levels as a minimum shall meet the following requirements:

Location	Area / Activity	Minimum / Average (Lux)
General	Passages & corridors inside building	100
	Passages outside building	50
Residential area /units	Bedrooms	100
	Kitchens	150
	Bathrooms & Toilets	100
Emergency areas	First aid room	300
	Recreational areas	200

The outdoor lighting shall allow the pedestrians to distinguish the borders of the sidewalks/corridors, direction changes, crossroads and any obstacles or potential risks. Changes in gradation in any locations should have more lighting than the passages. The lighting poles/towers shall be placed in a way so as not to obstruct pedestrian and emergency

vehicle movement.

10.1.27 Electricity

The design, operation and maintenance of electrical systems for the labor accommodation shall meet the requirements of the National Building Code. As a minimum the Contractor shall ensure that RCD's (residual circuit breaker) are used for protection of the circuits and take care to ensure that joints are minimized in the electrical cables. All electrical shall have adequate earthing and shall be maintained with regular periodic checks.

10.1.28 Firefighting Equipment and Emergency Exits

The workers accommodation shall be provided with adequate fire detection and firefighting equipment. These shall be provided as per the Fire Prevention & Life Safety Act/National Building Code.

10.1.29 Dwelling Units

- No dwelling units shall be of a space less than 3.5m x 3.5m (inner dimensions) and each worker shall have a space of not less than 3.5 m². In the case of bigger rooms, the number of workers allowed per room shall be kept under 10 while observing the specified individual space area for each worker. The ceiling of the rooms shall be not less than 2.5 meters high and each room shall have adequate natural ventilation which will allow for natural light into the room and a door which is lockable from inside and outside.
- Each worker shall be provided with an individual bed and where preferred a cot. No bunk beds shall be allowed. The space in between the beds shall not be less than 2 feet on either side. Where cots are provided, the cot shall not be less than 12 inches from the floor. Each worker shall be provided with his own sleeping area even in the case of work in shifts.
- Each worker shall be provided with storage space to keep his belongings. Provision shall be made for workers to store their footwear outside the rooms.
- No cooking or washing shall be allowed inside the rooms.

10.1.30 Sanitary Facilities

- The sanitary facilities shall not be located at a distance of more than 50 meters from the main accommodation blocks and no closer than 50 meters from any food/kitchen facility. Sanitary facilities shall be provided such that an individual will not need to pass through a dwelling room to access the facility.
- Sanitary facilities shall be provided such that there is 1 toilet & 1 bathroom for every 10 people and one urinal for every 20 people. Urinals may be replaced by toilets (one toilet for every 2 urinals). Toilet and bathroom shall not be provided in the same cubicle.
- Sanitary facilities shall have a window to allow for natural ventilation and have a door that is lockable from inside.
- The sanitary facilities shall be cleaned on a daily basis and maintained regularly.

10.1.31 Kitchens

- The kitchen facility provided shall take into consideration the number/groups of people staying in the accommodation and shall allow for multiple groups of people to cook together.
- The kitchen shall be provided with a supply of portable drinking water and appropriate storage areas for different kinds of food.
- The area used to wash utensils shall be separate from the kitchen.
- Gas cylinders should be placed outside the building and shaded from sunlight.
- The kitchen should be equipped with nontoxic pest control means (meshing) to prevent rodent infestation.

- The kitchen area shall be cleaned on a daily basis.

10.1.32 Medical care

The Contractor shall ensure that the workers staying within the Labor accommodation have access to medical facilities 24hours of the day. If access to this medical facility requires the labor to travel outside the perimeter of the accommodation, the Contractor shall ensure that a vehicle is available 24x7. In such cases, provision of a first aid will be available within the labor accommodation.

10.1.33 Washing facility

The washing area (to wash clothes) shall be separate from the accommodation rooms and toilet facilities. The washing area shall have adequate water supply and not be placed near the kitchen or cooking area.

10.1.34 Waste disposal

- Waste that is accumulated from the labor accommodation shall be disposed of in a manner that complies with the Ministry of Environment regulations. The Contractor shall ensure that waste is collected and disposed off on a regular basis (no longer than 7 days for general waste and no more than 2 days for kitchen waste) and that no waste is burned.
- The kitchen and accommodation blocks shall be provided with separate waste bins.
- Adequate sewage tanks shall be built for the sanitary facilities (toilets, bathrooms and wash area) and provision shall be made to ensure that the sewage can be disposed of safely. Care shall be taken to ensure that the sewage tanks are not close to the dwelling rooms & cooking facility (at least 50 meters away). Tanks shall be built such that they do not leak into the soil and stacks (provided for ventilation) are at sufficient height and that fumes do not affect the accommodation area.

10.1.35 Drinking water

Fresh portable drinking water shall be available for cooking and consumption within the labor accommodation. Any water stored in tanks shall be filtered through a filtration system before it is consumed. Holding tanks shall be cleaned on a monthly basis as a minimum and water tested for portability.

10.1.36 Accommodation Management

The Contractor shall ensure that the labor accommodation shall have a designated person who is in charge of safely managing the accommodation. The designated person shall be responsible for the day to day running of the accommodation.

10.1.37 Recreation

The Contractor shall ensure provision for suitable recreation activities (such as volleyball, cricket or football) is available within the worker accommodation.

10.1.38 Care to be taken by the Contractor towards Rainwater

Before the onset of the rainy season, the Contractor should submit the details of the measures to be taken to protect the work site from the accumulation of rainwater and flooding. The contractor should get this methodology or plan approved by the Employer. Throughout the contract period, flooding shall not occur at the work site. As well the work executed or under construction shall be appropriately protected from rainwater and its accumulation or flooding. The contractor should take care of the runoff water by making proper arrangements in the form of bunds/ drainage arrangements etc. throughout the contract period and at no extra cost to the Employer. Any damages resulting due to

neglect of the above will be solely at risk and cost of the Contractor.

- 10.1.39 Adequacy, stability and safety of all Site operations: The Contractor shall be responsible for the adequacy, stability and safety of all Site operations, of all methods of construction and of all the Works.
- 10.1.40 The Works shall include any work which is necessary to satisfy the Employer's Requirements, or is implied by the Contract, and all works which (although not mentioned in the Contract) are necessary for stability or for the completion, or safe and proper operation, of the Works.
- 10.1.41 Works shall include any work which is necessary: The Works shall include any work which is necessary to satisfy the Employer's requirements or is implied by the Contract and all works which are necessary for stability or for the completion, or safe and proper orientation of the works

10.2 Obligations Relating to Sub-contracts and any other Agreements

- 10.2.1 There is no right for the prime Contractor to sub-contract any part of the contract works, but to address the Employer seeking permission. If the prime Contractor desires to sub-contract any part of the work during execution, the prime Contractor should submit in writing the necessity of sub-contracting any part of the contract work, subject to the ceiling of 20% in all, along with the name of the proposed Sub-Contractor, details of qualification, experience and valid registration and as to the proposed Sub-Contractor gets eligibility from suitable class for such sub-contract work and that he verified and found genuine-ness of the proposed sub-Contractors information. No further qualification criteria other than valid registration are required to consider sub-contracting the works up to a value of Rs.2.00 crores. However, the total value of works to be awarded on sub-contracting shall not exceed 20% of the contract value. The Tender Accepting Authority before awarding of works on sub-contracting (subject to total sub-contracting of not more than 20 % of the contract value of either one or more sub-Contractors) shall verify the genuineness of the proposed Subcontractors qualification and other eligibility criteria and if the Sub-Contractor satisfies the qualification and other eligibility criteria with reference to the criteria of prime Contractor in proportion to the value of work proposed to be sub-contracted, he may address for approval by Employer/Employer's Representative.
- 10.2.2 It is after according of approval by the Employer/Employer's Representative for any such Sub-Contracting, the Tender Accepting Authority can permit such Sub-Contracting and mention as to earlier any part of work permitted by sub-contracting and if so with the proposed one it no way exceeds 20% of the contract value.
- 10.2.3 There shall be a tripartite agreement for the sub-contract work that has to be entered by the Employer, Contractor, and sub-Contractor together with an undertaking by the Contractor to make payments to the sub-Contractor for the works direct with no responsibility of the Employer for such sub-contract work between prime Contractor and sub-Contractor and the sub-Contractor also covenants that he shall not make any claim against the Employer for the sub-contract works but for against the prime Contractor.
- 10.2.4 If necessary, the Employer/Employer's Representative can make payments directly to the sub-Contractor to maintain the required rate of progress of the work, for which the prime Contractor cannot question/object to making payment adjustments out of the contract value.
- 10.2.5 The extent of the sub-contract shall be added to the experience of the sub-Contractor and to that extent deducted from that of the main Contractor.

- 10.2.6 It is the responsibility of the main Contractor to clear the liabilities if any that arise on the portion of the work executed by the sub-Contractor till the completion of the contract work and also till the end of the defect liability period of the work, besides the end of operation and maintenance period covered if any therein

10.3 Employment of Foreign Nationals

The Contractor acknowledges, agrees and undertakes that employment of foreign personnel by the Contractor and/ or its Sub-contractors and their subcontractors shall be subject to grant of requisite regulatory permits and Approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Notwithstanding anything to the contrary contained in this Agreement, refusal of or inability to obtain any such permits and approvals by the Contractor or any of its Sub-contractors or their sub-contractors shall not constitute Force Majeure Event and shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Agreement.

The Contractor may import any personnel who are necessary for the execution of the Works. The Contractor must ensure that these personnel are provided with the required residence visas and work permits. The Contractor shall be responsible for the return to the place where they were recruited or to their domicile of imported Contractor's Personnel. The Contractor shall be responsible for such personnel who are to return until they shall have left the Site or, in the case of foreign nationals who have been recruited outside the country, shall have left it.

10.4 Contractor's Personnel

- 10.4.1 The Contractor shall ensure that all the personnel engaged by it or by its Subcontractors in the performance of its obligations under this Agreement are at all times appropriately qualified, skilled and experienced in their respective functions in conformity with Good Industry Practice.
- 10.4.2 The Employer's Engineer may, for reasons to be specified in writing, direct the Contractor to remove any member of the Contractor's or Subcontractor's personnel. Provided that any such direction issued by the Employer's Engineer shall specify the reasons for the removal of such person.
- 10.4.3 The Contractor shall on receiving such a direction from the Employer's Engineer order for the removal of such person or persons comply with directions with immediate effect. It shall be the duty of the Contractor to ensure that such persons are evicted from the Site within 10 (ten) days of any such direction being issued in pursuance of **Clause 10.4.2**. The Contractor shall further ensure that such persons have no further connection with the Works or Maintenance under this Agreement. The Contractor shall then appoint (or cause to be appointed) a replacement immediately.

10.5 Advertisement on Project Site

The Project Site or any part thereof shall not be used in any manner to advertise any commercial product or services.

10.6 Contractor's Care of the Works

The Contractor shall bear full risk in and take full responsibility for the care of the Works, and of the Materials, goods and equipment for incorporation therein, from the Appointed Date until the date of Substantial Completion Certificate (with respect to the Works completed prior to the issuance of the Substantial Completion Certificate) and/or Completion Certificate for construction works (with respect to the Works referred to in the Punch List), save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Employer.

10.7 Electricity, Water and other Services

10.7.1 For Construction Period: The Contractor shall be responsible for provision of all power, water, and other services he may require for performance of the Construction period of Contract including hydro-testing of pipes and tanks/ structures etc. This includes contacting the appropriate utility or service providers and applying for connections as necessary. The contractor shall, at his own risk and cost, provide all piping, fittings, and other equipment necessary for his use and for metering of the water and any treatment needed. The Contractor is to ensure that the quality of Water remains suitable for the purpose for which it is intended.

10.7.2 For Trial Run and Commissioning, Performance Test and O&M Period

The power and water shall be supplied free of cost by the Employer only during O&M Period upon issuance of completion certificate for Construction works. For Trial run and commissioning, Performance test, necessary power and water cost shall be borne by contractor. Sewage and industrial effluent shall be provided by Employer for trial run and commissioning of the sewerage and effluent networks including Treatment Plants.

Cost towards Diesel used in case of power breakdowns during O&M period for emergency/essential services, approved by Employer, will be reimbursed as per actuals.

Be noted, if sewage and /or industrial effluent can't be provided by Employer, for any reasons for trial run and commissioning of the sewage and effluent networks, water shall be used by the contractor at no extra cost. If effluent is available in 1095 days the commissioning to be done otherwise the contractor to provide an undertaking that he will do the commissioning and performance testing once the effluent is available within the 4 years of O&M period at no additional cost. If the effluent is not available even after 4 years from completion the contractor is relieved from the responsibility. The contractor to provide a BG equivalent to the weightage amount for commissioning and performance testing for release of payment on non-availability of effluent. However, water shall be provided by employer for trial run and commissioning of the recycled water networks.

Be noted, the O&M for other project components/ facilities shall begin after issue of Substantial Completion certificate for construction works and shall be paid for the project components for which the certificate has been issued according to Section 21 of the said agreement.

10.8 Unforeseeable difficulties

Except as otherwise stated in the Agreement:

- (a) the Contractor accepts complete responsibility for having foreseen all difficulties and costs of successfully completing the Works;
- (b) the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs; and
- (c) the Scheduled Completion Date shall not be adjusted to take account of any unforeseen difficulties or costs

10.9 Working Hours

10.9.1 Normal hours during which construction work will be permitted to be carried out at the Site from Monday to Saturday, excluding holidays. Working hours and Working days shall also be subject to adherence to Labour Laws.

- 10.9.2 Operation and Maintenance shall be carried out 24 hours a day, 7 days a week, for all days of the year.
- 10.9.3 No Construction work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours as stated in clause **10.9.1** unless:
- otherwise stated in the Contract, or
 - the Employer's Engineer gives consent, or
 - necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Employer's Engineer.

10.10 Labour Laws

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

10.11 Facilities for Staff and Labour

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

- a) Within 30 days of award of work the contractor shall provide the site office with independent soundproof air-conditioned cabins for use by Engineer-in-Charge and consultant and its staff appointed by Employer. The site office should have at least two meeting rooms (min 10-person seating capacity in each), pantry and toilet facilities. The site office shall include necessary furniture, required office equipment i.e. Fax, photocopy, computer with color laser printer of latest configuration /software and broadband internet connections for use by Engineer-in-Charge and consultant and its staff appointed by Employer.
- b) The location and layout of site offices shall be got approved from the Engineer-in-charge before providing the same.
- c) The Contractor shall appoint a duly qualified safety officer who shall be stationed at the site from the time the contractor mobilizes. These personnel or a suitable replacement, if required, and for which prior permission of Employer is to be obtained, shall be stationed at site till the end of the contract period.
- d) The Contractor shall provide electricity, water and telephone connections to the site office at his own cost along with other required facilities.
- e) Running expenses of the site office shall be borne by the Contractor.
- f) The Contractor shall not use any part of the project site or any adjoining/nearby site for labour camp or for accommodation/housing of any labour without the written permission of Engineer-in-Charge.

10.12 Measures against Insects and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect all staff and labour employed on the Site from insect and pest nuisance, and to reduce the dangers to health and general nuisance occasioned by the same. The Contractor shall provide his staff and labour with suitable prophylactics for the prevention of malaria and take steps to prevent the formation of the stagnant pools of water. The Contractor shall comply with all the regulations of the local health authorities and shall arrange to spray thoroughly with approved insecticide in all.

10.13 Epidemics

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same.

10.14 Burial or Cremation of the Dead

The Contractor shall make all necessary arrangements for the transport, to anyplace as required for burial/cremation, of any of his expatriate employees or members of their families who may die at the works. The Contractor shall also be responsible, to the extent required by local regulations, for making any arrangements with regard to burial/cremation of any of his local employees who may die while engaged upon the Works.

10.15 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country import, sell, gift, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale gift, barter or disposal by Contractor's Personnel.

10.16 Arms and Ammunition

The Contractor shall not give, barter or otherwise dispose of to any person or persons, any arms or ammunition of any kind or permit or allow Contractor's personnel to do so.

10.17 Festivals and Religious Customs

The Contractor shall respect the Country's/Locally recognized festivals, days of rest and religious or other customs.

10.18 Site Data

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and to have satisfied himself before entering into the Agreement in all material respects including but not limited to:

- (a) the form and nature of the Site (including, inter-alia, the surface and subsurface conditions and geo-technical factors);
- (b) the hydrological and climatic conditions;
- (c) the extent and nature of the works already completed and Materials necessary for the execution and completion of the Works and the remedying of any defects that includes already executed part also.
- (d) the suitability and the adequacy of the Site for the execution of the Works;
- (e) the means of access to the Site and the accommodation the Contractor may require;
- (f) arranging permits as required as stated in this Agreement.
- (g) the requirements of operation and maintenance; and
- (h) all other factors and circumstances affecting the Contractor's rights and obligations under the Agreement, the Contract Price and Time for Completion

10.19 Clearance of the Site

During the provision of the Works, and as a pre-condition to the issue of the Taking-Over Certificate, the Contractor shall clear away and remove from the Site, all Contractor's equipment, surplus material, wreckage, rubbish and temporary Works, and shall keep the Site free from all unnecessary obstructions, and shall not store or dispose of any Contractor's equipment or surplus materials on the Site. The Contractor shall promptly clear away and remove from the Site any wreckage, rubbish or temporary Works no longer required and leave the Site and the Works in a clean and safe condition to the sole satisfaction of the Employer

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11. Obligations of the Employer

11.1 Obligations of the Employer

- 11.1.1 The Employer shall, at its own cost and expense, undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 11.1.2 To assist in due discharge of its obligation, the Employer will appoint Programme Manager for New Cities, ("PMNC"). Role of the PMNC is to perform activities necessary to plan, integrate, package, administer, and manage the implementation of the Project, of which Pudukkottai Central & Kannambra under Palakkad IMC is a part. Specifically, the PMNC will be responsible for conceptualization of the Projects and further, during the design and Construction stage, overseeing the work of consultants and contractors, including reviewing, monitoring, resolution of interface issues, and reporting to the implementing agency (SPV- KICDC) on the Programme progress. All communications relating to contract management on this Project shall be submitted to the PMNC for final approval of Employer.
- 11.1.3 The Employer's Engineer decision on Scope of the Project shall be final for the proposed contract.
- 11.1.4 The Employer shall provide to the Contractor:

upon receiving the Performance Security under **Clause 14.1.1** and signing of the Contract Agreement under clause **34.8**, the Employer shall provide all environmental clearances as required under **Clause 11.2**.
- 11.1.5 The Employer agrees to provide support to the Contractor and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and the Applicable Laws, the following:
- upon written request from the Contractor, and subject to the Contractor complying with Applicable Laws, provide reasonable support to the Contractor in procuring Applicable Permits required from any Government Instrumentality for implementation of the Project;
 - upon written request from the Contractor, provide reasonable assistance to the Contractor in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity at rates and on terms no less favorable than those generally available to commercial customers receiving substantially equivalent services;
 - that no barriers that would have a Material Adverse Effect on the Works are erected or placed on or about the Project Site by any Government Instrumentality or persons claiming through or under it, except for reasons of Emergency, national security, law and order or collection of inter-state Taxes;
 - not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;
 - support, cooperate with and facilitate the Contractor in the implementation of the Project in accordance with the provisions of this Agreement; and
 - upon written request from the Contractor and subject to the provisions of **Clause 10.3**, provide reasonable assistance to the Contractor and any expatriate personnel of the Contractor or its Subcontractors to obtain applicable visas and work permits for the purposes of discharge by the Contractor or its Sub-contractors of their obligations under this Agreement and the Agreements with the Subcontractors.

- 11.1.6 The Employer retains the authority to oversee financial matters related to the project, including approvals, payments, adjustments, and financial decisions, to facilitate the successful execution of the contract

11.2 Environmental Clearances

The Employer confirms that the environment clearance required for Construction of the Project are already procured by the Employer for both the land parcels i.e. Pudussary Central and Kannambra.

The EPC contractor shall be required to develop their own site specific Safety, Health & Environment (SHE) plan in line with the conditions stipulated in the Environmental Clearance for the project and get it approved from PMNC. Further, the contractor shall be required to comply with the conditions and requirements stipulated in approved SHE plan , Environment Management Plan (EMP) prepared during EIA stage of the project and all the statutory approvals applicable for the project such as Environmental Clearance etc. which is mandatorily to be followed during the construction and operational phase of the project as part of statutory compliance and Contractor's SHE Plan for the Project.

The EPC Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as and when required) in the performance of its obligations under this Agreement. The employer shall not be liable for any delay in issuance of the same.

The EPC contractor shall be required to submit their own application and obtain all relevant approvals & permits for construction stage activities such as Consent to Establish (CTE) & Consent to Operate (CTO) for RMP, HMP & WMM and other permits such as Labour License, BOCWA, ESIC, PF etc. applying to its employees and shall duly pay them and afford to them all their legal rights. The EPC Contractor shall establish an Environment Cell and appoint an Environment Officer to be responsible for the implementation of Environment safeguards at the Site.

Felling of trees- The employer shall assist the EPC Contractor in obtaining the Applicable Permits for felling of trees in non-forest area. The EPC Contractor shall fell these trees as per the Permits obtained. The cost for tree felling & disposal shall be borne by the contractor.

Health and Safety- All necessary precautions shall be taken by the EPC Contractor to ensure the health and safety of staff and Labour engaged for the Works. The EPC Contractor shall, in collaboration with and to the requirements of the local health authorities, ensure that para-medical staff, first aid facilities, ambulance service are available on the Site at all times, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The EPC Contractor shall appoint a safety officer to be responsible for the safety of personnel on the Site. This safety officer shall be qualified for his work and shall have the authority to issue instructions concerning safety and take protective measures to prevent accidents. The EPC Contractor shall maintain records and make reports concerning health, safety and welfare of personnel, and damage to property, in such manner as the Authority may reasonably require.

List of approvals and permits to be obtained by the EPC contractor is enclosed as schedule- A.

12. Representations and Warranties

12.1 Representations and Warranties of the Contractor

The Contractor represents and warrants to the Employer that:

- a) It is duly organized and validly existing under the laws of India, and has full power and authority/capability to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- b) it has taken all necessary corporate and/or other actions under Applicable Laws to authorize the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- c) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable against it in accordance with the terms hereof;
- d) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;
- e) the information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;
- f) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and articles of association or any Applicable Laws or any covenant, contract, Agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- g) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any Material impairment of its ability to perform any of its obligations under this Agreement.
- h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any Material adverse effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;
- i) it has complied with Applicable Laws in all Material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a Material adverse effect on its ability to perform its obligations under this Agreement;
- j) no representation or warranty by it contained herein or in any other document furnished by it to the Employer or to any Government Instrumentality in relation to Applicable Permits contains or will contain any untrue or misleading statement of Material fact or omits or will omit to state a Material fact necessary to make such representation or warranty not misleading;
- k) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the contract or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Employer in connection therewith;
- l) all information provided by the {selected bidder/ members of the Consortium} in response to the Request for Qualification and Request for Proposals or otherwise, is to the best of its knowledge and belief, true and accurate in all Material respects; and

- m) Nothing contained in this Agreement shall create any contractual relationship or obligation between the Employer and any Sub- contractors, designers, consultants or agents of the Contractor.

12.2 Representations and Warranties of the Employer

The Employer represents and warrants to the Contractor that:

- a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;
- b) it has taken all necessary actions under the Applicable Laws to authorize the execution, delivery and performance of this Agreement;
- c) it has the financial standing and capacity to perform its obligations under this Agreement;
- d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- e) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any Material adverse effect on the Employer's ability to perform its obligations under this Agreement;
- f) it has complied with Applicable Laws in all Material respects;
- g) it has good and valid right to the Site.

12.3 Disclosure

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either Party under this Agreement.

13. Disclaimer

13.1 Disclaimer

- 13.1.1 The Contractor acknowledges that prior to the execution of this Agreement, the Contractor has, after a complete and careful examination, made an independent evaluation of the Request for Qualification (RFQ) cum Request for Proposal (RFP), Scope of the Project, Specifications and Standards of design, Construction and Maintenance, Project Site, local conditions, physical qualities of ground, subsoil and geology, traffic volumes, suitability and availability of access routes to the Project Site and all information provided by the Employer or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. Save as provided in **Clause 11.1.3** and **Clause 12.2**, the Employer makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Contractor confirms that it shall have no claim whatsoever against the Employer in this regard.
- 13.1.2 The Contractor acknowledges and hereby accepts to have satisfied itself as to the correctness and sufficiency of the Contract Price.
- 13.1.3 The Contractor acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in **Clause 13.1.1** above and hereby acknowledges and agrees that the Employer shall not be liable for the same in any manner whatsoever to the Contractor, or any person claiming through or under any of them, and shall not lead to any adjustment of Contract Price or Scheduled Completion Date.
- 13.1.4 The Parties agree that any mistake or error in or relating to any of the matters set forth in **Clause 13.1.1** above shall not vitiate this Agreement or render it voidable.
- 13.1.5 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in **Clause 13.1.1** above, that Party shall immediately notify the other Party, specifying the mistake or error.
- 13.1.6 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Contractor; and the Employer shall not be liable in any manner for such risks or the consequences thereof.

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Part D: EPC Agreement
Section C-Construction and Maintenance

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14. Performance Security

14.1 Performance Security

- 14.1.1 The Contractor shall, for the performance of its obligations hereunder during the Construction Period, provide to the Employer, within 10 (ten) days of the date of this Agreement, an irrevocable and unconditional guarantee from a Bank or in the form Insurance surety bond in the form set forth in Schedule-B (the "Performance Security") for an amount equal to 5% (Five percent) of the Bid Price. The Performance Security shall be valid until 28 (Twenty Eight) days after successful completion of the Defects Liability Period. Until such time the Performance Security is provided by the Contractor pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security, the Employer shall release the Bid Security to the Contractor.
- 14.1.2 Notwithstanding anything to the contrary contained in this Agreement, the Parties agree that in the event of failure of the Contractor to provide the Performance Security in accordance with the provisions of **Clause 14.1.1** and within the time specified therein or such extended period as may be provided by the Employer, in accordance with the provisions of **Clause 14.1.3**, the Employer may encash the Bid Security and appropriate the proceeds thereof as Damages, and thereupon all rights, privileges, claims and entitlements of the Contractor under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Contractor, and this Agreement shall be deemed to have been terminated by mutual Agreement of the Parties.
- 14.1.3 In the event the Contractor fails to provide the Performance Security within 10 (ten) days of this Agreement, it may seek extension of time for a period not exceeding 20 (twenty) days on payment of Damages for such extended period in a sum calculated at the rate of 0.05% (zero point zero five per cent) of the Contract Price for each day until the Performance Security is provided.

14.2 Extension of Performance Security

The Contractor shall provide the Performance Security for whole project duration including Defect Liability Period. In case of extension of contract, the extension of the validity of the Performance Security, as necessary shall be submitted, at least 2 (two) months prior to the date of expiry of Bank Guarantee thereof.

14.3 Appropriation of Performance Security

- 14.3.1 Upon occurrence of a Contractor's Default, the Employer shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate the relevant amounts from the Performance Security as Damages for such Contractor's Default.

Upon such encashment and appropriation from the Performance Security, the Contractor shall, within 30 (thirty) days thereof, replenish, in case of partial appropriation, to its original level the Performance Security, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Contractor shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the Employer shall be entitled to terminate the Agreement in accordance with Section 30. Upon replenishment or furnishing of a fresh Performance Security, as the case may be, as aforesaid, the Contractor shall be entitled to an additional Cure Period of 30 (thirty) days for remedying the Contractor's Default, and in the event of the Contractor not curing its default within such Cure Period, the

Employer shall be entitled to encash and appropriate such Performance Security as Damages, and to terminate this Agreement in accordance with Section 30.

14.4 Release of Performance Security

The Employer shall return the Performance Security to the Contractor on the successful completion of the Defect Liability Period (DLP)/maintenance period (+) 28 days' grace period from the end of the DLP/maintenance period (or) from the date of check measurement of the rectification plus 28 days of grace period in case the defect rectification completed beyond the DLP/maintenance period.

14.5 Retention Money

- 14.5.1 From every payment for Works due to the Contractor in accordance with the provisions of **Clause 26.5**, the Employer shall deduct 5% (Five per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the "Retention Money") and that the retention money shall not be released in exchange of B.G.s.
- 14.5.2 Upon occurrence of a Contractor's Default, the Employer shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to appropriate the relevant amounts from the Retention Money as Damages for such Contractor's Default.
- 14.5.3 Deleted.
- 14.5.4 The 50% of this Retention Money shall be released within 28 days of the issue of the completion certificate upon furnishing an irrevocable and unconditional Bank guarantee substantially in the form provided and valid for 28 days beyond the end of Defect Liability Period. The balance 50% will be retained without interest and shall be released within 28 days after the expiry of the Defect Liability Period
- 14.5.5 The Parties agree that in the event of Termination of this Agreement, the Retention Money and the Bank guarantees specified in this **Clause 14.5** shall be treated as if they are Performance Security and shall be reckoned as such for the purposes of Termination Payment under **Clause 30.6**.
- 14.5.6 From every quarterly payment for O&M due to the Contractor in accordance with the provisions of **Clause 30.6**, the Employer shall deduct 5% (Five per cent) thereof as guarantee money for performance of the obligations of the Contractor during the O&M Period (the "Retention Money").
- 14.5.7 The same shall be released to the Contractor on the successful completion of the Defect Liability Period (DLP)/maintenance period (+) 28 days' grace period from the end of the DLP/maintenance period (or) from the date of check measurement of the rectification plus 28 days of grace period in case the defect rectification completed beyond the DLP/maintenance period.

15. The Project Site

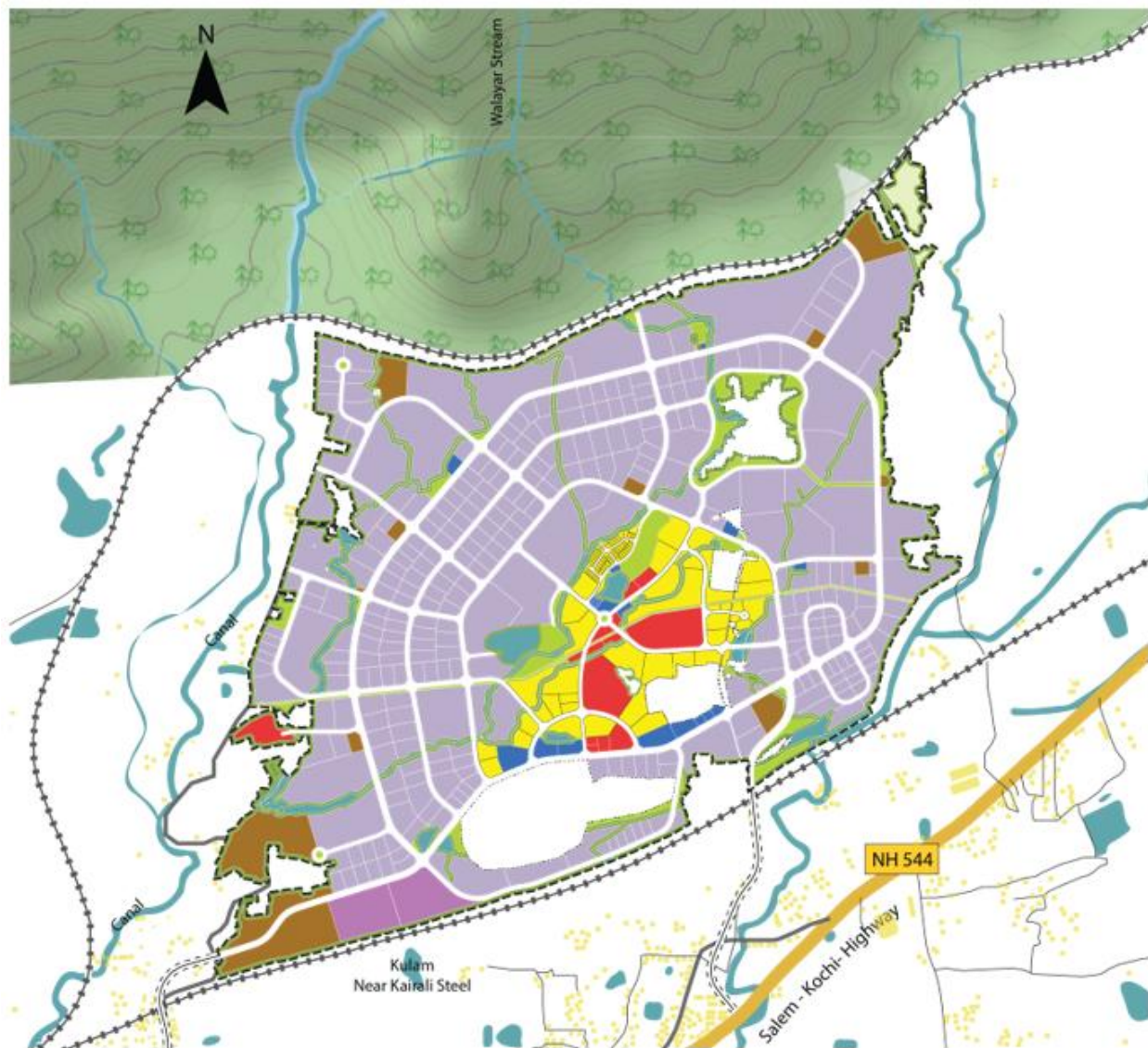
15.1 The Site

The Site of the Project Works (the “Site”) is described Chapter 1 of Volume II. The site shall be provided by the Employer to the Contractor. The Employer shall be responsible for:

- a) acquiring and providing the Site in accordance with the alignment finalized by the Employer, free from all encroachments and encumbrances, and free access thereto for the execution of this Agreement; and
- b) the employer shall assist in obtaining licenses and permits applicable for the Project Works.

15.1.1 Brief Description of Site

- a) Palakkad Node under KBIC lies to the West of Coimbatore in Tamil Nadu and East of Thrissur in Kerala at 35 km and 83 km respectively along the National Highway 544.
- b) The industrial development of Palakkad IMC is proposed to be built in three parcels viz. Pudukkottai Central, Pudukkottai West and Kannambra. The scope of this tender includes only Pudukkottai Central & Kannambra out of three mentioned parcels. The overall extent of Pudukkottai Central is 1137.00 Acre and Kannambra is 313 Acre.
- c) The master plan and its land use summary are given below in **Figure 15.1**.



Legend

Site Boundary		Amenities		Logistics	
Industrial		Commercial			
Open Spaces		Utility			
Residential		Water Feature			

Figure 15.1: Pudussery Central Master Plan

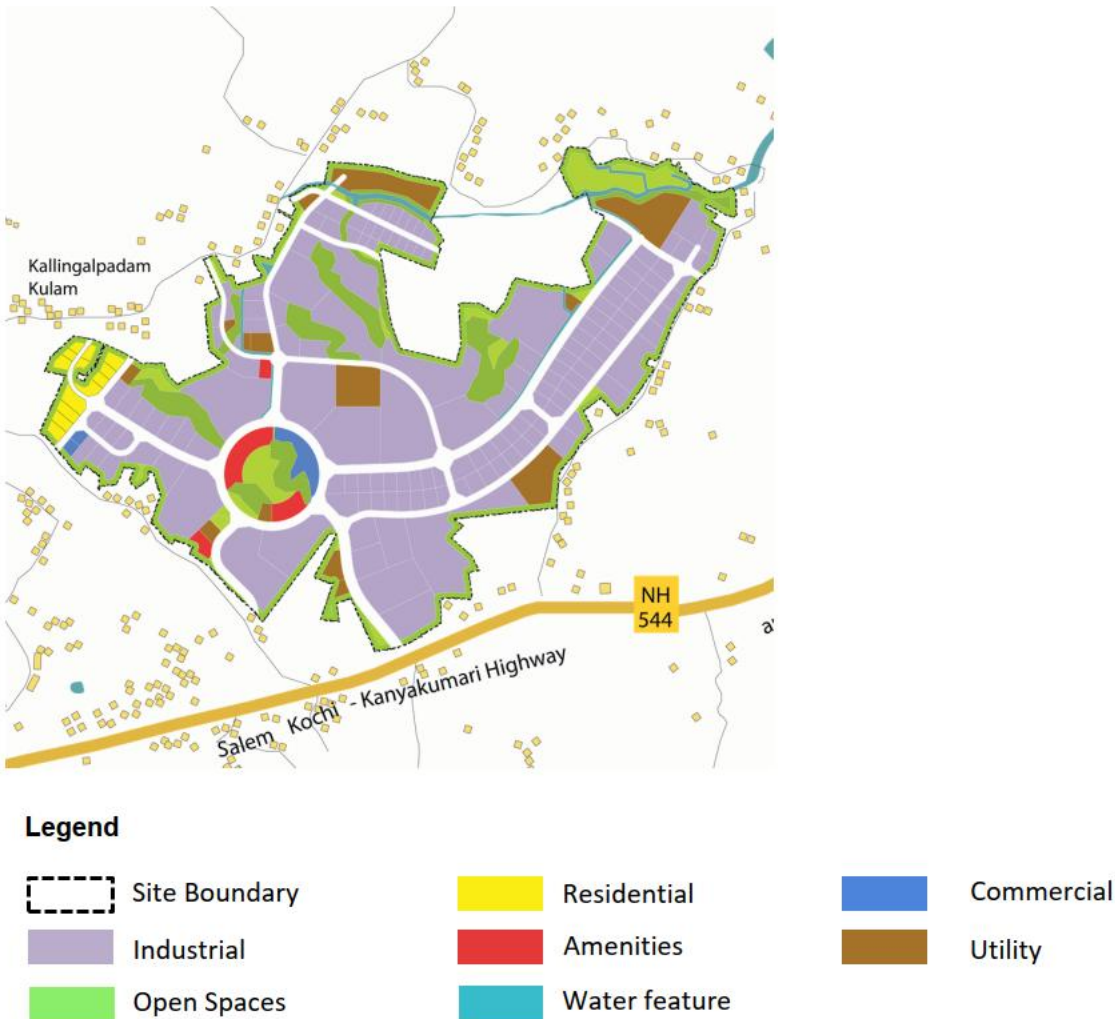


Figure 15.2: Kannambra Master Plan

15.2 Procurement of the Site

The Employer's Engineer/ Representative and the Contractor shall, within 15 (fifteen) days of the date of this Agreement, inspect the Site and prepare a memorandum containing an inventory of the Site including the vacant and unencumbered land, buildings, structures, road Works, trees and any other immovable property on or attached to the Site.

The memorandum shall be appended thereto an appendix (the "Appendix") specifying in reasonable detail those parts of the Site to which vacant access has not been given to the Contractor. Signing of the memorandum, in two counterparts (each of which shall constitute an original), by the authorized representatives of the Parties shall be deemed to constitute a valid evidence of giving Site to the Contractor for discharging its obligations under and in accordance with the provisions of this Agreement and for no other purpose whatsoever.

Whenever the Employer is ready to hand over any part or parts of the Site included in the Appendix, it shall inform the Contractor, by notice, the proposed date and time of such handing over. The Employer's Engineer/ Representative and the Contractor shall, on the date so notified, inspect the specified parts of the Site, and prepare a memorandum

containing an inventory of the vacant and unencumbered land, buildings, structures, road Works, trees and any other immovable property on or attached to the Site so handed over. Signing of the memorandum, in two counterparts (each of which shall constitute an original), by the authorized representatives of the Parties shall be deemed to constitute a valid evidence of giving the relevant site to the Contractor.

The project site in accordance with the provisions of this Clause, shall be handed over within a period of 90 (ninety) days from the date of this Agreement, on no less than 70% (Seventy per cent) of the Right of Way (ROW) for Construction of Project. No compensation will be paid for such delay; however, a time extension can be granted upon submission of the schedule impact.

15.3 Site to be Free from Encumbrances

Subject to the provisions of **Clause 15.2**, the Site shall be made available by the Employer to the Contractor pursuant hereto free from all Encumbrances and occupations and without the Contractor being required to make any payment to the Employer on account of any costs, compensation, expenses and charges for the acquisition and use of such Site for the duration of the Project Completion Schedule. For the avoidance of doubt, it is agreed that the existing rights of way, easements, privileges, liberties, appurtenances, existing water and power transmission lines etc. to the Site shall not be deemed to be Encumbrances. It is further agreed that, unless otherwise specified in this Agreement, the Contractor accepts and undertakes to bear any and all risks arising out of the inadequacy or physical condition of the Site.

15.4 Protection of Site from encroachments

On and after signing the memorandum and/or subsequent memorandum referred to in **Clause 15.2**, and until the completion of O&M Period, the Contractor shall maintain a round-the-clock vigil over the Site and shall ensure and ensures that no encroachment thereon takes place. During the Construction Period, the Contractor shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Sub-contractor or other person claiming through or under the Agreement to place or create any Encumbrance or security threat over all or any part of the Site or the Project Assets, or on any rights of the Contractor therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement. In the event of any encroachment or occupation on any part of the Site, the Contractor shall report such encroachment or occupation forthwith to the Employer and undertake its removal at Contractor's own cost and expenses.

15.5 Special/temporary Roads

The Contractor shall bear all costs and charges for any special or temporary roads required by it in connection with access to the Site. The Contractor shall obtain at its cost such facilities on or outside the Site as may be required by it for the purposes of the Project Works and the performance of its obligations under this Agreement.

15.6 Access to the Employer and the Employer's Engineer

- 15.6.1 The Site given to the Contractor hereunder shall always be subject to the right of access of the Employer and the Employer's Engineer and their employees and agents for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement.
- 15.6.2 The Contractor shall ensure, subject to all relevant safety procedures, that the Employer has un-restricted access to the Site during any emergency situation, as decided by the Employer's Engineer.

15.7 Fossils

All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.

The Contractor shall, upon discovery of any such finding, promptly give notice to the Employer, who shall issue instructions for dealing with it as per the instructions of concerned Government. Instrumentality and comply with such instructions as the Employer or the concerned Government Instrumentality may reasonably give for the removal of such property.

15.8 Disposal of Materials

All materials arising from excavation for road and other structures of the project site shall be disposed of by the Contractor with all loads and lifts at a location identified by the contractor and as agreed by the employer. The disposal of materials is the responsibility of the Contractor.

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16. Utilities and Trees

16.1 Existing Utilities and Roads

Notwithstanding anything to the contrary contained herein, the Contractor shall ensure that the respective entities owning the existing roads, right of way, level crossings, structures, or utilities on, under or above the Site are enabled by it to keep them in continuous satisfactory use, if necessary, by providing suitable temporary diversions with the authority of the controlling body of that road, right of way or utility.

16.2 Shifting of Obstructing Utilities

The Contractor shall, in accordance with Applicable Laws and with assistance of the Employer, cause shifting of any utility (including electric lines, water pipes and telephone cables) to an appropriate location or alignment, if such utility or obstruction adversely affects the execution of Works or Maintenance of the Project Works in accordance with this Agreement. The actual cost of such shifting, as approved and communicated by the entity owning the utility, shall be paid by the Contractor and reimbursed by the Employer to the Contractor.

Dismantling and removal of existing utilities, nonfunctional utilities including power distribution lines which are not to be shifted/relocated with the consent of Employer and the entity owning the utility shall be part of the scope of works under the contract and cost of dismantling shall be included in the Contract Price. The material so dismantled shall be property of the owning entity/ Employer and shall be handed over to owning entity/ Employer.

16.3 New Utilities

16.3.1 The Contractor shall allow, subject to such conditions as the Employer may specify, access to, and use of the Site for laying telephone lines, water pipes, electric cables or other public utilities. Contractor shall manage the interface of various services in the designated area and from adjoining areas to ensure seamless integration of services. Contractor shall also manage interface of services in case implementation is carried out through multiple contractors. Where such access or use causes any financial loss to the Contractor, it may require the user of the Site to pay compensation or Damages as per Applicable Laws. For the avoidance of doubt, it is agreed that use of the Site under this **Clause 16.3** shall not in any manner relieve the Contractor of its obligation to construct and maintain the Project Works in accordance with this Agreement and any damage caused by such use shall be restored forthwith at the cost of the Employer.

16.3.2 The Employer may, by notice, require the Contractor to connect any adjoining road to the Project roads, and the connecting portion thereof falling within the Site shall be constructed by the Contractor at the Employer's cost in accordance with Section 17.

16.3.3 Contractor's acknowledgement

The Contractor acknowledges that Related Works shall be performed and that it is of paramount importance that the design and execution of the Works are coordinated with any Related Works.

16.3.4 Related Works' responsibilities

Accordingly, the Contractor shall at all times and otherwise in accordance with the reasonable requirements and directions of the Employer's Engineer:

- a) take all reasonable steps to co-ordinate and to integrate the design and execution of the Works, including the work of Subcontractors, with the activities of the Related Works Contractors; and
- b) attend such co-ordination meetings called by the Employer's Engineer to plan, review and determine coordinated activities for the management of interfaces between the Works and any Related Works; and
- c) at all times refrain from carrying out any operation on the Site in a manner which is likely to cause damage or inconvenience to the execution of any Related Works; where such damage or inconvenience is the unavoidable consequence of operations properly to be carried out on the Site, the Contractor shall not carry out such operations without first giving reasonable advance notice in writing thereof to the Employer's Engineer (with a copy to those responsible for carrying out any Related Works reasonably likely to be affected thereby) with a view to reaching an agreed procedure to prevent or minimize any such damage or inconvenience. In particular, the Contractor shall at all times prevent the discharge of surface water across the Site except where the Employer's Engineer gives its prior written consent for such discharge; and
- d) at all times co-operate with the Employer, the Employer's Engineer and any Related Works Contractors so as to promote and foster a coordinated and integrated approach to the Works and any Related Works; and
- e) monitor the coordination and integration of the Works with any Related Works and advise the Employer's Engineer in writing as and when it becomes apparent that the design or execution of the Works is likely to be the subject of delay and/or disruption and recommend reasonable proposals to reduce or prevent such delay and/or disruption.

16.3.5 In the event the Construction of any Works is affected by a new utility or Works undertaken in accordance with this **Clause 16.3**, the Contractor shall be entitled to a reasonable Time Extension as determined by the Employer's Engineer.

16.4 Felling of Trees

The Employer shall assist the Contractor in obtaining the Applicable Permits for felling of trees to be identified by the Employer for this purpose if and only if such trees cause a Material Adverse Effect on the Construction or Maintenance of the Project Works. The cost of such felling trees shall be borne by the Contractor and in the event of any delay in felling thereof for reasons beyond the control of the Contractor; it shall be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay in the felling of trees. The Parties hereto agree that the felled trees (except the Scheduled trees, which shall be Employers Property) shall be deemed to be owned by the Employer and shall be disposed in such a manner and subject to such conditions as the Employer may in its sole discretion deem appropriate, as appropriate with required statutory approvals. Obtaining the required statutory approvals for above shall be the responsibility of the Contractor. For the avoidance of doubt, the Parties agree that if any felling of trees hereunder is in a forest area, the Applicable Permit thereof shall be procured by the Employer within the time specified in the Agreement.

17. Design and Construction of the Project Works

17.1 Obligations prior to commencement of Works

17.1.1 Within 15 (fifteen) days of the Appointed Date, the Contractor shall:

- a) appoint its representative, duly authorized to deal with the Employer in respect of all matters under or arising out of or relating to this Agreement;
- b) appoint a design manager (the “Design Manager”) who will head the Contractor’s design unit and shall be responsible for surveys, investigations, collection of data, and preparation of preliminary and detailed designs;
- c) undertake and perform all such acts, deeds and things as may be necessary or required before commencement of Works under and in accordance with this Agreement, the Applicable Laws and Applicable Permits; and
- d) make its own arrangements for quarrying of Materials needed for the Project Works under and in accordance with the Applicable Laws and Applicable Permits.

17.1.2 The Employer has appointed an engineer (the “Employer’s Engineer”) to discharge the functions and duties specified in this Agreement, and shall notify to the Contractor the name, address and the date of appointment of the Employer’s Engineer forthwith.

17.1.3 Within 30 (thirty) days of the Appointed Date, the Contractor shall submit to the Employer and the Employer’s Engineer a Programme (the “Programme”) for the Works, developed using networking techniques giving the following details:

17.1.4 Part I-Contractor’s organization for the Project, the general methods and arrangements for design and Construction, environmental management plan, Environment and Social Management Plan, Quality Assurance Plan including design quality plan, traffic management and Health & safety plan covering safety of users and workers during Construction, Contractor’s key personnel and equipment.

Part II- Programme for completion of all stages of Construction given in Schedule-C and Project Milestones of the Works as specified in Project Completion Schedule set forth in Schedule-E. The Programme shall include:

- a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of design and stages of Works;
- b) the periods for reviews under **Clause 17.2**;
- c) the sequence and timing of inspections and Tests specified in this Agreement.

The Contractor shall submit a revised Programme whenever the previous Programme is inconsistent with the actual progress or with the Contractor’s obligations.

Part III Monthly cash flow forecast.

- 17.1.5 The Contractor shall compute, on the basis of the Drawings prepared in accordance with **Clause 17.2.4**, and provide to the Employer's Engineer, the length, area and numbers, as the case may be, in respect of the various items of work specified in Schedule-C and comprising the Scope of the Project. The Parties expressly agree that these details shall form the basis for estimating the interim payments for the Works in accordance with the provisions of **Clause 26.3**. For the avoidance of doubt, the sum of payments to be computed in respect of all the items of work shall not exceed the Contract Price, as may be adjusted in accordance with the provisions of this Agreement.
- 17.1.6 The Contractor shall appoint a safety consultant (the "Safety Consultant") to carry out fire and safety audit at the design stage of the Project Works in accordance with the Applicable Laws and Good Industry Practice. The Safety Consultant shall be appointed after proposing to the Employer a panel of three names of qualified and experienced firms along with their firms and personnel experience from whom the Employer may choose one to be the Safety Consultant. Provided, however, that if the panel is not acceptable to the Employer and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Employer a revised panel of three names from the firms empaneled as safety consultants by the Employer for obtaining the consent of the Employer. The Contractor shall also obtain the consent of the Employer for the key personnel of the Safety Consultant who shall have adequate experience and qualifications in safety audit of the similar infrastructure projects. The Employer shall, within 15 (fifteen) days of receiving a proposal from the Contractor hereunder, convey its decision, with reasons, to the Contractor and the contractor shall propose revised panel for the consent of the Employer.
- 17.1.7 The safety audit pursuant to **Clause 17.1.6** shall be carried out by the Safety Consultant in respect of all such design details that have a bearing on safety of Users as well as pedestrians and animals involved in or associated with accidents. The recommendations of the Safety Consultant shall be incorporated in the design of the Project Works and the Contractor shall forward to the Employer's Engineer a certificate to this effect together with the recommendations of the Safety Consultant. In the event that any Works required by the Safety Consultant shall fall beyond the scope as mentioned in Volume II, the Contractor shall make a report thereon and seek the instructions of the Employer. For the avoidance of doubt, the Safety Consultant to be engaged by the Contractor shall be independent of the design and implementation team of the Contractor.

17.2 Design and Drawings

- 17.2.1 Design and Drawings shall be developed in conformity with the Specifications and Standards set forth in Volume II and Volume III. In the event, the Contractor requires any relaxation in design standards due to restricted Right of Way in any section or non-availability of project site, the alternative design criteria for such Section shall be provided for review of the Employer's Engineer. The contractor within 60 days of LOA shall submit the drawing and document list for Employer Engineers Approval.

- 17.2.2 The Contractor shall appoint a proof check consultant (the “Proof Consultant”) after proposing to the Employer a panel of three names of qualified and experienced firms (**Preferably IIT/NIT’s**) from whom the Employer may choose one to be the Proof Consultant. Provided, however, that if the panel is not acceptable to the Employer and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Employer a revised panel of three names from the firms empaneled as proof consultants by the Employer along with their firms and personnel experience for obtaining the consent of the Employer. The Contractor shall also obtain the consent of the Employer for two key personnel of the Proof Consultant who shall have adequate experience and qualifications of such infrastructure projects including Roads & Bridges, Drains, Culverts, Water Supply, Sewage, Gas, Power systems, Fire and any other relevant discipline. The Employer shall, within 30 (thirty) days of receiving a proposal from the Contractor or providing sufficient information as desired by the Employer whichever is later hereunder, convey its decision, with reasons, to the Contractor for engaging Proof Consultant.
- 17.2.3 The Proof Consultant shall:
- a) evolve a systems approach with the Design Manager so as to minimize the time required for final designs and Construction Drawings covering and ensuring compliance with respect to the scope of the contract agreement.
 - b) Proof check the detailed calculations, Drawings and designs, which have been approved by the Design Manager and ensuring compliance with respect to the scope of the contract agreement.
- 17.2.4 In respect of the Contractor’s obligations with respect to the design and Drawings of the Project Works as set forth in Volume III, the following shall apply:
- a) The Contractor shall prepare and submit, within stipulated time and in such sequence as is consistent with the Project Completion Schedule, five copies and one set of soft copy in CD/pen drive each of the design and Drawings, duly certified by the Proof Consultant, to the Employer’s Engineer for review. Provided, that in respect of Roads & Bridges, Drains, Culverts, Water Supply, Sewerage, Fire Protection, Gas, Power systems, Sewage Treatment Plant and Effluent Treatment Plants the Employer’s Engineer may require additional Drawings for its review in accordance with Good Industry Practice.
 - b) Drawings submitted to the Employer’s Engineer shall be deemed to have been certified by the Design Manager and verified by the proof consultant in respect of design and engineering, including field Construction criteria and constructability thereto and are in conformity with the Scope of the Project, the Specifications and Standards and the Applicable Laws;
 - c) within 21 (twenty one) days of the receipt of the Drawings, the Employer’s Engineer shall review the same and convey its observations to the Contractor with particular reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards. The Contractor shall not be obliged to await the observations of the Employer’s Engineer on the Drawings submitted pursuant hereto beyond the said period of 21 (twenty-one) days and may begin or continue Works at its own discretion and risk;
 - d) if the aforesaid observations of the Employer’s Engineer indicate that the Drawings are not in conformity with the Scope of the Project or the Specifications and Standards, such Drawings shall be revised by the Contractor in conformity with the provisions of this Agreement and resubmitted to the Employer’s Engineer for review. The Employer’s Engineer shall give its observations, if any, within 15 (fifteen) days of receipt of the revised Drawings. In the event the Contractor fails to revise and resubmit such Drawings to the Employer’s Engineer for review as aforesaid, the Employer’s Engineer in consultation with Employer may withhold the payment for the affected Works in accordance with the provisions of **Clause 26.5.3**. If the Contractor Disputes any decision, direction or determination of the Employer’s Engineer

hereunder, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure;

- e) no review and/or observation of the Employer's Engineer and/or its failure to review and/or convey its observations on any Drawings shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Employer's Engineer or the Employer be liable for the same in any manner; and if errors, omissions, ambiguities, inconsistencies, inadequacies or other Defects are found in the Drawings, they and the Construction Works shall be corrected at the Contractor's cost, notwithstanding any review under this Section 17;
- f) the Contractor shall be responsible for delays in submitting the Drawing as set forth in Volume III caused by reason of delays in surveys and field investigations, and shall not be entitled to seek any relief in that regard from the Employer; and
- g) the Contractor warrants that its designers, including any third Parties engaged by it, shall have the required experience and capability in accordance with Good Industry Practice and it shall indemnify the Employer against any damage, expense, liability, loss or claim, which the Employer might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty set out in this Clause.

17.2.5 Any cost or delay in Construction arising from review by the Employer's Engineer shall be borne by the Contractor.

17.2.6 Works shall be executed in accordance with the Drawings provided by the Contractor in accordance with the provisions of this **Clause 17.2** and the observations of the Employer's Engineer thereon as communicated pursuant to the provisions of **Clause 17.2.4** (d). Such Drawings shall not be amended or altered without prior written notice to the Employer's Engineer. If a Party becomes aware of an error or Defect of a technical nature in the design or Drawings, that Party shall promptly give notice to the other Party of such error or defect. Works shall only be carried out on drawings duly signed and stamped as Good for construction by Employers Engineer.

17.2.7 Within 30 (thirty) days of the Project Construction Completion Date before issuance of Construction Completion Certificate, the Contractor shall furnish to the Employer and the Employer's Engineer a complete set of as built Drawings, in 5 (Five) hard copies and in soft copy form or in such other medium as may be acceptable to the Employer, reflecting the Project Works as actually designed, engineered and constructed, including an as built survey illustrating the layout of the Project Works and setback lines, if any, of the buildings and Structures forming part of Project Facilities.

17.3 Construction of the Project Works

17.3.1 The Contractor shall construct the Project Works as specified in Volume II, and in conformity with the Specifications and Standards set forth in Volume II. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. The 42 months from the Appointed Date shall be the scheduled completion date for construction works (the "Scheduled Completion Date") and the Contractor agrees and undertakes that the Construction shall be completed on or before the Scheduled Completion Date, including any extension thereof.

- 17.3.2 The Contractor shall construct the Project Works in accordance with the Project Completion Schedule set forth in Schedule-E. In the event that the Contractor fails to achieve any Project Milestone or the Scheduled Completion Date (including any extension granted by the Employer) from the date set forth in Schedule-E, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the Employer, it shall pay Damages to the Employer of a sum calculated at the rate of 0.05% (zero point zero five percent) of the Contract Price for delay of each day reckoned from the date specified in Schedule –E and until such Project Milestone is achieved or the Works are completed; provided that if the period for any or all Project Milestones or the Scheduled Completion Date is extended in accordance with the provisions of this Agreement, the dates set forth in Schedule-E shall be deemed to be modified accordingly and the provisions of this Agreement shall apply as if Schedule-E has been amended as above; provided further that in the event the Works are completed within or before the Scheduled Completion Date including any Time Extension, applicable for that work or section, the Damages paid under this Clause shall be refunded by the Employer to the Contractor, but without any interest thereon. For the avoidance of doubt, it is agreed that recovery of Damages under this **Clause 17.3.2** shall be without prejudice to the rights of the Employer under this Agreement including the right of Termination thereof. The Parties further agree that Time Extension hereunder shall only be reckoned for and in respect of the affected Works as specified in **Clause 17.5.2**.
- 17.3.3 The Employer shall notify the Contractor of its decision to impose Damages in pursuance with the provisions of this **Clause 17.3**. Provided that no deduction on account of Damages shall be effected by the Employer without notifying the Contractor of its decision to impose the Damages, and taking into consideration the representation, if any, made by the Contractor within 20 (twenty) days of such notice. The Parties expressly agree that the total amount of Damages under **Clause 17.3.2** shall not exceed 10% (ten percent) of the Contract Price.

17.4 Maintenance during Construction Period

During the Construction Period, the Contractor shall maintain, at its cost, the existing lane(s) of the Project roads so that the traffic worthiness and safety thereof are at no time Materially inferior as compared to their condition 10 (ten) days prior to the date of this Agreement, and shall undertake the necessary repair and Maintenance Works for this purpose; provided that the Contractor may, at its cost, interrupt and divert the flow of traffic if such interruption and diversion is necessary for the efficient progress of Works and conforms to Good Industry Practice; provided further that such interruption and diversion shall be undertaken by the Contractor only with the prior written approval of the Employer's Engineer which approval shall not be unreasonably withheld. For the avoidance of doubt, it is agreed that the Contractor shall at all times be responsible for ensuring safe operation of the Project roads.

17.5 Extension of time for Completion

- 17.5.1 Without prejudice to any other provision of this Agreement for and in respect of extension of time, the Contractor shall be entitled to extension of time in the Project Completion Schedule (the "Time Extension") to the extent that completion of any Project Milestone is or will be delayed by any of the following, namely:
- a) delay in providing the Site, statutory clearances (bidder to note that delay in obtaining statutory clearance will be without any financial implications to the Employer);
 - b) Change of Scope (unless an adjustment to the Scheduled Completion Date has been agreed under **Section 20**);
 - c) occurrence of a Force Majeure Event;
 - d) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's

personnel or the Employer's other contractors on the Site; and

- e) any other cause or delay which entitles the Contractor to Time extension in accordance with the provisions of this Agreement.

17.5.2 The Contractor shall, no later than 15 (fifteen) business days from the occurrence of an event or circumstance specified in **Clause 17.5.1**, inform the Employer's Engineer by notice in writing, with a copy to the Employer, stating in reasonable detail with supporting particulars, the event or circumstances giving rise to the claim for Time Extension in accordance with the provisions of this Agreement. Provided that the period of 15 (fifteen) business days shall be calculated from the date on which the Contractor became aware, or should have become aware, of the occurrence of such an event or circumstance.

17.5.3 Provided further that notwithstanding anything to the contrary contained in this Agreement, Time Extension shall be due and applicable only for the Works which are affected by the aforesaid events or circumstances and shall not in any manner affect the Project Completion Schedule for and in respect of the Works which are not affected hereunder.

17.5.4 In the event of the failure of the Contractor to issue to the Employer's Engineer a notice in accordance with the provisions of **Clause 17.5.2** within the time specified therein, the Contractor shall not be entitled to any Time Extension and shall forfeit its right for any such claims in future. For the avoidance of doubt, in the event of failure of the Contractor to issue notice as specified in this clause **17.5.4**, the Employer shall be discharged from all liability in connection with the claim.

17.5.5 The Employer's Engineer shall, on receipt of the claim in accordance with the provisions of **Clause 17.5.2**, examine the claim expeditiously within the time frame specified herein. In the event the Employer's Engineer requires any clarifications to examine the claim, the Employer's Engineer shall seek the same within 15 (fifteen) days from the date of receiving the claim. The Contractor shall, on receipt of the communication of the Employer's Engineer requesting for clarification, furnish the same to the Employer's Engineer within 10 (ten) days thereof. The Employer's Engineer shall, within a period of 60 (sixty) days from the date of receipt of such clarifications, forward in writing to the Contractor its determination of Time Extension.

Provided that when determining each extension of time under this **Clause 17.5**, the Employer's Engineer shall review previous determinations and may increase, but shall not decrease, the total Time Extension.

17.5.6 If the event or circumstance giving rise to the notice has a continuing effect:

- a) a fully detailed claim shall be considered as interim;
- b) the Contractor shall, no later than 10 (ten) days after the close of each month, send further interim claims specifying the accumulated delay, the extension of time claimed, and such further particulars as the Employer's Engineer may reasonably require; and
- c) the Contractor shall send a final claim within 30 (thirty) days after the effect of the event or the circumstance ceases.

17.6 Incomplete Works

In the event the Contractor fails to complete the Works in accordance with the Project Completion Schedule, including any Time Extension granted under this Agreement, the Contractor shall endeavor to complete the balance work expeditiously and shall pay Damages to the Employer in accordance with the provisions of **Clause 17.3.2** for delay of

each day until the Works are completed in accordance with the provisions of this Agreement. Recovery of Damages under this Clause shall be without prejudice to the rights of the Employer under this Agreement including the right to Termination under **Clause 30.1**.

17.7 Maintenance Manual

No later than 60 (sixty) days prior to the Project Completion Date but before issuance of Project Completion cum Taking Over Certificate, the Contractor shall, in consultation with the Employer's Engineer, evolve a Maintenance Manual (the "Maintenance Manual") for the regular and preventive Maintenance of the Project Works in conformity with the Specifications and Standards, safety requirements and Good Industry Practice, and shall provide 5 (five) copies thereof to the Employer's Engineer. The Employer's Engineer shall review the Maintenance Manual within 15 (fifteen) days of its receipt and communicate its comments to the Contractor for necessary modifications, if any.

18. Quality Assurance, Monitoring and Supervision

18.1 Quality of Materials and Workmanship

The Contractor shall ensure that the Construction, Materials and workmanship are in accordance with the requirements specified in this Agreement, Specifications and Standards and Good Industry Practice.

18.2 Quality Control System

- 18.2.1 The Contractor shall establish a quality control mechanism to ensure compliance with the provisions of this Agreement (the “Quality Assurance Plan” or “QAP”).
- 18.2.2 The Contractor shall, within 30 (thirty) days of the Appointed Date, submit to the Employer’s Engineer its Quality Assurance Plan which shall include the following:
- a) organization, duties and responsibilities, procedures, inspections and Documentation;
 - b) quality control mechanism including sampling and testing of Materials, test frequencies, standards, acceptance criteria, testing facilities, reporting, recording and interpretation of test results, approvals, check list for Site activities, and proforma for testing and calibration in accordance with the Specifications as mentioned in this tender document, relevant specifications, BIS standards, Indian Standards relevant to project components and Good Industry Practice; and
 - c) Internal quality audit system.
- 18.2.3 The Employer’s Engineer shall convey its comments to the Contractor within a period of 21 (twenty-one) days of receipt of the QAP stating the modifications, if any, required, and the Contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of this **Clause 18.2**.
- 18.2.4 The Contractor shall procure all documents, apparatus and instruments, fuel, consumables, water, electricity, labour, Materials, samples, and qualified personnel as are necessary for examining and testing the Project Assets and workmanship in accordance with the Quality Assurance Plan.
- 18.2.5 The cost of testing of Construction, Materials and workmanship under this Section shall be borne by the Contractor.

18.3 Methodology

The Contractor shall, at least 15 (fifteen) days prior to the commencement of the Construction, submit to the Employer’s Engineer for review the methodology proposed to be adopted for executing the Works, giving details of equipment to be deployed, traffic management and measures for ensuring safety. The Employer’s Engineer shall complete the review and convey its comments to the Contractor within a period of 15 (fifteen) days from the date of receipt of the proposed methodology from the Contractor.

18.4 Inspection and Technical Audit by the Employer

The Employer or any representative authorized by the Employer in this behalf may inspect and review the progress and quality of the Construction of Project Works and issue appropriate directions to the Employer’s Engineer and the Contractor for taking remedial action in the event the Works are not in accordance with the provisions of this Agreement.

18.5 External Technical Audit

At any time during Construction, the Employer may appoint an external technical auditor to conduct an audit of the quality of the Works. The findings of the audit, to the extent accepted by the Employer, shall be notified to the Contractor and the Employer's Engineer for taking remedial action in accordance with this Agreement. The Contractor shall provide all assistance as may be required by the auditor in the conduct of its audit hereunder. Notwithstanding anything contained in this **Clause 18.5**, the external technical audit shall not affect any obligations of the Contractor or the Employer's Engineer under this Agreement.

18.6 Inspection of Construction records

The Employer shall have the right to inspect the records of the Contractor relating to the Works.

18.7 Monthly Progress Reports

During the Construction Period and O&M period, the Contractor shall, no later than 7 (seven) days after the close of each month, furnish to the Employer and the Employer's Engineer a monthly report on progress of the Works for their review and shall promptly give such other relevant information as may be required by the Employer's Engineer.

18.8 Inspection

18.8.1 The Employer's Engineer and its authorized representative shall at all reasonable times:

- a) have full access to all parts of the Site and to all places from which natural Materials are being obtained for use in the Works; and
- b) during production, manufacture and Construction at the Site and at the place of production, be entitled to examine, inspect, measure and test the Materials and workmanship, and to check the progress of manufacture of Materials.

18.8.2 The Contractor shall give the Employer's Engineer and its authorized agents access, facilities and safety equipment for carrying out their obligations under this Agreement.

18.8.3 The Employer's Engineer shall submit a monthly inspection report (the "Inspection Report") to the Employer and the Contractor bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. For the avoidance of doubt, such inspection or submission of Inspection Report by the Employer's Engineer shall not relieve or absolve the Contractor of its obligations and liabilities under this Agreement in any manner whatsoever.

18.9 Samples

The Contractor shall submit the following samples of Materials and relevant information to the Employer's Engineer for pre-Construction review:

- a) manufacturer test reports and standard samples of manufactured Materials; and
- b) samples of such other Materials as the Employer's Engineer may require, shall be got tested by State/Central Government approved laboratories at the cost of contractor.

18.10 Tests

- 18.10.1 For determining that the Works conform to the Specifications and Standards, the Employer's Engineer shall require the Contractor to carry out or cause to be carried out Tests, at such time and frequency and in such manner as specified in this Agreement, and in accordance with Good Industry Practice for quality assurance. The test checks by the Employer's Engineer shall comprise at least 20 (twenty) percent of the quantity or number of Tests prescribed for each category or type of test for quality control by the Contractor.
- 18.10.2 In the event that results of any Tests conducted under this **Clause 18.10** establish any Defects or deficiencies in the Works, the Contractor shall carry out remedial measures and furnish a report to the Employer's Engineer in this behalf. The Employer's Engineer shall require the Contractor to carry out or cause to be carried out Tests to determine that such remedial measures have brought the Works into compliance with the Specifications and Standards, and the procedure shall be repeated until such Works conform to the Specifications and Standards. For the avoidance of doubt, the cost of such Tests and remedial measures in pursuance thereof shall be solely borne by the Contractor.

18.11 Examination of Work before Covering up

In respect of the work which the Employer's Engineer is entitled to examine, inspect, measure and/or test before it is covered up or put out of view or any part of the work is placed thereon, the Contractor shall give notice to the Employer's Engineer whenever any such work is ready and before it is covered up. The Employer's Engineer shall then either carry out the examination, inspection or testing without unreasonable delay, or promptly give notice to the Contractor that the Employer's Engineer does not require to do so. Provided, however, that if any work is of a continuous nature where it is not possible or prudent to keep it uncovered or incomplete, then Contractor shall notify the schedule of carrying out such work to give sufficient opportunity, not being less than 3 (three) business days' notice, to the Employer's Engineer to conduct its inspection, measurement or test while the work is continuing. Provided further that in the event the Contractor receives no response from the Employer's Engineer within a period of 3 (three) business days from the date on which the Contractor's notice hereunder is delivered to the Employer's Engineer, the Contractor shall be entitled to assume that the Employer's Engineer would not undertake the said inspection.

18.12 Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials, design or workmanship is found to be defective or otherwise not in accordance with the provisions of this Agreement, the Employer's Engineer shall reject the Plant, Materials, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the Defect and ensure that the rejected item complies with the requirements of this Agreement.

If the Employer's Engineer requires the Plant, Materials, design or workmanship to be retested, the Tests shall be repeated under the same terms and conditions, as applicable in each case. If the rejection and retesting cause the Employer to incur any additional costs, such cost shall be recoverable by the Employer from the Contractor; and may be deducted by the Employer from any monies due to be paid to the Contractor.

18.13 Remedial Work

- 18.13.1 Notwithstanding any previous test or certification, the Employer's Engineer may instruct the Contractor to:
- remove from the Site and replace any Plant or Materials which are not in accordance with the provisions of this Agreement;

- b) remove and re-execute any work which is not in accordance with the provisions of this Agreement and the Specification and Standards; and
- c) Execute any work which is urgently required for the safety of the Project Works, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of **Clause 28.6** shall apply.

18.13.2 If the Contractor fails to comply with the instructions issued by the Employer's Engineer under **Clause 18.13.1**, within the time specified in the Employer's Engineer's notice or as mutually agreed, the Employer's Engineer may advise the Employer to have the work executed by another agency. The cost so incurred by the Employer for undertaking such work shall, without prejudice to the rights of the Employer to recover Damages in accordance with the provisions of this Agreement, be recoverable from the Contractor and may be deducted by the Employer from any monies due to be paid to the Contractor.

18.14 Delays during Construction

Without prejudice to the provisions of **Clause 17.3.2**, in the event the Contractor does not achieve any of the Project Milestones or the Employer's Engineer shall have reasonably determined that the rate of progress of Works is such that Completion of the Project Works is not likely to be achieved by the end of the Scheduled Completion Date, it shall notify the same to the Contractor, and the Contractor shall, within 15 (fifteen) days of such notice, by a communication inform the Employer's Engineer in reasonable detail about the steps it proposes to take to expedite progress and the period within which it shall achieve the Project Completion Date.

18.15 Quality control Records and Documents

The Contractor shall hand over to the Employer's Engineer a copy of all its quality control records and documents before the Project Completion cum Taking Over Certificate is issued pursuant to **Clause 19.2**.

18.16 Video Recording

During the Construction Period, the Contractor shall provide to the Employer for every calendar quarter, a video recording, which will be compiled into a 3 (three)-hour compact disc or digital video disc, as the case may be, covering the status and progress of Works in that quarter. The video recording shall be provided to the Employer no later than 15 (fifteen) days after the close of each quarter after the Appointed Date.

18.17 Suspension of Unsafe Construction Works

18.17.1 Upon recommendation of the Employer's Engineer to this effect, the Employer may by notice require the Contractor to suspend forthwith the whole or any part of the Works if, in the reasonable opinion of the Employer's Engineer, such work threatens the safety of the Users and pedestrians.

- 18.17.2 The Contractor shall, pursuant to the notice under **Clause 18.17.1**, suspend the Works or any part thereof for such time and in such manner as may be specified by the Employer and thereupon carry out remedial measures to secure the safety of suspended Works, the Users and pedestrians. The Contractor may by notice require the Employer's Engineer to inspect such remedial measures forthwith and make a report to the Employer recommending whether or not the Suspension hereunder may be revoked. Upon receiving the recommendations of the Employer's Engineer, the Employer shall either revoke such Suspension or instruct the Contractor to carry out such other and further remedial measures as may be necessary in the reasonable opinion of the Employer, and the procedure set forth in this **Clause 18.17** shall be repeated until the Suspension hereunder is revoked.
- 18.17.3 Subject to the provisions of **Clause 28.6**, all reasonable costs incurred for maintaining and protecting the Works or part thereof during the period of Suspension (the "Preservation Costs"), shall be borne by the Contractor; provided that if the Suspension has occurred as a result of any breach of this Agreement by the Employer, the Preservation Costs shall be borne by the Employer.
- 18.17.4 If Suspension of Works is for reasons not attributable to the Contractor, the Employer's Engineer shall determine any Time Extension to which the Contractor is reasonably entitled.
- 18.17.5 The Contractor shall take up the Aerial photography based on the details provided in Schedule O.

18.18 Third Party Inspection

Third Party Inspection agency shall be appointed by contractor at their own cost after proposing to the Employer a panel of three names of qualified and experienced firms from whom the Employer may choose one to be the Third Party Inspection Agency. Provided, however, that if the panel is not acceptable to the Employer and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Employer a revised panel of three names from the firms empaneled as Third Party Inspection agency by the Employer for obtaining the consent of the Employer and shall also provide a sole nodal coordinator for all related activities regarding third party inspections. The Employer shall, within 30 (thirty) days of receiving a proposal from the Contractor or providing sufficient information as desired by the employer whichever is later hereunder, convey its decision, with reasons, to the Contractor for engaging Third Party Inspection agency.

Material such as all type of pipes (of all sizes) R.C.C. / P.S.C. / M.S./D.I. /CI./A.C./HDPE/PVC/GRP & other power equipment's like transformers, switch gear, cables, panels etc. All type of valves (of all sizes), any other materials as per requirements which are supplied by the contractor under this contract are subject to third party inspection. The charges for such inspection shall be paid by the contractor. All the arrangements for inspection i.e. measuring tools, testing equipment's and tools, labour required for handling materials during testing etc. shall be made available / arranged by the manufacturer /Vendor / contractor in their premises at their own costs. These cost shall be deemed included in contractor's price bid and nothing extra shall be paid to the said account. If any particular testing facility is not available at the premises / location of Factory, then the test shall be arranged by the factory owner / Vendor at his own cost at other locations / test laboratory. All expenses in this regard shall also have to be borne by the manufacturer /vendor /contractor only.

If the material inspected fails during test on no fault of the inspecting agency, fees are payable to the inspecting agency for the said inspection and for any further re-inspection of the same material.

If it is subsequently observed that there are defects in the quality of material, the contractor shall replace the material without any extra cost.

In addition to third party inspection, the Employers Engineer or his representative may conduct inspection intermittently.

Third Party Inspection Report: The third party inspection report merely in the certificate form stating that pipes/valves/specials or any other material inspected are found satisfactory will not be accepted, but it should be in the form of detailed report stating the parameters checked & observations made with comments of the Inspecting Officer in accordance with the respective Specifications/detailed item wise specifications / as per Tender notice.

18.19 Inspection Categories

Contractor should comply following Inspection Categories to the proposed/preferred vendor list as shown in Volume II.

Category A: - All design drawings and QAP are to be approved by the Engineer before manufacturing and Testing. Inspection/Testing in presence and witness by TPA/Client or its authorized representative at Works/based on approved drawings and QAP DC (Dispatch clearance) shall be issued by Employer only after CHP cleared (Customer Hold points) and Test reports approved by Client. Typical Type tests (any of last 5 years) and current Routine tests are mandatory. e.g. items like Pumps, Transformers, Switchgear and its Panels, DG sets, PLC/SCADA Panels with its FAT, Control and Power Cables, All analytical and non-analytical Instruments like DO, Flow, Level etc. and any other Electromechanical/Instrumentation item as per the list approved by Client in advance based on BBU. The material has to be inspected by the Engineer or by an Inspecting agency approved by the Engineer at the manufacturer's premise before packing and dispatching. The Inspection charges of the agency will be borne by the Employer but the contractor has to pay the inspection charges. The Contractor shall include the inspection charges in the next bill and the same will be reimbursed by the Employer from the provisional Sum. The Contractor shall provide the necessary equipments and facilities for tests and the cost, thereof, shall be borne by the Contractor. In case of failure of any item during third party inspection no charges shall be reimbursed to the contractor for the same. Submission of Internal test Certificates (TCs) to Engineer, by Manufacturer through contractor is mandatory before raising the inspection call well in advance of ten days.

Category B: - All design drawings and QAP are to be approved by the Engineer before manufacturing and Testing. Inspection/Testing in presence and witness by Contractor/TPA or its authorized representative at Works/based on approved drawings and QAP. DC (Dispatch clearance) shall be issued by Employer only after CHP cleared (Customer Hold points) and Test reports approved by Client. Typical Type tests (any of last 5 years) and current Routine tests are mandatory. Like small lighting panels, JBs, some I&C cables, non-critical instruments, lab instruments. The material has to be inspected by the Engineer or by an Inspecting agency approved by the Engineer at the manufacturer's premise before packing and dispatching. The Inspection charges of the agency will be borne by the Employer but the contractor has to pay the inspection charges. The Contractor shall include the inspection charges in the next bill and the same will be reimbursed by the Employer from the provisional Sum. Notwithstanding the above, the Engineer, after examination of the test certificates, reserves the right to instruct the Contractor for retesting, if required, in the presence of Contractor's representative without any additional cost.

Category C: The material may be manufactured as per standard and delivered to the site. No Inspection required by Client. Inspection/Testing Test Certificates shall be submitted by Manufacturer through Contractor. Only TCs submitted and reviewed by Client/Authorized representative/TPA, based on clearance material is dispatched. No type tests required. Items like glands, pipe fittings etc.

For material / Equipment under category "A" and "B", the Engineer will provide an authorization for packing and shipping after inspection. The testing, approval for dispatching shall not absolve of the Contractor's obligation for satisfactory performance of the plant."

19. Completion Certificate

19.1 Tests on Completion

- 19.1.1 At least 30 (thirty) days prior to the likely completion of the Project Works, or a Section thereof, the Contractor shall notify the Employer's Engineer of its intent to subject the Project Works or a Section thereof, to Tests. The date and time of each of the Tests shall be determined by the Employer's Engineer in consultation with the Contractor and notified to the Employer who may designate its representative to witness the Tests. The Contractor shall either conduct the Tests as directed by the Employer's Engineer or provide such assistance as the Employer's Engineer may reasonably require for conducting the Tests and the costs for such tests shall be borne by the contractor. In the event of the Contractor and the Employer's Engineer failing to mutually agree on the dates for conducting the Tests, the Contractor shall fix the dates by giving not less than 10 (ten) days' notice to the Employer's Engineer.
- 19.1.2 All Tests shall be conducted in accordance with Schedule-F. The Employer's Engineer shall either conduct or observe, monitor and review the Tests conducted by the Contractor, as the case may be, and review the results of the Tests to determine compliance of the Project Works or a Section thereof, with Specifications and Standards and if it is reasonably anticipated or determined by the Employer's Engineer during the course of any Test that the performance of the Project Works or Section or any part thereof, does not meet the Specifications and Standards, it shall have the right to suspend or delay such Test and require the Contractor to remedy and rectify the Defect or deficiencies. Upon completion of each Test, the Employer's Engineer shall provide to the Contractor and the Employer copies of all Test data including detailed Test results. For the avoidance of doubt, it is expressly agreed that the Employer's Engineer may require the Contractor to carry out or cause to be carried out additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Project Works or Section thereof with the Specifications and Standards.

19.2 Certificate of Substantial Completion

- 19.2.1 Subject to the provisions of **Clause 19.2.5**, upon completion of all Works forming part of the Project Works, save and except the Works for which Time Extension has been granted under **Clause 17.5**, the Employer's Engineer shall, at the request of the Contractor, issue a Certificate of Substantial Completion in the form set forth in Schedule-G (the "Substantial Completion Certificate") if the Tests for and in respect of the completed Works are successful. The Substantial Completion Certificate shall have appended thereto a list of outstanding items of work (the "Punch List") that need to be completed in accordance with the provisions of this Agreement. The Contractor undertakes to complete the minor outstanding items of Works in respect of those Sections of the Project Works for which the Substantial Completion Certificate has been issued, within a period of 30 (thirty) days of the date of Substantial Completion Certificate, and those parts of the Works in respect of which Time Extension has been granted, within the extended period thereof. For the avoidance of doubt, the Parties agree that the Punch List shall include all Works for which Time Extension has been granted and shall also include any minor outstanding items of work forming part of the completed Sections if such Works do not materially affect the use of the completed Sections for their intended purpose. The Parties further agree that Substantial Completion Certificate shall not be issued if the completed Works cannot be safely and reliably placed in service of the Users thereof.
- 19.2.2 Deleted.

- 19.2.3 If the Employer's Engineer determines that the Project Works or any completed part thereof does not conform to the provisions of this Agreement and cannot be safely and reliably placed in operation, it shall forthwith make a report in this behalf and send copies thereof to the Employer and the Contractor and withhold issuance of the Substantial Completion Certificate until the Defects or deficiencies are rectified by the Contractor and Tests are successful in accordance with this Section 19.
- 19.2.4 Notwithstanding anything to the contrary contained in **Clause 19.2.3**, the Employer may, at any time after receiving a report from the Employer's Engineer under that Clause, direct the Employer's Engineer to issue a Substantial Completion Certificate under **Clause 19.2.1** and such direction shall be complied forthwith.
- 19.2.5 No Substantial Completion Certificate shall be issued under the provisions of this **Clause 19.2** until the Contractor has submitted valid claims for payment of at least 80% (eighty per cent) of the amount arrived at after reducing the lump sum price specified in **Clause 26.1.1** by the amount attributable to Works which have been withdrawn. For the avoidance of doubt and by way of illustration, the Parties agree that if the Contract Price specified in **Clause 26.1.1** is Rs. 105 cr. (Rs. one hundred and five crore) and the Works withdrawn have a value of Rs. 5 cr. (Rs. five crore), a Substantial Completion Certificate shall not be issued until valid claims for payment of an amount of Rs. 80 cr. (Rs. Eighty crore) have been submitted by the Contractor in accordance with the provisions of this Agreement. It is further agreed that all price adjustments made in pursuance of **Clause 26.10** shall not be reckoned for computation of the claims for payments referred to in this **Clause 19.2.5**.

19.3 Completion of remaining Works

All items in the Punch List shall be completed by the Contractor in accordance with the provisions of this Agreement. For any delay in their completion other than for the reasons solely attributable to the Employer or due to Force Majeure, the Employer shall be entitled to recover Damages from the Contractor in accordance with the provisions of **Clause 17.3.2** of this Agreement.

19.4 Completion Certificate for Construction Works

- 19.4.1 Upon completion of all Construction Works, including the items specified in the Punch List, and the Employer's Engineer determining the Tests to be successful, it shall forthwith issue to the Contractor and the Employer a certificate substantially in the form set forth in Schedule-G (the "Completion Certificate for Construction Works").

19.5 Project Completion cum Taking Over Certificate

- 19.5.1 Upon completion of all Works as per scope of this tender including O&M/ Defect Liability period, Employer shall forthwith issue to the Contractor, "Project Completion cum Taking Over Certificate".
- 19.5.2 Upon receiving of the Project Completion cum Taking Over Certificate, the Contractor shall remove its equipment, Materials, debris and temporary Works from the Site within a period of 30 (thirty) days thereof, failing which the Employer may remove or cause to be removed, such equipment, Materials, debris and temporary Works and recover from the Contractor an amount equal to 120% (one hundred and twenty per cent) of the actual cost of removal incurred by the Employer.

- 19.5.3 Without prejudice to the obligations of the Contractor specified in Section **21** and **24**, the property and ownership of all the completed Works forming part of the Project Works shall vest in the Employer.

19.6 Rescheduling of Tests

If the Employer's Engineer certifies to the Employer and the Contractor that it is unable to issue the Substantial Completion Certificate, as the case may be, because of events or circumstances on account of which the Tests could not be held or had to be suspended, the Contractor shall be entitled to re-schedule the Tests and hold the same as soon as reasonably practicable.

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20. Change of Scope

20.1 Change of Scope

The Employer may, notwithstanding anything to the contrary contained in this Agreement, require the Contractor to make modifications/alterations to the Works ("Change of Scope") before the issue of the Completion Certificate for construction works either by giving an instruction or by requesting the Contractor to submit a proposal for Change of Scope involving additional cost or reduction in cost. Any such Change of Scope shall be made and valued in accordance with the provisions of this Section.

20.1.1 Change of Scope shall mean:

- a) change in specifications of any item of Works;
- b) omission of any work from the Scope of the Project provided that, subject to **Clause 20.5**, the Employer shall not omit any work under this Clause in order to get it executed by any other Contractor/ Employer; and / or
- c) any additional work, Plant, Materials or services which are not included in the Scope of the Project

20.1.2 If the Contractor determines at any time that a Change of Scope will, if adopted,

- a) accelerate completion,
- b) reduce the cost to the Employer of executing, maintaining or operating the Project Works,
- c) improve the efficiency or value to the Employer of the completed Project Works, or
- d) otherwise be of benefit to the Employer, it shall prepare a proposal with relevant details at its own cost.

The Contractor shall submit such proposal, supported with the relevant details and the amount of reduction in the Contract Price to the Employer to consider such Change of Scope. The Employer shall, within 15 (fifteen) days of receipt of such proposal, either accept such Change of Scope with modifications, if any, and initiate proceedings therefor in accordance with this Section or reject the proposal and inform the Contractor of its decision. For the avoidance of doubt, the Parties agree that the Contractor shall not undertake any Change of Scope without the express consent of the Employer, save and except any Works necessary for meeting any Emergency.

20.2 Procedure for Change of Scope

20.2.1 In the event of the Employer determining that a Change of Scope is necessary, it may direct the Employer's Engineer to issue to the Contractor a notice specifying in reasonable detail the Works and services contemplated thereunder (the "Change of Scope Notice").

20.2.2 Upon receipt of a Change of Scope Notice, the Contractor shall, with due diligence, provide to the Employer and the Employer's Engineer such information as is necessary, together with preliminary Documentation in support of:

- a) the impact, if any, which the Change of Scope is likely to have on the Project Completion Schedule if the Works or services are required to be carried out during the Construction Period; and
- b) the options for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time thereof, including the following details:
 - i. break down of the quantities, unit rates and cost for different items of work;

- ii. proposed design for the Change of Scope; and
- iii. proposed modifications, if any, to the Project Completion schedule of the Project Works.

For the avoidance of doubt, the Parties expressly agree that, subject to the provisions of **Clause 20.4.2**, the Contract Price shall be increased or decreased, as the case may be, on account of Change of Scope.

20.2.3 The Contractor's quotation of costs for the Change of Scope shall be determined on the following principles:

- a) the latest available edition of Kerala Schedule of Rates (Kerala Water Authority Price website, approved by KINFRA) applicable to Palakkad Region will be adopted for the valuation of any Works which are not already covered by the items included in Price Schedules. Payments for the Variations Items shall be made in Rs. only.
- b) In the event that items are not covered in the Kerala Schedule of rates (Kerala Water Authority Price website, approved by KINFRA) applicable to Palakkad, then the latest edition of the CPWD rates applicable for Palakkad will be used in that order.
- c) The market rates substantiated with 3 quotations, followed by work order and/ or Tax Invoice shall be considered only when the executed variation items are not covered under Price Schedule or the above referred schedule of rates. A fixed percentage of 15% shall be added to cover the Contractor's Overhead and Profit for the rates evaluated under this category (c).

20.2.4 Upon reaching an Agreement, the Employer shall issue an order (the "Change of Scope Order") requiring the Contractor to proceed with the performance thereof. In the event that the Parties are unable to agree, the Employer may:

- a) issue a Change of Scope Order requiring the Contractor to proceed with the performance thereof at the rates and conditions approved by the Employer till the matter is resolved in accordance with Section 33; or
- b) proceed in accordance with **Clause 20.5**.

20.2.5 The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply mutatis mutandis to the Works undertaken by the Contractor under this Section.

20.3 Payment for Change of Scope

Payment for Change of Scope shall be made in accordance with the payment schedule specified in the Change of Scope Order.

20.4 Restrictions on Change of Scope

20.4.1 No Change of Scope shall be executed unless the Employer has issued the Change of Scope Order save and except any Works necessary for meeting any Emergency.

20.4.2 Unless the Parties mutually agree to the contrary, the total value of all Change of Scope Orders shall not exceed 10 (ten) per cent of the Contract Price.

20.4.3 Notwithstanding anything to the contrary in this Section, no change made necessary because of any default of the Contractor in the performance of its obligations under this Agreement shall be deemed to be Change of Scope, and shall not result in any adjustment of the Contract Price or the Project Completion Schedule.

20.5 Power of the Employer to undertake Works

- 20.5.1 In the event the Parties are unable to agree to the proposed Change of Scope Orders in accordance with **Clause 20.2**, the Employer may, after giving notice to the Contractor and considering its reply thereto, award such Works or services to any person on the basis of open competitive bidding from amongst bidders who are pre-qualified for undertaking the additional work; provided that the Contractor shall have the option of matching the first ranked Bid in terms of the selection criteria, subject to payment of 2% (two per cent) of the Bid amount to the Employer, and thereupon securing the award of such Works or services. For the avoidance of doubt, it is agreed that the Contractor shall be entitled to exercise such option only if it has participated in the bidding process and its Bid does not exceed the first ranked Bid by more than 10% (ten percent) thereof. It is also agreed that the Contractor shall provide assistance and cooperation to the person who undertakes the Works or services hereunder but shall not be responsible for rectification of any Defects and/ or Maintenance of Works carried out by other agencies.
- 20.5.2 The Works undertaken in accordance with this **Clause 20.5** shall conform to the Specifications and Standards and shall be carried out in a manner that minimizes the disruption in operation of the Project Works. The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply mutatis mutandis to the Works carried out under this **Clause 20.5**.

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21. Maintenance

21.1 Maintenance obligations of the Contractor

21.1.1 The Contractor shall maintain all the Project Works as per the scope executed under this contract agreement for a period of [4 (Four) years] commencing from the date of issue of the Completion Certificate for construction works (the "Maintenance Period"). For the performance of its Maintenance obligations, the Contractor have to maintain the below components

- 1) For roads and structures, etc.
- 2) For power supply, network, cables, cable trenches, transformers etc.
- 3) Water supply including firefighting network, Underground reservoirs (UGR), Elevated Service Reservoirs (ESR), Firefighting hydrants etc.
- 4) Recycled water including network, UGR, ESR etc.
- 5) Storm water including network, UGR, ESR etc.
- 6) Domestic Sewage including network, UGR, ESR etc.
- 7) Industrial Wastewater including UGR, ESR etc.
- 8) Sewage Treatment Plant including pumping stations etc.
- 9) Common Effluent Treatment Plant including pumping stations etc.

The contractor shall be paid a total amount equal to 0.4 % (zero point four per cent) of the final Contract Price (inclusive of all taxes) for each of the above components against their respective cost (as per Schedule-C) for the first year of Maintenance, and 0.5% (zero point five per cent) of the Contract Price for each of the above components for the second and third year respectively and 0.6% (zero point six per cent) for each of the above components the fourth year of Maintenance, inclusive of all Taxes. The amount payable for Maintenance shall be adjusted to reflect any increase or decrease arising out of variation in WPI to be determined in accordance with the provisions of **Clause 26.10**. It is further agreed that the Contract Price hereunder shall be reckoned with reference to the amount specified in **Clause 26.1.1**, which shall be adjusted to the extent of Change of Scope.

21.1.2 During the Maintenance Period, the Employer shall provide to the Contractor access to the Site for Maintenance in accordance with this Agreement. The obligations of the Contractor hereunder shall include:

- a) permitting safe, smooth and uninterrupted flow of traffic on the Project Roads;
- b) undertaking routine Maintenance including prompt repairs of potholes, cracks, joints, drains, embankments, structures, pavement markings, lighting, road signs and other traffic control devices, etc.;
- c) undertaking repairs to structures; pump house; retaining wall, etc.
- d) Undertaking repairs to pump machinery, piping, valves, actuator, transformer, cables, switchgear etc.
- e) informing the Employer of any unauthorized use of the Project Roads;
- f) informing the Employer of any encroachments on the Project Roads; and
- g) operation and Maintenance of all communication, patrolling, and administrative systems necessary for the efficient Maintenance of the Project Works in accordance with the provisions of this Agreement.

- 21.1.3 In respect of any Defect or deficiency not specified in Maintenance Requirements in Volume II, the Contractor shall, at its own cost, undertake repair or rectification in accordance with Good Industry Practice, save and except to the extent that such Defect or deficiency shall have arisen on account of any default or neglect of the Employer or a Force Majeure Event.
- 21.1.4 The Contractor shall remove promptly from the Project Roads any waste Materials (including hazardous Materials and wastewater), rubbish and other debris (including, without limitation, accident debris) and keep the Project Highway in a clean, tidy and orderly condition, and in conformity with the Applicable Laws, Applicable Permits and Good Industry Practice.

21.2 Maintenance Requirements

The Contractor shall ensure that at all times during the Maintenance Period; the Project Works conforms to the Maintenance requirements set forth in Schedule-Q (the "Maintenance Requirements").

21.3 Maintenance Programme

The Contractor shall prepare a monthly Maintenance Programme (the Maintenance Programme") in consultation with the Employer's Engineer and submit the same to the Employer's Engineer not later than 10 (ten) days prior to the commencement of the month in which the Maintenance is to be carried out. For this purpose a joint monthly inspection by the Contractor and the Employer's Engineer shall be undertaken. The Maintenance Programme shall contain the following:

- a) The condition of the road in the format prescribed by the Employer's Engineer;
- b) the proposed Maintenance Works; and
- c) deployment of resources for Maintenance Works.

21.4 Safety, vehicle breakdowns and accidents

- 21.4.1 The Contractor shall ensure safe conditions for the Users, and in the event of unsafe conditions, lane closures, diversions, vehicle breakdowns and accidents, it shall follow the relevant operating procedures for removal of obstruction and debris without delay. Such procedures shall conform to the provisions of this Agreement, Applicable Laws, Applicable Permits and Good Industry Practice.
- 21.4.2 The Contractor shall promptly remove any damaged vehicles and debris from the Project Road to enable safe movement of traffic and shall report all accidents to the police forthwith.

21.5 Lane closure/Utility line closure

- 21.5.1 The Contractor shall not close any lane of the Project Road/ Utility line for undertaking Maintenance Works except with the prior written approval of the Employer's Engineer. Such approval shall be sought by the Contractor through a written request to be made at least 10 (ten) days before the proposed closure of lane and shall be accompanied by particulars thereof. Within 5 (five) business days of receiving such request, the Employer's Engineer shall grant permission with such modifications as it may deem necessary and a copy of such permission shall be sent to the Employer and local concerned authorities.

- 21.5.2 Upon receiving the permission pursuant to **Clause 21.5.1**, the Contractor shall be entitled to close the designated lane for the period specified therein, and in the event of any delay in re-opening such lane, the Contractor shall, for every stretch of 250 (two hundred and fifty) meters, or part thereof, pay Damages to the Employer calculated at the rate of 0.1% (zero point one percent) of the Quarterly Maintenance payment for each day of delay until the lane has been re-opened for traffic/public use.

21.6 Reduction of Payment for Non-performance of Maintenance Obligations

- 21.6.1 In the event that the Contractor fails to repair or rectify any Defect or deficiency set forth in Schedule-Q within the period specified therein, it shall be deemed as failure of performance of Maintenance obligations by the Contractor and the Employer shall be entitled to effect reduction in Quarterly lump sum payment for Maintenance in accordance with **Clause 26.7** and Schedule-H, without prejudice to the rights of the Employer under this Agreement, including Termination thereof.
- 21.6.2 If the nature and extent of any Defect justifies more time for its repair or rectification than the time specified in Schedule-Q, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Employer's Engineer and conveyed to the Contractor and the Employer with reasons thereof.

21.7 Employer's Right to take Remedial Measures

In the event the Contractor does not maintain and/or repair the Project Works or any part thereof in conformity with the Maintenance Requirements, the Maintenance Manual or the Maintenance Programme, as the case may be, and fails to commence remedial Works within 15 (fifteen) days of receipt of the Maintenance Inspection Report under **Clause 22.2** or a notice in this behalf from the Employer or the Employer's Engineer, as the case may be, the Employer shall, without prejudice to its rights under this Agreement including Termination thereof, be entitled to undertake such remedial measures at the cost of the Contractor, and to recover its cost from the Contractor. In addition to recovery of the aforesaid cost, a sum equal to 20% (twenty per cent) of such cost shall be paid by the Contractor to the Employer as Damages.

21.8 Restoration of Loss or Damage to Project Works

Save and except as otherwise expressly provided in this Agreement, in the event that the Project Works or any part thereof suffers any loss or damage during the Maintenance from any cause attributable to the Contractor, the Contractor shall, at its cost and expense, rectify and remedy such loss or damage forthwith so that the Project Works conforms to the provisions of this Agreement.

21.9 Overriding powers of the Employer

- 21.9.1 If in the reasonable opinion of the Employer, the Contractor is in Material breach of its obligations under this Agreement and, in particular, the Maintenance Requirements, and such breach is causing or likely to cause Material hardship or danger to the Users and pedestrians, the Employer may, without prejudice to any of its rights under this Agreement including Termination thereof, by notice require the Contractor to take reasonable measures immediately for rectifying or removing such hardship or danger, as the case may be.

- 21.9.2 In the event that the Contractor, upon notice under **Clause 21.9.1**, fails to rectify or remove any hardship or danger within a reasonable period (decided by Employer), the Employer may exercise overriding powers under this **Clause 21.9.2** and take over the performance of any or all the obligations of the Contractor to the extent deemed necessary by it for rectifying or removing such hardship or danger; provided that the exercise of such overriding powers by the Employer shall be of no greater scope and of no longer duration than is reasonably required hereunder; provided further that any costs and expenses incurred by the Employer in discharge of its obligations hereunder shall be recovered by the Employer from the Contractor, and the Employer shall be entitled to deduct any such costs and expenses incurred from the payments due to the Contractor under **Clause 26.7** for the performance of its Maintenance obligations.
- 21.9.3 In the event of a national emergency, civil commotion or any other circumstances specified in **Clause 28.3**, the Employer may take over the performance of any or all the obligations of the Contractor to the extent deemed necessary by it, and exercise such control over the Project Works or give such directions to the Contractor as may be deemed necessary; provided that the exercise of such overriding powers by the Employer shall be of no greater scope and of no longer duration than is reasonably required in the circumstances which caused the exercise of such overriding power by the Employer. For the avoidance of doubt, it is agreed that the consequences of such action shall be dealt in accordance with the provisions of Section **28** . It is also agreed that the Contractor shall comply with such instructions as the Employer may issue in pursuance of the provisions of this **Clause 21.9.3**, and shall provide assistance and cooperation to the Employer, on a best effort basis, for performance of its obligations hereunder.

22. Supervision and Monitoring during Maintenance

22.1 Inspection by the Contractor

- 22.1.1 The Employer's Engineer shall undertake regular inspections to evaluate continuously the compliance with the Maintenance Requirements.
- 22.1.2 The Contractor shall carry out a detailed pre-monsoon inspection of all bridges, culverts and drainage system in accordance with the guidelines contained in IRC: SP35. Report of this inspection together with details of proposed Maintenance Works as required shall be conveyed to the Employer's Engineer forthwith. The Contractor shall complete the proposed Maintenance Works before the onset of the monsoon and send a compliance report to the Employer's Engineer. Post monsoon inspection shall be undertaken by the Contractor and the inspection report together with details of any Damages observed and proposed action to remedy the same shall be conveyed to the Employer's Engineer forthwith.

22.2 Inspection and Payments

- 22.2.1 The Employer's Engineer may inspect the Project Works at any time, but at least once every month, to ensure compliance with the Maintenance Requirements. It shall make a report of such inspection ("Maintenance Inspection Report") stating in reasonable detail the Defects or deficiencies, if any, with particular reference to the Maintenance Requirements, the Maintenance Manual, and the Maintenance Programme, and send a copy thereof to the Employer and the Contractor within 10 (ten) days of such inspection.
- 22.2.2 After the Contractor submits to the Employer's Engineer the Quarterly Maintenance Statement for the Project Works pursuant to **Clause 26.6**, the Employer's Engineer shall carry out an inspection within 10 (ten) days to certify the amount payable to the Contractor. The Employer's Engineer shall inform the Contractor of its intention to carry out the inspection at least 3 (three) business days in advance of such inspection. The Contractor shall assist the Employer's Engineer in verifying compliance with the Maintenance Requirements.
- 22.2.3 For each case of non-compliance of Maintenance Requirements as specified in the inspection report of the Employer's Engineer, the Employer's Engineer shall calculate the amount of reduction in payment in accordance with the formula specified in Schedule-H.
- 22.2.4 Any deduction made on account of non-compliance will be paid 75% of the value of work subsequently after establishing the compliance thereof.

22.3 Tests

For determining that the Project Works conforms to the Maintenance Requirements, the Employer's Engineer shall require the Contractor to carry out, or cause to be carried out, Tests specified by it in accordance with Good Industry Practice. The Contractor shall, with due diligence, carry out or cause to be carried out all such Tests in accordance with the instructions of the Employer's Engineer and furnish the results of such Tests forthwith to the Employer's Engineer.

22.4 Reports of Unusual Occurrence

The Contractor shall, during the Maintenance Period, prior to the close of each day, send to the Employer and the Employer's Engineer, by facsimile or e- mail, a report stating accidents and unusual occurrences on the Project Works

relating to the safety and security of the Users and Project Roads and satisfactory performance of the utility lines. A monthly summary of such reports shall also be sent within 3 (three) business days of the closing of month. For the purposes of this **Clause 22.4**, accidents and unusual occurrences on the Project Road/Works shall include:

- 1) accident, death or severe injury to any person;
- 2) damaged or dislodged fixed equipment;
- 3) flooding of Project Roads;
- 4) Functioning of the utilities lines; and
- 5) Any other unusual occurrence.

23. Traffic Regulation

23.1 Traffic Regulation by the Contractor

- 23.1.1 The Contractor shall take all the required measures as per traffic management plan prepared by contractor and approved by Employer/ Local Traffic Authorities and make arrangements for the safety of Users during the Construction and Maintenance of the Project Road or a Section thereof in accordance with the provisions of MORTH Specifications. It shall provide, erect and maintain all such barricades, signs, markings, flags, and lights as may be required by Good Industry Practice for the safety of the traffic passing through the Section under Construction or Maintenance.
- 23.1.2 All Works shall be carried out in a manner creating least interference to traffic passing through the Project area or a Section thereof. In sections where Construction or Maintenance Works on the carriageway are taken up, the Contractor shall ensure that proper passage is provided for the traffic. Where it is not possible or safe to allow traffic on part width of the carriageway, a temporary diversion of proper specifications shall be constructed by the Contractor at its own cost. The Contractor shall take prior approval of the Employer's Engineer for any proposed arrangement for traffic regulation during Construction and Maintenance, which approval shall not be unreasonably withheld.

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24. Defects Liability

24.1 Defects Liability Period

- 24.1.1 The Contractor shall be responsible for all the Defects and deficiencies, except usual wear and tear in the Project Works or any Section thereof, till the expiry of a period of 4 (four) years commencing from the date of issue of Completion Certificate for construction works (the “Defects Liability Period”). For the avoidance of doubt, any repairs or restoration on account of usual wear or tear in the Project Works or any Section thereof shall form a part of the Maintenance obligations of the Contractor as specified in Section 21.

24.2 Remediating Defects

Save and except as provided in **Clause 24.1.1**, the Contractor shall repair or rectify or replace all Defects and deficiencies observed by the Employer’s Engineer during the Defects Liability Period within a period of 15 (fifteen) days from the date of notice issued by the Employer’s Engineer in this behalf, or within such reasonable period as may be determined by the Employer’s Engineer at the request of the Contractor, in accordance with Good Industry Practice.

24.3 Cost of Remediating Defects

For the avoidance of doubt, any repair or rectification or replacement of any/all units of project undertaken in accordance with the provisions of **Clause 24.2**, including any additional testing, shall be carried out by the Contractor at its own risk and cost, to the extent that such rectification and repair is attributable to:

- a) The design of the Project;
- b) Plant, Materials or Workmanship not being in accordance with this agreement and the Specifications and Standards;
- c) Improper Maintenance during Construction of the Project Works by the Contractor; and/or
- d) Failure by the Contractor to comply with any other obligation under this agreement.

24.4 Contractor’s Failure to Rectify Defects

In the event that the Contractor fails to repair or rectify such Defect or deficiency within the period specified in **Clause 24.2**, the Employer shall be entitled to get the same repaired, rectified or remedied at the Contractor’s cost so as to make the Project Works conform to the Specifications and Standards and the provisions of this Agreement. All costs consequent thereon shall, after due consultation with the Employer and the Contractor, be determined by the Employer’s Engineer. The cost so determined for repair or rectification or replacement of such defects plus an amount equal to hundred percent (100%) of the above cost as Damages shall be recoverable by the Employer from the Contractor and may be deducted by the Employer from any monies due to the Contractor and/or from any BG/PG.

24.5 Contractor to Search Cause

- 24.5.1 The Employer’s Engineer may instruct the Contractor to examine the cause of any Defect in the Works or part thereof before the expiry of the Defects Liability Period.
- 24.5.2 In the event any Defect identified under **Clause 24.5.1** is attributable to the Contractor, the Contractor shall rectify such Defect within the period specified by the Employer’s Engineer and shall bear the cost of the examination and rectification of such Defect.

- 24.5.3 In the event such Defect is not attributable to the Contractor, the Employer's Engineer shall, after due consultation with the Employer and the Contractor, determine the costs incurred by the Contractor on such examination and notify the same to the Contractor, with a copy to the Employer, and the Contractor shall be entitled to payment of such costs by the Employer.

24.6 Extension of Defects Liability Period

The Defects Liability Period shall be deemed to be extended till the identified Defects under **Clause 24.2** have been remedied.

25. Employer's Engineer

25.1 Appointment of the Employer's Engineer

- 25.1.1 The Employer has appointed the Programme Manager for New Cities (PMNC) agency for the said project to be the Engineer under this Agreement (the "Employer's Engineer").
- 25.1.2 The staff of the Employer's Engineer shall include suitably qualified engineers and other professionals who are competent to assist the Employer's Engineer to carry out its duties.

25.2 Duties of the Employer's Engineer

- 25.2.1 The Employer's Engineer shall perform the duties and exercise the Authority in accordance with the provisions of its Agreement, and substantially in accordance with the terms of reference ("Terms of Reference" or "TOR") of this document, but subject to obtaining prior written approval of the Employer before determining:
- a) Any Time Extension;
 - b) any additional cost to be paid by the Employer to the Contractor
 - c) the Termination Payment;
- 25.2.2 No decision or communication of the Employer's Engineer shall be effective or valid unless it is accompanied by an attested true copy of the approval of the Employer for and in respect of any matter specified in **Clause 25.2.1**.

25.3 Delegation by the Employer's Engineer

- 25.3.1 The Employer's Engineer may, by order in writing, delegate any of his duties and responsibilities to suitably qualified and experienced personnel who are accountable to Employer's Engineer, or may revoke any such delegation, under intimation to the Employer and the Contractor. Provided, however, that the Employer's Engineer shall be responsible and liable for all actions and omissions of such personnel.
- 25.3.2 Any failure of the Employer's Engineer to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Employer to reject the work, Plant or Materials, which is not in accordance with the provisions of this Agreement and the Specifications and Standards.
- 25.3.3 Notwithstanding anything stated in **Clause 25.3.1** above, the Employer's Engineer shall not delegate his Employee to refer any matter for the Employer's prior approval wherever required in accordance with the provisions of **Clause 25.2**.

25.4 Instructions of the Employer's Engineer

- 25.4.1 The Employer's Engineer may issue to the Contractor instructions for remedying any Defect. The Contractor shall take such instructions from the Employer's Engineer, or from an personnel to whom appropriate Authority has been delegated under **Clause 25.3**.

- 25.4.2 The instructions issued by the Employer's Engineer shall be in writing (email communication need to be followed by a formal letter). However, if the Employer's Engineer issues any oral instructions to the Contractor, it shall confirm in writing the oral instructions within 2 (two) business days of issuing them.
- 25.4.3 In case the Contractor does not receive the confirmation of the oral instruction within the time specified in **Clause 25.4.2**, the Contractor shall seek the written confirmation of the oral instructions from the Employer's Engineer. The Contractor shall obtain acknowledgment from the Employer's Engineer of the communication seeking written confirmation. In case of failure of the Employer's Engineer or its delegated personnel to reply to the Contractor within 2 (two) business days of the receipt of the communication from the Contractor, the Contractor may not carry out the instruction.
- 25.4.4 In case of any Dispute on any of the instructions issued by the delegated personnel, the Contractor may refer the Dispute to the Employer's Engineer, who shall then confirm, reverse or vary the instructions within [3 (three)] business days of the Dispute being referred.

25.5 Determination by the Employer's Engineer

- 25.5.1 The Employer's Engineer shall consult with each Party in an endeavor to reach Agreement wherever this Agreement provides for the determination of any matter by the Employer's Engineer. If such Agreement is not achieved, the Employer's Engineer shall make a fair determination in accordance with this Agreement having due regard to all relevant circumstances. The Employer's Engineer shall give notice to both the Parties of each Agreement or determination, with supporting particulars.
- 25.5.2 Each Party shall give effect to each Agreement or determination made by the Employer's Engineer in accordance with the provisions of this Agreement. Provided, however, that if any Party Disputes any instruction, decision, direction or determination of the Employer's Engineer, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

25.6 Remuneration of the Employer's Engineer

The remuneration, cost and expenses of the Employer's Engineer shall be paid by the Employer.

25.7 Termination of the Employer's Engineer

The Employer may, in its discretion, replace the Employer's Engineer at any time during the tenure of the contract, if in the opinion of the Employer, that Employer's Engineer had acted in contrary to the Terms of Reference of the Employer's Engineer Contract, after due diligence, but only after appointment of another Employer's Engineer in accordance with **Clause 25.1**.

Section D-Financial Covenants

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26. Payments

26.1 Contract Price

26.1.1 The Employer shall make payments to the Contractor for the Works on the basis of the lump sum price accepted by the Employer in consideration of the obligations specified in this Agreement for an amount of Rs.....(Rupees.....) (the “Contract Price”), which shall be subject to adjustments in accordance with the provisions of this Agreement. For the avoidance of doubt, the Parties expressly agree that the Contract Price shall not include the cost of Maintenance which shall be paid separately in accordance with the provisions of **Clause 26.7**. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate for construction works.

26.1.2 The Contract Price includes all applicable taxes (but excluding GST), duties, royalty, and fees etc. that may be levied in accordance with the laws and regulations in force as on the Base Date under this Agreement. Nothing in this Agreement shall relieve the Contractor from its responsibility to pay any tax including any tax that may be levied in India on profits made by it in respect of this Agreement.

GST (Goods and Services Tax) would be payable at the applicable rates as may be in force from time to time

26.1.3 Procedure for Royalty payments, in case the same is not paid directly by the contractor

- a) A copy of the agreement shall be forwarded to Revenue officer with intimation that the royalty for minor mineral/excavation involved in the work such as murum, sand, metal, rubble etc. will be deducted from each IPC of the contractor will be remitted by Employer directly with them, if the same is not paid directly by the contractor to Revenue authorities.
- b) For working out the amount of royalty to be recovered, consumption statement of minor minerals such as metal, rubble, sand etc. shall be prepared for the items where minor minerals are used for the work. No bulkage shall be considered while arriving quantities and the amount of royalty for each minor mineral shall be worked out as per prevailing rate. However, the amount so recovered shall be certified by the Revenue Authorities before finalization of bill to implement exact recovery.
- c) As regards items such as cement concrete pipe, ready-mix concrete, precast concrete material, premix asphalt brought from plant, all types of tiles etc., consumption of minor minerals need not be worked out and royalty for the same shall not be recovered and paid to Revenue Department.
- d) If the contractor submits that he has already paid the royalty to Revenue Department even in such cases the royalty charges shall have to be recovered from the bills of the contractor and shall be kept in deposit for confirmation from Revenue Authority. The amount in deposit shall be released only after getting confirmation from the Revenue Authorities. In such cases, Employers Engineer shall forward the receipts of payment of Royalty charges produced by the contractor to the Revenue Authorities and obtain their confirmation. Till such time, the Royalty charges shall be recovered and kept in deposit.

26.1.4 The Contract Price shall not be adjusted for any change in costs stated in Clause 26.1.1 above, except as stated in Clause 26.1.2 , 26.10 and 26.17 respectively.

26.1.5 The Contract Price shall not be adjusted to take account of any Force Majeure, unless otherwise provided for in this Agreement.

26.1.6 Unless otherwise stated in this Agreement, the Contract Price covers all the Contractor's obligations for the Works under this Agreement and all things necessary for the Construction and the remedying of any Defects in the Project Works.

26.1.7 All payments under this Agreement shall be made in Indian Rupees.

26.2 Advance Payment

26.2.1 The Employer shall make an interest-bearing advance payment @ SBI MCLR + 3% per annum applicable on the date of payment of mobilization advance (the "Advance Payment"), equal in amount to 10 (ten) per cent of the Contract Price, for mobilization expenses and for the acquisition of equipment. The Advance Payment shall be made in two instalments. The first instalment shall be an amount equal to 5% (five per cent) of the Contract Price, the second instalment shall be equal to 5% (five per cent) of the Contract Price.

26.2.2 The Contractor may apply to the Employer for the first installment of the Advance Payment at any time after signing of the Contract Agreement, along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten per cent) of such installment, substantially in the form provided in Schedule-B, to remain effective till the complete and full repayment thereof.

26.2.3 At any time after 10% of Financial progress have been achieved by contractor and duly certified by Employer's Engineer, the Contractor may apply for the second installment of the Advance Payment along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten per cent) of such installment, substantially in the form provided at Schedule-B, to remain effective till the complete and full repayment thereof along with proof of satisfactory utilization of first installment of Advance Payment in this Project. No advance shall be given after 40% of the original Contract amount has been certified and paid.

26.2.4 Deleted.

26.2.5 The first, second and the third installments shall be paid by the Employer to the Contractor within 15 (fifteen) days of the receipt of its respective requests in accordance with the provisions of this **Clause 26.2**.

26.2.6 The recovery of all Advances shall commence when 20% (twenty per cent) of the original Contract Price of the work has been paid, or at ten months after the Commencement Date of the Contract whichever is the earlier, and it will be completed by the time 80% of the original contract value has been paid or by the time of original Completion Date whichever is earlier. The recovery of advances shall be limited to 30% (thirty per cent) of an account bill.

26.2.7 If the Advance Payment has not been fully repaid prior to Termination under **Clause 28.7** or Section **30**, as the case may be, the whole of the balance then outstanding including interest shall be immediately become due and payable by the Contractor to the Employer.

26.3 Procedure for Estimating the Payment for the Works

26.3.1 The Employer shall make interim payments to the Contractor as certified by the Employer's Engineer on completion of a stage, in a length, number or area as specified, and valued in accordance with the proportion of the Contract Price assigned to each item and its stage in Schedule-C.

- 26.3.2 The Contractor shall base its claim for interim payment for the stages completed till the end of the month for which the payment is claimed, valued in accordance with **Clause 26.3.1**, supported with necessary particulars and documents in accordance with this Agreement.
- 26.3.3 Any reduction in the Contract Price arising out of Change of Scope or the Works withdrawn shall not affect the amounts payable for the items or stage payments thereof which are not affected by such Change of Scope or withdrawal. For avoidance of doubt and by way of illustration, the Parties agree that if the amount assigned to Bridges is reduced from Rs.100 crore to Rs. 80 crore owing to Change of Scope or withdrawal of work, the reduction in payment shall be restricted to relevant payments for Bridges only and the payment due in respect of all other stage payments under the item Bridges shall not be affected in any manner. The Parties further agree that the adjustments arising out of the aforesaid modifications shall be carried out in a manner that the impact of such modifications is restricted to the said Change of Scope or withdrawal, as the case may be, and does not alter the payments due for and in respect of items or stage payments which do not form part of such Change of Scope or withdrawal.

26.4 Stage Payment Statement for Works

- 26.4.1 The Contractor shall submit a statement (the “Stage Payment Statement”), in 3 copies, by the 7th (seventh) day of the month to the Employer’s Engineer in the form set forth in Schedule-J, showing the amount calculated in accordance with **Clause 26.3** to which the Contractor considers himself entitled for completed stage(s) of the Works. However, the amount claiming as a stage payment should not be less than 1% (One Percent) of the contract price. The Stage Payment Statement shall be accompanied with the progress reports and any other supporting documents. The Contractor shall not submit any claim for payment of incomplete stages of work.

26.5 Stage Payment for Works

- 26.5.1 Within 15 (fifteen) days of the receipt of the Stage Payment Statement referred to in **Clause 26.4**, the Employer’s Engineer shall determine and shall deliver to the Employer and the Contractor an Interim Payment Certificate (IPC) certifying the amount due and payable to the Contractor, after adjusting the payments already released, if any to the Contractor. Within 15 (fifteen) days of the receipt of IPC certificate, the Employer shall pay the contractor the approved/certified sum against the said IPC.
- 26.5.2 In cases where there is a difference of opinion as to the value of any stage, the Employer’s Engineer’s view shall prevail, and interim payments shall be made to the Contractor on this basis; provided that the foregoing shall be without prejudice to the Contractor’s right to raise a Dispute.
- 26.5.3 The Employer’s Engineer may, for reasons to be recorded, withhold from payment:
- a) the estimated value of work or obligation that the Contractor has failed to perform in accordance with this Agreement and the Employer’s Engineer had notified the Contractor; and
 - b) the estimated cost of rectification of work done being not in accordance with this Agreement.
- 26.5.4 Payment by the Employer shall not be deemed to indicate the Employer’s acceptance, approval, consent or satisfaction with the work done.

26.6 Maintenance Statement of the Project Works

- 26.6.1 The Contractor shall submit to the Employer's Engineer a Quarterly Maintenance statement ("Quarterly Maintenance Statement") in 3 (three) copies by the 7th (seventh) day of starting Quarter in the format set forth in Schedule-J for the Maintenance of the Project Works during the previous month. However, contractor needs to submit the monthly O&M report for records and performance.
- 26.6.2 The Quarterly lump sum amount payable for Maintenance shall be 1/4th (one-fourth) of the annual cost of Maintenance as specified in **Clause 21.1.1.** and O&M cost for Treatment Plants as per Schedule-H.

26.7 Payment for Maintenance of the Project Works

- 26.7.1 Within 15 (fifteen) days of receipt of the Quarterly Maintenance Statement from the Contractor pursuant to **Clause 26.6**, the Employer's Engineer shall verify the Contractor's Quarterly Maintenance statement and certify the amount to be paid to the Contractor taking into account:
- a) Compliance with the Maintenance Requirements; and
 - b) Reduction for non-compliance with the Maintenance Requirement in accordance with **Clause 26.7.4.**
- 26.7.2 The Employer's Engineer shall deliver to the Employer an IPC approving or amending the quarterly Maintenance statement to reflect the amount due to the Contractor in accordance with this Agreement.
- 26.7.3 Within 15 (fifteen) days of the receipt of certified IPC, the Employer shall pay the contractor the approved/certified sum against the said IPC.
- 26.7.4 Maintenance shall be measured in units of one kilometer each length of road/drain/pipelines (water, recycled water, sewerage, industrial wastewater) and all other units as decided by the Employers Engineer based on the O&M of such units; provided, however, that payment thereof shall be made in fixed Quarterly amounts in accordance with this Agreement. If the Maintenance Requirements set forth in Schedule-Q are not met, reduction in payments shall be made in accordance with the provisions of Schedule-H. The reductions for noncompliance with the Maintenance Requirements shall be applied on the basis of monthly inspections by the Employer's Engineer.
- 26.7.5 The deduction made on account of non-compliance with the Maintenance Requirements shall not be subsequently considered for payment after the compliance is achieved by repair or rectification.
- 26.7.6 The Employer shall pay to the Contractor every quarter any amount due under any IPC under this **Clause 26.7**. The payment shall be made no later than 30 (thirty) days from the date of submission of the last IPC for the relevant quarter.

26.8 Payment of Damages

- 26.8.1 The Contractor may claim Damages due and payable to it in accordance with the provisions of this Agreement.

- 26.8.2 The Employer's Engineer shall issue the IPC within 15 (fifteen) days of the receipt of the claim under **Clause 26.8.1**, after making adjustments in accordance with the provisions of this Agreement. The Employer shall pay to the Contractor the amount due under any IPC within a period of 30 (thirty) days from the date of the submission of the claim under this Clause.
- 26.8.3 In the event of the failure of the Employer to make payment to the Contractor within the specified time, the Employer shall be liable to pay to the Contractor interest thereon and the provisions of **Clause 26.9** shall apply mutatis mutandis thereto.

26.9 Time of Payment and Interest

- 26.9.1 The Employer shall pay to the Contractor any amount due under any payment certificate issued by the Employer's Engineer in accordance with the provisions of this Section **26**, or in accordance with any other clause of this Agreement as follows:
- a) payment shall be made no later than 30 (thirty) days from the date of submission of the Approved Stage Payment Statement by the Contractor to the Employer's Engineer for certification in accordance with the provisions of **Clause 26.4** for an IPC; provided that, in the event the IPC is not issued by the Employer's Engineer within the period of 30 (thirty) days, the Employer shall pay the amount shown in the Contractor's Stage Payment Statement and any discrepancy therein shall be added to, or deducted from, the next payment certificate issued to the Contractor; and
 - b) payment shall be made no later than 30 (thirty) days from the date of submission of the Final Approved Payment Certificate for Works along with the discharge submitted to the Employer's Engineer in accordance with the provisions of **Clause 26.15** for certification.
- 26.9.2 In the event of the failure of the Employer to make payment to the Contractor within the time period stated in this **Clause 26.9**, the Employer shall be liable to pay to the Contractor interest at the Bank Rate, calculated at quarterly rests, on all sums remaining unpaid from the date on which the same should have been paid, calculated in accordance with the provisions of **Clause 26.9.1** (a) and (b) and till the date of actual payment.

26.10 Price Adjustment for the Works

- 26.10.1 The amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labour, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included amounts to cover the contingency of other rises and falls in costs.
- 26.10.2 The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for the currencies in which the Contract Price is payable.
- 26.10.3 The Contract Price shall be adjusted for increase or decrease in rates and price of labour, cement, steel, bitumen, fuel and other material as well as electrical works in accordance with the principles, procedures and formulae specified below:
- 26.10.4 The price adjustments for the works shall also be applicable during the approved Extension of time.

26.10.5 The following expressions and meanings are assigned to the value of the work done:

a) Deleted

Unless otherwise specified, the Price of supply of electrical equipment specified under price schedule C for the respective Electrical Scope of Work shall be subject to adjustment as per the formulae of Indian Electrical & Electrical Manufacturers Association (IEEMA). For the items of facilities for which IEEMA formulae do not exist, the formulae given for other Materials below in **26.10.5 (b)** shall be applicable for the purpose of calculation of the price adjustment.

b) All work:

Price adjustment for changes in cost shall be paid in accordance with the following formulae:

$$V_R = 0.85 R \times [P_L \times (L_I - L_O)/L_O + P_C \times (C_I - C_O)/C_O + P_S \times (S_I - S_O)/S_O + P_B \times (B_I - B_O)/B_O + P_F \times (F_I - F_O)/F_O + P_A \times (A_I - A_O)/A_O + P_M \times (M_I - M_O)/M_O]$$

Where

R = Value of work done during the month under consideration for Price adjustment

V_R = Increase or decrease in the cost during the period under consideration due to changes in the rates for relevant components as stated in sub-paragraph (c)

P_L, P_C, P_S, P_B, P_F, P_A and P_M are the percentages of Labour, Cement, Steel, Bitumen, Fuel, Percentage of Plant & Machinery and spares component & other material respectively for the relevant item as stated in sub-paragraph (c)

L_O = The consumer price index for industrial workers for the [circle Palakkad in the State of Kerala], published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the month of the Base Date.

L_I = The CPI for the month under consideration for which the IPC relates to.

C_O = The WPI for grey cement for the month of the Base Date.

C_I = The WPI for grey cement for the month under consideration for which the IPC relates to.

S_O = The WPI for Mild Steel (Long Products) for the month of the Base Date.

S_I = The WPI for Mild Steel (Long Products) for the month under consideration for which the IPC relates to.

B_O = The WPI for Bitumen for the month of the Base Date.

B_I = The WPI for Bitumen for the month under consideration for which the IPC relates to.

F_O = The WPI for Fuel and Power for the month of the base Date.

F_I = The WPI for Fuel and Power for the month under consideration for which the IPC relates to.

A_O = WPI for construction machinery for the month of the Base Date.

A_I = The WPI for construction machinery for the month under consideration for which the IPC relates to.

M_O = The WPI for all commodities for the month of the Base Date.

M_I = The WPI for all commodities for the month under consideration for which the IPC relates to.

- c) The following percentages shall govern the price adjustment of the Contract Price:

Table of adjustment data for all works (other than Electrical works)

S. No.	Particulars	%
1.	Labor P_L	15%
2.	Cement P_C	15%
3.	Steel P_S	10%
4.	Bitumen P_B	15%
5.	Fuel P_F	10%
6.	Plant, machinery and spares P_A	15%
7.	Other Materials P_M	20%
Total		100%

26.11 Discharge

- 26.11.1 Upon submission of the Final Payment Statement for Works under **Clause 26.13**, the Contractor shall give to the Employer, with a copy to the Employer's Engineer, a written discharge confirming that the total of the Final Payment Statement represents full and final settlement of all monies due to the Contractor in respect of this Agreement for all the Works arising out of this Agreement, except for any monies due to either Party on account of any Defect. Provided that such discharge shall become effective only after the payment due has been made in accordance with the Final Payment Certificate issued pursuant to **Clause 26.15**.

26.12 Final Payment Certificate

- 26.12.1 Within 30 (thirty) days after receipt of the Final Payment Statement for Works under **Clause 26.13**, and the written discharge under **Clause 26.14**, and there being no Disputed items of claim, the Employer's Engineer shall deliver to the Employer, with a copy to the Contractor, a final payment certificate (the "Final Payment Certificate") stating the amount which, in the opinion of the Employer's Engineer, is finally due under this Agreement or otherwise. For the avoidance of doubt, before issuing the Final Payment Certificate, the Employer's Engineer shall ascertain from the Employer all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.
- 26.12.2 The Employer shall, in accordance with the provisions of **Clause 26.9**, pay to the Contractor the amount which is stated as being finally due in the Final Payment Certificate.

26.13 Final payment statement for Maintenance

- 26.13.1 Within 30 (thirty) days after completion of the Maintenance Period, the Contractor shall submit to the Employer's Engineer six copies of the final payment statement for Maintenance of the Project Works, with supporting documents showing the details set forth below in the form prescribed by the Employer's Engineer
- a) the total amount claimed in accordance with the Quarterly statement for Maintenance of Project Works;
 - b) the amount paid in accordance with the Interim Payment Certificates; and
 - c) any sums which the Contractor considers to be due to it, with supporting documents.
- 26.13.2 The Employer's Engineer shall certify final payment within 30 (thirty) days of the receipt of the final payment statement of Maintenance under **Clause 26.16**, segregating the items of amount payable from the items of amount disallowed. The Employer shall make payment on the basis of the final payment authorized by the Employer's Engineer within a period of 30 (thirty) days of the receipt of the Final Payment Statement from the Employer's Engineer.
- 26.13.3 If the Employer's Engineer does not prescribe the form within 15 (fifteen) days of the date of issue of the Completion Cum Taking Over Certificate, the Contractor shall submit the statement in such form as it deems fit.

26.14 Change in Laws

- 26.14.1 If as a result of Change in Law, the Contractor suffers any additional costs in the execution of the Works or in relation to the performance of its other obligations under this Agreement, the Contractor shall, within 15 (fifteen) days from the date it becomes reasonably aware of such addition in cost, notify the Employer with a copy to the Employer's Engineer of such additional cost due to Change in Law.
- 26.14.2 If as a result of Change in Law, the Contractor benefits from any reduction in costs for the execution of this Agreement or in accordance with the provisions of this Agreement, either Party shall, within 15 (fifteen) days from the date it becomes reasonably aware of such reduction in cost, notify the other Party with a copy to the Employer's Engineer of such reduction in cost due to Change in Law.
- 26.14.3 The Employer's Engineer shall, within 15 (fifteen) days from the date of receipt of the notice from the Contractor or the Employer, determine any addition or reduction to the Contract Price, as the case may be, due to the Change in Law.

26.15 Correction of Interim Payment Certificates

The Employer's Engineer may by an Interim Payment Certificate make any correction or modification in any previous Interim Payment Certificate issued by the Employer's Engineer.

26.16 Employer's claims

If the Employer considers itself to be entitled to any payment from the Contractor under any Clause of this Agreement, it shall give notice and particulars to the Contractor 15 (fifteen) days before making the recovery from any amount due to the Contractor, and shall take into consideration the representation, if any, made by the Contractor in this behalf, before making such recovery. Employer's decision in this regard will be final.

For any claims made by anybody under this contract involving the Employer also, the Employer is entitled to retain and withhold out of payments made to the Contractor the amounts equal to the claims with interest, costs and incidental expenses till finalisation of the claim with payment for full settlement if any made by the Contractor. While finalizing the account, it is also to verify any input subsidy on tax benefit availability to the Employer to deduct.

26.17 Bonus for early completion

In the event that the Project Completion Date occurs prior to the Scheduled Completion Date, the Contractor shall be entitled to receive a payment of bonus equivalent to 0.2 % (Zero point Two percentage) of the total Contract Price calculated on monthly basis by which the Project Completion Date precedes the Scheduled Completion Date, but subject to a maximum of 1% (One percent) of the Contract Price.

Provided, however, that the payment of bonus, if any, shall be made only after the issue of the Project Completion cum Taking Over Certificate. For the avoidance of the doubt, the Parties agree that for the purpose of determining the bonus payable hereunder, the Contract Price shall always be deemed to be the amount specified in **Clause 26.1.1**, and shall exclude any revision thereof for any reason. The Parties also agree that bonus shall be payable only if each work for which Extension of Time has been granted is completed within respective Extended Time

27. Insurance

27.1 Insurance for Works and Maintenance

- 27.1.1 The Contractor shall affect and maintain at its own cost the insurances specified in Schedule-K and as per the requirements under the Applicable Laws.
- 27.1.2 Subject to the provisions of **Clause 28.6**, the Employer and the Contractor shall, in accordance with its obligations as provided for in this Agreement, be liable to bear the cost of any loss or damage that does not fall within the scope of this Section or cannot be recovered from the insurers.
- 27.1.3 Subject to the exceptions specified in **Clause 27.1.5** below, the Contractor shall, save and except as provided for in this Agreement, fully indemnify, hold harmless and defend the Employer from and against any and all losses, Damages, costs, charges and/or claims with respect to:
- a) the death of or injury to any person; or
 - b) the loss of or damage to any property (other than the Works);
- 27.1.4 That may arise out of or in consequence of any breach by the Contractor of this Agreement during the execution of the Works or the remedying of any Defects therein.
- 27.1.5 Notwithstanding anything stated above in **Clause 27.1.3**, the Employer shall fully indemnify the Contractor from and against any and all losses, Damages, costs, charges, proceedings and/or claims arising out of or with respect to
- a) the use or occupation of land or any part thereof by the Employer;
 - b) the right of the Employer to execute the Works, or any part thereof, on, over, under, in or through any land;
 - c) the damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any Defects therein, in accordance with this Agreement; and
 - d) the death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Employer, its agents, servants or other contractors, not being employed by the Contractor Provided that, in the event of any injury or damage as a result of the contributory negligence of the Contractor, the Employer shall be liable to indemnify the Contractor from and against any and all losses, Damages, costs, charges, proceedings and/or claims to the extent as may be proportionately determined to be the liability of the Employer, its servants or agents or other contractors not associated with the Contractor in such injury or damage.
- 27.1.6 Without prejudice to the obligations of the Parties as specified under Clauses **27.1.3** and **27.1.5**, the Contractor shall maintain or effect such third party insurances as may be required under the Applicable Laws.

- 27.1.7 The Contractor shall provide to the Employer, within 30 days of the Appointed Date, evidence of professional liability insurance maintained by its Design Manager and/or consultants to cover the risk of professional negligence in the design of Works. The professional liability coverage shall be for a sum of not less than 3% (three per cent) of the Contract Price and shall be maintained until the end of the Defects Liability Period. The Employer's Engineer will not issue Project Completion cum taking Over Certificate until the Contractor has produced evidence that coverage of the professional indemnity insurance has been provided for the aforesaid period.

27.2 Notice to the Employer

No later than 15 (fifteen) days after the date of this Agreement, the Contractor shall by notice furnish to the Employer, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Section. Within 10 (ten) days of receipt of such notice, the Employer may require the Contractor to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

27.3 Evidence of Insurance Cover

- 27.3.1 All insurances obtained by the Contractor in accordance with this Section shall be maintained with insurers on terms consistent with Good Industry Practice. Within 30 (thirty) days from the Appointed Date, the Contractor shall furnish to the Employer notarized true copies of the certificate(s) of insurance, copies of insurance policies and premium payment receipts in respect of such insurance, and no such insurance shall be canceled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty-five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Contractor to the Employer. The Contractor shall act in accordance with the directions of the Employer. Provided that the Contractor shall produce to the Employer the insurance policies in force and the receipts for payment of the current premium.
- 27.3.2 The Contractor shall ensure the adequacy of the insurances at all times in accordance with the provisions of this Agreement.

27.4 Remedy for Failure to Insure

If the Contractor shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, the Employer shall have the option to either keep in force any such insurances, and pay such premium and recover the costs thereof from the Contractor, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Contractor.

27.5 Waiver of subrogation

All insurance policies in respect of the insurance obtained by the Contractor pursuant to this Section shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, inter alia, the Employer, and its assigns, successors, undertakings and their subsidiaries, Affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

27.6 Contractor's Waiver

The Contractor hereby further releases, assigns and waives any and all rights of subrogation or recovery against, inter alia, the Employer and its assigns, undertakings and their subsidiaries, Affiliates, employees, successors, insurers and underwriters, which the Contractor may otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Contractor pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

27.7 Cross Liabilities

Any such insurance maintained or effected in pursuance of this Section shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer as separately insured.

27.8 Accident or Injury to Workmen

Notwithstanding anything stated in this Agreement, it is hereby expressly agreed between the Parties that the Employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or Sub-contractor, save and except as for death or injury resulting from any act, omission or default of the Employer, its agents or servants. The Contractor shall indemnify and keep indemnified the Employer from and against all such claims, proceedings, damages, costs, charges, and expenses whatsoever in respect of the above save and except for those acts, omissions or defaults for which the Employer shall be liable.

27.9 Insurance Against Accident to Workmen

The Contractor shall affect and maintain during the Agreement such insurances as may be required to insure the Contractor's personnel and any other persons employed by it on the Project Site from and against any liability incurred in pursuance of this Section. Provided that for the purposes of this **Clause 20.9**, the Contractor's personnel/any person employed by the Contractor shall include the Sub-contractor and its personnel. It is further provided that, in respect of any persons employed by any Sub-contractor, the Contractor's obligations to insure as aforesaid under this **Clause 27.9** shall be discharged if the Sub-contractor shall have insured against any liability in respect of such persons in such manner that the Employer is indemnified under the policy. The Contractor shall require such Sub-contractor to produce before the Employer, when required, such policy of insurance and the receipt for payment of the current premium within 10 (ten) days of such demand being made by the Employer.

27.10 Application of Insurance Proceeds

The proceeds from all insurance claims, except for life and injury, shall be applied for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project Works and the provisions of this Agreement in respect of Construction of Works shall apply mutatis mutandis to the Works undertaken out of the proceeds of insurance.

27.11 Compliance with Policy Conditions

Each Party hereby expressly agrees to fully indemnify the other Party from and against all losses and claims arising from its failure to comply with conditions imposed by the insurance policies effected in accordance with this Agreement.

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Part D: EPC Agreement
Section E-Force Majeure and Termination

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28. Force Majeure

28.1 Force Majeure

As used in this Agreement, the expression “Force Majeure” or “Force Majeure Event” shall mean occurrence in India of any or all of Non- Political Event, Indirect Political Event and Political Event, as defined in Clauses **28.2**, **28.3** and **28.4** respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the “Affected Party”) of its obligations under this Agreement and which act or event (i) is beyond the reasonable control of the Affected Party, and (ii) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (iii) has Material Adverse Effect on the Affected Party.

28.2 Non-Political Event

A Non-Political Event shall mean one or more of the following acts or events:

- a) act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionizing radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- b) strikes or boycotts (other than those involving the Contractor, Subcontractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Project Works for a continuous period of 24 (twenty-four) hours and an aggregate period exceeding 10 (ten) days in an Accounting Year, and not being an Indirect Political Event set forth in **Clause 28.3**;
- c) any failure or delay of a Sub-contractor but only to the extent caused by another Non-Political Event;
- d) any judgment or order of any court of competent jurisdiction or statutory Employer made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Employer;
- e) the discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a Site inspection; or

28.3 Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

- a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- b) industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 10 (ten) days in an Accounting Year;
- c) any civil commotion, boycott or political agitation which prevents Construction of the Project Works by the Contractor for an aggregate period exceeding 10 (ten) days in an Accounting Year;
- d) any failure or delay of a Sub-contractor to the extent caused by any Indirect Political Event;

28.4 Political Event

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

- a) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of **Clause 26.17**;
- b) compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Contractor or of the Sub- Contractors;
- c) unlawful or unauthorized or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, license, permit, authorization, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Agreement; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any Sub- contractor's inability or failure to comply with any condition relating to grant, Maintenance or renewal of such clearance, license, authorization, no objection certificate, exemption, consent, approval or permit;
- d) any failure or delay of a Sub-contractor but only to the extent caused by another Political Event;

28.5 Duty to report Force Majeure Event

- 28.5.1 Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:
- a) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Section **28** with evidence in support thereof;
 - b) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
 - c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
 - d) any other information relevant to the Affected Party's claim.
- 28.5.2 The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 10 (ten) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable Material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.
- 28.5.3 For so long as the Affected Party continues to claim to be Material ly affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by **Clause 28.5.1**, and such other information as the other Party may reasonably request the Affected Party to provide.

28.6 Effect of Force Majeure Event on the Agreement

- 28.6.1 Deleted
- 28.6.2 Save and except as expressly provided in this Section **28**, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.

- 28.6.3 Upon the occurrence of any Force Majeure Event during the Construction Period, the Project Completion Schedule for and in respect of the affected Works shall be extended on a day for day basis for such period as performance of the Contractor's obligations is affected on account of the Force Majeure Event or its subsisting effects.

28.7 Termination Notice for Force Majeure Event

If a Force Majeure Event subsists for a period of 60 (sixty) days or more within a continuous period of 120 (one hundred and twenty) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Section 28, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

28.8 Termination Payment for Force Majeure Event

- 28.8.1 In the event of this Agreement being terminated on account of a Non- Political Event, the Termination Payment shall be an amount equal to the sum payable under **Clause 30.5**.
- 28.8.2 Provided that in the event Termination occurs during the Maintenance Period, the Employer's Engineer shall only determine the value of Works associated with Maintenance.
- 28.8.3 If Termination is on account of an Indirect Political Event, the Termination Payment shall include:
- a) any sums due and payable under **Clause 30.5**; and
 - b) the reasonable cost, as determined by the Employer's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Employer for use in Construction or Maintenance, only if such Plant and Materials are in conformity with the Specifications and Standards;
 - c) Provided that in the event Termination occurs during the Maintenance Period, the Employer's Engineer shall only determine the value of Works associated with Maintenance.
- 28.8.4 If Termination is on account of a Political Event, the Employer shall make a Termination Payment to the Contractor in an amount that would be payable under **Clause 30.6.2** as if it were an Employer Default.

28.9 Dispute resolution

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

28.10 Excuse from performance of obligations

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

- a) the Suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;
- b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
- c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

29. Suspension of Contractor's Rights

29.1 Suspension upon Contractor Default

Upon occurrence of a Contractor Default, the Employer shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (i) suspend carrying out of the Works or Maintenance or any part thereof, and (ii) carry out such Works or Maintenance itself or authorize any other person to exercise or perform the same on its behalf during such Suspension (the "Suspension"). Suspension hereunder shall be effective forthwith upon issue of notice by the Employer to the Contractor and may extend up to a period not exceeding 90 (ninety) days from the date of issue of such notice.

29.2 Employer to act on behalf of Contractor

During the period of Suspension hereunder, all rights and liabilities vested in the Contractor in accordance with the provisions of this Agreement shall continue to vest therein and all things done or actions taken, including expenditure incurred by the Employer for discharging the obligations of the Contractor under and in accordance with this Agreement shall be deemed to have been done or taken for and on behalf of the Contractor and the Contractor undertakes to indemnify the Employer for all costs incurred during such period. The Contractor hereby licenses and sub-licenses respectively, the Employer or any other person authorized by it under **Clause 29.1** to use during Suspension, all Intellectual Property belonging to or licensed to the Contractor with respect to the Project Works and its design, engineering, Construction and Maintenance, and which is used or created by the Contractor in performing its obligations under the Agreement.

29.3 Revocation of Suspension

- 29.3.1 In the event that the Employer shall have rectified or removed the cause of Suspension within a period not exceeding 60 (sixty) days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Employer may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.
- 29.3.2 Upon the Contractor having cured the Contractor Default within a period not exceeding 60 (sixty) days from the date of Suspension, the Employer shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement.

29.4 Termination

- 29.4.1 At any time during the period of Suspension under this Section, the Contractor may by notice require the Employer to revoke the Suspension and issue a Termination Notice. The Employer shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Section 30.
- 29.4.2 Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 90 (ninety) days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual Agreement of the Parties and all the provisions of this Agreement shall apply, mutatis mutandis, to such Termination as if a Termination Notice had been issued by the Employer upon occurrence of a Contractor Default.

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30. Termination

30.1 Termination for Contractor Default

30.1.1 Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Contractor fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 60 (sixty) days, the Contractor shall be deemed to be in default of this Agreement (the "Contractor Default"), unless the default has occurred solely as a result of any breach of this Agreement by the Employer or due to Force Majeure. The defaults referred to herein shall include:

- a) the Contractor fails to provide, extend or replenish, as the case may be, the Performance Security in accordance with this Agreement;
- b) subsequent to the replenishment or furnishing of fresh Performance Security in accordance with **Clause 14.3**, the Contractor fails to cure, within a Cure Period of 30 (thirty) days, the Contractor Default for which the whole or part of the Performance Security was appropriated;
- c) the Contractor does not achieve the latest outstanding Project Milestone due in accordance with the provisions of Schedule-E, subject to any Time Extension, and continues to be in default for 45 (forty-five) days;
- d) the Contractor abandons or manifests intention to abandon the Construction or Maintenance of the Project Works without the prior written consent of the Employer;
- e) the Contractor fails to proceed with the Works in accordance with the provisions of **Clause 17.1** or stops Works and/or the Maintenance for 30 (thirty) days without reflecting the same in the current Programme and such stoppage has not been authorized by the Employer's Engineer;
- f) the Project Completion Date does not occur within the period specified in Schedule-E for the Scheduled Completion Date, or any extension thereof;
- g) failure to complete the Punch List items within the periods stipulated therefore in **Clause 19.2.1**;
- h) the Contractor fails to rectify any Defect, the non-rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Employer's Engineer;
- i) the Contractor subcontracts the Works or any part thereof in violation of this Agreement or assigns any part of the Works or the Maintenance without the prior approval of the Employer;
- j) the Contractor creates any Encumbrance in breach of this Agreement;
- k) an execution levied on any of the assets of the Contractor has caused a Material Adverse Effect;
- l) the Contractor is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Contractor or for the whole or Material part of its assets that has a Material bearing on the Project;
- m) the Contractor has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Employer, a Material Adverse Effect;
- n) a resolution for winding up of the Contractor is passed, or any petition for winding up of the Contractor is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the Contractor is ordered to be wound up by court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Contractor are transferred to the amalgamated or reconstructed entity and that the amalgamated or

reconstructed entity has unconditionally assumed the obligations of the Contractor under this Agreement; and provided that:

- i. the amalgamated or reconstructed entity has the capability and experience necessary for the performance of its obligations under this Agreement; and
 - ii. the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and has a credit worthiness at least as good as that of the Contractor as at the Appointed Date;
- o) any representation or warranty of the Contractor herein contained which is, as of the date hereof, found to be Materially false or the Contractor is at any time hereafter found to be in breach thereof;
 - p) the Contractor submits to the Employer any statement, notice or other document, in written or electronic form, which has a Material effect on the Employer's rights, obligations or interests and which is false in Material particulars;
 - q) the Contractor has failed to fulfill any obligation, for which failure Termination has been specified in this Agreement; or
 - r) the Contractor commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Project or on the Employer.

30.1.2 Without prejudice to any other rights or remedies which the Employer may have under this Agreement, upon occurrence of a Contractor Default, the Employer shall be entitled to terminate this Agreement by issuing a Termination Notice to the Contractor; provided that before issuing the Termination Notice, the Employer shall by a notice inform the Contractor of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Contractor to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

30.1.3 After Termination of this Agreement for Contractor Default, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Materials, Plant and equipment, Contractor's documents and other design documents made by or on behalf of the Contractor.

30.2 Termination for Employer's Default

30.2.1 In the event that any of the defaults specified below shall have occurred, and the Employer fails to cure such default within a Cure Period of 90 (ninety) days or such longer period as has been expressly provided in this Agreement, the Employer shall be deemed to be in default of this Agreement (the "Employer Default") unless the default has occurred as a result of any breach of this Agreement by the Contractor or due to Force Majeure. The defaults referred to herein shall include:

- a) the Employer commits a Material default in complying with any of the provisions of this Agreement and such default has a Material Adverse Effect on the Contractor;
- b) the Employer has failed to make payment of any amount due and payable to the Contractor within the period specified in this Agreement;
- c) Deleted;
- d) the Employer repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement; or
- e) the Employer's Engineer fails to issue the relevant Interim Payment Certificate within 60 (sixty) days after receiving a statement and supporting documents.

- 30.2.2 Without prejudice to any other right or remedy which the Contractor may have under this Agreement, upon occurrence of an Employer Default, the Contractor shall be entitled to terminate this Agreement by issuing a Termination Notice to the Employer; provided that before issuing the Termination Notice, the Contractor shall by a notice inform the Employer of its intention to issue the Termination Notice and grant 15 (fifteen) days to the Employer to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

30.3 Termination for Employer's Convenience

Notwithstanding anything stated herein above, the Employer may terminate this Agreement for convenience. The Termination shall take effect 30 (thirty) days from the date of notice hereunder.

30.4 Requirements after Termination

Upon Termination of this Agreement in accordance with the terms of this Section, the Contractor shall comply with and conform to the following:

- a) deliver to the Employer all Plant and Materials which shall have become the property of the Employer under this Section ;
- b) deliver all relevant records, reports, Intellectual Property and other licenses pertaining to the Works, Maintenance, other design documents and in case of Termination occurring after the Substantial Completion Certificate has been issued, the "as built" Drawings for the Works;
- c) transfer and/or deliver all Applicable Permits to the extent permissible under Applicable Laws; and
- d) vacate the Site within 15 (fifteen) days.

30.5 Valuation of Unpaid Works

- 30.5.1 Within a period of 45 (forty-five) days after Termination under **Clause 30.1, 30.2 or 30.3**, as the case may be, has taken effect, the Employer's Engineer shall proceed in accordance with **Clause 25.5** to determine as follows the valuation of unpaid Works (the "Valuation of Unpaid Works"):
- a) value of the completed stage of the Works, less payments already made;
 - b) reasonable value of the partially completed stages of Works as on the date of Termination, only if such Works conform with the Specifications and Standards; and
 - c) value of Maintenance, if any, for completed months, less payments already made,
 - d) and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement; and (ii) all Taxes due to be deducted at source.
- 30.5.2 The Valuation of Unpaid Works shall be communicated to the Employer, with a copy to the Contractor, within a period of 30 (thirty) days from the date of Termination.

30.6 Termination Payment

- 30.6.1 Upon Termination on account of Contractor's Default under **Clause 30.1**, the Employer shall:
- a) encash and appropriate the Performance Security and Retention Money, or in the event the Contractor has failed to replenish or extend the Performance Security, claim the amount stipulated in **Clause 14.1.1**, as agreed pre-determined compensation to the Employer for any losses, delays and cost of completing the Works and Maintenance, if any;

- b) encash and appropriate the Bank guarantee, if any, for and in respect of the outstanding Advance Payment and interest thereon; and
- c) pay to the Contractor, by way of Termination Payment, an amount equivalent to the Valuation of Unpaid Works after adjusting any other sums payable or recoverable, as the case may be, in accordance with the provisions of this Agreement.

30.6.2 Upon Termination on account of an Employer's Default under **Clause 30.2** or for Employer's convenience under **Clause 30.3**, the Employer shall:

- a) return the Performance Security and Retention Money forthwith;
- b) encash and appropriate the Bank guarantee, if any, for and in respect of the outstanding Advance Payment; and
- c) pay to the Contractor, by way of Termination Payment, an amount equal to:
 - i. Valuation of Unpaid Works;
 - ii. the reasonable cost, as determined by the Employer's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Employer for its use, only if such Plant and Materials are in conformity with the Specifications and Standards;
 - iii. the reasonable cost of temporary Works, as determined by the Employer's Engineer; and
 - iv. 10 (ten per cent) of the cost of the Works and Maintenance that are not commenced or not completed,

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and (ii) all Taxes due to be deducted at source.

30.6.3 Termination Payment shall become due and payable to the Contractor within 30 (thirty) days of a demand being made by the Contractor to the Employer with the necessary particulars, and in the event of any delay, the Employer shall pay interest at the Bank Rate, calculated at quarterly rests, on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 (ninety) days. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Employer of its payment obligations in respect thereof hereunder.

30.6.4 The Contractor expressly agrees that Termination Payment under this Section shall constitute a full and final settlement of all claims of the Contractor on account of Termination of this Agreement and that it shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

30.7 Other Rights and Obligations of the Parties

Upon Termination for any reason whatsoever

- a) property and ownership in all Materials, Plant and Works and the Project Works shall, as between the Contractor and the Employer, vest in the Employer in whole; provided that the foregoing shall be without prejudice to **Clause 30.6**.
- b) risk of loss or damage to any Materials, Plant or Works and the care and custody thereof shall pass from the Contractor to the Employer; and
- c) the Employer shall be entitled to restrain the Contractor and any person claiming through or under the Agreement from entering upon the Site or any part of the Project except for taking possession of Materials, stores, implements, Construction plants and equipment of the Contractor, which have not been vested in the Employer in accordance with the provisions of this Agreement.

30.8 Survival of Rights

Notwithstanding anything to the contrary contained in this Agreement any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or Agreement. All rights and obligations of either Party under this Agreement, including Termination Payments, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

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Part D: EPC Agreement
Section F-Other Provisions

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31. Assignment and Charges

31.1 Restrictions on assignment and charges

This Agreement shall not be assigned by the Contractor to any person, save and except with the prior consent in writing of the Employer, which consent the Employer shall be entitled to decline without assigning any reason.

31.2 Hypothecation of Materials or Plant

The Contractor cannot pledge or hypothecate to its lenders, any Materials or Plant prior to their incorporation in the Works. Further, the Contractor in no case can assign its right to receive payments under this Agreement either absolutely or by way of charge, to any person/institution/company providing financing to the Contractor in connection with the performance of the Contractor's obligations under this Agreement. All payments shall only be made to the contractor.

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32. Liability and Indemnity

32.1 General Indemnity

The Contractor will indemnify, defend, save and hold harmless the Employer and its officers, servants, agents, Government Instrumentality and Government owned and/or controlled entities/enterprises, (the "Employer Indemnified Persons") against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Contractor of any of its obligations under this Agreement or from any negligence under the Agreement, including any errors or deficiencies in the design documents, or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, or breach or default of this Agreement on the part of the Employer Indemnified Persons.

32.2 Indemnity by the Contractor

32.2.1 Without limiting the generality of **Clause 32.1**, the Contractor shall fully indemnify, hold harmless and defend the Employer and the Employer Indemnified Persons (It is Employer, its staff and staff of PMNC) from and against any and all loss and/or damages arising out of or with respect to:

- a) failure of the Contractor to comply with Applicable Laws and Applicable Permits;
- b) payment of Taxes required to be made by the Contractor in respect of the income or other Taxes of the Sub-contractors, suppliers and representatives; or
- c) non-payment of amounts due as a result of Materials or services furnished to the Contractor or any of its Sub-contractors which are payable by the Contractor or any of its Sub-contractors.

32.2.2 Without limiting the generality of the provisions of this Section, the Contractor shall fully indemnify, hold harmless and defend the Employer Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the Employer Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other Intellectual Property, proprietary or confidentiality rights with respect to any⁶ Materials, information, design or process used by the Contractor or by the Sub-contractors in performing the Contractor's obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Contractor shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the revocation or Suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Project Works, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Contractor shall promptly make every reasonable effort to secure for the Employer a license, at no cost to the Employer, authorizing continued use of the infringing work. If the Contractor is unable to secure such license within a reasonable time, the Contractor shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process or modify the same so that it becomes non- infringing.

32.3 Notice and contest of Claims

In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Section (the "Indemnified Party") it shall notify the other Party (the "Indemnifying Party") within 15 (fifteen) days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the

Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or Dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

32.4 Defense of Claims

- 32.4.1 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and reasonable costs and expenses thereof shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party in respect of loss to the full extent provided by this Section, the Indemnifying Party shall be entitled, at its option, to assume and control the defense of such claim, action, suit or proceeding, liabilities, payments and obligations at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defense. The Indemnifying Party shall not be entitled to settle or compromise any claim, demand, action, suit or proceeding without the prior written consent of the Indemnified Party, unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure the loss to be indemnified hereunder to the extent so compromised or settled.
- 32.4.2 If the Indemnifying Party has exercised its rights under **Clause 32.3**, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).
- 32.4.3 If the Indemnifying Party exercises its rights under **Clause 32.3**, the Indemnified Party shall nevertheless have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of the Indemnified Party, when and as incurred, unless:
- a) the employment of counsel by such party has been authorized in writing by the Indemnifying Party; or
 - b) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defense of such action; or
 - c) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defense of such action and shall have been so notified by the Indemnified Party; or
 - d) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:
 - i. that there may be specific defenses available to it which are different from or additional to those available to the Indemnifying Party; or
 - ii. that such claim, action, suit or proceeding involves or could have a Material adverse effect upon it beyond the scope of this Agreement:

Provided that if Sub-clauses (b), (c) or (d) of this **Clause 32.4.3** shall be applicable, the counsel for the Indemnified Party shall have the right to direct the defense of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

32.5 No Consequential Claims

Notwithstanding anything to the contrary contained in this Section, the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

32.6 Survival on Termination

The provisions of this Section shall survive Termination.

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33. Dispute Resolution

Any dispute or difference arising between the parties hereto in respect of any aspect of this Agreement or the interpretation construction or effect of the terms and condition of the Agreement shall be first settled mutually by negotiations between the parties. In case no settlement is reached, such dispute or difference shall be referred to a Sole Arbitrator if both the parties agree upon the same. Should the parties not agree to the appointment of a Sole Arbitrator, each party shall appoint its own Arbitrator and the two Arbitrators so appointed by the parties shall, before entering upon the reference, appoint the third Arbitrator who shall act as the presiding Arbitrator. The arbitration proceedings shall be conducted and governed by the Arbitration and Conciliation Act, 1996 in conjunction with Arbitration and Conciliation Act. [Amendment] 2015 and amendment made thereof. The language of the arbitration shall be English and the place of arbitration shall only be Thiruvananthapuram, Kerala.

The Award made by the Arbitral Tribunal shall become final and binding upon the parties and shall be enforced in accordance with applicable provisions of the Arbitration and Conciliation Act, 1996 in conjunction with Arbitration and Conciliation Act [Amendment] 2015 and any subsequent amendment made thereof.

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34. Miscellaneous

34.1 Governing Law and Jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at [Kerala] shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

34.2 Waiver of Immunity

Each Party unconditionally and irrevocably:

- a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;
- c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

34.3 Delayed Payments

The Parties hereto agree that payments due from one Party to the other Party under the provisions of this Agreement shall be made within the period set forth therein, and if no such period is specified, within 30 (thirty) days of receiving a demand along with the necessary particulars. In the event of delay beyond such period, the defaulting Party shall pay interest for the period of delay calculated at a rate equal to Bank Rate plus 2 (two) percent, calculated at quarterly rests, and recovery thereof shall be without prejudice to the rights of the Parties under this Agreement including Termination thereof. In the event of the failure of the Employer -Vol 1 **Clause 26.9.2** will prevail.

34.4 Waiver

34.4.1 Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:-

- a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
- b) shall not be effective unless it is in writing and executed by a duly authorized representative of the Party; and
- c) shall not affect the validity or enforceability of this Agreement in any manner.

- 34.4.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

34.5 Liability for Review of Documents and Drawings

Except to the extent expressly provided in this Agreement:

- a) no review, comment or approval by the Employer or the Employer's Engineer of any Document or Drawing submitted by the Contractor nor any observation or inspection of the Construction, or Maintenance of the Project Works nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Contractor from its obligations, duties and liabilities under this Agreement, the Applicable Laws and Applicable Permits; and
- b) the Employer shall not be liable to the Contractor by reason of any review, comment, approval, observation or inspection referred to in Sub-clause (a) above.

34.6 Exclusion of Implied Warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other Agreement between the Parties or any representation by either Party not contained in a binding legal Agreement executed by both Parties.

34.7 Survival

34.7.1 Termination shall:

- a) not relieve the Contractor or the Employer, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and
- b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

34.7.2 All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

34.8 Entire Agreement

This Agreement and the Schedules, corrigendum or any addendum to the bid issued by the Employer together constitute a complete and exclusive statement of the terms of the Agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Contractor arising from the Request for Qualification or Request for Proposals, as the case may be, shall be deemed to form part of this Agreement and treated as such.

34.9 Severability

If for any reason whatever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

34.10 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or Employer to enter into any Agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

34.11 Third Parties

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

34.12 Successors and Assigns

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

34.13 Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

- a) in the case of the Contractor, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to the Employer; provided that notices or other communications to be given to an address outside [Bengaluru] may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the person as the Contractor may from time to time designate by notice to the Employer;
- b) in the case of the Employer, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the [Managing Director] of the Employer with a copy delivered to the Employer's Engineer or such other person as the Employer may from time to time designate by notice to the Contractor; provided that if the Contractor does not have an office in [Bengaluru] it may send such notice by facsimile or email and by registered acknowledgement due, air mail or by courier; and
- c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or email, it shall be deemed to have been delivered on the working day following the date of its delivery.

34.14 Language

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

34.15 Counterparts

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.

34.16 Confidentiality

The Parties shall treat the details of this Agreement as private and confidential, except to the extent necessary to carry out obligations under it or to comply with Applicable Laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the Works in any trade or technical paper or elsewhere without the previous Agreement of the Employer.

34.17 Copyright and Intellectual Property Rights

- 34.17.1 As between the Parties, the Contractor shall retain the copyright and other Intellectual Property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor. The Contractor shall be deemed (by signing this Agreement) to give to the Employer a nonterminal transferable non-exclusive royalty-free license to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This license shall:
- a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
 - b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
 - c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by this Agreement, including replacements of any computers supplied by the Contractor:
- 34.17.2 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this **Clause 34.17**.
- 34.17.3 As between the Parties, the Employer shall retain the copyright and other Intellectual Property rights in this Agreement and other documents made by (or on behalf of) the Employer. The Contractor may, at its cost, copy, use, and obtain communication of these documents for the purposes of this Agreement. They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the contract.

34.18 Limitation of Liability

- 34.18.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with this Agreement, save and except as provided under Section **30** and **32**.
- 34.18.2 The total liability of one Party to the other Party under and in accordance with the provisions of this Agreement, save and except as provided in Section **30** and **32**, shall not exceed the Contract Price. For the avoidance of doubt, this Clause shall not limit the liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

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35. Definitions

35.1 Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

- “Accounting Year” means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;
- “Advance Payment” shall have the meaning set forth in **Clause 26.2**;
- “Affected Party” shall have the meaning set forth in **Clause 28.1**;
- “Affiliate” means, in relation to either Party {and/or Members}, a person who controls, is controlled by, or is under the common control with such Party {or Member} (as used in this definition, the expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);
- “Agreement” means this Agreement, its Recitals, the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;
- “Applicable Laws” means all laws, brought into force and effect by GOI or the State Government including rules, regulations and notifications made there under, and judgments, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;
- “Applicable Permits” means all clearances, licenses, permits, authorizations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the Construction, operation and Maintenance of the Project Works during the subsistence of this Agreement;
- “Appointed Date” means that date of signing of contract, and wherever appointment date is mentioned in the contract shall have the same meaning.
- “Arbitration Act” means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time.
- “Bank” means Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore);
- “Bank Rate” means the Repo rate of interest announced by the Reserve Bank of India for all its lending operations on the Base Date;
- “Base Date” means the last date of that calendar month, which date precedes the Bid Due Date by at least 28 (twenty eight) days;
- “Bid” means the documents in their entirety comprised in the Bid submitted by the [selected bidder/Consortium] in response to the Request for Proposals in accordance with the provisions thereof;
- “Bid Price” means the amount in INR (Rs) quoted by the bidder i.e. “Contract Price” plus amount towards “Operation and Maintenance for 4 (four) years” as specified in **Clause 21.1.1** “Bid Security” means the Bid security provided by the Contractor to the Employer in accordance with the Request for Proposal, and which is to remain in force until substituted by the Performance Security;
- “Bid Security” means the Bid security provided by the Contractor to the Employer in accordance with the Request

for Proposal, and which is to remain in force until substituted by the Performance Security;

- “Change in Law” means the occurrence of any of the following after the Base Date:
 - c) the enactment of any new Indian law;
 - d) the repeal, modification or re-enactment of any existing Indian law;
 - e) the commencement of any Indian law which has not entered into effect until the Base Date;
 - f) a change in the interpretation or application of any Indian law by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Base Date; or
 - g) any change in the rates of any of the Taxes or royalties that have a direct effect on the Project;
- “Change of Scope” shall have the meaning set forth in Section 20;
- “Change of Scope Notice” shall have the meaning set forth in **Clause 20.2.1**;
- “Change of Scope Order” shall have the meaning set forth in **Clause 20.2.4**;
- “Completion Certificate for Construction works ” shall have the meaning set forth in **Clause 19.4**;
- {“Consortium” means the consortium of entities which have formed a joint venture for implementation of this Project ;}\$
- “Construction Period” means the period commencing from the Appointed Date and ending on the date of the Completion Certificate;
- “Contract Price” means the amount specified in **Clause 26.1.1**;
- “Contractor” shall have the meaning attributed thereto in the array of Parties herein above as set forth in the Recitals;
- “Contractor Default” shall have the meaning set forth in **Clause 30.1**;
- “Cure Period” means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:
 - h) commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
 - i) not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and
 - j) not in any way be extended by any period of Suspension under this Agreement; provided that if the cure of any breach by the Contractor requires any reasonable action by the Contractor that must be approved by the Employer or the Employer’s Engineer hereunder, the applicable Cure Period shall be extended by the period taken by the Employer or the Employer’s Engineer to accord their approval;
- “Damages” shall have the meaning set forth in paragraph (w) of **Clause 8.2.1**;
- “Defect” means any Defect or deficiency in Construction of the Works or any part thereof, which does not conform with the Specifications and Standards, and in the case of Maintenance, means any Defect or deficiency which is specified in Schedule Q;
- “Defects Liability Period” shall have the meaning set forth in **Clause 24.1**;
- “Dispute” shall have the meaning set forth in Clause 33;
- “Dispute Resolution Procedure” means the procedure for resolution of Disputes set forth in Section 33;

- “Drawings” means all of the Drawings, calculations and documents pertaining to the Project Works as set forth in Schedule-D, and shall include ‘as built’ Drawings of the Project Works;
- “Document” or “Documentation” means Documentation in printed or written form, or in tapes, discs, Drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;
- “Emergency” means a condition or situation that is likely to endanger the safety or security of the individuals on or about the Project Works, including Users thereof, or which poses an immediate threat of Material damage to any of the Project Assets;
- “Employer” shall be “Managing Director, The Kerala Industrial Corridor Development Corporation”;
- “Employer Default” shall have the meaning set forth in **Clause 30.2**;
- “Employer’s Engineer” shall have the meaning set forth in **Clause 25.1**;
- Engineer wherever mentioned has same meaning as Employer’s Engineer.
- “Employer Representative” means such person or persons as may be authorized in writing by the Employer to act on its behalf under this Agreement and shall include any person or persons having Employer to exercise any rights or perform and fulfil any obligations of the Employer under this Agreement;
- “Encumbrances” means, in relation to the Project Works, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations, and shall include any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Project Works, where applicable herein but excluding utilities referred to in **Clause 16.1**;
- “EPC” means Engineering, Procurement and Construction;
- “Final Payment Certificate” shall have the meaning set forth in **Clause 26.15**;
- “Final Payment Statement” shall have the meaning set forth in **Clause 26.13.1**;
- “Force Majeure” or “Force Majeure Event” shall have the meaning ascribed to it in **Clause 28.1**;
- “GAD” or “General Arrangement Drawings” shall have the meaning set forth in Volume II;
- “GOI” or “Government” means the Government of India;
- “Good Industry Practice” means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which is generally and reasonably expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Agreement
- “Government Instrumentality” means any department, division or subdivision of the Government or the State Government and includes any commission, board, Employer, agency or municipal and other local Employer or statutory body including panchayat under the control of the Government or the State Government, as the case may be, and having jurisdiction over all or any part of the Project Works or the performance of all or any of the services or obligations of the Contractor under or pursuant to this Agreement;
- “ICCC” means Integrated Command Control Center
- “IRC” means the Indian Roads Congress;
- “IMC” means Integrated Manufacturing Clusters
- “Indemnified Party” means the Party entitled to the benefit of an indemnity pursuant to Section **32**;
- “Indemnifying Party” means the Party obligated to indemnify the other Party pursuant to Section **32**;
- “Indirect Political Event” shall have the meaning set forth in **Clause 28.3**;

- “Insurance Cover” means the aggregate of the maximum sums insured under the insurances taken out by the Contractor pursuant to Section 27, and includes all insurances required to be taken out by the Contractor under Clauses 27.1 and 27.9 but not actually taken, and when used in the context of any act or event, it shall mean the aggregate of the maximum sums insured and payable or deemed to be insured and payable in relation to such act or event;
- “Intellectual Property” or “IP” means all patents, trademarks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programmes and manuals, Drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, utility models, rights in know-how and other Intellectual Property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;
- “Interim Payment Certificate” or “IPC” means the interim payment certificate issued by the Employer’s Engineer for payment to the Contractor in respect of Contractor’s claims for payment raised in accordance with the provisions of this Agreement;
- “Lead Member” shall, in the case of a consortium, mean the member of such consortium who shall have the Employer to bind the contractor and each member of the Consortium; and shall be deemed to be the Contractor for the purposes of this Agreement;
- “Lowest Bidder” shall mean the Bidder who is quoting the lowest BID price.
- “LOA” or “Letter of Award” means the letter of award referred to in Recital (E);
- “Maintenance” means the Maintenance of the Project Works as set forth in Section 21 for the period specified therein;
- “Maintenance Inspection Report” shall have the meaning set forth in **Clause 22.2.1**;
- “Maintenance Manual” shall have the meaning ascribed to it in **Clause 17.7**;
- “Maintenance Programme” shall have the meaning set forth in **Clause 21.3**;
- “Maintenance Period” shall have the meaning set forth in **Clause 21.1.1**;
- “Maintenance Requirements” shall have the meaning set forth in **Clause 21.2**;
- “Major Bridge” means a bridge having a total length of more than 60 (sixty) meters between the inner faces of the dirt walls as specified in IRC:5-1998;
- “Material Adverse Effect” means a Material adverse effect of any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a Material financial burden or loss to either Party;
- “Materials” are all the supplies used by the Contractor for incorporation in the Works or for the Maintenance of the Project Works;
- “MORTH” means the Ministry of Road Transport and Highways or any substitute thereof dealing with Highways;
- “Non-Political Event” shall have the meaning set forth in **Clause 28.2**;
- “Net Worth” shall mean the aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation.
- “Parties” means the parties to this Agreement collectively and “Party” shall mean any of the parties to this Agreement individually;
- “Performance Security” shall have the meaning set forth in **Clause 14.1**;

- “Plant” means the apparatus and machinery intended to form or forming part of the Works;
- “PMNC” shall have the meaning set forth in **Clause 25**;
- “Political Event” shall have the meaning set forth in **Clause 28.4**;
- “Programme” shall have the meaning set forth in **Clause 17.1.3**;
- “Project” means the Construction and Maintenance of the Project Works in accordance with the provisions of this Agreement, and includes all Works, services and equipment relating to or in respect of the Scope of the Project;
- “Project Assets” means all physical and other assets relating to
 - k) tangible assets such as civil Works and equipment including foundations, embankments, pavements, road surface, interchanges, bridges, culverts, road over-bridges, drainage Works, traffic signals, sign boards, kilometer-stones, [toll plaza(s)], electrical systems, communication systems, rest areas, relief centers, Maintenance depots and administrative offices; and
 - l) Project Facilities situated on the Site;
- “Project Completion Date” means the date on which the Project Completion cum taking Over Certificate is issued;
- “Project Completion cum Taking Over Certificate” shall have the meaning set forth in **Clause 19.5**;
- “Project Completion Schedule” means the progressive Project Milestones set forth in Schedule-E for completion of the Project Works on or before the Scheduled Completion Date;
- “Project Facilities” means all the amenities and facilities situated on the Site, as described in Volume II;
- “Project Site” shall have the meaning set forth in **Clause 15.1**
- “Project Works” means the Site comprising the existing road forming part of Design and Build the Infrastructure Works for Roads, Drains, Culverts, Water Supply, Sewerage, Power systems including Sewage and Common Effluent Treatment Plants for Pudukkottai Central & Kannambra of Palakkad IMC, Kerala, on EPC Basis Project and all Project Assets, and its subsequent development and augmentation in accordance with this Agreement;
- “Project Milestone” means the Project milestone set forth in Schedule-E;
- “Proof Consultant” shall have the meaning set forth in **Clause 17.2.2**;
- “Substantial Completion Certificate” shall have the meaning set forth in **Clause 19.2**;
- “Punch List” shall have the meaning set forth in **Clause 19.2.1**;
- “Quality Assurance Plan” or “QAP” shall have the meaning set forth in **Clause 18.2**;
- “Quarterly Maintenance Statement” shall have the meaning set forth in **Clause 26.6.1**;
- “Re.”, “Rs.” or “Rupees” or “Indian Rupees” means the lawful currency of the Republic of India;
- “Request for Proposals” or “RFP” shall have the meaning set forth in Recital ‘D’;
- “Request for Qualification” or “RFQ” shall have the meaning set forth in Recital ‘C’;
- “Retention Money” shall have the meaning set forth in **Clause 14.5.1**;
- “Safety Consultant” shall have the meaning set forth in **Clause 17.1.6**;
- “Scheduled Completion Date” shall be the date set forth in Clause Schedule E;
- “Scope of the Project” shall have the meaning set forth in Section 9;
- “Section” means a part of the Project Works;
- “Site” shall have the meaning set forth in **Clause 15.1**;

- “Specifications and Standards” means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Project Works, as set forth in Volume II, and any modifications thereof, or additions thereto, as included in the design and engineering for the Project Works submitted by the Contractor to, and expressly approved by, the Employer;
- “Stage Payment Statement” shall have the meaning set forth in **Clause 26.4**;
- “Structures” means an elevated road or a flyover, as the case may be;
- “Sub-contractor” means any person or persons to whom a part of the Works or the Maintenance has been subcontracted by the Contractor and the permitted legal successors in title to such person, but not an assignee to such person;
- “Substantial Completion Certificate” shall have the meaning set forth in **Clause 19.2**;
- “Suspension” shall have the meaning set forth in **Section 29**;
- “Taxes” means any Indian Taxes including excise duties, customs duties, value added tax, sales tax, local Taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, Materials, equipment and services incorporated in and forming part of the Project Works charged, levied or imposed by any Government Instrumentality, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include Taxes on corporate income;
- “Termination” means the expiry or termination of this Agreement;
- “Termination Notice” means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;
- “Termination Payment” means the amount payable by either Party to the other upon Termination in accordance with **Section 30**;
- “Terms of Reference” or “TOR” shall have the meaning set forth in **Clause 25.2.1**;
- “Tests” means the Tests set forth in Schedule-F to determine the completion of Works in accordance with the provisions of this Agreement;
- “Time Extension” shall have the meaning set forth in **Clause 17.5.1**;
- “User” means a person who uses or intends to use on the Project Works or any part thereof;
- “Valuation of Unpaid Works” shall have the meaning set forth in **Clause 30.5.1**;
- “Works” means all Works including survey and investigation, design, engineering, procurement, Construction, Plant, Materials, Maintenance, temporary Works and other things necessary to complete the Project Works as per scope in accordance with this Agreement; and
- “WPI” means the wholesale price index for various commodities as published by the Ministry of Commerce and Industry, GOI and shall include any index which substitutes the WPI, and any reference to WPI shall, unless the context otherwise requires, be construed as a reference to the WPI published for the period ending with the preceding billing cycle.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AND DELIVERED

For and on behalf of

For and on behalf of

THE EMPLOYER by:

(Signature)

(Signature)

(Name)

(Name)

(Designation)

(Designation)

In the presence of:

1. _____

2. _____

{COUNTERSIGNED and accepted by:

Name and particulars of other members of the Consortium}

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Part E: Schedules

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36. Schedule A: Applicable Permits

The Contractor shall obtain, as required under the Applicable Laws, the following Applicable Permits:

- a) Consent to establish from State Pollution Control Board / Gram Panchayat.
- b) NOC of Gram Panchayat / Municipality for setting up of Stone Crushers, Hot Mix Plant, Batching Plant, WMM Plant & DG sets.
- c) Consent to Establish (CTE) & Consent to Operate (CTO) from State Pollution Control Board for setting up of Stone Crushers, Hot Mix Plant, Batching Plant, WMM Plant & DG sets.
- d) Permission of Gram Panchayat / State Government /Concerned Authority for excavation & utilization of Borrow Pits / Ordinary earth.
- e) Permission of Gram Panchayat / State Government / Concerned Authority for extraction of boulders from Stone quarry.
- f) Permission of Gram Panchayat / State Government / Concerned Authority for extraction of Sand.
- g) Permission of Gram Panchayat / Local body / Concerned Authority for abstraction / utilization of Water for construction activities during construction stage.
- h) Explosive License for storage and use of explosives.
- i) Permission from State Pollution Control Board / Local body / Concerned Authority for handling, storage and disposal of Hazardous Waste.
- j) Permission from State Pollution Control Board / Local body / Concerned Authority for handling, storage and disposal of Construction & Demolition Waste.
- k) Permission from State Pollution Control Board / Local body / Concerned Authority for handling, storage and disposal of Electronic Waste, Plastic Waste.
- l) License from Inspector of Factories.
- m) Labour License including all compliances such as BOCWA registration, ESIC registration, PF, Gratuity, Bonus & Medical facilities as applicable on EPC contractor.
- n) Tree cutting.
- o) Insurance Policies such as CAR Policy, Personal & Accident Policy etc.
- p) Local body permits & NOC if any.
- q) Any other permits, clearances or approvals required for execution of scope as per tender;
- r) Any other permits, clearances or approvals required under Applicable Laws.

Applicable permits, as required, relating to environmental protection and conservation shall have been procured by the Employer in accordance with the provisions of this Agreement.

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37. Schedule B: Form of Bank Guarantee

37.1 Performance Security

..... Employer.....

WHEREAS:

- a) [name and address of contractor] ("hereinafter called as Contractor") and [name and address of the Employer], ("the Employer ") have entered into an Agreement (the "Agreement") for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudussery Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis" for Pudussery Central & Kannambra of Palakkad IMC, Kerala on EPC Basis, subject to and in accordance with the provisions of the Agreement.
- b) The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Construction Period and Defects Liability Period (as defined in the Agreement) in a sum of Rs. Crore (Rupees Crore) (the "Guarantee Amount").
- c) We,through our branch at (the "Bank") have agreed to furnish this Bank guarantee (hereinafter called the "Guarantee") by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

- 1) The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor's obligations during and under and in accordance with the Agreement, and agrees and undertakes to pay to the Employer, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the guarantee amount as the Employer shall claim, without the Employer being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
- 2) A letter from the Employer , under the hand of an officer not below the rank of [.....of Employer], that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Employer shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any difference between the Employer and the Contractor, or any Dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
- 3) In order to give effect to this Guarantee, the Employer shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
- 4) It shall not be necessary, and the Bank hereby waives any necessity, for the Employer to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
- 5) The Employer shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Employer against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Employer , and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Employer of the liberty with reference to the matters

aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Employer or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

- 6) This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Employer in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
- 7) Notwithstanding anything contained herein before, the liability of the Bank under this Guarantee is restricted to the Guarantee amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Employer on the Bank under this Guarantee all rights of the Employer under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
- 8) The Performance Security shall cease to be in force and effect 90 (ninety) days after the end of the Defects Liability Period as set forth in Clauses **14.1**
- 9) The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Employer in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
- 10) Any demand for payment under this Guarantee shall be made on the Guarantor by the Purchaser in writing at(The Bank), and shall be deemed to have been sufficiently made by the Purchaser if the writing containing the demand is sent to the Guarantor by registered post (Courier) to the address as aforesaid or sent to the Guarantor by hand delivery at such address and written acknowledgement obtained of such delivery.
- 11) This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the or until it is released earlier by the Employer pursuant to the provisions of the Agreement, whichever is earlier.
- 12) Notwithstanding anything contrary contained in any law for the time being in force or banking practice, this guarantee shall not be assignable or transferable by the beneficiary. Notice or invocation by any person such as assignee, transferee or agent of beneficiary shall not be entertained by the Bank. Any invocation of guarantee can be made only by the beneficiary directly.

NOTWITHSTANDING ANYTHING CONTAINED HEREIN:

- i. Our liability under this guarantee shall not exceed Rs.....(Rupees).
- ii. This Bank Guarantee shall be valid up to
- iii. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before

Signed and sealed this day of 20..... at

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by: (Signature)

(Name) (Designation) (Code Number) (Address) NOTES:

- i. The Bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- ii. The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

OR

FORMAT FOR INSURANCE SURETY BOND FOR PERFORMANCE GUARANTEE

(To be execute on Non-Judicial Stamp paper of appropriate value)

(Insurance Surety Bond

No.....)

Date.....

(Name of the Contract)

To:

Dear Sirs,

In consideration of the[Employer's Name] (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s [Contractor's Name] with its Registered/Head Office at (hereinafter referred to as the 'Contractor', which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Employer's Letter of Acceptance No. dated and the same having been acknowledged by the Contractor, for [Contract sum in figures and words] for [Name of the work] and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to(*)..... of the said value of the aforesaid work under the Contract to the Employer.

We[Name & Address of the Insurance Company] ..'..... having its Head Office at(hereinafter referred to as the 'Surety', which expression shall, unless repugnant to the context of meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all monies payable by the Contractor to the extent of (*) as aforesaid at any time upto (@)[days/month/year] without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the Insurance Company shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Surety undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantees herein contained shall continue to be enforceable till the Employer discharges this guarantee or till[days/month/year] whichever is earlier.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Insurance company under this guarantee, from time to time to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Insurance company shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of However, in such a case, the Insurance Surety Bond shall be got confirmed through any Indian Scheduled/Nationalized Insurance Company.

The Surety declares that this Insurance Surety Bond is issued by the(name of Insurance Company) as per applicable rules and regulations of insurance regulatory development authority of India (IRDAI), and also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Insurance Company

as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Employer may have in relation to the Contractor's liabilities.

- i. Our liability under this Insurance Surety Bond shall not exceed(*).....
- ii. This Insurance Surety Bond shall be valid up to(+).....
- iii. We are liable to pay the guaranteed amount or any part thereof under this Insurance Surety Bond only and only if Employer serve upon Insurance Company a written claim or demand on or before@.....

Dated thisday of 20..... at.....

WITNESS

Signed for and on behalf of the Insurance

Company

.....

.....

(Signature)

(Signature)

.....

.....

(Name)

(Name)

Notes:

1. (*) This sum shall be Two & half percent (2.5%) of the Contract Price denominated in the types and proportions of currencies. (@) This date will be thirty (90) days beyond the issue of defect liability period as specified in the Contract.

(+) This date will be the date of issue of defect liability Certificate.

2. Insurance Surety Bond should be executed on appropriate stamp paper of requisite value, such stamp paper should be purchased in the name of Issuing Insurance Company, not more than six (6) months prior to execution / issuance of Insurance Surety Bond. The name of the purchaser should appear at the back side of stamp paper in the Vendors Stamp.

Insurance Surety Bond should contain rubber stamp of the authorized signatory of the Insurance Company indicating the name, designation and signature/ power of attorney number as well as telephone numbers / e-Mail Id with full correspondence address of the Insurance Company. However, in such a case, the Insurance Surety Bond shall be got confirmed through any Indian Scheduled/Nationalized Insurance Company.

3. Insurance Surety Bond is required to be submitted directly to the Employer by the issuing Insurance Company (on behalf of Contractor) under registered post (A.D.). The Contractor can submit an advance copy of Insurance Surety Bond to the Engineer.

4. The issuing Insurance Company shall write the name of Insurance Company's controlling branch/ Head Office along with contact details like telephone no., e-Mail Id and full correspondence address in order to get the confirmation of Insurance Surety Bond from that branch/ Head office, if so required.

37.2 Deleted

37.3 Form for Guarantee for Advance Payment

.....,

.....Employer , Kerala

WHEREAS:

- i. [name and address of contractor] (hereinafter called “the Contractor”) has executed an Agreement (hereinafter called the “Agreement”) with the [name and address of the Employer], (hereinafter called “the Employer ”) for the Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudussery Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis", subject to and in accordance with the provisions of the Agreement.
- ii. in accordance with the **Clause 26.2** of the Agreement the Employer shall make to the Contractor an interest bearing Advance Payment (hereinafter called “Advance Payment”) equal to 10% (ten per cent) of the contract price for mobilization expenses and acquisition of equipment; and that the Advance Payment shall be made in three installments subject to the Contractor furnishing an irrevocable and unconditional guarantee by a Nationalized bank (incorporated in India and approved by RBI with a minimum net worth of Rs. 1,000 Crore) for an amount equal to the 110% amount of each installment to remain effective till the complete and full repayment of the installment of the Advance Payment as security for compliance with its obligations in accordance with the Agreement; and the amount of (first/second/third) installment of the Advance Payment is Rs. **** cr. (Rupees **** crore) (the “Guarantee Amount”).
- iii. We,through our branch at (the “Bank”) have agreed to furnish this Bank guarantee (hereinafter called the “Guarantee”) for the Guarantee Amount.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

- 1) The Bank hereby unconditionally and irrevocably guarantees the due and faithful repayment on time of the aforesaid installment of the Advance Payment under and in accordance with the Agreement, and agrees and undertakes to pay to the Employer , upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the guarantee amount as the Employer shall claim, without the Employer being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
- 2) A letter from the Employer , under the hand of an officer not below the rank of [.....of Employer], that the Contractor has committed default in the due and faithful performance of all or any of its obligations for the repayment of the installment of the Advance Payment under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Employer shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any difference between the Employer and the Contractor, or any Dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
- 3) In order to give effect to this Guarantee, the Employer shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
- 4) It shall not be necessary, and the Bank hereby waives any necessity, for the Employer to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
- 5) The Employer shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Advance Payment or to extend the time or period of its repayment or to postpone for any time, and from time to time, any of the rights and powers exercisable by the

Employer against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Employer, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Employer of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Employer or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

- 6) This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Employer in respect of or relating to the Advance Payment.
- 7) Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Employer on the Bank under this Guarantee all rights of the Employer under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
- 8) The guarantee shall cease to be in force and effect 90 (ninety) days after the end of the one year from the date of payment of the installment of the Advance Payment, as set forth in **Clause 26.2** of the Agreement.
- 9) The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Employer in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
- 10) Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Employer that the envelope was so posted shall be conclusive.
- 11) This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the end **** month in the year ***** or until it is released earlier by the Employer pursuant to the provisions of the Agreement.

Signed and sealed this day of 20..... at SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by: (Signature)

(Name) (Designation) (Code Number) (Address)

Notes:

- i. The Bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- ii. The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

38. Schedule C: Contract Price Weightages

38.1 Weightages

- 38.1.1 The Contract Price for This Agreement is Rs..... Break up is attached an annexure to the Price Bid Letter.
- 38.1.2 The Contractor shall submit the further sub-billing breakup to schedule C for the purpose of making Payment after award of contract and get it approved by the employer
- 38.1.3 Proportions of the Contract Price for different stages of Construction of the Truck Infrastructure Road and Utilities/Services, Treatment Plants, and all other works shall be as specified below for Pudukkottai Central & Kannambra;

Palakkad IMC – Pudukkottai Central				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
1.	Submission and approval of “Data, Drawings and analysis of Surveys & Investigations” and “Designs, Drawings and Reports	2%	Data, Drawings and analysis of Surveys & Investigations	10%
			Designs, Drawings and reports of Potable water supply network including Rising Mains and Property Connections	5%
			Designs, Drawings and reports of Recycled water supply network including Rising Mains and Property Connections	5%
			Designs, Drawings and reports of Elevated Service Reservoirs for recycled and potable water supply	5%
			Designs, Drawings and reports of Domestic sewage collection network including pumping mains and property connections	5%
			Designs, Drawings and reports of Industrial effluent collection network including pumping mains and property connections	5%
			Designs, Drawings and reports of Storm water drainage network including bridges, Structures and area grading	7.5%
			Designs, Drawings and reports of Utility/Services ducts for optical fibre cable network, power supply network and other networks including structures	10%
			Designs, Drawings and reports of roads	15%

Palakkad IMC – Pudukkottai Central				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
			and road structures	
			Designs, Drawings and reports of Project facilities	7.5%
			Designs, Drawings and reports of miscellaneous Works	5%
			WTP, STP and CETP	5%
			As built Drawings	10%
			3-D model of all Project components	5%
2.	Road Works	31%	Site clearance and initial activities including Earthwork up to top of the sub-grade	31%
			Granular work (sub-base, base, shoulders)	19%
			Bituminous Works	14%
			Minor Bridges & Balancing Culverts at Road Crossing	15%
			Junctions & Miscellaneous Items	3%
			Kerbs Footways and paved areas	12%
			Traffic signs, markings and appurtenances, traffic signals & Street Lighting.	1%
			After Completion of all road works	5%
3.	Potable Water including firefighting	3%	Earthwork excavation for cutting, filling, disposal of the surplus earth, dewatering and sand bedding.	10%
			Supplying, Laying, erection, joining of the pumping/rising / distribution mains (DI, HDPE) jointing, Disinfecting, and fixing of the Fire Hydrants.	40%
			Valves, Valve chambers, Thrust blocks, Water service connections including water meters, in complete.	5%
			Pump house, DI pipes, valves and electrification including other miscellaneous works.	5%
			Ground Service Reservoir and Elevated Service Reservoir.	35%
			Provision of Shoring, Barricading, Hydrotesting and commissioning of complete system including pipes, valves, UGR/ESR, meters, connection, fire	5%

Palakkad IMC – Pudussery Central				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
			hydrants etc. and Provision for detailed design and drawings	
4.	Recycled water	1.5%	Earthwork excavation for cutting, filling, disposal of the surplus earth, dewatering and sand bedding.	10%
			Supplying, Laying, erection, joining of the pumping/rising / distribution mains (DI, HDPE) jointing.	45%
			Valves, Valve chambers, Thrust blocks, Water service connections including water meters, in complete.	5%
			Pump house, DI pipes, valves and electrification including other miscellaneous works.	5%
			Ground Service Reservoir / Elevated Service Reservoir, includes compound wall and Main Gate.	30%
			Provision of Shoring, Barricading, Hydrotesting and commissioning of complete system including pipes, valves, UGR/ESR, meters, connection, fire hydrants etc. and Provision for detailed design and drawings.	5%
5.	Storm Water Drainage	8%	Earthwork excavation for cutting, filling, disposal of the surplus earth.	5%
			Cement Concrete in Leveling Course	40%
			Reinforcement steel bars	25%
			Grating Cover/ Manhole Cover	1%
			Weep Holes	5%
			Bitumin Paint	1%
			Laying of HDPE pipes	2.5%
			Outfall draining to stream	5%
			Balance culvert at drain crossing the road.	10%
			Dewatering	0.5%
			Provision of Shoring, Barricading, Testing & Commissioning of complete system including pipes, connections etc. and Provision for Detailed Design and Drawings.	5%

Palakkad IMC – Pudussery Central				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
6.	Industrial Wastewater	1.5%	Earthwork excavation for cutting, filling, disposal of the surplus earth, dewatering and sand bedding.	45%
			Supplying, Laying, erection, joining of the HDPE pipes/ RCC NP3 pipes as called in specification.	15%
			Manholes including. Drop manholes if any	30%
			Supplying, Laying, jointing, erection of chambers, property connections to Industrial Wastewater system	2.5%
			Provision of Shoring, Barricading, Testing & Commissioning of complete system including pipes, connections etc. and Provision for Detailed Design and Drawings.	7.5%
7.	Domestic Sewage	0.5%	Earthwork excavation for cutting, filling, disposal of the surplus earth, dewatering and sand bedding.	35%
			Supplying, Laying, erection, joining of the HDPE pipes/ RCC NP3 pipes as called in specification.	20%
			Manholes including Drop manholes if any	35%
			Supplying, Laying, jointing, erection of chambers, property connections to sewerage system	2.5%
			Provision of Shoring, Barricading, Testing & Commissioning of complete system including pipes, connections etc. and Provision for Detailed Design and Drawings	7.5%
8.	Power	42.0%	Substations (MRSS1&ZSS), RMU, CSS including Civil works	28%
			Cables (66kV, 11kV and LV Cables), Earthing, Lighting and Utility plant Electrics (STP, CETP, WTP and EPS)	12%
			RCC Cable trenches, HDPE Pipes and Manholes	36%
			Temporary External Power connectivity	19%
			Testing and Commissioning of Electrical equipments	5%

Palakkad IMC – Puduserry Central				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
9.	Sewage Treatment Plant including sewage pumping station	2.5%	Mechanical, Electrical, Instrumentation Control and Automation (MEICA) Works	45%
			Payment shall be made against receipt of material at site on pro-rata basis	70%
			Payment shall be made against completion of Erection on pro-rata basis.	20%
			Commissioning of complete facility/system	10%
			Civil works	50%
			Payment shall be made against completion of Sub- structure/ piling/raft up to plinth level on pro-rata basis.	25%
			Payment shall be made towards completion of super structure on pro-rata basis.	50%
			Completion of allied activities as handrail, painting, epoxy coat etc. on pro- rata basis.	15%
			Payment shall be made on successful Hydro-test and commissioning in totality	10%
			Successful Performance Test	5%
10.	Common Effluent Treatment Plant	8%	Mechanical, Electrical, Instrumentation Control and Automation (MEICA) Works	25%
			Payment shall be made against receipt of material at site on pro-rata basis	70%
			payment shall be made against completion of Erection on pro-rata basis.	20%
			Commissioning of complete facility/system	10%
			Civil works	70%
			Payment shall be made against completion of Sub- structure/piling/raft up to plinth level on pro-rata basis.	25%
			Payment shall be made towards completion of super structure on pro-rata basis.	50%
			Completion of allied activities as handrail, painting, epoxy coat etc. on pro-rata basis.	15%
			Payment shall be made on successful Hydro-test and commissioning in totality	10%
			Successful Performance Test	5%

Palakkad IMC – Kannambra				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
1.	Submission and approval of “Data, Drawings and analysis of Surveys & Investigations” and “Designs, Drawings and Reports	2%	Data, Drawings and analysis of Surveys & Investigations	10%
			Designs, Drawings and reports of Potable water supply network including Rising Mains and Property Connections	5%
			Designs, Drawings and reports of Recycled water supply network including Rising Mains and Property Connections	5%
			Designs, Drawings and reports of Elevated Service Reservoirs for recycled and potable water supply	5%
			Designs, Drawings and reports of Domestic sewage collection network including pumping mains and property connections	5%
			Designs, Drawings and reports of Industrial effluent collection network including pumping mains and property connections	5%
			Designs, Drawings and reports of Storm water drainage network including bridges, Structures and area grading	7.5%
			Designs, Drawings and reports of Utility/Services ducts for optical fibre cable network, power supply network and other networks including structures	10%
			Designs, Drawings and reports of roads and road structures	15%
			Designs, Drawings and reports of Project facilities	7.5%
			Designs, Drawings and reports of miscellaneous Works	5%
			WTP, STP and CETP	5%
			As built Drawings	10%
			3-D model of all Project components	5%
2.	Road Works	25.5%	Site clearance and initial activities including Earthwork up to top of the sub-grade	31%
			Granular work (sub-base, base, shoulders)	19%

Palakkad IMC – Kannambra				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
			Bituminous Works	14%
			Minor Bridges & Balancing Culverts at Road Crossing	15%
			Junctions & Miscellaneous Items	3%
			Kerbs Footways and paved areas	12%
			Traffic signs, markings and appurtenances, traffic signals & Street Lighting.	1%
			After Completion of all road works	5%
3.	Potable Water including firefighting	1.5%	Earthwork excavation for cutting, filling, disposal of the surplus earth, dewatering and sand bedding.	10%
			Supplying, Laying, erection, joining of the pumping/rising / distribution mains (DI, HDPE) jointing, Disinfecting, and fixing of the Fire Hydrants.	40%
			Valves, Valve chambers, Thrust blocks, Water service connections including water meters, in complete.	5%
			Pump house, DI pipes, valves and electrification including other miscellaneous works.	5%
			Ground Service Reservoir and Elevated Service Reservoir.	35%
			Provision of Shoring, Barricading, Hydrotesting and commissioning of complete system including pipes, valves, UGR/ESR, meters, connection, fire hydrants etc. and Provision for detailed design and drawings	5%
4.	Recycled water	1%	Earthwork excavation for cutting, filling, disposal of the surplus earth, dewatering and sand bedding.	10%
			Supplying, Laying, erection, joining of the pumping/rising / distribution mains (DI, HDPE) jointing.	45%
			Valves, Valve chambers, Thrust blocks, Water service connections including water meters, in complete.	5%
			Pump house, DI pipes, valves and electrification including other	5%

Palakkad IMC – Kannambra				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
			miscellaneous works.	
			Ground Service Reservoir / Elevated Service Reservoir, includes compound wall and Main Gate.	30%
			Provision of Shoring, Barricading, Hydrotesting and commissioning of complete system including pipes, valves, UGR/ESR, meters, connection, fire hydrants etc. and Provision for detailed design and drawings.	5%
5.	Storm Water Drainage	9%	Earthwork excavation for cutting, filling, disposal of the surplus earth.	5%
			Cement Concrete in Leveling Course	40%
			Reinforcement steel bars	25%
			Grating Cover/ Manhole Cover	1%
			Weep Holes	5%
			Bitumin Paint	1%
			Laying of HDPE pipes	2.5%
			Outfall draining to stream	5%
			Balance culvert at drain crossing the road.	10%
			Dewatering	0.5%
			Provision of Shoring, Barricading, Testing & Commissioning of complete system including pipes, connections etc. and Provision for Detailed Design and Drawings.	5%
6.	Industrial Wastewater	1.5%	Earthwork excavation for cutting, filling, disposal of the surplus earth, dewatering and sand bedding.	45%
			Supplying, Laying, erection, joining of the HDPE pipes/ RCC NP3 pipes as called in specification.	15%
			Manholes including. Drop manholes if any	30%
			Supplying, Laying, jointing, erection of chambers, property connections to Industrial Wastewater system	2.5%
			Provision of Shoring, Barricading, Testing & Commissioning of complete system including pipes, connections etc. and	7.5%

Palakkad IMC – Kannambra				
S. No.	Item	% of weightage in the contract price	Stage for Payment	% of weightage
			Provision for Detailed Design and Drawings.	
7.	Power	51.0%	Substations (MRSS1&ZSS), RMU, CSS including Civil works	28%
			Cables (66kV, 11kV and LV Cables), Earthing, Lighting and Utility plant Electrics (STP, CETP, WTP and EPS)	12%
			RCC Cable trenches, HDPE Pipes and Manholes	36%
			Temporary External Power connectivity	19%
			Testing and Commissioning of Electrical equipments	5%
8.	Common Effluent Treatment Plant	8.5%	Mechanical, Electrical, Instrumentation Control and Automation (MEICA) Works	25%
			Payment shall be made against receipt of material at site on pro-rata basis	70%
			payment shall be made against completion of Erection on pro-rata basis.	20%
			Commissioning of complete facility/system	10%
			Civil works	70%
			Payment shall be made against completion of Sub- structure/piling/raft up to plinth level on pro-rata basis.	25%
			Payment shall be made towards completion of super structure on pro-rata basis.	50%
			Completion of allied activities as handrail, painting, epoxy coat etc. on pro-rata basis.	15%
			Payment shall be made on successful Hydro-test and commissioning in totality	10%
			Successful Performance Test	5%

Note:

Commissioning & Performance Testing of STP and CETP:

if effluent is available in 42 months the commissioning to be done otherwise the contractor to provide an undertaking that he will do the commissioning and performance testing once the effluent is available within the 4 years of O&M period at no additional cost. If the effluent is not available even after 4 years from completion the contractor is relieved from the responsibility. The contractor to provide a BG equivalent to the weightage amount for commissioning and

performance testing for release of payment on non-availability of effluent.

38.2 Procedure of Estimating the Value of Road Work Done

38.2.1 Procedure of Estimating the Value of Road Work Done

Procedure for estimating the value of road work done shall be as follows;

Stage for Payment	% of weightage	Payment procedure
Road Works		
a) Site clearance and initial activities including Earthwork up to top of the sub-grade	31%	Payment shall be made on completion of a stage on pro rata basis
b) Granular work (sub-base, base, shoulders)	19%	
c) Bituminous Works	14%	
d) Minor Bridges & Balancing Culverts at Road Crossing	15%	
e) Junctions & Miscellaneous Items	3%	
f) Kerbs Footways and paved areas	12%	
g) Traffic signs, markings and appurtenances, traffic signals & Street Lighting.	1%	Payment shall be made on full completion
h) After Completion of all road works	5%	

For example, if the total length of bituminous work to be done is L km, the cost per km of bituminous work shall be determined as follows;

Cost per km of Bituminous work = P x weightage for road work x weightage for bituminous work x (1/L)

=P x 38% x 14% x (1/L)

Where,

P= Contract Price

L = Total length of Bituminous work in km

38.2.2 Procedure for estimating the value of Storm water drain Works including out fall Works done shall be as follows:

Stage for Payment	% of weightage	Payment procedure
Storm Water Drains		
a) Construction of RCC Rectangular drain.	72%	Payment shall be made on completion of a stage on pro rata basis
b) Laying of HDPE pipes, Gratings and Allied	11%	Payment shall be made on

Stage for Payment	% of weightage	Payment procedure
works, Weep Holes, Outfalls structure, road crossings, complete in all respect.		completion of a stage on pro rata basis
c) Construction of Recharge pit for rain water harvesting, Concrete lining on existing channel, Construction of check dams	12%	Payment shall be made on completion of a stage on pro rata basis
d) Testing & Commissioning of complete system including pipes, connections etc.	5%	Payment shall be made on full completion. No stage payment

38.2.3 Procedure for estimating the value of Potable water supply network & elevated service reservoirs Works including firefighting works done shall be as follows:

Stage for Payment	% of weightage	Payment procedure
Potable Water supply		
a) Supplying, Laying, erection, joining of the pumping/rising / distribution mains (DI, HDPE) with specials including earthwork for cutting, filling, disposal of the surplus earth and also provision for bedding and supplying, Laying, jointing, fixing of the Fire Hydrants	45%	Payment shall be made on completion of a stage on pro rata basis
b) Valves, Valve chambers, Thrust blocks, Water service connections including water meters, in complete	15%	Payment shall be made on completion of a stage on pro rata basis
c) Intake Structure, Pump house, pumps and electrification including other Miscellaneous Works	10%	Payment shall be made on completion of a stage on pro rata basis
d) UGR / ESR, includes compound wall and Main Gate	15%	Payment shall be made on completion of a stage on pro rata basis
e) Related Electrical Items, instruments, PLC & SCADA software and hardware.	5%	Payment shall be made on completion of a stage on pro rata basis
f) Hydrotesting and commissioning of complete system including pipes, valves, UGR/ESR, meters, connection, fire hydrants etc.	10%	Payment shall be made on full completion. No stage payment

38.2.4 Procedure for estimating the value of Recycled water supply network & elevated service reservoirs Works done shall be as follows:

Stage for Payment	% of weightage	Payment procedure
Recycled Water		

Stage for Payment	% of weightage	Payment procedure
a) Supplying, Laying, erection, joining of the pumping/rising / distribution mains (DI, HDPE) with specials including earthwork for cutting, filling, disposal of the surplus earth and also provision for bedding and supplying, Laying, jointing, fixing of the Fire Hydrants	45%	Payment shall be made on completion of a stage on pro rata basis
b) Valves, Valve chambers, Thrust blocks, Water service connections including water meters, in complete	15%	Payment shall be made on completion of a stage on pro rata basis
c) Intake Structure, Pump house, pumps and electrification including other Miscellaneous Works	10%	Payment shall be made on completion of a stage on pro rata basis
d) UGR / ESR, includes compound wall and Main Gate	15%	Payment shall be made on completion of a stage on pro rata basis
e) Related Electrical Items, instruments, PLC & SCADA software and hardware.	5%	Payment shall be made on completion of a stage on pro rata basis
f) Hydrotesting and commissioning of complete system including pipes, valves, UGR/ESR, meters, connection, fire hydrants etc.	10%	Payment shall be made on full completion. No stage payment

38.2.5 Procedure for estimating the value of Residential sewage collection network Works done shall be as follows:

Stage for Payment	% of weightage	Payment procedure
Residential Sewage Collection Network		
a) Supplying, Laying, erection, joining of the HDPE pipes/ RCC NP3 pipes as called in specification including earthwork for cutting, filling, disposal of the surplus earth and also provision for bedding	45%	Payment shall be made on completion of a stage on pro rata basis
b) Manholes including Drop manholes if any	25%	Payment shall be made on completion of a stage on pro rata basis
c) Pumping system, (else shall be paid with item described below)	10%	Payment shall be made on completion of a stage on pro rata basis
d) Supplying, Laying, jointing, erection of chambers, property connections to sewerage system	10%	Payment shall be made on completion of a stage on pro rata basis
e) Hydrotesting and commission of complete system including pipes, valves, connection etc.	10%	Payment shall be made on full completion. No stage payment.

38.2.6 Procedure for estimating the value of Industrial wastewater collection network Works done shall be as stated below:

Stage for Payment	% of weightage	Payment procedure
Industrial wastewater Collection Network		
a) Supplying, Laying, erection, joining of the HDPE pipes/ RCC NP3 pipes as called in specification including earthwork for cutting, filling, disposal of the surplus earth and also provision for bedding	45%	Payment shall be made on completion of a stage on pro rata basis
b) Manholes including. Drop manholes if any	25%	Payment shall be made on completion of a stage on pro rata basis
c) Pumping system if any, else shall be paid with item described below	10%	Payment shall be made on completion of a stage on pro rata basis
d) Supplying, Laying, jointing, erection of chambers, property connections to storm water channel and outfall structures	10%	Payment shall be made on completion of a stage on pro rata basis
e) Hydrotesting and commission of complete system including pipes, valves, connection etc.	10%	Payment shall be made on full completion. No stage payment

38.2.7 Procedure for estimating the value of Power Works done shall be as stated below:

Stage for Payment	% of weightage	Payment procedure
Power		
Substations (MRSS1&ZSS), RMU, CSS including Civil works	28%	Payment shall be made on completion of a stage on pro rata basis
Cables (66kV, 11kV and LV Cables), Earthing, Lighting and Utility plant Electrics (STP, CETP, WTP and EPS)	12%	Payment shall be made on completion of a stage on pro rata basis
RCC Cable trenches, HDPE Pipes and Manholes	36%	Payment shall be made on completion of a stage on pro rata basis
Temporary External Power connectivity	19%	Payment shall be made on completion of a stage on pro rata basis
Testing and Commissioning of Electrical equipments	5%	Payment shall be made on full completion. No Stage payment.

38.2.8 Procedure for estimating the value of STP done shall be as stated

Stage for Payment	% of weightage	Payment procedure
Mechanical, Electrical, Instrumentation Control and Automation (MEICA) Works	45%to total STP component respectively.	
a) Payment shall be made against receipt of material at site on pro-rata basis	70%	Payment shall be made on completion of a stage on pro rata basis
b) payment shall be made against completion of Erection on pro-rata basis.	20%	Payment shall be made on completion of a stage on pro rata basis
c) Commissioning of complete facility/system	5%	Payment shall be made on full completion. No Stage payment.
d) Performance Test	5%	
Civil works	55%to total STP component respectively.	
a) payment shall be made against completion of Sub-structure/piling/raft up to plinth level on pro-rata basis.	25%	Payment shall be made on completion of a stage on pro rata basis
b) payment shall be made towards completion of super structure on pro-rata basis.	50%	Payment shall be made on completion of a stage on pro rata basis
c) Completion of allied activities as handrail, painting, epoxy coat etc. on pro- rata basis.	15%	Payment shall be made on completion of a stage on pro rata basis
d) Payment shall be made on successful Hydro-test and commissioning in totality	10%	Payment shall be made on full completion. No Stage payment.

38.2.9 Procedure for estimating the value of CETP done shall be as stated

Stage for Payment	% of weightage	Payment procedure
Mechanical, Electrical, Instrumentation Control and Automation (MEICA) Works	25%to total CETP component respectively.	
a) Payment shall be made against receipt of material at site on pro-rata basis	70%	Payment shall be made on completion of a stage on pro rata basis
b) payment shall be made against completion of Erection on pro-rata basis.	20%	Payment shall be made on completion of a stage on pro rata basis
c) Commissioning of complete facility/system	5%	Payment shall be made on full completion. No Stage payment.
d) Performance Test	5%	
Civil works	75%to total CETP component respectively.	
a) payment shall be made against completion of Sub-structure/piling/raft up to plinth level on pro-rata basis.	25%	Payment shall be made on completion of a stage on pro rata basis
b) payment shall be made towards completion of super structure on pro-rata basis.	50%	Payment shall be made on completion of a stage on pro rata basis

Stage for Payment	% of weightage	Payment procedure
c) Completion of allied activities as handrail, painting, epoxy coat etc. on pro- rata basis.	15%	Payment shall be made on completion of a stage on pro rata basis
d) Payment shall be made on successful Hydro-test and commissioning in totality	10%	Payment shall be made on full completion. No Stage payment.

38.3 Procedure for payment for Maintenance

- 38.3.1 The cost for Maintenance shall be as stated in **Clause 21.1.1** of the EPC agreement.
- 38.3.2 Payment for Maintenance shall be made in quarterly instalments in accordance with the provisions of **Clause 26.7** of the EPC agreement

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39. Schedule D: Drawings

39.1 Drawings

In compliance of the obligations set forth in **Clause 17.2** of this Agreement, the Contractor shall furnish to the Employer's Engineer, free of cost, all Drawings listed in Schedule.

39.2 Additional Drawings

If the Employer's Engineer determines that for discharging its duties and functions under this Agreement, it requires any Drawings other than those listed in Schedule D, it may by notice require the Contractor to prepare and furnish such Drawings forthwith. Upon receiving a requisition to this effect, the Contractor shall promptly prepare and furnish such Drawings to the Employer's Engineer, as if such Drawings formed part of this Schedule-D. All the Drawings that the Contractor is required to furnish under **Clause 17.2** for the Construction of Roads, Water Supply, Recycled Water, Firefighting Sewerage, Storm Water Drains and Power systems are given in table below;

S. No.	Description
1	Road Works
i	Drawings of horizontal alignment, vertical profile and cross sections
ii	Drawings for all Bridges
ii	Drawings of all cross-drainage Works
iii	Drawings of all major junctions & minor junctions
iv	Drawings of road furniture items including traffic signage, markings, safety barriers, etc.
v	Any other relevant Drawings for execution of works under the scope of this agreement
2	Network Drawings
i	Layout of water supply network with valves
ii	Layout plan for recycled water
iii	Schematic plan for water supply scheme
iv	Site plan of water supply
v	Any other relevant Drawings for execution of works under the scope of this agreement
3	Standard Drawings
i	Valve chambers
ii	House service connection
iii	Thrust blocks
iv	Trench Excavation details
v	Underground reservoir - potable
vi	Underground reservoir -recycled
vii	Overhead tank- potable
viii	Overhead tank- Recycled
ix	Any other relevant Drawings for execution of works under the scope of this agreement
4	Domestic and Industrial sewer
i	RCC Manhole and Drop hole

S. No.	Description
ii	House connection chambers
iii	Pipe bedding details
iv	Typical section of sewer trench
v	GA property connections chamber for sewers
vi	Sewage pumping stations
vii	Industrial network Drawing
viii	Residential network Drawing
ix	Any other relevant Drawings for execution of works under the scope of this agreement
5	Storm water drainage network
i	Storm water drainage layout plan
ii	Details of Storm water drainage network
iii	Primary Drainage network
iv	Collection chamber
vii	RCC storm water channels
viii	Outfall structures
ix	Any other relevant Drawings for execution of works under the scope of this agreement
6	Power network
i	Substation location and cable routing Drawing
ii	Substation wise plan identification
iii	Cable trench sections
iv	Sections showing cable trench
v	Any other relevant Drawings for execution of works under the scope of this agreement
7	Treatment Plants
i	Layout and location Map
ii	Process Flow Diagram and Hydraulics drawing.
iii	GA and structural drawings

40. Schedule E: Project Completion Schedule

40.1 Project Completion Schedule for all works except STP and CETP

During Construction period, the Contractor shall comply with the requirements set forth in this Schedule-E for each of the Project Milestones and the Scheduled Completion Date. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Employer of such compliance along with necessary particulars thereof.

40.1.1 Project Milestone-I

Project Milestone-I shall occur on the date falling on the **6 months** from the Appointed Date (the “Project Milestone-I”).

Prior to the occurrence of Project Milestone-I, the Contractor shall complete all the designs for the entire Project work and shall have commenced Construction of the Project components (roads and utilities / services) and submitted to the Employer duly and validly prepared Stage Payment Statements for an amount not less than 5% (Five percent) of the Contract Price.

40.1.2 Project Milestone-II

Project Milestone-II shall occur on the date falling on the **18 months** from the Appointed Date (the “Project Milestone-II”).

Prior to the occurrence of Project Milestone-II, the Contractor shall have continued with Construction of the Project components (roads and utilities/services) and submitted to the Employer duly and validly prepared Stage Payment Statements for an amount not less than 20% (Twenty percent) of the Contract Price.

40.1.3 Project Milestone-III

Project Milestone-III shall occur on the date falling on the **36 months** from the Appointed Date (the “Project Milestone-III”).

Prior to the occurrence of Project Milestone-III, the Contractor shall have continued with Construction of the Project components (roads and utilities/services) and submitted to the Employer duly and validly prepared Stage Payment Statements for an amount not less than 75% (Seventy-five percent) of the Contract Price.

40.1.4 Scheduled Completion Date

The Scheduled Completion Date shall occur on **42 months** from the Appointed Date.

On or before the Scheduled Completion Date, the Contractor shall have completed Construction in accordance with this Agreement.

40.1.5 Extension of Time

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule including the Project milestones shall be deemed to have been amended accordingly.

40.2 Project Completion Schedule for STP and CETP works

During Construction period for STP and CETP, the Contractor shall comply with the requirements set forth in this

Schedule-E for each of the Project Milestones and the Scheduled Completion Date. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Employer of such compliance along with necessary particulars thereof.

40.2.1 Project Milestone-I

Project Milestone-I shall occur on the date falling on the **18 months** from the Appointed Date (the "Project Milestone-I").

Prior to the occurrence of Project Milestone-I, the Contractor shall complete all the designs for STP & CETP and submit to the Employer duly and validly prepared Stage Payment Statements for an amount not less than 5% (Five percent) of the Contract Price for STP and CETP.

40.2.2 Project Milestone-II

Project Milestone-II shall occur on the date falling on the **30 months** from the Appointed Date (the "Project Milestone-II").

Prior to the occurrence of Project Milestone-II, the Contractor shall have completed all civil works other than installation of Electromechanical works of STP & CETP and submitted to the Employer duly and validly prepared Stage Payment Statements for an amount not less than 50% (Fifty percent) of the Contract Price for STP and CETP.

40.2.3 Project Milestone-III

Project Milestone-III shall occur on the date falling on the **42 months** from the Appointed Date (the "Project Milestone-III").

Prior to the occurrence of Project Milestone-III, the Contractor shall have continued with Installation of Electrical and Mechanical Systems and submitted to the Employer duly and validly prepared Stage Payment Statements for an amount not less than 75% (Seventy-five per cent) of the Contract Price for STP and CETP.

40.2.4 Scheduled Completion Date

The Scheduled Completion Date shall occur on the **42 months** from the Appointed Date.

On or before the Scheduled Completion Date, the Contractor shall have completed Construction including testing and commissioning in accordance with this Agreement.

41. Schedule F: Tests on Completion

41.1 Schedule for Tests

- 41.1.1 The Contractor shall, no later than 30 (thirty) days prior to the likely completion of Construction, notify the Employer's Engineer and the Employer of its intent to subject the Project components (roads and utilities / services) to Tests, and no later than 10 (ten) days prior to the actual date of Tests, furnish to the Employer's Engineer and the Employer detailed inventory and particulars of all Works and equipment forming part of Works.
- 41.1.2 The Contractor shall notify the Employer's Engineer of its readiness to subject the Project components (roads and utilities / services) to Tests at any time after 10 (ten) days from the date of such notice, and upon receipt of such notice, the Employer's Engineer shall, in consultation with the Contractor, determine the date and time for each Test and notify the same to the Employer who may designate its representative to witness the Tests. The Employer's Engineer shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Section 19 and this Schedule.

41.2 Tests

- 41.2.1 Visual and physical test: The Employer's Engineer shall conduct a visual and physical check of Construction to determine that all Works and equipment forming part thereof conform to the provisions of this Agreement.
- 41.2.2 Riding quality test: Riding quality of each lane of the carriageway shall be checked with the help of a calibrated bump integrator and the maximum permissible roughness for purposes of this Test shall be 1800 (Eighteen Hundred) mm for each kilometer or as specified in Volume II.
- 41.2.3 Tests for bridges: All major and minor bridges shall be subjected to the rebound hammer and ultrasonic pulse velocity Tests, to be conducted in accordance with the procedure described in Special Report No. 17: 1996 of the IRC Highway Research Board on Non-destructive Testing Techniques, at two spots in every span, to be chosen at random by the Employer's Engineer. Bridges with a span of 15 (fifteen) meters or more shall also be subjected to load testing.
- 41.2.4 Water Tightness test: All hydraulic components, such as water supply network, recycled water network, sewer lines network, industrial network, joints, etc. or any other liquid containers shall have to be tested for water tightness. The water tightness test shall be conducted as specified in IS: 4127-1967.
- 41.2.5 Water Tightness test for Manhole: The entire height of the manhole shall be tested for water tightness as per CPHEEO Manual, by closing both the incoming and outgoing ends of the sewer and filling the manhole with water and the drop in water level not more than 50 mm per 24 hours shall be permitted.
- 41.2.6 Hydraulic Test: Fill the pipeline with water after it has been laid; bleed off any trapped air. Subject the lowest element in the system to a test pressure that is 1.5 times the design pressure, and check for any leakage. When, in the opinion of the engineer, local conditions require that the trenches be backfilled immediately after the pipe has been laid, apply the pressure test after backfilling has been completed but not sooner than a time which will allow sufficient curing of any concrete that may have been used. Typical minimum concrete curing times are 36 hours for early strengths and 7 days for normal strengths.

- 41.2.7 Water Tightness test for ESR: The contractor shall be fully responsible for the water tightness of the tank, the tank shall be taken as watertight if the depression in water level after filling the tank to full supply level not more than 12.20 mm in 24 Hrs. and no leakages are observed.
- 41.2.8 Other Tests: The Employer's Engineer may require the Contractor to carry out or cause to be carried additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Project components (roads and utilities / services) with Standards and Specifications.
- 41.2.9 Environmental audit: The Employer's Engineer shall carry out a check to determine conformity of the Project components (roads and utilities / services) with the environmental requirements set forth in Applicable Laws and Applicable Permits.
- 41.2.10 Safety Audit: The Employer's Engineer shall carry out, or cause to be carried out, a safety audit to determine conformity of the Project components (roads and utilities/services) with the safety requirements and Good Industry Practice.
- 41.2.11 Visual and physical test for Street lighting covering pole, luminaire, power supply, grounding, communication between luminaire to control panel and central control system.
- 41.2.12 Installation testing including lighting performance verification.
- 41.2.13 All of the electrical equipment covered by this report shall be tested in accordance with all relevant design and installation standards and codes of practices. Routine and Type test reports shall be required as minimum. The contractor shall notify the engineer, in writing, when each Section of work is complete and whole of the work is completed. Each Section of the work and whole of the work shall be tested in accordance with all relevant design and installation standards and codes of practices.

41.3 Testing

- 41.3.1 This Sub-Clause shall apply to all tests on Plant, Materials and workmanship specified in the Contract.
- 41.3.2 The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Employer's Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.
- 41.3.3 The Employer's Engineer may vary the location or details of specified tests or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract. Any additional test as described by Employer's engineer shall be done by the contractor at no extra cost to the Employer.
- 41.3.4 The Employer's Engineer shall give Notice to the Contractor not less than 24 hours prior to the tests, of the Employer's Engineer intention to attend the tests. If the Employer's Engineer does not attend at the time and place agreed the Contractor may proceed with the tests, unless otherwise instructed by the Employer's Engineer, and the tests shall then be deemed to have been made in the employer's Engineer presence.

- 41.3.5 The Contractor shall promptly forward to the Employer's Engineer duly certified reports of the tests. When the specified tests have been passed, the Employer's Engineer shall endorse the Contractor's test certificate, or Issue a certificate to him, to that effect. If the Employer's Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.
- 41.3.6 The Contractor shall carry out the Tests on Completion of Construction period in accordance with this Clause.
- 41.3.7 The Contractor shall give Notice to the Employer's Engineer not less than 21 days prior to the date after which the Contractor will be ready to carry out each of the Tests on Completion of Construction period. Unless otherwise agreed, Tests on Completion of Construction period shall be carried out within 14 days after this date, on such day or days as the Employer's Engineer shall instruct.
- 41.3.8 Unless otherwise stated, the Tests on Completion of Construction period shall be carried out in the following sequence and are further detailed in the Employer's Requirements:
- 41.3.9 Pre-commissioning tests, which shall include the appropriate inspections and ("dry" or "wet") functional tests to demonstrate that each item of Plant can safely undertake the next stage, (b); commissioning tests, which shall include the specified operational tests to demonstrate that the Works or Section can be operated safely and as specified, under all available operating conditions; and trial operation, which shall demonstrate that the Works or Section perform reliably and in accordance with the Contract.
- 41.3.10 The Employer shall be the sole beneficiary of any revenue or benefit resulting from the Tests on Completion of Construction period.
- 41.3.11 During trial operation, when the Works are operating under stable conditions, the Contractor shall give Notice to the Employer's Engineer that the Works are ready for any other Tests on Completion of Construction period, including performance tests to demonstrate whether the Works conform with criteria specified in the Employer's Requirements and with the Schedule of Guarantees.
- 41.3.12 Trial operation shall not constitute a commencement of the Operation Service. The O&M shall only start after issue of Completion Certificate.
- 41.3.13 In considering the results of the Tests on Completion of Construction period, the Employer's Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed each of the Tests on Completion of Construction period described in above sub-paragraph, the Contractor shall submit a report certified by the Contractor of the results of these Tests to the Employer's Engineer.
- 41.3.14 If the Tests on Completion of Construction period are being unduly delayed by the Contractor, the Employers Engineer may by Notice require the Contractor to carry out such Tests within 21 days after receiving the Notice. The Contractor shall carry out such Tests on the day or days within that period as the Contractor may fix and of which he shall give Notice to the Employer's Engineer.
- 41.3.15 If the Contractor fails to carry out the Tests on Completion of Construction period within the period of 21 days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

- 41.3.16 If the Tests on Completion of Construction period are being unduly delayed by the Employer, an extension of time shall be provided by the employer for such delay, if the completion is or will be delayed.

41.4 Retesting of the Works

- 41.4.1 If the Works, or a Section, fail to pass the Tests on Completion of Construction period, and the Employers Engineer or the Contractor may require the failed Tests, and Tests on Completion of Construction period on any related work, to be repeated under the same terms and conditions.

- 41.4.2 Failure to Pass Tests on Completion of Construction period

- 41.4.3 If the Works, or a Section, fail to pass the Tests on Completion of Construction period repeated under above Sub-Clause (Retesting of the Works) the Employers Engineer shall be entitled to: order further repetition of tests on Completion of Construction period under Sub-Clause (Retesting of the Works]; or If the Contractor fails to carry out any obligation under the Contract, the Employer's Engineer shall by Notice require the Contractor to make good the failure and to remedy it within the time specified in the said Notice.

41.5 Completion Certificate

- 41.5.1 Upon successful completion of Tests, the Employer's Engineer shall issue the Completion Certificate in accordance with the provisions of Section19.

42. Schedule G: Substantial Completion Certificate and Completion Certificate for Construction Works

42.1 Substantial Completion Certificate

I, (Name of the Employer's Engineer), acting as Employer's Engineer, under and in accordance with the Agreement dated (the "Agreement"), for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudussey Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis" Contract through (Name of Contractor), hereby certify that the Tests in accordance with Section 19 of the Agreement have been undertaken to determine compliance of the Project with the provisions of the Agreement.

- 1) Construction Works that are incomplete on account of Time Extension have been specified in the Punch List appended hereto, and the Contractor has agreed and accepted that it shall complete all such Works in the time and manner set forth in the Agreement. In addition, certain minor Works are incomplete, and these are not likely to cause Material inconvenience to the users of the Project or other their safety. The contractor has agreed and accepted that as a condition of this Substantial Completion Certificate, it shall complete such minor Works within 30 (thirty) days hereof. These minor Works have also been specified in the aforesaid Punch List.
- 2) In view of the foregoing, I am satisfied that that Project can be safely and reliably placed in service of the users thereof, and in terms of the Agreement, the Project is hereby provisionally declared fit for entry into operation on this theday of20

ACCEPTED, SIGNED, SEALED
DELIVERED

SIGNED, SEALED AND DELIVERED AND

For and on behalf of

For and on behalf of

Contractor By

Employer's Engineer by:

(Signature)

(Signature)

42.2 Completion Certificate for Construction Works

I, (Name of the Employer's Engineer), acting as Employer's Engineer, under and in accordance with the Agreement dated (the "Agreement"), for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis" through (Name of Contractor), hereby certify that the Tests in accordance with Section 19 of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I am satisfied that the Project can be safely and reliably placed in service of the Users thereof.

It is certified that, in terms of the aforesaid Agreement, all Works forming part of Project Works have been completed, and the Project Works is hereby declared fit for entry into operation on this theday of20

SIGNED, SEALED AND DELIVERED For and on behalf of

Employer's Engineer by:

(Signature) (Name) (Designation)

(Address)

43. Schedule H: Payment Reduction for Non-Compliance

43.1 Payment reduction for non-compliance with the Maintenance Requirements except Treatment Plants

- 43.1.1 Quarterly lump sum payments for Maintenance shall be reduced in the case of non-compliance with the Maintenance Requirements set forth in Schedule-Q.
- 43.1.2 Any deduction made on account of non-compliance with the Maintenance Requirements shall not be paid even after compliance subsequently. The deduction shall continue to be made every month until compliance is done.
- 43.1.3 The Employer's Engineer shall calculate the amount of payment reduction on the basis of weightage in percentage assigned to non-conforming items as given in Paragraph 2.

43.2 Percentage reductions in lump sum payments except Treatment Plants

The following percentages shall govern the payment reduction

43.2.1 Percentage reductions for Road Works, Bridge Works, Other Road Works

S. No.	Item/Defect/Deficiency	Percentage
1	(a) + (b) + (c) (of the applicable Quarterly Maintenance amount)	43%
(a)	Road Works (Carriageway/Pavement, Road, Embankment, Cuttings, Shoulders etc.)	45%
(i)	Potholes, cracks, other surface defects	20%
(ii)	Repairs of Edges, Rutting	5%
(iii)	Edge drop, inadequate cross fall, undulations, settlement, potholes, ponding, obstructions	10%
(iv)	Deficient slopes, rain cuts, disturbed pitching, vegetation growth, pruning of trees	10%
(b)	Bridge Works (Bridges and Culverts)	15%
(i)	De-silting, cleaning, vegetation growth, damaged pitching, flooring, parapets, wearing course, footpaths, any damage to	5%
(ii)	Any Defects in superstructures, bearings and sub-structures	3%
(iii)	Painting, repairs/replacement kerbs, railings, parapets, guideposts/crash barriers	7%
(c)	Other Road Works (Road Furniture, Miscellaneous Items)	40%
(i)	Cleaning, painting, replacement of road signs, delineators, road markings, 200 m/km/5th km stones	10%
(ii)	Removal of dead animals, broken down/accidental vehicles, fallen trees, road blockades or malfunctioning of mobile crane	10%
(iii)	Maintenance of Multi-purpose corridors, drainage and protective Works	10%
(v)	Defects in Other Project Facilities related to road works	10%

43.2.2 Percentage reductions for Storm Water Drain Works, Potable water supply network & elevated service reservoirs Works, Recycled water supply network & elevated service reservoirs Works, Domestic sewage collection network Works and Industrial effluent collection network Works.

S. No.	Item	Percentage
1	Storm Water Drain Works (of the applicable Quarterly Maintenance amount)	20%
(i)	De-silting, Channel cleaning, overflows in surrounding areas	50%
(ii)	De-silting at outfall, outfall Maintenance & hygiene conditions	50%
2	Potable water supply network & elevated service reservoirs Works (of the applicable Quarterly Maintenance amount)	2%
(i)	Rising and distribution network repairs, valve and flow meters repairs and calibrations, refilling of trenches	75%
(ii)	Elevated service reservoirs leakages, valves & flow meters repairs and calibrations	25%
3	Recycled water supply network & elevated service reservoirs Works (of the applicable Quarterly Maintenance amount)	3%
(i)	Rising and distribution network repairs, valve and flow meters repairs and calibrations, refilling of trenches	75%
(ii)	Elevated service reservoirs leakages, valves & flow meters repairs and calibrations	25%
4	Domestic sewage collection network Works (of the applicable Quarterly Maintenance amount)	2%
(i)	De-silting, overflows in surrounding areas, manholes damages.	100%
5	Industrial effluent collection network Works (of the applicable Quarterly Maintenance amount)	2%
(i)	De-silting, overflows in surrounding areas, manholes damages.	100%

43.2.3 Percentage reductions for Power systems

S. No.	Item	Percentage
1	Power systems	26%
(i)	Non-Compliance of power factor	50%
(ii)	Tripping of Transformer/power failure for continuous period of 2hours	30%
(iii)	Cables faults not repaired within 24 hours	20%

iv) Penalty due to Power Factor

In the event during operation in any operating month the Contractor maintains a power factor which is lower than a power factor of 0.95, penalty @ 1.25 times the penalty as charged by Kerala Electricity Board to the Employer during the said month shall be charged to the Contractor.

This shall be in addition to the above penalty as mentioned in clause **43.2.3**.

- 43.2.4 The amount to be deducted from Quarterly lump-sum payment for non-compliance of particular item mentioned in clause **43.2.1** and **43.2.2** shall be calculated on a pro-rata basis for each of the above items as under

$$R = P/100 * Q * L1/L$$

Where

P= Percentage of particular item/non- compliance/Defect/deficiency for deduction.

For example in Road Works, if pothole is not repaired within 24 hours in one kilometer, the percentage of non-compliance item P is 70%x20%=14.0%

Q= Quarterly lump-sum payment for Maintenance in accordance with the Contract Agreement.

L1= Non-complying length of the particular Item

L= Total length of the particular Item,

R= Reduction (the amount to be deducted for noncompliance for a particular item /Defect /deficiency

The total amount of reduction shall be arrived at by summation of reductions for such items/ Defects/ deficiency or noncompliance.

- 43.2.5 For any Defect in a part of one kilometer, the non-conforming length shall be taken as one kilometer.

43.3 Penalties for Treatment Plants (STP, CETP)

43.3.1 Penalties during plant Operation and Maintenance

Treatment plants will be considered for Operation and Maintenance only upon commissioning, successful completion of Performance test.

The Operation and Maintenance fees is excluding Power Charges as referred, which shall be paid directly by CBIC to the Power Utility.

Penalties shall be levied due to not meeting stipulated guarantee parameters as per the Contract. The penalties shall be levied as follows: -

- a) Power – In the event during plant operation in any operating month, the Contractor maintains a power factor which is lower than a power factor of 0.95, penalty @ 1.25 times the penalty as charged by Kerala State Electricity Board to the Employer during the said month shall be charged to the Contractor.

In addition to the same, the contractor shall be liable for payment of excess demand charges levied by the EB to the employer every month and these shall be @ 1.5 times the actual demand charges.

The Power Consumption (PC) of the Plant is the Power Consumption of entire facility including treated water pumping within the facility and all other auxiliary power with the facility, which is defined to be the total amount of electricity consumption (in kWh) which is necessary to produce one cubic meter of treated water as measured at the water meter installed on the product water main within the premises, and which does not include, for the avoidance of doubt, the electricity demand, if any.

The Contractor shall specify the power per m³ of treated water. In the event, the Contractor consumes more power

than the specific power stipulated by the Contractor as per forms provided at the end of this schedule, penalty for extra power shall be levied @ 150% of the unit rate specified by Kerala State Electricity Board.

- b) Quantity of net output treated water The Quantity of treated water produced as measured on the water meter installed on the treated water main within the premises of plant shall be calculated on a monthly basis.

In the event Contractor is unable to deliver stipulated quantity of net treated water which is measured @ m³ per day x number of days per month, penalty shall be levied as follows:

- $= 1.5 \times \{(T_Q - T_P)/T_Q\} \times \text{Total Operation and Maintenance cost as per Contract Price for respective treatment plant (as per schedule contract price weightages)}$

Wherein,

T_Q is the Total Treated Water Output, in m³ per day.

T_P is the Total Treated Water Output Quantity as measured on the water meter installed on the product Water Main within the plant premises, in m³ per day.

- c) Quality of treated water produced- In the event Contractor is unable to deliver stipulated Quality of treated water as per Contract Rs. 50,000 per day shall be levied.

43.4 Guarantee form 1: Related to Penalties for STP during Operation and Maintenance

Description	Unit	Figure
The power consumption per m ³ of treated sewage produced	kWh/ m ³	
Quantity of net output treated sewage	m ³ /day	

Note: All Figures to be filled by Bidder.

43.5 Guarantee form 2: Related to Penalties for CETP during Operation and Maintenance

Description	Unit	Figure
The power consumption per m ³ of treated effluent produced	kWh/ m ³	
Quantity of net output treated effluent	m ³ /day	

Note: All Figures to be filled by Bidder.

44. Schedule I: Selection of Employer's Engineer

44.1 Selection of Employer's Engineer

- 44.1.1 The provisions of the Model Request for Proposal for Selection of Technical Consultants, issued by the Ministry of Finance in May 2009, or any substitute thereof shall apply for selection of an experienced firm to discharge the functions and duties of an Employer's Engineer. PMNC has been entrusted with the role of independent employer's engineer.
- 44.1.2 In the event of Termination of the Technical Consultants appointed in accordance with the provisions of Paragraph **44.1.1**, the Employer shall appoint another firm of Technical Consultants forthwith and may engage a Government-owned entity in accordance with the provisions of Section **44.3** of this Schedule-I.

44.2 Terms of Reference

The Terms of Reference for the Employer's Engineer (the "TOR") shall substantially conform with conditions as below:

- 1) Scope
 - a) These Terms of Reference (the "TOR") for the Employer's Engineer are being specified pursuant to the EPC Agreement dated..... (the "Agreement"), which has been entered into between theName of Employer (the "Employer ") and (the "Contractor") for Design, Construction, Testing, Commissioning and Operation & Maintenance of Infrastructure Works at Pudukkottai Central & Kannambra of Palakkad Node in Kerala under extension of Chennai Bengaluru Industrial Corridor (CBIC) to Kochi via Coimbatore "On EPC Basis" and a copy of which is annexed hereto and to form part of this TOR.
 - b) The TOR shall apply to design, Construction and Maintenance of the Project Roads and Services
- 2) Definitions and interpretation
 - a) The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
 - b) References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.
 - c) The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, mutatis mutandis, to this TOR.
- 3) General
 - a) The Employer's Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.
 - b) The Employer's Engineer shall perform the duties and exercise the authority in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the Employer /PMNC before determining:
 - i. any Time extension;
 - ii. any additional cost to be paid by the Employer to the Contractor;
 - iii. the Termination Payment;
 - c) The Employer's Engineer shall submit regular periodic reports, at least once every month, to the Employer in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Employer's Engineer within 10 (ten) days of the beginning of every month.

- d) The Employer's Engineer shall inform the Contractor of any delegation of its duties and responsibilities to its suitably qualified and experienced personnel provided, however, that it shall not delegate the authority to refer any matter for the Employer's prior approval in accordance with the provisions of **Clause 25.2**.
 - e) The Employer's Engineer shall aid and advise the Employer on any proposal for Change of Scope under Section **20**.
 - f) In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Employer's Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.
- 4) Construction Period
- a) During the Construction Period, the Employer's Engineer shall review the Reports, Designs and Drawings furnished by the Contractor along with supporting data, including the geo-technical and hydrological investigations, characteristics of Materials from borrow areas and quarry sites, topographical surveys, and the recommendations of the Safety Consultant in accordance with the provisions of **Clause 17.1.7**. The Employer's Engineer shall complete such review and send its observations to the Employer and the Contractor within 21 (twenty one) days of receipt of such Reports, Designs and Drawings. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.
 - b) The Employer's Engineer shall review any revised Reports, Designs and Drawings sent to it by the Contractor and furnish its comments within 10 (ten) days of receiving such Reports, Designs and Drawings.
 - c) The Employer's Engineer shall review the (a) Quality Assurance Plan (b) Health, Safety and Environmental Management Plan submitted by the Contractor and shall convey its comments to the Contractor within a period of 21 (twenty-one) days stating the modifications, if any, required thereto. The Employer's Engineer shall ensure the Contractor's Project Management requirements, BIM and CAD requirements regularly on a monthly basis to the Employer.
 - d) The Employer's Engineer shall complete the review of the methodology proposed to be adopted by the Contractor for executing the Works and convey its comments to the Contractor within a period of 21 (twenty one) days from the date of receipt of the proposed methodology from the Contractor.
 - e) The Employer's Engineer shall review the monthly progress report furnished by the Contractor and send its comments thereon to the Employer and the Contractor within 7 (seven) days of receipt of such report.
 - f) The Employer's Engineer shall inspect the Construction Works and the Project Roads and shall submit a monthly Inspection Report bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. In particular, the Employer's Engineer shall include in its Inspection Report, the compliance of the recommendations made by the Safety Consultant.
 - g) The Employer's Engineer shall conduct the pre-Construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the Employer's Engineer may require.
 - h) For determining that the Works conform to Specifications and Standards, the Employer's Engineer shall require the Contractor to carry out, or cause to be carried out, Tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph, the Tests specified in the relevant Codes or any modification/substitution thereof and standards for shall be deemed to be Tests conforming to Good Industry Practice for quality assurance.
 - i) The Employer's Engineer shall test check at least 20 (twenty) percent of the quantity or number of Tests prescribed for each category or type of test for quality control by the Contractor.
 - j) The timing of Tests referred to in bullet vii, and the criteria for acceptance/ rejection of their results shall be

determined by the Employer's Engineer in accordance with the Quality Control Manuals and/or the relevant Codes and Standards. The Tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the Tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice.

- k) In the event that results of any Tests conducted under **Clause 18.10** establish any Defects or deficiencies in the Works, the Employer's Engineer shall require the Contractor to carry out remedial measures.
 - l) The Employer's Engineer may instruct the Contractor to execute any work which is urgently required for the safety of the Project Works, whether because of an accident, unforeseen event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of **Clause 28.6** shall apply.
 - m) In the event that the Contractor fails to achieve any of the Project Milestones, the Employer's Engineer shall undertake a review of the progress of Construction and identify potential delays, if any. If the Employer's Engineer shall determine that completion of the Project Works is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Employer's Engineer shall review the same and send its comments to the Employer and the Contractor forthwith.
 - n) The Employer's Engineer shall obtain from the Contractor two copies of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant to **Clause 19.4**.
 - o) Employer's Engineer may recommend to the Employer Suspension of the whole or part of the Works if the work threatens the safety of the Users and pedestrians. After the Contractor has carried out remedial measure, the Employer's Engineer shall inspect such remedial measures forthwith and make a report to the Employer recommending whether or not the Suspension hereunder may be revoked.
 - p) In the event that the Contractor carries out any remedial measures to secure the safety of suspended Works and Users, and requires the Employer's Engineer to inspect such Works, the Employer's Engineer shall inspect the suspended Works within 3 (three) business days of receiving such notice, and make a report to the Employer forthwith, recommending whether or not such Suspension may be revoked by the Employer.
 - q) The Employer's Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-F and issue a Completion Certificate or Substantial Completion Certificate, as the case may be. For carrying out its functions under this Paragraph and all matters incidental thereto, the Employer's Engineer shall act under and in accordance with the provisions of Section **19** and Schedule-F.
- 5) Maintenance Period
- a) The Employer's Engineer shall aid and advise the Contractor in the preparation of its monthly Maintenance Programme and for this purpose carry out a joint monthly inspection with the Contractor.
 - b) The Employer's Engineer shall undertake regular inspections, at least once every month, to evaluate compliance with the Maintenance Requirements and submit a Maintenance Inspection Report to the Employer and the Contractor.
 - c) The Employer's Engineer shall specify the Tests, if any, that the Contractor shall carry out, or cause to be carried out, for the purpose of determining that the Project Works is in conformity with the Maintenance Requirements. It shall monitor and review the results of such Tests and the remedial measures, if any, taken by the Contractor in this behalf.
 - d) In respect of any Defect or deficiency referred to in Paragraph 3 of Schedule-Q, the Employer's Engineer shall, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.
 - e) The Employer's Engineer shall examine the request of the Contractor for closure of any lane(s)/utilities lines of the Project Roads and/or Services for undertaking Maintenance/repair thereof, and shall grant permission

with such modifications, as it may deem necessary, within 5 (five) days of receiving a request from the Contractor. Upon expiry of the permitted period of closure, the Employer's Engineer shall monitor the reopening of such lane(s), and in case of delay, determine the Damages payable by the Contractor to the Employer under **Clause 21.5**.

6) Determination of costs and time

- a) The Employer's Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.
- b) The Employer's Engineer shall determine the period of Time Extension that is required to be determined by it under the Agreement.
- c) The Employer's Engineer shall consult each Party in every case of determination in accordance with the provisions of **Clause 25.5**.

7) Payments

- a) The Employer's Engineer shall withhold payments for the affected Works for which the Contractor fails to revise and resubmit the Drawings to the Employer's Engineer in accordance with the provisions of **Clause 17.2.4 (d)**.
- b) Employer's Engineer shall -
 - i. within 15 (Fifteen) days of receipt of the Stage Payment Statement from the Contractor pursuant to **Clause 26.4**, determine the amount due to the Contractor and recommend the release of the amount so determined as stage payment, pending issue of the Interim Payment Certificate; and
 - ii. within 15 (fifteen) days of the receipt of the Stage Payment Statement referred to in **Clause 26.4**, deliver to the Employer and the Contractor an Interim Payment Certificate certifying the amount due and payable to the Contractor, after adjustments in accordance with the provisions of **Clause 26.10**.
- c) The Employer's Engineer shall, within 15 (fifteen) days of receipt of the Quarterly Maintenance Statement from the Contractor pursuant to **Clause 26.6**, verify the Contractor's statement and certify the amount to be paid to the Contractor in accordance with the provisions of the Agreement.
- d) The Employer's Engineer shall certify final payment within 30 (thirty) days of the receipt of the final payment statement of Maintenance in accordance with the provisions of **Clause 26.16**.

8) Other duties and functions

The Employer's Engineer shall perform all other duties and functions as specified in the Agreement.

9) Miscellaneous

- a) A copy of all communications, comments, instructions, Drawings or Documents sent by the Employer's Engineer to the Contractor pursuant to this TOR, and a copy of all the test results with comments of the Employer's Engineer thereon, shall be furnished by the Employer's Engineer to the Employer forthwith.
- b) The Employer's Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.
- c) Within 30 (thirty) days of the Project Completion Date for construction works, the Employer's Engineer shall obtain a complete set of as-built Drawings, in 5 (five) hard copies and in micro film form or in such other medium as may be acceptable to the Employer, reflecting the Project as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Project Works and setback lines, if any, of the buildings and Structures forming part of Project Facilities; and shall hand them over to the Employer against receipt thereof.
- d) The Employer's Engineer, if called upon by the Employer or the Contractor or both, shall mediate and assist

the Parties in arriving at an amicable settlement of any Dispute between the Parties.

- e) The Employer's Engineer shall inform the Employer and the Contractor of any event of Contractor's Default within one week of its occurrence.
- f) The Employer's Engineer, if called upon by the Employer, shall attend the meetings on Project reviews, discussions to be held at Employer's office with required reports and presentations.

44.3 Appointment of Government entity as Employer's Engineer

Notwithstanding anything to the contrary contained in this Schedule, the Employer may in its discretion appoint a Government-owned entity as the Employer's Engineer; provided that such entity shall be a body corporate having as one of its primary functions the provision of consulting, advisory and supervisory services for engineering Projects; provided further that a Government-owned entity which is owned or controlled by the Employer shall not be eligible for appointment as Employer's Engineer.

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45. Schedule J: Forms of Payment Statements

45.1 Stage Payment Statement for Works

The Stage Payment Statement for Works shall state:

- 1) The estimated amount for the Works executed in accordance with **Clause 26.3.1** subsequent to the last claim; The payment for connection for all utilities including water, waste water, sewerage, recycled water, power and storm water shall be paid on actual number of connects as executed.
- 2) Amounts reflecting adjustments in price for the aforesaid claim;
- 3) The estimated amount of each Change of Scope Order executed subsequent to the last claim;
- 4) Amounts reflecting adjustment in price, if any, for (c) above in accordance with the provisions of **Clause 20.2.3** (a);
 - a) Total of (a), (b), (c) and (d) above;
 - b) Deductions:
 - i. Any amount to be deducted in accordance with the provisions of the Agreement except Taxes;
 - ii. Any amount towards deduction of Taxes; and
 - iii. Total of (i) and (ii) above. (g) Net claim: (e) – (f) (iii);
- 5) The amounts received by the Contractor up to the last claim:
 - a) For the Works executed (excluding Change of Scope orders);
 - b) For Change of Scope Orders, and
 - c) Any deductions
 - d) Taxes deducted

45.2 Quarterly Maintenance Payment Statement

The Quarterly Statement for Maintenance Payment shall state:

- 1) the Quarterly payment admissible in accordance with the provisions of the Agreement;
- 2) the deductions for Maintenance work not done;
- 3) net payment for Maintenance due, (a) minus (b);
- 4) amounts reflecting adjustments in price under **Clause 26.12**; and
- 5) amount towards deduction of Taxes

45.3 Contractor's claim for Damages

Note: The Contractor shall submit its claims in a form acceptable to the Employer / Employer's Engineer.

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46. Schedule K: Insurance

46.1 Insurance during Construction Period

- 46.1.1 The Contractor shall affect and maintain at its own cost, from the Appointed Date till the date of issue of the Project Completion cum Taking Over Certificate or last as specified, the following insurances for any loss or damage occurring on account of Non-Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:
- a) insurance of Works, Plant and Materials and an additional sum of [15 (fifteen)] per cent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and
 - b) Insurance for the Contractor's equipment and Documents brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.
 - c) The Contractor shall effect and maintain at its own cost, from the Appointed Date till the date of issue of the last Completion Certificate and during the full 4 year O&M period from the issue of completion certificate, the following insurances for any loss or damage occurring on account of Non-Political Event of Force Majeure, malicious act, accidental damage, explosion, fire, terrorism and War and Riots Protection Insurance.
 - d) The contractor shall maintain Third Party Motor Vehicle Liability Insurance for all the vehicles deployed on site for use of Contractor/Employer/Employer's Engineer.
- 46.1.2 The insurance under paragraph 46.1.1 (a) and (b) above shall cover the Employer and the Contractor against all loss or damage from whatsoever cause arising under paragraph 46.1.1 other than risks which are not insurable at commercial terms.
- 46.1.3 "All risks of loss including theft of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the Exceptional Risks are the responsibility of the Contractor. Any loss not insured or not recovered (including policy excesses etc.) from insurers shall be borne by the Contractor. All insurances shall be in the joint name of contractor and the Employer (wherever applicable). The contract shall maintain a Contractors All Risk Policy (CAR) for the entire duration of the contract including O&M period for the entire facility" The Contractor shall also take additional covers (Add-On covers) insurance like Third Party Liability, Surrounding properties, Clearance and Removal of debris, Cross liability, Express Freight, Extended Maintenance Cover up to Final Takeover, etc. The sum insured for such Add-On covers shall be decided by the Contractor based on his assessment and risk involved in the contract. Risks to be covered by insurance shall not be limited merely to the items mentioned above. The Contractor shall arrange for insurance of any other risks he may deem prudent, but the expenses thereof shall be to the account of the contractor only. If necessary, Plant and Machinery, Transit and storage (all risks) insurance coverage for additional transit involved for sending equipment/material to Sub-Contractor/Fabricator's shop for fabrication/ reprocessing and receiving back at site shall be taken.

46.2 Insurance for Contractor's Defects Liability

The Contractor shall affect and maintain Insurance Cover for the Works from the date of issue of the Completion Certificate for construction works until the end of the Defects Liability Period or O&M period whichever is greater for any loss or damage for which the Contractor is liable and arises from a cause occurring prior to the issue of Project Completion cum taking Over Certificate. The Contractor shall also maintain other insurances for maximum sums as

may be required under the Applicable Laws and in accordance with Good Industry Practice.

46.3 Insurance against injury to persons and damage to property

- 46.3.1 The Contractor shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Paragraph 1 and 2 of this Schedule or to any person (except persons insured under **Clause 26.9**), which may arise out of the Contractor's performance of this Agreement and occurring before the issue of the Performance Certificate. This insurance shall be for a limit per occurrence of not less than the amount stated below with no limit on the number of occurrences. The Insurance Cover shall be not less than: Rs. 20 Lakhs.
- 46.3.2 The insurance shall be extended to cover liability for all loss and damage to the Employer's property arising out of the Contractor's performance of this Agreement excluding:
- a) the Employer's right to have the Construction Works executed on, over, under, in or through any land, and to occupy this land for the Works; and
 - b) Damage which is and unavoidable result of the Contractor's obligations to execute the Works.

46.4 Insurance to be in joint names

The insurance under this section **46** shall be in the joint names of the Contractor and the Employer (wherever applicable)

47. Schedule L: BIM and CAD Requirements

47.1 Objective

- The Employer mandates the use of advanced computer based dynamic 3D-model driven approach for the detailed planning, design, engineering, Construction and operation of the Palakkad node to allow simulation, visualization and engineering analysis of all transportation, utility, building, civil Works and geospatial infrastructures.
- This includes an aggregate dynamic 3D Building Information Model (BIM) for the city infrastructure systems with 3D building models. 3D civil infrastructures, 3D models for rail, roads and underground and above ground utilities systems participating.
- 3D infrastructure modelling tools shall be used to develop and produce Project models and simulations (e.g. in case of natural calamity etc.) as required for submittals.
- The 3D infrastructure Information Models are to be used throughout the design, Construction and operational life-cycle of the asset, including but not limited to for system collision detections, Materials quantification, Construction sequencing and carbon impact analysis.
- 3D infrastructure models use shall be maximized for Project reviews, decision support, design analysis, and quality assurance during all phases of this program.

47.2 General

47.2.1 Purpose

- 1) The purpose of the 3D Building Information Modelling (BIM) requirements describes the use of computer aided design (CAD), geographical information systems(GIS) and building information modelling (BIM) for the work under the Contract.
- 2) These requirements shall be used as a reference for the Design & Build Contractor to develop specific Work Package BIM Execution Plan (BEP) that shall detail the specific CAD/GIS/BIM software used within the Work Package to control the specific BIM and CAD process. The outputs from this process will be Drawings and 3D models as PDF's that will be input to the Project Management Information System.
- 3) BEPs establish the methodology for managing the production, distribution and quality of the design information generated by CAD, GIS and BIM systems, using a disciplined process for collaboration and a specified file and model naming policy.
 - BIM Project Execution Plan Overview Information: Document the reason for creating the Project Execution Plan.
 - Project Information: The Plan should include critical Project information such as Project numbers, Project location, Project description, and critical schedule dates for future reference.
 - Key Project Contacts: As part of the reference information, A BIM Plan should include contact information for key Project personnel.
 - Project Goals / BIM Objectives: This Section should document the strategic value and specific uses for BIM on the Project as defined by the Project team in the initial step of the planning procedure.
 - Organizational Roles and Staffing: One of the primary tasks is to define the coordinator(s) of the BIM planning and execution process throughout the various stages of the Project. This is particularly important when identifying the organization(s) who will initiate the development of the BIM Plan, as well as the required staff to successfully implement the plan.
 - BIM Process Design: This Section should clearly illustrate the execution process through the use of process maps which are developed in the second step of the planning procedure.

- **BIM Information Exchanges:** The model elements and level of detail required to implement each BIM use should be clearly defined in the information exchanges requirements.
- **BIM and Facility Data Requirements:** The owner's requirements for BIM must be documented and understood.
- **Collaboration Procedures:** The team should develop their electronic and collaboration activity procedures. This includes the definition of model management procedures (e.g., file structures, and file permissions) as well as typical meeting schedules and agendas.
- **Model Quality Control Procedures:** A procedure for ensuring that the Project participants meet the defined requirements should be developed and monitored throughout the Project.
- **Technology Infrastructure Needs:** The hardware, software and network infrastructure required to execute the plan should be defined.
- **Model Structure:** The team should discuss and document items such as model structure, file naming structure, coordinate system, and modelling standards.
- **Project Deliverables:** The team should document deliverables required by the owner.
- **Delivery Strategy / Contracts:** This Section should define the delivery strategy which will be used on the Project.

47.2.2 Scope

- 1) This BIM requirement document outlines the roles and responsibilities that are necessary for a successful collaborative 3D Building Information Modelling (BIM) approach.
- 2) The Project Management Information System (PMIS) and Common Data Environment (CDE) will be mandated for the structure and the controlled sharing of the building information with known provenance and status in a multi-disciplinary environment.
- 3) BIM Uses that have been established as required thus far are:

BIM Uses	Description/Comments
Existing Conditions Modelling	This will require the gathering of existing conditions information from a range of sources, and validating the quality, accuracy and reliability of that information for use on the Project. The physical extent of what is needed to be modelled is to be determined, based on location, physical/spatial/visual relationship and potential impact on the Project. Areas or elements identified as posing risk to the Project should be communicated clearly to inform future risk mitigation efforts. In the absence of anything better, a default standard will be used to achieve this.
Site Analysis	The Site context should be understood thoroughly and acknowledged within the design, accounting for factors that may impact on siting/position of proposed Construction Works, such as interfaces with existing structure or services, vistas, nearby land use, hydraulic analysis, geo tech and topographic conditions, Site access/egress issues, traffic flows, other infrastructure and so on.
Design Authoring	A process in which software is used to develop a Building Information Model based on criteria important to the communication of the building's design. Two types of software applications are core to the BIM-based design process: design authoring tools and audit and analysis tools. Authoring tools are used to create models while audit and analysis tools draw from or enhance the richness of information in a model. Most audit and analysis tools can be used for Design Reviews and Engineering Analysis BIM Uses. Design authoring tools are required in the first instance, and employ a powerful database of properties, quantities, means and methods, costs and schedules.
Design	The BIM can be used to generate rendered images, animated fly-throughs and read-

BIM Uses	Description/Comments
Visualization	only versions of the model as requested by the Employer (with due notice) to support effective communication of the design intent of the building. This is critical for stakeholder engagement at a number of levels and Project stages.
Interference Detection	General coordination will take place during early design via visual inspection and design coordination Workshops. In particular, coordination efforts will be applied to key pinch points, such as cores, risers, plenum spaces, and Plant areas. Aggregation/intensity of interferences detected will further inform priority zones and element types. Late in the design process, and particularly for Preconstruction planning (during early Construction stage), interference severity criteria will be defined, and interference rules configured that will support element-level coordination. Good interference rule definitions will be key to avoiding 'false positives' and ensuring efforts are spent on eliminating real issues.
Design Review	A process in which stakeholders interrogate and interact with a 3D model to validate various design criteria. These may include evaluating the ability to meet the program, previewing spatial or visual relationships in a virtual environment, layout, sightlines, lighting, security, ergonomics, acoustics, textures and colors, etc. This BIM use can be achieved with the BIM software, a computer and display, and someone to 'drive' the model.
Planning of Construction Scheduling and Sequencing	This focuses on planning or staging and sequencing of major Works, predominantly for stakeholder communication and buy-in, in order demonstrate that the design is buildable. The contractor shall adhere to Employers preferred systems on the Construction methodology to be employed and would be responsible for modelling and communicating this as part of their work. Typically this is something that engineers are able to provide (as part of validating design approach), though for actual Works by the contractor, the contractor will be responsible.
Record Modelling	This entails updating the Project federated model to represent an as-built record of the as-constructed Works. The basis for the model updates is currently sketches and other records provided by the contractor to the design team during Construction. The precise level and method of field verification that is to occur is yet to be determined.

4) The following terms are specific to the BIM requirements:

- **3D Building Information Modelling and Management (BIM):** The managed approach to the collection and exploitation of information across the life cycle of a built environment asset. At its heart are computer generated 3D and 2D models containing all graphical and tabular information about the design, Construction and operation of the asset.
- **BIM Execution Plan (BEP):** The BIM Execution Plan (BEP) is to be submitted to address the issues raised in the EIR and then with more detail post- contract award to explain the contractor's methodology for delivering the Project using BIM.
- **BS1192:** Collaborative production of architectural, engineering and Construction information. Code of practice.
- **Project Management Information System (PMIS):** A Common data environment (CDE) — a single source of engineering information for the Project. It is used to collect, manage and disseminate all relevant approved Project documents.
- **ECM (Engineering Content Management):** Set of hardware/software and processes that control the engineering content of CAD models and Drawings together with their versions within the constraints of the PMIS.
- **Geospatial System:** Name or description of the system of spatial referencing by coordinates used for geographical information.
- **COBIE:** Construction-Operations Building Information Exchange – a standard spreadsheet data format that

controls the transition of as built data into operations and Maintenance.

- **Uniclass:** Unified classifications for the Construction industry.
- **Workspace:** A predefined folder structure containing configuration and content relevant to the specific application.
- **Master Document Index (MDI):** A list of agreed model file and Drawing deliverables produced by the Contractor against agreed milestones.
- **2D/3D Model:** A design model with entities having two/three-dimensional properties which are coordinated to the agreed geospatial reference system.
- **Model composite:** A model file containing multiple references of 2D/3D models coordinated using a common geospatial reference system to form a complete model representation of the information.
- **Model extraction:** A 2D model file containing elements generated from an external 3D model, usually in the form of sections, elevations and plans. Can contain graphical or non-graphical content.
- **Model files (MD2/MD3):** Native CAD files that can be in the form of a 2D or 3D model.
- **Model rendition (MDR):** Output from a model file, model renditions provide static 'snap-shots' in a form that enables the information to be viewed, printed and marked up.
- **Output file:** A generated rendition of graphical or non-graphical information (a plan, section, elevation, schedule, table or other view of a Project).
- **Model view:** The view within CAD files which contains entities or reference files using real—world coordinates
- **Originator:** The author of models, Drawing and documents.
- **Production Drawing:** An immutable electronic plot (PDF) produced from a Drawing definition, having received all necessary reviews prior to issue.
- **Zone:** A manageable spatial 2D or 3D subdivision of a model allowing more than one person to work on the model, floor plan or staircase etc. at a time. Each zone is a reference file and when all references are viewed in a 'model composite' the full model shall be represented.
- **Status:** Defines the 'fitness' of information in a model, Drawing or document
- **WIP:** Work In Progress: each individual company or discipline's own work. This is information that has not been issued or shared with other Parties. Refer to BS1192.
- **Shared:** Information that has been reviewed and is available to other Parties. Refer to BS1192.
- **Published:** Documents and other data outputted from Shared information. Typically this shall include contract Drawings, reports and specifications but can also include information for data exchange between BIM software, such as LandXML, IFC files. Refer to BS1192.
- **Component:** An individual building element that can be reused. Examples include doors, stair cores, furniture or internal room layouts, facade panels, etc. Components are typically inserted and moved/rotated into the required position.
- **Assembly:** A composition or collection of components and/or modelled elements arranged to define part or all of a building model, structure or site. An Assembly typically contains information that can be referenced without repositioning.
- **Container:** An optional 'parent' repository which can be used to compile assemblies and components for specific purposes including export and publication. A Container can exist for each individual profession/discipline or for multiple disciplines, for buildings or for a complete Project.
- **Layer/Level:** Attribute given to entities within CAD files that enables their visibility to be controlled. Further values may be assigned to the attribute to control whether it can be edited or deleted.

- **IFC:** Industry Foundation Class is a neutral and open specification file format. The data model facilitates interoperability between object based software platforms.
- **LandXML:** LandXML is a specialized XML data file format containing civil engineering and survey measurement data commonly used in the Land Development and Transportation Industries.

5) Responsibility

The Design and Build Contractor shall provide: A structured BIM approach to the production of all required design and as built data and information for these Works under the Contract, modelled on BS1192 Collaborative production of architectural, engineering and Construction information; Code of practice;

- Evidence that an all discipline integration, coordination and resolution process has taken place in a collaborative 3D object orientated CDE, the outputs of which meet or better the Employer's Requirements;
- A uniform and interoperable software/hardware platform across the entire Work Package, in that any software used shall be consistent with the principles of the sharing of multi-disciplinary object data in a CDE; That data shall include geometry and object attributes; Compatibility between software and hardware platforms, including processes for any interfaces with other Work Packages, as to ensure seamless integration at all areas of overlap;
- An Engineering Content Management System (ECM) which shall be configured to the CDE workflows consistent with those set out in BS1192 and integrate with Employers PMIS
- Access to the (ECM) for the Engineer;
- Structured data sets:
 - Detailed Design Stage 1
 - Detailed Design Stage 2
 - As-Built Drawings
- The data sets shall include all plot composition files and associated references, all models and associated references, all associated object and attribute data in mandated format; All renditions of the above (PDFs) all as listed in the Master Document Index (MDI);
- A copy of the database from the ECM system and its files store;
- All data in a structured (Level/Layer/Filename) format consistent with UK
- AEC Uniclass.
- All As-Built data in a structured (format) consistent with the Construction Operations Building Information Exchange (COBie) format;
- Suitability trained personnel with the appropriate capabilities to execute the specific roles and responsibilities as outlined this BIM requirements, CAD and GIS manuals contained herein;

6) The Engineers BIM Manager:

- Defines the Program BIM requirement;
- Ensures the BIM process serves the engineering and business requirement during the design and build phase of the Works;
- Ensures that data schema declared for the program serves the engineering requirements of the design and build phase of the Works;
- Ensures industry best practice is utilized for the BIM implementation and to facilitate the transition of design and as built data into operational data and information for SIA.
- Ensures seamless integration with other adjoining/other relevant contract work packages

7) The Contractors BIM Manager:

- Produces a general BIM implementation plan for their specific Works package, together with the Contractor's Design Coordination Manager, containing:
- Statements on how the work packages shall be zoned, the level of BIM resolution required in what zones, the number of specific discipline models that will be included what level of detail each of these models shall achieve for each stage for the design and build workflow.
- Statements on the level of program integration and Construction sequencing with the BIM model.
- Statements on how the interface with other Works packages shall be achieved and managed.
- Ensures the Contractors BIM systems are providing the tools, process is centered on the delivery of structured, coordinated and accurate information.
- Ensure that all CAD. GIS. BIM data is compatible consistent and accurate, and all BIM processes are compliant with BS 1192.
- Ensures the Contractors BIM processes serves the engineering and business requirement of managing multi-discipline collaborative workflows, CAD QA, Clash resolution, program linkage and Construction sequencing.
- Coordinates the Project needs for IT solutions.
- Coordinates the agreed Project BEPs and updates to the BEPS.
- Ensures compliance with those standards and methods.
- Shall be responsible for resolution of all interdisciplinary/other contract work packages and interface resolution.
- Provides the focal point for all file and document management issues in the Project
- Ensures that all information is compliant with standards and that each model or file has been signed off 'fit for purpose'.

8) The Contractors Lead Designer:

- Manages the design, including information development and approvals.
- Confirms the design deliverables of the design team, establishes the zone strategy and ownership.
- Signs and approves the Documentation for detail design coordination on and prior to passing to 'shared'. Ref BS 1192 workflow.

9) The Contractors CAD Manager:

- Ensure that all CAD models and Drawings are delivered to the SIA use agreed IT solutions and are according to the agreed Project requirements.
- Ensure that all object attribute data is structured and is compliant with the Project SMPs Ref BS1192. This role should be responsible to the Contractor's BIM Manager.
- Completion of a table of names assigned to the roles described above and submit it to the Employer as a reference document.
- Ensure that all Drawing production shall be in line with CAD standard Guidelines

47.2.3 The Engineering Content Management (ECM) System

- 1) The Contractor shall produce ECM system information sufficiently detailed to produce traditional Drawings or documents as views of multi-authored data.
- 2) The Contractor shall develop and utilize a suitable ECM system that allows for a suitable permissions matrix, workflow, referencing, version control, process and information hierarchy that is consistent with the principles of

the CDE for all models and Drawings.

- 3) The Contractor shall provide access to the ECM system for the Engineer.

47.3 BIM Modelling

47.3.1 Design Authoring Requirements

- i. Model Accuracy and Tolerances: Models will include all appropriate dimensioning as needed for design intent and assessment. See Level of Detail (LoD) and included model elements.
- ii. Modelling Units: The following units shall be used for developing modelling content. The relevant scale factors and adjustments shall be incorporated when federating models with dissimilar units:

47.4 Recommended Software Requirement:

Function	Software	Version	Operating System
x 3D Infrastructure Modeling	Autodesk Civil 3D	Latest Compatible Version	Windows 10 (64 Bit Recommended)
	Bentley MX Road/ In Roads	Latest Compatible Version	
x 3D Rail Infrastructure Modeling	Bentley Rail Track	Latest Compatible Version	
x 3D BIM modeling for Buildings	Autodesk Revit	Latest Compatible Version	
	AECOSim Building Designer	Latest Compatible Version	
x Project Review and coordination 5D Schedule Simulation	Autodesk Navis Works Manage	Latest Compatible Version	
	Bentley Navigator	Latest Compatible Version	
x 3D BIM and GIS integration/ coordination	Autodesk Infra Works	Latest Compatible Version	
	Bentley Micro Station	Latest Compatible Version	
Water Network Modeling	Bentley Water GEMS	Latest Compatible Version	
Sewer Network Modeling	Bentley Sewer GEMS	Latest Compatible Version	
Storm Network Modeling	Bentley Storm CAD	Latest Compatible Version	
Structural Analysis	STAAD Pro	Latest Compatible Version	
Drafting	AutoCAD	Latest Compatible Version	
GIS	Bentley Micro Station	Latest Compatible Version	
	ArcMap	Latest Compatible	

Function	Software	Version	Operating System
		Version	
Publishing Publish read only single file containing graphical and non-graphical attribute information for multi discipline BIM models	I model Plug-in's <ul style="list-style-type: none"> • For Revit • For Adobe (Reader) 	Latest Compatible Version	
3D/2D Models, Drawings and Maps	Autodesk DWG True View	Latest Compatible Version	
Office	Microsoft Office	Latest Compatible Version	

48. Schedule M: Guideline for Health, Safety and Environment Plan

The Contractor shall provide a General and Administrative HSE Procedures that will engage the welfare of labor, staff and others abiding by the rules and regulations and provide for records to the Employer's Engineer.

The Contractor shall prepare specific HSE plans based on the specific Construction procedures to be adopted specifically for this Project to address complexity, safety and welfare of labor/staff/equipment as per the details given below.

1) HSE Standards

The contractor shall ensure that all personnel engaged (including sub-contractors) with the project shall be conversant with and at all times comply with the HSE standards for the project. The HSE standards for the project shall include the relevant Contract Documents; India HSE legislation, Relevant IS standards (Bureau of Indian Standards) & Project HSE documents (prepared by Safety Consultant of contractor approved by Employer's Engineer.).

2) Legislation

For the purposes of the project relevant Indian HSE legislations shall apply to the project as dictated by the various Ministries including but not at the least – Ministry of Labor & Employment; Department of Labor – Government of Kerala; Ministry of Environment, Forest and Climate Change.

3) HSE Management System

The contractor shall ensure that they will have an HSE policy and an HSE Management system (including safe work procedures) that is documented, visibly endorsed by the company's top management and implemented & maintained at the project. The contractor shall ensure that the safe working procedures meet the requirements of the relevant IS standards and are relevant to the works being undertaken by the contractor.

The contractor shall also ensure that the scope of their HSE Management system (including safe work procedures) shall cover not only all areas & tasks being undertaken by the contractor on the project but also cover the areas & tasks being undertaken by any of their sub-contractor, interfaces with the Employer's Engineer & Employer.

4) HSE Risk Management

The contractor shall ensure that they employ best practice methods and meet all legal requirements in identifying, assessing and controlling HSE hazards. They shall document these methods and the outcomes.

5) Hazard identification and control

The contractor shall identify hazards and their control measures through a formal hazard identification process. The contractor shall also ensure that they have a written safe work procedure for all the works to be undertaken on the project. Any works that do not have a written work procedure shall have a detailed method statement & job safety analysis (JSA)/risk assessment in place. No work shall be undertaken without an approved method statement & risk assessment in place.

The contractor shall submit written summaries of upcoming work (Two week look ahead) tasks and associated risk control measures to the Employer's Engineer to discuss the risks of upcoming work tasks and the planned mitigation measures in the weekly progress/HSE meetings.

6) HSE Enforcement

The Employer's Engineer or its representatives shall have the right at any time to audit or inspect Contractor facilities, procedures, and safety management systems. The Contractor shall fully co-operate in such reviews and

shall implement recommendations at its own cost where Project HSE Standards or statutory rules and regulations are contravened. Contractor shall ensure the timely closing out of issues raised via these HSE assessments.

The Employer's Engineer will bring to the attention of Contractor any situation where the Employer's Engineer observes, or is informed of, a contravention of the HSE rules and procedures or unsafe acts; or a situation where those contraventions or unsafe acts identified are not considered likely to present an immediate risk, but are likely to lead to injury, ill health or damage to the environment.

If the Employer's Engineer observes, or is informed of, a contravention of the safety rules and procedures or unsafe acts, and if those contraventions or unsafe acts identified are considered likely to present an immediate risk to personnel, then they shall have the authority to stop such work until remedial actions have been addressed to prevent such unsafe acts from recurring.

If contraventions or unsafe acts persist or present an imminent risk of serious injury or ill health to the persons involved, Employer's Engineer will have the right to stop work being performed and to order a suspension of the execution of any new work in that part or parts of the Works affected by Contractor's HSE violation or negligence.

Suspension of work shall be measured from the date of issue of an instruction from Employer's Engineer to Contractor to suspend work on that particular part of the Works until the unacceptable safety violation has been fully rectified. In such an instance, Contractor shall have no right to claim for any extension of time or to claim for compensation for the suspension of the work or for the waiving of the liquidated damages.

Contractor shall not resume provision of the Works affected until the Employer's Engineer is satisfied that the non-compliance has been rectified.

In addition to enforcement requirements stated in HSE legislations, Contract Requirements and Project HSE standards, the Employer's Engineer may require the removal any person from the site, who in the opinion of Employer's Engineer , fails to observe HSE procedures. That person shall not be employed again on the project or any of the sites without the written approval of the Employer's Engineer .

The Contractor shall be responsible for enforcing the Site HSE Rules and Regulations upon its Subcontractors and all other persons entitled to be on any work sites.

7) Environmental Management

The contractor shall specify in their HSE plan measures applied to avoid harm to the environment. These measures shall meet the requirements of the HSE standards as described in document.

8) HSE Personnel

The contractor shall ensure that adequate HSE personnel are appointed on the project. No HSE personnel on the project shall be appointed without prior written permission from Employer's Engineer . The Contractor shall ensure that all HSE personnel meet the requirements as dictated by the project HSE standards.

9) Competence and Training

The contractor shall ensure that that all personnel are competent, capable and qualified to a level that allows them to work without creating unnecessary risk for themselves and others. All personnel shall have and maintain the necessary HSE competencies to perform work on the project to the required HSE standards.

The contractor shall ensure that all supervisory personnel have formal training in supervisory activities and specialist HSE training to conduct their duties.

The contractor shall ensure that a project HSE training matrix is produced. The training matrix shall include the

various positions on the project and detail the HSE training that is required for each position.

10) HSE Orientation Training

The Contractor shall ensure that all personnel working at the project receive an induction HSE training explaining the nature of the work, the hazards that may be encountered during the site work and the particular hazards attached to their own function within the operation on the first day of work on the project. The training shall cover the contents as detailed within the Project HSE standards.

The contractor shall ensure that any new personnel are informed in an equal manner.

11) ID card & Booklet

The contractor shall ensure that all personnel working on the project (including sub- contractors) be issued with a photo identity card duly signed by the authorized representative of the contractor before they are engaged for any work.

The contractor shall also issue a personal HSE handbook in a language known to the workers, which provides information on HSE and emergency procedures that all working personnel are required to know and need to follow. Contractor shall ensure that this is distributed, and its content introduced to all personnel working at the site.

12) Intervention

The contractor shall have implemented a system that assures competence (including HSE) of personnel. For those roles where no suitable recognized competence standards exist, the contractor shall provide, upon the Employer's Engineer's request, information on the selection criteria and/or method used to provide assurance of individual competence.

The contractor shall establish and agree with the Employer's Engineer a key list of personnel undertaking taking HSE critical roles. The list shall identify these key individuals by name and by (key) role. For every role on this list, the contractor shall define minimum requirements for HSE competences and qualifications relevant to the work.

The contractor shall minimize turn-over of HSE personnel, where possible, to ensure established competence levels and to minimize role discontinuity. The contractor shall obtain the Employer's Engineer's written approval prior to replacing any personnel on the list.

The contractor shall have implemented a system that records the training of personnel. The contractor shall keep training records up-to-date and shall furnish information about the system and/or records of training upon request by Employer Engineer/ PMNC.

13) Medical fitness to work

The contractor shall ensure that all personnel engaged on the project are medically fit for the job to be undertaken. Where required, the contractor shall be able to demonstrate that personnel, selected for key positions are evaluated for their fitness to work on the project.

14) HSE Communications and Meetings

The contractor shall ensure efficient and effective HSE communication and consultation with all personnel involved on the project. This includes but is not limited to toolbox meetings prior to the start of work, regular worksite HSE meetings with all parties involved (including subcontractors).

The contractor shall participate in any HSE meetings as organized by the Employer's Engineer .

15) HSE Performance Reporting

The contractor shall submit on a monthly basis an HSE performance report to the Employer's Engineer. This report shall contain as a minimum the following data, as related to the project:

- A list, including a brief description, of all incidents (including near misses and potential incidents);
- Number of Fatalities (FAT);
- Number of Lost Workday Cases (LWC);
- Number of Restricted Workday Cases (RWC);
- Number of Medical Treatment Cases (MTC);
- Number of First Aid Cases (FAC);
- Number of Environmental Non-conformances;
- Number of Environmental Spills;
- Leading performance indicators as agreed with the Employer's Engineer .
- Additional project specific HSE performance data, as to be agreed with the Employer's Engineer.

The format & content for the HSE performance report shall be agreed with the Employer's Engineer prior to the commencement of the project.

16) Target and Objective setting

The contractors HSE goal shall be "Target Zero" to reflect the projects commitment to an accident free workplace. The contractor's targets and objectives shall be focused on leading indicators and pro-active efforts to reduce the likelihood and severity of incidents.

17) HSE Incident Management

The contractor shall report any HSE incident and/or accident, related to contractor activities or personnel, to the Employer's Engineer within 1 hour & to the National or Local authorities as required by relevant legislation. It shall be the responsibility of the contractor to ensure timely reporting of such accidents/incidents.

The contractor shall also notify the Employer's Engineer immediately of any near misses and significant potential incidents, arising from the contractors or sub- contractors activities associated with the project, related to:

- Harm to contractor and or Sub Contractor personnel or Third Party;
- Harm to the environment,
- Damage to, or loss of, contractor or sub-contractor /Third party assets;
- Harm to Client/PMNC/Contractor reputation.

The contractor shall fully investigate any incidents on the project and cooperate with the Employer's Engineer and participate as necessary in any investigation of HSE incidents as required by the project HSE standards.

18) Emergency Preparedness and Response

The contractor shall maintain a documented, robust fit-for-purpose Emergency Response Plan for the project. The contractor shall also provide fit-for-purpose survival equipment, first-aid equipment, life-saving equipment, fire-fighting equipment and oil/chemical spill equipment. The contractor shall ensure that involved personnel are trained and competent in its use.

The contractor shall develop and maintain a programme of training and exercises to ensure competency of all individuals and teams involved in the emergency response teams in accordance with the project HSE standards.

19) HSE Audits, Reviews and Inspections

The contractor shall perform audits, reviews and inspections on the project as required by project HSE standards. During these audits, reviews and inspections, the contractor shall verify that they have fulfilled any and all legal obligations; including conditions and stipulations in all relevant licenses, consents and permits and that the work on the project is performed in accordance.

The contractor shall develop a detailed HSE inspection & audit schedule for the project and submit copies of the reports to the Employer's Engineer.

20) HSE Records

The contractor shall retain all relevant HSE records resulting from work on the project in line with relevant legislation & project HSE standards. Copies of these records shall be maintained by the contractor on the project site and shall be made available to the Employer Engineer /PMNC on demand.

21) Sub-Contractor Management

The contractor shall ensure that all sub-contractors comply with all the HSE standards relevant to the project (including these conditions).

The contractor shall be accountable for the sub-contractors HSE performance.

22) Project HSE plan

The contractor shall prepare and submit to the Employer's Engineer a project HSE plan which covers all work under the project. This project HSE plan shall be reviewed by the contractor at regular intervals of not less than 6 months.

23) Substance abuse

The contractor shall ensure that that all personnel working on the project do not at any time partake of, be under the influence of drugs, alcohol, sedatives or other similar intoxicating substances, other than for bona fide medical reasons.

24) Any personnel found contravening with the above will be removed from the project with immediate effect and Contractor HSE Plan Template

48.1 Template for Contractor HSE Plan

This plan is provided as a guidance template for the Contractor to include in their HSE plan. The sections mentioned in this HSE plan template will be the minimum standards that the Contractors HSE plan will be assessed against.

Section No	Titles of sections	Details of what is required in each section
Contractor must ensure that these sections are included in their Construction HSE plan. The details in the sections are provided as guidance.		
1.0 Section 1 - Project Details		
1.1	Project Specific Details	Contractor to provide contact information for Key Contractor personnel. Contact information to include Name, Mobile number, email id. Key personnel include: <ul style="list-style-type: none"> Contractor Project Director Contractor Project manager

Section No	Titles of sections	Details of what is required in each section
		<ul style="list-style-type: none"> Contractor Construction manager Contractor HSE Manager Contractor General Foremen.
1.2	Details of other Consultants	Details as above of any consultants that the contractor may employ on the Project.
1.3	Project Security	<p>Contractor to detail the Site security arrangements that will be in place on the Project. Suggestions as below:</p> <ul style="list-style-type: none"> Site entrance control points Identity card system Vehicle barrier types Visitors to Site procedures Delivery vehicle procedures Vehicle parking restrictions Need for 24hr cover etc.
1.4	Welfare Arrangements	<p>Contractor to detail what arrangements will be made on Site to ensure that appropriate welfare facilities are provided and maintained according to the size of the workforce and nature of the work.</p> <p>As a minimum, an assessment must be carried out to determine specific welfare requirements and arrangements throughout the Project, from day one to the last day persons are on site.</p> <p>Consideration must be given to any requirements for male / female changing, showers or disabled facilities, etc. Details to be included:</p> <ul style="list-style-type: none"> What type and size of facilities are required? When they will be operational, State what the initial set up is and what the subsequent set up will be Where they are located. Produce clear layout Drawing Who provides and maintains each facility? Expected standards and monitoring requirements.
1.5	Project Organization Chart	Contractor to include a detailed organization chart with names, designations & contact numbers for the Project.
1.6	Arrangements for communication	<p>Contractor to detail how they plan to communicate HSE with the different Parties on the Project. For example what kinds of HSE meetings will be held on the Project, how often, who will attend etc. Suggestions HSE Communication include:</p> <ul style="list-style-type: none"> Regular team meeting. Early morning meetings with key personnel. Formal correspondence (e.g. Appointment Letters). Management Walks Toolbox talks Trainings
1.7	Project Goals	Contractor to detail what are the Project HSE goals.
1.8	HSE Compliance monitoring	Contractor to detail how HSE compliance monitoring will be conducted, who will conduct how often this will be conducted.

Section No	Titles of sections	Details of what is required in each section
1.9	Senior Management HSE monitoring	Contractor to detail how Senior management on the Project will be involved in HSE monitoring, How often will they be involved, what is the process.
2.0 Section 2 - Information and Training for People on Site		
2.1	Inductions & Trainings	Contractor to detail the methods by which they will check that people on Site have been satisfactorily inducted & trained. Suggestions include:- <ul style="list-style-type: none"> • Arrangements for delivery – i.e. who does the induction? Who does the training? • Arrangements by which management are informed of new starters; • Arrangements for recording of inductions/trainings? • Any passes, or other identification issued after induction • Arrangements for re-induction or safety updating as the contract enters a new phase or persons are transferred to a different section. • What are the training arrangements for the Project?
2.2	Site Safety Rules	Contractor to detail what Site safety rules will be developed or is available for the Project.
3.0 Section 3 - Contractor Management		
3.1	Selection of Contractors	Contractor to detail how they will select sub-contractors on the Project. <ul style="list-style-type: none"> • How will they ensure that only competent HSE contractors are on site? • How do they plan to communicate HSE issues with the sub-contractors • How do they plan to coordinate the Works with the sub- contractors
3.2	Selection of Plant	Contractor to detail how they will ensure that only safe Plant & equipment is bought to the Project. <ul style="list-style-type: none"> • How will they check the Plant & equipment? • How often • Who will check
4.0 Section 4 - Emergency Procedures		
4.1	First Aid	Contractor to detail what are the first aid arrangements that will be made on site. For example: <ul style="list-style-type: none"> • Locations of first aid boxes • Names of First aid personnel and their locations • Location of First Aid room • Numbers of First Aider's required • Location of accident book
4.2	Fire and Emergency Procedures	Contractor to detail what are the fire safety arrangements that will be available on site. For example: <ul style="list-style-type: none"> • Fire points – How many, where will they be located • What kind of extinguishers will be available? • What kind of training will be available

Section No	Titles of sections	Details of what is required in each section
		<ul style="list-style-type: none"> What will the emergency actions be for the Project
4.3	Accident & Incident reporting	<p>Contractor to detail what are the accident & incident reporting procedures for the Project. For example:</p> <ul style="list-style-type: none"> How will accidents be reported? To whom? Who will coordinate? How will they be recorded?
5.0 Section 5 - Arrangements for Controlling Significant Site Risks		
5.1	Production of Method Statements	Contractor to detail how method statements will be checked for HSE hazards & risks?
5.2	Risk Assessments	<p>Contractor to detail how risk assessments will be produced?</p> <ul style="list-style-type: none"> Who will produce these? How will they be reviewed? Methods of communicating to the workforce on the content of the risk assessments. How will sub-contractor risk assessments be checked for the above?
6.0 Section 6 - Environmental Management		
6.1	Environmental Management Strategy	<p>The contractor to detail how they plan to manage the environmental aspects of the Project. Suggestions include:</p> <ul style="list-style-type: none"> Environmental management plan. Project specific Environmental processes Environmental aspects & impact register
6.2	Waste Management Planning	<p>Contractor to detail how they plan to manage waste (Construction, hazardous & non-hazardous). Suggestion include:</p> <ul style="list-style-type: none"> How will waste be collected on site? How do they plan to dispose the waste? Who will dispose it, where?
6.3	Environmental Emergency plans	<p>Contractor to detail what are the environmental emergency plans for the Project. Suggestion include:</p> <ul style="list-style-type: none"> Who will initiate action? Who will report? To whom? What are the foreseen emergencies?

49. Schedule N: Project Management Requirements

The Contractor shall perform all the Project Management activities necessary for proper planning, management and control of the work. Below are the Project management requirements which Contractors needs to comply at different stage of the Projects:

- 1) Participate in the Project kick-off Workshop with Project stakeholders designated by Employer/ Employer's Engineer . The kick-off Workshop shall accomplish the following objectives:
 - Common understanding of the Project goals and objectives
 - Define respective roles and responsibilities and
 - Agree on the methods of communication and reporting throughout the Project duration.
- 2) Participate in monthly Project status review meetings and present the Project progress update in the meeting. The frequency of Project status review meetings may change based on actual requirements.
- 3) Schedule: The Contractor shall submit detailed schedule with narration in soft and hard copies that cover's the full scope of Contractor's work within 30 calendar days of date of appointment. This will be reviewed within 15 calendar days by Employer's Engineer. The Contractor shall incorporate the comments and resubmit the schedule no later than 15 calendar days after receiving the comments from Employer's Engineer. Upon approval the above schedule will become the baseline schedule for all the future monitoring and tracking.

The Contractor should keep to the following guidelines

- i. Develop and incorporate a detailed Work Breakdown Structure (WBS) for all Project schedules that are submitted.
- ii. All schedules shall be created, maintained and submitted to Employer /Employer's Engineer in Oracle Primavera P6 or higher version of Primavera P6 in an electronic format.
- iii. All schedules shall follow the Critical Path Method (CPM) of scheduling and shall have meaningful and realistic logical ties and relationships between activities.
- iv. The use of negative lags is not permitted in the baseline and all other versions of the schedule.
- v. The schedule must contain all the long lead procurement items identified.
- vi. Shall exercise reasonableness while assigning constraints in schedule and milestones
- vii. The Contractor shall allocate the Contract amount in detail to all the activities. It shall be used as guide for progress (S-Curve) monitoring only. Progress S-Curve to be updated each month and Progress Measurement will be on the basis of Earned Value Management.
- viii. The Contractor shall provide narration with all the calculations, reports, forecast, supporting documents and detailed list of assumptions made on the development of the project schedule.
- ix. Activities shall comprise of specific and measurable elements of work. Durations for each activity shall be calculated using productivity rates.
- x. All schedules shall be resource loaded and Resource Histogram shall be submitted along with schedule.
- xi. Upon approval, the copy of the Baseline schedule will become the first Current Schedule. The Contractor shall not change the approved schedule unless instructed in writing by the Employer/ Employer's Engineer. It shall be used as basis for measuring progress performance.
- xii. The Current schedule shall be actively updated and maintained by the Contractor every month.
- xiii. The updated Primavera P6 schedule file should be submitted every month along with Monthly progress report in electronic format. A pdf copy of the updated schedule with all activities also needs to be submitted

- xiv. A schedule narrative document shall accompany the updated electronic schedule describing the work performed in the reporting period.
- xv. Two month look ahead schedule should be submitted along with the Monthly Progress Report.
- 4) Cash Flow: Cash Flow shall be extracted from Baseline Schedule and Updated Schedule every month. Cash Flow shall be submitted along with Monthly Progress Report to show the actual versus plan and updated on monthly basis
- 5) Lessons Learned Database: The Contractor shall develop and actively maintain a “lessons learned” database on a monthly basis (to be included in the monthly Project report) and submit it to Employer’s Engineer/ Employer at the end of the Project during closeout.
- 6) Risk Register: Maintain an active risk register addressing the risks and mitigation measures (could be in excel format) that lists the Project risks related to their Scope of Work. Risk Register shall be updated every month and to be submitted every month along with Monthly Progress Report.
- 7) Inter-Project Links: Identify potential inter-Project links, inter-dependencies or conflicts/ interference to work or work areas and narrate them in the monthly progress report.
- 8) Monthly Progress Report: Prepare and submit a monthly progress report no later than 7th of each month (standard format and template will be provided by Employer’s Engineer at a later date). Items 3 to 7 mentioned above shall be the minimum information that will need to be included in the monthly progress report.
- 9) For better collaboration, Contractor shall use the Programme and Document Management system that will be provided by Employer/Employer’s Engineer at a later date and pay for the cost of procuring licenses to use the system.

Payments are subject to timely submission of monthly progress report and the monthly updated electronic schedule file in the required and acceptable format.

10) Non – Compliance

If the Contractor fails to submit Baseline Schedule within Thirty (30) days after appointed date or the Baseline Schedule is not approved by the Employer’s Engineer within Three (3) months after the first submission, or the Updated Schedule within time prescribed, then the Employer’s Engineer shall deduct retention of Five Percent (5%) of the Contractor’s Progress Payment over and above the Retention Money specified under clause 14.5 until such time that the Contractor has provided submissions that are acceptable to the Engineer. The sum retained will not earn interest and shall only be released to the Contractor upon due certification by the Employer’s Engineer that the amount retained may be released to the Contractor.

50. Schedule O: Aerial Photography

50.1 Aerial photography

50.1.1 Aerial images need to be taken maintaining a GSD (Ground Sample Distance) GSD of ~3cm to ~5cm per pixel or better. Necessary pre-marking or post marking of ground control points are required for precise geo-referencing of the images. It is required that each GCP (Ground Control Point) is clearly identifiable in the aerial image after processing.

50.1.2 Followings are the steps for image processing:

- Identification and marking of GCP on the Site before processing the aerial imageries. Minimum number of GCP should not be less than 20-25 for any village settlement.
- Perform aerial photography at an approximate photo scale of 1:500, using high resolution daylight camera (16MP or more) with geo-tagging (RTK GPS), high precision, and photogrammetric aerial camera.
- Pre-processing of acquired images with on board GPS data in the UAV (Unmanned aerial vehicles)/INS (inertial navigation system)/IMU (inertial measurement unit) system, base station GPS and GCP (ground control points).
- Existing fine resolution DEM data can be use or create the new DEM using break lines and mass points is used along with camera the same data can be used for undertaking ortho rectification of image data.
- Ensure uniform pixel resolution across RGB and panchromatic bands if all the bands are used in the data acquisition.
- Identification of GCP locations earlier associated with the aerial imageries and performs geo reference images overlapping 60% forward and 30% side.
- Perform precisely geo-referencing of image with 20-25 GCP in a village and 7-12 GCP outside village parcels.
- Hardcopy of the ortho images are to be used for field verification of land parcel and for further correction process as and when required by the Employer within the contract period.
- Record Visible and identifiable features like but not limited to Buildings, other structures, including fence, building corners of the enclosed stack flare station, former power Plant building, fence lines, tanks, major pieces of stationary equipment, utility poles and visible utilities (manholes, etc.), stockpiles, edge of roads, trails, paved areas, and gravel areas, grade breaks/tops and bottoms of slopes and other major Site features.

50.1.3 Flight Frequency

- Aerial photography (as described above) shall be performed every Six month or as directed by the Employer/Employer's Engineer.

50.1.4 Imagery Acquisition:

Components	Description
Coverage Area	Pudussery Central & Kannambra, Palakkad IMC
Pixel Size	~3cm to ~5cm, 24-bit true colour
Flight Height	Not more than 4000 ft. (Shall be consider as per the Site conditions*)
Accuracy	National Map Accuracy Standard (NMAS) suitable scale 1 : 500 mapping.
Camera	High resolution camera (16MP or more)

Components	Description
Photographic Conditions	Ground must be free of fog, snow, haze, dust, and smoke
Image Quality	<ul style="list-style-type: none"> • Clear and sharp in detail • Less than 5% cloud cover and/or shadow shall not appear in any of the image. • No “warped” bridges, underpasses, or roads • No “image smear” or “stretched” area on images • No inconsistencies in tone and density between adjacent image tiles • Must be radio metrically & geometrically corrected to enable adjacent image tiles to be displayed simultaneously without obvious distinctions between them. • Seasonal and temporal differences should not show differences across image join lines. • The solar angle must be 30-degrees or more above the horizon at the time of exposure.
Overlapping	60% forward and 30% side

**Height should be considered appropriately (for best result) as per best practices.*

50.1.5 Delivery Schedule:

- Flight Plans – Within 10 days of contract
- Orthophotos – Within 30 days of acquisition
- All Remaining Deliverables – Within 60 days of acquisition

50.1.6 Deliverables:

- Part I - Ground Control Point (GCP) in ESRI GIS format.
- Part II - Raw & processed Ariel imagery in GeoTIFF format.
- Part III - Geo referencing images in GeoTIFF format.
- Part IV - Contour Map, Metadata of all details in ESRI GIS format.
- Part V - DTM / DEM, Contours
- Digital map has to be in *.shp format (in CD/DVD)

50.1.7 Recording Objections:

- A register shall be maintained by the contractor to record and track the objections. The objections should also be flagged in the Digital Topographic Data Base (DTDB) for better control and monitoring.
- The contractor shall assist the Government officers in resolving the objections.
- Contractors shall finalize the necessary recording of objection format between Ministry of Defense, DGCA, Ministry of Environment and Forest District Magistrate, Local Police Authority or any other Government department whichever is applicable before the commencement of work.

51. Schedule P: Reports

51.1 Site Investigation Report

Secondary Site Investigation Report/ Data is available with Employer. Bidders can obtain the same from the Employer.

Bidder to note that- The above data is for reference only. Preliminary investigations are in the scope of contractor and it requires the bidder (contractor) to do its own investigations and not rely on any done before. Contractor should also acknowledge and represents that "he has carried out own investigations and analysis and to check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in the tender or otherwise provided by Employer or its Consultants and has obtained independent advice from appropriate sources".

The bidder/contractor along with qualified engineers of expertise must at his expense visit the site of the works contract and also the available quarries and sand points as well as sources of water etc. and make use/utilise best of the available resources and obtain geo tag address of the site if any from the Employer in advance to the site visit supra and also upload the photographs of the said site visit.

The leads of civil works be proposed separately with reference to the nearest approved quarries

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52. Schedule Q: Maintenance Requirements

52.1 Maintenance Requirements

- 1) The Contractor shall, at all times maintain the Project Components (Roads & Utilities/Services) in accordance with the provisions of this Agreement, Applicable Laws and Applicable Permits.
- 2) The Contractor shall repair or rectify the works/part of works set forth in Paragraph 2 of this Schedule-Q within the time limit specified therein and any failure in this behalf shall constitute non-fulfilment of the Maintenance obligations by the Contractor. Upon occurrence of any breach hereunder, the Employer shall be entitled to effect reduction in quarterly lump sum payment as set forth in **Clause 21.6** of this Agreement, without prejudice to the rights of the Employer under this Agreement, including Termination thereof.
- 3) All Materials, Works and Construction operations shall conform to the Specifications for Road and Bridge Works (Fifth Revision, April 2013), issued by the Ministry of Road Transport & Highways (MoRT&H) and the relevant IRC publications. Where the Standards and Specifications for a work are not given, Good Industry Practice shall be adopted to the satisfaction of the Employer's Engineer.
- 4) All relevant Materials, Works and Construction operations shall conform to CPHEEO Manual on Operation and Maintenance of water supply systems, 2005, MoUD, GOI and Good Industry Practice to the satisfaction of Employer's Engineer for Potable water supply rising mains and distribution Networks, Recycle rising mains and distribution networks including valves, specials, flow meters etc.
- 5) All relevant Materials, Works and Construction operations shall conform to CPHEEO Manual on Sewerage and Sewage treatment systems 2013 Part-B; Operation and Maintenance and Good Industry Practice to the satisfaction of Employer's Engineer for Industrial effluent pumping mains and networks, Sewer pumping mains and networks including manholes, flow meters etc.
- 6) All relevant Materials, Works and Construction operations shall conform to CPHEEO Manual on Operation and Maintenance of water supply systems, 2005, MoUD, GOI and Good Industry Practice to the satisfaction of Employer's Engineer for Potable and Recycle Elevated Service Reservoirs (ESR).
- 7) All relevant Materials, Works and Construction operations shall conform to CPHEEO Manual on Sewerage and Sewage treatment systems 2013 Part-B; Operation and Maintenance and Good Industry Practice to the satisfaction of Employer's Engineer for storm water drain networks and outfalls.
- 8) Maintenance of street lighting is inclusive of all roadway illumination equipment. The equipment consists of poles, luminaries, brackets, photocells, lamps, relays, conductors, ducts, hand wells, vaults, and associated hardware.
- 9) The Contractor shall submit with his tender to the Employer the methodology for the operation and maintenance of facility/works with the Schedule of 'Manpower' and 'Organization Chart showing the structure of the organization for his administration and operation of the Contract. The contractor shall depute a project manager for execution and operation and maintenance contract.
- 10) Access to Facility/Site

The Employer, its representatives and the Beneficiaries shall have the right to bring visitors to the site/facility. The visitors shall be received by the Representative assigned by the Employer and the Contractor shall not be in charge of such visits. The Employer's representative shall give notice to the Contractor at least 24 hours in advance for visits. The facility shall be accessible to beneficiaries' staff for sampling/review of site.

- 11) Contractor has to incur all the cost, taxes & duties, cess or another tax or cess levied for Operations and maintenance of the said facility, including but not limited to transportation, labors repairing & replacing making good any part or all part of equipment's, consumable, motors, pumps, gear unit, Capacitor, HT/LT Switchgear, Control Panel, roads, road side furniture etc in totality as per scope of works of the said agreement.
- 12) The Contractor shall at his own cost provide and maintain at the Site of Works standard first aid boxes at minimum six locations as directed and approved by the Employer for the use of his own as well as the Employer's staff on

Site as stipulated by local regulations. Contractor shall arrange to train all their staff in first aid treatment within 3 months.

- 13) Maintenance covers all the techniques and systems which by means of regular monitoring of equipment and scheduled maintenance procedures, prevent failures and, in the event of problems, enable repairs to be carried out with the minimum disruption of the process. Maintenance is therefore a combination of technical, administrative, and management activities. Maintenance consists of preventive and corrective procedures.

Administrative maintenance policies shall be prepared and implemented by the Contractor, based on the developed maintenance programme. The policies shall be approved by the Employer's Engineer and shall include, but not be limited to:

- Preventive maintenance,
- Overhauls and half-overhauls plan,
- Failures and unexpected repair works plan.

A basic maintenance management system shall be implemented after approval by the Employer's Engineer. It shall include, but not be limited to:

- Planning and Scheduling,
- Maintenance Personnel,
- Maintenance Instructions,
- Inventory Control of Items,
- Equipment Records,
- Forms for Costs and Budgets.

The Contractor shall periodically carry out maintenance. It shall include, but not be limited to the provision of all required spare parts, material and personnel. All items of equipment shall be inspected and maintained in accordance with the manufacturer's specifications and to the local conditions. Replacements, repairs and painting shall be carried out immediately and when necessary. Maintenance records showing all maintenance work carried out on each item of equipment shall be updated daily and shall be made available at any time for examination by the Employers Engineer. The installed equipment/unit shall be checked and serviced daily during working days.

The operating conditions of any instrument shall be maintained by function checks and services. Calibration shall be checked and corrected whenever necessary. After submission of the calibration data for approval, the instruments shall be calibrated as required and directed by the Employers Engineer. The electrical and sanitary installations shall be kept clean and continuously maintained in a proper and orderly manner. All interior and exterior structures, structural elements, equipment, installations, infrastructural elements and others shall be maintained, repaired, painted and replaced if necessary and/or as directed by the Employer's Engineer.

The maintenance of site works shall include, but not be limited to the repair, painting and the replacement of defective items due to wear and tear for traffic areas, pipes and fittings (including protection), cables, channels, roads, lighting poles, power equipment's and fences etc.

- 14) The Management of Maintenance shall include, but not be limited to:
- Implementation and Operation of a Separate Maintenance Budget System Comparing
 - The Budget With The General Budget of Operation and Maintenance,
 - Planning and Controlling the Work of Subcontractors, If Applicable.
 - Establishing Of Requirements For Equipment Manuals, For Each Item of Equipment,

- Setting Out Procedures For Installation And Commissioning, Instructions For Operation
- And Maintenance and Listings of Component Parts.

15) Planning and Schedule

The performance of maintenance shall be administered using a maintenance work package system in which the job priorities, the work assignment and the available personnel are listed. The required daily work shall be scheduled in charts by the hour or more detailed. The maintenance work package system shall consider the manufacturers' maintenance manuals and also conditions like topography, climate and operation of the project units. The maintenance work package system shall include a chart for periodic maintenance of any equipment and Plant on Site. The chart of every equipment and Plant shall indicate any necessary step of preventive maintenance. The maintenance work package system shall be submitted to the Employer's Engineer for approval.

16) Work Control and Failure Management Planning

Work control shall be established by preparing and implementing procedures of Corrective and protective maintenance, of tool control and of spare parts issues. Failures of maintenance shall be bridged or repaired as soon as possible so as to minimize negative effects on the environment. Therefore, the Contractor shall use a standard procedure such as the critical plan method (CPM), or equivalent, to sufficiently schedule for maintenance failures. Resource planning shall be carried out in order to find out the requirements for special materials, special tools and/or special equipment for bridging or repairing any failure as soon as possible.

17) Disposal of residuals

The Contractor shall arrange for the disposal of any, grit, sand, other wastes, debris and residuals to an identified disposal landfill. The location of the landfill shall be specified by the Employer. Toxic wastes shall be disposed of at a site to be agreed with the concerned local body. Unless a public sanitary landfill site can be used for the disposal of non-toxic residuals, the disposal site has to be approved by the local bodies responsible for public health. The disposal costs as such outside the boundaries of the facility SHALL be borne by the Contractor.

- 18) Contractor has to keep the entire capacitor panel in working condition to maintain the power factor more than 0.95. In any condition the power factor should not be less than 0.95. Any spares required to keep capacitor panel in working condition is in the scope of the contractor. Any Penalty levied due to the low power factor by the power utility/ any other authorized agency then it will recover from the contractor from his quarterly payments.

19) Emergency Conditions

The Contractor shall establish requirements for dealing with potentially hazardous conditions. All possible situations of emergency shall be scheduled within an emergency plan. Herein, the required services, additional required structures, equipment, staff and other resources shall be planned and recorded for the possible situations of emergency. The emergency action plan shall be submitted for approval to the Employers Engineer. Every effort shall be made to ensure that any emergency situation at the treatment shall be limited to the shortest possible period to minimize any negative effects on the environment. Any necessary shutdown of the facility for operational adjustments shall be restricted to the possibly shortest period with minimum flow at the inlet works and shall be approved by the Employer's Engineer.

- 20) The Contractor shall follow the manufacturers' recommendations with respect to equipment maintenance, consumables, the types and grades of lubricants to be used, frequency of lubrication, adjustments to be made regularly and recommended spares to be held in store.
- 21) The contractor should plan & procure all spares and consumables including grease, lubricating oil, cleaning agents, laboratory reagents etc. Further the contractor will plan about the requirement well in advance and procure the material from the market and having sufficient storage of above.
- 22) The Contractor shall provide a Notice Boards/Display Boards at appropriate locations detailing precautions to be taken by operation and maintenance personnel in work in conformity with Industries and Labour Regulations and

Department of Explosives.

- 23) All Central / State Government / Semi-Government / Local Body's rules and regulation pertaining to this contract, all legal formalities pertaining to provident fund, factory act, and all legal formalities shall be followed and observed by the Contractor without any extra cost to the Employer. Please note that failure in complying so, all liabilities arising as per laws will be to the Contractor's account and no payments shall be released against the quarterly O&M payments. For the payments for O&M contractor need to submit the required documents pertaining to above.
- 24) The Contractor will comply with all safety rules and regulations and all inter- disciplinary measures as followed by the Employer. The Employer will not be responsible for any accident / injury to the staff or any person of the Contractor or loss or damage to any property. Further, the Employer will not provide any insurance or free medical facility to the staff of Contractor. Providing necessary security arrangement for safety of the plant and contractor's personnel will be the responsibility of contractor.

52.2 Repair/Rectification during O&M

The obligations of the Contractor in respect of Maintenance Requirements shall include repair and rectification of the works as specified in this Schedule-Q within the time limit set forth therein.

52.3 Other Defects and Deficiencies

In respect of any Defect or deficiency not specified in this Schedule-Q, the Employer's Engineer may, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Standards and Specifications, and any deviation or deterioration beyond the permissible limit shall be repaired or rectified by the Contractor within the time limit specified by the Employer's Engineer.

52.4 Extension of Time Limit

Notwithstanding anything to the contrary specified in this Schedule-Q, if the nature and extent of any Defect or deficiency justifies more time for its repair or rectification than the time specified herein, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Employer's Engineer and conveyed to the Employer with reasons thereof for approval of Employer..

52.5 Emergency Repairs/Restoration

Notwithstanding anything to the contrary contained in this Schedule-Q, if any Defect, deficiency or deterioration in the Project Components (Roads & Utilities/Services) poses a hazard to safety or risk of damage to property, the Contractor shall promptly take all reasonable measures for eliminating or minimizing such danger.

52.6 Daily Inspection by the Contractor

The Contractor shall, through its engineer, undertake a daily visual inspection of the Project Components (Roads & Utilities/Services) and maintain a record thereof in a register to be kept in such form and manner as the Employer's Engineer may specify. Such record shall be kept in safe custody of the Contractor and shall be open to inspection by the Employer and the Employer's Engineer at any time during normal working hours.

52.7 Pre-Monsoon Inspection / Post-Monsoon Inspection

The Contractor shall carry out a detailed pre-monsoon inspection of all bridges, culverts and drainage system before [1st May] every year in accordance with the guidelines contained in IRC: SP35. Report of this inspection together with details of proposed Maintenance Works as required on the basis of this inspection shall be sent to the Employer's Engineer before the [10th May] every year. The Contractor shall complete the required repairs before the onset of the monsoon and send to the Employer's Engineer a compliance report. Post monsoon inspection shall be done by the

[30th September] and the inspection report together with details of any damages observed and proposed action to remedy the same shall be sent to the Employer's Engineer.

52.8 Repairs On Account Of Natural Calamities

All damages occurring to the Project Components (Roads & Utilities/Services) on account of a Force Majeure Event shall be repaired by Contactor at no additional cost

However any damage due to neglect of the Employer or its representative shall be undertaken by the Employer at its own cost. The Employer may instruct the Contractor to undertake the repairs at the rates agreed between the Parties.

52.9 Minor Operational Responsibilities:

During the course of Maintenance period there are some minor operational responsibilities that are required to be conducted by the Contractor. These may be performed by the Maintenance team itself given due training and understanding of equipment and performance requirements of the systems.

For all roadways ensure operational performance criteria are being met with obstruction free travel in safety per norms prescribed by International Road Federation (IRF). Ensure that defects, repairs and Maintenance requirements are identified, shared with Owner and implemented through the Maintenance team.

For all Illumination systems, insure auto on/off and such are in place and operational based on day light dusk/dawn periods of the various seasons. Ensure operational inspections of the system are conducted to identify defects and repairs to be performed by the Maintenance team. Lux level recordings of the implemented system are to be conducted and performance levels maintained.

For all Power systems, ensure appropriate controls and reporting systems are in place. Ensure accurate reporting and controls on outages, faults and such defects are maintained to a minimum, operating this system at a 99.99% performance level.

For all pressurized hydraulic systems such as water, recycled water, ensure all pumps, reservoirs and tanks are kept at optimum levels of storage meeting the requirements of performance from design intent. Daily operations of these systems are to be performed to ensure capacities are kept at the assured levels. Defects/repairs identified here to be rectified by Maintenance teams.

For all gravity based systems such as effluents and sewage, ensure Maintenance inspections and sump pumping activities are carried out regularly to insure effluent/sewage flows are consistent and as required by the STP/CETP. Defects/repairs are to be identified and rectified by Maintenance teams. The drains shall be cleaned regularly to prevent its clogging and back flow for efficient operations during the time of requirement.

Spare parts lists to be maintained by Maintenance teams are to be inspected, verified and reported.

Develop and maintain a reporting, Documentation and inspections process during the course of operations in collaboration with Owner teams.

52.10 Staff during O&M

For all operation and maintenance works, the Contractor shall provide skilled staff, which has adequate qualifications and sufficient experience of similar works. CV of O&M Manager, Shift-in-charge, Plant/Site Supervisors will have to be got approved from the Employer. The following Table below describes the minimum levels of staffing, and their minimum qualifications and experience in similar works, that the Contractor will be required to deploy for carrying out the O&M functions:

S. No	Designation	Qualification	Experience	Shift-1	Shift-2	Shift-3	Nos.
1.	O&M Manager	Graduate Engineer (Civil)	15 years	General shift 1			1
2.	Site Supervisor	Graduate Engineer-Mech /Elect / Civil/ Instrumentation	10	1	1	1	3
3.	Shift-in-charge	Diploma Engineers (Electrical , Mechanical, Civil)	5 years	1	1	1	3(2Elec, 1Mech)
4.	Electrician	ITI (Electrical)	5 years	2	2	2	6
5.	Helpers	10 th pass	-	4	3	3	10
6.	Security Guards	8 th pass	2 years	3	3	3	9
	Total			12	10	10	32

Note:

1. The above requirement is minimum only. The Contractor will arrange extra work force, as and when required, so as to smoothly run the operation and maintenance including preventive maintenance, repairs etc. and general cleanliness of the installations.
2. The above staff strength is exclusive of leave reserve required for different category of staff. The Contractor shall ensure availability of the personnel given in the above table for all seven days in a week.
3. The Contractor shall make appropriate arrangements for maintenance of items like road work, , patrolling and maintenance of civil structures, vehicle operations and other activities defined to fulfill its obligations under O&M Contract.
4. In the event of absence of staff during the O&M, the deduction of 0.25% of the payment on per week basis shall be done from the Quarterly payments, considering 30 calendar days in a month.

52.11 Repair/Rectification of Defects and Deficiencies

The Contractor shall repair and rectify the Defects and deficiencies specified in this Schedule-Q within the time limit set forth in the table below.

52.11.1 Time limit of Defects and Deficiencies

Nature of Defect or Deficiency		Time Limit for Repair/Rectification
Roads		
(a)	Carriageway and Paved Shoulders	
(i)	Breach or blockade	Temporary restoration of traffic within 24 hours; permanent restoration within 15 (fifteen) days
(ii)	Roughness value exceeding 1,800 mm in a stretch of 1 km (as measured by a calibrated bump integrator)	120 (one hundred and twenty) days

Nature of Defect or Deficiency		Time Limit for Repair/Rectification
(iii)	Potholes	24 hours
(iv)	Any cracks in road surface	15 (fifteen) days
(v)	Any depressions, rutting exceeding 10 mm in road surface	30 (thirty) days
(vi)	Bleeding/skidding	7 (seven) days
(vii)	Any other defect/distress on the road	15 (fifteen) days
(viii)	Damage to pavement edges	15 (fifteen) days
(ix)	Removal of debris, dead animals	6 hours
(b) Granular Earth Shoulders, Side Slopes, Drains and Culverts		
(i)	Variation by more than 1 % in the prescribed slope of camber/cross fall (shall not be less than the camber on the main carriageway)	7 (seven) days
(ii)	Edge drop at shoulders exceeding 40 mm	7 (seven) days
(iii)	Variation by more than 15% in the prescribed side (embankment) slopes	30 (thirty) days
(iv)	Rain cuts/gullies in slope	7 (seven) days
(v)	Damage to or silting of culverts and side drains	7 (seven) days
(vi)	De-silting of drains	24 hours
(vii)	Railing, parapets, crash barriers	7 (seven) days (Restore immediately if causing safety hazard)
(c) Roadside Furniture Including Road Sign and Pavement Marking		
(i)	Damage to shape or position, poor visibility or loss of retro-reflectivity	48 hours
(ii)	Painting of km stone, railing, parapets, crash barriers	As and when required/Once every year
(iii)	Damaged/missing road signs requiring replacement	7 (seven) days
(iv)	Damage to road mark ups	7 (seven) days
(d) Road Lighting		
(i)	Any major failure of the system	24 hours
(ii)	Faults and minor failures	8 hours
(e) Other Project Facilities and Approach Roads		
(i)	Damage in approach roads, pedestrian facilities, truck lay-byes, bus-bays, bus-shelters, electrical, water,	15 (fifteen) days
(ii)	Damaged vehicles or debris on the road	4 (four) hours
(iii)	Malfunctioning of the mobile crane	4 (four) hours
MINOR		
(a) Superstructure		
(i)	Any damage, cracks, spalling/ scaling <ul style="list-style-type: none"> • Temporary measures • Permanent measures 	<ul style="list-style-type: none"> • within 48 hours • within 15 (fifteen) days or as specified

Nature of Defect or Deficiency		Time Limit for Repair/Rectification
(b)	Foundations	
(i)	Scouring and/or cavitation	15 (fifteen) days
(c)	Piers, Abutments, Return Walls and Wing Walls	
(i)	Cracks and damages including settlement and tilting,	30 (thirty) days
(d)	Bearings (Metallic) of Bridges	
(i)	Deformation, bearings damages, tilting or shifting of	Greasing of metallic bearings once in a 15 (fifteen) days
(e)	Joints	
(i)	Malfunctioning of joints	15 (fifteen) days
(f)	Other Items	
(i)	Deforming of pads in elastomeric bearings	7 (seven) days
(ii)	Gathering of dirt in bearings and joints; or clogging of	3 (three) days
(iii)	Damage or deterioration in kerns, parapets, handrails and crash barriers	3 (three) days (immediately within 24 hours if posing threat)
(iv)	Rain-cuts or erosion of banks of the side slopes	7 (seven) days
(v)	Damage to wearing coat	15 (fifteen) days
(vi)	Damage or deterioration in approach slabs, pitching	30 (thirty) days
(vii)	Growth of vegetation affecting the structure or obstructing the waterway	15 (fifteen) days
Potable Water, Wastewater, Recycle Water and Fire Fighting system		
(a)	Transmission mains	
(i)	Bursts/Breakage in the pipelines.	6 hrs. from occurrence
(b)	Network pipelines	
(i)	Bursts/Breakage in the distribution network pipelines	4 hrs. from occurrence
(ii)	Flushing of distribution main	Once in 6 months
(iii)	SCADA System for all services	Within 2 hrs. from occurrence
(c)	Control & Protection	
i)	Photo electric controller	8 hrs.
ii)	Communication failure	8 hrs.
(d)	Power	
i)	Supply including SCADA	2 hrs.
ii)	Fault	2 hrs.

52.11.2 General Preventive Maintenance Checks

General Preventive Maintenance Checks	
(a)	The following checks to be performed daily by the Contractor's personnel
(i)	Whether there is a change in the sound of a running pump, abrupt changes in bearing Temperature and seal leakage?

General Preventive Maintenance Checks	
(ii)	The pump capacity, pressure, power consumption and vibration level to check if outage is required to address deterioration of specified performance values.
(iii)	Rise in temperature of bearings in motor, in moving parts and other units, etc.
(iv)	Working of gauges, sensors and other flow measuring devices
(v)	Average power factor, KWH consumed
(vi)	Pipeline and valve leakage
(vii)	Functioning of non-return valve
(viii)	Tightness of all electrical connections of all unit panels etc.
(ix)	Tightness all cable connections
(x)	Temperature rise due to loose connections
(xi)	Operation of valves and sluice gates
(xii)	Current and voltages in all electrical equipment
(xiii)	Average power factor, KWH consumed
(xiv)	Lights on/off
(xv)	Leakage current for all power distribution
(xvi)	Battery voltage, battery charger, topping of distilled water, tightness of terminations etc.
(xvii)	Gland packing
(xviii)	Wear and tear of moving parts
(xix)	Adoption of Electrical energy conservation methods and energy consumption
(xx)	Electrical contacts
(xxi)	Motors windings etc.
(xxii)	Meggering of electrical equipment
(xxiii)	Watering of earthen pits
(xxiv)	Relay testing and calibration if possible of meters, gauges, instruments
(xxv)	Speed of motors
(xxvi)	Level gauges and flow meters signals
(xxvii)	Cleaning, checking/tightening of L.T. Circuit / Panel
(xxviii)	Auxiliary DB, Capacitor bank
(xxix)	Battery and Battery charger
(xxx)	Free movement of stuffing box glands, gland bolts to be cleaned & lubricated and packing to be Inspected to determine whether it requires replacement.
(xxxi)	Pump and motor alignment should be checked and corrected if necessary.
(xxxii)	Grease lubricated bearings should be checked to see that they contain the correct amount of grease and that it is still of suitable consistency
(xxxiii)	<p>Vibration should be reviewed. If the pump is tending towards unacceptable vibration levels:</p> <ul style="list-style-type: none"> • $\frac{3}{4}$ The bearing should be removed, cleaned and examined for flaws and wear • $\frac{3}{4}$ The bearing housing should be carefully cleaned • $\frac{3}{4}$ Rolling element bearings should be examined for scratches and wear • $\frac{3}{4}$ Immediately after cleaning, rolling element bearings that are considered acceptable for reinstallation should be coated with grease.

General Preventive Maintenance Checks	
(xxxiv)	Shaft sleeve and shaft should be examined for wear.
(xxxv)	When coupling halves are disconnected for an alignment check, the vertical shaft movement of a pump with sleeve (journal) bearing should be checked at both ends with packing or seals removed. Any movement exceeding the original design clearance should be investigated to determine the cause. Endplay allowed by bearings should also be checked. If it exceeds that recommended by the manufacturer, the cause should be determined and corrected.
(xxxvi)	Stuffing boxes should be repacked and the pump & motor should be realigned and reconnected
(xxxvii)	Overhauling requirement of all equipment
(xxxviii)	Improvement required if any in operation of plant
(xxxix)	Testing and Calibration of all instruments
(xl)	Transformer cleaning, checking silica gel, oil checking filtering/replacing

52.12 Operation and Maintenance of Treatment Plants

52.12.1 Scope of Work

The contract includes operation and maintenance for a period of 4 Years (48 Months) after successful completion of trial run, commissioning and demonstration of performance guarantee. The Commercial Operations and the O&M period shall only begin on issue of Completion Certificate for construction works.

Additional information is given in the following sections to facilitate the monitoring works. Contractor shall note that preparation of Operation and Maintenance Manual and set up by them is included in Scope of Work. This manual shall be duly got approved from Employer's Engineer prior to commissioning of the facility.

The Bidder shall provide a comprehensive O&M concept comprising measures, strategies and guidelines for Plant protection against pollution regard to in the O&M manual:

- All Facilities in Plant, which make it possible within defined limits to adapt the operation of the Plant to fluctuations in wastewater quality;
- Facilities in the Plant structure, which make it possible within defined limits to adapt the operation of the Plant to fluctuations in wastewater quality;
- Facilities, which protect the Plant in case the normal range of fluctuations in wastewater quality exceeds the reference point operating conditions;
- Organizational measures which, in the event of a major reduction in treated water quality or in the event of an extreme mishap, lay down the procedure, measures and responsibilities for the operation and maintenance of the Plant.

Payments and all general conditions for O&M shall be as detailed in respective clauses of Section 26. However in the event after successful commissioning if the Employer wants can start payment of O&M, however the commercial operations shall only start after the issue of Completion certificate after release of final payments and fulfilment of punch list.

The Operation and Maintenance Service shall not commence until the Construction of the Works or any Section has not been completed. The Contractor shall thereafter provide the Operation and Maintenance Service in compliance with the requirements of the Operation, Maintenance and Safety Manuals.

The Contractor shall Operate and maintain all units and equipment's of the plant as per the requirement of the process

to meet continuously and consistently desire quality of treated water quality as describe in Specification.

Plant shall be operated 24 hours/day throughout the year. Contractor shall be responsible for providing all consumables, lubricants parts or components, labor. transportation and other charges, chemicals, taxes and duties etc. including all cess as applicable from time to time by the statutory bodies for efficient operations of the facility except Power, which shall be provided by the Employer.

Lubricants shall be supplied in accordance with the recommendations of the various equipment and Plant manufacturers. The Contractor shall limit the various types of lubricants by consolidating these, with the manufacturer's approval, into the least number.

- 1) Contractor shall Operate and maintain the plant, all instruments and mechanical, electrical equipment's in accordance with the aim and purpose of treatment. The plant & equipment's covered under the above contract will be totally attended to, by the contractor including any "Troubleshooting" to ensure smooth and trouble free operation.
- 2) Contractor has to incur all the cost, taxes & duties, cess or another tax or cess levied for Operations of the said facility, transportation, labors repairing & replacing making good any part or all part of equipment's, consumable, motors, pumps, gear unit, Capacitor, HT/LT Switchgear, Control Panel, valves chemical and laboratory equipment's, Pressure vessel, Membrane or any other part in the System etc.
- 3) The maintenance service provided by the Contractor for the period specified in the Contract shall ensure the continuous operation of the Plant and that the breakdown or deterioration in performance, under normal operating conditions, of any items of Plant and equipment and component parts thereof is kept to a minimum. The Contractor shall carry out the Maintenance of the plant installations in accordance with the requirements of the O & M Manual and also to the approved Maintenance Plan as mutually agreed.
- 4) The Contractor shall provide the facilities and equipment required for a proper functioning of the Operation Service, before starting with the Operation Service.
- 5) The Contractor shall hand over the facilities and equipment complete and in good condition at the end of the Operation and Maintenance Service period.
- 6) During the Operation Service, the Contractor shall acquire and make use of the vehicles and trucks necessary under the Contract to operate and maintain the Works. Such vehicles and trucks are the property of the Contractor and will not be handed over to the Employer.
- 7) The Contractor shall submit with his tender to the Employer the methodology for the operation and maintenance of plant with the Schedule of 'Manpower' and 'Organization Chart showing the structure of the organization for his administration and operation of the Contract. The contractor shall depute a project manager for execution and operation and maintenance contract of plant
- 8) Only highly skilled and trained personnel shall be assigned to perform inspections, repairs and preventive maintenance tasks. Specific skills are required for the maintenance of mechanical, electrical and instrumentation machinery and equipment. All the electrical equipment shall be handled and operated by a trained and authorized person only. All the equipment shall be checked for its proper earthing and loose connections prior to start equipment. Naked wire, loose connections and faulty connections shall be repaired immediately prior to start for operation.
- 9) Contractor shall Employ appropriate and skilled manpower, provide all tools, tackles, equipment, laboratory instruments, glassware and chemicals, reagents etc. required for effective implementation of the Services detailed above. The contractor shall have to issue identity cards with photographs to all the staff employed for Operation and Maintenance. The list of the same shall be submitted to the Employer mentioning qualification & experience.
- 10) The Contractor shall submit a Health and Safety Plan as required by International standards and confirming to Indian Legislation.
- 11) The Contractor shall provide a safety specialist being responsible for the preparation, implementation and

maintenance of a comprehensive safety programme, which shall be approved by the Employer's Engineer, and which shall be evaluated whenever appropriate and at least at the conclusion of the Operation Service. The specialist shall develop the safety and health policies, standards and procedures. The responsibility of the safety specialist includes performing safety training and conducting safety inspections, sessions and practice. He will also be responsible for the investigation of accidents. A safety committee shall be formed, and regular safety meetings shall be organized. All safety equipment and tools shall be provided and maintained by the Contractor at this own cost and the price shall be deemed included in his price bid. The safety specialist shall prepare, implement and maintain a comprehensive fire protection and prevention programme, which shall be approved by the Employer's Engineer. The safety specialist will also be responsible for the inspection and maintenance of the fixed and portable fire protection equipment and for the investigation of fire incidents. During Operation Service, the safety specialist shall develop and implement a project emergency action plan and fire hazard inspection procedure.

- 12) In order to protect property, materials and facilities against unauthorized entry and trespass, pilferage and theft, destruction, damage, sabotage, embezzlement, fraud and other dishonest, illegal or criminal acts during the Operation Service, a security programme shall be prepared by the contractor, implemented and maintained at no extra cost. The Employer's representative shall approve the security programme.
- 13) The Contractor shall develop and maintain a chemical treatment programme to minimize corrosion, extend system life and maintain efficiency of the facility. The project systems shall be reviewed and recommended in relation to the chemical treatment programme. Required improvements of the systems shall be carried out, after approval by the Employer's Engineer. The Contractor shall provide the staff necessary for implementation of the chemical treatment programme.

14) Access to Facility

The Employer, its representatives, Employer's Engineer and the Beneficiaries shall have the right to bring visitors to the treatment plant/facility. The visitors shall be received by the Representative assigned by the Employer and the Contractor shall not be in charge of such visits. The Employer's representative shall give notice to the Contractor at least 24 hours in advance for visits. The facility shall be accessible to beneficiaries' staff for water sampling.

- 15) Contractor has to keep the entire capacitor panel in working condition to maintain the power factor more than 0.95. In any condition the power factor should not be less than 0.95. Any spares required to keep capacitor panel in working condition is in the scope of the contractor. Any Penalty levied due to the low power factor then it will recover from the contractor.

16) Maintenance

Maintenance covers all the techniques and systems which by means of regular monitoring of equipment and scheduled maintenance procedures, prevent failures and, in the event of problems, enable repairs to be carried out with the minimum disruption of the process. Maintenance is therefore a combination of technical, administrative, and management activities. Maintenance consists of preventive and corrective procedures.

- 17) Administrative maintenance policies shall be prepared and implemented by the Contractor, based on the developed maintenance programme. The policies shall be approved by the Employer's Engineer and shall include, but not be limited to:
 - Preventive maintenance,
 - Overhauls and half-overhauls plan,
 - Failures and unexpected repair works plan.
- 18) A basic maintenance management system shall be implemented after approval by the Employer's Engineer. It shall include, but not be limited to:
 - Planning and Scheduling,

- Maintenance Personnel,
 - Maintenance Instructions,
 - Inventory Control of Items,
 - Equipment Records,
 - Forms for Costs and Budgets.
- 19) The Contractor shall periodically carry out maintenance. It shall include, but not be limited to the provision of all required spare parts, material and personnel. All items of equipment shall be inspected and maintained in accordance with the manufacturer's specifications and to the local conditions. Replacements, repairs and painting shall be carried out immediately and when necessary. Maintenance records showing all maintenance work carried out on each item of equipment shall be updated daily and shall be made available at any time for examination by the Employer's Engineer. The installed equipment shall be checked and serviced daily during working days.
- 20) The operating conditions of any instrument shall be maintained by function checks and services. Calibration shall be checked and corrected whenever necessary. After submission of the calibration data for approval, the instruments shall be calibrated as required and directed by the Engineer. The buildings, HVAC, electrical and sanitary installations shall be kept clean and continuously maintained in a proper and orderly manner. All interior and exterior structures, structural elements, equipment, installations, infrastructural elements and others shall be maintained, repaired, painted and replaced if necessary and/or as directed by the Employer's Engineer.
- 21) The maintenance of site works shall include, but not be limited to the repair, painting and the replacement of defective items for traffic areas, pipes and fittings (including protection), cables, channels, roads, lighting poles and fences and shall also include the maintenance of lawn areas, plants, shrubs, bushes and trees.
- 22) The Contractor shall at his own cost provide and maintain at the Site of Works standard first aid boxes at minimum six locations as directed and approved by the Employer for the use of his own as well as the Employer's staff on Site as stipulated by local regulations. Contractor shall arrange to train all their staff in first aid treatment within 3 months.
- 23) The Management of Maintenance shall include, but not be limited to:
- Implementation and Operation of a Separate Maintenance Budget System Comparing
 - The Budget with the General Budget of Operation and Maintenance,
 - Planning and Controlling the Work of Subcontractors, If Applicable.
 - Establishing of Requirements for Equipment Manuals, For Each Item of Equipment,
 - Setting Out Procedures for Installation and Commissioning, Instructions for Operation
 - And Maintenance and Listings of Component Parts.
- 24) Planning and Schedule
- The performance of maintenance shall be administered using a maintenance work package system in which the job priorities, the work assignment and the available personnel are listed. The required daily work shall be scheduled in charts by the hour or more detailed. The maintenance work package system shall consider the manufacturers' maintenance manuals and also conditions like topography, climate and operation of the treatment plant. The maintenance work package system shall include a chart for periodic maintenance of any equipment and Plant on Site. The chart of every equipment and Plant shall indicate any necessary step of preventive maintenance. The maintenance work package system shall be submitted to the Employer's Engineer for approval.
- 25) Inventory Control of items
- A central storeroom for spare parts, equipment and supplies shall be maintained. All parts shall be assigned with item identification codes, each of them possibly being an extension of the design and construction documents.

The Contractor in the operation and maintenance manuals, shall furnish a complete schedule of recommended oils and other lubricants.

- 26) A computerized system shall be implemented using the item identification code to record all necessary information of any item, to place the items in the storeroom and to re-order the items in case of requirement. This system shall keep a record of the quantity of each item remaining in stock, shall allow a direct comparison with the recommended stock level, as well as indicating the replacement lead-time.
- 27) The performance and the future requirements of maintenance shall be recorded daily and updated in the equipment records. All maintenance of equipment, identification of occurred problems and action taken to avoid failure shall be recorded. The records shall be made available at any time for examination by the Employers Engineer.
- 28) Work Control and Failure Management Planning

Work control shall be established by preparing and implementing procedures of Corrective and protective maintenance, of tool control and of spare parts issues. Failures of maintenance shall be bridged or repaired as soon as possible so as to minimize negative effects on the environment. Therefore, the Contractor shall use a standard procedure such as the critical plan method (CPM), or equivalent, to sufficiently schedule for maintenance failures. Resource planning shall be carried out in order to find out the requirements for special materials, special tools and/or special equipment for bridging or repairing any failure as soon as possible.

- 29) Disposal of sludge and residuals

The Contractor shall arrange for the disposal of any screenings, grit, sand, other wastes, debris and residuals including Sludge, generated at the treatment plant to an identified disposal landfill. The location of the landfill shall be specified by the Employer. Toxic wastes shall be disposed of at a site to be agreed with the concerned local body. Unless a public sanitary landfill site can be used for the disposal of non-toxic residuals, the disposal site has to be approved by the local bodies responsible for public health.

The disposal costs as such outside the boundaries of the facility SHALL be borne by the Contractor.

- 30) Reporting

The contractor shall monitor the performance of the Plant, conduct the analysis of various parameters as indicated in Technical Specifications for the sewage/wastewater, after aeration, filtered Water and treated water. Contractor shall initiate and take adequate actions to ensure smooth and satisfactory performance/ running of the plants on a 24 hours/ round the clock basis.

The contractor shall prepare and implement an effective plant maintenance programmed in consultation with the Employer/ Employer's Engineer. It is an absolutely contractor's responsibility to look after all sorts of maintenance whether preventive, Minor, Major, or break-down. The Contractor will be responsible to carry out day to day as well as periodic maintenance necessary to ensure smooth and efficient performance/running of all equipment. Contract shall attend all the breakdown of civil, mechanical, electrical, piping and instrumentation works and maintain the plant and equipment throughout the Contract Period.

- 31) Quality Control

A quality control management system shall be developed and maintained, based on the prepared quality control manual. All employed staff shall be trained in the application of the quality control management system. All programmes and systems prepared for Operation and Maintenance as well as for Staff Training shall be integrated in the quality control management system. The quality control management system shall be approved by the Employer's Engineer and shall be in accordance with this document.

- 32) Emergency Conditions

- The Contractor shall establish requirements for dealing with potentially hazardous conditions. All possible

situations of emergency shall be scheduled within an emergency plan. Herein, the required services, additional required structures, equipment, staff and other resources shall be planned and recorded for the possible situations of emergency. The emergency action plan shall be submitted for approval to the Employer Engineer. Every effort shall be made to ensure that any emergency situation at the treatment shall be limited to the shortest possible period to minimize any negative effects on the environment. Any necessary shutdown of the plant for operational adjustments shall be restricted to the possibly shortest period with minimum flow at the inlet works and shall be approved by the Employer's Representative/ Employer's Engineer.

- The Contractor shall follow the manufacturers' recommendations with respect to equipment maintenance, consumables, the types and grades of lubricants to be used, frequency of lubrication, adjustments to be made regularly and recommended spares to be held in store.
- The contractor should plan & procure all spares, chemical and all consumables including chemicals, grease, lubricating oil, cleaning agents, laboratory reagents etc. Further the contractor will plan about the requirement well in advance and procure the material from the market and have minimum storage of 20 days for all chemicals including but not limited to coagulant, lime, chlorine, hypo, polymer, etc.
- The contractor will prepare and submit daily, fortnightly and monthly reports of plant performance and will assist the Employer in preparing the necessary documents for their purpose and records.
- Carry out regular and frequent sampling, analysis and result recording of raw and treated wastewater as per the procedures laid out by the Owner and in conformity with standard methods.
- Contractor shall be responsible for maintaining the lighting and other equipment. The premises of various works shall be provided with sodium vapor lamps, fluorescent tubes and also ceiling fans/exhaust fans inside the various structures.
- Daily on/off operation and routine cleaning of all type of electric fixtures. Replacement of lamps / Tubes / Fans in case of failure at contractor's cost.
- Contractor shall be responsible for the maintenance of Garden, lawn, green belt etc. work shall include the watering, grass cutting, removal of shrubs, weed cutting of branches of tree/ plant, growth of garden, Plantation etc. Contractor shall be responsible for the maintenance of all buildings in the plant. Work All buildings, bathroom, toilet to be kept, swept, cleaned and washed daily. Consumable requirement for cleaning such as acid, harpic, phenyl, air freshener, washing powder, brooms, wire brushes, duster, bamboos, toilet shop, lotion waste, broom shall be provided and used as required. All windows, doors to be cleaned and to keep in good aesthetic condition.
- Contractor shall be responsible to keep watch on overflowing of sump. If such overflow takes place the contractor shall have to bear the damages caused to surrounding properties.
- On the expiry date of his contract operation and maintenance, the contractor shall hand over the plant back to employer in fully working condition satisfying the requirement of treated water as per specification. All the electrical, mechanical and instrumentation including standby shall be in perfect working condition.
- The Contractor shall provide a Notice Boards/Display Boards at appropriate locations detailing precautions to be taken by operation and maintenance personnel in work in conformity with Industries and Labour Regulations and Department of Explosives.
- The Contractor shall at its cost take out and maintain an all risk insurance covering loss of and damage to the e Plant including product water main and intermediately pumping station if any. The employer shall be added as additional insured under such coverage. The Contractor and his insurers shall waive their right of subrogation against Employer.
- Except where otherwise expressly provided herein, neither Party shall be liable to the other Party for any loss of profit, loss of use, loss of contract or for any indirect or consequential damage whatsoever which may be suffered by the other Party.
- The contractor shall grant the Employer a royalty free, non-exclusive, license to use and reproduce its IP rights

contained in its O&M documents furnished to the Employer in accordance with the provisions of the Contract, for the sole purposes of the operation and maintenance of the Plant. There shall be no transfer of legal title to any IP rights, which shall remain vested with the Contractor. The Employer shall grant the Contractor a royalty free license to use and reproduce all IP rights held by the Employer, which are necessary to enable the contractor to lawfully perform its obligations under the O&M Contract.

- The Contractor will comply with all safety rules and regulations and all inter- disciplinary measures as followed by the Employer. The Employer will not be responsible for any accident / injury to the staff or any person of the Contractor or loss or damage to any property. Further, the Employer will not provide any insurance or free medical facility to the staff of Contractor. Providing necessary security arrangement for safety of the plant and contractor's personnel will be the responsibility of contractor.
- All Central / State Government / Semi-Government / Local Body's rules and regulation pertaining to this contract, all legal formalities pertaining to provident fund, factory act, and all legal formalities shall be followed and observed by the Contractor without any extra cost to the Employer. Please note that failure in complying so, all liabilities arising as per laws will be to the Contractor's account.