



COCHIN PORT AUTHORITY

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Tender document for

Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of Cochin Port Authority, including 2 years' guarantee and 5 years comprehensive CAMC thereafter

(TECHNICAL BID)

(E-Tendering Mode)

Website: www.tenderwizard.com/COPT

Office of the Chief Mechanical Engineer,
Cochin Port Authority,
Willingdon Island, Cochin- 682009.

Signature of the Tenderer

COCHIN PORT AUTHORITY

CONTENTS

Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of Cochin Port Authority, including 2 years' guarantee and 5 years comprehensive CAMC thereafter

Section I	Notice Inviting Tenders
Section II	Instructions to Tenderers
Section III	General Conditions of Contract
Section IV	Technical Specifications
Section V	Special Conditions of Contract
Section VI	Contract Data
Section VII	Bill of Quantities
	Annexure (1 to 12) and Annexure (A to D)

Contractor Signature and Seal



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Office of the
Chief Mechanical Engineer,
Cochin Port Authority,
Willingdon Island,
Cochin-682 009, Kerala.

Section-I **Notice Inviting Tender**

Tender No.:F1/T-3/CCTV-36-W.ISLAND/2025/M

Dated : 17.11.2025

1. Electronic Tenders (e-Tenders) on **percentage basis** is invited by Cochin Port Authority in Single Stage Two Cover bidding procedure [Technical Bid and Financial Bid], by the Chief Mechanical Engineer, Cochin Port Authority, Willingdon Island, Cochin-682009, from Proprietorship/ Individual/ Limited company/ LLP meeting the Minimum Qualification Criteria specified below for the work of “**Supply, installation, testing and commissioning of 36 nos. of IP CCTV surveillance systems at various locations of Cochin Port Authority including 2 years guarantee and 5 years comprehensive CAMC thereafter**”

- 1.1 For submitting the e-tender, the prospective bidders willing to participate in this tender shall fulfill the Minimum Qualification Criteria and agree to the Terms and Conditions mentioned in the Tender Document. Tender timeline is available in the BID INFORMATION SHEET given in the Tender Document.

2. **Minimum Qualification Criteria (MQC):**

The tenderer must fulfill the following Minimum Qualification Criteria to prove the techno-commercial competence and submit the documents in support thereof:

- 2.1 **Experience:**

- a) The Tenderer should be either an Original Equipment Manufacturer (OEM) or an Authorized Dealer/ System Integrator of IP CCTV Security cameras. The Authorised Dealer/System integrator should meet MQC. In the case of Authorized Dealer, valid dealership certificate shall be furnished along with the Technical Bid.
- b) The tenderer should have the experience of successfully carried out **similar works of value as mentioned below, excluding GST**, during the last 7 years as on **31/10/2025** to Government Departments/ Reputed Private organizations.

- (i) Three similar completed works each costing not less than **Rs.60,07,537/-** (OR)

- (ii) Two similar completed works each costing not less than **Rs.75,09,421/-** (OR)

- (iii) One similar completed work costing not less than **Rs.1,20,15,073/-**.

“Similar work(s)” means “Supply, installation, testing and commissioning of IP based CCTV surveillance systems”.

- 2.1 **Financial Turnover:** Average Annual Financial Turnover of the tenderer during the last three financial years, ending **31/03/2025** (viz. 2022-23, 2023-24 and 2024-25) shall not be less than **Rs.45,05,653/-**

- 2.2 Either the Bidder or OEM shall have own/authorized service centre in South India. The address of the Authorized service centre shall be furnished in the Bid.

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- 2.3 The CCTV cameras offered shall be STQC-ER compliant as per Meity Guidelines and copy of the STQC approval certificate shall be furnished along with the Bid.
- 2.4 The OEM of the offered VMS **should have full membership of ONVIF and this** information should be available in the ONVIF website for verification.
- 2.5 **The Bidder shall submit valid authorized MAF certificate issued by the OEM in the attached format (Annexure-D), with Tender Reference Number, for the major items viz. CCTV cameras and VMS, along with Bid.**
- 3 The tenderer should submit the following documents along with the technical bid to prove the MQC:
- 3.1 Satisfactory Clients’/Owners’ Certificate or documentary proof shall be submitted in support of the Assignments/ Works performed and claimed by the Tenderer / Partners, in Annexure-4(a)/4(b) to fulfill the Eligibility Criteria for Qualification..
- 3.2 The experience certificate of Works executed in private sectors/organisations shall be considered for qualification, only on submission of TDS certificate along with Work Order and Completion Certificate.
- 3.3 A statement duly certified by the Chartered Accountant (Format as per Annexure 5) showing the Average Annual Financial Turnover during the last three financial years and Annual Accounts duly certified by a Chartered Accountant shall be submitted along with the tender. **Chartered Accountant is to provide their UDIN (Unique Document Identification Number) while certification with QR code if available.**
- 3.4 Enhancement factors as per table given below will be used for the costs of works executed for bringing the financial figures to a common base value in respect of the works completed in past years.

Year before	Multiplying factor
One year [2024]	1.07
Two years [2023]	1.14
Three years[2022]	1.21
Four years [2021]	1.28
Five years [2020]	1.35
Six years [2019]	1.42

- 4 The entire installation should be under guarantee for 2 years. All the CCTV cameras, VMS, Server, Racks, Network switches, POE switches, SFP switch, UPS, P2P link, HDD, High End work station, professional display & PTZ joy stick controller shall be covered under OEM warranty for 5 years. **The Bidder shall submit valid authorized MAF certificate issued by the OEM in the attached format (Annexure-D), with Tender Reference Number, for the major items viz. CCTV cameras and VMS, along with Bid.**
- 5 The tenderer shall visit the site and assess the present network & cameras and new requirements before submitting the bid for the CCTV Surveillance system at CoPA and it will be construed that the tenderer has estimated his cost accordingly and the Port Authority will be in no way responsible for the lack of such knowledge and also consequences thereof to the tenderer.

6 Other Eligibility Considerations:

Even though the tenderers meet the above qualifying criteria, they are subject to be disqualified if they have (i) made misleading or false representations in the forms, statements and attachments submitted in proof of

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the qualification requirements; and/or (ii) record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.. In this regard the firm should submit a declaration that they have no record of poor performance, at the time of submitting the tender.

7 BID INFORMATION SHEET

A	Bid No.	No.F1/T- 3/CCTV-36-W.ISLAND/2025/M
B	Tender E-Publication Date	17.11.2025
C	Name Of Work	Supply, installation, testing and commissioning of 36 nos. of IP CCTV surveillance systems at various locations of Cochin Port Authority including 2 years guarantee and 5 years comprehensive CAMC thereafter
D	Brief Scope Of Work	Supply, installation, testing & commissioning of IP based CCTV surveillance system(Bullet / PTZ cameras-STQC approved) at various locations including providing new VMS and Server compatible to both the new CCTV cameras that are proposed to be provided in this tender and the old existing CCTV cameras already available at CoPA premises.
E	Type Of Bidding System	e-Tender through e-Tendering portal www.tenderwizard.com/COPT
F	Type Of Tender	Single stage 2 cover system with EMD
G	Language Of Tender And All Correspondences	English
H	Download Period Of Tender Documents	FROM 17.11.2025 TO 09.12.2025 2.30 PM
I	Date, Time & Venue Of Pre-Bid Meeting	Pre-bid meeting will be held in the CME's office of CoPA on 25.11.2025 11.00 AM , through Video Conference to answer clarifications, if any, on the bid document and the link will be shared to the bidders on their request.
J	Online Bid-Submission Deadline Date	09.12.2025 3.00 PM
K	Techno- Commercial Bid Opening	09.12.2025 3.30 PM in e-tender portal , at the Office of the Chief Mechanical Engineer, 1st Floor, New Administrative Building, Cochin Port Authority, Cochin After the deadline for submission of tenders, only technical submission will be opened on the due date of tender opening. Only tenders that are responsive to the mandatory requirements in the technical evaluation shall have their financial submission opened.
L	Price Bid Opening	Date and time will be informed later to the eligible bidders. The price shall be fixed. The currency in which the prices shall be quoted shall be: Indian Rupees (INR) Prices quoted shall be net excluding GST
M	Estimated Amount Put To Tender	Rs.1,50,18,840/- excluding GST (Rupees One Crore Fifty Lakh Eighteen Thousand Eight Hundred Forty only) for the entire work including Comprehensive CAMC for 5 years

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		after 2 years guarantee period.
N	Cost of Bid Document (Exemption Given As Per Cl. No.17 Below)	Rs.2360/- including 18 % GST. The cost of bid document and shall be furnished in the form of Demand Draft/ Banker's Cheque drawn in favour of the FA & CAO, CoPA or through RTGS/NEFT mode.
O	Earnest Money Deposit (Exemption Given As Per Cl. No.17 Below)	Rs.3,00,380/- (Rupees Three Lakh Three Hundred Eighty only) shall be furnished either in the form of Insurance Surety Bond or through account payee Demand Draft, Banker's Cheque or an irrevocable Bank Guarantee drawn in favour of Financial Adviser & Chief Accounts Officer, CoPA, enforceable/ encashable at Kochi, from any Commercial Banks or online payment (State Bank of India, Cochin Port Authority Branch, IFSCCode:SBIN0006367, Account No.41401802288), in an acceptable form safeguarding the interest purchaser's interest in all respects. The bid security shall be valid for a period of 45 days beyond the final bid validity period.
P	Contract Period	The CCTV surveillance systems shall be commissioned within 90 Days from the date of LOA
Q	Validity Of Tender	Bid shall remain valid for a period of 120 days from the date of Tender opening.
R	Contact Details Of e-tender portal	e-Tender Help Desk No.080-40482000 / 9746118529 / 9605557738
S	Name, Designation, Address And Other Details (For Submission Of Tender)	The Chief Mechanical Engineer, Cochin Port Authority, 1st floor, New Administrative Building, Willingdon Island, Kochi-682 009 Tel. 0484-2666639, 2582300, 2582352 Email: cme@cochinport.gov.in ; dycmeele@cochinport.gov.in

- 8 The Scope of the work of this tender includes the Supply installation, testing & and commissioning of IP based CCTV surveillance system, involving Bullet type/ PTZ cameras at various designated locations, compatible to the existing CCTV system. The Tenderer shall provide VMS system and Server compatible to both the new CCTV cameras that are proposed to be provided in this tender and the old existing CCTV cameras already available at CoPA premises. Detailed Scope of Work is given in Section-IV, Technical Specifications.
- 9 Cochin Port Authority will not be held responsible for any technical snag or network failure during online bidding. It is the bidder's responsibility to comply with the system requirement, i.e. hardware, software and internet connectivity, at bidder's premises to access the e-tender Portal.
- 10 Under any circumstances, Cochin Port Authority shall not be liable to the Bidders for any direct/ indirect loss or damages incurred by them, arising out of incorrect use of the e-tender Portal or internet connectivity failures. The bidders are requested to watch the e-tender Portal/ CoPA website/CPMP Website viz. www.tenderwizard.com/COPT/www.cochinport.gov.in/www.eprocure.gov.in for Addendums / Amendments/ Errata / Replies to the queries of the bidder etc., if any, issued by the Employer, and upload a copy of the Tender Document and Amendments / Corrigendum duly signed on all the pages by the Authorised signatory with Company seal affixed.

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- 11 Tender documents can be downloaded from the e-Tendering portal www.tenderwizard.com/COPT on the dates specified in Table above by making online requisition. Bid document will also be available in Cochin Port website (www.cochinport.gov.in) as well as Govt. tender website, www.eprocure.gov.in, which can be downloaded for submission. **The cost of bid document and EMD shall be furnished on or before the due date and time for Submission of bid. Non submission of original financial document towards cost of tender document and EMD will make the tender liable for rejection, and such tenders would not be evaluated further.**
- 12 **The bidders need to obtain the one time User ID & password for log-in to in e-Tendering system from the service provider KEONICS by paying registration amount by online Payment using Credit/Debit Card/Net banking or DD in favour of “KSEDCL, Bangalore”.**
- 13 The intending bidder must have valid Class-II or III digital signature certificate to submit the bid. For further details and to obtain the digital signature, please contact e-Tender Help Desk No.080-40482000 / 9746118529 / 9605557738.
- 14 Tenders shall be submitted “**online**” strictly in accordance with the Instructions to Tenderers and Terms & Conditions given in the tender document.
- 15 The bidder is responsible to download Addenda/ Amendments/ Errata/ Replies to the queries of the bidders etc., if any, issued by the Employer, from the website before submission of the bid. **Any shortfall in uploading the said Addenda/ Amendments/ Errata/ Replies to the queries of Tenderer etc. duly signed along with the downloaded documents while uploading the Tender will render the Tender incomplete and such incomplete Tender Documents may be rejected by the employer and would not be evaluated.**
- 16 All Bids are to be submitted **online only** in the website www.tenderwizard.com/COPT. No Bids shall be accepted off-line (Hard copy). Bank details of Cochin Port Authority are as follows: State Bank of India, Cochin Port Authority Branch, IFSC Code: SBIN0006367, Account No.41401802288.
- 17 **Exemption from the payment of Cost of Tender Document and EMD shall be given to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by the Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department. The tenderers shall furnish a copy of the NSIC / MSME / UAM certificates for the exemption of EMD/Cost of TD along with the Technical bid. Such Certificates should mention the QR code of such registration. The scanned copy of Exemption Certificate duly notarized shall be uploaded in the e-Tender Portal. If the Registration Certificate does not pertain to the Category of ‘similar Works’ mentioned above, the Tender will be rejected.**
- 18 **Format for Self-Certification under Preference to “MAKE IN INDIA” Policy CERTIFICATE as per Annexure – 17 - In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017 and No.P45021/2/2017-PP (BE-II) dt. 04.06.2020 as amended from time to time along with clarifications/amendments and other references as issued from time to time, the Contractor has to certify that they are meeting the requirement of Minimum Local Content in goods/services/ works to be supplied by local supplier as per declaration. (Class-I Supplier (50%) or Class-II Supplier (20%) or Non-Local Supplier (Less than 20%)**
- 19 The bidder should not have been blacklisted or debarred by any Central / State Government /Agency of Central / State Government / Public Sector Undertaking / Regulatory Authority of India at the time of submission of this bid. In this regard the firm should submit a declaration that they have not been blacklisted or debarred by any Central /State Government/ Agency of Central / State Government/ Public Sector Undertaking/Regulatory Authority of India at the time of submission of bid **Annexure-9**
- 20 **The bidders have to execute an “Integrity Pact”(IP) as per the format enclosed in the tender document and also available in the CoPA’s website www.cochinport.gov.in. The Tenderer**

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should sign and upload the “Integrity Pact” duly signed, in techno-commercial bid. Bids not accompanied by a duly signed “Pre-Contract Integrity Pact” shall be liable for rejection.

21 The Independent External Monitors (IEM) for Cochin Port are as follows:

1) Shri. Harishwar Dayal, IDSE (Rtd.)
H-2, Lawyer Colony, Bypass Road,
Agra-282005 (UP)
Mobile No:9412095786 Email: dayalagra@gmail.com

2) Shri. Deepak Chaturvedi, ITS (Retd)
Flat No.1, Sanchar Vihar,
C-58/4, Sector-62, Uttar Pradesh, Noida-201301
Mobile No:9930408711
Email ID :chaturvedideep@rediffmail.com

22 The undersigned reserves the right to reject/cancel/postpone/annul the tenders at any stage of the tender without assigning any reason thereof, which will be binding on all bidders.

23 This tender notice shall form part of the tender document and are to be signed and uploaded along with the technical bid.

**Sd/-
CHIEF MECHANICAL ENGINEER
COCHIN PORT AUTHORITY**

SECTION-II INSTRUCTION TO BIDDERS

1. Introduction

- 1.1 Electronic Tenders (**e-Tenders**) on **percentage** basis is invited in Single Stage Two Cover bidding procedure [Technical Bid and Financial Bid], by the Chief Mechanical Engineer, Cochin Port Authority, Willingdon Island, Cochin-682009 from Proprietorship/ Individual/Limited company/LLP meeting the Minimum Qualification Criteria specified for the **“Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive CAMC thereafter”**, as per the Scope of Work and Technical Specifications given in the tender document. The site is at Willingdon Island, Cochin.

2. General Instructions

- 2.1 The Contract is to be executed as described in the Bid document and in particular in the Scope of Works/purchase, Technical Specification, General Conditions of Contract, Bill of Quantities and in general includes, but is not limited to supplying all materials including consumables and equipment necessary to execute the Work as described in the Bid Document etc.
- 2.2 Before submitting the bid, the tenderer shall examine carefully all conditions of contract, specifications, etc. supplied herewith. The Tenderers shall inspect the site of Work with prior appointment with the Engineer-in-Charge of the Work to get himself acquainted with the site conditions and to assess and satisfy himself of the difficulties and constraints which may be involved in executing the Work in the location. It will be deemed that prior to the submission of Tender, the Tenderer has visited the site and has satisfied himself as to the nature and location of the Work, general and local conditions and that the Tenderer has estimated his cost accordingly and the Port Authority will be, in no way responsible for the lack of such knowledge and also consequences thereof to the Tenderer. Failure to visit the site will in no way relieve the Successful Tenderer of any of the obligations in performing the Work in accordance with this Tender Document including addenda/corrigenda, within the quoted price.
- 2.3 A tenderer shall be deemed to have full knowledge of all documents, works/purchase conditions etc. The submission of a bid by the bidder implies that he has read the Notice and Conditions of Contract and has made himself aware of the scope and specifications and other factors bearing on the bid and that they are binding on him.
- 2.4 The tenderer may please note that the EMPLOYER will not entertain any correspondence or query on the status of the offers received against this Bid. Bidders are also requested not to depute any of their personnel or agents to visit the Employer's offices for making such enquiries till finalization of the bid. Should the EMPLOYER find it necessary to seek any clarification, technical or otherwise, the concerned bidder will be duly contacted by the EMPLOYER.
- 2.5 Canvassing in any form by the bidder or by any other agency acting on behalf of the bidder after submission of the bid may disqualify the said bidder. The Employer's decision in this regard shall be final and binding on the bidder.
- 2.6 The EMPLOYER will not be liable for any financial obligation in connection with the Work until such time the Employer has communicated to the Successful Tenderer in writing his decision to entrust the Work (covered by the Tender Document issued to him).
- 2.7 Telefax/E-mail offers will not be considered. Tenderers should prepare their Tender themselves and submit it online. Tenders submitted by agents will not be recognized.
- 2.8 Employer will not be responsible for the loss of the Original Documents connected with the tender submission or for the delay in postal transit.
- 2.9 In case of an unscheduled holiday on the prescribed closing/opening day of the bid, the next working day will be treated as the scheduled day of closing/opening of the bid.
- 2.10 While evaluating the document, regard would be paid to National Defense and Security Considerations, at the discretion of the Cochin Port Authority. Bid received from any bidder may be summarily rejected on National Security Consideration without any intimation thereof to the Bidder.

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- 2.11 If there are varying or conflicting provisions made in any document forming part of the Contract, the conditions in General Conditions of Contract will prevail and the Chief Mechanical Engineer, Cochin Port Authority, Cochin – 682009 shall be the deciding authority with regard to the intention of the Document which will be binding on the Tenderer.
- 2.12 In case the department desires to inspect the equipments/software for confirmation of its availability and capacity etc., necessary arrangements shall be made by the Tenderer for such inspection at his own cost.
- 2.13 Any error in description, any omissions there from shall not vitiate the Contract or release the Contractor from the execution of whole Work or any part of the works comprised therein, according to drawing and specifications or from any of his obligations under the Contract.
- 2.14 All the Bank Guarantees (BGs) to be furnished except for EMD by the Contractors in connection with the Tender shall be sent to the Chief Mechanical Engineer, Cochin Port Authority, directly by the issuing bank under registered post with AD. The Contractor shall take the responsibility of sending BGs directly to the Port Authority by the issuing bank.
- 2.15 The contractor / approved Sub-Contractor if any, shall comply with all the provisions of the Indian Workmen's Compensations Act, Provident Fund Regulations, Employees Provident Fund and ESI Act etc. amended from time to time and rules framed there under and other laws affecting the contract labour that may be brought in to force from time to time.
- 2.16 If applicable as per EPF/ESI Acts, the Tenderer shall be registered under EPF and ESI Act and the employees employed under them shall be covered in the EPF and ESI scheme. In such cases, who are registered under EPF Organisation and ESI Corporation and furnish documentary evidence in support of valid registration shall only be considered for qualification for opening of Price Bids. In case, the Tenderer does not have the required number of employees which makes such registration mandatory, an undertaking as per **Annexure – 6** to the effect shall be furnished.
- 2.17 The contractors shall regularly remit the employer and employee contribution to the authorities. If not, the Department would remit the same and the amount so remitted shall be deducted from the part/final bill of contractors.
- 2.18 The Contractor shall be registered under GST and shall furnish documentary evidence in support of valid GST registration.
- 2.19 The Tenderer shall provide accurate information about all pending litigation, and / or arbitration cases resulting from Contracts completed or ongoing under its execution as per **Annexure – 7**. Any misrepresentation of information in this regard is liable for rejection of the Tender.
- 2.20 The Tenderer shall also provide accurate information about any litigation or arbitration cases resulting from Contracts completed or ongoing under its execution over the last three years as per **Annexure - 8**. It may be noted that under this category only cases of litigation / arbitration finally settled against the Tenderer should be listed. A consistent history of awards against the Tenderer may result in failure of the Application/Tender. Any misrepresentation of information in this regard is liable for rejection of the Tender.
- 2.21 The Tenderer shall provide accurate information about all barred cases by the Central/State Government, or any entity controlled by it, from participating in any Project as per **Annexure - 9**. Any misrepresentation of information in this regard is liable for rejection of the Tender.
- 2.22 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 Tender submission, would not be eligible to submit its Tender either individually or as Member or Associate of a Joint Venture/ Consortium.
- 2.23 **Exemption from the payment of EMD& Cost of Tender Document shall be given to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by the Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department. The Tenderers shall furnish a copy of the MSME/UAM certificates for the exemption of EMD along with the Technical bid. Such**

Certificates should mention the QR code of such registration. The scanned copy of Exemption Certificate duly notarized shall be uploaded in the e-Tender Portal. If the Registration Certificate does not pertain to the Category of ‘Similar Works’ mentioned above, the Tender will be rejected.

- 2.24 If a Tenderer has already been awarded or qualified for a similar Work with a higher value or equivalent value within the last 6 months from the date of Notice Inviting Tender, the Tender of such Tenderer shall be evaluated / considered for qualification with the documents submitted by the Tenderers in those Tenders, provided the Tenderer clearly states the details of such Works in the Letter of Submission.
- 2.25 In the Letter of Submission, the Tenderer shall compulsorily indicate two nos. of current active email addresses to which further Tender related communication can be sent by CoPA. All communication from CoPA shall be deemed to have been delivered when the email is sent to the specified email addresses and the date of sending email by CoPA shall be considered as the date of receipt by the Tenderer. CoPA shall, in no way, be responsible for the non-receipt of any such communication by the Tenderer due to whatever reasons on this account.

3. Invitation for Bids:

- 3.1. The Invitation for Bids is open to all eligible bidders meeting the Minimum Qualification Criteria.

4. Downloading of Tender Documents:

- a. The complete Tender Documents are available in the e-tender portal www.tenderwizard.com/COPT, in the CoPA website www.cochinport.gov.in as well as in the Central Public Procurement Portal of Govt. of India, www.eprocure.gov.in. Interested bidders shall download the Tender Documents from these portals as per the provisions available therein. Tenders attaching all required documents shall be submitted through e-tender portal strictly in accordance with the instructions to bidders (ITB), terms and conditions of the tender document, before the tender submission time mentioned in the tender.
- b. In case of Tender Document being downloaded from the Cochin Port website, at the time of uploading, the Tenderer shall give an undertaking that no changes have been made in the Document. The Port's Tender Document will be treated as authentic Tender and if any discrepancy is noticed at any stage between the Port's Tender Document and the one submitted by the Tenderer, the Port's Document shall prevail. For the discrepancies found at any time, the Tenderer shall be liable for legal action.

5. One Bid per Bidder:

Each bidder shall submit only one bid. A bidder who submits or participates in more than one Bid will cause all the proposals with the Bidder's participation to be disqualified.

6. The Bidder:

The Bidder shall be a single entity only (Proprietorship/ Individual/ Limited company/ LLP) meeting the Minimum Qualification Criteria

7. Cost of Bidding:

The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

8. Site visit:

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the work site and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for execution of the Works. The costs of visiting the site shall be at the Bidders' own expense.

9. Clarification of the Bidding Documents:

The tenderers are advised to examine the Tender Document carefully and if there be or appear to be any ambiguity or discrepancy in the documents, or any clarifications needed on the Tender Documents; these shall be referred to the Chief Mechanical Engineer in writing at the following address, so as to reach them before the pre-bid meeting. It is to be noted that queries, clarifications received after the above date will not be considered.

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Address: Chief Mechanical Engineer,
Cochin Port Authority, Willingdon Island,
Cochin, 682009, Kerala, India.
Phone: 91-0484-2666639/2582300 /2305, Fax: 91-0484-2666639
Email: cme@cochinport.gov.in/dycmeele@cochinport.gov.in

10. Pre-Bid Meeting:

A pre-bid conference will be held in the CME's office of Cochin Port Authority, to answer clarifications, if any, on the bid document. The Pre-Bid meeting will be held on the date notified in the Notice Inviting Tender, through Video Conference and the link will be shared to the bidders on their request. A prospective tenderer requiring any clarification of the tender shall submit their queries to the Chief Mechanical Engineer in writing/e-mail well in advance before the pre-bid meeting. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder. Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be published in e-tender portal as well as in Cochin Port Authority official website as Addendum/ corrigendum. Any modification of the bid documents as a result of the pre-bid meeting shall be made exclusively through the issue of an Addendum/ corrigendum.

11. Amendment of Bidding Documents:

The Chief Mechanical Engineer, Cochin Port Authority shall have the right to revise or amend the Bid documents prior to the due date of submission of the Bid by issuance of addenda/corrigenda. Any addendum/ corrigendum thus issued shall be part of the tender document. The addendum/ corrigendum, if any, shall be hosted in the e-tender portal as well as in the website of the Cochin Port and CPP Portal. It is the responsibility of the Bidders to download such addenda/ corrigenda hosted in the website and upload the same duly signed along with the Bid. In order to afford the Bidders reasonable time to take any addendum into account, or for any other reason, the Port may, at its discretion, extend the due date for submission of Bid and Bid Extension Notice shall be hosted in the e-tender portal and web site.

12. Preparation of bids:

All documents relating to the bid shall be in the English language.

13. Currencies of Bid and Payment:

The price shall be quoted by the bidder entirely in Indian National Rupees (INR).

14. Financial Bid :

In the Financial bid / BOQ available in the e-tender Portal, the tenderers are requested to quote the total cost for **“Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive CAMC thereafter, including GST.**

All the CCTV cameras, Racks, Network switches, POE switches, SFP switch, UPS, P2P link, Rack Mount Recorder, HDD, High End work station, professional display, PTZ joy stick controller shall be covered under OEM warranty for 5 years (Item Nos. 1, 2, 4, 5, 6, 7, 17, 20, 22, 26, 27, 28, 29, 30, 31, 32, 33, 34 of BOQ). **This may be considered while quoting for CAMC rate by the bidder. The Contractor shall maintain the entire CCTV surveillance system for 7 years at their own responsibility and cost.**

Tenderer should ensure that his tendered price as per Price bid is not mentioned anywhere in any other documents in Technical bid submission, directly or indirectly. If any such mention is made, the tender will become invalid and shall not be considered for Financial evaluation and will be rejected.

The rate quoted by the Tenderer shall be inclusive of the cost of provision of plant and equipment, materials, labour, execution, supervision, maintenance, overheads and profits and every incidental and contingent cost and charges whatsoever but excluding Goods and Service Tax (GST).

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15. Bid Validity:

Bids shall remain valid for a period not less than 120 (One Hundred Twenty) days from the date of bid submission. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive. Should any tenderer withdraw his tender before these periods, or make any modification in the terms and conditions of the tender which are not acceptable to the department, the earnest money deposited by the tenderer shall be forfeited and Bid will be treated as defective and will not be considered for further evaluation.

16. Bid Security /EMD:

16.1. Each Tender should be accompanied by an Earnest Money amounting to **Rs.3,00,380/-**. (Rupees Three Lakh Three Hundred Eighty only). EMD shall be furnished either in the form of Insurance Surety bond or through account payee Demand Draft, Banker's Cheque or an irrevocable Bank Guarantee, as per the proforma at Annexure-15, drawn in favour of Financial Adviser & Chief Accounts Officer, CoPA, enforceable/ encashable at Kochi, from any Commercial Banks or online payment (State Bank of India, Cochin Port Authority Branch, IFSC Code: SBIN0006367, Account No. 41401802288), in an acceptable form safeguarding the interest purchaser's interest in all respects. The bid security shall be valid for a period of 45 days beyond the final bid validity period. In case, BG is furnished for EMD, BG shall be verified independently by the Port with the bank before finalisation of technical offers. In the event of lack of confirmation of issuance of the BG by the bank, the Tender shall stand disqualified.

16.2. The Earnest Money Deposit will not carry any interest.

16.3. Any Tender not accompanied by an acceptable Bid Security / EMD shall be treated as Non-responsive and shall be rejected by the Employer.

16.4. Forfeiture of Bid security / EMD

Bid Security/EMD will be forfeited in the following cases:

- a) If a Bidder withdraws his bid during the period of bid validity.
- b) The Bidder does not accept the correction of the Bid Price pursuant to any arithmetical errors.
- c) In case of a successful bidder who fails:-
 - (i) to commence the work, within the specified time limit
 - (ii) to sign the Agreement or furnish the required Performance Security within the specified time limit

17. No Alternative Proposals by Bidders:

Bidders shall submit offers that comply with the requirements of the bidding documents. Alternate / Conditional offers will not be considered.

18. Format and Signing of Tender Document:

18.1 The Tenderer shall prepare one set of his Tender (all Volumes), duly completed and signed, along with the set of Drawings and other documents mentioned hereinafter. The Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder with signature duly witnessed and company seal affixed. The Power of Attorney (in original) authorizing the signatory/s of the Tender shall be enclosed. All pages of the bid where entries or amendments have been made shall be signed by the person or persons signing the bid.

18.2 If the Tender is made by an individual, it shall be signed by his full name and his address shall be given. In the event of the Tender being submitted by a registered partnership firm, it must be signed individually by each Partner thereof. In the event of absence of any Partner, it must be signed on his behalf by a person holding proper Power-of-Attorney authorising him to do so and to bind the Partner in all matters pertaining to the Contract including the Arbitration Clause, such Power-of-Attorney to be attached with the Tender which must also disclose that the firm is duly registered under Indian Partnership Act. If the Tender is made by a Limited Company, it shall be signed by a duly authorised person who shall produce with the Tender satisfactory evidence of the authorisation. In the case of a

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Limited Company the Tender should be accompanied by the Memorandum and Articles of Association of the Company.

19. Bid Submission:

Bid shall be submitted in prescribed form in two parts:

Part-I Technical Bid and Part-II Financial Bid.

20. Information Required In The Bid:

20.1 Part I -Technical Bid shall contain the following:

- (i) Bid security/EMD or relevant MSME/ UAM certificate for exemption of EMD.
- (ii) Bid document signed by Authorized signatory, including all addendum/corrigendum
- (iii) Letter of Submission (vide **Annexure-1**)
- (iv) Power of Attorney (in original) in favour of signatory/s to the Tender, duly authenticated by Notary Public. (vide **Annexure-2**). Companies/Contractors may jointly undertake Contract/ Contracts. Each entity shall be jointly and severally responsible for completing the task as per the Contract; however, one of the partners shall be nominated as the Lead Partner by all the constituent firms.
- (v) Organization Details (vide **Annexure-3**)
- (vi) List of Annexures (Section I.6 Annexures) - The Bidder shall submit the list of annexures indicating the status in column 5 of the above table. (Submitted/not submitted/Not Applicable) along with the bid
- (vii) Financial documents in support of MQC– A statement showing Average Annual Financial turnover of the tenderer over the last three(3) financial years [2022-'23, 2023-'24 & 2024-'25] (vide **Annexure-5**) supported by Audited Financial statements (balance sheets/profit & loss account) for the last three years duly certified by Chartered Accountant.
- (viii) Details of experience as per the format at **Annexure-4(a) /4(b)** and Certificates in proof of experience in similar works as detailed in Section I- Instruction To Bidders.

Explanatory notes:

- a) Proof of experience shall contain the following:
 - i) Work order no. and date and details specifying the nature of work involved
 - a. The completion cost of the work and
 - b. Date of commencement and
 - c. Date of completion of the work
- b) The Bidder shall complete the documents as per formats, without any alterations to the text given in this Tender, failing which his offer shall be summarily rejected
- c) Original or notary certified copy of completion certificates with number and date, for each work issued by the owner/ the responsible officers of the owner under whom he has executed such contracts and the work order shall be submitted. The completion certificate shall invariably contain the following among other things.
- d) In case a particular project / contract has been jointly executed by the Bidder (as part of a Consortium), it should further support its claim for the share in work done for that particular project / contract by producing a certificate from its Statutory Auditor or the Client. Also, notary attested copy of joint venture agreement in this respect shall be attached.
- e) CA certificate for the transaction details should be furnished if the Work Completion Certificate from any Private Organization is submitted towards fulfillment of qualifying

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criteria.

- f) The works indicated in **Annexure-4(a) /4(b)** will only be considered for evaluation. Mere submission of work completion certificate will not be considered as Eligible Assignments.
- (ix) In addition to the above qualifying requirements, the Bidder shall comply with all applicable laws including the guidelines issued in the Public Procurement (Preference to Make in India) Notification to provide for purchase preference (linked with local content) in respect of Power Distribution Sector vide Order No. 11/05/2018-Coord., published by the Ministry of Power, Government of India dated 17 September 2020 including any amendments or modifications to the same from time to time. **Make In India(MII) declaration as per Annexure-17** shall be submitted along with the Bid.
- (x) Copies of PAN, GST, EPF and ESI registration with **Annexure 6**.
- (xi) A detailed method statement (Technical Note) for carrying out of the works, along with implementation schedule showing sequence of operation and the time frame for various segments of temporary and permanent works.(vide **Annexure-10**). The information provided will form part of the work methodology and the same shall be in line with the Specifications and Bill of quantities.
- (xii) A declaration to the effect as per sl.no.11 (vide **Annexure-12**)
- (xiii) Bank information for e-Payment system as per **Annexure-14**.
- (xiv) Information regarding Financial Situation and Current Contract Commitments supported by a certificate from its Statutory Auditor **Annexure-8**
- (xv) The proposed methodology and program of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion **Annexure-10**
- (xvi) Personnel / Staff proposed for the Project **Annexure-11**
- (xvii) Proposed Site Organization **Annexure-12**
- (xviii) Historical Contract Non-Performance Pending Litigation and Litigation History-**Annexure-8**
- (xix) Details of Tenderer for refund of EMD through E-Payment, if applicable **Annexure-13**
- (xx) Integrity Pact, duly sealed & signed **Annexure-18**
- (xxi) Tenderers shall quote for the whole of the item as per Scope of Work on a single responsibility basis, such that the total Tender Price covers all the Contractor's obligations mentioned in the Tender Document.

20.2 Part II : "Price Bid"

Tenderers shall submit the BoQ / Price Bid in e-tender portal.

- 20.2.1. The Bidder shall fill in the rates and prices for all items of the works in the completed/ updated version of Bill of Quantities (BOQ) as per his design. Items against which no rate or price is entered by the Bidder shall be deemed covered by the rates for all other items in the Bill of Quantities and will not be paid separately by the Employer. The Bill of Quantities enclosed in the tender document is only nominal. The bidder shall submit the detailed BoQ if requested by CoPA.
- 20.2.2. Tenderers shall provide price in the manner and detail called for Bid (Financial Proposal). The prices shall only be mentioned in the BOQ uploaded in the e-tender portal and the quoted price shall be inclusive of all taxes and duties excluding GST.

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21. Deadline for Submission of the Bids:

- 21.1. Tenders attaching all documents shall be submitted through e-tender portal strictly in accordance with the instructions to the tenderers, terms and conditions of tender document before **the time and the day notified** in NIT.
- 21.2. A Tenderer may modify or substitute or withdraw its Tender after it has been submitted, provided that modification, including substitution or withdrawal of the Tender, is materialized prior to the deadline prescribed for submission of Tenders notified in the NIT.
- 21.3. No Tender may be withdrawn, replaced or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity. Withdrawal of a Tender between the deadline for submission of Tenders and the expiration of the period of Tender validity specified in the Tender shall result in the forfeiture of Bid Security/EMD, pursuant to the ITB
- 21.4. Tenderers may only offer discounts to, or otherwise modify the prices of their Tenders by submitting Tender modifications in accordance with this Clause, or included in the original Tender submission.

22. Bid Opening

- 22.1 The Officer inviting the tender or his duly authorized assistant will open the tenders in the presence of intending tenderers who may be present at the time in person or through their authorized representative. In the case of the tenders invited under Two Cover System, the technical bids of the tenders received will be opened first.
- 22.2 Technical Bid: Technical Bid shall be opened in the office of the Chief Mechanical Engineer, Cochin Port Authority at the time specified on the last date fixed for receiving the Tenders. Submission of EMD or MSME/ UAM certificate is verified initially. In case the earnest money / MSME/ UAM certificate is not furnished or is not in order, the Bid will not be opened further.
- 22.3 If all Bidders have submitted unconditional Bids together with requisite Bid security, then all Bidders will be so informed then and there. If any Bid contains any deviation from the Bids documents and /or if the same does not contain Bid security in the manner prescribed in the Bid documents, then that Bid will be rejected and the Bidder will be informed accordingly. The Price Bid submitted in e-mode will not be opened.
- 22.4 In the event of a tender being rejected, the earnest money paid with such unaccepted tender shall be refunded to the tenderer.

23. Bid Opening – Price Bid:

Price Bid of those tenderers found responsive in the evaluation of Technical bid, will be opened later. Short listed bidders will be communicated about the date and time of opening of the price bid. The Bidder's name, the Bid prices, the total amount of each Bid, any discounts, Bid modifications and withdrawals, and such other details as the Employer may consider appropriate, will be announced by the Employer at the time of opening.

24. Clarification of Bids

- 24.1 To assist in the examination and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdown of unit rates. The request for clarification and the response shall be in writing, but no change in the price or substance of the Bid shall be sought, offered, or permitted.
- 24.2 No Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, he should do so in writing.
- 24.3 Any effort by the Bidder to influence the Employer's bid evaluation, bid comparison or contract award decisions, may result in the rejection of his bid.

25. Examination of Bids and Determination of Responsiveness:

Prior to detailed evaluation of Bids, Cochin Port Authority will determine whether each Bid

- a) Meets the minimum eligibility criteria defined in Clause 3 of NIT.
- b) Has been properly signed by an authorized signatory (accredited representative) holding Power of Attorney in his favour. The Power of Attorney shall inter-alia include a provision to bind the Bidder to settlement of disputes clause;
- c) Is accompanied by the required Bid security and;
- d) Is responsive to the requirements of the Bidding documents.
- e) A responsive Bid is one which conforms to all the terms, conditions and specification of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality or performance of the Works;
 - i. which limits in any substantial way, the Employer's rights or the Bidder's obligations under the Contractor
 - ii. whose rectification would affect unfairly the competitive position of other Bidders presenting responsive Bids.
 - iii. Undertakes in the Technical Bid that he has not incorporated any conditions in the Financial Bid.
- f) If a Bid is not substantially responsive, it shall be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non- conforming deviation or reservation.

26. Correction of Errors:

Bids determined to be responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

- a) Where there is a discrepancy between the quoted price in figures and in words, the percentage in words will govern;
- b) The amount stated in the Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the bidder. If the Bidder does not accept the corrected amount, the Bid shall be rejected and the Bid security shall be forfeited in accordance with Clause 16.4 above.

27. Evaluation of Price Bid

The tenderers shall quote their total cost for all the items as per schedule, excluding GST, in the e-tender portal.

Only those tenders, as determined to be substantially responsive to the requirements of the Tender Document will be evaluated. Other non-responsive tenders will be rejected. Cochin Port's decision on this shall be final, conclusive and binding.

In order to determine the lowest evaluated bid, Cochin Port Authority will consider overall lowest of all the items together.

28. Comparison of Bids:

The Employer will evaluate and compare only the Bids determined to be responsive in accordance with Clause 24 of ITB. In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

Making any correction for errors pursuant to Clause 25.

Making appropriate adjustments to reflect discounts or other price modifications offered.

Evaluation of the price bid will be based on the combined cost of the Project and cost for CAMC for 5 years after.

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29. Alteration of tender documents:

No alteration shall be made in any of the tender documents or in the Bill of Quantities and the tender shall comply strictly with the terms and conditions of the tender document. The Employer may however ask any tenderer for clarifications of his tender if required. Nevertheless, no tenderer will be permitted to alter his tender price after opening of the tender.

30. Alternative conditions and Proposal:

The Tenderer shall note that alternative or qualifying tender conditions, or alternative design proposal for whole or part of the work will not be acceptable. Tenders containing any qualifying conditions or even Tenderer's clarifications in any form will be treated as non-responsive and will run the risk of rejection. Price Bid of such Tenderer's will not be opened.

31. Award of Contract:

The Employer will award the Contract to the bidder whose bid has been determined to be responsive to the bidding documents and who has offered the lowest evaluated bid price, provided that such bidder has been determined to be

- a) Eligible in accordance with the provisions of Clause 24 and
- b) Qualified in accordance with the provisions of Clause 27.

32. Letter of Award (LoA)

- 32.1 Prior to expiry of the validity or extended validity period of the Tender, the Employer will notify the Successful Bidder through e-mail confirmed by registered letter that its Tender has been accepted. This Letter (hereinafter and in the Contract Conditions referred to as the "Letter of Award" (of the Tender) or "LoA") shall specify the sum which the Employer will pay the Contractor (hereinafter and in the Contract Conditions referred to as the "Contract Price") in consideration of the execution and completion of the Works for the Project and the remedying of any defects therein by the Contractor in terms of the Contract.
- 32.2 Separate order shall be issued for Comprehensive CAMC of the **36 nos. of IP CCTV security cameras** before the expiry of 2-year guarantee period and separate security deposit for 10% of total CCAMC cost shall be furnished for covering the 5 year CAMC period and separate agreement for the CCAMC shall be executed.

33. Release of Bid Security / EMD:

The Bid Security/EMD of unsuccessful Tenderers other than L1 and L2 will be refunded immediately after ranking of the Tenders. The Bid Security/EMD of L2 Tenderer shall be refunded immediately after acceptance of the Performance Security and entering into Agreement with L1 Tenderer. The Bid Security/EMD of the Successful Tenderer will be discharged after he has furnished the required Performance Security, which has been accepted and has signed the Agreement.

34. Performance Security:

- 34.1 Performance Security for the Contract is **10 % of the total contract value for the 'SITC of 36 nos. of IP CCTV security cameras at various locations of CoPA.** Within not later than 21 days from the date of receipt of the Letter of Acceptance by e-mail or within such time as extended by the Employer, the Successful Tenderer shall deliver to the Employer, a Performance Security for an amount equivalent to **5% of the total contract value**, rounded off to the nearest Rs.1000/-, in any one of the below mentioned forms. **Balance 5% Performance Security will be deducted as retention money from each bill.**
 - i) Insurance Surety Bond/ Banker's Cheque/ Account Payee Demand Draft from any Commercial Bank having its branch at Cochin, in favour of "FA&CAO, Cochin Port Authority"
 - ii) An irrevocable Bank Guarantee (BG) enforceable and encashable at Cochin, drawn from any Commercial Bank having its branch at Cochin acceptable by Cochin Port Authority. The BG shall be issued in favor of Cochin Port Authority in the Format enclosed as **Form XII**.

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- 34.2 This Performance Security furnished shall be valid till 6 months after the satisfactory completion and taking over of the CCTV surveillance systems after the 2 years guarantee period. This Performance security will be released only after submission of the Performance Security for the 5 years CAMC period.
- 34.3 A separate Performance security for **10% of the total CAMC charges for Five years including taxes & duties** has to be furnished by the contractor for the proper completion of the CAMC period. This Performance Security furnished shall be valid till 3 months after the satisfactory completion of the 5 years CAMC period. This Performance Security will be released/ refunded to the contractor not later than 60 days after satisfactory completion of the CAMC period and release of payment of final bill for CAMC.
- 34.4 Unless Performance Security is furnished within the period as specified above or such extension of that period as may be permitted by the Engineer in writing, the Earnest Money will be liable to forfeiture and the Contract to cancellation.
- 34.5 The CoPA may at their option Claim the Performance Security either in full or part if the contractor fails to carry out the work or perform or observe the conditions of contract. The CoPA will also be at liberty to deduct from Performance Security Deposit or from any sums of money due or that may become due under contract with the contractor that may become due to CoPA. This is without prejudice to the rights of CoPA under the terms of the Contract.
- 34.6 The Performance Security furnished will not carry any interest.

35. Forfeiture of Performance Security

- 35.1 Provisions of Sanctions for Violation as detailed under shall be applicable for forfeiture of Performance Security in case of a decision by the Employer to forfeit the same without assigning any reason for imposing Sanctions for Violation.
- 35.2 In the event of the tenderer, after the issue of the communication of acceptance of offer by the Board, failing /refusing to execute the agreement as hereinafter provided, the tenderer shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the Contractor's calculated and the willful breach of the contract, the cost and consequence of which shall be to the sole account of the tenderer and upon such an event the Board shall have full right to claim damages therefore either together with or in addition to suspension of the bidder from participating in the Tenders invited by Cochin Port Authority, for a period of two years from the date of such suspension. Also, failure to execute the agreement within stipulated period will entitled CoPA to cancel the LoA.
- 35.3 The security deposit submitted for the work of 'SITC of CCTV cameras & accessories' shall be discharged by the Employer following the date of Completion of the 2-year guarantee period but only after submission of security deposit for the 5-year CAMC contract. If the contractor does not submit security deposit for CAMC and execute the work, then the security deposit submitted towards 'SITC of CCTV cameras & accessories' shall be forfeited.

36. Sanctions for Violations:

- 36.1 Any breach of the aforesaid provisions by the Tenderer or any one employed by it or acting on its behalf (whether with or without the knowledge of the Tenderer) shall entitle the Employer to take all or any one of the following actions, wherever required:-
- a) The Security Deposit/Performance Security shall stand forfeited either fully or partially, as decided by the Employer and the Employer shall not be required to assign any reason therefore.
 - b) To immediately cancel the Contract, if already signed, without giving any compensation to the Tenderer.
 - c) To cancel all or any other Contracts with the Tenderer. The Tenderer shall, be liable to pay compensation for any loss or damage to the Employer resulting from such cancellation/rescission and the Employer shall be entitled to deduct the amount so payable from the money(s) due to the Tenderer.
 - d) To debar the Tenderer from participating in future tendering processes of the Government of

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India for a minimum period of five years, which may be further extended at the discretion of the Employer.

- e) To recover all sums paid in violation of the Tender by Tenderer(s) to any middleman or agent or broker with a view to securing the contract.
- f) Forfeiture of Performance Security in case of a decision by the Employer to forfeit the same without assigning any reason for imposing sanction for violation of this Tender.

36.2 The Employer will be entitled to take all or any of the actions mentioned above by the Tenderer or any one employed by it or acting on its behalf (whether with or without the knowledge of the Tenderer), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

36.3 The decision of the Employer to the effect that a breach of the provisions of this Tender has been committed by the Tenderer shall be final and conclusive on the Tenderer.

37. Signing of Agreement:

37.1 The Successful Tenderer will be required to execute an Agreement at his expense within 28 (twenty eight) days from the date of receipt of the Letter of Acceptance by e-mail or within such time as extended by the Employer, on proper value Kerala State Stamp Paper in the prescribed form. The Agreement as finally executed will include the Employer's Tender Documents and the Tenderer's offer as finally accepted by the Employer together with Addenda/Corrigenda, Tender clarifications and all correspondence exchanged between Employer and the Tenderer, if any. Till the formal Agreement is executed, the Letter of Acceptance together with the offer as finally accepted along with correspondence shall form a binding Contract between the two parties.

37.2 The Contractor shall make **7 copies of the Agreement** and submit to the Employer hard bounded copy of the original as well as copies within 7 days following the date of signing of Agreement, at contractor's own expenses.

37.3 In the event of the Tenderer, after the issue of the communication of acceptance of offer by the Board, failing /refusing to execute the Agreement as hereinafter provided, the Tenderer shall be deemed to have abandoned the Contract and such an act shall amount to and be construed as the Contractor's calculated and the willful breach of the Contract, the cost and consequence of which shall be to the sole account of the Tenderer and upon such an event, the Board shall have full right to claim damages therefore either together with or in addition to the forfeiture of Earnest Money Deposit..

38. Fraud and Corrupt Practices:

The bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this document, the Port shall reject the tender without being liable in any manner whatsoever to the bidder, if it determines that the bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, the Port shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Port for, inter alia, time, cost and effort of the Authority, in regard to the Tender, including consideration and evaluation of such Bidder's Proposal. Such Bidder shall not be eligible to participate in any tender or RFP issued by the Authority during a period of 2 (two) years from the date such Bidder is found by the Authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

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

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(a) **“corrupt practice”** means

- (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LoA or has dealt with matters concerning the Agreement or arising there from, 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 Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process; or
- (ii) engaging in any manner whatsoever, whether during the Selection 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 Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Authority in relation to any matter concerning the Project;

(b) **“fraudulent practice”** means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;

(c) **“coercive practice”** means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;

(d) **“undesirable practice”** means

- (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or
- (ii) having a Conflict of Interest; and

(e) **“restrictive practice”** means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.

39. Rejection of Tender:

Any Tender not conforming to the foregoing instructions will not be considered. The Employer does not bind himself to accept the lowest or any tender and has the right to reject or discharge the tender without assigning any reason. No representation whatsoever will be entertained on this account.

SIGNATURE OF TENDERER

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COCHIN PORT AUTHORITY
SITC of 36 nos. of IP CCTV security cameras at various locations of CoPA,
including 2 years guarantee and 5 years comprehensive AMC thereafter

SECTION II

3.FORMS OF BID

To

THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT

Through

The Chief Mechanical Engineer,
Cochin Port Authority, Cochin -9

I/We have read and examined the Notice inviting tenders, Instructions to tenderers, Form of Agreement, Contract Data, General Conditions of Contract, General description of work, Special conditions of Contract, Technical Specifications, Preamble, Bill of Quantities, & other documents and rules referred to in the General Conditions of Contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified in the underwritten memorandum within the time specified in such memorandum at the rates specified in the schedule attached hereto and in accordance in all respects with the specifications designs, drawings and instructions in writing referred to in clause 16 of the General Conditions of Contract and with such materials as are provided for, by and in all other respects in accordance with such conditions so far as applicable.

M E M O R A N D U M

a)	General Description of Work	:	SITC of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter
b)	Estimated Cost	:	Rs.1,50,18,840/- excluding GST (Rupees One Crore Fifty Lakh Eighteen Thousand Eight Hundred Forty only) for the entire work including Comprehensive AMC for 5 years after 2 years guarantee period.
c)	Earnest Money Deposit (Exemption will be Given as per Clause 17 of NIT)	:	Rs.3,00,380/- (Rupees Three Lakh Three Hundred Eighty only)
d)	Security Deposit	:	10% of the value of the Contract awarded or the value of Work done whichever is higher
e)	Cost of Bid Document (Exemption will be Given as per Clause 17 of NIT)	:	Rs.2360/- including 18 % GST.
f)	Percentage, if any, to be deducted from the bills	:	5 % from each running bills as retention amount in lieu of 5 % performance security
g)	Time allowed for commencement of Work from date of receipt of Letter of Acceptance	:	7 days.
h)	Time allowed for the Work from the date of commencement of Work.	:	90 days.
h)	Schedule, Specifications, Conditions, Drawings etc.	:	As per the 'Contents' sheet attached.

Contractor Signature and Seal

I/ We agree to keep the tender open for 120 days from the due date of submission and not to make any modifications in its terms and conditions

Should this tender be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed here to so far as applicable or in default thereof forfeit and pay to the Board the sum of money mentioned in the said conditions and to execute an agreement with the Board in the prescribed form or in default thereof to forfeit the earnest money deposited by me/us.

The sum of Rs..... is hereby forwarded in Port chalan receipt / Bankers cheque or demand Draft from any Commercial Bank having its branch at Kochi / Bank Guarantee issued by any Commercial Banks bank having its branch at Kochi drawn in favour of Financial Adviser and Chief Accounts Officer of the Port Trust as earnest money (a) the full value of which is to be absolutely forfeited to the Board in office without prejudice to any other rights or remedies of the said Board in office should I/We fail to commence the work specified in the Contract data or should I/We not deposit the full amount of Performance Security specified in the above Memorandum in accordance with clause 52 of the said conditions of contract (GCC) otherwise, the said sum of Rs. shall be retained by the Board as on account of such security deposit as aforesaid or (b) the full value of which shall be retained by the Board on account of the security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in General Conditions of Contract and those in excess of that limit at the rates to be determined in accordance with the provision contained in the General Conditions of Contract.

Dated the day of 20....

Signature of the Tenderer

Address :
 Witness :
 Address :
 Occupation :

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Board of Trustees for a sum of Rs..... (Rupees)

The letters referred to below shall form part of this contract Agreement

Dated.....

**Chief Mechanical Engineer
 Cochin Port Authority**

Contractor Signature and Seal

**COCHIN PORT AUTHORITY
SECTION II
FORM OF AGREEMENT**

AGREEMENT No.of 2025

AGREEMENT FOR THE WORK OF
..... [Insert Title]

THIS AGREEMENT IS MADE at Cochin on day ofTwo thousand and Twenty Five (..... -- 2025) between THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT commonly known as COCHIN PORT AUTHORITY, a Body Corporate under the Major Port Authorities Act, 2021, with its Administrative Office at Willingdon Island, Cochin-682009, having PAN Card No. AAALC1134F, represented by its Chief Mechanical Engineer, Sri. -----, S/o Sri.-----, aged -- years residing at ----- (hereinafter referred to as “The Employer” which expression shall include their successors, assignees and administrators in the office) of the one part AND M/s. represented by Sri/Smt.. ----- aged -----years, son/daughter of Sri. ----- residing at ----- (House name and No.) ----- District ----- State ----- (hereinafter referred to as “The Contractor” which expression shall include their successors, assignees and administrators) of the other part.

WHEREAS the Employer invited tenders for vide Tender Notice Date..... and the Contractor submitted a tender for the same giving rates subject to the terms and conditions etc. of the tender document.

AND WHEREAS the said tender submitted by the Contractor has been accepted by the Employer vide work order No dated, issued to the Contractor while accepting their tender.

NOW THESE PRESENTS WITNESSETH and the parties hereby agree as follows.

1. The tender submitted by the Contractor for execution for the Board, of the work specified in the underwritten memorandum within the time specified in such memorandum at the rates specified in the schedule attached hereto and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Clause 16 of the “General Conditions of Contract” and with such materials as are provided for, by and in all other respects in accordance with such conditions is accepted.
2. It is mutually understood and agreed that, notwithstanding that the works has been sectioned, every part of it shall be deemed to be supplementary to and complementary of every other part and shall be read with it or in to it.
3. The Contractor agreed to abide by and fulfill all the terms and provisions of the said Conditions of Contract or in default thereof forfeit and pay to the Board the sum of money mentioned in the said conditions.
4. The sum of Rs...../- [Rupees.....only) has been deposited by the Contractor with Financial Adviser and Chief Accounts Officer of the Port Trust as Performance Security (a) the full value of which is to be absolutely forfeited to the Board in office without prejudice to any other rights or remedies of the said Board in office should the Contractor fail to commence the work specified in underwritten memorandum or should the Contractor not deposit the full amount of security deposit specified in underwritten memorandum otherwise the said sum of Rs...../- shall be retained by the Board as on account of such security deposit as aforesaid or (b) the full value of which shall be retained by the Board on account of the security deposit to execute all the works referred to in the tender documents upon the terms

Contractor’s signature and seal

and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Clause 40.1 of the Conditions of Contract and those in excess of that limit at the rates to be determined in accordance with the provisions contained in Clause 40.3 of the Conditions of Contract.

5. It is mutually agreed that the tender submitted in its entirety shall form part of this agreement. Apart from the tender the following shall also form part of the agreement

- a) The Letter of Acceptance;
- b) Bill of Quantities and
- c) Letters exchanged between the Employer and the Tenderer upto the issue of Letter of Acceptance as separately listed and annexed hereto.
- d) Replies to Pre bid queries and amendments issued, if any.

IN WITNESS WHEREOF THE CONTRACTOR hereunto set his hand and seal on behalf of M/s..... and on behalf of **The Board of Major Port Authority of COCHIN PORT**, the CHIEF MECHANICAL ENGINEER/ *DEPUTY CHIEF ENGINEER / *SUPERINTENDING ENGINEER has set his hand and seal and common seal of Trustees has been hereunto affixed the day and year first written above.

CONTRACTORS

*(Retain only the authority signing the Agreement)

Signed, sealed and delivered By Shri.....
Of M/s..... (COMMON SEAL OF THE FIRM)

Signed and affixed seal in the presence of :

Signature with address :

Signature with address :

Signed, sealed and delivered by the

CHIEF MECHANICAL ENGINEER/*Dy. CHIEF ENGINEER/*SUPERINTENDING ENGINEER,
COCHIN PORT AUTHORITY

on behalf of **The Board of Major Port Authority of COCHIN PORT**.
EMPLOYER

Signed and affixed the common seal of **The Board of Major Port Authority of COCHIN PORT**, In the presence of

- 1)
- 2)

Contractor's signature and seal

**COCHIN PORT AUTHORITY
SECTION II
CONTRACT DATA**

[To be filled up before issuing tender document as applicable for each tender]

Items marked “N/A” do not apply in this Contract.

Sl. No.	Description	Reference Clause .No. in GCC
	The following documents are also part of the Contract	
	The Schedule of other Contractors (i) (ii)	(8.2)
	The Schedule of Key Personnel (i) (ii) (iii)	(9)
	The Employer is	(1)
	The Board of Major Port Authority for Cochin Port (Cochin Port Authority) , Cochin -682009	
	Name of Authorized Representative:	
	Name: Shri. B. Kasiviswanathan, IRSME Chairperson, Cochin Port Authority, Cochin - 682009.	
	The Engineer is :	
	Name: Shri. A. Jayasimha, Chief Mechanical Engineer, Cochin Port Authority, Cochin-9	
	Name of Nominee is : Will be notified in LoA/ LoI	
	Name: Shri..... Cochin Port Authority, Cochin-9	
	Name of Contract : Supply, installation, testing and commissioning of 36 nos. of IP CCTV surveillance systems at various locations of Cochin Port Authority including 2 years guarantee and 5 years comprehensive AMC thereafter	
	7 (seven) copies of Contract Agreement shall be furnished by the Contractor	[7.1]
	Tender document and other data are available at : e-tender portal www.tenderwizard.com/COPT ; in the CoPA website www.cochinport.gov.in as well as in the Central Public Procurement Portal of Govt. of India, www.eprocure.gov.in	(7.2)

Contractor signature and seal

	The Intended Completion Date: Within 90 days from the date of LoA, with the following milestones:		
	Milestone dates:		
	Physical works to be completed	Period from the date of Issue of LoA	
	SITC OF CCTV SURVEILLANCE SYSTEMS	90 DAYS	
	The activity wise schedule needs to be submitted by the Contractor within 7 days of receipt of LoA. This need to be strictly followed for the timely completion of the project		
	The following shall form part of the Contract Document: (1) Agreement (2) Letter of Acceptance (3) Bill of quantities (4) Contractor’s Bid (5) Correspondence exchanged after the opening of the Bid and before the issue of Letter of Acceptance by which the Condition of Contract are amended, varied or modified in any way by mutual consent. (6) Contract Data (7) Conditions of Contract (8) General Description and Special Conditions of Contract (9) Technical Specifications (10) Any other documents listed in the Contract Data as forming part of the Contract.		(2.3)
10	The Contractor shall submit a Program for the Works within 7 days of date of the LO A		(27)
11	The site possession date The site will be handed over within 7 days after issue of LoA/ LoI and the site is free from encumbrances.		(21)
12	The start date shall be 7 days from the date of receipt of the Letter of Acceptance (LoA)/ LoI by the Contractor.		(1)
13	The site is located at Willingdon Island, Kochi-682009		
15	The minimum insurance cover for physical property, injury and death is Rs.....lakhs (Rupeeslakhs) per occurrence with the number of occurrences unlimited.		(13)
19	The language of the Contract documents is English.		(3)
20	The law, which applies to the Contract, is the law of Union of India.		(3)
21	The currency of the Contract is Indian Rupees.		(46)
22	The maximum amount of liquidated damages for the whole of the works is 10% of the contract price.		[49]

SIGNATURE OF TENDERER

Contractor signature and seal

COCHIN PORT AUTHORITY

SECTION - I

ANNEXURES

1	2	3	4	5
Sl.No.	Annexures	Description	Page No.	Submitted / not submitted/ Not Applicable
1	1	Letter of Submission – Covering Letter	28	
2	2	Proforma of Power-of-Authority/ Letter of Authority	30	
3	3	Organization Details	31	
4	4 (a)	Eligible Assignment Details For MQC	33	
5	4(b)	Details of Past Experience of Contractors For similar works	35	
6	5	Financial Capability	36	
7	6	Undertaking Regarding EPF and ESI Registration	38	
8	7	Details of Pending Litigation of the Tenderer	41	
9	8	Details of Litigation History of the Tenderer	42	
10	9	Details of Barred Cases of the Tenderer	43	
11	10	Details of Proposed Approach & Methodology	43	
12	11	Plant and Equipment Proposed for the Work	44	
13	12	Declaration	45	
14	13	Details of the Tenderer opting for Refund of EMD through e-payment system	46	
15	14	Format for Furnishing Bank information for e-payment	47	
16	15	Proforma of Irrevocable Bank Guarantee for Earnest Money Deposit	48	
17	16	Integrity Pact	50	
18	17	Declaration for Make In India (MII)	51	

The Bidder shall submit the list of annexures indicating the status in column 5 of the above table.
(Submitted/not submitted/Not Applicable) along with the bid

Contractor signature and seal

LETTER OF SUBMISSION - COVERING LETTER
(ON THE LETTER HEAD OF THE TENDERER)

No.....

Date :

To

The Chief Mechanical Engineer,

Cochin Port Authority.

Sir,

Sub: Tender for[Insert Title]

Being duly authorized to represent and act on behalf of (hereinafter referred to as “the Tenderer”) and having reviewed and fully understood all of the requirements of the Tender Document and information provided, the undersigned hereby apply for the Project/Work referred above.

We are submitting our Tender enclosing the following, with the details as per the requirements of the Tender Document, for your evaluation:

- (i) Letter of Submission – Covering Letter
- (ii) Cost of Tender Document in the form of DD / Pay Order / Banker’s Cheque bearing No ----- dated -----, for Rs. issued by Bank
- (iii) Bid Security/EMD in the form of Account Payee DD / Banker’s Cheque/Insurance Surety Bond bearing No -----dated -----, for Rs. issued byBank / in the form of BG as per **Annexure-15**.
- (iv) Pre-Contract Integrity Pact (**Annexure-16**)
- (v) Power-of-Attorney (**Annexure-2**) (If applicable)

We have also uploaded the following documents for online submission of Technical Bid:

- (i) Tender Document along with Addendum / Corrigendum No...../ Addenda/Corrigenda Nos., and General Conditions of Contract with Amendments, in PDF format.
- (ii) Scanned copy of financial instruments towards the Cost of Tender Document and Bid Security/EMD
- (iii) Notarized copy of Exemption Certificate towards the Cost of Tender Document & Bid Security/EMD / Udyam Certificate(If applicable)
- (iv) Organization Details (**Annexure-3**)
- (v) Details to fulfill the “Minimum Eligibility Criteria” and Certificates (**Annexure-4a/4b**)
- (vi) Notarized copies of Completion Certificates of similar Works
- (vii) Average Annual Financial Turnover over the last three financial years (**Annexure-5**)
- (viii) Scanned copies of Audited Financial Statements for the last three years
- (ix) Undertaking regarding EPF and ESI Registration (**Annexure-6**)
- (x) Details of Pending Litigation of the Tenderer (**Annexure-7**)

Contractor signature and seal

- (xi) Details of Litigation History of the Tenderer (*Annexure-8*)
- (xii) Details of Barred Cases of the Tenderer (*Annexure-9*)
- (xiii) Detailed Method Statement (Technical Note) (*Annexure-10*)
- (xiv) List of Plant and Equipment (*Annexure-11*)
- (xv) Declaration (*Annexure-12*)
- (xvi) Banker's Details (*Annexures-13 & 14*)
- (xvii) Make In India(MII) declaration as per **Annexure-17**
- (xviii) Scanned copy of Form of Tender, duly signed and sealed
- (xix) Scanned copy of Partnership Deed or Memorandum and Articles of Association of the Company and Registration Certificate of the Company, as the case may be.
- (xx) Scanned copies of GST and PAN registrations.
- (xxi) Scanned copies of EPF and ESI registration, if applicable.

We also certify that further Tender related communication can be sent to the following e-mail IDs by CoPA:

- (i)
- (ii)

(Furnish two nos. current active email addresses)

SIGNATURE OF TENDERER

Contractor signature and seal

PROFORMA OF POWER- OF-ATTORNEY/ LETTER OF AUTHORITY
(To be submitted on Non-judicial Stamp Paper of appropriate value)

To
The Chief Mechanical Engineer, Cochin Port Authority,
Cochin 682009. Kerala, India.

Dear Sir,

We_____ do hereby confirm that Mr./Ms./Messrs_____ **[INSERT NAME AND ADDRESS]**, whose
signature is given below, is/are authorized to represent us to bid, negotiate and conclude the agreement
on our behalf with you against Tender for*[Insert Title]*(Tender
No.....)

We confirm that we shall be bound by all and whatsoever our said agents shall commit. Signature of the authorized
person:

Name & Designation :

Yours faithfully,

Signature, name and seal of the certifying authority

Contractor signature and seal

ORGANIZATION DETAILS

CONTRACT No.:

- 1) NAME OF APPLICANT :
- 2) Name of the Owner :
- 3) Address :
- 4) Telephone No. :
- 5) E-mail ids [2 nos.] :
- 6) Fax No. :
- 7) Description of Applicant :
(for e.g. General, Engineering Contractor
or Joint Venture/Consortium etc.)
- 8) Registration and Classification :
of Contractors
- 9) Name and address of Bankers :
- 10) Number of years of experience :
as a General Contractor :-
In own Country :
Internationally :
- 11) Number of years of experience :
as a Sub-Contractor
- 12) Name and Address of Partners or :
associated companies to be involved
in the Project and whether Parent/
Subsidiary/other

Contractor signature and seal

- 13) Name and address of any associates :
knowledgeable in the procedures
of customs, immigration and local
experience in various aspect of the
Project etc.
- 14) Name and address of the companies/ :
Sub-Contractors who will be involved
in the execution of Works,:
- 15) Name and address of companies who :
will be involved in the supply of
bought out items
- a) Insert item :
- b) Insert item :
- 16) Attach Organization Chart showing the structure
of the company including names of Directors/
Key Personnel at Head Office who would be
responsible for the project and a separate chart
showing proposed Site Construction Organisation.

SIGNATURE OF TENDERER

Annexure – 4a

ELIGIBLE ASSIGNMENT DETAILS FOR MQC

Tenderer shall furnish Details of “eligibility works experience” as per Minimum Eligible Criteria (MEC) of Instruction to Tenderer and certificates in the following format (Certificates/ work completion certificates or any other documentary evidences with respect to the eligibility work)

Assignment Number :

Description	Bidder to fill up the details here
Name and Address of the Client	
Title of the Eligible Assignment	
Date of completion of the Eligible Assignment	
Project Completion Cost	
Reference No. of the enclosed Client Completion Certificate/ Documentary Evidence for having successfully completed the Eligible assignment	
Name, telephone no. and email address of the client's representative	
Description and Scope of Work	

Instructions:

- i) Bidders are expected to provide information in respect of Eligible Assignments in this Section. The assignments cited must comply with the criteria specified in Minimum eligibility of the Instructions to Tenderers”.
- ii) A separate sheet should be filled for each of the eligible assignments.
- iii) The details are to be supplemented by documentary proof from the respective client /owner for having carried out such assignment duly certified by clients/ owner.
- iv) The works indicated in this Annexure- 4 will be only being considered for evaluation. Mere submission of work completion certificate will not be considered as Eligible Assignments
- v) Original or notary certified copy of completion certificates of each work issued by the owner/ the responsible officers of the owner under whom he has executed such contracts shall be attached. The certificate shall invariably contain the following among other things.
 - a) Details of work involved specifying the nature of work
 - b) The completion cost of the work and
 - c) Date of commencement ;and
 - d) Date of completion of the work.
- vi) If the experience in similar works is as a member of joint venture, notary attested copy of joint venture agreement in this respect shall be attached.
- vii) If the experience in similar work is in works executed in private sectors/organizations Chartered Accountants certificate as per Annexure 5(a) for the transaction of the Projects.
- viii) The tenderer is also obliged to produce the original of the certified copy(s) on request by the department.

SIGNATURE OF TENDERER

Contractor signature and seal

DETAILS OF PAST EXPERIENCE OF CONTRACTORS FOR SIMILARWORKS

Sl. N o.	Name & Location of Project	Owner's Complete address including details of Contact Person	Value of Contract	Duration of Contract			Details of Work including major items of Work involved	Reference No. & Date of Letter of Intent & Completion Certificate enclosed
				Commencement date	Scheduled completion date	Actual completion date		
1	2	3	4	5	6	7	8	9
1	Name: Location:	Address: Fax No. Contact person: Mobile No. Email:						Letter of Intent No. & date: Completion Certificate No. & date:
2	Name: Location:	Address: Fax No. Contact person: Mobile No. Email;						Letter of Intent No. & date: Completion Certificate No. & date:
3	Name: Location:	Address: Fax No. Contact person: Mobile No. Email:						Letter of Intent No. & date: Completion Certificate No. & date:

Note: Bidder to enclose completion certificate issued by owner, certified by a Notary public or equivalent certifying authority.

SIGNATURE OF TENDERER

Contractor signature and seal

FINANCIAL CAPABILITY

Average Annual Turnover of the Bidder

Annual Turnover			
Year 1 [2022-23]	Year 2 [2023-24]	Year 3 [2024-25]	Average of 3 years

Instructions:

- (i). The Bidder shall provide audited Annual Reports / Audited financial statements such as balance sheets and profit & loss account statements as required under this Bid Document.
- (ii). Annual turnover of the bidder shall be submitted duly verified by Chartered Accountant.

Certified by Chartered Accountant**SIGNATURE OF TENDERER**

Contractor Signature and seal

UNDERTAKING REGARDING EPF AND ESI REGISTRATION

I/We, M/s.(*Name & address of the Tenderer*) solemnly affirm and undertake that I/We do not have the required number of employees for taking registration under EPF Organisation and ESI Corporation. I/We also undertake that I/We take the full responsibility for all the consequences arising due the above and indemnify CoPA officials for any actions taken in this regard.

SIGNATURE OF TENDERER

DETAILS OF PENDING LITIGATION OF THE TENDERER

Details of Pending Litigation upto [Insert Date and Year - last day of the month previous to the one in which Tenders are invited] are as follows:

No	Date, month & Year of Dispute	Amount in Dispute	Contract Identification	Total Contract Amount
			<p>Contract Identification : [indicate complete contract name, number, date and any other identification]</p> <p>Name & Address of Employer: [insert full Name & Address]</p> <p>Matter in dispute: [indicate main issues in dispute]</p> <p>Party who initiated the dispute: [indicate “Employer” or “Contractor”]</p> <p>Status of dispute: [Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</p>	

We declare that the information given above are true to the best of our knowledge and belief and nothing has been omitted / concealed and if at any stage it is found / noticed that any information provided by us thereon above is not true /incorrect and incase of receipt of adverse / unsatisfactory report from other Clients / Employers, our Tender may not be considered and CoPA may take further appropriate action against us.

SIGNATURE OF TENDERER

Contractor Signature and seal

DETAILS OF LITIGATION HISTORY OF THE TENDERER

Details of Litigation History till *[Insert Date and Year - last day of the month previous to the one in which Tenders are invited]* are as follows:

Sl.N	Date, month & Year of Award	Amount in Award	Contract Identification	Total Contract Amount
			<p>Contract Identification : [Indicate complete contract name, number, date and any other identification]</p> <p>Name & Address of Employer: [Insert full Name & Address]</p> <p>Matter in dispute: [Indicate main issues in dispute]</p> <p>Party who initiated the dispute: [Indicate “Employer” or “Contractor”]</p> <p>Status of dispute: [Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</p>	

We declare that the information given above are true to the best of our knowledge and belief and nothing has been omitted / concealed and if at any stage it is found / noticed that any information provided by us thereon above is not true /incorrect and incase of receipt of adverse / unsatisfactory report from other Clients / Employers, our Tender may not be considered and CoPA may take further appropriate action against us.

SIGNATURE OF TENDERER

Contractor Signature and seal

DETAILS OF BARRED CASES OF THE TENDERER

Details of all barred cases by the Central/State Government, or any entity controlled by it, from participating in any Project till *[Insert Date and Year - last day of the month previous to the one in which Tenders are invited]* are as follows:

Sl.No	Date, month & Year of Contract	Amount of Contract	Contract Identification	Remarks
			Contract Identification : [Indicate complete contract name, number, date and any other identification] Name & Address of Employer: [Insert full Name & Address] Matter in dispute: [Indicate main issues in dispute] Period of barring: [Indicate the date from which the Contractor is barred and the period for which he is barred]	

We declare that the information given above are true to the best of our knowledge and belief and nothing has been omitted / concealed and if at any stage it is found / noticed that any information provided by us thereon above is not true /incorrect and incase of receipt of adverse / unsatisfactory report from other Clients / Employers, our Tender may not be considered and CoPA may take further appropriate action against us.

SIGNATURE OF TENDERER

Contractor Signature and seal

Annexure - 10**DETAILS OF PROPOSED APPROACH & METHODOLOGY**

Bidder shall furnish a detailed method statement (Technical Note) for carrying out of the works, along with an implementation programme [Preferably in MS project / Primavera] showing sequence of operation and the time frame for various segments of temporary and permanent works.

SIGNATURE OF TENDERER

Contractor Signature and seal

PLANT AND EQUIPMENT PROPOSED FOR THE WORK

Please indicate the main plant and equipment considered to be necessary and proposed to be deployed for undertaking this Work and whether this plant is ready in ownership or will be purchased or hired.

Description of equipment	Requirement No. / Capacity	Owned / leased / to be procured	Nos / Capacity	Age / Condition	Remarks (From whom to be purchased)	At what Stage of contract period the Equipment will be available

Note:

The equipment indicated in the above statement will form part of Contract Agreement and as such, the Tenderers are requested to indicate the availability of the equipment at site and at what stage of the construction period, in a separate column

SIGNATURE OF TENDERER

Contractor Signature and seal

DECLARATION

I/We, M/s.(Name & address of the Tenderer) hereby declare that:-

- 1) All details regarding construction plant, temporary Work and personnel for site organisation considered necessary and sufficient for the Work have been furnished in the Annexure-11 and that such plant, temporary Works and personnel for site organisation will be available at the site till the completion of the respective Work.
- 2) No conditions are incorporated in the Price Bid. In case any conditions are specified in the Price Bid, the Tender will be rejected summarily without making any further reference to the Tenderer.
- 3) We have not made any payment or illegal gratification to any persons/ authority connected with the Tender process so as to influence the Tender process and have not committed any offence under PC Act in connection with the Tender.
- 4) We disclose with that we have **made / not made / propose to make* payments to any intermediaries (agents) etc. in connection with the Tender.
- 5) We do hereby confirm that no changes have been made in the Tender Document downloaded and submitted by us for the above Tender. The Port's Tender Document will be treated as authentic and if any discrepancy is noticed at any stage between the Port's Tender Document and the one submitted by the Tenderer, the Port's document shall prevail.
- 6) We are not barred by the Government of India or any State Government in India and no bar subsists as on the Tender submission date.

SIGNATURE OF TENDERER

Notes:

- (i) ***Delete whichever is not applicable.**
- (ii) **The above Declaration shall be submitted in the Tenderer's Letter Head**

Contractor Signature and seal

DETAILS OF THE PARTY OPTING FOR REFUND OF EMD THROUGH E-PAYMENT SYSTEM

Name of the Party Bank A/c No.:

Account type : (Savings / Current / Overdraft) Bank Name :

Branch :

IFSC Code Number : (11 digit code) Centre (Location) :

FAX No. :

E-Mail ID : (For forwarding information of remittance) Mobile No :

SIGNATURE OF TENDERER

Contractor Signature and seal

Annexure- 14**FORMAT FOR FURNISHING BANK INFORMATION FOR e-PAYMENT**

1	Name and full address of the beneficiary	
2	Credit Account No. (Should be full 14 digit)	
3	Account Type (SB or CA or OD)	
4	Name of the Bank	
5	Branch (Full address with telephone No.)	
6	MICR code (Should be 9 digit)	
7	Telephone/Mobile/ e-mail id [2 nos]/ Fax No. of the beneficiary	Telephone :
		Mobile :
		e-mail id :
		(1)
		(2)
8	Enclose Cancelled Cheque	Fax :
		(Enclosed / Not Enclosed)

SIGNATURE OF TENDERER

PROFORMA OF IRREVOCABLE BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(To be submitted on Non Judicial Stamp Paper of appropriate value)

B.G. No.....dated.....

This Deed of Guarantee executed atby (Name of Bank) having its Head/Registered office at (hereinafter referred to as “ the Guarantor”) which expression shall unless it be repugnant to the subject or context thereof include its executors, administrators, successors and assigns;

In favour of

The Board of Trustees of Cochin Port Authority (hereinafter called “the EMPLOYER”), having its office at Willingdon Island, Cochin – 682 009, which expression shall unless it be repugnant to the subject or context thereof include its executors, administrators, successors and assigns;

Whereas Sri..... / M/s. / JV / Consortium of M/s., M/s. & M/s. (Name of Tenderer) (Composition and legal status of the Tenderer) (hereinafter called “the Tenderer”), which expression shall unless it be repugnant to the subject or context thereof include its executors administrators, successors and assigns, has Bid for the Work of “.....” *[Insert Title]*, **AND TENDER No.....***[Insert Tender No.]*(hereinafter referred to as “the Work”).

Whereas in terms of the Tender Notice dated (hereinafter referred to as “Tender Document”) the Tenderer is required to furnish to the Port Authority an unconditional and irrevocable Bank Guarantee for an amount of Rs.(Rupees only) as Earnest Money Deposit (EMD) and the Guarantor has at the request of the Tenderer agreed to provide such Guarantee being these presents:

Now this deed witnesseth that in consideration of the premises, We, Bank hereby declare, undertake and agree as follows:

We as primary obligor shall, without demur, pay to the Port Authority an amount not exceeding Rs. (Rupees only), within 5 days of receipt of a written demand from the Port Authority stating that the EMD has been forfeited in terms of Clause 16.4 of the Instruction of Tenderers of Tender Document. Any such demand made on us by the Port Authority shall be conclusive and absolute as regards the forfeiture of the EMD and the amount due and payable under this Guarantee.

The above payment shall be made by us without any reference to the Tenderer or any other person and irrespective of whether the claim of the Port Authority is disputed by the Tenderer or not.

This Guarantee shall remain in full force for a period of days (45 days beyond the final bid validity period) from (date)*..... or for such extended period as may be mutually agreed between the Port Authority and the Tenderer and shall continue to be enforceable till all amounts which are demanded by the Port Authority under this Guarantee are paid.

Contractor Signature and seal

In order to give full effect to this Guarantee, the EMPLOYER shall be entitled to treat the Guarantor as the principal debtor and the obligations of the Guarantor shall not be affected by any variations in the terms and conditions of the Tender Document or other documents or by extension of time of performance of any obligations by the Tenderer or any postponement for any time of the powers exercisable by the EMPLOYER against the Tenderer or forbear or enforce any of the terms and conditions relating to non-compliance of the Tender Document by the Tenderer and we shall not be relieved from our obligations by reason of any variation or extension being granted to the Tenderer or forbearance or omission on the part of the EMPLOYER or any indulgence by the EMPLOYER to the Tenderer to give such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

This Guarantee shall be irrevocable and shall remain in full force and effect until all our obligations under this Guarantee are duly discharged.

The Guarantor has power to issue this Guarantee and the undersigned is duly authorised to execute this Guarantee pursuant to the power granted under

In Witness whereof the Guarantor has set its hands hereunto on the day, month and year first hereinabove written.

Signed and Delivered by

Bank by the hand of Shri.....

its.....and authorised official

*Fill in the scheduled date of submission of Tender.

PROFORMA OF PRE CONTRACT INTEGRITY PACT

(To be signed on Plain Paper)

(To be submitted as part of Technical bid)

Tender No.....;

Tender Title:

This Agreement (hereinafter called the Integrity Pact) is made on ____ day of the month of ____ 2024 at _____, India BETWEEN THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT commonly known as COCHIN PORT AUTHORITY, a Body Corporate under the Major Port Authorities Act, 2021, with its Administrative Office at Willingdon Island, Cochin-682009, represented by its Chief Mechanical Engineer, Sri, S/o Sri....., aged ...years residing at(address).....(hereinafter called the "The Principal", which expression shall mean and include unless the context otherwise requires, his successors in office and assigns) of the First Part AND M/s. _____ represented by Shri.....Chief Executive Officer (hereinafter called the "BIDDER" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

PREAMBLE

"The Principal" intends to award, under laid down organizational procedures, contract/ s for _____, "The Principal" values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/ or Contractor(s). In order to achieve these goals, the Principal shall appoint Independent External Monitors (IEMs) who shall monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 -Commitments of the "The Principal"

(1) "The Principal" commits itself to take all measures necessary to prevent corruption and to observe the following principles:

- a. No employee of the Principal, personally or through family members, shall 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.
- b. The Principal shall, during the tender process, treat all Bidder(s) with equity and reason. The Principal shall in particular, before and during the tender process, provide to all Bidder(s) the same information and shall not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- c. The Principal shall exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees, which is a criminal offence under the IPC/ PC Act, or if there be a substantive suspicion in this regard, the Principal shall inform the Chief Vigilance Officer and in addition, can initiate disciplinary actions.

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Section 2 -Commitments of the “Bidder/ Contractor”

(1) The “Bidder/ Contractor” commit themselves to take all measures necessary to prevent corruption. The “Bidder/ Contractor” commit themselves to observe the following principles during participation in the tender process and during the contract execution.

- a. The “Bidder/ Contractor” shall not, directly or through any other person or firm, offer, promise, or give to any of the Principal’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 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.
 - b. The ‘Bidder/ Contractor’ shall not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the tender process.
 - c. The ‘Bidder/ Contractor’ shall not commit any offence under the relevant IPC/ PC Act; further, the ‘Bidder/ Contractor’ shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals, and business details, including information contained or transmitted electronically.
 - d. The ‘Bidder/ Contractor’ of foreign origin shall disclose the name and address of the Agents/ representatives in India if any. Similarly, the Bidder/ Contractors of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the “Guidelines on Indian Agents of Foreign Suppliers” shall be disclosed by the Bidder/ Contractor. Further, as mentioned in the Guidelines, all the payments made to the Indian agent/ representative have to be in Indian Rupees only. Copy of the “Guidelines on Indian Agents of Foreign Suppliers” is placed in Appendix to this agreement.
 - e. The ‘Bidder/ Contractor’ shall, when presenting their bid, disclose any and all payments made, is committed to, or intends to make to agents, brokers, or any other intermediaries in connection with the award of the contract.
 - f. Bidder/ Contractor who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.
- (2) The ‘Bidder/ Contractor’ shall not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 -Disqualification from tender process and exclusion from future contracts

If the ‘Bidder/ Contractor’, before award or during execution, has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the ‘Bidder/ Contractor’ from the tender process or take action as per the procedure mentioned in the “Guidelines on Banning of business dealings”.

Section 4 -Compensation for Damages

(1) If the Principal has disqualified the „Bidder/ Contractor“ from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from „Bidder/ Contractor“ the damages equivalent to Earnest Money Deposit/ Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from

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the contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 -Previous transgression

- (1) Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.
- (2) If Bidder makes an incorrect statement on this subject, he can be disqualified from the tender process, or action can be taken as per the procedure mentioned in “Guidelines on Banning of business dealings”.

Section 6 -Equal treatment of all Bidders/ Contractors/ Subcontractors

- (1) In the case of Sub-contracting, the Principal Contractor shall take responsibility for the adoption of the Integrity Pact by the Sub-contractor.
- (2) The Principal shall enter into agreements with identical conditions as this one with all Bidders and Contractors.
- (3) The Principal shall disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 -Criminal charges against violating Bidder(s)/ Contractor(s)/ Subcontractor(s)

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

Section 8 -Independent External Monitor

- (1) The BUYER/ EMPLOYER has appointed the following panel of Independent Monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission:

(i) Shri. Harishwar Dayal, IDSE (Rtd.)
H-2, Lawyer Colony, Bypass Road,
Agra-282005 (UP)
Mobile No:9412095786 Email: dayalagra@gmail.com

(ii) Shri. Deepak Chaturvedi, ITS (Retd)
Flat No.1, Sanchar Vihar,
C-58/4, Sector-62,
Uttar Pradesh, Noida-201301
Mobile No:9930408711 Email ID :chaturvedideep@rediffmail.com

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. The Monitor would have access to all Contract documents whenever required. It shall be obligatory for him/ her to treat the information and documents of the Bidders/ Contractors as confidential. He/ she reports to the Head of the Procuring Organization.
- (3) The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal, including that provided by the contractor. The Contractor Signature and seal

contractor shall also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors project documentation. The same is applicable to Sub-contractors.

- (4) The Monitor is under contractual obligation to treat the information and documents of the Bidder/ Contractor(s)/ Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on „Non-Disclosure of Confidential Information“ and of „Absence of Conflict of Interest“. In case of any conflict of interest arising at a later date, the IEM shall inform the Head of the Procuring Organization and rescue himself/ herself from that case.
- (5) The Principal shall 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 Principal and the contractor. The parties offer the Monitor the option to participate in such meetings.
- (6) As soon as the Monitor notices, or believes to have noticed, a violation of this agreement, he shall so inform the Management of the Principal 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.
- (7) The Monitor shall submit a written report to the Head of the Procuring Organization within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- (8) If the Monitor has reported to Head of the Procuring Organization, a substantiated suspicion of an offence under relevant IPC/ PC Act, and Head of the Procuring Organization 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.
- (9) The word ‘Monitor’ would include both singular and plural.
- (10) In the event of any dispute between the Management and the Contractor, incase, both the parties are agreeable, dispute may be settled through mediation before the panel of IEMs in a time bound manner. If required, the organizations may adopt any mediation rules for this purpose.
- (11) The fees/ expenses on dispute resolution shall be equally shared by both the parties.
- (12) A person signing the IP shall not approach the Courts while representing the matters to IEMs and he/ she will await their decision in the matter.
- (13) In case of Joint Ventures all the partners of the joint venture should sign the Integrity Pact. In case of sub-contracting, the Principal contractor shall take the responsibility of the adoption of IP by the sub –contractor. It is to be ensured that all sub-contractors also sign the IP.

Section 9 -Pact Duration

This Pact begins when both parties have legally signed it. It expires for the contractor 12 months after the last payment under the contract and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings. If any claim is made/ lodged during this 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 the Head of the Procuring Organization.

Section 10 -Other provisions

- (1) This agreement is subject to Indian Law. The place of performance and jurisdiction is the Registered Office of the Principal, i.e., New Delhi.
- (2) Changes and supplements, as well as termination notices, need to be made in writing. Side agreements have not been made.
- (3) If the contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turnout to be invalid, the remainder of this agreement remains valid. In this case, the parties shall strive to come to an agreement with their original intentions.
- (5) Issues like Warranty/ Guarantee etc., shall be outside the purview of IEMs.
- (6) In the event of any contradiction between the Integrity Pact and its Appendix, the Clause in the Integrity Pact shall prevail.

For and on behalf of the Principal
 (Name of the Officer and Designation)
 (Office Seal)

For and on behalf of 'Bidder/ Contractor'
 (Name of the Officer and Designation)
 (Office Seal)

For and on behalf of the Principal
 Place Date

Witness 1: (Name & Address)

Witness2 : (Name & Address)

ANNEXURE - 17

Format for Self-Certification under Preference to “MAKE IN INDIA” Policy**CERTIFICATE**

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt.15.06.2017 and No.:P-45021/2/2017-PP(BE-II) dt.04.06.2020 *as amended from time to time along with clarifications/ amendments and other references as issued from time to time*, where by certify that we M/s_____ (supplier name) are supplier meeting the requirement of **Minimum Local content** as per below declaration.

(Class-I Supplier (50%) or Class-II Supplier (20%) or Non-Local Supplier (Less than 20%))

as defined in above orders/ circulars/ clarifications/ amendments for the material against Tender No

Details of Location (Complete Address) at which local value addition will be made is as follows:

We have also read the clarification issued vide Circular No.: P-45021/102/2019-BE-II-Part(1) (E-50310), Dtd.: 04.03.2021 and any other subsequent circular/ amendment/ order as issued by competent authority.

Total Value of local content addition/ manufacturing for offered material/ item(s)/ service is as per below declaration.

Accordingly, we declare to be (TickOne)

a. **Class-I Supplier (50% or more local content)**

☐

b. **Class-II Supplier (20% to 50% local content)**

☐

c. **Non Local Supplier (less than 20% local content)**

☐

We also understand, false declaration will be in breach of the Code of Integrity under Rule 175(1) (i) (h) of the General Financial Rule for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Note:-“Make in India” certificate must be in the letter head of OEM/ Manufacturers.

Seal and Signature of Authorized Signatory

Contractor Signature and seal

**COCHIN PORT AUTHORITY
SECTION-III
GENERAL CONDITIONS OF CONTRACT (GCC)**

TABLE OF CONTENTS

Sl. No.	Description	Page No.
A	General	57
1	Definitions	57
2	Interpretation	58
3	Language and Law	59
4	Engineer or his nominee's Decisions	59
5	Delegation	59
6	Communications	59
7	Contract Agreement	59
8	Subcontracting	59
9	Personnel	59
10	Employer's & Contractor's Risks	60
11	Employer's Risks	60
12	Contractor's Risks	60
13	Insurance	60
14	Site Investigation Reports	61
15	Queries about the Contract Data	61
16	Contractor to Construct the works	61
17	The works to be completed by Indented Completion Date	61
18	Approval by the Engineer or his nominee	61
19	Safety	62
20	Discoveries	62
21	Possession of the Site	62
22	Access to the Site	62
23	Instructions	62
24	Disputes	62
25	Settlement of Disputes & Arbitration	62
26	Computerised Measurement Book	64
B.	Time Control	65
27	Program	65
28	Revised Program	66
29	Extension of the Intended Completion Date	66

Contractor Signature and seal

Sl. No.	Description	Page No.
30	Delays Ordered by the Engineer or his nominee	67
31	Management Meetings	67
32	Early warning	67
33	Force Majeure	67
C	Quality Control	68
34	Identifying Defects	68
35	Tests	68
36	Defect Liability	68
D	Cost Control	69
37	Bill of Quantities	69
38	Changes in the Quantities	69
39	Variations	69
40	Payments for Variations	70
41	Cash Flow Forecasts	70
42	Payment Certificates	70
43	Payments	71
44	Compensation Events	73
45	Rates for items to be inclusive of Taxes	73
46	Currencies	74
47	Price Adjustment	74
48	Retention	75
49	Liquidated Damages	75
50	Nominated Sub Contractors	76
51	Advance Payment	76
52	Securities	77
53	Removal of Craft or Plant which has Sunk	77
54	Cost of Repairs	78
E	Finishing the Contract	78
55	Completion	78
56	Taking Over	78
57	Final Account	79
58	Submission of 'As-built drawings'	79
59	Termination	79
60	Payment upon Termination	80
61	Property	80
62	Release from Performance	80
F	Labour Laws and Miscellaneous Clauses	81
63	Labour	81

Contractor Signature and seal

Sl. No.	Description	Page No.
64	Compliance with Labour Regulations	81
65	Safety, Security and Protection of Environment	81
66	Insurance of Works and Contractor's Equipment	82
67	War Risks Insurance	82
68	Royalties	82
69	Transport of Contractor's Equipment or Temporary Works	82
70	Transport of Materials or Plant	82
71	Labour Laws & Regulations	83
72	Life Saving Appliances and First Aid	85
73	Action in case work not done as per Specifications	85
74	Actions where no Specifications are specified	85
75	Bribes	85
76	Details to be Confidential	86
77	Contractor's Temporary works, office etc.	86
78	Water Supply	86
79	Power Supply	86
80	Taxes and Duties	87
81	Noise and Disturbance	87
82	Safety Code	87
83	Port Authority Rules	88
84	Execution of Work	88
85	Drawings and Designs	88
86	Monsoon Period	89
87	Reports	89
88	Completion Documents	90
89	Changes in Firm's Constitution to be intimated	90
90	Indemnities	90
G	Salient features of some major laws applicable to establishments engaged in construction work.	90

GENERAL GUIDELINES

1. This book of "General Conditions of Contract (GCC)" is applicable to all types of tenders i.e. "Percentage rate tenders, item rate tenders".
2. This GCC is applicable to Civil, Electrical and Mechanical works, except dredging work.
3. All blanks are confined to Contract Data. The blanks provided therein shall be filled up carefully for each tender as applicable.
4. Authority approving the Notice Inviting Tenders (NIT) shall fill up all the blanks in Contract Data before issue of tender document.
5. Additional clauses or modifications to the clauses in the GCC, as applicable specifically to the work shall be incorporated under Special Conditions of Contract.

Contractor Signature and seal

GENERAL CONDITIONS OF CONTRACT

A. General

1. Definitions

Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

Compensation Events are those defined in Clause 44

The Completion Date is the date of completion of the Work as certified by the Engineer or his nominee in accordance with Sub Clause 56.1

The Contract is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The Contract Data defines the documents and other information which comprise the Contract

The Contractor is a person or corporate body who Bid to carry out the Works has been accepted by the Employer.

The Contractor's Bid is the completed Bidding documents submitted by the Contractor to the Employer.

The Contract Price is the price stated in the letter of acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days, months are calendar months.

A Defect is any part of the Works not completed in accordance with the Contract.

The Defects Liability Period is the period named in the Contract Data and calculated from the Completion Date.

The Employer is the party who will employ the Contractor to carry out the Works.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.

The Intended Completion Date is the date on which it is intended that the Contractor shall complete the works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer or his nominee by issuing an extension of time.

Market Rate is the rate as decided by the Engineer on the basis of the cost of materials and labour at the Site where the Work is to be executed plus 15% to cover all overheads and profits.

Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.

The Engineer or his nominee is the person named in the Contract Data (or any other competent person appointed and notified to the Contractor to act in replacement of the Engineer or his nominee) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extensions of time and valuing the Compensation Events.

Plant is any integral part of the Works which is to have mechanical, electrical, electronic or chemical or biological function.

Ruling Percentage is the percentage by which the tendered amount of the works actually awarded is higher or lower than the corresponding estimated amount of the works actually awarded.

The Site is the area defined as such in the Contract Data.

Site Investigation Reports are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer or his nominee.

The Start Date is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Date

A Sub Contractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the Site.

Temporary Works are works designed, constructed, installed and removed by the Contractor which are needed for construction or installation of the Works

A Variation is an instruction given by the Engineer or his nominee which varies the Original Works.

The Works are what the Contract requires the Contractor to construct, install and turn over to the Employer as defined in the Contract Data.

2. Interpretation

- 2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer or his nominee will provide instructions clarifying queries about the Conditions of Contract.
- 2.1 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion date for the whole of the Works).
- 2.2 The documents forming the Contract shall be interpreted in the following order of priority:
 - 2.2.1 Agreement
 - 2.2.2 Letter of Acceptance and notice to proceed with works
 - 2.2.3 Contractor's Bid
 - 2.2.4 Contract Data
 - 2.2.5 Conditions of Contract including Special Conditions of Contract
 - 2.2.6 Specifications

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- 2.2.7 Drawings
- 2.2.8 Bill of quantities and
- 2.2.9 Any other documents listed in the Contract Data as forming part of the Contract.

3 Language and Law

The language of the Contract and the law governing the Contract are stated in the Contract Data.

4 Engineer or his nominee's Decisions

Except where otherwise specifically stated, the Engineer or his nominee will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5 Delegation

The Engineer or his nominee may delegate any of the duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6 Communications

Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act 1872).

7 Contract Agreement

- 7.1 A suitable form is annexed as "FORM OF AGREEMENT" to the Tender Document. Upon signing the Contract Agreement, the Contractor shall make copies of Contract Documents, as indicated in the Contract Data, in hardbound cover which shall cover documents used in Contract/Agreement and provide the same to the Employer at no extra cost.
- 7.2 Data made available by the Employer in accordance with provisions of the Condition of Contract shall be deemed to include data listed elsewhere in the Contract and open for inspection at the office of the Engineer as indicated in the Contract data of the Cochin Port Trust (by prior appointment with the Engineer).

8 Subcontracting

- 8.1 The Contractor may subcontract with the approval of the Engineer or his nominee but may not assign the Contract without the approval of the Employer in writing. Subcontracting does not alter the Contractor's obligations.

Notwithstanding any subcontracting with such approval as required under above and notwithstanding that the Engineer shall have received copies of any sub-contract, the Contractor shall be solely responsible for the quality and proper execution of the works, performance of all conditions of contract in all respects as if such subletting had not taken place and as if such work has been done directly by the Contractor.

If any Sub-Contractor engaged upon the works at the site executes any work, which in the opinion of the Engineer or his nominee is not in accordance with the Contract condition, written notice may be given to the Contractor requesting him to terminate such sub contract and the Contractor, upon receipt of such notice shall terminate such sub contract and the said Sub Contractor shall forthwith leave the works, failing which the Employer shall have right to remove such Sub Contractors from site. No action taken by the Employer under this clause shall relieve the Contractor of any of his liabilities under the contract or give rise to any compensation, extension of time or otherwise.

- 8.2 Observance by Sub-Contractors

The Contractor shall be responsible for observance by his sub-Contractors of the foregoing provisions.

- 8.3 Other Contractors

The Contractor shall co-operate and share the site with other Contractors, public authorities, utilities and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall as referred to in the Contract Data, also provide facilities and services for them as described in

the Schedule. The Employer may modify the schedule of other Contractors and shall notify the Contractor of any such modification.

9 Personnel

- 9.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer or his nominee. The Engineer or his nominee will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the schedule.
- 9.1 If the Engineer or his nominee asks the Contractor to remove a person who is a member of the Contractor's staff from his work force stating the reasons, the Contractor shall ensure that the person leaves the site within seven days and has no further connections with the work in the contract.
- 9.2 The Contractor shall engage an authorized agent experienced and qualified technical personnel for managing and supervising the work and shall see that all of them are always at the work spot during the working hours, personally checking all items of work. He shall take such orders as may be given to him by the Engineer-in-charge from time to time and shall be responsible to carry them out properly. In case contractor fails to provide an agent as per terms given above, EMPLOYER reserves the right to deduct a reasonable amount from the contractor's bill, subject to a maximum of Rs.25,000/- per month, for every month of absence

10 Employer's and Contractor's Risks

The Employer carries the risks which this Contract states are Employer's risks and the Contractor carries the risks which this Contract states are Contractor's risks.

11 Employer's Risks

- 11.1 The Employers risks are
 - a) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;
 - b) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and
 - c) any operation of the forces of nature (insofar as it occurs on the Site) which an experienced Contractor:
 - a. could not have reasonably foreseen, or
 - b. could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - i. prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - ii. insure against.

12 Contractor's Risks

- A) All risks of loss 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 excepted risks are the responsibility of the Contractor.
- B) Excepted risks are riot (in so far as it is uninsurable) war, invasion, act of foreign enemies, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection or military usurped power or a cause solely due to use of occupation by the Employer of any portion of the work, any operation of the forces of nature that the Contractor could not have foreseen or reasonably provided against. (All of such are herein collectively referred to as the excepted risks).

13 Insurance

- 13.1 The Contractor shall provide in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractors risks.

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- A) loss of or damage to the Works, Plant and Materials
- B) loss of or damage to Equipment;
- C) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
- D) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Engineer or his nominee for approval before the start date. All such insurances shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from any payments due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of insurance shall not be made without the approval of the Engineer or his nominee.

13.5 Both parties shall comply with all conditions of the insurance policies.

14 Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on the Site Investigation Report referred to in the Contract Data, supplemented by any information available to the Bidder.

15 Queries about the Contract Data

The Engineer or his nominee will clarify queries on the Contract Data.

16 Contractor to Construct the Works

16.1 The Contractor shall construct and install the works in accordance with the Specification and Drawings.

16.2 The Contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the Specifications. The Contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer or his nominee and the Contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the Specifications specified in Contract Data or in any Bureau of Indian Standard or any other published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the Contract.

16.3 The Contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

16.4 SITE MAINTENANCE DURING CONSTRUCTION

The Contractors shall time to time clear and remove all rubbish and obstructions from the site and the work area shall be kept clear and unobstructed at all times. Nothing extra shall be paid on this account.

17 The Works to Be Completed by the Intended Completion Date

17.1 The Contractor may commence execution of the works on the Start Date and shall carry out the works in accordance with the program submitted by the Contractor as updated with the approval of the Engineer or his nominee, and complete them by the Intended Completion Date.

17.2 The work shall be done in phases, in close co-ordination with civil/electrical/air conditioning false ceiling works and other works as directed by EMPLOYER.

17.3 The Contractor shall note that the site for installation will be made available in parts or in phases. It is

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the responsibility of the contractor to programme his work accordingly. No extra amount will be paid on account of site being made available in phases/parts.

18 Approval by the Engineer or his nominee

- 18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works or Permanent Works, in the case of Contractor's design to the Engineer or his nominee, who is to approve them if they comply with the specifications and Drawings.
- 18.2 The Contractor shall be responsible for design of Temporary Works.
- 18.3 The Engineer or his nominee's Approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 18.4 All Drawings prepared by the Contractor for the execution of the temporary works, are subject to prior approval by the Engineer or his nominee before their use.

19 Safety

- 19.1 The Contractor shall be responsible for the safety of all activities on the Site.

19.2 Reporting of Accidents

The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the local police authorities immediately by the available means.

20 Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Engineer or his nominee of such discoveries and carry out the Engineer or his nominee's instructions for dealing with them.

21 Possession of the Site

The Employer shall give possession of all parts of the Site to the Contractor, free from encumbrances. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be a Compensation Event.

22 Access to the Site

- 22.1 The Contractor shall allow the Engineer or his nominee and any person authorised by the Engineer or his nominee access to the Site or to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured, fabricated and / or assembled for the works.
- 22.2 Port Entry Permission - The Contractor shall submit prior application for Port entry passes to the concerned Port authority for his labours and the staffs engaged in the works.
The Contractor shall retain the original passes obtained by them in respect of their labour and staff engaged in the Works and produce the same to the Engineer as and when called for. It should not be either destroyed or allowed to be taken by the labour/staff after its use.

23 Instructions

The Contractor shall carry out all instructions of the Engineer or his nominee which comply with the applicable laws where the Site is located.

24 Disputes

If the Contractor believes that a decision taken by the Engineer or his nominee was either outside the authority given to the Engineer or his nominee by the Contract or that the decision was wrongly taken, the decision shall be referred to the Employer within 28 days of the notification of the Engineer or his nominee's decision.

25 Settlement of Disputes & Arbitration

25.1 Dispute Resolution

- 25.1.1 The Parties agree to use their best efforts for amicably resolving all Disputes arising under or in Contractor Signature and seal

respect of this Agreement by mutual discussions.

25.1.2 Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:-

- (i) If the Contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-charge on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 15 days request the Engineer in writing for written instruction or decision. Thereupon, the Engineer shall give his written instructions or decision within 30 days of receipt of the Contractor's letter.
- (ii) If the Engineer fails to give his instructions or decision in writing within the aforesaid period or if the Contractor is dissatisfied with the instructions or decision of the Engineer, the Contractor may, within 15 days of the receipt of Engineer's decision, appeal to the Chairperson who shall afford an opportunity to the Contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Chairperson shall give his decision within 30 days of receipt of Contractor's appeal.
- (iii) If the Contractor is dissatisfied with this decision, the Contractor shall within a period of 30 days from receipt of the said decision, shall take further action in accordance with the conciliation procedure set forth in Clause 24.3.

25.2 Conciliation

25.2.1 In the event of any dispute or differences between the Port Authorities and the Contractor, which could not be resolved amicably by mutual consultations / Arbitration, then the Chairperson of Cochin Port Authority may refer such unresolved disputes or differences to the Conciliation and Settlement Committee (CSC) comprising of independent subject experts, constituted by the IPA and adopted by the Board of Major Port Authority for Cochin Port in its meeting dated 02.03.2022, to enable speedy disposal of pending / new cases.

25.2.2 Either the Port or the Contractor may send a reference about the dispute to the other party. The party initiating conciliation shall send to the other party a written invitation to settle or conciliate under this Part, briefly identifying the subject of the dispute. The concerned Technical Division in the Port shall send a request or response within 7 working days if a reference is received from the contractor thereby inviting the Contractor to depute a team of their representatives to interact with the Contract Management Division (CMD) constituted by each Port.

25.2.3 The procedure for referring disputes to the CSC will be as per the guidelines issued by IPA dated 05.10.2021, its amendment dated 21.03.2022 and subsequent amendments, if any. Recourse to such conciliation shall be open before, during or after the arbitration proceedings. The award of the Conciliation Committee / Council, if agreed by both the parties, shall then be placed for consideration of the Board of Major Port Authority for subject to the delegation of powers.

25.3 Arbitration

- (i) Any disputes of a total value less than Rs.10 crores shall be resolved through arbitration by a Sole Arbitrator appointed by mutual consent of the parties.
- (ii) Either party shall within a period of 30 days from the date of termination of conciliation proceedings, give notice to other party for appointment of arbitrator.
- (iii) If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed jointly by both parties. Such person shall be entitled to proceed with the reference from the stage at which it was

left by his predecessor.

- (iv) It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along with the notice for appointment of arbitrator and giving reference to the rejection by the Chairperson of the appeal.
- (v) It is also a term of this contract that if the Contractor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 120 days of receiving the intimation from the Engineer that the final bill is ready for payment, any claim of the Contractor shall be deemed to have been abandoned and absolutely barred and the Employer or his authorized representative shall be discharged and released of all liabilities under the contract in respect of these claims.
- (vi) The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) or any statutory modifications or reenactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.
- (vii) It is also a term of this contract that the Arbitrator / Arbitral Tribunal shall adjudicate only on such disputes as are referred to him and give separate award against each dispute and claim referred to.
- (viii) It is also a term of the contract that if any fees are payable to the arbitrator the same shall be paid equally by both the parties.
- (ix) It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he / they issues notice to both the parties calling them to submit their statement of claims and counter statement of claims.
- (x) The seat and venue of the arbitration shall be at Cochin.
- (xi) The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any party by whom and in what manner, such costs or any part thereof shall be paid.

25.4 Litigation

- (i) Any disputes of total value above Rs. 10 crores not covered in the aforesaid arbitration clause shall be adjudicated by the courts.
- (ii) Only Courts in Cochin alone shall have jurisdiction to adjudicate any disputes between the parties.

25.5 Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD)

Notwithstanding anything contained above, in the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contracts between Central Public Sector Enterprises (CPSEs/ Port Authorities inter se and also between CPSEs and Government Departments/ Organizations, such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22.05.2018.

26 Computerised Measurement Book

- a. Engineer or his nominee shall, except as otherwise provided, ascertain and determine by measurement, the value of work done in accordance with the contract.
- b. All measurement of all items having financial value shall be entered by the Contractor and compiled in the shape of the Computerised Measurement Book having pages of A-4size as per the format of the department so that a complete record is obtained of all the items of works performed under the Contract.
- c. All such measurements and levels recorded by the Contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the Contractor from the Engineer or his authorized representative as per interval or program fixed in consultation with

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Engineer or his authorized representative. After the necessary corrections made by the Engineer or his nominee, the measurement sheets shall be returned to the Contractor for incorporating the corrections and for resubmission to the Engineer for the dated signatures by the Engineer or his nominee and the Contractor or their representatives in token of their acceptance.

- d. Whenever bill is due for payment, the Contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-and/or his authorized representative. The Contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks. The final, fair, computerized measurement book given by the Contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the Contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the Divisional Office records, and allotted a number as per the Register of Computerised MBs. This should be done before the corresponding bill is submitted to the Division Office for payment. The Contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.
- e. The Contractor shall also submit to the department, separately his computerized Abstract of Cost and the Bill based on these measurements, duly bound, and its pages machine numbered along with three spare copies of the Bill. Thereafter, this Bill will be processed by the Division Office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.
- f. The Contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.
- g. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the Specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.
- h. The Contractor shall give not less than seven days' notice to the Engineer or his authorised representative in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer or his authorised representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.
- i. Engineer or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.
- j. It is also a term of this Contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the Contractor from liabilities from any over measurement or defects noticed till completion of the Defects Liability Period.

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B. TIME CONTROL

27 Program

- a. After the acceptance of his Tender, the Contractor shall, within fifteen days, submit to the Engineer-in-Charge for his approval, a detailed programme taking into account the total time period stipulated in the contract showing the order, the procedure and method in which he proposes to carry out the works.
- b. He shall furnish the particulars in writing of his arrangements of manpower, plant and machinery and all other resources owned and dedicated to this work. Cash flow during the execution of project for procurement of materials and for carrying out of the works including temporary works which the Contractor intends to construct shall also be furnished.
- c. In support of this programme, the Contractor shall submit a work schedule in the form of a CPM/PERT Chart. The Engineer-in-Charge shall if necessary modify the programme submitted by the Contractor and approval shall be given by the Engineer-in-Charge indicating the major milestones. The programme approved by the Engineer-in-Charge shall be final and binding on the Contractor. The approval by the Engineer-in-Charge of such programme, or furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the contract.
- d. During the progress of work, the Contractor shall be required to furnish the resource mobilization plan as required by Engineer-in-Charge to keep up the target date of completion.
- e. This CPM/PERT programme will be required to be updated every month or more frequently as directed by the Engineer-in-Charge, based on the actual progress, resource mobilisation and other field conditions actually prevailing.

E.1 PROGRESS REPORTS AND SCHEDULES

The Contractor shall submit to the Engineer-in-Charge by the third day of every fortnight, six (6) copies of a report in a duly approved format showing the progress made in construction of the works, mobilization of resources etc. during the previous fortnight.

E.2 The Contractor shall also submit by the end of every month his anticipated progress schedule for all items of work for the following month in six (6) copies in an approved proforma to the Engineer-in-Charge.

E.3 An order book of work shall be maintained and the Contractor shall acknowledge the orders given by the Engineer-in-charge and shall carry them out accordingly.

E.4 The Contractor shall particularly note that the tender rates of the various items shall be inclusive of all incidental charges, such as bailing, shoring, bunding, barricading and lighting, etc. if found necessary during execution and no extra shall be due therefore on any account to the Contractor.

E.5 The Contractor should see that the labour and staff employed by him behave in a proper manner and should dispense with services of such person or persons from the site as directed by the Engineer-in-charge.

28 Revised Program

The Engineer or his nominee's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer or his nominee again at any time for approval. A revised Program is to show the effect of Variations and Compensation Events.

29 Extension of the Intended Completion Date

- 29.1 The Engineer or his nominee shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

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29.2 The Engineer or his nominee shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer or his nominee for a decision upon the effect of a Compensation Event or Variation or any other events causing delay, beyond the control of the Contractor and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

29.3 Such Request for extension of time, to be eligible for consideration, shall be made by Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

29.4 Extension of Time:

29.4.1 If at any time during performance of the contract, the Contractor or its Sub-Contractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services, pursuant to GCC Clause 29, the Contractor shall promptly notify the Employer in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Contractor's notice, the Employer shall evaluate the situation and may at its discretion extend the Contractor's time for performance, in which case the extension shall be ratified by the parties by amendment of the contract.

29.4.2 Except in case of Force Majeure, as provided under GCC Clause 33, a delay by the Contractor in the performance of its Delivery and Completion obligations shall render the Contractor liable to the imposition of liquidated damages pursuant to GCC Clause 49 (Liquidated Damages), unless an extension of time is agreed upon, pursuant to GCC Clause 29.

30 Delays Ordered by the Engineer or his nominee

The Engineer or his nominee may instruct the Contractor to delay the start or progress of any activity within the Works.

31 Management Meetings

Either the Engineer or his nominee or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

The Engineer or his nominee shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer or his nominee either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

32 Early Warning

The Contractor is to warn the Engineer or his nominee at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Engineer or his nominee may require the Contractor to provide an estimate of the expected effect of the event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.

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The Contractor shall cooperate with the Engineer or his nominee in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer or his nominee.

The Contractor shall immediately give notice in writing to the Engineer or his nominee upon happening of any event as detailed below if the work is delayed by:

- i) force majeure, or
- ii) abnormally bad weather, or
- iii) serious loss or damage by fire, or
- iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- v) delay on the part of other Contractors or tradesmen engaged by Engineer in executing work not forming part of the Contract, or
- vi) any other cause which, in the absolute discretion of Engineer, is beyond the Contractor's control.

33 Force Majeure

"Force Majeure" means an exceptional event or circumstance:

- (a) which is beyond a Party's control,
- (b) which such Party could not reasonably have provided against before entering into the Contract,
- (c) which, having arisen, such Party could not reasonably have avoided or overcome, and
- (d) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (i) war and hostilities (whether war be declared or not), invasion, act of foreign enemies;
- (ii) rebellion, revolution, insurrection, or military or usurped power, or civil war;
- (iii) ionizing radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste, from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof;
- (iv) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds; and
- (v) riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Sub Contractors and arising from the conduct of the Works;
- (vi) floods, tornadoes, earthquakes and landslides.

C. QUALITY CONTROL

34 Identify Defects

The Engineer or his nominee shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer or his nominee may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer or his nominee considers may have a Defect.

35 Tests

If the Engineer or his nominee instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and if the test shows that it has defect, the Contractor shall pay

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for the test and any samples. If there is no Defect the test shall be a Compensation Event.

36 Defect Liability

- 36.1 The Engineer or his nominee shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 36.2 Every time notice of a Defect is given, the Contractor shall correct the notified defect within the length of time specified by the Engineer or his nominee's notice. To the intent that the works shall, at or as soon as practicable after the expiration of the Defects Liability Period, be delivered to the Employer in the condition required by the Contract, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall :
- (a) complete the work, if any, outstanding on the date stated in the Taking-Over Certificate within the date to be intimated by the Engineer and
 - (b) execute all such work of amendment, reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, during the Defects Liability Period or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to its expiration, instruct the Contractor to execute.
- 36.3 Cost of Remedying Defects
- All work referred to in Sub-Clause 36.2 shall be executed by the Contractor at his own cost if the necessity thereof is, in the opinion of the Engineer, due to:
- a) The use of materials, Plant or workmanship not in accordance with the Contract, or
 - b) Where the Contractor is responsible for the design of part of the Permanent Works, any fault in such design, or the neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the Contract.
- 36.4 Defects Liability Certificate
- The Contract shall not be considered as completed until a Defects Liability Certificate shall have been signed by the Engineer and delivered to the Employer, with a copy to the Contractor, stating the date on which the Contractor shall have completed his obligations to execute and complete the Works and remedy any defects therein to the Engineer's satisfaction. The Defects Liability Certificate shall be given by the Engineer within 28 days after the expiration of the Defects Liability Period, or, if different defects liability periods shall become applicable to different Sections or parts of the Permanent Works, the expiration of the latest such period, or as soon thereafter as any works instructed, pursuant to Clauses 36, have been completed to the satisfaction of the Engineer.
- 36.5 Unfulfilled Obligations
- Notwithstanding the issue of the Defects Liability Certificate the Contractor and the Employer shall remain liable for the fulfillment of any obligation incurred under the provisions of the Contract prior to the issue of the Defects Liability Certificate which remains unperformed at the time such Defects Liability Certificate is issued and, for the purposes of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the parties to the Contract.
- 36.6 Uncorrected Defects.
- If the Contractor has not corrected a Defect within the time specified in the Engineer's or his nominee's notice the Engineer or his nominee will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

D. COST CONTROL

37 Bill of Quantities

- 37.1 The Bill of Quantities shall contain items for the construction, supply, installation, testing and Contractor Signature and seal

commissioning work to be done by the Contractor.

- 37.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

38 Changes in the Quantities

- 38.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 % provided the change exceeds (+)10% of initial Contract Price, the Engineer or his nominee shall adjust the rate(s), to allow for the change.
- 38.2 The Engineer or his nominee shall not adjust rates for changes in quantities if thereby the Initial Contract Price is exceeded by more than 10% except with the prior approval of the Employer.
- 38.3 If requested by the Engineer or his nominee where the quoted rate (s) of any item(s) is abnormally high, the Contractor shall provide the Engineer or his nominee with a detailed cost breakdown of such rate in the Bill of Quantities.

39 Variations

- 39.1 The Engineer shall make any Variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion, be appropriate, he shall have the authority to instruct the Contractor to do and the Contractor shall do any of the following:
- (a) increase or decrease the quantity of any work included in the Contract,
 - (b) omit any such work,
 - (c) change the character or quality or kind of any such work,
 - (d) change the levels, lines, position and dimension of any part of the Works,
 - (e) execute additional work of any kind necessary for the completion of the Works,
 - (f) change any specified sequence or timing of construction of any part of the Works.

No such Variation shall in any way vitiate or invalidate the Contract, by the effect, if any, of all such Variations shall be valued in accordance with Clause 40. Provided that where the issue of an instruction to vary the works is necessitated by some default of or breach of contract by the Contractor or for which he is responsible, any additional cost attributable to such default shall be borne by the Contractor. All Variations shall be included in updated Programs produced by the Contractor.

39.2 Instructions for Variations

The Contractor shall not make any such Variation without an instruction of the Engineer. Provided that no instruction shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an instruction given under this clause, but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities.

40 Payments for Variations

- 40.1 Variation permitted shall not exceed (+) 25% in quantity of each individual item, and (+)10% of the total contract price. Within 14 days of the date of instruction for executing varied work, extra work or substitution, and before the commencement of such work, notice shall be given either (a) by the Contractor to the Employer of his intention to claim extra payment or a varied rate or price, or (b) by the Employer to the Contractor of his intention to vary rate or price.
- 40.2 For items not existing in the Bill of Quantities or substitution to items in the Bill of Quantities, rate payable should be determined by methods given below and in the order given below.
- i) Rates and prices derived from the rates of similar items in the Contract.
 - ii) Rates and prices in the Schedule of Rates applicable to the Contract plus Ruling Percentage.

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iii) Market rates of materials and labour, hire charges of plant and machinery used, plus 15% for overheads and profits of Contractor.

40.3 For items in the Bill of Quantities but where quantities have increased beyond the variation limits, the rate payable for quantity in excess of the quantity in the Bill of Quantities plus the permissible variation shall be as determined by methods given below.

i) Rates and prices in the Schedule of Rates applicable to the Contract plus Ruling Percentage.

ii) Market rates of materials and labour, hire charges of plant and machinery used, plus 15% for overheads and profits of Contractor.

whichever is lower, but not less than the rate in the Bill of Quantities.

40.4 If there is delay in the Employer and the Contractor coming to an agreement on the rate of an extra item, rates as proposed by the Employer shall be payable provisionally till such time as the rates are finally determined or till date mutually agreed.

40.5 If the Engineer or his nominee decides that the urgency of varying the work prevent a quotation being given and considers not delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

41 Cash flow forecasts

When the Program is updated, the Contractor is to provide the Engineer or his nominee with an updated cash flow forecast.

42 Payment Certificates

42.1 The Contractor shall submit to the Engineer or his nominee monthly statements of the estimated value of the work completed less the cumulative amount certified previously.

42.2 The Engineer or his nominee shall check the Contractors' monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in sub-clause 51.6 of the Contract Data (Secured Advance).

42.3 The value of work executed shall be determined by the Engineer or his nominee.

42.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of quantities completed.

42.5 The value of work executed shall include the valuation of variations and Compensation Events.

42.6 The Engineer or his nominee may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

43. Payments

43.1 Bills shall be prepared and submitted by the Contractor. Joint measurements shall be taken continuously and need not be connected with billing stage. System of 4 copies of measurements, one each for Contractor, Employer and Engineer or his nominee, and signed by both Contractor and Engineer or his nominee shall be followed.

43.2 Payment of Bills for civil works shall be regulated as detailed hereunder:

43.2.1 Interim Bills shall be paid within 21 days of date of submission of bills in full shape by the Contractor. 75% of the bill amount shall be paid within 7 days of submission of the bill, if on request by the Contractor. Balance amount of the verified bill shall be paid within 21 days of the submission of the bill.

43.2.2 Final Bill shall be paid within 3 months as detailed below on issue of Taking Over Certificate by the Engineer or his nominee. The Contractor shall submit final Bill within 30 days of issue of Taking Over Certificate. Engineer or his nominee shall check the bill within 30 days after its receipt and return the bill to Contractor for corrections, if any. The Contractor should re-submit the bill with

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corrections within 15 days of its return by the Engineer or his nominee. The re-submitted bill shall be checked and paid within 30 days of its receipt.

43.3 Payment for Electrical and Mechanical works shall be regulated as detailed below:

43.3.1 The Contractor shall be entitled upon certificates of the Engineer or his nominee to payments in accordance with the following provisions:

I) For supply portion :

- i) 75% of the value, as certified by the Engineer or his nominee, of the materials from time to time delivered on the site.
- ii) Balance 25% after completing the work in all respects, commissioning and handing over the installation to the Employer to the satisfaction of the Engineer and his nominee and his certification.

II) For erection portion :

- i) 85% of the value as certified by the Engineer or his nominee, of the installation portion on completion of the erection work under contract, for which payments are claimed.
- ii) Balance 15% along with other payments if any, after completing the work in all respects, commissioning and taking over the installation by the Employer to the satisfaction of the Engineer and his nominee and his certification.

43.3.2 For HT works, the work shall not be considered as completed until the installation is energized after obtaining approval certificate from Central Electrical Authority (CEA) and upon the issuance of taking over certificate by Engineer or his nominee. The final payment shall be made only after taking over the installation by the Employer.

43.4 All the interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer or his nominee relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer- or his nominee-charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

43.5 Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided, without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

43.6 No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.

43.7 If an amount certified is increased in a later certificate as a result of an award by the Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in the award. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

43.8 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

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- 43.9 All payments to the Contractor under the contract shall unless otherwise stated elsewhere be made to the Contractor in Indian currency through e- payments through designated Bank.
- 43.10 Payments*
[*Modification applicable only for tenders invited combining Civil, Electrical and Mechanical Works]

Sub Clause 43 shall be replaced by the following:

Bills shall be prepared and submitted by the Contractor. Joint measurements shall be taken continuously and need not be connected with the billing stage. System of 4 copies of measurements, one each for Contractor, Employer and Engineer or his Nominee and signed by both the Contractor and Engineer or his Nominee shall be followed.

- 43.11 Payment for Electrical/Mechanical Works shall be certified by the respective Nominees from the concerned departments.
- 43.12 Payment of bills for Civil Works shall be regulated as detailed here under.
- 43.12.1 Any Interim/Final bill which is incomplete in any respect shall be returned to the Contractor within 4 days of date of submission of bill to the Engineer or his Nominee.
- 43.12.2 Interim bills shall be paid within 21 days of date of submission of bills in full shape, by the Contractor, as detailed below.
- 43.12.3 Clarifications/corrections if any required on an Interim bill submitted, shall be sought from the Contractor within 4 days of submission of the bill and also, all such clarifications/corrections required shall be sought at one go except in exceptional circumstances. The Contractor shall submit the clarifications including carrying out corrections in the bill, if required, within 4 days thereafter. The clarified / corrected bill shall be verified and forwarded to Finance Department within the next 4 days. Clarifications if any required by the Finance Department shall be sought within 3 days and the Engineer/Nominee shall clear it on top priority within the next 3 days and, finally, the bill shall be paid to the Contractor within 3 days thereafter, i.e., within a total 21 days of date of submission of bills in full shape, as indicated above.
- 43.12.4 However, on request by the Contractor, 75% of the bill amount shall be paid within 7 days of submission of the bill. Balance amount of the verified bill shall be paid within 21 days of the submission of the bill, on completion of all contractual requirements as brought out at Sub Clause 43.2.2.1.above.
- 43.12.5 Final bill shall be paid within 3 months of issue of Taking Over Certificate by the Engineer / Nominee, as detailed below.
- 43.12.6 The Contractor shall submit the Final bill to the Engineer / Nominee within 20 days of issue of Taking Over Certificate by the Engineer / Nominee. The bill shall be checked and all clarifications/corrections required on the bill submitted, shall be sought from the Contractor within 15 days thereafter. The Contractor shall submit the clarifications including carrying out corrections in the bill, if required, within the next 10 days. The clarified / corrected bill shall be verified and forwarded to Finance Department within the next 15 days. Thereafter, clarifications if any required by the Finance Department shall be sought within 10 days and the Engineer/Nominee shall clear it on top priority within the next 10 days and, finally, the bill shall be paid to the Contractor within 10 days thereafter, i.e., within a total 3 months of issue of Taking Over Certificate by the Engineer / Nominee, as indicated above.
- 43.12.7 However, on request by the Contractor, 50 % of the final bill amount shall be paid within 7 days of submission of the bill, which will be adjusted against the final bill payment, on completion of all contractual requirements as brought out at Sub Clause 43.2.3.1 above.
- 43.12.8 All other sub clauses under Clause 43 remain the same.

44 Compensation Events

- 44.1 The following mutually agreed Compensation Events unless they are caused by the Contractor would be applicable:

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- (a) The Employer does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.
 - (b) The Employer modifies the schedule of other Contractors in a way which affects the work of the Contractor under the contract.
 - (c) The Engineer or his nominee gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety.
 - (d) Other Contractors, public authorities, utilities or the Employer does not work within the dates and other constraints stated in the Contract that cause delay or extra cost to the Contractor.
 - (e) The effect on the Contractor of any of the Employer's Risks.
 - (f) Any other Compensation Events listed in the Contract Data or mentioned in the contract.
- 44.2 Whenever any compensation event occurs, the Contractor will notify the Employer, within 14 days and provide a forecast cost of the compensation event.
- 44.3 If a Compensation Event would cause additional cost or would prevent the work being completed in the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Engineer or his nominee shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.
- 44.4 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast has been provided by the Contractor, it is to be assessed by the Engineer or his nominee and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable the Engineer or his nominee shall adjust the Contract Price based on Engineer or his nominee's own forecast. The Engineer or his nominee will assume that the Contractor will react competently and promptly to the event.
- 44.5 Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss:
- 44.6 All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of the Board without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

45 Rates for items to be inclusive of Taxes

- 45.1 The Contractor's rates and prices shall include all taxes, duties and fees including Port charges like wharfage, Port dues, berth hire, pilotage etc. if any applicable, all charges and taxes whatsoever excluding Goods and Service Tax (GST) [For Civil/Mechanical/ Electrical works invited through e-tender portal www.tenderwizard.com /COPT in respect of materials, labour and plant and all other things obtained or used by the Contractor for the execution and maintenance of the Work or any temporary works.
- 45.2 GST as may be applicable from time to time shall be shown separately in the invoice. The invoice to be submitted by the Contractor shall include the GST Registration Number of the Contractor as well as the Employer.
- 45.3 The Employer will perform such duties in regard to the deduction of such taxes at sources as per applicable law. Any new taxes, levies, duties, imposed after signing the Contract shall be reimbursed by the Employer on production of documentary evidence.
- 45.4 The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his Tender for the Work and of the rates and prices stated in the Schedule of Quantities.
- 45.5 The percentages/ rates / lumpsum amount as applicable shall except in so far as the Contract otherwise provides, cover all obligations of the Contractor under this Contract and all matters and things

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necessary for the proper completion and maintenance of the Work. The percentages/ rates / lumpsum amount quoted for each item shall be all inclusive value of the finished Work as per drawings and specifications and shall cover the cost of all constructional plants, temporary works, appliances, materials, both for the Work and temporary works, labour and all other matter in connection with each item quoted for

46 Currencies

All payments shall be made in Indian Rupees unless specifically mentioned.

47 Price Adjustment.

47.1 No price adjustment shall be made for works except for the provisions under clause 47.1.1 herein under and clause 47.2 for any subsequent change in legislation.

47.1.1 For Civil contract works, with intended completion period of the contract more than 12 months, Price adjustment shall be made for the variation in price of materials such as cement, reinforcement steel, structural steel, bitumen and bitumen emulsion. Compensation for variation in cost of the materials shall be regulated as described below subject to the condition that such compensation for variation in prices shall be only for the work done during the stipulated period of the contract including such period for which the validity of the contract is extended.

The rates quoted for the items in the Schedule of Quantities shall be based on the Base rates of the materials provided in the Contract Data and these base rates are applicable at the Supplier's local delivery point and shall not include cost of loading to Contractor's vehicle, transporting to work site and unloading and stacking at work site.

During execution and actual procurement by the Contractor, increase or decrease in the cost of materials over the Base rate (which results in an increase or decrease of cost to the Contractor in carrying out the works) shall form an addition or reduction as the case may be to or from the contract price and shall be paid to or allowed by the Contractor accordingly, provided that such increase or decrease shall relate only to the quantities of material which the Engineer is satisfied as reasonably required for the works. While considering the reasonable requirement of the materials for the work, allowance towards wastage/unusable cutting bits shall be permitted as provided in the Contract Data. The prices of materials considered for regulating the payment as aforesaid shall be the price charged by the suppliers approved by the Engineer at the supplier's local delivery point and this shall not include the cost of loading to the Contractor's vehicle, transporting to the work site and unloading and stacking at work site

47.2 Subsequent Legislation

If, after 28 (Twenty eight) days prior to the last date for submission of tenders for the contract, there occur changes to any National or State Statute, Ordinance or Decree or other Law or any regulation or bye law of any local or other duly constituted authority or introduction of any such state statute, Ordinance, Decree, Law, regulation or bye law which causes additional or reduced cost to the Contractor in execution of the contract, such additional or reduced cost shall, after due consultation with the Employer and the Contractor be determined by the Engineer or his nominee and shall be added to or deducted from the contract price and the Engineer or his nominee shall notify the Contractor accordingly with a copy to the Employer.

48 Retention

48.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

48.2 Retention Money shall be deducted at 5% of the gross amount of the bill from the first Running Account bill onwards till the recovered sum amounts to 5% of the contract value or the value of the work done whichever is higher. Retention money shall be refunded to the Contractor within 14 days from the date of payment of final bill.

49 Liquidated Damages

49.1 In case of delay in completion of the contract, liquidated damages (LD) may be levied at the rate of

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half per cent (½%) of the contract price per week of delay, subject to a maximum of 10 per cent of the contract price. the amount of liquidated damages can be adjusted or set-off against any sum payable to the contractor.

- 49.1.1 The employer, if satisfied, that the works can be completed by the contractor within a reasonable time after the specified time for completion, may allow further extension of time at its discretion with or without the levy of l.d. in the event of extension granted being with l.d, the employer will be entitled without prejudice to any other right or remedy available in that behalf, to recover from the contractor as agreed damages equivalent to half per cent (½%) of the contract value of the works for each week or part of the week subject to the ceiling defined in sub-clause 49.1.
- 49.1.2 The employer, if not satisfied that the works can be completed by the contractor, and in the event of failure on the part of the contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.
- 49.1.3 The employer, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.
- 49.1.4 In the event of such termination of the contract as described in clauses 49a(ii) or 49a(iii) or both the employer shall be entitled to recover l.d. upto ten per cent (10%) of the contract value and forfeit the security deposit made by the contractor besides getting the work completed by other means at the risk and cost of the contractor.

49.2 Reduction of liquidated damages

If, before the time for completion of the whole of the works or, if applicable, any section, taking over certificate has been issued for any part of the works or of a section, the liquidated damages for delay in completion of the remainder of the works or of that section shall, for any period of delay after the date stated in such taking over certificate, and in the absence of alternative provisions in the contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the works or section, as applicable. the provisions of this sub-clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

- 49.3 For levying LD, the employer is not required to have documentary evidence to quantify or prove the losses suffered by the employer due to delay in completion of work by the contractor, as per agreement conditions.

50 Nominated Sub Contractors

All specialists, merchants, tradesmen and others executing any work or supplying any good, materials, Plant or services for which provisional Sums are included in the Contract, who may have been or be nominated or selected or approved by the Employer or the Engineer, and all persons to whom by virtue of the provisions of the Contract, the Contractor is required to subcontract shall, in the execution of such work or the supply of such goods, materials, Plant or services, be deemed to be Sub Contractors to the Contractor and are referred to in this Contract as “Nominated Sub Contractors”.

51 Advance payment

The Employer shall make the following advance payments (as admissible in the contract data) if requested by the Contractor in writing:

- 51.1 Mobilisation Advance shall be paid upto 5% of Contract price, payable in two equal installments. The first installment shall be paid after mobilisation has started and next installment shall be paid after satisfactory utilisation of earlier advance for which, the Contractor shall furnish proof of the satisfactory utilization of the amount.
- 51.2 Construction/ installation equipment Advance shall be paid upto 5% of Contract price, limited to 90% of assessed cost of machinery. Equipment advance will be paid in two or more installments. First installment shall be paid after Construction Equipment has arrived at the site and next installment shall

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be paid after satisfactory utilisation of earlier advance (s).

- 51.3 Mobilization Advance and Construction Equipment Advance shall be paid at SBI PLR + 2% interest rate and against Bank Guarantee for Mobilization Advance and against hypothecation of Construction Equipment to the Employer.
- 51.4 Recovery of Mobilisation and Construction Equipment advance will start when 15% of the work is executed and recovery of total advance should be completed by the time 80% of the original Contract work is executed.
- 51.5 The above advance payments shall be admissible only for the works where estimated cost put to tender is more than Rs.5.0 crores.
- 51.6 Secured Advance

The Engineer or his nominee shall make advance payment in respect of materials and plant brought to site but not yet incorporated and installed in the Works in accordance with conditions stipulated in the Contract Data.

75% of cost of materials and plant brought to site for incorporation into the works only shall be paid as Secured Advance. Materials which are of perishable nature should be adequately insured.

The Contractor, on signing an indenture in the form to be specified by the Engineer, shall be entitled to be paid during the progress of the execution of the work upto 75% of the assessed value of any materials which are in the opinion of the Engineer nonperishable, non-fragile and noncombustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work the amount of such advance shall be recovered/ deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer provided the Contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer shall be final and binding on the Contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

52 Securities

- 52.1 Security Deposit (SD) shall be at 10% of the contract value or value of the work done whichever is higher and it shall consist of two parts:
- Performance Security to be submitted at award of the work
- Retention Money to be recovered from Running Bills as detailed in Clause 48 above.
- The total amount thus deposited towards SD will be retained as security for the due and proper fulfillment of the contract and will not carry any interest. Such deposit shall be forfeited on failure to perform or non-fulfillment by the Contractor of the terms and conditions of the contract.
- 52.2 Performance Security shall be as below:
- a) For civil works : 5% of the Contract value
- b) For all Electrical and Mechanical works : 10% of the Contract value
- 52.3 The Performance Security shall be provided by the Contractor to the Employer not later than 21 days for domestic bids and 28 days for international bids from the date of letter of acceptance and shall be furnished in one of the following forms:
- Insurance Surety Bond/ Banker's Cheque/ Account Payee Demand Draft from any Commercial Bank having its branch at Cochin acceptable by Cochin Port Authority.

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An irrevocable Bank Guarantee (BG) enforceable and encashable at Cochin, drawn from any Commercial Bank having its branch at Cochin acceptable by Cochin Port Authority.

- 52.4 The BG furnished towards the Performance Security shall be valid for a period until a date 30days from the day of expiry of the defect liability period stipulated as per the terms of the contract.
- 52.5 Unless performance Security is furnished within the period as specified in clause 52.3 above or such extension of that period as may be permitted by the Engineer in writing, the Earnest Money will be liable to forfeiture and the contract to cancellation.
- 52.6 Performance Security will be released / refunded to the Contractor not later than 30 days from the date of completion of Defect Liability / warranty period of the work.

53 Removal of Craft or Plant which has sunk

- 53.1 The Contractor shall forthwith and with dispatch at his own cost raise and remove any craft or plant (floating or otherwise) belonging to him or to any sub-Contractor employed by him (including also any plant which is held by the Contractor or any sub-Contractor under agreement for hire or hire-purchase) which may be sunk in the course of the construction completion or maintenance of the Works or otherwise deal with the same as the Engineer may direct or until the same shall be raised and removed, the Contractor shall set all such buoys and display at night such lights and do all such things for the safety of navigation as may be required by the Engineer or by Employer. In the event of the Contractor not carrying out his obligation imposed upon him by this clause the Employer may provide buoy and light such sunken craft or plant and raise and remove the same (without prejudice to the right of the Employer to hold the Contractor liable under General Conditions) and the Contractor shall refund to the Employer all costs incurred in connection therewith.

53.2 Contractor's Temporary Moorings

Should the Contractor need, in connection with implementing the Works, to provide temporary moorings for his craft he may be allowed to do so in location and manner approved by the Engineer subject to all necessary permissions being first obtained by the Contractor from the authorities concerned. The Contractor shall not lay his temporary moorings such as to interfere with the port traffic and such moorings shall be removed if and when required by the Employer.

54 Cost of Repairs

- 54.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability period shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

55 Completion

- 55.1 After completion of the work, the Contractor will serve a written notice to the Engineer or his nominee/Employer to this effect. The Engineer or his nominee/Employer upon receipt of this notice shall conduct a complete joint survey of the work within 7 days and prepare a defects list jointly. The defects pointed out by the Engineer or his nominee/ Employer would be rectified by the Contractor within 30 days and thereafter acceptance report be signed jointly by the Contractor and the Employer. This joint acceptance report shall be treated as 'Completion Certificate'. The Completion Report / Certificate to the Contractor will be issued only after obtaining 'No Claim Certificate' from the Contractor in the format approved by the department stating that they have no further claims against CoPA in respect of the Work.

55.2 No Claim Certificate:

No dispute or difference on any matter whatsoever, pertaining to the contract can be raised by the Contractor after submission of 'No Claim Certificate' as per the format in the tender document.

55.3 Substantial Completion of Parts

If any part of the Permanent Works has been substantially completed and satisfactorily passed any Tests on Completion prescribed by the Contract, the Engineer may issue a Taking-Over Certificate in respect

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of that part of the Permanent works before completion of the whole of the Works and, upon the issue of such Certificate, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work in that part of the Permanent Works during the Defects Liability Period.

55.4 Surfaces Requiring Reinstatement

Provided that a Taking Over Certificate given in respect of any Section or part of the Permanent Works before completion of the whole of the Works shall not be deemed to certify completion of any ground or surfaces requiring reinstatement, unless such Taking Over Certificate shall expressly so state.

56 Taking Over

56.1 The Engineer or his nominee shall take over the Site and the Works within seven days of the Engineer or his nominee issuing a certificate of Completion.

56.2 Taking Over Certificate

When the whole of the Works have been substantially completed and have satisfactorily passed any Tests on Completion prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer, with a copy to the Employer, accompanied by a written undertaking to finish with due expedition any outstanding work during the Defects Liability Period. Such notice and undertaking shall be deemed to be a request by the Contractor for the Engineer or his nominee to issue a Taking-over Certificate in respect of the Works. The Engineer or his nominee shall, within 21 days of the date of delivery of such notice, either issue to the Contractor, with a copy to the Employer, a Taking-Over Certificate, stating the date on which, in his opinion, the Works were substantially completed in accordance with the Contract, or give instruction in writing to the Contractor specifying all the work which in the Engineer's opinion, is required to be done by the Contractor before the issue of such Certificate. The Engineer or his nominee shall also notify the Contractor of any defects in the Works affecting substantial completion that may appear after such instructions and before completion of the Works specified therein. The Contractor shall be entitled to receive such Taking Over Certificate within 21 days of completion, to the satisfaction of the Engineer or his nominee, of the Works so specified and remedying any defects so notified.

56.3 Taking Over of Sections or Parts

Similarly, in accordance with the procedure set out in above Clause 55, the Contractor may request and the Engineer or his nominee shall issue a Taking Over Certificate in respect of :

- a) any Section in respect of which a separate Time for Completion is provided in the Contract Data , or
- b) any substantial part of the Permanent Works which has been both completed to the satisfaction of the Engineer and, otherwise than as provided for in the Contract, occupied or used by the Employer, or
- c) any part of the Permanent Works which the Employer has elected to occupy or use prior to completion (where such prior occupation or use is not provided for in the Contract or has not been agreed by the Contractor as a temporary measure).

57 Final Account

57.1 The Contractor shall supply to the Engineer or his nominee a detailed account of the total amount that the Contractor considers payable under the Contract within 30 days of issue of Taking Over Certificate and the Engineer or his nominee shall certify any final payment that is due to the Contractor within 60 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer or his nominee shall issue within 30 days a schedule that states the scope of the corrections or additions that are necessary for the correction. If the Final Account is still unsatisfactory after it has been resubmitted the Engineer or his nominee shall decide on the amount payable to the Contractor and issue a payment certificate, within 60 days of receiving the Contractor's revised account.

58 Submission of 'As built Drawings'

58.1 "As built" Drawings are required to be submitted by the Contractor by the dates stated in the Contract Data. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer or his nominee's approval, the Engineer or his nominee shall withhold the

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amount stated in the Contract Data from payments due to the Contractor.

59 Termination:

59.1 Termination for Default:

The Employer, without prejudice to any other remedy for the breach of Contract, by written notice of default sent to the Contractor, may terminate the contract in the whole or in part:

If the Contractor fails to deliver any or all of the Goods within the period specified in the Contract, or within the extensions granted by the Employer pursuant to GCC Clause 25.

If the Contractor fails to perform any other obligation under the contract or

If the Contractor, in the judgment of the Employer has engaged in fraud and corruption as defined in Clause 27 under Instruction to Tenderers, in competing for or in executing the contract.

In the event the Employer terminates the contract in whole or in part, pursuant to GCC Clause 26.1.1, the Employer reserves its right to take any one or more of the following actions:-

The Performance Security is to be forfeited;

The Employer may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Contractor shall be liable to the Employer for any additional costs for such similar Goods or Related Services. However, the Contractor shall continue performance of the Contract to the extent not terminated.

59.2 Termination for Insolvency:

The Employer may at any time terminate the Contract by giving notice to the Contractor if the Contractor becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Employer.

59.3 Termination for Convenience:

The Employer, by notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Employer's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such termination becomes effective.

If the contract is terminated for convenience of the Employer as stated in GCC Clause 26.3 (a), the Goods that are complete and ready for shipment within twenty-eight (28) days after the Contractor's receipt of notice of termination shall be accepted by the Employer at the Contract terms and prices. For the remaining Goods, the Employer may elect:-

To have any portion completed and delivered at the Contract terms and prices; and/or

To cancel the remainder and pay to the Contractor an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Contractor.

60 Payment upon Termination

60.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer or his nominee shall issue a certificate for the value of the work done less advance payments received upto the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less any extra cost of completing the Works through other means which may be incurred by the Employer. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

60.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer or his nominee shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing

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the Works and loss of profit on uncompleted works less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

60.3 Employees of the Board not individually liable :

No official or employee of the Board shall in any way be personally bound or liable for acts or obligation under the contract or answerable for any default or omission in the observance or performance of any of the acts, matters or things which are herein contained.

61 Property

All materials on the Site, Plant, Equipment, Temporary Works and Works for which payment has been made to the Contractor by the Employer, are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's default.

62 Release from Performance

If the Contract is frustrated by the outbreak of war or by other event entirely outside the control of either the Employer or the Contractor, the Engineer or his nominee shall certify that the Contract has been frustrated. The Contractor shall leave the Site and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. LABOUR LAWS AND MISCELLANEOUS CLAUSES

63 Labour

63.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

63.2 The Contractor shall, if required by the Engineer or his nominee, deliver to the Engineer or his nominee a return in detail, in such form and at such intervals as the Engineer or his nominee may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer or his nominee may require.

64 Compliance with labour regulations.

During continuance of the contract, the Contractor and his sub Contractors shall abide at all times by all existing labour enactment and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules) regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/ bye laws/ Acts/ Rules/ regulations including amendments, if any, on the part of the Contractor the Engineer or his nominee/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer or his nominee shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

65 Safety, Security and Protection of the Environment.

Subject and without prejudice to any other provision of the Contract, the Contractor shall take all Contractor Signature and seal

reasonable precautions:

- a) In connection with the sea or any harbours, docks, rivers, streams waterways drains, watercourses, lakes, reservoirs and the like to prevent:
 - a) Silting
 - b) Erosion of their beds or barks
 - c) Pollution of the water so as to affect adversely the quality or appearance thereof or cause injury or death to animal and plant life.
- b) In connection with underground water resources (including percolating water) to prevent
 - (i) Any interference with the supply to or abstraction from such sources
 - (ii) Pollution of the water so as to affect adversely the quality thereof.
- c) All works shall be carried out without unreasonable noise and disturbance. The Contractor shall indemnify the Employer from and against any liability for damages on account of noise or other disturbance created while or in carrying out the work and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in regard or in relation to such liability.
- d) The Contractor at his own cost shall make such provisions for lighting of Works, Temporary Works, Materials and Plant and shall provide all such marks and lights as may be required by the Employer or the Engineer or any other authority having jurisdiction over the Site together with all labour stores and services required for their efficient working and use at any time, day or night.
- e) The Contractor shall also provide at his own cost every description of watching and maintenance required in connection with the foregoing, and all other services for protecting and securing all places dangerous whether to Contractor's workmen or to other persons until the Works are handed over to the Employer, or till such time when the Engineer decides that such services are no longer required.
- f) All lights provided by the Contractor shall be placed or screened such as not to interfere with any navigation lights or with any traffic or signal lights of any local or other authority.

66 Insurance of Works and Contractor's Equipment

- 66.1 The Insurance shall be issued by any Insurance Company from its Branch at Cochin which has been determined by the Contractor to be acceptable to the Employer.

67 War Risks Insurance

- 67.1 If the Contractor receives instructions from the Employer to insure against war risks, such insurance if normally available shall be effected, at the cost of the Employer, with the Insurance Company acceptable to the Employer and shall be in the joint names of the Employer and the Contractor.

68 Royalties

- 68.1 Except where otherwise stated, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation. If any, for getting stone, sand, gravel, clay or other materials by him and his subordinates and his subcontractors and required for the works, at the rates and such conditions as notified by the State Government and shall be realized from the Contractor by way of deductions from the interim certificates and/or final certificate for payments to the Contractor for the gross quantity of material used for or in connection with the work. The royalty will not be deducted if the Contractor submits the Mineral Dispatch Permit (MDP) for the quantity executed by the Contractor for the requisite quantity of material incorporated in works for which MDPB issued.

69 Transport of Contractor's Equipment or Temporary Works

- 69.1 If it is found necessary for the Contractor to move one or more loads of heavy constructional plant

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or equipment materials or pre-constructed units or parts of units of work over roads, highways or bridges on which such oversized and overweight items are not normally allowed to be moved, the Contractor shall obtain prior permission from the concerned authorities. Payments for complying with the requirements, if any, for protection of or strengthening of the roads, highways or bridges shall be deemed to be included in his contract price.

70 Transport of Materials or Plant

The Contractor shall save harmless and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any claim made by the concerned authorities in respect of damage or injury to roads, highways or bridges. In case of failure of the Contractor to settle such claims and in case the Employer is held responsible for payment to the authorities, then the Employer shall settle the claim and the Employer's expenses in this regard, as certified by the Engineer, may be deducted by the Employer from any money due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly with a copy to the Employer.

71 Labour Laws & Regulations

The Contractor shall at all times during the continuance of the Contract comply fully with all existing Acts, regulations and bye-laws including all statutory amendments and re-enactment of State or Central Govt. and other local authorities and any other enactments and act that may be passed in future either by the State or the Central Govt. or local authority, including Indian Workmen's Compensation Act, Contract Labour (Regulation And Abolition) Act 1970 and Equal Remuneration Act 1976, Employees' State Insurance Act, 1948, Factories Act, Minimum Wages Act, Provident Fund Regulations. Employees' Provident Fund Act and schemes made under the same Act, Health and Sanitary Arrangements for Workmen, Insurance and other benefits and shall keep the Employer indemnified in case any action is commenced for contravention by the Contractor. If the Employer is caused to pay or reimburse any amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated here-forth on the part of the Contractor, the Engineer shall have the right to recover from the Contractor any sum required estimated to be required for making good the loss or damage suffered by the Employer. The Contractor shall maintain the records prescribed under ESI Regulations & EPF scheme and make the contribution towards ESI and EPF in respect of persons employed by Contractor. The Contractor shall also make available such records for inspection by ESI Inspector and EPF organization during the inspection and furnish copies of all such records to the Employer regularly.

71.1 Accident Prevention Officer

The Contractor shall have on his staff on site an officer dealing with all matters regarding safety and protection against, accidents of all staff and labour. This officer shall be qualified for this work and shall have the authority to issue instructions and shall take protective measures to prevent accidents.

71.2 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his staff and labour and for the preservation of peace and protection of Persons and property in the neighborhood of the Works from the same.

71.3 Health and Safety

Due precautions shall be taken by the Contractor, and at his own cost, to ensure the safety of his staff and labour and, in collaboration with and to the requirements of the local health authorities, to ensure that medical staff, first aid equipment and stores, sick bay and suitable ambulance services are available at the camps, housing and on the site at all times throughout the period of the Contract and that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

71.4 Supply of Water

The Contractor shall, so far as is reasonably practicable, having regard to local conditions provide on the Site, to the satisfaction of the Engineer's Representative, an adequate supply of drinking and

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other water for the use of the Contractor's staff and work people.

71.5 Alcoholic Liquor or Drugs

The Contractor shall not import, sell, give, barter or otherwise dispose of any alcoholic liquor, or drugs or permit or suffer any such importation, sale, gift, barter disposal by his sub-contract agents or employees.

71.6 Arms and Ammunition

The Contractor shall not give, barter or otherwise dispose of to any persons or person, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

71.7 Festivals and Religious Customs

The Contractor shall in all dealings with labour in his employment have due regard to all recognised festivals, days of rest and religious or other customs.

71.8 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.

71.9 Employment of Person in the Service of Others

The Contractor shall not recruit or attempt to recruit his staff and labour from amongst persons in the service of the Employer or other agencies engaged for any works of the Employer.

71.10 Housing for Labour

Save in so far as the Contract otherwise provides, the Contractor shall provide and maintain such accommodation and amenities as he may consider necessary for all his staff and labour employed for the purposes of or in connection with the Contract, including all fencing water supply (both for drinking and other purposes), electricity supply, sanitation, cook houses fire prevention and fire-fighting equipment, furniture other requirements in connection with such accommodation or amenities. On completion of the Contract, unless otherwise agreed with the Employer, the temporary camps/housing provided by the Contractor, shall be removed and the site reinstated to its original condition, all to the approval of the Engineer. The land for construction of labour camps shall be allotted only outside the security area to the extent available and such areas allotted as per the prevailing lease rent.

71.11 Fair Wages, Records, Inspection

The Contractor shall pay the labourers engaged by him on the work not less than a fair wage which expression shall mean whether for time or piecework the respective rates of wages as notified under the provisions of the Minimum Wages Act from time to time.

The Contractor shall maintain records of Wages and other remuneration paid to his employee in such form as may be convenient and to the requirements of the Employer/Engineer and the Labour Enforcement Officer (Central), Ministry of Labour, Govt. of India, or such other authorized person appointed by the Central Govt. The Contractor shall allow inspection of the aforesaid Wage Records and Wage Slips to the Engineer and to any of his workers or to his agent at a convenient time and place after due notice is received, or to any other person authorized by him on his behalf.

71.12 Reporting of Accidents

The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the local police authorities immediately by the available means.

71.13 Observance by Sub-Contractors

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The Contractor shall be responsible for observance by his sub-Contractors of the foregoing provisions.

71.14 Port Entry Permission

The Contractor shall submit prior application for Port entry passes to the concerned Port authority for his labours and the staffs engaged in the works.

The Contractor shall retain the original passes obtained by them in respect of their labour and staff engaged in the Works and produce the same to the Engineer as and when called for. It should not be either destroyed or allowed to be taken by the labour/staff after its use.

71.15 Site - Protected Area

The Site of Work is a protected area. Entry to the Port premises is regulated by entry passes. These passes will be issued by the Central Industrial Security Force or any other authority authorized by the Employer. The Contractor should furnish a list of person for whom the passes are to be issued to the Engineer and arrange to obtain the passes from the appropriate authority, based on the recommendation of the Engineer and abide by the Rules of the Cochin Port Trust with regard to entry etc. For the entry of trucks and other vehicles also, the Contractor should obtain necessary permits at his own cost .

The Contractor shall retain the original passes obtained by them in respect of their labour and staffs engaged in the Works and produce the same to the Engineer as and when called for. It should not be either destroyed or allowed to be taken by the labour/staff after its use.

72 Life Saving Appliances And First Aid

The Contractor shall provide and maintain upon the Works sufficient proper and efficient life saving appliances and first aid equipment to the approval of the Engineer. The appliances and equipment shall be available for use at all times.

73 Action in case Work not done as per Specifications

All works under or in course of execution or executed in pursuance of the contract shall at all times be open and accessible to the inspection and supervision of the Engineer or his authorised subordinates in charge of the work and all the superior officers, officer of the Quality Control Organisation of the Department, Vigilance Commissions, and the Contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the Contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself.

If it shall appear to the Engineer or his nominee or his authorised subordinates in charge of the work or to the Chief Vigilance Commissioner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract the Contractor shall, on demand in writing which shall be made within twelve months of the completion of the work from the Engineer or his nominee specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer or his nominee in his demand aforesaid, then the Contractor shall be liable to pay compensation at the same rate as under Clause 49 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer or his nominee may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the competent authority may

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consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the Contractor. Decision of the Engineer or his nominee to be conveyed in writing in respect of the same will be final and binding on the Contractor.

74 Action where no Specifications are specified

In the case of any class of work for which there are no such specifications as referred to in Clause 16, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there is no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer or his nominee.

75 Bribes

If the Contractor, or any of his Sub Contractors, agents or servants gives or offers to give to any person any bribe, gift, gratification or commission as an inducement or reward for doing or forbearing to do any action in relation to the Contract or any other contract with the Employer, or for showing or forbearing to show favour or disfavor to any person in relation to the Contract or to any other contract with the Employer, then the Employer may enter upon the Site and the works and terminate the employment of the Contractor and the provisions of Clause 59 hereof shall apply as if such entry and termination had been made pursuant to that Clause.

The bidders shall give an undertaking that they have not made any payment or illegal gratification to any person/authority connected with the bid process so as to influence the bid process and have not committed any offence under the Prevention of Corruption Act in connection with the bid.

The bidders shall disclose any payments made or proposed to be made to any intermediaries (agents etc) in connection with the bid.

76 Details to be Confidential

The Contractor shall treat the details of the contract as private and confidential, save insofar as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of the Employer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract the same shall be referred to the decision of the Employer whose award shall be final.

77 Contractor's Temporary works, office etc

- 77.1 The Contractor shall submit to the Engineer for his approval not less than 15 days before commencement of erection of any part of Temporary Works, drawings and detailed proposals for the method of construction of Temporary works such as office, store, false work and temporary platforms, pre-casting yard, workshop, etc. which he intends to construct for the execution of the contract and no such work shall be constructed before obtaining the written approval of Engineer or his nominee. These temporary works, office, store etc. shall be erected at or near the work area subject to approval of the Employer and the land space for the same will be allotted free of ground rent to the extent available. The Contractor shall obtain permission for any Temporary Works and would ensure that during execution of works the statutory requirements of the concerned authorities such as Cochin Port Trust, Police, Customs, etc. would be complied with.

77.2 Submission of Reports, Returns etc

All reports, statements, returns, drawings, diagrams etc. which the Contractor is required to submit to the Engineer during the progress of the Works, shall be furnished in triplicate without any additional cost.

78 Water Supply

Water required for the construction works including curing work shall be arranged by the Contractor

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on his own at his cost.

79 Power Supply

- 79.1 The Electricity connection for lighting, welding and other mechanical works to the extent available will be made available by the Employer within the Port area. Drawing of power lines/cables etc. from the available source of supply of power to the actual work site, providing switches and making connections etc. shall be arranged by the Contractor at his cost. The temporary lines and connections by the Contractor shall be approved by the Engineer's representative before availing power. The Contractor shall provide Energy Meter to read consumption in units.
- 79.2 The Contractor shall indicate his requirement of power to the Engineer within 15 days from the date of the letter of acceptance of the tender. The Contractor shall pay to the Employer, the power charges as per the prevailing Tariff schedule of Cochin Port Trust in force during the work of the Contractor. The Contractor shall also pay the connection and disconnection charges as applicable.
- 79.3 The Contractor shall submit a complete drawing of the power points, wiring, diagram indicating all electrical loads, earthing etc. in complete shape along with the completion report. The Energy Meter provided is calibrated by Kerala State Electrical Inspectorate /TMR division, KSEB and such a Certificate to be produced. For non supply of power at any stage port will not be responsible and the Contractor shall not have any claim whatever for loss or damage.
- 79.4 If there is any disruption in the power supply due to supply failure/restrictions imposed by the Kerala State Electricity Board, the department shall not be held responsible and the Contractor has to make suitable alternative arrangements like generator, welding set etc. at their cost.

80 Taxes and Duties

- 80.1 The Price will be fixed and inclusive of all the duties and taxes excluding GST. All investments, operating expenses, incidentals, overheads etc. as may be attendant upon execution and completion of works shall also be included in the rates, prices and total Bid price submitted by the bidder.
- 80.2 The Contractor shall be solely responsible for all taxes that may be levied on the Contractor or on the earnings of any of his employees or personnel engaged by him and shall hold the Owner/Purchaser indemnified and harmless against any claims that may be against the Owner/Purchaser in this behalf. The Owner/Purchaser does not undertake any responsibility whatsoever regarding taxes under Indian Income Tax Act of the Contractor or his personnel. If it is obligatory under the provision under the Indian Income Tax deduction of Income Tax at source shall be done by the Owner/Purchaser.
- 80.3 Cess as per Building and other Construction Workers Welfare Cess Act (Act 28 of 1996) at the rate of one percent or at the rates prevailing in force at the time of payment of bills, of the cost of construction should be borne by the contractor and the same will be deducted from contractor's bills while making payment or when crediting amount to contractors account.
- 80.4 GST will be governed as per the prevailing Rules. TDS Under GST Law shall be deducted as per prevailing rate.
- 80.5 Income Tax
The Contractor and his staff shall be responsible for payment of all personal income taxes to the concerned authorities as per the law in force from time to time. Deduction of Income Tax shall be made by the Employer from each certificate of payment to the Contractor at the rate as per prevailing rates or such other rates as may be specified by the Central Government from time to time, on the gross amount of the Contractor's bill for payment. The Contractor shall comply with all the GST Regulations, viz. timely uploading of bills, issue of debit/ credit notes etc.

81 Noise and Disturbance

All works shall be carried out without unreasonable noise and disturbance. The Contractor shall indemnify the Employer from and against any liability for damages on account of noise or other disturbance created while or in carrying out the work and from and against all claims demands

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proceedings damages costs charges and expenses whatsoever in regard or in relation to such liability.

82 Safety Code

- 82.1 Necessary Indian Dock Safety regulations for the safety purpose shall be adhered to by the Contractor and he will be held responsible for any violations of the same. The set of such conditions (regulation) is available with Cochin Port Authority and the Contractor is required to go through it before tendering.
- 82.2 Besides the above, the Contractor shall also scrupulously adhere to and observe the following safety codes:
- a) The Contractor has to provide sufficient barricades to site of work so that traffic plying nearby should not damage the recently concreted work. In case of any damage on account of above, the entire responsibility will remain with Contractor and nothing extra will be paid on this account.
 - b) Suitable and strong scaffolds should be provided for the workmen for all work that cannot be safely done from ground.
 - c) No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm (clear) and the distance between the two adjacent rungs shall not be more than 30 cm.
 - d) Hoisting machines and tackles used in the works including their attachments, anchorage and supports shall be in perfect condition as per stipulations of the relevant Rules. The ropes used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from defects.
 - e) The excavated material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of the trench, whichever is more. All trenches and excavation shall be provided with necessary fencing to lighting. Every opening in the floor of a building or in a working platform be provided with suitable fence to prevent the fall of persons or materials. No floor, roof or other parts of the structure shall be so overloaded with debris or materials as to render it unsafe.
 - f) Workers employed on mixing and handling materials such as cement, cement mortars, concrete, lime mortar and asphalt shall be provided with protective footwear and rubber hand gloves and thin cloth for covering face and head.
 - g) Those engaged in welding work shall be provided with welder protective eye shield and glove.
 - h) All safety rules shall be strictly followed while working on live electrical systems or installations as stipulated in the relevant Rules.

83 Port Authority Rules

- 83.1 The Contractor shall observe the Conservancy Rules relating to the harbour and shall always take such necessary additional steps to keep the harbour waters free of noxious or unhygienic matters coming from his works as are required by the Employer. Under no circumstances shall inflammable materials be allowed to spill into the harbour waters.
- 83.2 The Contractor shall always observe and comply with the working rules and regulations of the Port Trust in force or as issued from time to time.
- 83.3 The Contractor's plants, equipments, floating crafts, dredgers, materials etc. which are brought to site for facilitating the proper execution of the contract work within the port area are not liable to port dues and charges like wharfage, berth hire and other charges during the period of contract and until expiry of defect liability period.

84 Execution of work

- 84.1 The Contractor shall be required to execute the work in such a way so as not to cause any damage, hindrance or interference with port activities going on in the area or nearby. He should not also deposit the materials at such places which may cause inconvenience to the public and the work going on in the nearby area. The Contractor shall have to make good all damages done by him to the structures nearby while executing the work and no extra payment shall be made to him on that

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account.

- 84.2 All the materials required to be used in the work shall have to be got approved from the Engineer-in-Charge before stacking at the site of work.
- 84.3 Barricading, including proper lighting arrangement in the night at the required places shall have to be provided by the Contractor at his own cost, including necessary arrangements for proper movement of traffic by carefully maintained approaches and road diversions with suitable sign boards for indications of road signs etc. as directed by the Engineer-in-Charge.

85 Drawings & Designs

- a) General details of the works are shown on the drawings accompanying the tender document. The Engineer will supply to the Contractor from time to time during the progress of the works such further working drawings as will be necessary in his opinion for the proper and adequate execution and maintenance of the Works in accordance with the Engineer's designs and/or any modification thereof as decided by the Engineer and the Contractor shall carry out the work in accordance with the said working drawings. Two sets of such working drawings will be issued. If the Contractor requires more sets he will have to make his own arrangement at his cost.

Residual Design, Detailing & Engineering: - Generally, detailed design and engineering of the work shall be provided by the Engineer. During execution of the work the residual design, detailing and engineering, if needed, is to be carried out by the Contractor at no extra cost to the Employer. Such design, detailing & engineering shall be got approved by the Contractor from the Engineer. For equipments/ Installations detailed drawings need to be produced by the Contractor at no extra cost to the Employer. Such detailing & engineering shall be got approved by the Contractor from the Engineer.

- b) In the event of the Contractor proposing any alteration/ modification to the Engineer's design, detail, method of construction, he shall at his own expenses prepare and submit for approval of the Engineer copies in duplicate (in the first instance) of detailed working drawings which may be required for such alteration/ modification and at the same time call the attention of the Engineer to any alternative detail or modification of the contract drawings which the Contractor may wish to make at least 30 days prior to the commencement of the work or part of the work to which such drawings relate. The Contractor shall at the same time, if so required by the Engineer, furnish calculation sheets in duplicate relating to the strength and anticipated deflections in respect of such altered/ modified works. The Engineer will, after any such alteration which he may approve, record on the copies as amended his approval and will return one copy of the drawings and calculation sheets to the Contractor, who shall carry out the work in accordance therewith. The Contractor shall forward to the Engineer three additional copies of the working drawings and calculation sheets as approved in additions to these working drawings and calculation sheets as approved. In addition to these, working drawings are also to be submitted (the same procedure as in the case of the Contractor) in respect of any work proposed to be executed by sub-Contractors. The approval of the Engineer of all or any of the calculation sheets, drawings shall not relieve the Contractor of responsibility in connection with the execution of the altered/ modified or Sub Contractor's work.
- c) Three complete sets of tracing film of all drawings showing every and all works 'As Made' under the Contract shall be made by the Contractor at his own expense and delivered to the Engineer within one month of the completion of the various sections of the work or at such times as directed by the Engineer. All departure /alteration /modifications from the Contract Drawings and supplementary working drawings issued by the Engineer also shall be incorporated in the "As Built" drawings. The drawings shall be fully dimensioned, of an approved size and as approved by the Engineer.

86 Monsoon Period

Normally Monsoon period will be reckoned from 1st June to 30th September.

87 Reports

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The following reports shall be submitted for review as input to the Management meeting to be held as per Clause No 31 of Conditions of Contract

87.1 Daily reports

The Contractor shall submit daily report indicating daily activities, weather condition, actual manpower, equipment and the materials arriving on site.

87.2 Monthly Reports

Monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in triplicate. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates. Reporting shall continue until the Contractor has completed all work, which is known to be outstanding at the completion date, stated in the Taking-Over Certificate for the Works.

87.3 Each report shall include:

- a) Charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each Sub-Contractor,
- b) Photographs in hardcopy & digital copy and videography in two sets showing the various stages of progress on the Site monthly;
- c) For the supply of manufactured items, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
- d) Commencement of manufacture,
- e) Contractor's/ Engineer's inspections,
- f) Tests,
- g) Shipment and arrival at the Site;
- h) Copies of quality assurance documents, test results and certificates of Materials;
- i) Safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- j) Comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the completion In accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

88 Completion Documents

To treat that the work has been completed and issue a final payment certificate, the following documents will be deemed to form the completion documents:

- a) The Technical documents according to which the work was carried out.
- b) The set of construction drawings showing therein the modifications and corrections made during the course of execution signed by the Engineer.
- c) Certificates of final levels and dimensions as set out for various works.
- d) Certificates of tests performed for various works.
- e) "As Built" Drawings.

89 Changes in firm's Constitution to be intimated

The Contractor shall intimate the Engineer in writing of any change made in the constitution of the firm

90 Indemnities

The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and
- b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss:
- c) arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, and
- d) is attributable to any negligence, willful act or breach of the Contract by the Contractor, the Contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

G. SALIENT FEATURES OF SOME MAJOR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN CONSTRUCTION WORK.

- (a) Workmen Compensation Act 1923:- The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- (b) Payment of Gratuity Act 1972: Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- (c) Employees P.F and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the Employer plus workers @ 12% / 8.33%. The benefits payable under the Act are:
 - (i) Pension or family pension on retirement or death, as the case may be.
 - (ii) Deposit linked insurance on the death in harness of the worker.
 - (iii) Payment of P.F accumulation on retirement/death etc.

The employees employed by the Contractor for the work of Port Trust have to be enrolled under the relevant scheme of the EPF & MP Act 1952. The Contractor shall produce documents pertaining to the same for verification to the Engineer/ his nominee. Further the Contractor has to pay the necessary monthly contributions to the said scheme in respect of the employees employed by him for the work of CoPT and shall produce necessary document to show that the monthly contribution in respect of these employees due to the said scheme are paid.

In case the contractor has not paid the EPF contribution same will be recovered in the running bill and paid to the EPF Organization. Any delay in payment of contribution payable under the Act may be recovered as an arrear of Land Revenue

- (d) Maternity Benefit Act 1961 or Maternity Benefit Amendment Act 2017:- The Acts provides for leave and some other benefits to Workmen/ employees in case of confinement or miscarriage etc.
- (e) Contract Labour (Regulation & Abolition) Act 1970:-The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to- take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labor.

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- (f) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employment.
- (g) Payment of Wages Act 1936:-It lays down as to by what date the wages are to be paid when it will be paid and what deductions can be made from the wages of the workers.
- (h) Equal Remuneration Act 1979:-The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- (i) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of As per the provision of the Act and amendment issued from time to time. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- (j) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upon the establishment and back,
- (k) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:-All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or Construction work and other welfare measures, such as Canteens, First-Aid facilities. Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- (l) ESI Act, 1948:-
 - (i) As per the Govt. Notification dt. 20.7.09, Cochin Port Authority has registered under the ESI Act with ESI Corporation and provision of ESI Act, 1948 are applicable to contract/casual employees drawing wages/Salary upto Rs.20,000/- per month and Working in Cochin Port Authority. Workers covered under ESI Act, are entitled for full medical care for self and family. Besides, cash benefit in the event of sickness, maternity and employment injury. Accordingly, the contractual/casual employees drawing wages upto Rs.20,000/- per month employed either directly by Port Authority or through Contractor are covered under ESI Act, 1948. It is obligatory on the part of the employer to calculate and remit ESI contribution comprising of employers' share of 4.75% plus employees' share of 1.75% which is payable on or before 21st of the following month, to which the salary relates.
 - (ii) In case the Contractor employs more than 20 employees, they should register their name with ESI scheme as per ESI Act, 1948 and obtain ESI Code. Both Employers share of 4.75% and Employees contribution of 1.75 % (recovered from employees), totally 6.5% to be paid as contribution to ESI in their Code on or before 21st of following month to which the salary relates and acknowledgement for the same shall be submitted to the Port while claiming the bill. The bill without the acknowledgement of ESI contribution will not be entertained. In case the contractor has not paid the ESI contribution same will be recovered in the running bill and paid to the ESI Corporation in contractor's code. Any delay in

payment of contribution payable under the Act may be recovered as an arrear of Land Revenue.

In case the contractor employs less than 20 employees, the list of employees' name, their father's name, identification proof, one passport photo shall be submitted to the Port Trust. The contribution of ESI amount, both Employers share of 4.75% and Employees of 1.75% (recovered from Employees salary), totally 6.5% shall be paid by the contractor in the Cochin Port Trust Code on or before 21st of the following month to which the salary relates or otherwise payment to the contractor will be withheld. If the contractor fails to comply with the above instruction, then the Principal Employer (Cochin Port Trust) will make payment to the ESI Corporation. Such amount will be deducted from any amount due to the contractor. Any delay in payment of contribution payable under the Act may be recovered as an arrear of Land Revenue.

As per the above Government Notification

- i) All intending tenderer at the time of tender shall disclose all necessary documents as to whether they are covered under ESI Act or not.
- ii) in case they are covered under ESI Act, they have to furnish the details of registration.

CONTRACTOR'S STAFF AND LABOUR

Workers above 60 years of age and below 18 years of age shall not be deployed by the contractor. All labour, skilled or unskilled shall be provided by the contractor. Settling any dispute with the labour, labour union, any Outside union, subcontractor will be contractor's responsibility. Loss of day in this regard should not be claimed for any hindrance at site. The workers engaged for works should have sufficient knowledge and experience in the respective fields. This shall be proved to the Engineer. The Owner may at any time request the contractor to remove from the Work/Site contractor's / subcontractor's supervisor or any other authorized representative including any employee of the Contractor or his Sub-contractor(s) or any person(s) deployed by Contractor for professional incompetence or negligence or for being deployed for work for which he is not suited.

The Owner may at any time object to and require the Contractor/sub-contractor to remove forthwith from the Site a supervisor or any other authorized representative or employee of the Contractor's /sub-contractor(s) or any person(s), if in the opinion of the Owner, the person in question has mis-conducted himself or his deployment is otherwise considered undesirable by the Owner, the contractor/sub-contractor shall forthwith remove and shall not again deploy the person in question of the Work Site without the written consent of the Owner.

The workmen deployed by the contractor are strictly banned from use of any kind of Narcotics drugs / Alcohol / smoking etc. at site and any illegal activity by the work men should be reported to Engineer without delay and the contractor shall remove such persons from the work site forthwith.

COCHIN PORT AUTHORITY

SECTION III
2. Form of Securities

**SITC of 36 nos. of IP CCTV surveillance systems at various locations of Cochin Port Authority
including 2 years guarantee and 5 years comprehensive AMC thereafter**

Sl. No.	Annexures	Description	Page No.
1	A	Proforma of Bank Guarantee for Performance Guarantee/ Security Deposit	55
2	B	Proforma of Bank Guarantee for Advance	57

Contractor Signature and seal

PROFORMA OF IRREVOCABLE BANK GUARANTEE FOR PERFORMANCE GUARANTEE

(To be submitted on Non-judicial Stamp Paper of appropriate value)

[The bank, as requested by the successful Tenderer, shall fill in this form in accordance with the instructions indicated]

Ref: Bank Guarantee No_____

Date____

To

Cochin Port Authority W/Island, Cochin 682009.

Dear Sirs,

In consideration of THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT commonly known as COCHIN PORT AUTHORITY, a Body Corporate under the Major Port Authorities Act, 2021, with its Administrative Office at Willingdon Island, Cochin-682009, having PAN Card No. AAALC1134F, which expression shall include their successors and assignees) having accepted the tender (hereinafter referred to as the 'Cochin Port' which expression unless repugnant to the context or meaning thereof includes its successors, administrators and assigns) having awarded to M/s_____ 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 successor, administrators, executors and assigns), a "CONTRACT" by issue of Port Trust's work order dated_____ the same having been unequivocally accepted by the Contractor resulting in a "CONTRACT" bearing No.____dated____value_____at_____for_____and the CONTRACTOR having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to_____, to Port Trust under the terms and conditions of an agreement between Board of Trustees of Port of Cochin and For the execution of the work (hereinafter called "the said agreement").

2. We_____having its Head office at_____(hereinafter referred to as the "Bank", which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Port Authority on demand any and all money payable by the Contractor to the extent of_____as aforesaid at any time upto__ without any demur, reservation, contest, recourse or protest and/or without any reference to the CONTRACTOR. Any such demand made by the Port Trust on the Bank shall be conclusive and binding notwithstanding any difference between Port Trust and CONTRACTOR.
3. We,_____Bank Ltd., do hereby undertake to pay to the Cochin Port any money without demur so demanded notwithstanding any dispute or disputes Raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We,_____Bank Ltd., further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Port Trust under or by virtue of the said Agreement have been fully paid and its claim satisfied or discharged or till Engineer-in-charge on behalf of the Cochin Port

Contractor signature and seal

certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.

5. We, _____ Bank Ltd., further agrees with the Cochin Port that the Cochin Port shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Cochin Port against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or by any such matter or things whatsoever which under the law relating to sureties would but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
7. We, _____ Bank Ltd., lastly undertake not to revoke this guarantee except with the previous consent of the Cochin Port in writing and further agrees that the guarantee herein contained shall continue to be in endorsable till the Cochin Port discharges its guarantee.
8. We, _____ Bank Ltd. also agrees that Cochin Port at its option shall be entitled to enforce this Guarantee against the Bank as principal debtor, in the first instance without proceeding against CONTRACTOR and notwithstanding any security or other guarantee that Cochin Port may have in relation to the CONTRACTOR's liabilities.
9. This guarantee shall be valid upto _____ unless extended on demand by Cochin Port. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs _____ (Rupees _____ only) and unless a claim in writing is lodged with us within six months of the date of expiry of or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated theday of.....20

WITNESSES

(Signature) (Signature)

_____(Name)_____

_____(Name)_____

Bank's Rubber Stamp

_____ (Name) (Name)

_____ (Official address) (Designation with Bank Stamp)

Attorney as per Power of Attorney No. _____ Dated _____

Contractor signature and seal

PROFORMA OF BANK GUARANTEE FOR ADVANCE

(To be submitted on Non-Judicial Stamp Paper of appropriate value)

(Deleted)

SECTION IV **TECHNICAL SPECIFICATIONS**

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 36 NOS. IP CCTV CAMERAS AT VARIOUS LOCATIONS OF CoPA INCLUDING 2 YEARS GUARANTEE AND 5 YEARS COMPREHENSIVE CAMC THEREAFTER

I. SCOPE OF WORK

A. General:

1. The Scope of Work is for providing IP CCTV cameras at various locations of Cochin Port including Container Freight Station (CFS) and making available the CCTV visuals in the CISF Control Room on the 7th floor of the New Administrative Building of Cochin Port. The cameras shall be erected on GI poles or on the existing buildings. Optical Fiber / Cat 6 cable shall be laid through HDPE/PVC pipe/ ground / clamping along walls from the nearest OFC available point of Cochin Port and connections provided by installing Outdoor/Indoor wall mounting rack, Poly carbonate junction box, SFU modules, POE switches, MCB's etc. Lightning arrestor, surge protector, earthing and UPS shall be provided for each camera. In addition, OFC cable is proposed to be laid from the nearest OFC location to the existing and proposed CCTV cameras in the 2 Toll gates, existing CCTV cameras in A2-A3 areas near CoPA avenue walkway and also from the BTP Berth to the existing camera near the Private Jetty. Wireless communication is also intended from the cameras at two locations, viz. Cochin Oil Terminal and North Tanker Berth(existing) to CISF control room on the 7th floor of New Administrative Building.
2. At present, Cochin Port has a comprehensive network of NVR based IP cameras (47 Nos.) spread all over Willingdon Island (8 sq. km). List and type of existing cameras with locations provided is given below for reference. These 47 Nos. cameras (10 Nos. in CFS) are of HANWHA make and installed after 2016 and are under CAMC/ Guarantee. These cameras are NVR based with HDDs capable of recording upto 90 days and visuals available in the CISF control room on the 7th floor of the New Ad. Bldg. The data is being transmitted through CoPA's OFC cables where available and through BSNL Leased lines.
3. In the present proposal we intend to install additional 36 Nos. cameras at various locations of CoPA including CFS. Our existing CCTV surveillance is based on NVR. We propose to switch over from NVR to VMS which provides more control over the video data and allows for more efficient management of video surveillance networks. **The VMS offered shall support upto 500 cameras with adequate capacity video management server, camera recording server and hard disks for recording live videos upto 90 days. In the estimated rates, license for 100 cameras for 5 years is included. No failover for Servers considered but provision for providing failover is there in the Server. The Tenderer shall consider all the above and quote accordingly. The new VMS Software and Hardware is to be designed for 200 cameras with adequate capacity video management server, camera recording server / NVR for recording live videos up to 90 days. The video footages shall be flicker free, lag free, glitter free, quick capturing etc.**
4. Back up should be in full resolution at 20 fps at minimum 3000 kbps available for 90 days at all locations, after installation of new CCTV cameras. The BoQ specifies 18 nos. of 18TB Hard disk. If the solution provided by the bidder does not satisfy the requirement, additional hardware and storage should be considered. The system should provide 99.99 % uptime and no data should be lost. Suitable provision for disaster recovery mechanism should be available.
5. Minimum specification of VMS is specified in the Bid Document. In case the quantity of hardware, server, storage etc. are not sufficient, the Bidder shall provide at his own cost, additional hardware, server, storage based on the VMS OEM requirement.

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6. **Presently, license for 100 cameras lifelong need be considered in the Bid. However the VMS chosen shall have the capability to support 500 cameras in future by increase of hardware, license, storage components etc.**
7. No failover for VMS is envisaged but provision for providing failover must be there in the Server.
8. All Software Licenses should be for life time in the name of CHIEF MECHANICAL ENGINEER, COPA and during warranty period upgrade at free of cost as & when new versions are released.
9. The Tenderer shall provide VMS system and Server compatible to the new CCTV cameras that are proposed to be provided in this tender and the old existing CCTV cameras already available at CoPA premises. Existing cameras support H.264, Recording parameter of existing cameras is annexed.
10. It is the Contractor's responsibility to maintain the new and old CCTV surveillance systems. Warranty for existing cameras is not envisaged in this bid. But the successful bidder shall maintain the existing cameras also and ensure the availability of footages in the control room. Necessary Spares for the old CCTV surveillance systems shall be provided by the Contractor on payable basis.
11. The tenderer may visit the location and assess the present network & cameras and new requirements before submission of the offer for total CCTV solutions. The 4 Nos. Bullet cameras intended to be provided at the ENTRY/EXIT of the 2 toll gates (IG Road Toll Gate and Bristow Road Toll Gate) should have the facility to activate ANPR analytics through VMS. The CCTV visuals and number plates of vehicles are to be captured in the entire 24 hours. Functionally the VMS has to provide the list and type of the Vehicle with License plate details along with the time and date. The CCTV visuals and number plates of vehicles are to be captured in the entire 24 hours. The Bid specification is minimum. If additional software or hardware is required to activate ANPR analytics, the same shall be provided by the Bidder at his own cost as per VMS OEM requirement. The CCTV footages shall be viewable in the CISF control room on the 7th floor of the New Administrative Building of CoPA. The Bidder shall ensure that the capacity of the cameras, poles etc. shall be designed accordingly. The Cameras with ANPR facilities will be accepted only after all images are seen to the satisfaction of the Engineer-in-charge. Presently we have installed ordinary IP cameras and remote surveillance is being done with BSNL LL facility.
12. We intend to lay OFC cable from the OFC point near Mattancherry Wharf to IG Road Toll Gate and Bristow Road Toll Gate and surrender the existing P2P connection availed from BSNL. Also OFC is proposed to be laid from IG Road Toll Gate to existing CCTV cameras in A2-A3 area near Avenue walk way. (Civil works and laying of cable are included in the Bidders scope). Wireless communication is also intended from the cameras at two locations, viz. Cochin Oil Terminal and North Tanker Berth to CISF control room on the 7th floor of New Administrative Building.

In the Container Freight station (CFS), we propose to install 7 Nos. new bullet type IP Box cameras. Presently there are 10 Nos. (Infinova make) box type cameras, 8 Nos. Zoom type box camera (Hanwha make) and 2 Nos. Fish Eye Cameras (Hanwha make) inside CFS. The existing Hanwha/ Infinova cameras are to be re-positioned and fixed along with the new cameras inside CFS for effective surveillance of CFS. The successful bidder has to do the site study and submit the detailed layout positioning cameras and its accessories in any latest format. All cameras should be integrated in the as built layouts and the same should be configured to display for easy location identification. All cameras should be positioned according to the Cochin Port requirement and the vendor should ensure the coverage and quality footages of each area as a part of commissioning. The new cameras, VMS etc. shall be compatible with the existing systems and images shall be viewable locally at the ATM's room inside CFS and at the 7th floor of the New Administrative Building.

Our existing CCTV surveillance system is based on NVR and all the existing CCTV cameras except that at Container Freight Station(CFS) are now viewed in the CISF control room in the 7th floor of the New Ad. Bldg

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and the connected HDD's for 90 days storage are placed in the CISF control room. Presently, for the existing cameras in CFS, one NVR is kept in CFS itself and connected HDD's are for 30 days storage only. In the proposed system, VMS is envisaged. So the entire storage HDD's shall be kept in the CISF control room on the 7th floor of the New Ad. Bldg. and the same shall have capacity for 90 days storage of video footages. Recording will be done at a single location.

13. The specification of workstations/servers provided in the document is minimum. The bidder can consider higher specification for the smooth functioning of the system, if required.
14. The VMS shall be able to support all types of IP cameras. **The proposed solution should be able to generate various standard/ customized reports for event analysis / reporting purposes.**
15. The proposed system should have high level of network security. Hacking of the video footages through VMS should not happen at any cost. Suitable antivirus – Server Client Architecture for servers, storage, workstations etc. needs to be installed with end point protection. Periodic security audit of the video management system to protect the system against hacking and all possible best practices must be adopted.
16. The proposed antivirus software should be compatible with the VMS system offered. The antivirus system should be installed on the server. Validity of the Server antivirus (original) should be licensed with free updation during the warranty period.
17. The work shall be arranged in the order of preference as directed by the Engineer-in-Charge of work. In addition to above, contractor shall submit a Quality Assurance Plan (QAP) for the work and it shall be approved by the Engineer-in-Charge before commencing the work and shall be ensured strict compliance of the same. The QAP shall contain the details of tests to be conducted for each material to be used in the work.

II. PROPOSED LOCATIONS & TYPE OF NEW CCTV CAMERAS

No.	Location	Type of Camera	Qty. of camera	
1	Ekm. Wharf Q 5 shed south end - For surveillance of wharf area of Q5	O/D box motorised VF IR bullet camera	3	Nos.
2	Ekm. Wharf Q 6 shed MIDDLE - For surveillance of wharf area of Q6	O/D box motorised VF IR bullet camera	2	Nos.
3	Ekm. Wharf Q 8 MIDDLE- For surveillance of wharf area of Q8	O/D box motorised VF IR bullet camera	2	Nos.
4	Ekm. Wharf Q 9 - MIDDLE - For surveillance of wharf area of Q9	O/D box motorised VF IR bullet camera	2	Nos.
5	Ekm. Wharf Kiosk area of Sagarika Cruise Terminal- For surveillance of cruise passenger movements	O/D box motorised VF IR bullet camera	1	No.
6	Ekm. Wharf Parking area of Sagarika Cruise Terminal- For surveillance of cruise passenger movements	O/D box motorised VF IR bullet camera	1	No.
7	MATT. CHANNEL - BTP Berth (Near NCB) - For surveillance of BTP wharf area & also NCB area/Marine Jetty area	O/D box motorised VF IR bullet camera	5	Nos.
8	MAT. WHARF - RO RO JETTY & Q1 berth- For surveillance of wharf area of RO-RO & Q1 perimeter boundary	O/D box motorised VF IR bullet camera	2	Nos.
9	MAT. WHARF South Gate - For surveillance of unmanned isolated gate & perimeter boundary	O/D box motorised VF IR bullet camera	2	Nos.
10	MAT.WHARF Q4 berth- For surveillance of wharf area & Q4 perimeter boundary	O/D box motorised VF IR bullet camera	2	Nos.
11	Bristow Road Toll Gate	O/D box motorised VF IR bullet camera	2	Nos.
12	Indira Gandhi Road Toll Gate	O/D box motorised VF IR bullet camera	2	Nos.
13	NTB & STB near main gate area- For surveillance of sensitive area due to public movements near gate.	O/D box motorised VF IR bullet camera	2	Nos.
14	COT - For watching movements around COT	PTZ Camera	1	No.
15	CFS inside - For surveillance of Cargo movement	O/D box motorised VF IR bullet camera	7	Nos.
	TOTAL NO. OF CAMERAS		36	Nos.
Back up proposed after installation of new cameras - 90 days at all locations including CFS				

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DOCUMENTATION:**I. Documents to be provided after award of PO, before supply of CCTV system**

- a. Technical catalogues /Datasheets of components to be supplied.
- b. Factory test reports with serial No.
- c. Execution Schedule
- d. BOM
- e. Installation layout of CCTV cameras, poles, racks etc.

II. Documents to be provided after commissioning of CCTV System.

- a. O&M manual – 3 sets
- b. Final BOM with make and details of each components – 3 sets
- c. Complete project deployment & Handholding Document – 3 sets

III. TECHNICAL SPECIFICATIONS**GENERAL SPECIFICATIONS FOR CCTV CAMERAS**

No.	Features	Minimum Specifications	Compliance Y/N
1	LOCATION	HIGHLY CORROSIVE MARINE ATMOSPHERE	
2	Enclosure	IP66/67, NEMA 4X and IK10 rated casing	
3	Certifications	CE , FCC, BIS	
4	Compliance	BIS, STQC compliant.	
5	Application Programming Interface	ONVIF Profile S,G,T API support required for integration with third party software	
6	Power Supply	HPoE:IEEE802.3bt, Class6, Type3 or AC power adaptor)	
7	Operating Frequency	50 Hz	
8	Operating Conditions	Temp: upto 55°C , Humidity 10–100% RH or better	
9	Wide Dynamic Range	True 120dB or better	
10	Connectors	RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE	
11	Day & Night Operation	Automatically removable infrared-cut filter	
12	Backlight compensation	Adjustable	
13	Video Compression	H.265/H.264: Main/Baseline/High, MJPEG or better	
14	Video streams	Multiple, individually configurable streams in H.264, H.265 and Motion JPEG (Minimum)	
15	Audio Streaming	Input and Output (Two way)	

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16	Supported protocol	IPv4, IPv6 , HTTP, HTTPS,SSL/TLS, FTP, SMTP, Bonjour, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS/DDNS, RTSP, RTP, SRTP, TCP, UDP, IGMP, ICMP, RTCP, DHCP, ARP, LLDP, UPnP, NTP, SSH, QoS etc.	
17	Edge Storage	Support for Micro SD/SDHC/SDXC 512 GB or better (Minimum)	
18	Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication (EAP-TLS, EAP-LEAP, EAP-PEAP) Device Certificate Secure by default certificate cryptographic hardware: Secure OS/ Boot/Storage Verify firmware forgery (Minimum)	
19	Essential features	Motion Detection, Loitering, Tampering, Electronic Image Stabilization, Built In Heater, FAN & Temperature Control, Defog, Auto tracking.	
20	Alarm Events	File Upload via FTP and E-mail, Notification via E-mail, SD/SDHC/SDXC or NAS recording at event triggers, Alarm output PTZ Preset	
21	Analytics	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Digital auto tracking, Removal/Added object, Enter/Exit, Loitering, Tampering, Line crossing. (Defocus detection not required for Fish Eye Camera)	
22	Firmware Upgrade	The firmware upgrade shall be done though web interface. The firmware shall be available free of cost and shall provide long term support track for cyber security updates	
23	Standard	Any component/hardware/parts/assembly/ firmware used in offered solution must not comply to protocols like GB 28181,GB/T-28181-2011,GBT-28181/2011 standards	
24	System own Chip for cameras	Chipset/Processor from same OEM is required	
25	MAC address	Equipment should provide MAC ids of the quoted products; the MAC address of the proposed equipment must be registered in the name of the OEM only. The Intellectual Property Rights (IPR) of equipment (CCTV camera) Must Not Reside in any Land and Border Country	

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1. 5 MP OUTDOOR BOX TYPE MOTORISED VF BULLET IR CAMERA OR BETTER**MAKE AND CATALOGUE NO. OF CCTV CAMERA OFFERED :**

No.	Features	Minimum Specifications	Compliance Y/N
1	Image sensor	1/ 2.8" progressive scan CMOS or better	
2	Lens	2.8 mm- 9 mm or better Motorized Varifocal Lens.	
3	Resolution	5 MP or better	
4	IR illumination	40 Metres or better	
5	Digital Zoom	16x or better	
6	Image settings	Saturation, contrast, brightness, sharpness, Forensic WDR: Up to 120 dB depending on scene, white balance, day/night threshold, tone mapping, exposure mode, exposure zones, motion-adaptive exposure, defogging, barrel distortion correction, compression, orientation: auto, 0°, 90°, 180°, 270° including Corridor Format, mirroring of images, dynamic text and image overlay, polygon privacy masks Scene profiles: forensic	

2. 2 MP 32X OUTDOOR TYPE PTZ CAMERA OR BETTER**MAKE AND CATALOGUE NO. OF CCTV CAMERA OFFERED :**

No.	Features	Technical Specification	Compliance Y/N
1	Image Sensor	1 /2.8 inch progressive scan CMOS or better	
2	Lens	4.5 - 136 mm or better Motorized varifocal lens	
3	Pan/Tilt/Zoom	Pan: 360° endless, Tilt: -90° to +90°, Optical Zoom: 32x or better	
4	Resolution	2 MP or better	
5	IR illumination	250 metres or better	
6	Image settings	Compression, color, brightness, sharpness, white balance, exposure control, exposure zones, image freeze on PTZ, scene profiles, rotation, electronic image stabilization (EIS)a, defogging, contrast, local contrast, autofocus, Forensic WDR: Up to 120 dB depending on scene, 32 individual polygon privacy masks including mosaic and chameleon privacy masks	

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3. VIDEO MANAGEMENT SOFTWARE		
MAKE OF VMS OFFERED :		
No	Feature Description	Compliance (Yes/No)
1	The Video Management System (VMS) software shall be used to view live and recorded video from encoder and IP devices connected to local and wide area networks. The VMS software shall have a client/server-based architecture that can be configured as a standalone VMS system with the client software running on the server hardware and/or the client running on any network-connected TCP/IP workstation. Multiple client workstations shall be capable of simultaneously viewing live and/or recorded video from one or more servers. Multiple servers shall also be able to simultaneously provide live and/or recorded video to one or more workstations.	
2	The VMS shall be supplied with minimum 25 nos. of thick clients and 10 mobile clients	
3	The Video Management System (VMS) shall be a software package for comprehensive management of live and recorded video, and associated audio and data.	
4	General Functionality – The VMS shall possess the following general characteristics	
4.1	The VMS shall provide effective monitoring of video from IP cameras and encoding devices, two-way audio and data in real time over local and wide area networks	
4.2	The VMS supports interactive and multi-level mapping	
4.3	The single-screen administration across multiple servers and systems, including:	
4.3.1	It shall support global configuration and monitoring of camera, encoder, and storage settings across the enterprise	
4.3.2	It supports simultaneous administration of all users on multiple servers	
4.3.3	It supports configuration of user authentication using LDAP/Active Directory features of the network	
4.3.4	It supports e-mail / SMS notifications	
4.4	The VMS should support at least 500 Cameras or Encoders from different Manufacturers	
4.5	The client software allow remote access to live and recorded video, including access from mobile devices and support simultaneous access to video from multiple servers	
4.6	The VMS should support 2-way audio communication between server, client, and camera	
4.7	Suspect Tracking : The VMS should provide forensic search operation based on the powerful attribute search feature. The operator can select any person in the camera field of view and search for the appearance of the selected person based on the attire attributes in the selected cameras for the selected duration. The attribute search should show persons with matching attributes in a grid. It should be possible to click on any match to view the playback video of that instant.	

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5	Architecture	
5.1	The VMS shall have a client/server-based architecture that can be configured as a standalone VMS with the client software running with equal functionality on the server hardware and/or the client running on any network-connected TCP/IP workstation.	
5.2	The VMS shall record and retrieve video, audio and alarm data and provide it to the VMS clients upon request.	
5.3	The Client Characteristics shall be as per following:	
5.3.1	The Client Software View live video and audio, recorded video and audio and be able to configure the complete system all from a single application.	
5.3.2	The Client Software will have full compatibility with all available features of the VMS server software	
5.3.4	The Client Software shall have Add and Remove features based on the permissions of the user and the licensed functionality	
5.4	The Web Client shall have following features:	
5.4.1	The Web Client can view Live and Recorded Video	
5.4.2	The Web Client can control Pan-Tilt-Zoom movement for PTZ Cameras	
5.4.3	It can activate triggers	
5.4.4	It can get connected with multiple VMS Servers simultaneously	
5.5	The Mobile Client shall have following characteristics:	
5.5.1	The mobile application shall support Apple IOS/ Google Android/ Microsoft Windows Mobile operating systems	
5.5.2	It can remotely view Live and Recorded Video from any Video Server	
5.5.3	The web application should support H.265, H.264, HLS and MJPEG streaming.	
5.5.4	It can monitor events configured by the Client	
5.5.5	The web service supporting the mobile application shall size the video stream to accommodate both low bandwidth and high bandwidth networks.	
5.6	The VMS software shall allow the user to have any combination of VMS client applications running on any of the supported operating systems and be able to connect to any of the VMS servers running on any of the supported operating systems. Hence, Multiple client workstations shall be capable of simultaneously viewing live and/or recorded video from one or more servers.	
5.7	The VMS software shall have the capability to run multiple client applications simultaneously on one workstation with multiple monitors and at least 12 monitors shall be configurable on a single workstation with one (1) client application running on each monitor.	
5.8	VMS Server software shall support for edge-based analytics. The VMS must be chosen to get the required analytics, ANPR functionalities and if required additional hardware/servers/storage should be provided by the Bidder at his own cost. VMS Software should control edge device/IP camera settings and support a server-client architecture	
6	Video Streaming	
6.1	Video formats supported: MJPEG, MPEG-4, H.264, H.265	
6.2	Each video stream shall have the ability to be recorded, viewed live, saved to views, exported and available in search and playback.	
6.3	Streams shall be individually configurable for recording schedules and storage rules	

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6.4	Multi-streaming – The VMS shall allow the setting of multiple, independent video streams from the IP camera, each configurable for frame rate, resolution and quality level.	
7	Recording	
7.1	The Recording should be continuous, uninterrupted and unattended recording of all video and audio transmitted to the VMS, including during times of administration and configuration of any feature	
7.2	The VMS should enhance the videos received from the cameras by adjusting hue, saturation, contrast, brightness, sharpness, IRIS parameters with automatic or manual focus adjustment.	
7.3	The system shall allow to configure each video input's recording time on an hourly basis, to further allow the user to schedule when to record on motion, when to record on event and when to not record	
7.4	The video file shall contain the data of the video, audio, and associated metadata.	
7.5	The index file shall contain the index of the metadata from the network device. When the VMS searches for video, it shall retrieve and display the information in the index files.	
7.6	A bookmarking feature shall allow the tagging, naming, and retention of video clips. The VMS shall bookmark the display layout with selected distribution of cameras across the panel with a mix of live and archived video.	
7.7	The events dashboard should be available with multiple filter parameters such as - by camera, by use case, by camera groups, and the easily selectable duration such as today, last 7 days, last 30 days, and calendar widget, etc.. Reports should be exported in formats such as excel and CSV. The dashboard should also have the graphical representation of the reports in terms of the bar charts and pie charts.	
7.8	The VMS shall support a mix of multiple storage technologies such as local storage/ DAS/ SAN/ NAS or hybrid	
7.9	The VMS shall support configurable “at most” rules that will automatically delete video for a camera after a specified amount of time. The VMS also shall support configurable “at least” rules that will delete newer video on other cameras to preserve older video from cameras with an “at least” rule specified.	
8	Video Archiving	
8.1	The VMS shall provide for the archival of video, audio, and data files, as determined by rules, events, or manual selection. Each archive target has its own set of rules for what cameras and video are archived and when.	
8.2	The VMS shall support CIFS and NFS network shares for archive target locations. It shall be able to archive video to one location and base the archive on camera, event type or an archive schedule.	
8.3	VMS shall be able to archive continuously or on a scheduled basis like weekly schedule and multiple schedules may be combined to derive specific schedule.	
9	Events	
9.1	The VMS should support following Events	
9.1.1	Video motion, critical video data and Incident Video data.	
9.1.2	Video loss of analog video signals	
9.1.3	Device, Server and System Health	
9.1.4	IP camera connection	
9.1.5	Analytics Rule	

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9.2	The VMS should support actions on events like Record Video, Output Trigger, Send an E-mail supporting SSL and TLS protocols for encrypted communications. And support AES128 encryption for the communication.	
9.3	The VMS shall call a PTZ Camera Preset as action on events	
9.4	The VMS client shall be configurable to automatically switch views on any event within the event monitoring function.	
10	Search and Playback	
10.1	The VMS can search and play back recorded video, audio and events from VMS servers	
10.2	The VMS shall search and play back video from multiple cameras simultaneously in a synchronized multi-camera layout along with search recorded video based on time, date, video source and image region, with results displayed as both a clickable timeline	
10.3	The VMS shall perform a visual thumbnail search, selecting one image per camera per set time period and can play video from selected image along with zoom in to a time range around selected image	
10.4	The Archived video shall be seamlessly searched during any video search, eliminating the need for a user to separately search the archive location.	
11	Video Information Display	
11.1	The VMS shall have a live display mode, wherein a user shall be able to view live video, live audio and alarm information.	
11.2	The VMS client must feature adaptive bit rate adjustment to conserve bandwidth, displaying cameras in full resolution when viewed individually and switching to lower resolution when in matrix view.	
11.3	The VMS shall allow viewing of cameras in logical groups and preset views.	
11.4	The VMS shall be able to automatically cycle through two or more saved views to create a video tour, with a configurable dwell time for each view.	
11.5	The VMS shall support the use of a panoramic lens on an analog or IP camera. The VMS client shall de-warp the image on both live and recorded video.	
11.6	The VMS shall allow the customization of the user interface to display software (soft) triggers and initiate actions.	
11.7	The VMS shall provide the ability to instantly push selected cameras, layouts, tours, groups or entire views to another client monitor, such as a public view monitor or a video wall.	
11.8	The VMS shall support overlay controls which appear when hovering over a camera in live view : Appearance: text color, font, style, location, camera name, camera no. Control Types: audio inputs and outputs, digital zoom	
11.9	The VMS shall be able to display the following additional system information: a) users currently logged in to the system b) system log containing a detailed history of system processes	
11.10	The VMS shall support display of notifications to the user for common setup tasks that should be performed, including: a) Configuring motion on all cameras b) Changing the default password c) Configuring email notifications d) Configuring of multi-streaming	

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	e) Time delta between server and camera(Minimum spec is mentioned in TD. Higher or more accurate versions meeting CoPA requirement is acceptable)	
12	PAN, TILT & ZOOM	
12.1	The VMS shall allow control of PTZ cameras to authorized users and be used to maneuver and zoom a PTZ camera at adjustable speed.	
12.2	The VMS shall allow following methods of controlling a PTZ camera to be available:	
12.2.1	PTZ graphics control windows	
12.2.2	live graphic overlay PTZ control icons	
12.2.3	keyboard control (up, down, left, right arrows; page up, page down for zoom)	
12.2.4	PTZ presets	
12.2.5	Digital PTZ	
12.2.6	USB joystick	
13	Mapping	
13.1	The VMS shall have a map capability, accessible to users with the appropriate permission levels.	
13.2	The map displayed video sources and their status, alarm status, multi-layer, hierarchical maps including static and GIS.	
13.3	The VMS shall support embedded maps/ GIS maps/ online maps	
13.4	The VMS should show event notification from the cameras on the map itself. The operator should be able to click on the event notification of a particular camera on the map and the VMS should open the event window on the operator screen.	
14	Export	
14.1	The VMS should allow export of a single video clip or multiple clips with selected duration to a cart. For downloading a single clip, it should have encryption option for the exported clip and should ask to select the export format such as AVI/ MJPEG/ MP4 / AVF format	
14.2	Export file formats supported: .avi and mp4	
14.3	The VMS standalone player shall be able to authenticate that the video has not been tampered with using a AES256 bit encryption	
15	Administration & Configuration	
15.1	The VMS system can authenticate the User's Permission by Active Directory or LDAP	
15.2	The VMS system can allow for a user's permissions to be configured across multiple servers from a single screen	
15.3	The VMS system shall record an audit trail of when users log in that shows what changes they have made, what video they have viewed and what they have exported	
15.4	The VMS software shall provide a configuration option to require 2 users enter unique passwords to authorize tasks involving the viewing of video.	
16	Reporting	
16.1	The VMS provides color coded status of servers, cameras, and unacknowledged events in the following categories in list or chart format:	

16.1.2	Critical as 1) server or camera device not detected and 2) event occurring and unacknowledged	
16.1.3	Warning as 1) Health warning on server (such as temperature, storage alarm, archive alarm, CPU fan), 2) Server license subscription expiring soon, 3) Event unacknowledged but open, 4) Event unacknowledged but closed	
16.1.4	Normal as 1) Server or camera connected and operating and 2) Event acknowledged and closed	
16.1.5	The VMS shall allow creation of Reports to a. view and manage a list of unacknowledged events, b. view a list of open events and c. search for specific events based on various criteria	
16.1.6	The VMS should periodically check the gaps in live recording of the cameras and should check with the on-board storage of the camera. In case of a gap, the VMS should synchronize the video recording on the on-board storage with the VMS storage. Such synchronized storage should be displayed with different color for quick attention of the operator.	
16.1.7	VMS shall support Edge based /server Based/ third party server based analytics	
16.1.8	VMS shall generate the events& alarm wrt to the camera edge based analytics like Perimeter, intrusion, line crossing etc which are available in camera edge.	
17	Failover - (shall support for future requirement)	
17.1	The VMS system should have N:1/N:0/N:N failover/redundancy mechanism architecture	
17.2	The VMS shall support automatic failover/redundancy for recording	
17.3	The VMS shall support manual failover/redundancy for maintenance purpose	
18	This shall allow operations managers and system integrator to build customized video surveillance networks that meet their exact requirements. Software suite shall be a scalable and flexible video management system that could be easily managed and monitored. Scalable system shall permit retrieval of live or recorded video anywhere, anytime on a variety of clients via a web browser interface.	
19	The VMS shall be enabled for integration with any external Video Analytics Systems.	
20	The VMS shall be capable of being deployed in a virtualized environment without loss of any functionality.	
21	All CCTV camera video signal inputs to the system shall be provided to command control Center, and the transmission medium used shall best suit the relative camera deployments and access to the CCTV Network.	
22	Minimum specification of VMS and cameras are mentioned in Bid Document. You can offer higher specification VMS and cameras	
23	The VMS should be ONVIF compliant with support for profiles S, G, T and M to ensure interoperability with any camera brand. Proposed software OEM should have full membership of ONVIF. The information should be available on the ONVIF website for verification.	
24	The VMS OEM should have at least the following certificates: ISO 9001, 27001, ISO 27017, ISO14001 and CMM I Level 3.	
(Rates may be taken for VMS Software support for 7 years only, but support shall be extended if required by CoPA)		

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4. Recording Server Specification			
No.	Description	Specification	Compliance/ Deviation
1	Type	Support min128 Channel Rack-mountable NVR or Recording Server (See item 3 above)	
2	Storage Capacity	Should have Minimum 20 Hard Disk Slots. Supports upto 340TB including RAID5 and 6. with each 18TB per SATA Min 256GB SSD for OS & recording application software	
3	RAID Level	RAID 5/6 (Mega RAID SAS 9351-8i or better)	
4	Network Connections	Dual Gigabit Ethernet (RJ-45 port) – 10/100/1000 Mbps.	
5	Operating System	Linux/Windows	
6	Processor	Intel Xeon processor or better with min 8 core, min 3.4Ghz, up to 4.8GHz at turbo & 16MB cache.	
7	Memory	32GB DDR3 or better	
8	Video Compression	H.264, H.265, MJPEG	
9	Recording Support	Support the simultaneous recording of min 128 IP cameras at 1080p resolution at 15 fps	
10	Synchronous Playback	Minimum 16 Channel	
11	Recording Resolution	4K, 5MP, 1080P, 720P, D1	
12	Network Protocol Support	HTTP/HTTPS, TCP/IP, RTSP, UDP, NTP, DHCP, IPC Search	
13	Bandwidth	1900Mbps useable or better	
14	Minimum Function / Features	<p>VMS software shall support ONVIF Profile S, G, M, T or better and shall be an ONVIF member at the "Full" membership level. The ONVIF website shall have a certificate to this effect.</p> <ul style="list-style-type: none"> • Should be able to recover the video from edge storage of Network Camera in case of network failure automatically once the network is stabilized. • Should able to allocate variable disk space to different cameras to record video for a longer time on the high-security camera. • Water Mark or E-signature • Storage expansion if required 	
15	Input Voltage	100~240 V AC, 50/60 Hz. Dual Power. Any power converter that is required to power the NVR has to be supplied by Bidder. With redundant power supply	
16	Operating System temperature	10°C ~ 25°C or better	
17	Approval	FCC, BIS, UL, CE	

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5. <u>Minimum Hardware Specification for Client workstation</u>		
No.	Feature Description	Bidder Compliance (Y/N)
1	CPU : Intel i7 or better	
2	RAM : 16 GB or better	
3	OS Drive : 128 GB SSD or better	
4	Operating System : Microsoft Windows 10 or Ubuntu Linux 18.04	
5	NIC : 2 x 1 Gbps	
6	Min 8 GB NVIDIA or more similar discrete graphics card for 2 monitor 32 streams	
Note: If VMS OEM recommends higher server configuration, please specify the higher one.		

6. Specification for Rack Mount Recorder

No.	DESCRIPTION	QTY	UNIT	Make & Model
1	<p>Supply, Installation, Testing and Commissioning of Video Management Server with the following features:</p> <p>The Video Management System (VMS) software shall be used to view live and recorded video from IP devices connected to local and wide area networks. The VMS software shall have a client/server-based architecture that can be configured as a standalone VMS system with the client software running on the server hardware and/or the client running on any network-connected TCP/IP workstation. Multiple client workstations shall be capable of simultaneously viewing live and/or recorded video from one or more servers. Multiple servers shall also be able to simultaneously provide live and/or recorded video to one or more workstations. The VMS shall be supplied with a minimum of 25 nos. of thick clients and 10 mobile clients. The VMS client should be run on Windows or Linux platform.</p> <p>The VMS should support more than 1000 Cameras or Encoders from different Manufacturers (minimum 50). The VMS should support 2-way audio communication between server, client, and camera. Video formats supported: MJPEG, MPEG-4, H.264, H.265. Each video stream shall have the ability to be recorded, viewed live, saved to views, exported, and available in search and playback. Supports Multistreaming. Support local HDD disk storage, iSCSI extended storage, and auto-fill back from Camera SD cards.</p> <p>Supports events: Video motion, operating on the encoded video, Device, Server and System Health, video loss, Analytics Rule. Support actions on events like Record Video, Output Trigger, Send an E-mail supporting SSL and TLS protocols for encrypted communications, support nested or embedded maps & can place,</p>	1	Lot	

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	<p>view and activate soft triggers from the MAP. Supports Export file formats supported: .exe, .avi, .ps, .mov, .psx.</p> <p>The VMS shall be enabled for integration with any external Video Analytics Systems & camera edge based VAs also. Bidder shall consider camera edge based analytics or separate server based analytics for delivering proper events & alarms with respect to the VA required(Bidder shall consider all VA mentioned in the camera specification).</p> <p>Tender specification is generic and minimum, but the Bidder shall comply with the VMS OEM recommendations in addition. The VMS must be chosen to get the required analytics, ANPR functionalities and if required additional hardware/servers/storage should be provided by the Bidder at his own cost.</p> <p>The VMS Server shall support failover architecture & support automatic failover for recording. (License :Bidder shall consider 100 numbers of Camera licenses, which shall be allocated to VMS/recording server as per the VMS architecture.</p>			
2	<p>Supply, Installation, Testing and Commissioning of Central Video/ database Management Server with CPU : Intel i7 or better, RAM : 16 GB or better, OS Drive : 128 GB SSD or better Operating System : Microsoft Windows 10 or Ubuntu Linux 18.04, NIC : 2 x 1 Gbps as per Tender specification. Warranty 5 years & Software support with upgrades for 5 more years</p>	1	Nos	
3	<p>Supply, Installation, Testing and Commissioning of Camera Recording Server/NVR, Supports 128 Camera Recording, Capacity: Should have Minimum 20 Hard Disk Slots. Supports upto 340TB including RAID5 and 6. , Min 256GB SSD for OS & recording application software</p> <p>RAID Level: RAID 5 and 6, Network Connections: Dual Gigabit Ethernet (RJ-45 port) – 10/100/1000 Mbps.</p> <p>Operating System: Linux, Processor: Intel Xeon W processor or better with min 8 core, min 3.4Ghz, up to 5GHz at turbo & 16MB cache, Memory: 32GB DDR3 or better, Video Compression:H.264, H.265, MJPEG, Recording Support: Support the simultaneous recording of min 128 IP cameras at 1080p resolution at 15 fps</p> <p>Synchronous Playback: Minimum 16 Channel, Recording Resolution: 4K, 5MP, 1080P, 720P, D1, Network Protocol Support: HTTP/HTTPS, TCP/IP, RTSP, UDP, NTP, DHCP, IPC Search, Bandwidth: 1900Mbps useable , Minimum Function / Features: ONVIF Profile S or better, Should be able to recover the video from edge storage of Network Camera in case of network failure automatically once the network is stabilized, Should able to allocate variable disk space to different cameras to record video for a longer time on the high-security camera, supports tamper proof video export, Storage expansion if required .</p> <p>(OTDR test reports shall be submitted as part of the installation completion documents)</p>	2	Nos	

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NO.	DESCRIPTION OF ITEM	
7	4/8-port POE+ Switch With 2 SF PORT	
	Specification	
	Interfaces	Minimum 4 X 10/100/1000 Mbps ports with 2x1G SFP
	PoE Budget	55 watts
	IEEE	802.3af/802.3at
	Performance	
	Switching Capacity	20Gbps
	Mac address Table	8K
	Vlans	64
	Packet buffer memory	512kb
	CPU Memory	128MB DDR RAM
	Flash Memory	32MB
	Jumbo Frame	10k
	Management	Supports IPv6 Management • web Based Graphical User Interface
	Environmental	Switch should have operating temperature range of 0-40C in continuous operation
	Certifications	Certification: UL/CE/FCC, BIS IS 13252: 2010/TEC
	The specification of switches given above are sufficient, but Industrial grade switch may also be provided. It is the responsibility of the Contractor to maintain the entire system for 7 years without fail.	
8	24-port 1/10G Base-X Layer-3 Stackable Managed Switch.	
	Physical Interfaces	2 # 1/10G Base-T Copper Ports(shared)
		24 # 1/10G Base-X Fiber SFP Ports
		Ethernet: Out-of-band 1G port, Console: RJ 45/Mini USB, Storage: USB
	CPU/ Memory	CPU: 800 MHz
		RAM: 1 GB
		Packet buffer memory: 32 MB
		Flash: 256 MB
	Environmental	Operating Temperature: 0° to 40°C)
	Certifications	Certification: UL/CE/FCC, BIS IS 13252: 2010/TEC
9	24-port 1000base-T Gigabit PoE+ Smart Switch	
	Physical Specifications	24 # 10/100/1000 Base-T auto-sensing PoE+ ports and 4 dedicated 100/1000 Base-X Fiber SFP ports
	Performance Specification	Bandwidth: 56 Gbps non-blocking or above
		Forwarding rate: 41mpps or more

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		MAC Address database size: 16 media access control (MAC) addresses or more
		VLAN: 256 or above
		Packet buffer: 1.5Mb or above
		Jumbo frame: 9216
		PoE budget: 190W or more
	Certifications	Certification: UL/CE/FCC, BIS IS 13252: 2010/TEC
10	24-port 1000base-T Gigabit Smart Switch	
	Physical Specifications	24 # 10/100/1000 Base-T auto-sensing ports and 2 dedicated 100/1000 Base-X Fiber SFP ports
	Performance Specification	Bandwidth: 52 Gbps non-blocking or above
		MAC Address database size: 16 media access control (MAC) addresses or more
		VLAN: 256 or above
		Packet buffer: 2MB or above
		Jumbo frame: 9216
		Multicast groups: 512
		Mac: 16k or more
	Certifications	Certification: UL/CE/FCC, BIS IS 13252: 2010/TEC
11	SFP module	
	1G Single Mode Duplex SFP module.	
12	P2P Point to point Wireless Connectivity (Minimum specification is mentioned, bidder may offer advanced systems which suit the purpose)	
	Antenna Type	Omni directional/Flat Panel
	Antenna Gain	19 dBi
	Antenna Beamwidth	3 dB - 14.5°/3 dB - 12.5°
	Environmental	IP67
	Temperature	-30°C to 60°C
	Wind Survival	200 km/h (124 mph)
	Certifications	CE ,FCCID, BIS, IS
	Warranty	5 year Warranty
13	800 VA UPS with INBUILT BATTERY (minimum Capacity)	
	Input Voltage	220/230 vac
	Input Voltage Range	160-300 vac
	Frequency Range	50 hz & Variation as per IS
	Output	Minimum one hour backup
	A/c Voltage Regulation	As per IS
	Waveform	Simulated Sine Wave
	Transfer Time	4-8 ms
	Warranty	5 year Warranty

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14	UPS of Capacity as required for the System with BATTERY (minimum Capacity 2KVA or higher)	
	Input Voltage	220/230 vac
	Input Voltage Range	160-300 vac
	Frequency Range	50 hz and variation as per IS
	Output	Minimum one hour backup
	A/c Voltage Regulation	As per IS
	Waveform	Sinusoidal
	Warranty	5 year Warranty
15	Lightning Arrestor	
		1 meter Copper Alloy based lightning Arrestor, clamp, wire with Graphite based chemical compound earthing and min 250 microns copper bonded low carbon steel rod, Earthing strip of 25x3/6 mm
16	Outdoor POE in-line surge protector	
	Standards compliance:	IEC 61643-21/ EN 61643-21 / UL497B IEEE 802-3af/3at/3bt/ ANSI/TIA-568-C.1
	Certification:	UL
	Technology:	GDT/ diode
	Network:	POE
	Max. DC operating voltage	60 Vdc - 650 mA
17	Type 2 DC surge protector - 30 V	
	Standards compliance:	IEC 61643-11 / prIEC 61643-41
	Remote signaling of disconnection:	output on NC contact
	Max. DC operating voltage:	30 V DC
	Max. discharge current	3 kA
	Admissible short-circuit current:	10000 A
18	Rack /Poly Carbonate Box	
		The lockable Metal door at the front and the rear ends are closed. With required fittings to fix it on a wall/pole
		It can be used as Pole-Mount or Wall-Mount.
		IP56 Certified Weatherproof Rack with cooling fan
		Minimum Dimension (600mm x 200 mm x 170 mm)
	The tenderer should consider the applicable size of each Outdoor Box / Rack as per the site. Rack/box should accommodate with all active and passive products required with neat and tidy arrangement .	
	Outdoor racks(9U) shall be IP 65 and indoor racks(6U) shall be IP 56 as mentioned in BOQ item No.6 & 7 and with minimum specifications mentioned above. Mounting of rack shall be decided as per site survey, based on site conditions and size is to be decided based on the number of cameras, with provision for spare in future.. Depth of the rack depends upon the depth of the equipments supplied by the Bidder like switch, UPS etc. Outdoor racks shall be suitable for marine environment. 32U rack is indoor. The sample shall be got approved from EIC before procurement. Before procurement, drawings and technical spec. shall be got approved from Engineer-In-Charge.	

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19. FIBER SPECIFICATIONS -TECHNICAL SPECIFICATIONS FOR PASSIVE CABLING

Single mode(OS2) Armoured Indoor/Outdoor Fiber cable -Dry tube

No.	Specifications	Requirement
1	Cable Type	Single Jacket, Armored, Dry tube, Indoor/Outdoor Stranded Loose Tube Cable
2	Fiber Type	G.652.D Single mode OS2, Zero Water Peak Cable
3	No of cores	6
4	Fiber dia. and identification	9/125/250 with different color sequence as defined by TIA standard for identification
5	Armoring Type	Corrugated Steel Tape Armour for crush and rodent protection
6	Outer Sheath	FRLSZH with Minimum 2.1MM thickness
7	Strength member	Glass Yarns-Peripheral
8	Loose Tube	Dry tube construction and one water blocking yarn in each loose tube
9	Jacket UV Resistance	UV Stabilized
10	Jacket Color	Black
12	Minimum Bend Radius	440 mm (Loaded) 115 mm (Unloaded)
13	Tensile Load, Maximum	1250 N @ 0.25% FIBRE STRAIN
14	Operating Temperature	-20 °C to +70 °C
15	Cable weight	120KG/KM
16	Diameter Over Jacket	10.50 MM
17	Water Penetrations Test Method	24 hours (as per IEC 60794-1 F5)
18	Attenuation, maximum	0.22 dB/km at 1550 nm 0.34 dB/km at 1310 nm
19	Standards	EN 50173, ISO/IEC 11801, ANSI/TIA-568-C.3, IEC 61034-2, IEC 60754-2
20	Regulatory Compliance	RoHS 2011/65/EU compliant
21	Country of origin	Product country of origin and associated manufacturing plant details to be furnished for verification
22	Includes all required accessories such as fully loaded fiber panel and patch cords to complete the structured cabling including 2years warranty as per specification	

20. CABLE SPECIFICATIONS:

Cat-6 U/UTP Indoor/Outdoor Cable-Double sheath Anti-rodent cable

No.	Details	Specification
1	Type	Unshielded Twisted Pair, Jell free, Category 6, TIA / EIA 568-C.2& ISO/IEC 11801
2	Environment	Double jacketed cable for indoor & outdoor application and crush resistance
3	Conductors	23 AWG solid bare copper

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5	Insulation	Polyolefin
6	Outer sheath	LSZH for Indoor purpose
7	Inner sheath	Polyethylene, UV Resistant for outdoor purpose
8	Pair Separator	Cross-member (+) fluted Spline.
9	Temperature range	-20 Deg. C to +70 Deg. C
10	Frequency tested up to	Minimum 250 MHz
11	Packing	Box of 305 meters
12	Cable Outer Diameter	7.2 mm nominal
13	Delay Skew	45ns MAX.
14	Bend Radius	28mm Minimum
15	Anti-rodent	Must be Anti-rodent with Black
16	Conductivity	Cable shall not have any metal/Armour layer to protect. They can carry the electrical/lighting current directly to switch, if the cable is exposed to environment
17	Impedance	100 Ohms + / - 15 ohms, 1 to 250 MHz.
18	Mutual Capacitance	5.6 NF MAX /100 Mtr.
19	Conductor Resistance	66.58 Ohms Max / KM
20	Propagation Delay	536 ns/100 Mtrs. MAX @ 250 Mhz
21	Transmission Standards	ANSI/TIA-568.2-D, ISO/IEC 11801 Class E
22	Remote Powering	Cable shall be fully complied with the recommendations set forth by IEEE 802.3bt (Type 4) for the safe delivery of power over LAN cable when installed according to ISO/IEC 14763-2, CENELEC EN 50174-1, CENELEC EN 50174-2 or TIA TSB-184-A
23	Performance characteristics to be provided along with bid	Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR
24	ROHS Compliant	ROHS/ELV Compliant
25	Accessories	Includes all required accessories such as patch panel, reusable IDC connector, patch cords to complete the structured cabling including 2 year warranty as per specification

21. General requirements of camera.

Both PTZ and fixed cameras shall be supplied with its mounting arrangements as per the site conditions, i.e., wall or pole mounted with all required accessories and fitments. The entire camera shall be provided with IP66 housing. Outdoor housing (IP66) should be from the same camera manufacturer. It should be die- cast and extruded Aluminium construction.

- (1) POE switch shall be supplied and installed complete with all accessories for viewing the video signals individually at Centralized Video Surveillance system control room (CVSS) as per technical specification.
- (2) The Camera Power supply is for extending the UPS power to the PTZ cameras from the UPS out socket. The scope includes wiring materials, its accessories, plug & Sockets if required. The method measurement is taken as unit rate.
- (3) The Power cable is intended for drawing raw power from available source to the UPS to be provided near camera location.
- (4) In case where the distance of NVR and camera is more than 70 mtrs, OFC can also be used for which necessary splicing arrangements shall be supplied by the firm without extra cost.

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- (5) HDPE pipe shall be suitable for drawing the CAT 6, STP cable/OFC conforming to relevant IEC/BIS. The HDPE material shall conform to ASTM D 3350. Necessary clamps, fasteners etc shall be supplied when the pipe is drawn through wall/structures etc.
- (6) The PVC conduits are meant for drawing power cables. The size of the conduits shall be 38mm diameter. Saddles for fixing conduits shall be heavy gauge non-metallic type with base. Bends, couplers etc of solid type shall also be used along with conduits as per requirement.

26. Supply and laying of HDPE pipe below the ground.

HDPE pipe are proposed for laying the OFC and data cables for use of CCTV communications. The HDPE pipes shall be laid through open trenches, hard surfaces after excavation of same at about 50 CM depth and excavated portion shall be backfilled, compacted with excavated material with compaction without damaging the pipe and cables. Loose soil cover shall be provided above the HDPE pipe for avoiding damage to the cables and pipes. For vehicle crossing areas sufficient depth shall be maintained to avoid damage to cables. Cable route marker shall be provided without any extra cost at required interval. Excavation shall be done by JCB/ manual by taking extreme care without damaging the existing cable and other utilities in the location. If any damaged has occurred to the utilities the contractor shall make good the damaged portion by his own cost.

27. Resurfacing the hard surface after excavation.

The excavated hard surface shall be resurfaced with Cement Concrete after proper compacting the area.

28. Fixing and Foundation for Poles

Poles supplied for fixing the CCTV shall be erected with suitable CC foundation with at least 30 CM diameter and 50 cm depth from ground and 20 CM above ground. Sufficient supports shall be given at bottom of poles for proper fixing of same. At the top of the poles necessary GI sheet cover shall be provided for the protection of Cameras as per requirements.

IV. COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

1. The Comprehensive Annual Maintenance Contract shall cover the items as per Schedule.

The contractor should enter into a 5 years CCAMC with the Port Authority, after the successful completion of 2 years guarantee period, for the upkeep of the system and the cost of the same should be shown separately for each year in the price schedule.

2. The CAMC should be a comprehensive one and covers repairs and servicing to the complete system (software and hardware and connected accessories), replacement of all parts required for the satisfactory functioning of the system and the breakdown maintenance. The CAMC rate shall be inclusive of the following items.

- a) Cost of spare parts.
- b) Cost of all types of cables and other accessories

During CAMC period the contractor would be bound to ensure that all the equipments and other software hardware systems are in working condition.

3. The CAMC period will start on completion of the mandatory guarantee period of 2 years. A separate order will be issued for the Annual Maintenance Contract, before the completion of the guarantee period of the installation.

- (i) **Security Deposit:** The successful bidder is required to submit Security Deposit equivalent to **10%** of the total CAMC cost within 21 days from the date of issue of CAMC Order, to guarantee fulfillment of performance and the obligations of the CAMC contract, furnished in the form of Account Payee Demand Draft, Banker's cheque, Bank Guarantee from any Commercial Bank / Insurance Surety Bond in India [in

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favour of FA&CAO, Cochin Port Authority, encashable at Cochin] or online payment to the designated bank account of CoPA in an acceptable form safeguarding the Purchaser's interests in all respects.

- (a) In case the Security Deposit is furnished in the form of Bank Guarantee, the same should remain valid for a period of 60 days beyond the completion of CAMC period.
- (b) Cochin Port is not bound to pay interest on the Security Deposit furnished by the successful bidder.
- (c) In the event of the Contractor failing to honour any of the commitments entered into under this Contract, Cochin Port shall have unconditional option to encash the Security Deposit. The bank shall be obliged to make payment to Cochin Port upon demand.
- (d) The security deposit furnished towards "SITC of CC cameras & accessories" will be released and returned only after submission of SD and execution of Agreement for CAMC

(ii) Agreement: Upon the receipt of letter intimating award of the Contract (LoA) for CAMC, the Contractor will be required to execute an Agreement at his expense within 28 (twenty eight) days from the date of Letter of Acceptance (LoA), on Kerala State Stamp Paper of value Rs.200/- in the prescribed form as per Annexure-B. Agreement can be entered only after furnishing of Security Deposit by the contractor. Contractor has to prepare four sets (one original and three duplicates) of the Agreement as per the format attached at Annexure-B in the Tender Document.

4. The Port Authority shall have the option to terminate the Annual Maintenance Contract, any time before the completion of the CAMC period. In such cases, only pro-rata CAMC amount will be paid. If any disputes arise, the same shall be settled through the Courts in Kochi.
5. Upon written intimation/ intimation over telephone/ mail/ whatsapp of a complaint/ defect (during the guarantee/ warranty/ CAMC period), the contractor should send representative(s) to attend the defects immediately, but not later **than 12 hours**. If the equipment become nonfunctional beyond the period of 12 hours due to delay in rectifying the defect, proportionate deduction on pro rata basis shall be effected from the running bill of the contractor on CAMC charges. However the routine maintenance with prior approval from the CoPA will not be counted as non-availability of the system.
6. The routine /usual visit/ inspection/preventive maintenance should be done at least once in a month and the report submitted to Dy. Chief Mechanical Engineer (Electrical). This visit shall be done with the permission/in the presence of the officer concerned and should cause only minimum disturbance to the functioning of the system.
7. **Payment for CAMC**
 - a) CAMC will start after expiry of the guarantee period. Separate order shall be issued for the CAMC on successful completion of guarantee period 2 years.
 - b) CAMC charges shall be released on successful completion of comprehensive maintenance on half yearly basis subject to the certification of Engineer in charge.
8. During the CAMC period of 5 years, if the system as a whole or any accessory/ equipment / item of the system is rendered non-operational a penalty @1% of the CAMC amount for the year per week or part thereof will be levied for the non-operational days, the maximum of which shall be limited to 10% of the contract value for that year. Hours of non functionality in different spells will be accumulated to arrive at a day and a week. Day shall mean an English Calendar Day and seven such calendar Days will be a week. The LD amount so deducted shall be in addition to the deduction of CAMC amount due to the contractor as mentioned in clause No.19 of GCC.

However the routine maintenance with prior approval shall not be counted for arriving at the availability of the system.

9. The technicians of the Contractor shall take the images at the specified times as required by CoPA in pen drive or HDD.

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V. APPROVED MAKES

CCTV CAMERA	As per Technical Specification. The Bidder shall submit letter, as per the format (Annexure-D), from OEM expressing his assurance on functionality by extending technical support including supply of spares for a period of 7 years.
VMS ***	As per technical Specification and as selected by the Bidder. Please Note that the selected brand & Model shall be compatible with new & existing CCTV cameras. The Bidder shall submit letter, as per the format (Annexure-D), from OEMs expressing their assurance on functionality by extending technical support of the proposed items including supply of spares for a period of 7 years.
CAMERA RECORDING SERVER OR NVR	
CENTRAL VIDEO AND DATABASE MANAGEMENT SERVER	
WORK STATION/ PC	
NETWORK SWITCH / SFP MODULE	
NETWORK/ OUTDOOR RACK	
HARD DISK	
UPS WITH BATTERY	
OFC / CAT 6 CABLE	MOLEX / COMSCOPE/ PANDUIT/ LEGRAND/ FINOLEX/ CORNING/NEXANS
POWER CABLE	FINOLEX/ Q FLEX/ RR KABEL/ RPG CABLES/ LAPP KABEL/ V-GUARD/ HAVELLS/ L&T/ KEI/ RALLISON
SURGE PROTECTOR	APC/DHEN/ CAPE ELECTRIC/OBO BETTERMANN/ L&T
LIGHTNING ARRESTOR	
LED MONITOR	SONY/ PANASONIC/ SAMSUNG/ PHILIPS/ LG
MCB'S, SWITCHES, ADAPTORS ETC	LEGRAND / MERLIN GERIN/MK/ ABB/ GE POWER / HAVELLS/ HPL/ SIEMENS/ L&T/ MDS/ INDOASIAN
PVC CONDUIT	ISI marked Brands
HDPE PIPE	

*** It is the Successful Bidders responsibility to integrate the new 36 Nos. CCTV cameras and old 49 Nos. cameras and ensure that the images and surveillance is possible at the CCTV Control Room on the 7th floor of the New Administrative Building. The work shall be considered completed and taken over by CoPA only if the Contractor illustrates the images and satisfactory surveillance at the desired locations including mobile phones. The Contractor shall ensure that the VMS shall also support various brand and type of cameras which may be added in the near future. The Images shall be stored and made available for retrieval for 90 days.

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DETAILS OF EXISTING CCTV CAMERAS					
I	2013	INFINOVA CAMERAS			Cameras to be checked, repositioned & connected to new Server. Present server is in 5th floor EDP Data centre
	CFS	IP Box type fixed camera	10	Nos.	
	Old Ad.Bldg. Access Control	IP Box type fixed camera	1	No.	
	New Ad.Bldg. Access Control	IP Box type fixed camera	1	No.	
	Marine Bldg. Access Control	IP Box type fixed camera	1	No.	
	Hospital Access Control	IP Box type fixed camera	1	No.	
	Fire station Access Control	IP Box type fixed camera	1	No.	
			15	Nos.	
II	2016	HANWHA TECHWIN			These 21 cameras were under CAMC till 2024
1	New Ad. Bldg.	PTZ Zoom camera	1	No.	
2	Q6 berth	PTZ Zoom camera	1	No.	
3	Q2 berth	PTZ Zoom camera	1	No.	
4	E/Wharf gate	IP Box type fixed camera	2	Nos.	
5	M/Wharf gate	IP Box type fixed camera	2	Nos.	
6	CFS	IP Box type fixed camera	2	Nos.	
7	Toll gates	IP Box type fixed camera	4	Nos.	
8	OTB	IP Box type fixed camera	3	Nos.	
III	2017	HANWHA TECHWIN			
9	Embarkation Jetty	IP Box type fixed camera	2	Nos.	
10	Mattancherry Jetty	IP Box type fixed camera	1	No.	
IV	2017	HANWHA TECHWIN			
11	South End Rec.Area- A2	IP Box type fixed camera	2	Nos.	
	2019	HANWHA TECHWIN			
12	New Ad. Bldg. 6 floors	Dome type fixed camera	6	Nos.	These 23 cameras are under CAMC till 2026
13	Car parking-New Ad.Bldg.	Bullet type fixed camera	3	Nos.	
14	In front of Chairperson residence	Zoom camera box type	2	Nos.	
15	Inside CFS shed	Fish eye Dome camera	2	Nos.	
16	Inside CFS shed	Zoom camera box type	6	Nos.	
17	CISF Armoury of CoPA	Dome type fixed camera	1	No.	
18	CISF Armoury of CoPA	Zoom camera box type	2	Nos.	
19	Near Customs Comm. Bunglau	Zoom camera box type	1	No.	
V	Jan-22	HANWHA TECHWIN			
20	South End Rec. Area- A3	IP Box type fixed camera	3	Nos.	
	TOTAL NO. OF CCTV CAMERAS AT PRESENT AT VARIOUS LOCATIONS				47 Nos.
	In CFS - 10 Nos. Hanwha Techwin and 10 Nos. old Infinova cameras.				
	Back up of existing cameras is available for 90 days at CISF CONTROL ROOM & At CFS only 30days				
Warranty : It is the Contractor’s responsibility to maintain the new and old CCTV surveillance systems. Warranty for existing cameras is not envisaged in this bid. But the successful bidder shall maintain the existing cameras also and ensure the availability of footages in the control room. Necessary Spares for the old CCTV surveillance systems shall be provided by the Contractor on payable basis.					

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	Existing CCTV Camera Location	Model
1	EKM WHARF IN	Hanwha SNZ-6320
2	EKM WHARF OUT	Hanwha SNZ-6320
3	TOLL GATE 1(IN)	Hanwha SNZ-6320
4	TOLL GATE 1(OUT)	Hanwha SNZ-6320
5	TOLL GATE 2(IN)	Hanwha SNZ-6320
6	TOLL GATE 2(OUT)	Hanwha SNZ-6320
7	EMBARKATION JETTY	Hanwha SNZ-6320
8	6 TH FLOOR – NEW AD. BLDG.	Hanwha QND-6070R
9	NEW AD. BUILDING - FRONT	Hanwha SNZ-6320
10	ADM BUILDING (PTZ) - TOP	Tyco ISS04P6ONWIT
11	EKM WHARF (PTZ)	Hanwha SNP-6320RH
12	OTB NORTH	Hanwha SNZ-6320
13	OTB SOUTH	Hanwha SNZ-6320
14	PRIVATE JETTY	Hanwha SNZ-6320
15	MAT. WHARF GATE	Hanwha SNZ-6320
16	MAT. WHARF(PTZ)	Hanwha SNP-6321H
17	A3 AREA(1)	Hanwha QNO-6082R
18	2 ST FLOOR– NEW AD. BLDG.	Hanwha QND-6070R
19	PARKING 2 – NEW AD. BLDG.	Hanwha QND-6070R
20	GROUND FLOOR– NEW AD. BLDG.	Hanwha QND-6070R
21	1 ST FLOOR– NEW AD. BLDG.	Hanwha QND-6067R
22	4 TH FLOOR– NEW AD. BLDG.	Hanwha QND-6070R
23	GUEST HOUSE	Hanwha XNO-6120R
24	EMBARKATION JETTY	Hanwha SNZ-6320
25	3 TH FLOOR– NEW AD. BLDG.	Hanwha QND-6070R

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26	KUNDANOOR 2 ROAD	Hanwha LNO-6072R
27	A3 AREA(3)	Hanwha QNO-6082R
28	MALABAR ROAD	Hanwha XNO -6120R
29	A3 AREA(2)	Hanwha QNO-6082R
30	PARKING 1– NEW AD. BLDG.	Hanwha QND-6070R
31	5 TH FLOOR– NEW AD. BLDG.	Hanwha QND-6070R
32	KUNDANOOR 1	Hanwha LNO-6072R
33	6 TH FLOOR– NEW AD. BLDG.	Hanwha QND-6067R
34	APPROACH ROAD	Hanwha XNO -6120R

	CONTAINER FREIGHT STATION Camera Location	Model
1	W6/W7 CENTER	Hanwha SNZ-6320
2	OUT SIDE	Hanwha SNZ-6320
3	W7/E7 CENTER	Hanwha SNZ-6320
4	W13/W14 CENTER	Hanwha XNO-6120R
5	W19/W20 CENTER	Hanwha XNO-6120R
6	E13/E14 CENTER	Hanwha XNO-6120R
7	W13/W14 CENTER	Hanwha XNO-6120R
8	E19/E20 CENTER	Hanwha XNO-6120R
9	E13/E14 CENTER	Hanwha XNO-6120R
10	FISHEYE-2	Hanwha XNF-8010RV
11	FISHEYE-1	Hanwha XNF-8010RV
12	UBW	Hanwha QNO-6070R
13	UBE	Hanwha SNO-6084R

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NVR Location & Details

	NVR Location	Model No
1	CISF CONTROL ROOM (ADM BUILDING) 64 CHANNEL	(SAMSUNG) SRN-4000
2	CISF CONTROL ROOM (ADM BULIDING 16 CHANNEL	(WISENET) XRN-1610A
3	CISF CONTROL ROOM (ADM BULIDING 16 CHANNEL	(WISENET) XRN-1610A
4	EKM. WHARF (CISF GATE) 4 CHANNEL	(WISENET) SRN-473S
5	MAT. WHARF (CISF GATE) 8 CHANNEL	(CP PLUS) CP-UNR-416T2
6	OTB (CISF GATE) 4 CHANNEL	(WISENET) SRN-473S
7	TOLL GATE -1 4 CHANNEL	(WISENET) LRN-810S
8	CFS (CONTAINER FREIGHT STATION) 16 CHANNEL	(WISENET) XRN-1610A

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SECTION V

SPECIAL CONDITIONS OF CONTRACT

1. General

Where it is mentioned in the Specifications that the Contractor shall perform certain Work or provide certain facilities, it is understood that the Contractor shall do so at his own Cost.

The materials, design and workmanship shall satisfy the relevant Indian Standard, the Specification and conditioned herein referred to. Where the Specifications stipulate requirement in addition to those contained in the Standard codes and Specifications, these additional requirements shall also be satisfied.

2. Scope of work

The requirement, calls for a complete working system and not components thereof. Bids must be complete with all equipment and required accessories along with necessary power systems including standard video connectors, patch connectors, patch leads, mounting and fitting hardware, plugs, sockets and any hardware/ software, etc. as required for complete installation of the System under this contract.

The scope of this tender includes, Supply, installation and commissioning of IP based CCTV surveillance system, involving fixed camera and VMS compatible to the existing system.

3. Function requirement:

- 1) Easy and convenient operation
- 2) Stability
- 3) Back-up as evidence
- 4) Cameras shall be manufactured with high reliable components, with long lifespan.
- 5) The contractor shall ensure that the system is supplied, installed and commissioned as per user's satisfaction.
- 6) The contractor has to provide Media as required for all the software.
- 7) The installed system shall have the latest version of the applicable software.
- 8) The contractor shall customize the complete system as per user requirement.
- 9) The contractor shall provide software compatibility support to upgraded hardware if any, for the next 10 years.
- 10) The scope also includes making good defective materials/items and the workmanship during the guarantee/warranty period.

4. Site Conditions

• Location

The project area is at Willingdon Island, Cochin-682009.

• Rainfall

The climate is characterized by dry and wet seasons. The wet seasons starts in late May and ends in November. During this period, two monsoons pass by one after another. The major monsoon is south-west monsoon which lasts from June to September. This is followed by north-east monsoon during October and November. The average annual rainfall is about 3000mm; and the major portion is during south-west monsoon.

• Temperature

Cochin experiences moderate temperatures throughout the year. The temperature varies from 22°C to 34°C. The low temperature occurs during the southwest monsoon, December and January. Daytime temperature goes upto 30°C and during this period. The hot months are from March to May.

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Time Schedule and monitoring of progress

The contractor will be required to furnish a phased programme of the works as to how he intends to complete the work to the Employer within 7 days from the date of receipt of the Work Order/Letter of Acceptance from the Employer as mentioned in Clause no.6.2 of GCC.

5. Facilities to be provided by the Port

Electric power required for the work can be supplied by the department from the nearest existing line of the Port Authority at prevailing rates. The cost of drawing temporary lines/ cables/ providing switches and making connection and metering arrangements etc, shall be borne by the Contractor. If there is any disruption in the power supply due to supply failure/ restrictions imposed by the Kerala State Electricity Board, the department shall not be held responsible and the Contractor has to make suitable alternative arrangements at their cost.

6. Contractor's responsibility

- 6.1 All materials for use on the works shall be supplied and provided by the contractor at his own cost and shall conform to relevant BIS Specification unless otherwise specified
- 6.2 Samples of all materials including fixtures, if any, to be incorporated in the work shall be got approved by the Engineer-in-Charge before procurement.
- 6.3 The contractor shall thoroughly study the specifications and drawings and errors/omissions/modifications if any shall be brought to the notice of the Engineer-in-Charge well in advance so that a final decision in the matter could be given in time.
- 6.4 All labour, skilled or unskilled shall be provided by the contractor. Settling any dispute with the labour will be contractor's responsibility.
- 6.5 The contractor shall be solely responsible for any damage or injury to the persons or things caused or suffered during the execution of the work and these shall be made good or compensated at his risk & cost.
- 6.6 The contractor shall take all care and precautionary measures for avoiding any kind of damage/accident in the work site on any account. The department shall not entertain any claim from the contractor whatsoever towards compensation for any damage/accidents at the site due to negligence from his part, during the execution of work.
- 6.7 The contractor shall prior to commencement of the work insure in the joint names of the Employer and the contractor against all loss or damage from whatever cause arising for which he is responsible under the terms of contract.
- 6.8 The work shall be arranged by the contractor without causing any damage to Port's/ any other structures. Any damage caused by the contractor's operation shall be compensated/made good at contractor's risk and cost to the satisfaction of the Engineer-in-Charge of the works, failing which department will do the rectification work and the cost incurred will be recovered from any sum due to him from the Port.
- 6.9 All plants and equipments and consumables required for the whole work shall be provided by the contractor at his own cost.
- 6.10 The contractor shall not construct any structure, even of temporary nature, for any purpose at site, except with the written permission of the Engineer-in-Charge of the work and any construction so put up shall be removed by the contractor whenever the Engineer-in-Charge calls upon the contractor to do so.

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- 6.11 Qualified Engineers with sufficient experience in works of similar nature shall be available at site throughout the contract period during working hours in order to receive instructions from department and to implement them properly and in time.
- 6.12 The contractor shall take all care and precautionary measures for avoiding damage or accidents to the work from ship or other water crafts movements or other operations in the area. The department will not entertain any claim from the contractor whatsoever, towards compensation for any such damage or accident occurring during the execution of the contract.
- 6.13 The contractor shall observe all safety regulations during the execution of the work. Safety measures, precautions, warning signals etc. shall be done at the contractor's cost as directed by the Engineer-in-charge of the work. The contractor shall provide all necessary personnel protection equipments such as helmet, lifeguard, goggles, boots etc. to the workmen at his own risk and cost.
- 6.14 The work shall be arranged by the contractor without causing any hindrance to the ship and other water craft operating in the area. No damage shall be caused to the structures in the area, water crafts operating in the area or otherwise by the contractor's operations. Any damage or accident caused by the contractor's operations shall be compensated / made good at the contractor's risk and cost.
- 6.15 The contractor shall supply at his own cost monthly or at intervals as directed by the Engineer-in-charge, well executed photographs in standard size (approximately 24x18 cm) showing the progress of the work and also such other particular item of the work.
- 6.16 No information or photograph concerning the works shall be published without the prior permission of the Chief Mechanical Engineer and drafts of all such proposal/ publication shall be submitted for approval.
- 6.17 The information and data shown in the drawing and detailed elsewhere in the tender document are furnished for general information and guidance only and the Port Authority in no case will be held responsible for the strict accuracy thereof or any deduction, interpretation or conclusion drawn by the tenderer.
- 6.18 The contractor shall observe the conservancy rules relating to the Port and shall always take necessary steps to keep the Port water free of noxious or unhygienic matter due to the work, as are required by the Engineer-in-Charge. Under no circumstances, inflammable materials be allowed to spill into Port area.
- 6.19 The Cochin Port is an International Ship & Port Facility Security (ISPS) code compliant Port and the contractor is obliged to comply with the provisions of the code in force and as amended from time to time. The site for the proposed work is a protected area and hence security rules and regulations including obtaining entry/ exit passes including photo passes if any for vehicles, men and materials etc. for entering the area shall be observed by the contractor at his cost.
- 6.20 The contractor shall provide necessary arrangements as desired by the Engineer- in-Charge for inspection of work without any extra cost from commencement till completion of work.
- 6.21 The contractor shall ensure that no labourers with criminal background are engaged for the work.
- 6.22 All fossils, coins, articles of value or antiques and structures and other remains or things of geological or archaeological interest discovered in the site of work shall be deemed to be the absolute property of the Port Authority and the contractor shall take responsible precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal, acquaint the departmental officers of such recovery and carry out at the expense of the department, the Engineer-in-Charge's orders as to the disposal of the same.
- 6.23 The contractor shall remove any plant (floating or otherwise) belonging to him or to any person employed by him which might have sunk in the course of work or otherwise deal with the same as directed by the Engineer-in-Charge and until the same is raised and removed, the contractor shall set on such buoys and display at night such lights for avoiding any mishaps.

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- 6.24 Water required for the construction works including curing work shall be arranged by the contractor on his own cost.
- 6.25 The contractor shall take all precautions for not to damage any cables/pipes etc. passing through the area of work.
- 6.26 While carrying out hot works such as welding, cutting, chipping the concrete etc. the following conditions shall be strictly observed by the contractor:
- (i) Hot work shall be carried out with the approval of the Dy. Conservator's department and the work shall be done as per the instruction of the fire service personnel.
 - (ii) Welding/gas cutting work shall be carried out only with the prior permission of the Marine Dept. and only when vessel carrying inflammable materials is not berthed at the existing berths near to it.
- 6.27 The contractor shall remove all materials brought to work site /stacked at the work site or anywhere else within the Port area and clear the site at his cost to the full satisfaction of the Engineer-in-Charge before the site is returned to the Port Authority. All such materials including debris, tools & plants etc. shall be disposed off to any place as pointed out by the Engineer-in-Charge or be taken away from the location and shall be cleared in every respect and to reinstate to its original condition at no extra cost to the Port Authority immediately after completion of the work. In case, any such material is found left in the work site or anywhere in the Port area, rent for the storage space occupied by the contractor, either for stacking the materials/debris or for areas used for such purpose but not cleared thereafter, will be recovered as per the prevailing Scale of Rate of Cochin Port Authority, for the rent applicable for open storage space for commercial purpose, for the period for which the area had been occupied by the contractor. In addition to the above, in case the Port requires the area immediately for its use, Port will repossess the land after restoring it to its original condition, material will be confiscated and disposed off at the risk and cost of the contractor, after issuing two notices giving 15 days' time each for removing the material. All expenses incurred on this shall be recovered by disposing off the material if any confiscated. If any balance amount still remains to be realized that will be recovered from the contractor by appropriate means.
- 6.28 The contractor shall extend all the facilitations and cooperation for other contractors for simultaneous execution of other works in the area entrusted by Cochin Port Authority.
- 6.29 The contractor shall comply with all the provisions of the Indian Employees Compensations Act, Provident Fund Regulations, Employees Provident Fund and ESI Act etc. amended from time to time and rules framed there under and other laws affecting the contract labour that maybe brought in to force from time to time."
- 6.30 The contractor shall be registered under EPF and ESI Act and the employees employed under them shall be covered in the EPF and ESI scheme. LoA's shall be issued only to the contractors who are registered under EPF organization and ESI Corporation. The contractors shall regularly remit the employer and employee contribution to the authorities. If not, the Department would remit the same and the amount so remitted shall be deducted from the part/final bill of contractors.
- 6.31 The contractor shall provide, at every work place, at which 20 or more women workers are ordinarily employed, crèches of reasonable size and with adequate facility for the use of their children under at the age of six years at this risk and cost.

7. Workmanship

- 7.1 All the works shall be done strictly according to relevant B.I.S. Specifications unless otherwise specified.
- 7.2 The whole work shall be completed in a diligent manner within the contract period and defect or imperfection if any, observed during the defect liability period/ guarantee period, shall be rectified at contractor's cost to the full satisfaction of the Engineer-in-Charge within the time allowed.

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8. Temporary works

- 8.1 All scaffolding, staging, bracing and other temporary works required for proper execution of the works, shall be provided by the contractor at his own cost, unless stated otherwise and that should be inclusive of all materials, labour, supervision and other facilities. The layout and details of such temporary works shall have prior approval of the Engineer-in-Charge, but the contractor shall be responsible for proper strength and safety of the same. All temporary works shall be so constructed as not to interfere with any permanent work or with the work of other agencies. If it is necessary to remove any of the temporary works at any time to facilitate execution of works or work by other agencies, such removal and re erection, if required, shall be carried out by the Contractor at the direction of Engineer-in-Charge without any delay and any extra cost on this account shall be borne by the contractor.
- 8.2 On completion of the works, temporary works if any provided by the contractor shall be removed from the site and the area shall be reinstated to the original condition at his own risk and cost.

9. Time for Completion

- 9.1 The time allowed for carrying out the work as mentioned in the tender notice shall be strictly observed by the contractor. The work shall throughout the time period be preceded with diligence, time being deemed to be the essence of the contract.
- 9.2 The completion of work may entail working in monsoon period/rainy season without any extra cost. The contractor shall take such an eventuality into consideration while quoting for the work. Normally, no extension of time will be admissible for work in monsoon.

10. Working time

The normal working time of the Port Authority is from 8 a.m. to 4.00 p.m. on all working days with no interval in between. If the Contractor wishes to carryout the work beyond normal working hours and or on holidays, he should get specific approval from the Engineer-in-Charge for the same. Necessary supervision will be arranged by the department and the expenditure to be incurred in this connection will be borne by the department.

11. Method of Execution

The contractor shall clearly indicate in their tender the method proposed by them for executing the various items of works. During the actual execution of the works if modifications or changes in the method of execution of work are found necessary the contractor shall obtain approval from the Engineer-in-charge of work for such modifications or changes in the method. No claim from the contractor for additional payment shall be entertained by the department on the above account.

The detailed list of equipment/machineries/tools & plants proposed to be mobilized for the deployment in the work as furnished as per **Annexure-7** of Section- I and method of execution furnished under clause above, are considered only for the technical appreciation of the proposal of the contractors and it shall not relieve the contractor of his responsibility of executing the work with the quality specified in the tender and any discrepancy occurs, the construction procedures detailed/specified in the tender will prevail. In case, any additional equipment are required to be mobilized than those listed in the tender for deployment in the work, it shall be arranged and the work executed as per the tender specifications without any extra cost to the Department

12. Alterations and Additions

The Employer shall have power and authority from time to time and at all times to make amendments or additions or alternations or changes in the scope of the work, and specifications, drawings and bill of quantities and give such further instructions and directions as may appear to the Employer necessary and proper for the guidance of the Contractor and the good and efficient execution of the works and the contractor shall receive, obey and be bound by the same according to the true intent and meaning thereof as if the same had been mentioned or referred to in the scope of the work, specifications, Bill of Quantities and Schedules and drawings. The Employer may also vary or alter

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the lines, levels or positions of any of the works contemplated or may order any of the works contemplated thereby to be omitted, with or without the substitution of any other works in lieu thereof, or may order any work or any portion of works executed or partially executed to be removed, changed or altered, if required, and may order that other work shall be substituted in lieu thereof and any difference in the cost occasioned by any such diminution or alteration so ordered and directed shall be added to or deducted from the Contract Price based on rates available in the contract or where the rates are not specified a suitable rate backed up by rate analysis shall be submitted by the contractor and agreed upon between the contractor and the Employer. In the event of disagreement, the Employer shall fix such rates or prices as shall in their opinion, be reasonable and proper having regard to the circumstances. The contractor shall give to the Employer before the tenth day of every month, a statement in writing of any extra work which he may have performed during the preceding month, failing which any claim for which he may afterwards make for payment on account of any such extra work will not be allowed.

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SECTION VI
BILL OF QUANTITIES

Tender No. F1/T-3/CCTV-36-W.ISLAND/2025/M Dated 17.11.2025					
Tender for “ESTIMATE FOR PROVIDING CCTV AT VARIOUS LOCATIONS OF COCHIN PORT AUTHORITY”					
Bill of Quantities					
Name of Bidder					
No.	Description of Item	Quantity	Unit	DEPARTMENTAL ESTIMATE	
				RATE (Rs.)	AMOUNT (Rs.)
1	SUPPLY, INSTALLATION, TESTING & COMMISSIONING				
1	2 MP OUTDOOR TYPE PTZ CAMERA	1	No.	198000.00	198000.00
2	5 MP OUTDOOR TYPE MOTORISED BULLET CAMERA WITH VARIFOCA LENS	35	No.	66667.00	2333345.00
3	GI pole 3 inch dia. 5 metre long with Foundation	18	No.	10000.00	180000.00
4	Outdoor wall mount Rack/ IP 65 BOX with fan Network Accessories with Required Glands	12	No.	20000.00	240000.00
5	6 U indoor Rack With Tray , PDU and Cable Manager and Required Accessories	7	No.	10667.00	74669.00
6	POE Switch 8 port poe+ With 2 sf port With power budget of 55W	11	No.	19000.00	209000.00
7	POE Switch 4 port poe+ With 1 sf port With power budget of 55W	16	No.	13000.00	208000.00
8	SFP Module With Patch cord	86	No.	4500.00	387000.00
9	Polycarbonate junction box	3	No.	2500.00	7500.00
10	Network Surge Protector	68	No.	3500.00	238000.00
11	Lighting Arrestor	24	No.	2000.00	48000.00
12	Earthing Strip with Required Links and Earthing Compound	24	No.	3000.00	72000.00
13	MCB and Other Accessories	28	No.	1500.00	42000.00
14	6 Core SM Fiber Cable Armoured - 6-core Indoor/Outside Cable - Corrugated Steel tape Armored, Loose-tube, Drytube, FRLSZH Jacket, 9/125 SM OS2 along with Factory acceptance test and 25Y warranty	9750	Mtrs.	70.00	682500.00

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15	HDPE pipe 25/32 mm	5455	Mtrs.	50.00	272750.00
16	Cat6 U/UTP Double Jacketed Outdoor Cable with PE and LSZH jacket	1010	Mtrs.	70.00	70700.00
17	800 VA UPS With Inbult Battery	19	No.	6500.00	123500.00
18	PVC Conduit 25 mm isi Medium	300	Mtrs.	40.00	12000.00
19	Power Cable 3 core 1.5 sqmm	365	Mtrs.	120.00	43800.00
20	2000 VA UPS With Inbult Battery	1	No.	15000.00	15000.00
21	Pole Stucture with Foundation which could stand the conditions of the installation area(COT)	2	No.	15000.00	30000.00
22	P2P link for the the wireless communication	3	Nos.	175000.00	525000.00
23	Structure and earthing for the wireless communication	3	Nos.	20000.00	60000.00
24	Pendant for Fish Eye Camera	1	No.	2000.00	2000.00
25	Reposition of existing cameras -CFS	10	Nos.	2000.00	20000.00
26	Rack Mount Recorder consisting of following :	1	No	1965333.00	1965333.00
26.a	Supply, Installation, Testing and Commissioning of Video Management Software as per technical specification - Warranty 5 years & Software support with upgrades for 5 more years	1	LS		
26.b	Supply, Installation, Testing and Commissioning of of Central Video/ database Management Server with CPU : Intel i7 or better, RAM : 16 GB or better, OS Drive : 128 GB SSD or better Operating System : Microsoft Windows 10 or Ubuntu Linux 18.04, NIC : 2 x 1 Gbps as per Tender specification, Make- HP/ Bosch/ Dell/Lenovo/ Sony/Tyco - Warranty 5 years & Software support with upgrades for 5 more years	1	No.		
26.c	Supply, Installation, Testing and Commissioning of Camera Recording Server/NVR, Supports 128 Camera Recording, Capacity: Should have Minimum 20 Hard Disk Slots. Supports upto 340TB including RAID 5 and 6, Min 256GB SSD for OS & recording application software	2	Nos.		
27	18 TB HDD	18	No.	86667.00	1560006.00
28	High EndWork station	1	No	300000.00	300000.00
29	24 port POE + 4 SFP switch	1	No.	33333.00	33333.00
30	24 port GB switch with 4 port SFP Enterprise	1	No.	53333.00	53333.00

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31	24 port SFP Switch Enterprise	1	No.	300000.00	300000.00
32	43 inch Display Professional 24X7 Operational	2	Nos.	73333.00	146666.00
33	32 u rack With all accessories	1	No.	40000.00	40000.00
34	PTZ Joy Stick Controller	1	No.	70000.00	70000.00
	TOTAL SUPPLY CHARGES				10563435.00
II	TOTAL ERECTION CHARGES FOR ENTIRE LOCATION				
1	Splicing Charges	200	Nos	800.00	160000.00
2	Soft Soil Digging & resurfacing	500	Mtrs.	500.00	250000.00
3	Tar Cutting & resurfacing	530	Mtrs.	1000.00	530000.00
4	Conduit laying & pulling all over the wall	1000	Mtrs.	250.00	250000.00
5	Installation, Testing, Commissioning & Training charges	1	LS	100000.00	100000.00
	TOTAL ERECTION CHARGES FOR ENTIRE LOCATION				1290000.00
	TOTAL ESTIMATED COST (I + II)				11853435.00
III	AMC FOR 5 YEARS AFTER 2-YEAR GUARANTEE PERIOD				
	3 rd year				216825.00
	4 th year				227666.25
	5 th year				238507.50
	6 th year				1214795.03
	7 th year				1267612.20

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BIDDER'S QUOTING AREA**SCHEDULE B1**

Sl. No.	Description of Item	Departmental Estimated Cost	Percentage Quoted above / below the Departmental Amount		Above / Below	Bidder's Quoted Amount (Rs.)	
			*In Figures	In Words		In Figures	in Words
1	SITC OF CCTV AT VARIOUS LOCATIONS OF COCHIN PORT AUTHORITY	11853435.00					
II	Comprehensive Annual Maintenance Contract of CCTV surveillance systems						
	III rd YEAR	216825.00					
	IV th YEAR	227666.25					
	V th YEAR	238507.50					
	VI th YEAR	1214795.03					
	VII th YEAR	1267612.20					
	GRAND TOTAL(SITC OF CCTV + 5 YEARS CAMAC)						
*	Percentage shall be quoted above/ below the departmental amount for the SITC of CCTV & 5 years CAMC separately for each year, as shown in the above schedule.						
	Note: (1) The bidder shall quote either plus or minus sign (eg: +5 or -5) in figures and in words under the column "Percentage Quoted above / below the Departmental Amount". Only two decimal digits will be accepted for the percentage quoted under the column "In Figures"						
	(2) Bidders shall also themselves quote above/ below in the respective column.						
	(3) "Bidder's quoted amount" under columns "In Figures" and "In words" will appear automatically and the amount shall be checked and verified.						
	(4) The bidders are requested to check the final price before submitting the offer. No claims on the discount will be entertained after opening the price bid by the Cochin Port Trust. The (+) or (-) sign quoted by the bidder in the online portal will be final and bidders are advised to check the "Bidder's quoted amount" for correctness of discount / increase offered over and above the departmental estimate, before submitting the tender.						
" This is an Electronic Submission No Need of Signature"							

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