



# **COCHIN PORT TRUST**

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Website: [www.cochinport.gov.in](http://www.cochinport.gov.in)

## **TENDER DOCUMENT FOR ADDITIONAL WORKS AT THE JETTY, BUILDINGS AND LAND AREAS OF GOI AT COCHIN PORT**

### **TECHNICAL BID**

(e-Tendering Mode)

Website: [www.tenderwizard.com/COPT](http://www.tenderwizard.com/COPT)

Tender No.T10/T-1942/2021-C

**COCHIN PORT TRUST  
CHIEF ENGINEER'S OFFICE  
COCHIN-682 009**

**Price: Rs.2,240/-(2,000+ 12% GST)**

**COCHIN PORT TRUST**  
**CIVIL ENGINEERING DEPARTMENT**

Tender No:T10/T-1942/2021-C

Tender for

**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**  
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# **SECTION -I**

**COCHIN PORT TRUST**  
**CIVIL ENGINEERING DEPARTMENT**

Tender No:T10/T-1942/2021-C

Tender for  
**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

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**SECTION I  
COCHIN PORT TRUST**

**Chief Engineer's Office  
Cochin Port Trust  
W/Island , Cochin – 682009,  
KERALA  
Tele: 91-0484-2666414/0484-258-2400  
website: www.cochinport.gov.in**



**Tender No.T10/T-1942/2021-C**

**Date :13/04/2021**

**1.NOTICE INVITING TENDER**

1. Electronic Tenders (**e-tenders**) on percentage basis are invited by Cochin Port Trust from reputed contractors in Single Stage Two Cover bidding procedure [Technical Bid and Financial Bid], meeting the Minimum Eligibility Criteria specified below for the work of **“Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port”**.

2. **Minimum Eligibility Criteria:**

**a) Experience**

The tenderers should have experience of having successfully completed during the last 7 (seven) years ending **31<sup>st</sup> March, 2021**, at least either:

i) Three Similar Works each costing not less than **Rs.176.31 lakhs**

**(OR)**

ii) Two Similar Works each costing not less than **Rs.220.39 lakhs**

**(OR)**

iii) One Similar Work costing not less than **Rs.352.62 lakhs**

**b) Financial Turnover**

Average Financial Turnover of the tenderer over the last three financial years ending 31<sup>st</sup> March of the previous financial year [2017-'18, 2018-'19 & 2019-'20] shall not be less than **Rs.132.23 lakhs**.

**Explanatory Notes to a) & b) :**

**Note 1:- Similar Work(s) means “Building Construction / Building repair works ”**

**Note 2:-** Following enhancement factors 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.

**Table 1**

<b>Year before</b>	<b>Multiplying factor</b>
One year [March,2020]	1.07
Two years [March, 2019]	1.14
Three years [March, 2018]	1.21
Four years [March, 2017]	1.28
Five years [March, 2016]	1.35
Six years [March, 2015]	1.42

**Note 3:-** *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.*

**Note 4:-** *Satisfactory Client / Owners's Certificate or documentary proof shall be submitted in support of the assignments / works performed and claimed by the tenderer to fulfill the eligibility criteria for qualification. A statement duly certified by the Chartered Accountant showing the Average Annual Financial Turnover over the last 3 financial years and audited financial statements for the last three years shall be submitted.*

**Note 5:-** *The works reckoned for the above purpose are those executed by the tenderers as prime contractor or proportionately as member of joint venture or as a sub-contractor authorized and approved by the Employer of the work(s) against which the tenderer has claimed his experience; it will be considered for qualification only if documentary proof of such authorization / approval of the Employer are submitted.*

### **3. Other Eligibility Considerations**

**3.1** Even though the bidders 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 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, black listing/ debarring by Govt. departments etc.

**3.2** **The bidders having EPF/ ESI registration certificates only shall be considered for qualification in the tenderers, if applicable, as per EPF /ESI Acts. In case, the Tenderer does not have the required number of employees which makes such registration mandatory, an Undertaking as per Annexure – 13 to the effect shall be furnished.**

4. **Pertinent information to the tender is given in the following Tables:**

i) **Schedule of different activities till submission of the bid are detailed as under:**

**Table 2**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Date and Time</b>
1	Tender e- publication date	<i>15-04-2021</i>
2	Download period of Bid Documents	<i>15-04-2021 to 06-05-2021</i>
3	Date of Pre-Bid meeting	<i>22-04-2021</i>
4	Last date for seeking clarification	<i>21-04-2021</i>
5	Last date and time of submission of Bid	<i>06-05-2021 up to 15.00 hrs</i>
6	Date and time of opening the Bid	<i>06-05-2021 after 15.30 hrs</i>

ii) **Bid information :**

**Table 3**

i)	Estimated Amount put to Tender	<b>: Rs.440.78 lakhs.</b>
ii)	Earnest Money Deposit	<b>:NIL</b> However, EMD Declaration shall be submitted along with Bid as per <i>Annexure – 2.</i>
iii)	Cost of Bid document	<b>Rs.2,240/-</b> (Rs.2,000 + 12% GST) (Non refundable) furnished either through Demand Draft/ Banker's Cheque drawn in favour of the Financial Adviser & Chief Accounts Officer, CoPT from any Nationalized Bank/ Scheduled Bank in India, being the cost of single copy of the tender document
iv)	Validity period of Tender	120 days from the Last Date of Submission of Bid.
v)	Time for Completion	<b>4 (Four) months</b>

5. This work essentially comprises of various Civil works in the following areas:

- (i) At Jetty area
- (ii) Providing Guard Piles near Approach Trestle of Jetty



- (iii) Pump House at Main Jetty
  - (iv) Technology Building at Jetty area
  - (v) Security Building near Connecting Bridge to Navy
  - (vi) Drishti Building near Container Freight Station (CFS)
  - (vii) GoI's lands near Kendriya Vidyalaya Port Trust and Vathuruthy Railway Gate
6. Tender documents can be downloaded from the e-Tendering portal [www.tenderwizard.com/COPT](http://www.tenderwizard.com/COPT) on the dates specified in Table 2 given above by making online requisition. Bid document will also be available in Cochin Port website ([www.cochinport.gov.in](http://www.cochinport.gov.in)) as well as Govt. tender website, [www.tenders.gov.in](http://www.tenders.gov.in), which can be downloaded for submission. The cost of bid document shall be furnished in the form of Demand Draft/ Banker's Cheque drawn in favour of FA & CAO, CoPT along with the submission of bid.
  7. 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 of **Rs.1124/-** by online Payment using Credit/Debit Card/Net banking or DD in favour of "KSEDCL, Bangalore".
  8. 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.
  9. Tenders shall be submitted "**online**" strictly in accordance with the Instructions to Tenderers and Terms & Conditions given in the tender document.
  10. 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 incomplete Tender Documents may be rejected.**
  11. All Bids are to be submitted **online only** on the website [www.tenderwizard.com/COPT](http://www.tenderwizard.com/COPT). No Bids shall be accepted off-line (Hard copy).
  12. Cochin Port Trust will not be held responsible for any technical snag or net work failure during online bidding. It is the bidder's responsibility to comply with the system requirements i.e. hardware, software and internet connectivity at bidder's premises, to access the e-Tender portal. Under any circumstances, Cochin Port Trust 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 system or internet connectivity failures.
  13. Bid Security / EMD is not applicable for this Tender. Instead "EMD Declaration" in lieu of EMD as per **Annexure – 2** shall be furnished by the Bidder.
  14. The Bidder shall submit Originals of: (i) DD / Banker's Cheque towards the cost

of Tender document, (ii) EMD Declaration; and (iii) Power of Attorney in favour of signatory(s) to the tender along with letter of submission in a sealed cover **to the Chief Engineer, Cochin Port Trust, W/Island, Cochin – 682009, KERALA**, before opening date and time of the tender. **Non submission of original financial document towards cost of Tender document and EMD Declaration, before opening date and time, of the Tender will be liable for rejection.**

15. MSME Bidders who are registered with District Industries Centre (DIC) or Khadi and Village Industries Commission (KVIC) or Khadi and Village Industries Board (KVIB) or Coir Board or National Small Industries Corporation (NSIC) or directorate of Handicrafts and Handlooms or Udyog Aadhaar Memorandum or any other body specified by Ministry of MSME for similar nature of Works shall be eligible for issue of Bid Document free of cost. They are required to submit documentary proof of such registration along with the offer, as detailed in Instructions to Bidders, for claiming the available exemptions and a 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.
16. Integrity Pact (IP) shall cover this Tender throughout its various phases, and IP would be deemed as a part of the contract through an appropriate provision. The bidders should sign and submit an “Integrity Pact” to be executed between the bidder and Cochin Port Trust in a separate envelope superscribed “Integrity Pact” before due date and time of the tender. Bids not accompanied by a duly signed “Integrity Pact” shall be liable for rejection. IP would be implemented through the following Independent External Monitor (IEM) for this tender.

Shri. P R Ravikumar, IRS (Retd.)  
Akshath, No.84, First Avenue,  
Kumaranasan Nagar, Elamkulam (PO),  
Ernakulam - 682020

For full details of the scheme of IP, you may visit the website of Central Vigilance Commission, New Delhi.

17. The undersigned reserves the right to reject/cancel/postpone any one or all tenders at any stage of the tender, which shall be binding on all bidders.

**CHIEF ENGINEER  
COCHIN PORT TRUST**

**SECTION I  
COCHIN PORT TRUST**

**2.INSTRUCTIONS TO TENDERERS**

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# SECTION I COCHIN PORT TRUST

## 2. INSTRUCTIONS TO TENDERERS

### 1. Introduction

This tender is invited for “Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port”. The work essentially comprises of the following:

**(a) Modifications to Pump House at Main Jetty:**

- (i) Providing side covering to the Terrace floor,
- (ii) Providing of sliding type UPVC windows,
- (iii) Providing false ceiling with Calcium Silicate Boards,
- (iv) Providing Entry door and venetian blinds to the windows on Terrace floor
- (v) Providing WHB and water connections

**(b) Modifications and Special repairs to Drishti Building near CFS:**

- (i) Special Repairs to damaged columns, beams and windows
- (ii) Special Repairs to prevent water seepage on all floors,
- (iii) Providing side covering to the Terrace floor
- (iv) Providing UPVC windows.
- (v) Providing false ceiling with Calcium Silicate Board.
- (vi) Providing Flooring with vitrified tiles.
- (vii) Replacement of CGI sheets (old and rusted) and ridge of Terrace floor roof with pre painted galvalume sheets and providing associated facilities.

**(c) Providing Electronic Toilets & Store at various places of GoI**

- (i) Providing electronic toilets with water connections at Jetty area and land plots near KV Port Trust and Vathuruthy Railway gate,
- (ii) Providing Temporary shed of size 20m x 8m x 4m at land plot near KV Port Trust.

**(d) Modifications to Technology Building at Jetty area:**

- (i) Providing Security Shelter for CISF
- (ii) Providing ACP louvers with frame work to cover utility lines,
- (iii) Providing stainless steel hand rail on Terrace floor of Technology building,
- (iv) Providing guard bar/grills to louvered window at Ground Floor,
- (v) Providing Granite-top counter at window sill in Security Office,
- (vi) Providing steel ventilator all around Terrace floor roof,
- (vii) Providing sun control film for glass panels of SS door at terrace floor & door stopper for door on all floors.
- (viii) Providing additional CPVC water supply lines at Ground floor.

**(e) Additional Works At Jetty:**

- (i) Providing 'D' fender 150 x 150mm size to the side of boat landing jetty
- (ii) Providing &filling of expansion joints in the deck slab with Polysulphide Sealant.
- (iii) Providing CPVC water supply lines at Jetty

**(f) Modifications to Security Building near Connecting Bridge:**

- (i) Shifting the existing Polyethylene water tank from Terrace to the roof top of Spiral staircase,
- (ii) Providing MS Roof Truss with fixtures at Terrace floor,
- (iii) Providing PVC Eaves Gutter, rainwater down pipes etc.,
- (iv) Providing false ceiling with calcium silicate boards,
- (v) Providing sliding type UPVC door, windows & venetian blinds,
- (vi) Providing vitrified tile flooring
- (vii) Providing electronic toilets with water connections.
- (viii) Providing Granite-top counter at window sill.

**(g) Providing Guard Piles near Approach bridge of GoI jetty (41 Nos.):**

- (i) Providing mild steel (MS) Tubular Fender Piles with MS bracings,

**2. General Instructions**

- 2.1 The work is to be executed as described in the Bid document and in particular in the Technical Specifications, Special Conditions, Schedule of Quantities and Drawings and in general includes, but is not limited to supplying all including consumables and equipment necessary to execute the work as described in the Bid Document.
- 2.2 Before submitting the Bid, the bidder shall examine carefully all conditions of contract, specifications, drawings etc. supplied herewith. The bidders shall inspect the site of work with prior appointment with the concerned Section Engineer 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, particularly those pertaining to transportation, handling and availability and storage of materials, availability of labour, weather conditions, tidal variations at site, working conditions, ground level, nature of soil etc. and that the tenderer has estimated his cost accordingly; the Port Trust 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 bidder of any of the obligations in performing the work in accordance with this Bid Document including Addenda / Corrigenda, within the quoted price.
- 2.3 A bidder shall be deemed to have full knowledge of all documents, site conditions etc. whether he has inspected them or not. 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 bidders 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 EMPLOYER will not be liable for any financial obligation in connection with the work until such time the EMPLOYER has communicated to the successful bidder in writing his decision to entrust the Work (covered by the bid document issued to him).
- 2.7 E-mail offers will not be considered. Bidders should prepare their bid themselves and submit it "online". Bids submitted by agents will not be recognized.
- 2.8 Bids received after the due date and time and any change in bid after the specified date & time will be rejected. EMPLOYER will not be responsible for the loss of the bid document 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 prescribed 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 Trust. Bid received from any bidder may be summarily rejected on National security consideration without any intimation thereof to the bidder.
- 2.11 If there are varying or conflicting provisions made in any document forming part of the contract, the Chief Engineer, Cochin Port Trust, Cochin – 682009, shall be the deciding authority with regard to the intention of the document which shall be binding on the Bidder.
- 2.12 In case the department desires to inspect the equipments/ machinery for confirmation of its availability and capacity etc., necessary arrangements shall be made by the contractor for such inspection at his own cost.
- 2.13 Any error in description, and any omissions there from shall not vitiate the contract or release the Contractor from the execution of whole or any part of the works comprised therein according to drawings 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 Engineer, Cochin Port Trust directly by the issuing bank under registered post with AD. The Contractor shall take the responsibility of sending BGs directly to the Port Trust 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 into 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 – 13 to the effect shall be furnished.*
- 2.17 *The Contractor shall regularly remit the Employer and Employee contribution to the authorities. If not, the Employer would remit the same and the amount so remitted shall be deducted from the part/final bill of Contractor.*
- 2.18 *The contractor shall be registered under GST and shall furnish documentary evidence in support of valid GST registration.*
- 2.19 MSME Bidders who are registered with District Industries Centre (DIC) or Khadi and Village Industries Commission (KVIC) or Khadi and Village Industries Board (KVIB) or Coir Board or National Small Industries Corporation (NSIC) or directorate of Handicrafts and Handlooms or Udyog Aadhaar Memorandum or any other body specified by Ministry of MSME for similar nature of Works shall be eligible for issue of Bid Document free of cost. They are required to submit documentary proof of such registration along with the offer, as detailed in Instructions to Bidders, for claiming the available exemptions and a 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 under Minimum Eligibility Criteria, their Tender will be rejected.
- 2.20 If a bidder has already been awarded or qualified for a similar nature work with a higher value or equivalent value within the last 6 months from the date of Notice Inviting Tender, the tender of such bidder shall be evaluated / considered for qualification with the documents submitted by the bidders in those tenders **provided the Bidder clearly states the details of above such works in the Letter of Submission.**
- 2.21 In the Letter of submission, the Bidder shall compulsorily indicate 2 nos. of current active e-mail IDs to which further Bid related communication can be sent by CoPT. All communication from CoPT shall be deemed to have been delivered when the e-mail is sent to the specified e-mail ID and the date of sending the e-mail by CoPT shall be considered as the receipt by the Bidder. CoPT shall no way be responsible for the non-receipt of any such communication by the Bidder whatever be the reason due to which this has occurred.

### **3. Invitation for Bids:**

The Invitation for Bids is open to all eligible bidders meeting the Minimum Eligibility Criteria.

### **4. Downloading of Tender Documents:**

Tender documents can be downloaded from the e-Tendering portal [www.tenderwizard.com/COPT](http://www.tenderwizard.com/COPT) on the dates specified in NIT by making online requisition. Tender document can also be downloaded from Cochin Port website [www.cochinport.gov.in](http://www.cochinport.gov.in) or Government of India (GOI) tender portal [www.tenders.gov.in](http://www.tenders.gov.in). Demand Draft /Banker’s cheque for cost of tender document drawn in favour of the Financial Adviser & Chief Accounts Officer(FA



&CAO), CoPT from any Scheduled / Nationalized Bank having its branch at Cochin shall be submitted at the time of submission of bids and scanned copy of the same shall be attached with the e-tender.

In case of tender document being downloaded from the website, at the time of uploading, the tenderer shall give an undertaking that no changes have been made in the document. Port's Tender document will be treated as the authentic Tender document 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.

**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 cost of visiting the site shall be at the Bidders' own expense.

**9. Clarification of the Bidding Documents:**

- 9.1 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 Engineer in writing at the following address, so as to reach him at least by **21-04-2021**. It is to be noted that no queries, clarifications will be answered after this date.

THE CHIEF ENGINEER,  
CHIEF ENGINEER'S OFFICE,  
COCHIN PORT TRUST,  
WILLINGDON ISLAND,  
KOCHI-9,  
KERALA, INDIA.

Ph: - 91-0484-2666414/2582400.

Fax:-91-0484-2666414.

Email: [coptce@gmail.com/ce@cochinport.gov.in](mailto:coptce@gmail.com/ce@cochinport.gov.in)

**9.2 Pre-Bid Meeting:**

**Online Pre-Bid meeting will be held for this Tender on 22-04-2021.**

The Bidders who need clarifications on any specific issue shall inform the

Employer in writing latest by before **21-04-2021** at the address given in the Clause 9.1 above. No queries/clarifications on Bid Document shall be entertained after this date. The replies/clarifications/decisions shall be hosted at the Cochin Port Trust website [www.cochinport.gov.in](http://www.cochinport.gov.in), e-Tendering Portal and CPP Portal.

At any time prior to the deadline for submission of Bid, CoPT may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the Bid Document by the issuance of Addenda /Corrigenda.

**Any Addenda/ Corrigenda / Errata/ Replies to the queries of Bidder etc., if any, issued by CoPT will be hosted in Cochin Port Trust website [www.cochinport.gov.in](http://www.cochinport.gov.in), e-Tendering Portal and CPP Portal only and the Bidder shall be responsible to check and download those Documents, if any, issued by CoPT, from the website before submission of Bid. Bids with any shortfall in uploading the said Addenda/ Corrigenda / 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 incomplete Tender Documents may be rejected.** In order to afford Bidders with reasonable time to take an Addendum into account, or for any other reason, the CoPT may, at its discretion, extend the Bid Submission Date and the Bid extension notice shall be hosted in the websites only.

**10. Amendment of Bidding Documents:**

The Chief Engineer, Cochin Port Trust shall have the right to omit or suspend certain items of work or 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 documents. The Addenda / Corrigenda, if any, shall only be hosted in the e-tender portal as well as in the website of the Cochin Port. It is the responsibility of the Bidders to download such Addenda / Corrigenda hosted in the website and submit the same duly signed along with the Bid. In order to afford the Bidders with reasonable time to take Addendum into account, or for any other reason, the Port Trust may, at its discretion, extend the due date for submission of Bid and bid extension notice shall be hosted in the web site.

**11. Preparation of bids:**

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

**12. Minimum Eligibility Criteria:**

**(a) Experience**

The tenderers should have experience of having successfully completed during the last 7 (seven) years ending **31<sup>st</sup> March, 2021**, at least either:

iv) Three similar works each costing not less than **Rs.176.31 lakhs**

**(OR)**

v) Two similar works each costing not less than **Rs.220.39 lakhs**

(OR)

vi) One similar work costing not less than **Rs.352.62 lakhs**

**(b) Financial Turnover**

Average Financial Turnover of the tenderer over the last three financial years ending 31<sup>st</sup> March of the previous financial year [2017-'18, 2018-'19 & 2019-'20] shall not be less than **Rs.132.23 lakhs**.

**Explanatory Notes to (a) & (b):**

**Note 1:- Similar work(s) means “Building Construction / Building repair works”**

**Note 2:-** Following enhancement factors 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.

**Table 1**

<b>Year before</b>	<b>Multiplying factor</b>
One year [March, 2020]	1.07
Two years [March, 2019]	1.14
Three years [March, 2018]	1.21
Four years [March, 2017]	1.28
Five years [March, 2016]	1.35
Six years [March, 2015]	1.42

**Note 3:-** *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.*

**Note 4:-** *Satisfactory Client / Owner’s Certificate or documentary proof shall be submitted in support of the assignments / works performed and claimed by the tenderer to fulfill the eligibility criteria for qualification. A statement duly certified by the Chartered accountant showing the average annual Financial Turnover over the last 3 financial years and audited financial statements for the last three years shall be submitted.*

**Note 5:-** *The works reckoned for the above purpose are those executed by the tenderers as prime contractor or proportionately as member of joint venture or as a sub contractor authorized and approved by the Employer of the work(s) against which the tenderer has claimed his experience; it will be considered for qualification only if documentary proof of such authorization / approval of the Employer are submitted.*

**13. Other Eligibility Considerations**

13.1 Even though the bidders 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 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, black listing/ debaring by Govt. departments etc.
- 13.2 **The bidders having EPF/ ESI registration certificates only shall be considered for qualification in the tenderers, if applicable, as per EPF /ESI Acts. In case, the Tenderer does not have the required number of employees which makes such registration mandatory, an Undertaking as per Annexure – 13 to the effect shall be furnished.**

#### **14. Bid Prices:**

##### **14.1 Percentage Basis Contract**

The Bidder shall fill the percentage above / below in the Bidder's Quoting Area under "Percentage Quoted" in the Schedule-II (Schedule of Quantities to be done on Contract) both in **figures and words**. The Bidder shall also fill 'Above / Below' column.

- 14.2 On scrutiny, if there are differences between the percentage given in figures and in words, the following procedure shall be followed:-

- a) When there is a difference between the percentage quoted in figures and in words, the percentage in words shall be taken as correct.
- b) When the sign (+) / (-) and Above / Below does not correspond with each other, the "words" under "Above / Below" shall be taken as correct.

##### **14.3 Rates Quoted**

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 excluding Goods and Service Tax (GST). GST as may be applicable from time to time shall be shown separately in the invoice.

- 14.4 The Contract shall be for the whole Work based on the priced Bill of Quantities submitted by the Bidder. **The Bidder should ensure that his tendered percentage as per Price Bid is not mentioned anywhere in any documents in Technical Bid submission, directly or indirectly. If any such mention is made, the tender will become invalid and shall become liable for rejection.**

##### **14.5 Currencies of Bid and Payment:**

The unit rates and the prices shown in Schedule II of this document are in Indian National Rupees (INR).

#### **15. Bid Validity:**

Bids shall remain valid for a period not less than one twenty days (120 days) from the deadline date for bid submission. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.

In exceptional circumstances, prior to expiry of the original time limit, the Employer may request the Bidder to extend the period of validity for an additional period. The request and bidders response shall be made in writing. A bidder

agreeing to the request will not be permitted to modify his bid (ie, the extension shall be unconditional).

**16. Bid Security / EMD:**

- 16.1 Bid Security / EMD is not applicable for this tender. However, “Bid Security / EMD Declaration” accepting that the Bidder shall be suspended and shall not be eligible to participate in the Bids invited by Cochin Port Trust, for a period of Two years from the date of such Suspension Order in lieu of EMD as per *Annexure – 2* shall be furnished by the Bidder.

**17. No Alternative Proposals by Bidders:**

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

**18. Format and Signing of Bid:**

- 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 person holding a proper power-of- attorney authorizing 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 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 authorized person who shall produce with the tender satisfactory evidence of the authorization. In the case of a Limited Company the tender should be accompanied by the Memorandum and Articles of Association of the Company.

**19 Bid Submission:**

- 19.1 Bid shall be submitted in two parts, **Part - I: Technical Bid** and **Part - II: Price Bid** through **e- tender mode before 15.00 Hrs on 06-05-2021.**
- 19.2 The Technical Bid document and the scanned copies of the documents as detailed in clause 20 below shall be submitted through e-Tendering mode on **[www.tenderwizard.com/COPT](http://www.tenderwizard.com/COPT).**
- 19.3 Price bid (Schedule-II) in the provided format shall be submitted **only through e-tendering mode on [www.tenderwizard.com/COPT](http://www.tenderwizard.com/COPT)** before 15.00 Hrs on **06-05-2021. In no case shall filled in Price Bid (Schedule II) be submitted in hard copy, as it shall result in rejection of the tender.**
- 19.4 Tenders shall be submitted “**online**” strictly in accordance with the Instructions to Tenderers and Terms & Conditions given in the tender document. The bidders shall submit scanned copy of all the required documents such as DD / Banker’s

Cheque towards the cost of tender, proof of experience, financial details etc. through the e-tendering portal.

- 19.5 The Bidder shall submit **Original (i) DD / Pay Order / Bankers Cheque towards the cost of Tender document,(ii) EMD Declaration,(iii) Power of Attorney and (iv) Integrity Pact** along with Letter of submission in a sealed cover, super scribing thereon the Tender Number, Name of Work, date notified for submission of tender and the name of the tenderer. Tenders can be brought either in person or sent by registered post/ courier to the Chief Engineer, Cochin Port Trust, W/Island, Cochin - 682009, KERALA, before opening date & time of the tender. Tenders brought in person, shall be put in the Tender Box on or before the due date and closing time specified above.
- 19.6 **Tenders without submitting the original documents towards (i) Cost of tender document, (ii) EMD Declaration, (iii) Power of Attorney; and (iv) Integrity Pact as above, before opening date and time of the tender will be liable for rejection.**
- 19.7 The successful Bidder shall submit original copy of complete Technical Bid already submitted in e-mode within 7 days of receipt of Letter of Acceptance issued for the work.

## **20 Information Required in the Bid**

### **20.1 Part I -Technical Bid** shall contain the following:

- a) Letter of Submission (vide *Annexure-1*)
- b) Bid Security / EMD Declaration as per *Annexure-2*.
- c) Cost of Tender Document
- d) Check list as per *Schedule I* attached along with Technical Bid in the e-Tendering Portal
- e) Power of Attorney (in original) in favour of signatory/s to the Tender, duly authenticated by Notary Public. (vide *Annexure-3*)
- f) Organization Details (vide *Annexure-4*)
- g) Details of experience as per *Annexures -5a &5b* and Certificates in proof of experience in Similar Works as detailed under Clause 12 of Instructions to Tenderers.

#### **Explanatory notes:**

- (1) 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 a work order shall be attached. The certificate shall invariably contain the following among other things.
  - (i) Details of work involved specifying the nature of work
  - (ii) The completion cost of the work
  - (iii) Date of commencement ; and
  - (iv) Date of completion of the work.
- (2) 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.

(3) If the experience in Similar Works is as a subcontractor, Notary attested copy(s) of approval issued by the Employer(s) authorizing as a sub-contractor; in proof of the claim of the tenderer as a sub-contractor shall be attached.

**(4) The works indicated in Annexure-5a will only be considered for evaluation. Mere submission of work completion certificate will not be considered towards Eligible Assignments**

- h) A statement duly certified by Chartered Accountant showing the Average Annual Financial Turnover of the tenderer over the last three financial years [2017-'18, 2018-'19 & 2019-'20] (vide *Annexure-6*) supported by Audited Financial statements for the last three years.
- i) Form of Bid duly signed and sealed
- j) **Bid document including all Addenda / Corrigenda duly signed and sealed**
- k) Partnership Deed or Memorandum and Articles of Association of the Company and Registration certificate of the company as the case may be.
- l) **Copies of EPF ,ESI,PAN and GST registration**
- m) Documentary proof for NSIC registration, if applicable.
- n) A detailed Method Statement (Technical Note) for carrying out of the works, along with an Implementation Schedule showing sequence of operation and the time frame for various segments of temporary and permanent works.(vide *Annexure-7*). The information provided will form part of the Work Methodology and the same shall be in line with the Specifications and Bill of quantities.
- o) A list of Plant and equipment proposed to be engaged for the work (vide *Annexure-8*).
- p) A declaration to the effect that (vide *Annexure-9*):-
  - i) All details regarding construction plant and machinery, temporary work and personnel for site organization considered necessary and sufficient for the work have been furnished in the *Annexure-7* and that such plant, temporary works and personnel for site organization will be available at appropriate time of relevant works for which the equipment have been proposed at site till the completion of the respective work.
  - ii) 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 bidder.
  - iii) We have not made any payment or illegal gratification to any persons/ authority connected with the bid process so as to influence the bid process and have not committed any offence under PC Act in connection with the bid.
  - iv) We disclose with that we have made / not made (strike out whichever is not applicable) payments or propose to be made to any intermediaries (agents) etc in connection with the bid.
  - v) We do hereby confirm that no changes have been made in the Tender

document uploaded by us for the above bid. Port Tender document will be treated as the authentic Tender Document 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.

- q) Bank information for e- Payment system as per *Annexure-10*.
- r) Integrity Pact duly signed as per *Annexure-11*
- s) Details of litigation history, blacklisting etc. of the Bidder as per *Annexure-12*.
- t) Undertaking regarding EPF & ESI Registration as per *Annexure-13*.

**20.2 Scanned copy of all the above documents shall be uploaded for on line submission of Technical Bid.**

***NOTE: If a bidder has already been awarded or qualified for a similar nature work with a higher value or equivalent value within the last 6 months from the date of notice inviting tender, the tender of such bidder shall be evaluated / considered for qualification with the documents submitted by the bidders in those tenders, provided the Bidder clearly states the details of above such works in the Letter of Submission.***

**20.3 List of Documents to be Submitted in Original.**

- i) DD / Pay Order / Bankers Cheque towards Cost of Tender document
- ii) Bid Security / EMD Declaration as per *Annexure-2*.
- iii) Power of Attorney, duly authenticated by Notary Public (vide *Annexure-3*)
- iv) Integrity Pact duly signed (vide *Annexure-11*)
- v) Letter of Submission (vide *Annexure-1*)

**20.4 Part II : "Price Bid" shall contain the Preamble to BoQ and Bill of Quantities-Schedule II shall be duly filled in and fully priced, which shall be submitted only in e-tendering mode.**

**21 Deadline for Submission of the Bids:**

E-tenders attaching all documents shall be submitted 'online' in the **e tender portal** strictly in accordance with the terms and conditions of tender document before ***the time and the day notified*** in Table 2 of NIT.

The (i) Original DD / Pay Order / Bankers Cheque towards the Cost of Tender document,(ii) Bid Security / EMD Declaration,(iii) Power of Attorney; and (iv) Integrity Pact along with letter of submission in a sealed cover in original super scribed with the Tender Number, Name of Work, date notified for submission of tender and the Name of the Tenderer, should reach the office of the Chief Engineer, Cochin Port Trust, Cochin-9, on or before the time and the day notified in Table 2 of NIT.

**22 Late Bids:**

Any Bid received by the Employer after the Bid Due Date will be returned unopened to the bidder.



## 23 Bid Opening

- 23.1 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.
- 23.2 **Technical Bid:** Technical Bid shall be opened in the office of the **Chief Engineer, Cochin Port Trust** after **15.30** Hours on the last date fixed for receiving the Tenders. Submission of EMD Declaration and Cost of Tender Document is verified initially. In case the Earnest Money Declaration and Cost of Bid Document are not deposited/submitted or is not in order, the Bid will not be opened further and hard copy submitted will be returned.
- 23.3 If all Bidders have submitted unconditional Bids together with requisite Bid Security/ EMD Declaration, then all Bidders will be so informed then and there. If any Bid contains any deviation from the Bid documents and /or if the same does not contain Bid Security Declaration 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.

## 24 Bid Opening – Price Bid:

Price Bid of those Tenderers found responsive on evaluation of Technical Bids, will be opened later. **Short listed bidders will be communicated about the date and time of opening of the Price Bid through e-tender portal notification / communication and there will be no direct communication from department in this regard.** The Bidder's name, the Bid percentages, 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.

## 25 Clarification of Bids:

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.

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.

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.

## 26 Examination of Bids and Determination of Responsiveness:

- 26.1 Prior to detailed evaluation of Bids, Cochin Port Trust will determine whether each Bid
- (a) meets the Minimum Eligibility Criteria defined in Clause 12.
  - (b) has been properly signed by an authorised 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 Declaration and cost of bid document.
- (d) Undertaking in the Technical Bid that he has not incorporated any conditions in the Price Bid.

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;

- i) which affects in any substantial way the scope, quality or performance of the Works;
- ii) which limits in any substantial way, the Employer's rights or the Bidder's obligations under the Contract; or
- iii) whose rectification would affect unfairly the competitive position of other Bidders presenting responsive Bids.

- (e) is responsive to the requirements of the Bidding documents.

26.2 If a Bid is not substantially responsive, it shall be rejected by the Employer, and shall not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

## **27 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 detailed in Clause 14.2

The amount stated in the Bid will be adjusted by the Employer in accordance with the above stated procedure for the correction of errors and 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 16.2.

## **28 Evaluation and Comparison of Bids:**

The Employer will evaluate and compare only the Bids determined to be responsive in accordance with Clause 27. In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

- (a) making any correction for errors pursuant to Clause 28;
- (b) making appropriate adjustments to reflect discounts or other price modifications offered.

## **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 Proposals:**

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 12, and
- (b) Qualified in accordance with the provisions of Clause 12.

### **32 Performance Security:**

32.1 Within not later than 21 days of receipt of the Letter of Acceptance, the Successful Bidder shall deliver to the Employer a Performance Security in the form of Bank Guarantee (BG) for an amount equivalent to **3%** of the Contract price rounded off to the nearest Rs.1,000/- in the following forms;

- (i) Banker's Cheque/Demand Draft/Pay Order from any Nationalized Bank / Scheduled Bank.
- (ii) An irrevocable Bank Guarantee (BG) enforceable and encashable at Cochin, drawn from any Nationalized Bank / Scheduled Bank operating in India as per the proforma.

32.2 If the Performance Security is provided by the Successful Bidder in the form of a Bank Guarantee, it shall be issued by a Nationalized /Scheduled Indian bank having its branch at Cochin acceptable by ***Cochin Port Trust***. The BG shall be issued in favor of ***Cochin Port Trust*** in the Format enclosed in ***Annexure-A of GCC***.

### **33 Signing of Agreement**

33.1 The Successful Tenderer will be required to execute an Agreement at his expense within 28 (twenty eight) days from the date of Letter of Acceptance / Work Order, on proper value Kerala State Stamp Paper in the prescribed form. The agreement as finally executed will include the Employer's Bid Documents and the Bidder's offer as finally accepted by the EMPLOYER together with Addendum / Corrigenda, bid clarification and all correspondences exchanged between EMPLOYER and the bidder, 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.

33.2 The Contractor shall made 13 copies of the Agreement and submit to the Employer within 7 days following the date of signing of Agreement.

33.3 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.

### **34 Fraud and Corrupt Practices:**

34.1 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.

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

(a) “corrupt practice” means

(i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the 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.

**35 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 any tender without assigning any reason thereof. No representation whatsoever will be entertained on this account.

**SIGNATURE OF BIDDER**

# COCHIN PORT TRUST

## SECTION I

### 3.FORM OF BID

**To**

The Board of Trustees,  
Cochin Port Trust

**Through**

The Chief Engineer  
Cochin Port Trust, Cochin -9

Tender for the work of “Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port”

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, Drawings, 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.

#### MEMORANDUM

- |                                |   |
|--------------------------------|---|
| a) General description of work | : <b>Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port</b>              |
| b) Estimated cost              | : <b>Rs.440.78 lakhs</b>  |
| c) Earnest Money               | : <b>Nil.</b> However, EMD Declaration as per <b>Annexure-2</b> shall be furnished                  |
| d) Security Deposit            | : <b>3%</b> of the value of the Contract awarded or the value of the work done whichever is higher. |

- e) Percentage, if any, to be deducted from the bills : In case, where the value of work done exceeds Contract Value, Additional Security Deposit @ 3% of the excess amount will be deducted from the respective RA Bills, while making the payment
- f) Time allowed for commencement of work from the date of receipt of work order : **15 days**
- g) Time allowed for the work from the date of commencement of work. : **4 (Four) months**
- h) Schedule, specifications, conditions, drawings etc. as per contents sheet attached. : As per content sheet attached

I/ We agree to keep the tender open for 120 days from the due date of submission

Should this Bid be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed hereto. I/We further agree to execute an agreement with the Board in the prescribed form

I/We also here by undertake to the Board in office should I/We withdraw the offer or revise or go back upon the terms of the Bid; or fail to commence the work specified in the Memorandum or should I/We not furnish the Performance Security specified in the above memorandum, otherwise I/We shall be suspended and made ineligible to participate in CoPT's Tenders as envisaged in the EMD Declaration submitted as per **Annexure – 2**.

Dated the ..... day of ..... 2021.

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

- a) ..
- b) ..
- c)

Dated.....

**Chief Engineer  
Cochin Port Trust**



# COCHIN PORT TRUST

## SECTION – I

### 4. FORM OF AGREEMENT

**AGREEMENT No.....of 20.....**

**AGREEMENT FOR THE WORK OF  
ADDITIONAL WORKS AT THE JETTY, BUILDINGS AND LAND  
AREAS OF GOI AT COCHIN PORT**

**THIS AGREEMENT IS MADE** on this day ..... of ..... BETWEEN THE BOARD OF TRUSTEES OF COCHIN PORT TRUST , a body corporate under the Major Port Trust Act, 1963 having office on Willingdon Island, Cochin – 682009 represented by its \*Chief Engineer/\*Deputy Chief Engineer/\*Superintending Engineer Shri..... S/o ..... Aged ..... years residing at ..... Village ..... Taluk ..... District (hereinafter referred to as the Employer which expression shall include his successors, assignees and administrators in the office) of the one part and M/s. .... represented by Shri. .... aged ..... S/o ..... residing at ..... Village ..... Taluk ..... District(hereinafter referred as “Contractors” 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 into 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 and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to 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 here to.
  - (d) Replies to Prebid queries and amendments issued, if any.

### M E M O R A N D U M

- |                                |   |
|--------------------------------|---|
| a) General description of work | : <b>Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port</b>                |
| b) Estimated cost              | : Rs.440.78 lakhs   |
| c) Tended cost                 | : Rs. ....  |
| d) Earnest Money               | : <b>Nil</b><br>However, EMD Declaration as per <b>Annexure-2</b> shall be furnished.                 |
| e) Security Deposit            | : Rs.....(3% of the value of the Contract awarded or the value of the work done whichever is higher). |

- f) Percentage, if any, to be deducted from the bills : In case, where the value of work done exceeds Contract Value, Additional Security Deposit @ 3% of the excess amount will be deducted from the respective RA Bills, while making the payment.
- g) Time allowed for commencement of work from the date of receipt of work order : 15 days
- h) Time allowed for the work from the date of commencement of work. : **4 (Four) months**
- i) Schedule, specifications, conditions, drawings etc. as per contents sheet attached. :

IN WITNESS WHEREOF THE CONTRACTOR hereunto set his hand and seal on behalf of M/s..... and on behalf of the Board of Trustees of COCHIN PORT TRUST, the CHIEF ENGINEER has set his hand and seal and common seal of Trustees has been hereunto affixed the day and year first written above.

**CONTRACTOR**

- (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 :

1) Signature with address :

2) Signature with address :

**EMPLOYER**

Signed, sealed and delivered by the

**CHIEF ENGINEER**  
 Cochin Port Trust  
 On behalf of Board of

Trustees of Port of Cochin.

Signed and affixed the common seal of  
Board of Trustees of the Port of Cochin

In the presence of

- 1)
- 2)

# COCHIN PORT TRUST

## SECTION I

### 5.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											
1	<i>The following documents are also part of the Contract</i>												
	The Schedule of other Contractors  (Will be informed in due course)	(8.2)											
	The Schedule of Key personnel	(9)											
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Designation/ Qualification of Staff</th> <th style="text-align: center;">No.</th> <th style="text-align: center;">Min. Experience (Years)</th> <th style="text-align: center;">Rate of recovery in case of non compliance</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Graduate Engineer <b>Or</b> Diploma Engineer</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td rowspan="2" style="text-align: center;">Rs.15,000/- per month</td> </tr> <tr> <td></td> <td style="text-align: center;">2</td> <td style="text-align: center;">5</td> </tr> </tbody> </table>	Designation/ Qualification of Staff	No.	Min. Experience (Years)	Rate of recovery in case of non compliance	Graduate Engineer <b>Or</b> Diploma Engineer	2	2	Rs.15,000/- per month		2	5	
Designation/ Qualification of Staff	No.	Min. Experience (Years)	Rate of recovery in case of non compliance										
Graduate Engineer <b>Or</b> Diploma Engineer	2	2	Rs.15,000/- per month										
	2	5											
2	The Employer is	(1)											
	<b>The Board of Trustees, Cochin Port Trust, Cochin -9</b>												
	Name of Authorized Representative:												
	Name: <b>Dr. M. Beena The Chairperson, Cochin Port Trust Cochin -9</b>												
3	The Engineer is												
	Name: <b>Shri. ParithoshBala Chief Engineer Cochin Port Trust, Cochin-9</b>												
	Name of Nominee(s) is : <b>Will be notified in LoA/ LoI</b>												
4	Name of Contract : <b>Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port</b>	(1)											
	Tender No: <b>T10/T-1942/2021-C</b>												
5	<b>13</b> copies of Contract Agreement shall be furnished by the												

Sl. No.	Description	Reference Clause No. in GCC		
	Contractor	[7.1]		
6	Tender document and other data are available at the following web sites : 1) www.cochinport.gov.in 2) www.tenders.gov.in 3) tenderwizard.com/copt	(7.2)		
7	The Intended Completion Date for the whole of the Work is <b>4 (Four) Months</b>	(17,28)		
8	Milestone dates: <table border="1" data-bbox="352 658 1252 770"> <tr> <td>Physical works to be completed</td> <td>Period from the date of commencement of work</td> </tr> </table> The activity wise schedule needs to be submitted by the Contractor within <b>21 days</b> of receipt of LoA from CoPT. This needs to be strictly followed for the timely completion of the work.	Physical works to be completed	Period from the date of commencement of work	
Physical works to be completed	Period from the date of commencement of work			
9	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 (to be enumerated). (6) Contract Data (7) General Conditions of Contract (8) General Description and Special Conditions of Contract (9) Technical Specifications (10) Drawings and (11) 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 <b>21 days</b> of date of the Letter of Acceptance/LoI.	(27)		
11	<b>The site possession date</b> The site will be handed over within <b>7 days</b> after issue of LoA/LoI and the site is free from encumbrances.	(21)		
12	The start date shall be <b>15 days</b> from the date of receipt of the Letter of Acceptance (LoA)/LoI by the Contractor.	(1)		
13	The site is located at various places at W/Island. The GoI Jetty and Dhrishti building & Connecting Bridge are near Port CFS. The land plots of GoI are near KendriyaVidyalaya Port Trust and Vathurthy Railway Gate. <b>Project Location shown in drawing No.9768-01-2021.</b>			
14	The Defects Liability Period is <b>One year from the date of completion of the work.</b>	(35)		

Sl. No.	Description	Reference Clause No. in GCC	
15	The minimum insurance cover for physical property, injury and death is <b>Rs.10 lakhs (Rupees Ten Lakhs)</b> per occurrence with the number of occurrences unlimited. After each occurrence, Contractor will pay additional premium necessary to make insurance valid always.	(13)	
16	The following events shall also be Compensation Events: (Nil)	(44)	
17	The period between Programme updates shall be 90 days.	(27)	
18	The amount to be withheld for late submission of an updated Programme shall be <b>Rs.25,000/-</b> .	(27)	
19	The language of the Contract documents is <b>English</b> .	(3)	
20	The law, which applies to the Contract, is the law of Union of India.	(3)	
21	The currency of the Contract is <b>Indian Rupees</b> .	(46)	
22	The proportion of payments retained (retention money) shall be 5% from each bill subject to a maximum of 5% of the contract price or cost of work done whichever is higher.- NA	(48)	
23	The maximum amount of liquidated damages for the whole of the works is <b>10%</b> of the Contract Price.	[49]	
24	The amounts of the Advance Payments:	[51]	
	<b>Nature of Advance</b>	<b>Amount (Rs)</b>	<b>Conditions to be fulfilled</b>
	1.Secured Advance for non-perishable Materials brought to site	75% of Invoice value or Market value whichever is Lower.	a) The non perishable materials, in accordance with Tender
			b) Such materials have been delivered to site and are properly stored and protected against damage or deterioration to the satisfaction of the Engineer or his nominee. The contractor shall store the bulk material in measurable stacks.
			c)The Contractor's records of the requirements, orders, receipt and

Sl. No.	Description		Reference Clause No. in GCC
		use of materials are kept in a form approved by the Engineer or his nominee and such records shall be available for inspection by the Engineer or his nominee.	
25	Repayment of advance payment for mobilization : NA		[51]
26	Repayment of advance payment for Construction and equipment: NA		[51]
27	Repayment of Secured advance:		[51.6]
	The advance shall be repaid from each succeeding monthly payment to the extent materials for which advance was previously paid pursuant to Clause 51.6 of Conditions of Contract on being incorporated into the Works.		
28	The date by which “As-Built” drawings are required is within <b>60 days</b> of issue of certificate of completion of whole or section of the work, as the case may be.		(58)
29	The amount to be withheld for failing to supply “As Built” drawings and/or operating and maintenance manuals by the date required is Rs.50,000/-.		(58)
30	Schedule of Rates Applicable: <b>(DSR 2018 + Cost Index 55%) multiplied by a factor 0.8768 to remove GST</b>		
31	Base Rate for materials to be considered for price variation : NA		<b>(47)</b>
32	Permissible wastage on theoretical quantities of (a) Cement : (+) 2% (b) Steel Reinforcement and structural steel sections for each diameter, section and category : (+) 5.99 %		<b>(47)</b>



# COCHIN PORT TRUST

## SECTION I

### 6. ANNEXURES

Sl. No.	Annexure	Description	Page No.
1	1	Letter of Submission - Covering Letter	40
2	2	EMD Declaration Form	41
3	3	Proforma of Power- of-Attorney/ of Authority	42
4	4	Organization Details	43-44
5	5a	Eligible Assignment Details for MEC	45-46
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7	6	Financial Capability	48
8	7	Details of Proposed Approach & Methodology	49
9	8	Plant and Equipment Proposed for the Work	50
10	9	Declaration	51
11	10	Format for Furnishing Bank information for e-payment	52
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13	12	Details of Litigation History	60-61
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**COCHIN PORT TRUST**  
**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**  
**LETTER OF SUBMISSION- COVERING LETTER**  
*(On the Letter Head of the Bidder)*

No.....

Date:.....

To

The Chief Engineer,  
Cochin Port Trust.

Sir,

Sub: Tender for “**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**”

~~~~~

Being duly authorized to represent and act on behalf of .....  
(Hereinafter referred to as “the Bidder”) and having reviewed and fully understood all of the requirements of the bid document and information provided, the undersigned hereby apply for the project referred above.

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

- (i) EMD Declaration (*Annexure-2*)
- (ii) Power of Attorney (*Annexure-3*)
- (iii) Pre Contract Integrity Pact(*Annexure-11*)

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

- (i) Organization Details (*Annexure-4*)
- (ii) Details to fulfill the “Minimum Eligibility Criteria” and certificates(*Annexure-5a*)
- (iii) Details of Past Experience of Contractor for Similar works (*Annexure-5b*)
- (iv) Average Financial Turnover over the last three financial year(*Annexure-6*)
- (v) Detailed Method Statement (Technical Note)(*Annexure-7*)
- (vi) List of Plant and Equipment (*Annexure-8*)
- (vii) Declaration (*Annexure -9*)
- (viii) Bankers Details ( *Annexure-10*)
- (ix) Details of litigation history / blacklisting of the bidder ( *Annexure-12*)
- (x) Undertaking regarding EPF & ESI registration. (*Annexure-13*)
- (xi) Tender Document along with Addenda Nos ----,

We also certify that further Bid related communication, if any, will be sent to the following e-mail IDs by CoPT.

(i).....

(ii).....

(Furnish 2 nos. current active e-mail IDs)

Signature

(Authorized Signatory)

***Annexure- 2***

**Format for Bid Security / Earnest Money Deposit Declaration**

*(To be submitted on the Bidder's Letter Head)*

**I/We**..... (Insert Name and Address of Bidder)**am/are** submitting this declaration in lieu of Bid Security / Earnest Money Deposit for the Tender for“ **Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port” (Tender No.T10/T-1942/2021-C)**, thereby fully accepting that **I/We** will be suspended and shall not be eligible to participate in the Tenders invited by Cochin Port Trust, for a period of **Two years from the date of such Suspension Order**, under the following circumstances:

- (1) If after the opening of Tender, **I/We** withdraw or modify **my/** during the period of validity specified in the Bid documents (including extended validity, if any), **or** do not accept the correction of the Tender Price pursuant to any arithmetical errors.
- (2) If, after the award of work, **I/We** fail to furnish the required Performance Security **or** sign the Contract, within the time limits specified in the Departmental Tender Document.

**Signature of the Tenderer with seal**

**PROFORMA OF POWER- OF-ATTORNEY/LETTER OF AUTHORITY**

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

To

The Chief Engineer,  
Cochin Port Trust,  
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  
**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port  
(Tender No.T10/T-1942/2021- C).**

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

**COCHIN PORT TRUST**  
**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**  
**ORGANIZATION DETAILS**

CONTRACT No.:

NAME OF APPLICANT:

1. Name of the Owner:

2. Address:

Telephone No. :

E-mail:

Fax No.

3. Description of Applicant  
(For e.g. General, Civil Engineering  
Contract or Joint Venture/Consortium etc.)

4. Registration and Classification  
of Contractors

5. Name and address of bankers

6. Number of years of experience  
as a general contractor :-

In own Country:

Internationally:

7. Number of years of experience  
as a sub contractor

8. Name and Address of partners or  
associated companies to be involved  
in the project and whether Parent/  
Subsidiary/other

6. Name and address of any associates knowledgeable in the procedures of customs, immigration and local experience in various aspect of the project etc.
10. Name and address of the companies/ Sub-contractors who will be involved in the execution of works, namely:
11. Name and address of companies who will be involved in the supply of bought out items
  - a) Fenders, stainless chains and accessories
  - b) Bollards, Capstan, Remote control Quick release Mooring systems
12. 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 Organization.

Signature  
(Authorized Signatory)

## COCHIN PORT TRUST

### Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port

Tenderer shall furnish Details of “Eligibility Works Experience” as per Clause 12 of Minimum Eligible Criteria (MEC) of Instruction to Tenderer and certificates in the following format (Client Certificates/work completion certificates or any other documentary evidences with respect to the eligibility work)

#### ELIGIBLE ASSIGNMENT DETAILS FOR MEC

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, telefax 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 Clause No. 12 (a) 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-4a** 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 Works is as a subcontractor, Notary attested copy(s) of approval issued by the Employer(s) authorizing as a sub-contractor; in proof of the claim of the tenderer as a sub-contractor shall be attached.
  - viii) If the experience in Similar Work is in works executed in private sectors/organizations, the TDS certificate along with Notary attested copy(s) of work order and completion certificate shall be attached.
  - ix) In case of bid submitted by JV/ Consortium, the Minimum Eligibility Criteria EXCEPT Financial Turnover can be fulfilled collectively by the Partners of the JV/ Consortium.
  - x) The tenderer shall also be obligated to produce the original of the certified copy(s), on request by the department.

Signature  
(Authorized Signatory)



**COCHIN PORT TRUST**

Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port

**DETAILS OF PAST EXPERIENCE OF CONTRACTORS FOR  
SIMILAR WORKS**

| Sl. No. | Name & Location of Project | Owner's Complete address including TeleFax No. with 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                                                                          |
|         |                            |                                                                    |                   |                      |                           |                        |                                                        |                                                                            |

**Note:** 1) Bidder to enclose completion certificate issued by owner, certified by a Notary Public or equivalent certifying authority.

2) If the Bidder is claiming his experience as Subcontractor; it will be considered for qualification only if documentary proof of sub-contractor authorized and approved by the Employer of the work(s) is submitted.

**SIGNATURE OF TENDERER**

## **COCHIN PORT TRUST**

**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

### **FINANCIAL CAPABILITY**

(A) Average Annual Turnover of the Bidder

| <b>Turnover (Rs.)</b> |               |               |                |
|-----------------------|---------------|---------------|----------------|
| <b>Year 1</b>         | <b>Year 2</b> | <b>Year 3</b> | <b>Average</b> |
|                       |               |               |                |

#### **Instructions:**

- (i). Year 1 will be the Financial Year-2019-20. Year 2 shall be the year immediately preceding Year 1 and Year 3 shall be the year immediately preceding Year 2.
- (ii). 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.
- (iii). Annual Turnover of the bidder shall be submitted duly verified by Chartered Accountant or Competent Authority.

**Certified by Chartered Accountant**

Signature  
(Authorized Signatory)

## **COCHIN PORT TRUST**

### **Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

#### **DETAILS OF PROPOSED APPROACH & METHODOLOGY**

Bidder shall furnish a detailed Method Statement (Technical Note) for carrying out of the works, along with a construction programme [ Preferably in MS project / Primavera] showing sequence of operation and the time frame for various segments of temporary and permanent works showing critical path of activities.

Signature  
(Authorized Signatory)

**COCHIN PORT TRUST**

**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

**PLANT AND EQUIPMENT PROPOSED FOR THE WORK**

Please indicate the main plant and equipments 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.

| Sl. No. | 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 |
|---------|--------------------------|----------------------------|---------------------------------|----------------|-----------------|-------------------------------------|------------------------------------------------------------------|
|         |                          |                            |                                 |                |                 |                                     |                                                                  |
|         |                          |                            |                                 |                |                 |                                     |                                                                  |
|         |                          |                            |                                 |                |                 |                                     |                                                                  |
|         |                          |                            |                                 |                |                 |                                     |                                                                  |

Signature  
(Authorized Signatory)

**COCHIN PORT TRUST**  
**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

**DECLARATION**

We M/s (*Name & address of the bidder*) hereby declare that:-

1. All details regarding construction plant, temporary work and personnel for site organization considered necessary and sufficient for the work have been furnished in the *Annexure-7* and that such plant, temporary works and personnel for site organization will be available at the site till the completion of the respective work.
2. No conditions are incorporated in the Financial/ Price bid. In case any conditions are specified in the financial bid, the tender will be rejected summarily without making any further reference to the bidder.
3. We have not made any payment or illegal gratification to any persons/ authority connected with the bid process so as to influence the bid process and have not committed any offence under PC Act in connection with the bid.
4. We disclose with that we have \* made / not made payments or propose to be made to any intermediaries (agents) etc in connection with the bid.
5. We do hereby confirm that no changes have been made in the tender document downloaded and uploaded by us for the above bid. Port 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 uploaded by the tenderer, the Port's document shall prevail.

Signature  
(Authorized Signatory)

\* *Notes:*

*(i) Delete whichever is not applicable.*

*(ii) The above Declaration shall be submitted in the Letter head*

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

|   |                                                 |            |
|---|-------------------------------------------------|------------|
| 1 | Name and full address of the beneficiary        |            |
| 2 | Credit Account No.<br>(Should be full 14 digit) |            |
| 3 | Account Type<br>(SB or CA or OD)                |            |
| 4 | Name of the Bank                                |            |
| 5 | Branch<br>(Full address with telephone No.)     |            |
| 6 | MICR code<br>(Should be 9 digit)                |            |
| 7 | Telephone/Mobile/Fax No. of the beneficiary     | Telephone: |
|   |                                                 | Mobile :   |
|   |                                                 | Fax :      |
| 8 | Cancelled Cheque                                |            |

Signature with seal  
(Authorized Signatory)

**PROFORMA OF PRE-CONTRACT INTEGRITY PACT**  
*(To be submitted on non-judicial stamp paper of appropriate value)*

**General**

This Pre-Bid, Pre-Contract Agreement (hereinafter called the Integrity Pact) is made on this, the ..... day of the month of ..... 20...., between, the Board of Trustees of Cochin Port Trust acting through Shri. ...., (Designation of the Officer), Cochin Port Trust (hereinafter called the 'BUYER/EMPLOYER', 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 " TENDERER/SELLER" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER/EMPLOYER has invited Tenders for the project of ..... (**hereinafter referred to as the "Project"**) and the TENDERER/SELLER is submitting his Tender for the Project; and

WHEREAS the TENDERER/SELLER is a Private Limited Company/Public Limited Company/Government Undertaking/Registered Partnership Firm constituted in accordance with the relevant law in the matter/ JV/Consortium and the BUYER/EMPLOYER is Cochin Port Trust.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the Contract to be entered into, with a view to:-

Enabling Tenderers to abstain from bribing or indulging in any corrupt practice in order to secure the Contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER/ EMPLOYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The Parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

**1. Commitments of the BUYER/ EMPLOYER**

1.1 The BUYER/ EMPLOYER undertakes that no official of the BUYER/EMPLOYER, connected directly or indirectly with the Contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the TENDERER/SELLER, either for themselves or for any person, organization or third party related to the Contract, in exchange for an advantage in the tendering process, tender evaluation, contracting or implementation process related to the Contract.

1.2 The BUYER/EMPLOYER will, during the pre-Contract stage, treat all TENDERERS/SELLERS alike and will provide to all TENDERERS /SELLERS

the same information and will not provide any such information to any particular TENDERER/SELLER which could afford an advantage to that particular TENDERER/SELLER in comparison to other TENDERERS/SELLERS.

- 1.3 All the officials of the BUYER/ EMPLOYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the TENDERER/SELLER to the BUYER/ EMPLOYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER/ EMPLOYER, necessary disciplinary proceedings or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER/ EMPLOYER and such a person shall be debarred from further dealings related to the Contract process. In such a case, while an enquiry is being conducted by the BUYER/ EMPLOYER, the proceedings under the Contract would not be stalled.

### **3. Commitments of TENDERERS**

The TENDERER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its Tender or during any Pre-Contract or Post-Contract stage in order to secure the Contract and in particular commit itself to the following:-

- 3.1 The TENDERER/SELLER will not offer directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER/ EMPLOYER connected directly or indirectly with the bidding process or to any person, organisation or third party related to the Contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the Contract.
- 3.2 The TENDERER/SELLER further undertakes that it has not given, offered or promised to give directly or indirectly, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER/ EMPLOYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other contract with the BUYER/ EMPLOYER for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other contract with the BUYER/ EMPLOYER.
- 3.3\* TENDERERS/SELLERS shall disclose the name and address of agents and representatives and Indian TENDERERS/SELLERS shall disclose their foreign principals or associates.
- 3.4\* TENDERERS/SELLERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this Tender/Contract.
- 3.5\* The TENDERER/SELLER further confirms and declares to the BUYER/ EMPLOYER that the TENDERER/SELLER has not engaged any individual or firm or company whether Indian or foreign, to intercede, facilitate or in any way to recommend to the BUYER/ EMPLOYER or any of its functionaries, whether officially or unofficially to the award of the Contract, the TENDERER/SELLER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or



recommendation.

- 3.6 The TENDERER/SELLER, either while presenting the Tender or during Pre-Contract negotiations or before signing the Contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER/EMPLOYER or their family members, agents, brokers or any other intermediaries in connection with the Contract and the details of services agreed upon for such payments.
- 3.7 The TENDERER/SELLER will not collude with other parties interested in the Contract to impair the transparency, fairness and progress of the tendering process, tender evaluation, contracting and implementation of the Contract.
- 3.8 The TENDERER/SELLER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The TENDERER/SELLER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER/EMPLOYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The TENDERER/SELLER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The TENDERER/SELLER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The TENDERER/SELLER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If the TENDERER/SELLER or any employee of the TENDERER/SELLER or any person acting on behalf of the TENDERER/SELLER, either directly or indirectly, is a relative of any of the officers of the BUYER/EMPLOYER or alternatively, if any relative of an officer of the BUYER/EMPLOYER has financial interest/stake in the TENDERER/SELLER's firm, the same shall be disclosed by the TENDERER/SELLER at the time of filing of Tender.

The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

- 3.13 The TENDERER/SELLER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER/EMPLOYER.

#### **4. Previous Transgression**

- 4.1 The TENDERER/SELLER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify TENDERER/SELLER 's exclusion from the Tender process.
- 4.2 The TENDERER/SELLER agrees that if it makes incorrect statement on this subject, TENDERER/SELLER can be disqualified from the Tender process or the Contract if already awarded, can be terminated for such reason.

#### **5. Earnest Money (Performance Security)**

- 5.1 While submitting commercial Bid, the TENDERER/SELLER shall furnish an EMD Declaration as per **Annexure-2**.
- 5.2 In case of the successful TENDERER/SELLER, a Performance Security in the form of Bank Guarantee valid till 30 days after the end of defect liability period or any other mode or through any other instrument (to be specified in the Tender Document) will also be furnished to the BUYER/ EMPLOYER, within 14 days of Letter of Acceptance of the Tender by the BUYER/ EMPLOYER.
- 5.3 In case of the successful TENDERER/SELLER, a clause would also be incorporated in the Article pertaining to Performance Security in the Project Contract that the provisions of ‘Sanctions for Violations’ shall be applicable for forfeiture of Performance Security in case of a decision by the BUYER/ EMPLOYER to forfeit the same without assigning any reason for imposing Sanction for Violation of this Pact.
- 5.4 No interest shall be payable by the BUYER/ EMPLOYER to the TENDERER/SELLER on Earnest Money/Performance Security for the period of its currency.

## 6. **Sanctions for Violations**

6.1 Any breach of the aforesaid provisions by the TENDERER/SELLER or any one employed by it or acting on its behalf (whether with or without the knowledge of the TENDERER/SELLER) shall entitle the BUYER/ EMPLOYER to take all or any one of the following actions, wherever required:-

- (i) To immediately call off the Pre-Contract negotiations without assigning any reason or giving any compensation to the TENDERER/SELLER. However, the proceedings with the other TENDERER/SELLER (s) would continue.
- (ii) The Earnest Money Deposit (in Pre-Contract stage) and/or Performance Security (after the Contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER/ EMPLOYER and the BUYER/ EMPLOYER shall not be required to assign any reason therefore.
- (iii) To immediately cancel the Contract, if already signed, without giving any compensation to the TENDERER/SELLER.
- (iv) If the BUYER/ EMPLOYER has disqualified the Tenderer from the Tender process according to Section-4 prior to the award, the BUYER/ EMPLOYER is entitled to demand and recover the damages equivalent to Earnest Money Deposit.

If the BUYER/ EMPLOYER has terminated the Contract according to Section-4, or if the BUYER/ EMPLOYER is entitled to terminate the Contract according to Section-4, the BUYER/ EMPLOYER shall be entitled to demand and recover from the Contractor, liquidated damages equivalent to 5% of the Contract value, or the amount equivalent to Performance Security, whichever is higher.

The TENDERER/SELLER agrees and undertakes to pay the said amounts, without protest or demur, subject only to the condition that, if the TENDERER/SELLER/Contractor can prove and establish that the termination of the Contract after the Contract award has caused no damage or less damage than the amount of the liquidated damages, the

TENDERER/SELLER/Contractor shall compensate the BUYER/EMPLOYER, only to the extent of the damage in the amount proved.

- (v) To debar the TENDERER/SELLER from participating in future tendering processes of the BUYER/ EMPLOYER for a minimum period of five years, which may be further extended at the discretion of the BUYER/EMPLOYER.
- (vi) To recover all sums paid in violation of this Pact by TENDERER(S) /SELLERS to any middleman or agent or broker with a view to securing the Contract.

6.2 The BUYER/ EMPLOYER will be entitled to take all or any of the actions mentioned at paras 6.1(i) to (vi) of this Pact also on the commission by the TENDERER/SELLER or any one employed by it or acting on its behalf (whether with or without the knowledge of the TENDERER/SELLER), 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.

6.3 In case of a final decision by the BUYER/EMPLOYER to the effect that a breach of the provisions of this Pact has been committed by the TENDERER/SELLER, it shall be binding and therefore, notified to the TENDERER/SELLER forthwith. However, the TENDERER/SELLER can approach the Independent Monitor(s) appointed for the purposes of this Pact in appeal, under intimation to the BUYER/EMPLOYER, within a period not later than of one month of the date of such notification. In such cases, the decision of the Independent Monitor(s) will be final, conclusive and binding on both the TENDERER/SELLER and the BUYER/EMPLOYER.

## 7. **Fall Clause**

7.1 The TENDERER/SELLER undertakes that it has not performed/is not performing **Similar Project** at a price lower than that offered in the present Tender in respect of any other Port/Ministry/Department of the Government of India or PSU and if it is found at any stage that **Similar Project** was performed by the TENDERER/SELLER to any other Port/Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the TENDERER/SELLER to the BUYER/ EMPLOYER, if the Contract has already been concluded.

“**Similar Project**” means a Project with similar location, topography, soil conditions, scope of work, terms and conditions of Contract and such other aspects which would have material effect on the Tender Price.

## 8. **Independent Monitors**

8.1 The BUYER/ EMPLOYER has appointed the following Independent Monitor (hereinafter referred to as Monitor) for this Pact in consultation with the Central Vigilance Commission.

Shri. P R Ravikumar, IRS (Retd.)  
Akshath, No.84, First Avenue,

Kumaranasan Nagar, Elamkulam (PO),  
Ernakulam - 6820208.2

- 8.2 The task of the Monitor shall be to review independently and objectively, whether and to what extent the Parties comply with the obligations under this Pact.
- 8.3 The Monitor shall not be subject to instructions by the representatives of the Parties and perform their functions neutrally and independently.
- 8.4 Both the Parties accept that the Monitor have the right to access all the documents relating to the Project/Tendering, including minutes of meetings.
- 8.5 As soon as the Monitor notices or has reason to believe that a violation of this Pact has occurred, he will so inform the Authority designated by the BUYER/EMPLOYER,
- 8.6 The TENDERER/SELLER accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER/ EMPLOYER, including that provided by the TENDERER/SELLER. The TENDERER/SELLER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his Project documentation. The same is applicable to Sub Contractors. The Monitor shall be under contractual obligation to treat the information and documents of the TENDERER/SELLER/Subcontractor(s) with confidentiality.
- 8.7 The BUYER/ EMPLOYER, will provide to the Monitor sufficient information about all meetings among the Parties related to the Project provided such meetings could have an impact on the contractual relations between the Parties. The Parties will offer to the Monitor, the option to participate in such meetings.
- 8.8 The Monitor will submit a written report to the designated Authority of BUYER/EMPLOYER within 8 to 10 weeks from the date of reference or intimation to him by the BUYER/ EMPLOYER/ TENDERER/SELLER and, should the occasion arise, submit proposals for correcting problematic situations.

## **9. Facilitation of Investigation**

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER/ EMPLOYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the TENDERER/SELLER and the TENDERER/SELLER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

## **10. Law and Place of Jurisdiction**

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER/ EMPLOYER.

## **11. Other Legal Actions**

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

## **12. Validity**

- 12.1 The validity of this Integrity Pact shall be from the date of its signing and extend upto 5 years or the complete execution of the Contract to the satisfaction of both the

BUYER/ EMPLOYER and the TENDERER/SELLER, including warranty period, whichever is earlier. In case the TENDERER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the Contract.

12.2 Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact shall remain valid. In this case, the Parties will strive to come to an agreement to their original intentions.

13. The Parties hereby sign this Integrity Pact at ..... on .....

BUYER/ EMPLOYER

TENDERER/SELLER

Name of the Officer

Designation

CHIEF EXECUTIVE OFFICER

Cochin Port Trust

Witness:

Witness:

1. ....

1.....

2. ....

2.....

\* Provisions of these Clauses would need to be amended/ deleted in line with the policy of the BUYER/ EMPLOYER in regard to involvement of Indian agents of foreign Tenderers.

**LITIGATION HISTORY AND DETAILS OF BLACK LISTING**

(A). Details of Litigation History till 31<sup>st</sup> March, 2021 in accordance with clause 20.1(s) of Instruction to Bidders are as follows:

| Sl No | Date, month & Year of award | Amount of Award, INR | Contract Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Total Contract Amount INR |
|-------|-----------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 1     | [insert date]               | [insert amount]      | <p><i>Contract Identification: [indicate complete contract name, number, date and any other identification]</i></p> <p><i>Name of Employer: [insert full name]</i></p> <p><i>Address of Employer: [insert street/city/country]</i></p> <p><i>Matter in dispute: [indicate main issues in dispute]</i></p> <p><i>Party who initiated the dispute: [indicate "Employer" or "Contractor"]</i></p> <p><i>Status of dispute: [Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i></p> | [insert amount]           |
| 2     |                             |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |
| 3     |                             |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |

(B). Details of Black listing/ debaring by the Govt. departments for last 5 years till 31<sup>st</sup> March, 2021:

| Sl. No | Date, month & year of Black listing / de barring | Name of Agency Black listed / de barred | Period of Black listing / de barring | Ending date of Black listing / de barring |
|--------|--------------------------------------------------|-----------------------------------------|--------------------------------------|-------------------------------------------|
| 1      | [insert date, month & year]                      | [insert name and place of agency]       | [insert period in years & months]    | [insert date, month & year]               |
| 2      |                                                  |                                         |                                      |                                           |

(C). Details of Pending Litigation upto 31<sup>st</sup> March 2021:

| Sl No | Date, month & Year of award | Amount of Award, INR | Contract Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Total Contract Amount INR |
|-------|-----------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 1     | [insert date]               | [insert amount]      | <p><i>Contract Identification: [indicate complete contract name, number, date and any other identification]</i></p> <p><i>Name of Employer: [insert full name]</i></p> <p><i>Address of Employer: [insert street/city/country]</i></p> <p><i>Matter in dispute: [indicate main issues in dispute]</i></p> <p><i>Party who initiated the dispute: [indicate "Employer" or "Contractor"]</i></p> <p><i>Status of dispute: [Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i></p> | [insert amount]           |
| 2     |                             |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |

**Certified that the above information is correct as per records and nothing has been omitted / concealed.**

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

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

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

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

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

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

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

**Membership No. of the Statutory Auditor: .....**

**Notes:**

- (i) The Tenderer shall provide accurate information about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last three years.
- (ii) This may be noted that under this category only cases of arbitration /litigation finally settled against the Tenderer should be listed. If the case is pending at any level of arbitration or judiciary, the same should be listed in Pending Litigation and NOT under Litigation History. A consistent history of awards against the Tenderer may result in failure of the Application/Tender.

Date:

Tenderer's Signature  
WithStamp

**COCHIN PORT TRUST**

**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

**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 to the above and indemnify CoPT officials for any actions taken in this regard.

**SIGNATURE OF TENDERER**



## **SECTION II**

**COCHIN PORT TRUST**  
**CIVIL ENGINEERING DEPARTMENT**

Tender No:**T10/T-1942/2021-C**

Tender for  
**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

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**SECTION -II  
COCHIN PORT TRUST**

**1. GENERAL CONDITIONS OF CONTRACT (GCC) - PART A - G**

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**(GCC ATTACHED AS SEPARATE VOLUME)**

**SECTION -II  
COCHIN PORT TRUST**

**2. FORM OF SECURITIES (ANNEXURE A & B)**

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**PROFORMA OF BANK GUARANTEE FOR PERFORMANCE  
GUARANTEE/ SECURITY DEPOSIT**

*(To be executed 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]*

In consideration of the Board of Trustees of the Port of *[insert name of Port]* incorporated by the Major Port Trusts Act, 1963 as amended by Major Port Trust (Amendment) Act 1974 (hereinafter called “The Board” which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include the Board of Trustees of the Port of *[insert name of Port]*, its successors and assigns) having agreed to exempt \_\_\_\_\_ (hereinafter called the “Contractor”)

(Name of the Contractor/s)

from the demand under the terms and conditions of the Contract, vide \_\_\_\_\_ ‘s letter No. \_\_\_\_\_

(Name of the Department)

date \_\_\_\_\_ made between the Contractors and the Board for execution of \_\_\_\_\_ covered under Tender No. \_\_\_\_\_ dated \_\_\_\_\_ (hereinafter called “the said contract”) for the payment of Security Deposit in cash or Lodgement of Government Promissory Loan Notes for the due fulfilment by the said Contractors of the terms and conditions of the said Contract, on production of a Bank Guarantee for Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) only we, the (Name of the Bank and Address) \_\_\_\_\_

\_\_\_\_\_ (hereinafter referred to as “the Bank”) at the request of the Contractors do hereby undertake to pay to the Board an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) only against any loss or damage caused to or suffered or which would be caused to or suffered by the Board by reason of any breach by the Contractors of any of the terms and conditions of the said contract.

2. We, \_\_\_\_\_, \_\_\_\_\_, do hereby

(Name of Bank)

(Name of Branch)

undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Board stating that the amount claimed is due by way of loss or damage caused to or which would be caused to or suffered by the Board by reason of any breach by the Contractors of any of the terms and conditions of the said contract or by reason of the Contractors failure to perform the said contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to any amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) only.

3. We, \_\_\_\_\_(Name of Bank and Branch)\_\_\_\_\_, undertake to pay to the

Board any money 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, \_\_\_\_\_(Name of Bank and Branch) further agree with the Board that the guarantee herein contained shall remain in full force and effect during the period that would be taken for performance of the said contract and that it shall continue to be enforceable till all the dues of the Board under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till the

---

(Name of the user department)

of the said certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Contractors and accordingly discharge this guarantee. PROVIDED HOWEVER that the Bank shall be the request of the Board but at the cost of the Contractors, renew or extend this guarantee for such further period or periods as the Board may require from time to time.

5. We, \_\_\_\_\_ further agree with the Board

(Name of Bank and Branch)

that the Board 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 contract or to extend the time of performance by the said contract or to extend the time of performance by the said Contractors from time to time or to postpone for any time or from time to time any of the powers exercisable by the Board against the said Contractors and to forebear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variation or extensions being granted to be Contractors or for any forbearance, act or omission on the part of the Board or any indulgence shown by the Board to the Contractors or by any such matter or thing 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. It is also hereby agreed that the Courts in [*insert city*] would have exclusive jurisdiction in respect of claims, if any, under this Guarantee.

8. We, \_\_\_\_\_ Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Board in writing.

9. Notwithstanding anything contained herein :

a) Our liability under this Bank Guarantee shall not exceed Rs. \_\_\_\_\_

(Rupees \_\_\_\_\_ only);

b) this Bank Guarantee shall be valid upto \_\_\_\_\* \_\_\_\_\_; and



c) we are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before \_\_\_\_\_ (date of expiry of Guarantee).”

Date \_\_\_\_\_ day of \_\_\_\_\_ 20

For (Name of Bank)

(Name)

Signature

\* The date will be thirty (30 )days after the end of the period of Defect Liability as specified in the Contract.

**PROFORMA OF BANK GUARANTEE FOR ADVANCE**  
*(To be submitted on Non-Judicial Stamp Paper of appropriate value)*

Bank Guarantee No. \_\_\_\_\_ dated \_\_\_\_\_

Amount of Guarantee Rs. \_\_\_\_\_

Guarantee cover from \_\_\_\_\_ to \_\_\_\_\_

Last date of lodgment of claim

In consideration of Board of Trustees of Cochin Port Trust (hereinafter called "Port Trust") which expression shall include all their successors and assignees having agreed to pay advance of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) repayable with interest @ \_\_\_\_\_ % per annum to \_\_\_\_\_ (Name & Address of contractor ) (hereinafter called the "CONTRACTOR") which expression shall include their successors and assignees for the contract for the work of \_\_\_\_\_ (Name of work) evidenced by the offer of the Contractor dated..... and accepted by the Port Trust forming the contract and the work order No..... dated,..... for the work of (name of work) issued by the Port Trust and the formal stamped agreement to be entered into between parties in the above, the said amount and interest being recoverable from the running bills of the contractor on pro-rata basis as per terms of agreement, we (Name of Bank) having our Head office at ..... (hereinafter referred to as "the Bank") do hereby undertake to pay The Cochin Port Trust an amount of Rs.....(Rupees.....only) with interest against any loss or damage caused to or would be caused to or suffered by the Port Trust by reason of any breach by the said contractor of any of the terms or conditions contained in the said agreement, making it impossible or difficult to recover the said mobilization advance of Rs.....(Rupees.....only) or part thereof or interest thereon we (Name of the Bank)do hereby undertake to pay the amounts due and payable under the guarantee without any demur, merely on demand of The Cochin Port Trust by reason of any breach by the said contractor of any of the terms and conditions contained in the said agreement or by the reason of contractor's failure to perform the said agreement. Any such demand made on the Bank shall be conclusive not only as regards to contractor's failure but also as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee will be restricted to an amount of Rs.....(Rupees..... only) with interest as per the agreement.

We, (Name of the Bank) further agree the guarantee herein contained will remain in full force and affect during the period that would be taken for the recovery of the loan and that it shall continue to be live and enforceable till all the amounts due with interest thereon have been fully recovered and its claims satisfied or discharged or till The Cochin Port Trust certifies that the amount outstanding under the advance has been fully recovered from the contractor and accordingly discharged the guarantees. Unless a demand or claim under this guarantee is made on us in writing on or before (date of the expiry) we shall be discharged from all liability under this guarantee thereafter.

We, (Name of the Bank) further agree with the Port Trust that the Port Trust shall have the fullest liberty without or consent and without affecting in any manner or obligation hereunder to vary any of the terms and conditions regarding the recovery or repayment and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said contractor or any forbearance, act or omission on the part of Cochin Port Trust or any indulgence by the Port Trust to the contractor or in such matter or things whatsoever which under the law relating to sureties would but for this provision have the effect of so relieving us.

Notwithstanding anything contained herein:

- (i) Our liability under this bank guarantee shall not exceed Rs.....(Rupees.....)
- (ii) This bank guarantee shall be valid upto.....
- (iii) Our liability to make payment shall arise and we are liable to pay the guaranteed amount or any part thereof under this guarantee, only if you serve upon us a written claim or demand in terms of this guarantee on or before.....

We, (Name of the Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Port Trust in writing.

Dated this the.....day of.....(year)

For (Name of Bank)

(Signature)

## **SECTION III**

**COCHIN PORT TRUST**  
**CIVIL ENGINEERING DEPARTMENT**

Tender No: **T10/T-1942/2021-C**

Tender for  
**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

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**SECTION -III  
COCHIN PORT TRUST**

**1. GENERAL DESCRIPTION OF WORK**

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## **SECTION -III COCHIN PORT TRUST**

### **1. GENERAL DESCRIPTION OF WORK**

#### **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 Specification and conditions 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.

#### **1.1 Definitions**

“Contract” means the agreement entered into between the Employer and the Contractor, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;

“Contract Price” means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations;

“Employer / Client” means Cochin Port Trust, the Organization purchasing the Works and Services.

“Contractor” means the individual or firm supplying the Works and Services under this Contract.

“Engineer-in-Charge” means the nominee/representative of the Employer/Consultant authorized to give instruction to the Contractor during the various stages of execution of the Work.

#### **2. Scope of work**

2.1 This work essentially comprises of works of the following:

##### **(h) Modifications to Pump House at Main Jetty:**

- (i) Providing side covering to the Terrace floor,
- (ii) Providing of sliding type UPVC windows,
- (iii) Providing false ceiling with Calcium Silicate Boards,
- (iv) Providing Entry door and venetian blinds to the windows on Terrace floor
- (v) Providing WHB and water connections

##### **(i) Modifications and Special repairs to Drishti Building near CFS:**

- (i) Special Repairs to damaged columns, beams and windows
- (ii) Special Repairs to prevent water seepage on all floors,
- (iii) Providing side covering to the Terrace floor
- (iv) Providing UPVC windows.
- (v) Providing false ceiling with Calcium Silicate Board.
- (vi) Providing Flooring with vitrified tiles.

- (vii) Replacement of CGI sheets (old and rusted) and ridge of Terrace floor roof with pre painted galvalume sheets and providing associated facilities.

**(j) Providing Electronic Toilets & Store at various places of GoI**

- (i) Providing electronic toilets with water connections at Jetty area and land plots near KV Port Trust and Vathuruthy rRailway gate,
- (ii) Providing Temporary shed of size 20m x 8m x 4m at land plot near KV Port Trust.

**(k) Modifications to Technology Building at Jetty area:**

- (i) Providing Security Shelter for CISF
- (ii) Providing ACP louvers with frame work to cover utility lines,
- (iii) Providing stainless steel hand rail on Terrace floor of Technology building,
- (iv) Providing guard bar/grills to louvered window at Ground Floor,
- (v) Providing Granite-top counter at window sill in Security Office,
- (vi) Providing steel ventilator all around Terrace floor roof,
- (vii) Providing sun control film for glass panels of SS door at terrace floor & door stopper for door on all floors.
- (viii) Providing additional CPVC water supply lines at Ground floor.

**(l) Additional Works At Jetty:**

- (i) Providing 'D' fender 150 x 150mm size to the side of boat landing jetty
- (ii) Providing &filling of expansion joints in the deck slab with Polysulphide Sealant.
- (iii) Providing CPVC water supply lines at Jetty

**(m) Modifications to Security Building near Connecting Bridge:**

- (i) Shifting the existing Polyethylene water tank from Terrace to the roof top of Spiral staircase,
- (ii) Providing MS Roof Truss with fixtures at Terrace floor,
- (iii) Providing PVC Eaves Gutter, rainwater down pipes etc.,
- (iv) Providing false ceiling with calcium silicate boards,
- (v) Providing sliding type UPVC door, windows & venetian blinds,
- (vi) Providing vitrified tile flooring
- (vii) Providing electronic toilets with water connections.
- (viii) Providing Granite-top counter at window sill.

**(n) Providing Guard Piles near Approach bridge of GoI jetty (41 Nos.):**

- (i) Providing mild steel (MS) Tubular Fender Piles with MS bracings,

**3. Site conditions**

**3.1 Location**

The site is located at the Govt. of India Jetty, Drishti building and Connecting Bridge / Security Building near Port CFS and at the land plots near (i) Kendriya

Vidyalaya Port Trust ; and (ii) Vathuruthy Railway Gate at W/Island. The proposed Location Plan and Site Plan are shown in Drawing No. 9768-01-2021.

### 3.2 Reference Level

All the levels indicated in the drawings and/or specifications are with reference to Port Chart Datum, which is at 0.582 m below Mean Sea Level. The contractor shall establish reference benchmarks at suitable spots. The maintenance of these reference benchmarks will be the responsibility of the contractor for which no payment will be made.

The tenderers shall make their own arrangements for inspecting the area and satisfying themselves regarding the water depth available in this area. However, the sounding chart in the location of the berth is enclosed for reference.

### 3.3 Tide and Flood Levels

The tides at Cochin are semi-diurnal with a marked daily inequality. The contractor shall carefully investigate the records of all past states of tides and flood and shall be held to have satisfied himself on all the tide and flood levels likely to prevail during the period of contract so far as it may affect the work.

The various tidal levels in the area as per Naval Hydrographic Chart No.2004 are as indicated below for the general guidance to the tenderer.

| <u>Tide</u>                   | <u>Levels with reference to Port Chart datum</u><br><u>(in metres)</u> |
|-------------------------------|------------------------------------------------------------------------|
| Highest High Water Level      | +1.20m                                                                 |
| Mean High Water Spring (MHWS) | +0.92m                                                                 |
| Mean Low Water Spring (MLWS)  | +0.80m                                                                 |
| Mean Sea Level (MSL)          | +0.582m                                                                |
| Mean High Water Neap (MHWN)   | +0.60m                                                                 |
| Mean Low Water Neap (MLWN)    | +0.30m                                                                 |
| Lowest Low Water Level        | +0.20m                                                                 |

### 3.4 Current

The maximum current expected in the inner harbour is about 0.5 metre/sec.

### 3.5 Waves

In the inner harbour area where generally calm conditions prevail throughout the year

### 3.6 Wind

Wind at Cochin is highly influenced by the land and sea breezes. Wind direction changes from north-east during morning hours to west during evening for the period of October to May. During peak of south-west monsoon, especially from June to September, predominant wind direction remains south-west both during morning and evening hours. Due to strong monsoon winds, effect of land winds is not dominant during south-west monsoon. During the non-monsoon periods, the predominant wind direction is from north east during the morning and west during the evening which shows influence of land breeze.

### **3.7 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.

### **3.8 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 even during this period. The hot months are from March to May.

## **4. Drawings**

The drawings enclosed with the tender document are to provide some idea of the job only and are preliminary and for tender purpose and are by no means complete and final and do not show the full range of the work under the scope of the contract. Work shall be carried out only on the basis of drawings marked “Issued for Construction” with addition, alteration, modifications, if any made to aforesaid drawings as required from time to time and also according to other drawings that would be supplied to the contractor from time to time

## **5. Time Schedule and monitoring of progress**

5.1 Tenderer shall prepare and attach with the tender a detailed work schedule [preferably in MS Project / Primavera] indicating key activities and critical items showing critical path of activities for completing the work within the stipulated contract period. This time schedule forms the basis for monitoring the progress of work. Issue of working drawings by the department will be regulated as per the time schedule approved by the department.

5.2 The contractor shall furnish to the Engineer-in-Charge monthly progress reports of the work during execution in the approved proforma indicating delay, if any, its reason and proposal to cover up the delay.

## **6. Facilities to be provided by the Port**

### **6.1 Contractor’s work area:**

6.1.1 Work area as per availability near to the GoI Jetty/ Drishti building/ land plots will be made available to the contractor, free of rent.

### **6.2 Power**

Electric power required for the work can be supplied by the department from the nearest existing line of the Port Trust 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

## **7. Contractor's responsibility**

- 7.1 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.
- 7.2 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.
- 7.3 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.
- 7.4 All labour, skilled or unskilled shall be provided by the contractor. Settling any dispute with the labour will be contractor's responsibility.
- 7.5 The contractor shall take all care to observe no / least disturbance to the functioning of the officers at the working places.
- 7.6 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. The contractor shall ensure that valid Insurance Policy as per contract document is available at all times.
- 7.7 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.
- 7.8 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.
- 7.9 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.
- 7.10 All plants and equipments and consumables required for the whole work shall be provided by the contractor at his own cost.
- 7.11 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.
- 7.12 The Contractor shall be responsible for the true and proper setting out of the works in relation to original points, lines and levels of reference given by the Engineer-in-charge and for the correctness of the position, levels, dimensions and alignment of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith. If at any time during the progress of work any error shall appear or arrive in the position, levels,

dimensions or alignment of any part of the works, the contractor on being required to do so by the Engineer-in-Charge shall, at his own cost, rectify such error to the satisfaction of the Engineer-in-Charge, unless such error is based on incorrect data supplied by the Engineer-in-Charge, in which case the expense of rectifying the same shall be borne by the department. The checking of any setting out or of any line or level by the Engineer-in-charge shall not in any way relieve the contractor of his responsibility for the correctness thereof and the contractor shall carefully protect and preserve all bench marks, pegs, other things used in setting out the work and measurement purpose.

- 7.13 Qualified Engineers with sufficient experience in works of similar nature as indicated in "Contract Data" 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.
- 7.14 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.
- 7.15 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 cost. It shall be the contractor's responsibility to ensure that the workmen make use of the personnel protection equipments during the execution of work**
- 7.16 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.
- 7.17 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) with soft copy showing the progress of the work and also such other particular item of the work.
- 7.18 No information or photograph concerning the works shall be published without the prior permission of the Chief Engineer and drafts of all such proposal/ publication shall be submitted for approval.
- 7.19 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 Trust in no case will be held responsible for the strict accuracy thereof or any deduction, interpretation or conclusion drawn by the tenderer.
- 7.20 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 are allowed to spill into Port waters.

- 7.21 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.
- 7.22 The contractor will have to provide a site office accommodation using container of approx. size 12m x 2.4m x 2.4m(min.) with 3 cabins & one toilet on 30cm high raised platform and all around concrete hard-standing near the contractor's work area or other location as approved by the Engineer-in-charge, for the use of departmental staff, within 15 days of the work order which shall be maintained till completion of work with the following facilities as per detailed specifications and directions of Engineer-in-charge.
- 1) Air-conditioning with split A/Cs 2) Electrical facilities 3) Toilet facilities including sanitary and water supply arrangements 4)Septic tank for 10 users 5) Furniture as per detailed specifications and directions of Engineer-in-charge.
- 7.23 The contractor shall provide at his own cost **1(one)** AC Car with 4 persons capacity, at his own cost, with driver, exclusively for the departmental staff for supervision works, throughout the contract period including extended period of contract, limiting to a maximum distance of 1500 km per month. The supply shall commence not later than 15 days from the date of commencement of work. The vehicle shall be available round the clock on all days including Sundays and holidays. In Sundays and holidays the vehicle shall be made available, only if work is arranged at site. The vehicle shall have valid registration and insurance. All consumables and stores for the safe working of the vehicle and its drivers as necessary should be provided by the contractor and nothing will be given by the Port for the running of the vehicle under this contract. The contractor shall be solely responsible for the consequences arising out of any loss or damage/accident etc. caused to the vehicle on duty. If the contractor fails to provide vehicle as above, the department will hire the same, the actual cost of which will be deducted from the contractor's bills or an amount of Rs.5,000/- per day or part thereof shall be deducted from the contractor's running bills.
- 7.24 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.
- 7.25 The Contractor shall ensure that no labourers with criminal background are engaged for the work.
- 7.26 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 Trust 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.
- 7.27 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.

- 7.28 ***Water required for the construction works including curing work shall be arranged by the contractor at his own cost.***
- 7.29 The contractor shall take all precautions for not to damage any cables/pipes etc. passing through the area of work. Damages, if any, caused to electrical cables/ water lines/ telephone lines shall be rectified by the Contractor at his cost and risk.
- 7.30 While carrying out hot works such as welding, cutting, chipping the concrete etc. at W/Island, 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.
  - (iii) Suitable spark arresters shall be provided on the exhaust of the engine connected to the pile driving mechanism.
  - (iv) Chipping and drilling the RCC etc. when vessel carrying inflammable material is at berth shall be done with soft metal tools only and under the directions of the Fire Personnel.
- 7.31 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 Trust. 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 Trust 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 Trust, 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.
- 7.32 **The contractor shall extend all facilitations and cooperation for other contractors for simultaneous execution of other works in the area entrusted by Cochin Port Trust.**
- 7.33 The contractor 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."



7.34 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. Work Order 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.

7.35 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 his risk and cost.

## **8. Workmanship**

8.1 All the works shall be done strictly according to relevant B.I.S. specifications unless otherwise specified.

8.2 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.

8.3 **The work shall be arranged in the order of preference if so directed by the Engineer-in-Charge of work. In addition to above, contractor shall submit a Quality Assurance Plan (QAP) for the entire works under this contract 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 and work.**

## **9. Temporary works**

9.1 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.

9.2 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.

## **10. Time For Completion**

10.1 The time allowed for carrying out the work as mentioned in the memorandum shall be strictly observed by the contractor. The work shall throughout the time period be proceeded with diligence, time being deemed to be the essence of the contract.

- 10.2 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.
- 10.3 The whole work shall be completed in the stipulated time, accordance with the provisions under Memorandum included under “Form of Tender” or such extended time as may be allowed under clause 29 of Conditions of Contract included in the GCC.

**11. Working time**

The normal working time of the Port Trust is from 8 a.m. to 4.00 p.m. on all working days. If the Contractor wishes to carry out 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.

**12. Method of Execution**

The contractor shall clearly indicate in their tender as per *Annexure-6*, 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

**13. 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 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.

## SECTION -III

### COCHIN PORT TRUST

#### 2. SPECIAL CONDITIONS OF CONTRACT

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**SECTION -III**  
**COCHIN PORT TRUST**

**2. SPECIAL CONDITIONS OF CONTRACT**

**1. GENERAL**

- 1.1 Special Conditions shall be read in conjunction with the General Conditions of Contract, Specifications, Drawings and any other document forming part of this Contract wherever the context so requires.
- 1.2 Notwithstanding the subdivision of the documents into separate section and volumes every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the Contract so far as it may be practicable to do so.
- 1.3 Where any portion of the General Conditions of Contract is repugnant to or at variance with any provision of the Special Conditions, the provisions of the Special Conditions shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy of variations, prevail.

**2. RATES FOR VARIOUS ITEMS**

- 2.1 The rates percentage /lump sum 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 necessary for the proper completion and maintenance of the works. The ratespercentage / lump sum 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 works and temporary works, labour and all other matter in connection with each item quoted for.
- 2.2 The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the Schedule of Quantities.
- 2.3 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) in respect of materials, labour and plant and all other things obtained or used by the contractor for the execution and maintenance of the works or any temporary works and also considering the base rates indicated in Sl. No.31 of Contract Data.

**3. WORKS EXECUTED THROUGH SUBLETTING**

- 3.1 The contractor may sublet any portion of the contract, as per clause 8 of Conditions of Contract of GCC.
- 3.2 Notwithstanding any subletting with such approval as required under above and notwithstanding that the Engineer-in-Charge 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.

3.3 If any sub-contractor engaged upon the works at the site executes, any work which, in the opinion of the Engineer-in-Charge, 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 department shall have right to remove such sub contractors from site. No action taken by the department 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.

#### **4. MEASUREMENTS OF WORK DONE**

4.1 In addition to the Clause-26 of GCC- 'Computerized Measurement Book', measurement of the work can also be done as detailed below

4.2 Executive Engineer (hereinafter called the Engineer's Nominee) shall, except as otherwise provided, ascertain and determine by measurement the value in accordance with the Contract of work done.

4.3 All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the Contract.

4.4 All measurements and levels shall be taken jointly by the Engineer's Nominee or his authorized representative and by the Contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer's Nominee and the Contractor or their representatives in token of their acceptance. If the Contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

4.5 Department shall not entertain any claim from Contractor for any loss or damages on this account. If the Contractor or his authorized representative does not remain present at the time of such measurements after the Contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer's Nominee or his representative shall be deemed to be accepted by the Contractor.

4.6 The Contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

4.7 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.

4.8 The Contractor shall give not less than seven days' notice to the Engineer's Nominee or his authorized 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's Nominee or his authorized 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 Nominee'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.

- 4.9 Engineer's Nominee or his authorized 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.
- 4.10 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.

## **5. BASIC RATES AND ADJUSTMENT FOR SUBSEQUENT PRICE VARIATION**

- 5.1 No price adjustment shall be made for the variation in price of cement, reinforcement steel, Mild Steel plate, Structural steel, bitumen emulsion.

## **6. LIQUIDATED DAMAGES**

For levying compensation as per Clause-49 of General Conditions of Contract, 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.

## **7. ADVANCE**

The Mobilization Advance and Construction/Installation equipment Advance shall be as per clause 51 of General Conditions of Contract. Secured Advance shall be given for non - perishable materials as provided in clause 51.6 of General Conditions of Contract. Cement is not considered as a non - perishable item.

## **8. CARE OF WORKS**

From the commencement to the completion of the work the contractor shall take full responsibility for the care of the work and his employees in connection with the work thereof and in case any damage, loss or injury shall happen to the works or any part thereof or to any temporary work from any cause whatsoever (save and except the excepted risks as defined in clause 5 given below shall at his own cost repair and make good the same so that the work shall be completed in good order and in conformity in every respect with requirement of the contract. In the event of any such damage, loss or injury happening from any of the excepted risks, the Contractor shall if and to the extent required by the Engineer-in-Charge, make good the same as aforesaid and it will be to the account of the Board.

## **9. EXCEPTED RISKS**

The 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 Board 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).

## **10. INSURANCE OF WORKS**

10.1 The insurance cover for the loss of or damage to the Works, plant, materials and equipment stated in the clause 13 of GCC shall be as follows:

- a) The insurance cover for the Works for the time being executed to the estimated current contract value thereof plus 10(ten) percent thereon to allow any additional costs and professional fees resulting from the loss or damage.
- b) The constructional plant and other things brought on to the site by the Contractor to the replacement value of such constructional plant and other things.

10.2 It shall be the responsibility of the Contractor to notify the insurer of any change in the nature and extent of the Works and to ensure the adequacy of the insurance cover at all times in accordance with the provisions of this clause.

## **11. PAYMENTS OF SALARY / WAGES AND OTHER BENEFITS etc. TO CONTRACT / CASUAL WORKERS**

11.1 **The Contractors shall make all payments of salary/wages and other benefits etc. to the contract / casual workers deployed for the work through Bank / Cheque only.**

11.2 **All the payments to the contractors would be released only on submission of undertaking to comply with the clause 10.1 above.**

## **12. MODIFICATIONS TO GCC**

**The following clauses of General Conditions of Contract (GCC) shall be replaced and modified as below.**

### **1. DEFINITIONS**

Following Definitions stands replaced as:

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

**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.

### **25. SETTLEMENT OF DISPUTES AND ARBITRATION**

Clauses 25 stands replaced as:

The settlement of disputes and arbitration shall be as per clause 25 of General Conditions of Contracts. However the venue of the arbitration shall be at Cochin.



## 25.1 General

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:-

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 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 a period of one month from the receipt of the Contractor's letter.

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 Chairman 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 Chairman shall give his decision within 30 days of receipt of Contractor's appeal. If the Contractor is dissatisfied with this decision then:

- a) The Dispute in respect of contract of value upto Rs. 1crore shall not be referred for adjudication through arbitration and.
- b) If the value of the contract is exceeding Rs.1 crore and upto Rs.5 crores ,the Dispute shall be resolved through arbitration as follows;
  - (i) The Parties together shall appoint a Sole Arbitrator by mutual consent to resolve the dispute as per the provisions of the Arbitration and Conciliation Act, 1996. The award of the Arbitrator so appointed shall be final and conclusive and binding on all the Parties to the Agreement subject to as amended from time to time or any statutory re-enactment thereof for the time being in force. The Arbitrator may, with the consent of the Parties extend the time, from time to time, to make and publish award as the case may be.
  - (ii) 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 in the manner aforesaid. Such person shall be

entitled to proceed with the reference from the stage at which it was left by his predecessor.

- c) If the value of the Contract is above Rs.5 crores, the Contractor shall within 30 days of receipt of the decision of the Chairman, appoint an arbitrator and give notice to the Chairman and the dispute shall be resolved through Arbitral Tribunal as detailed below:

The Arbitral Tribunal shall be a panel of three arbitrators, one to be appointed by each Party and the third to be appointed by the two Arbitrators appointed by the Parties. A Party requiring Arbitration shall appoint an Arbitrator in writing, inform the other Party about such appointment and call upon the other Party to appoint its Arbitrator. If the other Party fails to appoint its Arbitrator, the Party appointing Arbitrator shall take steps in accordance with Arbitration and Conciliation Act, 1996 or any statutory modifications or reenactment thereof

- d) In case of the dispute or difference is relating to interpretation and application of the provisions of commercial contract between Central Public Sector Enterprises (CPSE), Port Trust inter se or CPSE and Government Department shall be referred by either party for arbitration to the Permanent Machinery of Arbitrators in the Department of Public Enterprises through the Secretary to the Government of Public Enterprises as per the guidelines issued by Department of Public Enterprises OM No.4 (1) 2011- DPE (PMA) – GL dtd. 12.06.2013 or any statutory amendment thereof.

25.2.1 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 Chairman of the appeal.

25.2.2 It is also a term of this contract that no person other than person / persons appointed as aforesaid should act as arbitrator / arbitrators and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

25.2.3 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, the claim of the Contractor shall be deemed to have been waived 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.

25.2.4 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.

25.2.5 It is also a term of this contract that the Arbitrator / Arbitral Tribunal shall adjudicate only on such disputes as are referred to him/them and give separate award against each dispute and claim referred and in all cases where the total amount of the claims by any party exceeds Rs. 1,00,000/- the arbitrator shall give reasons for the award.

25.2.6 It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties.

25.2.7 It is also a term of the contract that the arbitrator/arbitrators 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. The venue of the arbitration shall be at Cochin. 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 and fix or settle the amount of costs to be so paid.”

## **26. COMPUTERIZED MEASUREMENT BOOK**

5<sup>th</sup> para stands replaced as follows:

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

## **40. PAYMENTS FOR VARIATIONS**

Clauses 40.2 and 40.3 shall be replaced as follow:

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 rate of similar items in Contract.
- ii) Rates and prices in the Schedule of Rates applicable to the Contract plus Ruling percentage.
- 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 Quantity 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

#### **43. PAYMENTS**

Clause 43.2 stands replaced as follows:

43.2 Payment of bills for Civil Works shall be regulated as detailed hereunder:

43.2.1 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.

43.2.2 Interim bills shall be paid within 21 days of date of submission of bills in full shape, by the Contractor, as detailed below:

43.2.2.1 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.

43.2.2.2 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 43.2.3. below.

43.2.3 Final bill shall be paid within 3 months of issue of Taking Over Certificate by the Engineer / Nominee, as detailed

below:

43.2.3.1 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.

43.2.3.2 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 43.2.6. above.

(b)All other sub clauses under Clause 43 remain the same.

#### **44. COMPENSATION EVENTS**

##### **44.1 (c) to (e) - Deleted.**

All other clauses under clause 44 remains the same.

#### **45. RATES FOR ITEMS TO BE INCLUSIVE OF TAXES**

##### **Clause 45 stands replaced as follows:**

45.1 The rate quoted by the Contractor 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 excluding Goods and Service Tax (GST). GST as may be applicable from time to time shall be shown separately in the invoice. 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.

45.2 The invoice to be submitted by the Contractor should include the GST Registration Number of the Contractor as well as the Employer.

#### **48.RETENTION**

Clause 48.2 stands replaced as follows:

48.2 Retention Money is not applicable to this work

#### **48 & 52 RETENTION MONEY AND SECURITY DEPOSIT**

The Clauses 48 and 52 of the General Conditions of Contract related to the Retention Money and Security Deposit, stands modified to the extent detailed below:

- (i) In all cases, the Performance Guarantee retained till end of Defect Liability Period shall be **3%** of the Contract Value or Cost of Work Done, whichever is higher.
- (ii) Wherever the cost of work done exceeds the contract value, Additional Security Deposit @ 3% of the excess amount will be deducted from the respective RA Bills, while making the payment.
- (iii) No Retention Money will be recovered from Contractor's RA Bills.

#### **52. SECURITIES**

Clauses 52.2 stands replaced as follows:

**52.2 Performance Security shall 3% of the Contract value.:**

#### **55. COMPLETION**

(a) Clause 55.4 shall be added as follows:

**55.4**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 CoPT in respect of the Work.

(b) All other sub clauses under Clause 55 remain the same.

#### **82. TAXES AND DUTIES**

**80.1 -Deleted**

**80.2 -Deleted**

**80.3 -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 of 2% plus surcharge 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.

**80.4** The Contractor shall comply with all the GST Regulations, viz. timely uploading of bills, issue of debit/ credit notes etc.

**G. Salient Features of Some Major Laws Applicable To Establishments Engaged In Construction Work.**

Clauses [d] & [l(i)] stands replaced as follows:

(d) Maternity Benefit Act 1961 or Maternity Benefit Amendment Act 2017:- The Acts provide for leave and some other benefits to workmen/ employees in case of confinement or miscarriage etc.

(l) ESI Act, 1948:-

(i) As per the Govt. Notification dt. 20.7.09, Cochin Port Trust 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 Trust. 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 Trust 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.

**SIGNATURE OF TENDERER**

## **SECTION IV**



**COCHIN PORT TRUST**  
**CIVIL ENGINEERING DEPARTMENT**

Tender No.: T10/T-1942/2021-C

Tender for

**Additional works at the Jetty, Buildings and Land areas of GoI at Cochin Port**

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**SECTION - IV  
COCHIN PORT TRUST**

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**SECTION -IV**  
**COCHIN PORT TRUST**  
**1. TECHNICAL SPECIFICATIONS**

**1.1. DETAILED SPECIFICATIONS FOR MATERIALS TO BE USED FOR WORKS**

**1.1.1. GENERAL**

- 1.1.1.1. Except where otherwise specified or authorized by the Engineer-in-Charge, materials supplied by the contractor shall conform to the latest edition of code of practices published by the Bureau of Indian Standard. Samples of materials to be supplied by the contractor shall be shown to the Engineer-in-Charge sufficiently in advance for approval of its quality for use on the work.
- 1.1.1.2. All the materials to be used on the works shall have BIS certification mark if so available, unless otherwise specified elsewhere or shall be of approved brand with equivalent material as approved by the Engineer-in-Charge. List of approved materials/ makes are indicated in Clause 3 of this section.
- 1.1.1.3. All materials supplied shall be stored appropriately to prevent deterioration/ damage from any cause what so ever and to the entire satisfaction of the Engineer-in Charge.
- 1.1.1.4. The materials required for the work shall be brought to the site and stacked at places shown by the Engineer-in-Charge and the same shall be got approved for use in work sufficiently in advance so that the progress of the work is not affected by the supply of materials.
- 1.1.1.5. Tolls are payable by the contractor as per rules for vehicles using the Port's road for supplying the materials.

**1.1.2. AGGREGATES FOR CONCRETE**

- 1.1.2.1. Aggregates (fine and coarse) for concrete shall comply with the requirements of IS: 383 – 'Specifications for coarse and fine aggregate from natural sources for concrete'. Aggregate shall be obtained from sources approved by the Engineer-in-Charge. Aggregates, which are not perfectly clean, shall be washed in clean water to the entire satisfaction of the Engineer-in-Charge.
- 1.1.2.2. The fine aggregate shall be clean, hard, durable, uncoated, dry and free from injurious, soft or flaky pieces and organic or other deleterious substances.
- 1.1.2.3. Each type of aggregate shall be stored separately for the approval of Engineer-in-Charge. Wet aggregate delivered at the site shall be kept in storage for at least 24 hours to ensure adequate drainage before being used for concreting.
- 1.1.2.4. Contractor shall maintain at site at all times such quantities of each type of aggregate as are considered by the Engineer-in-Charge to be sufficient to ensure continuity of work.

**1.1.3. CEMENT**

- 1.1.3.1. Quality of cement used for the work shall be 43 grade ordinary Portland cement conforming to IS:8112 or 53 grade ordinary Portland cement conforming to IS:12269 or Pozzolona cement conforming to I.S. 1489 unless otherwise approved by the Engineer-in-Charge.

- 1.1.3.2. The cement required for the work will have to be procured by the contractor and shall comply with the relevant IS. As far as possible, the cement required for the work will have to be procured from the government agencies. The cement shall, if required by the Chief Engineer / Engineer-in-Charge, be tested and analyzed by an independent analyst at the Contractor's cost and result produced to the Engineer-in-Charge.
- 1.1.3.3. Supply of cement shall be taken in 50kg bags bearing manufacture's name and BIS marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case, test results indicate that the cement arranged by the Contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.
- 1.1.3.4. A cement godown of adequate capacity as directed by the Engineer-in-Charge shall be constructed by the contractors at the site of the work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement godown. The key of one lock shall remain with the Engineer-in-Charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge.
- 1.1.3.5. The cement brought to the site and cement remaining unused after completion of work shall not be removed from the site without written permission from /of the Engineer-in-Charge.
- 1.1.3.6. The cement shall be stored in a weather proof building with facilities for inspection.
- 1.1.3.7. The contractor shall maintain a cement register showing dates of receipt and issue, quantities used daily and balance which shall be accessible to the Engineer-in-Charge.
- 1.1.3.8. For cement stored in silo, clauses 1.1.3.3 and 1.1.3.4 are not applicable.

#### **1.1.4. STEEL REINFORCEMENT**

- 1.1.4.1. The reinforcement steel used for the work will have to be procured by the contractor and shall be HYSD bars of Fe550 /Fe 500 / Fe415 grade conforming to IS:1786 unless otherwise approved by the Engineer-in-Charge.
- 1.1.4.2. As far as possible, the reinforcement steel required for the work shall be procured from Steel Authority of India or RashtriyaIsbat Nigam Ltd. The reinforcement steel can also be procured from the firms TATA Iron & Steel, Jindal Steel & Power Ltd., JSW and Shyam Steel Industries, Durgapur for use in the work subject to production of valid license certificate from BIS. In case steel is not available from the above sources, the contractor shall obtain specific approval from the Engineer-in-Charge well in advance for purchase of steel from other sources.
- 1.1.4.3. The contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of work. Samples shall also be taken and got tested by the Engineer-in-Charge as per provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the Contractor does not conform to BIS codes, the



same shall stand rejected and shall be removed from the site of work by the Contractor at his cost within a week's time of written orders from the Engineer-in-Charge to do so.

- 1.1.4.4. The steel reinforcement shall be brought to the site in bulk supply of 10 tonnes or more or as decided by the Engineer-in-Charge.
- 1.1.4.5. The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- 1.1.4.6. For checking nominal mass, tensile strength, bend test etc., specimen of sufficient length as per IS:432/ IS:1608/ IS:1599 or as specified by the Engineer-in-Charge shall be cut from each size of the bar at random at frequency not less than the specified below.

| Size of bar        | For consignment below 100 tonnes              | For consignment over 100 tonnes               |
|--------------------|-----------------------------------------------|-----------------------------------------------|
| Under 10 mm dia    | One sample for each 25 tonnes or part thereof | One sample for each 40 tonnes or part thereof |
| 10 mm to 16 mm dia | One sample for each 35 tonnes or part thereof | One sample for each 45 tonnes or part thereof |
| Over 16 mm dia     | One sample for each 45 tonnes or part thereof | One sample for each 50 tonnes or part thereof |

- 1.1.4.7. The contractor shall supply free of charge the steel required for testing. The cost of tests shall be borne by the Contractor.
- 1.1.4.8. Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

**1.1.5. WATER**

- 1.1.5.1. Clean fresh water free from oils, acids, alkalies, salt, sugar, organic materials or other harmful materials shall be used for washing aggregates, mixing and curing of concrete. The water used shall comply with clause 5.4 of IS:456-2000. Potable water is generally considered good for mixing concrete.
- 1.1.5.2. **Cochin Port Trust will not provide/supply water for the work.** Water has to be arranged by the contractor himself for the construction works including curing work at his own risk and cost.
- 1.1.5.3. Samples of water arranged by the contractor shall be taken by the Engineer in Charge and got tested in accordance with the provisions of relevant BIS codes. In case test results indicate that the water arranged by the contractor does not conform to the relevant BIS codes, the same shall not be used for any works. The cost of tests shall be borne by the contractor.

**1.1.6. ADMIXTURES IN CONCRETE**

- 1.1.6.1. Admixture in concrete will be allowed only with prior approval of the Engineer-in-Charge. The contractor shall produce test certificates from recognized laboratories before use, if so desired by the Engineer-in-Charge.
- 1.1.6.2. Secondary reinforcement material to be used in wearing course of the jetty shall be Poly Propylene Fibres of “Recron 3S fibre” or its equivalent product as

approved by the Engineer-in-Charge and its quantity used and mixing procedures shall be as per the manufacturer's recommendations.

- 1.1.6.3. Admixture for corrosion protection- Wherever specified in BoQ, concrete used shall be mixed with "Bipolar Concrete Penetrating Corrosion inhibiting Admixture " approved by RDSO(RDSO specification No.M&C /PCN/126-2008) or any fourth generation polydentate bipolar concrete penetrating corrosion inhibiting admixture approved by IRC, to protect the reinforcement bars against corrosion.

#### **1.1.7. STRUCTURAL STEEL**

- 1.1.7.1. The mild steel flats / plates/ angles/ channels/ I-sections used for the work shall conform to IS:2062. The material shall be free from visible as well as hidden defects such as pitting cracks, laminations, twists etc. and excessive rusting.

- 1.1.7.2. It is not necessary for the Contractor to obtain separate approval in case mild steel plate is purchased from Steel Authority of India Ltd or TATA Iron & Steel or Jindal Steel & Power Ltd.(JSPL) In case of purchase from Tata Iron & Steel & JSPL,valid license certificate from BIS shall be produced. For purchase from other sources, the contractor shall apply sufficiently in advance and obtain written permission of the Engineer-in-Charge for making purchase from such sources.

#### **1.1.8. SAND FOR MAKING MORTAR FOR MASONRY WORK / PLASTERING WORK**

Sand used for masonry mortar shall conform to IS:2116-. Sand used for plastering shall conform to IS:1542-1992.

#### **1.1.9. PRECAST CEMENT CONCRETE BLOCKS**

- 1.1.9.1. Factory made precast concrete blocks shall be of size 300mm x 200mm x 150mm and 300mm x 100mm x 150mm or nearest available size conforming to IS:2185 having minimum compressive strength  $50\text{kg/cm}^2$  made in plain cement concrete of M-15grade with 20mm graded metal. However, the length and shape of blocks to be provided at junctions shall be suitably modified to fit into the general configuration. These blocks are to be cast in appropriate moulds preferably steel moulds, which shall provide a smooth surface. Blocks used at junctions as required also be cast in same way. The finished blocks shall be cured properly for a minimum period of 14days. Blocks damaged during the removal of forms and handling will be rejected.

#### **1.1.10. QUARRY DUST**

Quarry dust shall be crusher-run-screening with grading having 100 % passing through 2.36 mm sieve and 10 to 20 % by weight passing through 75 micron sieve. The same shall be cleaned, hard, durable, uncoated, dry, free from injurious soft or flaky piece and organic or other deleterious substances.

#### **1.1.11. 6mm SIZE AGGREGATE**

6mm size graded aggregate conforming to IS 383-2016 shall be used. Aggregates which are not perfectly clean shall be washed in clean water to the entire satisfaction of the Engineer-in-Charge.

#### **1.1.12. VITRIFIED FLOORING / SKIRTING TILES**

- 1.1.12.1. Tiles shall be of approved premium quality, make and of approved colour and shade. The tiles shall be generally conforming to IS:13756/ IS:15622 with water absorption less than 0.08% and having modulus of rupture greater than 500kg/sq.cm & modulus hardness 8.0. The tiles shall be flat, true to shape and free from cracks, crazing spots, clipped edged and corners. The tiles shall be of 600mm x 600mm (minimum) size available higher size and shall have minimum thickness of 10mm.
- 1.1.12.2. The top surface of the tiles shall be glossy/ mat finish / antiskid as specified in the Schedule of Quantities and as approved by the Engineer-in-Charge. The underside of the tiles shall be completely free from glazing in order to adhere properly to the base.
- 1.1.12.3. Manufactures test Certificate for water absorption, breaking strength, abrasion resistance and crazing has to be produced by the contractor.

**1.1.13. GLASS**

The glass to be used on the work shall be of good quality of approved make conforming to IS: 2835 and free from defects scratches etc. The thickness of glass shall be as specified in the Schedule of quantities.

**1.1.14. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPES (FOR WATER LINE)**

- 1.1.14.1. CPVC pipes & fittings used in hot & cold potable water distribution system shall conform to requirement of IS:15778-2007. The material from which the pipe is produced shall consist of chlorinated polyvinyl chlorides. The polymer from which the pipe compounds are to be manufactured shall have chlorine content not less than 66.5%.
- 1.1.14.2. The internal and external surfaces of the pipe shall be smooth, clean and free from grooving and other defects. The pipes shall not have any detrimental effect on the composition of the water flowing through it.

**1.1.15. CPVC FITTINGS (FOR WATER LINE)**

All fittings shall be of injection moulded CPVC socket type with BIS's certification mark and designated by the diameters of their sockets. All fittings shall in all respects comply with IS:7834 (Part I-VIII)

**1.1.16. STAINLESS STEEL PIPES FOR VARIOUS WORKS**

The stainless steel pipe to be used for various works shall be of grade 316 with wall thickness not less than 16 gauges. The diameter and pattern shall be as specified in the Schedule of quantities and drawings. The stainless steel pipe shall be of brush finish.

**1.1.17. STAINLESS SECTIONS FOR VARIOUS WORKS**

The stainless sections to be used for various works specified in SOQ shall be of grade 316. The size and pattern shall be as specified in the Schedule of quantities and drawings. The stainless steel sections shall be of brush finish.

**1.1.18. EXTERIOR/INTERIOR ACRYLIC EMULSION PAINT**

The weather proof exterior acrylic emulsion paint shall be of approved premium quality and make. The interior acrylic emulsion paint shall be of approved premium quality and make. The coverage shall conform to the

manufacturer's specification. The colour/shade shall be as per direction of the Engineer-in-Charge.

#### **1.1.19. STEEL DOORS, WINDOWS, VENTILATORS ETC**

- 1.1.19.1. Hot rolled steel sections for fabrication of steel doors, windows, ventilators and fixed lights shall conform to IS: 7452-2013. Shapes weights and designations of hot rolled sections shall be as per IS: 7452-2013. Tolerance in thickness of the sections shall be +0.2 mm. The fabricated steel doors, windows, ventilators and composite units shall confirm to IS:1038
- 1.1.19.2. The steel doors and windows shall be according to the specified sizes and design. The size of doors and windows shall be calculated, so as to allow 1.25 cm clearance on all the four sides of opening to allow for easy fitting of doors windows and ventilators into opening. The actual sizes of doors, windows and ventilators shall not vary by more than +1.5 mm from those given in the drawing.

#### **1.1.20. WASH BASIN**

- 1.1.20.1. Wash basin shall be of White Vitreous wash basin of 1000 x 480 x160 mm size Pastel brand (No.91037) of "Hindware" or equivalent approved make of "Kohler/ Jaquar" with single tap hole to suit the sensor tap. The inside surface of the basin shall have uniform slope towards the waste hole.
- 1.1.20.2. Galvanized rag bolts with nut having suitable diameter and length as approved by the Engineer charge shall be used for fixing the wash basin.
- 1.1.20.3. Waste fittings for wash basin shall be of brass and shall conform to IS:2963. The fitting shall be chromium plated.

#### **1.1.21. P.V.C. PIPES (FOR RAIN WATER DOWN PIPES AND SEWER LINES**

- 1.1.21.1. PVC pipes shall conform to IS: 4985-2000 and class as specified in the schedule. The pipes shall be supplied in random length from 4 to 7m and shall have BIS certification marks.
- 1.1.21.2. The internal and external surface of the pipe shall be smooth and clean, free from grooving and other defects. The end shall be cleanly cut and shall be square with the axis of the pipe. Slight shallow longitudinal grooves or irregularities in the wall thickness shall be permissible provided the wall thickness remains within the permissible limits.

#### **1.1.22. GUN METAL GATE (NON-RETURN) VALVE**

- 1.1.22.1. The non-return valve shall be of Gun metal and shall be of horizontal or vertical flow type as specified.
- 1.1.22.2. The valve shall be of quality approved by the Engineer-in-Charge and shall generally conform to IS:778.

#### **1.1.23. GALVANIZED IRON (GI) PIPES AND FITTINGS**

- 1.1.23.1. All GI pipes and fittings shall conform to IS: 1239 and shall be of medium class for water supply system unless specified otherwise
- 1.1.23.2. All screwed tubes and sockets shall have pie threads in accordance with the requirements specified in IS: 554. The pipe shall be supplied with taper threads and sockets with parallel threads.

- 1.1.23.3. Galvanizing for pipes and fittings shall conform to IS: 4736. The zinc coating shall be uniform adherent, reasonably smooth and free from such imperfections as flux ash and dross inclusions, bare patches, black spots, pimples, lumpings, runs, rust stains, bulky white deposits and blisters.
- 1.1.23.4. All fittings shall be of malleable galvanized iron and designated by their respective nominal bores.

**1.1.24. CALCIUM SILICATE BOARD FOR FALSE CEILING**

Calcium Silicate Board with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS:8225:1987, light reflectance of 85% (minimum), non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity <0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on interlocking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall S.S screws etc.

**1.1.25. FIBRE GLASS REINFORCED PLASTIC DOOR FRAMES**

- 1.1.25.1. The FRP door frames shall be of cross-section 90mm x 45mm having single rebate of 32mm x 15mm to receive shutter of 30mm thickness .The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat . Door frame laminate shall be 2 mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. Stainless steel stay shall be provided at the bottom to steady the frame.
- 1.1.25.2. FRP door shall be manufactured as per specifications laid down in IS:14856, nomenclature of items & direction of Engineer-in-Charge.
- 1.1.25.3. Tolerance of size of frame to be + 2 mm and on size of rebate to be + 1 mm.
- 1.1.25.4. The surface of the moulded frame shall be free from any visible defects such as small pores, crazing, blistering, wrinkling, impurities, defective impregnation, colour blots and aggregate defects, as mentioned in IS 14856. Scattered pin holes duly repaired and finished by applying resin and not noticeable shall be acceptable. Frame laminate shall be flat and shall have smooth and level surface. Laminate shall be finished in colour& shade as approved by Engineer-in-Charge.

**1.1.26. FIBRE GLASS REINFORCED PLASTIC (FRP) SHUTTERS**

- 1.1.26.1. FRP Shutters shall be of factory made conforming to the specifications as per IS:14856 and nomenclature of item & direction of Engineer-in-Charge.

1.1.26.2. Blocks of any seasoned hardwood of bulk density not less than 450 kg./m<sup>3</sup> at 12 per cent moisture content or any other material of sufficient thickness and length shall be provided inside the shutter at suitable place to hold fittings and fixtures such as aldrops, tower bolt, handle, sliding door bolt, mortice lock etc. Blocks for hinges shall be provided at three locations, unless otherwise specified by the purchaser. One at the centre and other two at 200 mm from the top and the bottom of the shutter. Blocks shall be provided at predetermined places in the shutter so as to fix hinges mortice locks, tower bolts, aldrops, door closures, etc. The finished surface shall be buffed and polished with w

**1.1.27. GRANITE SLAB FOR COUNTER/ MANHOLE COVER**

Granite slabs shall be of approved best quality and ruby red colour and shade and pre-polished and generally conform to relevant BIS specification. The thickness of slab shall not be less than 18mm. The surface shall be even without any veins, cracks or flaws. The slabs shall be of selected quality, hard, sound, dense, and homogeneous in texture, free from cracks, decay, weathering and flakes. The sample of granite slab shall be got approved from the Engineer-in- Charge before use on the work. The slabs shall be machine cut to the requisite dimension. The size of slab shall be such that minimum joints shall be provided in longitudinal and transverse directions.

**1.1.28. UPVC JOINERIES**

UPVC joinery systems shall with outer frame having profile thickness above 2.5 mm. Sealing sides top and bottom with silicon sealant etc. Doors and Partitions shall of approved colour and shade. The joinery shall be water resistant by providing water channel & EPDM gasket. Impact modifiers shall be used to ensure strength and durability and special additives to ensure UV resistance. UPVC Profiles shall withstand extreme temperature 0 – 50 degree temperature and ensure low maintenance. All fixtures shall be made up of stainless steel. The frame shall be fixed in prepared opening in the walls. All civil works shall be completed before fixing the frames.

**1.1.29. VENITIAN BLINDS**

Vertical blinds of approved make and colour shall be of 100 mm wide with head rail of extruded anodized high strength aluminium alloy. Head rail shall have 25mm decorative insert on either side of head rail. Control units shall be 'Derlin' (Celon) and shall be of tilting control and traverse code pulleys. The runner shall moulded from 'Derlin' (celon) with an antifriction additive. The spacer shall be made of stainless steel brackets for installation to be 14 gauge galvanized spring steel. Louver fabric shall be polyester viscouse/ polyester yarn, dyed in fast colours job to be complete in all respects and to the approval of the Engineer-in-charge.

**1.1.30. SYNTHETIC ENAMEL PAINT**

Synthetic Enamel paint conforming to IS 2932 of approved good quality (Berger or Nicholson or ICI Dulux) shall be used. The shade of under coat shall be match with the top coat as recommended by the manufacturer

### **1.1.31. 'D' TYPE RUBBER FENDER**

'D' type rubber fender to be used on work shall be of sizes 150mm H x 150mm W (overall) as per drawings and schedule of quantities, manufactured by approved manufacturer. The rubber used for manufacturing rubber fender shall be as per ASTM-D-2000-98c. Necessary test certificates, chemical composition of rubber tested in a NABL approved laboratory shall be produced by the contractor.

### **1.1.32. MATERIALS NOT SPECIFIED**

All materials not herein detailed and fully specified but which may be required for use on works, shall be subjected to the approval of the Engineer-in-Charge without which they shall not be used anywhere in the permanent works

### **1.1.33. SAMPLING AND TESTING OF MATERIALS**

1.1.33.1. Sampling and testing of the material supplied by the contractor for use on the work shall be done as per the provisions of the relevant BIS codes/specifications. In the absence of BIS specification in a particular case, the sampling and testing shall be done as directed by the Engineer-in-Charge as sound engineering practice. Material conforming to the specifications and approved by the Engineer-in-Charge shall only be used by the contractor.

1.1.33.2. All the sampling and testing shall be done at the contractor's cost.

## **1.2. DETAILED SPECIFICATIONS OF ITEMS FOR WORKS**

### **1.2.1. GENERAL**

1.2.1.1. Except where otherwise specified or authorised by the Engineer-in-Charge all items of works executed by the Contractor must conform to the latest edition of the Bureau of Indian Standard (BIS) Specifications, I.R.C., MORT&H's specifications and Code of practices published by BIS. Where no such specifications or code of adoption. The tenderer while indicating such specifications shall practice exists the latest BSS codes of practice shall also be considered for enclose the full set of the publication so referred and not in extracts. Photostat / Xerox copies in duplicate shall be forwarded which shall not be returned to the Contractor. In absence of any specification the department reserves the right to adopt trade specifications and /or sound engineering practices for the specialised work as may be decided by the Engineer-in-Charge which shall be final, conclusive and binding on the contractor.

1.2.1.2. Detailed specifications of items of works are described below:

### **1.2.2. DISMANTLING WORKS**

1.2.2.1. The tenderers shall inspect the site and carry out the required investigation by himself about the present position and condition of the existing structures and assess the difficulties and the work involved in its dismantling and removal. It will be deemed that the tenderer has inspected the site and satisfied himself the condition of the structure and the nature of the work involved for the dismantling and removal and that the tenderer has estimated its cost accordingly and port will be in no way responsible for the lack of such knowledge and also consequences thereof to the tenderer. The dismantling

shall be done carefully without causing any damage to the remaining portions / structure.

- 1.2.2.2. Usable materials after dismantling the structures, if any, shall be the property of the contractor only if it is specified in BoQ and the unusable dismantled materials/debris shall be suitably disposed off as directed by the Engineer-in-Charge. No debris shall be deposited at the Project Site or in Backwaters.
- 1.2.2.3. The retrieved steel reinforcement bars of piles, beams and slabs obtained from dismantling shall become the property of the Contractor and can be taken over and removed by him free of cost.
- 1.2.2.4. All protective measure and care shall be taken to avoid falling of concrete pieces in the back waters during the course of dismantling and fallen materials if any, shall be removed from the back waters by the contractor.
- 1.2.2.5. The debris shall be cleared on completing each day's work, if so directed by the Engineer-in-Charge.
- 1.2.2.6. All possible measures shall be taken to pull out the piles without breaking. In case any pile is broken during pulling out, the same shall be cut at bed level and removed.

**1.2.3. PLAIN AND REINFORCED CEMENT CONCRETE**

**1.2.3.1. General**

The concrete used for all works, concreting procedure etc. shall be in accordance with IS:456-2000.

**1.2.3.2. Concrete Mix**

Mix used for R.C.C. shall be of minimum M20 grade unless otherwise specified. Design mix shall be used for M20 and higher grade of concrete unless otherwise specified in the schedule.

**1.2.3.3. Nominal Mix**

For nominal mix concrete, proportion of fine aggregate to coarse aggregate shall be 1:2 by mass. The minimum cement content per cubic meter of nominal mix concrete shall be as per table 5 of IS: 456-2000.

**1.2.3.4. Design Mix**

- 1.2.3.4.1. For design mix concrete of following grades of concrete the minimum cement content per cubic metre and maximum water cement ratio are as given below.

| Sl. No | Grade of Concrete | Minimum cement content in Kg / m <sup>3</sup> | Maximum free Water cement ratio |
|--------|-------------------|-----------------------------------------------|---------------------------------|
| 1.     | M25               | 300                                           | 0.50                            |
| 2.     | M20               | 300                                           | 0.55                            |

- 1.2.3.4.2. For design mix concrete, the contractor shall make calculations jointly with Engineer-in-Charge and carryout all necessary tests at contractor's cost to determine the proportion by weight of cement, aggregates (coarse and fine), admixture if required and water necessary to produce concrete of required grade having the desired workability and, water cement ratio not exceeding the



allowable limit, prior to commencement of work. The contractor shall submit the following for the approval of Engineer-in-Charge.

- (i) The proportion of cement, coarse aggregate, fine aggregate and water so determined.
- (ii) The sieve analysis of aggregates which he proposes to use in the works.
- (iii) Full details of the tests conducted.
- (iv) All calculations relevant to mix design.

1.2.3.4.3. When the proportions are submitted to the Engineer-in-Charge which he considers will produce concrete having the required properties, it shall become the declared proportions to be used for the work. The agreement by the Engineer-in-Charge to such declared proportions shall not relieve the contractor of any of his responsibilities to use in the work at all times concrete having the required properties. No deviation from the declared proportions shall be allowed unless and until the Engineer-in-Charge shall have given his written authorization for the adoption of revised proportions for the concrete.

1.2.3.4.4. Sampling, testing and acceptance criteria for designed mix concrete shall be as per clause 15, 16 & 17 of IS:456-2000 unless otherwise specified. Sampling and testing shall be done at contractor's own cost. Testing shall be done in a laboratory approved by the Engineer-in-Charge.

#### 1.2.3.5. **Size of Coarse Aggregate**

For all concrete, plain or reinforced of M20 and higher grades, 20 mm size graded aggregate conforming to IS:383-2016 shall be used unless otherwise specified. If 20 mm graded aggregates as per IS:383 are not readily available, graded 20 mm aggregate shall be obtained by blending 20 mm and 12.5/ 10 mm aggregates in the proportion arrived based on the combined sieving of aggregates.

#### 1.2.3.6. **Batching and Mixing**

1.2.3.6.1. For production of concrete, concrete batching and mixing plant, with type and capacity approved by the Engineer-in-Charge shall be installed at site by the contractor. The plant shall be approved by the Engineer-in-Charge and shall be installed at an approved location. All measuring equipments should be maintained in a clean serviceable condition, and their accuracy shall be periodically checked as directed by the Engineer-in-Charge.

1.2.3.6.2. In proportioning concrete, the quantity of both cement and aggregate should be determined by weight. Where the weight of cement is determined on the basis of weight of cement per bag, a reasonable number of bags should be weighed periodically to check the net weight. Where the cement is weighed on the site and not in bags, it should be weighed separately from the aggregates. Water should be either measured by volume in calibrated tanks or weighed. Any solid admixture that may be added may be measured by weight; liquid and paste admixture by volume or weight.

1.2.3.6.3. Except where it can be shown to the satisfaction of the Engineer that supply of properly graded aggregate of uniform quality can be maintained over the period of work, the grading of aggregate should be controlled by obtaining the coarse aggregate in different sizes and blending them in the right proportion when required, different sizes being stacked in separate stock piles. The

grading of coarse and fine aggregate should be checked frequently for a given job being determined by the Engineer-in-Charge to ensure that the specified grading is maintained.

1.2.3.6.4. Under unavoidable circumstances, change from weigh batching to volume batching may be permitted by Engineer-in-Charge, on specific request from the contractor.

1.2.3.6.5. Ready mix concrete from out side source shall be allowed for use on the work subject to the conditions that: (i) written permission shall be obtained from the Engineer-in-Charge, (ii) all quality control measures as stipulated by the Engineer-in-Charge are strictly adhered to by the contractor at his cost, (iii) all design mix calculations as per Clause 1.2.3.4.4 of tender document shall be submitted by the contractor for approval of the Engineer-in-Charge & approval obtained; and (iv) all expenses towards conveyance and incidentals of providing departmental supervision at the mixing plant shall be borne by the contractor.

**1.2.3.7. Cover to Reinforcement**

Cover as specified in drawing shall be provided by using precast cement concrete block made from concrete of same grade as that of main work unless otherwise directed by the Engineer-in-Charge.

**1.2.3.8. Transporting, placing, compacting and curing of concrete**

1.2.3.8.1. Transporting placing, compacting and curing of concrete shall be as per clause 13 of IS:456-2000. Placement of concrete shall be done with concrete pumps and pipelines unless otherwise approved by the Engineer-in-Charge in special cases.

1.2.3.8.2. Concrete shall be transported from the mixer to the worksite as rapidly as possible which will prevent the segregation or loss of any ingredient, and for maintaining the workability.

1.2.3.8.3. The concrete shall be placed and compacted before setting commences and should not be subsequently disturbed. Care should be taken to avoid displacement of reinforcement or movement of formwork.

1.2.3.8.4. All concrete shall be vibrated unless otherwise specified or approved by the Engineer-in-Charge and such vibrating shall be as required by the Engineer-in-Charge. The mechanical vibrators complying with IS:2505, IS:2506 or IS:4656 shall be used for compacting concrete. All vibrations shall be carried out to a plan approved by the Engineer-in-Charge. No workman shall be allowed to operate the vibrator without having received instructions and training in its use. Care must be taken to avoid segregation and excessive vibration.

1.2.3.8.5. Concreting shall be carried out continuously upto construction joints, the positions and arrangement of which shall be as directed by the Engineer-in-Charge. When the work has to be resumed the construction joints shall be prepared in accordance with clause 13.4 of IS:456-2000.

1.2.3.8.6. Unless otherwise specified, all concrete shall be kept continuously in a damp condition by ponding or by covering with a layer of sacking, canvas, hessian or similar materials with fresh water for not less than 7 days after laying the concrete. If curing is not done properly the department will be at liberty to

engage labour for curing and the expenditure incurred will be recovered from the contractor's bill. The decision of the Engineer-in-Charge will be final on this.

- 1.2.3.8.7. Stripping time for the form work shall be as stipulated in clause 11.3 of IS:456-2000. Any impression, fins etc. that may occur from the form work shall be removed and treated with cement mortar 1:1.5 (1 cement: 1.5 sand).
- 1.2.3.8.8. Contractor shall arrange to fix any fixtures wherever necessary while doing concreting work without any extra cost. Cost of fixtures will be paid separately, if it is provided by the contractor.
- 1.2.3.8.9. The unit rate quoted by the tenderer shall be for the finished work and deemed to include cost of all materials and labour, form work, provision of holes, recess, other contingent items etc. required for the completion of work as specified etc.

#### **1.2.4. EARTH WORK EXCAVATION**

- 1.2.4.1. Contractor shall be responsible for the true and proper setting out of the work in relation to original points, lines and levels of reference and for corrections of the level dimension and alignment of all parts of work.
- 1.2.4.2. All excavations shall be carried out to give exact length, width and depth as per profiles indicated in the drawings or as directed by the Engineer-in-Charge. The phasing and method of excavation shall be to the approval of Engineer-in-Charge. The contractor shall provide suitable arrangements to prevent water from any source entering into excavated pits at his cost.
- 1.2.4.3. Necessary shoring and timbering shall be provided as per IS:3764-1992 for preventing slipping of the soil in trenches and for protecting the safety and stability of the existing structures. Dewatering, if required shall also be carried out at no extra cost to keep the excavated surface dry for construction. Excavation taken wider or deeper than required shall be filled back with crusher run screening or selected materials approved by the Engineer-in-Charge, thoroughly compacted in layers of thickness not more than 20 cm or as decided by the Engineer-in-Charge.

#### **1.2.5. FILLING OF BASEMENT WITH 6MM STONE CHIPPING- QUARRY DUST MIX**

- 1.2.5.1. 6mm stone chipping and quarry dust shall be blended in the proportion by volume of 2:1 (2, 6mm stone chipping: 1 quarry dust) so as to get a uniform mixture. Filling shall then be done in layers not exceeding 30cm in loose thickness and shall be compacted by watering, ramming etc. as per the directions of the Engineer-in-charge. The rate quoted shall be inclusive of all labour and materials for all leads, transportation, unloading etc. complete.

#### **1.2.6. CEMENT CONCRETE BLOCK MASONRY**

- 1.2.6.1. The blocks shall be laid to level and alignment to bring out joint not more than 10 mm wide between the blocks. The grade of mortar shall be specified in the schedule of items. Curing shall be done for 7 days.
- 1.2.6.2. Payment for cement concrete block masonry shall be made on cubic meter. The rate shall include all labour and materials including curing etc. complete required for completion of work.

### **1.2.7. PROVIDING BASE COURSE OF FLOORING WITH CEMENT CONCRETE**

- 1.2.7.1. Thickness and grade of concrete for base course of flooring shall be as specified in the schedule of items.
- 1.2.7.2. Before laying the base course of concrete the bed shall be well rammed and compacted and wetted thoroughly for two days. Drain holes, if necessary shall be provided as per the directions of the Engineer-in-Charge. The bed shall have slope similar to the finished floor surface.
- 1.2.7.3. Over the bed thus prepared cement concrete shall be laid to the specified thickness and to the slope as required. The concrete shall be compacted by ramming and shall be finished to an even surface and shall be kept wet for 48 hours.

### **1.2.8. CEMENT PLASTERING**

- 1.2.8.1. Cement plastering shall be with the grade of mortar and of thickness specified in the schedule. The surface to be plastered shall be thoroughly cleaned and kept wet for 4 hours before plastering.
- 1.2.8.2. All the corners shall be rounded off to a radius of 25 mm unless otherwise specified.
- 1.2.8.3. Where smooth finishing is specified in the schedule the plastering shall be floated over with neat cement slurry using 2.2 kg of cement per square meter immediately after the final coat of plastering and rate quoted for plastering shall include cost of this finishing work.
- 1.2.8.4. The plastered surface on which glazed tiles or other similar type of finishing are to be provided subsequently shall not be finished smooth but shall be scarified for forming a base for providing the final surface finish as required.
- 1.2.8.5. The surface shall be cured for 7 days.
- 1.2.8.6. The rate shall include all labour and materials including scaffolding, curing etc. complete. required for completion of work. Measurement of the work under this head shall be made on the basis of the area of work done.

### **1.2.9. INSTALLATION OF CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPES**

- 1.2.9.1. Visually inspect pipe ends before making the joint. Use of a chamfering tool will help identify and crakes, as it will catch on to any crack. Pipe shall be cut quickly and efficiently by using preferably with Wheel type plastic tubing cutters.
- 1.2.9.2. Burrs and filings can prevent proper contact between the tube and fittings during the assembly, and should be removed from the outside and inside of the tube. A chamfering tool is preferred, but a pocket knife or file is also suitable for this purpose.
- 1.2.9.3. Use only CPVC cement for jointing pipes and CPVC cement shall fully as recommended by the manufacturer. When using adhesive solution/solvent cement be certain of proper ventilation.
- 1.2.9.4. When making a joint, apply a heavy, even coat of cement to the pipe end. Use the same applicator without additional cement to apply a thin coat inside the

fitting socket. Too much cement can cause clogged waterways. Do not allow excess cement to puddle in the fitting and pipe assembly. This could result in a weakening of the pipe wall and possible pipe failure when the system is pressurized.

- 1.2.9.5. Rotate pipe one-quarter to one-half turn while inserting it into the fitting socket and remove the excess adhesive solution/solvent cement from the joint with clean rag.
- 1.2.9.6. When making a transition connection to metal threads, use a special transition fitting or CPVC male threaded adapter whenever possible. Do not over-torque plastic threaded connections. Hand tight plus one-half turn should be adequate.
- 1.2.9.7. Hang or strap CPVC systems loosely to allow for thermal expansion. Do not use metal straps with sharp edges that might damage the tubing.
- 1.2.9.8. CPVC stub outs for lavatories, closets and sinks are appropriate. However, on areas where there is a likelihood that movement or impact abuse will occur, metal pipe nipples may be amore appropriate stub-out material. Showerheads, tub spouts and outside still cocks are examples.
- 1.2.9.9. When connected to a gas water heater, CPVC tubing should not be located within 50 cm of the flue. For water heaters lacking reliable temperature control, this distance may be increased up to 1 m a metal nipple or flexible appliance connector should be utilized. This measure eliminates the potential for damage to plastic piping that might result from excessive radiant heat from the flue.

#### **1.2.10. WOOD WORK**

- 1.2.10.1. Workmanship for the woodwork shall be good and conforming to the satisfaction of the Engineer-in-Charge.
- 1.2.10.2. Scantlings shall be accurately planed smooth to the full dimensions and rebates, roundings, mouldings etc. as per drawings. Patching or plugging is not allowed.
- 1.2.10.3. Joints shall be simple, neat, and strong without wedging / filling and pinned with teak/bamboo pins.
- 1.2.10.4. All wood works shall be brought to the site and approved by the Engineer-in-Charge before it is painted or oiled. The wood works brought to the site after applying painting, but without obtaining prior approval from the Engineer-in-charge shall be rejected. All concealed timber surfaces and portions of timber butting against wall and lintel shall receive one coat of primer and 2 coats of coal tar or bituminous paint.
- 1.2.10.5. Frame shall be fixed to walls using M.S clamps as per schedule of fittings. The M.S clamps shall receive two coats of coal tar or bituminous paint before its embedment in concrete. In case of door frames without sills, vertical members shall be buried in the floor at least 40 mm deep.
- 1.2.10.6. Door frames wherever M.S clamps could not be provided, have to be fixed by using M.S corkscrew of 12mm x 100mm by drilling, plugging etc. No extra payment shall be made for this work.

- 1.2.10.7. Glazing shall be with good quality glass of thickness specified in the drawing. The glass panes shall be fixed by teak wood beading. A thin layer of approved quality readymade putty shall be applied between glass panes and sash bar / frames and glass panes and beading.
- 1.2.10.8. Fittings specified in the schedule shall be of approved quality / type. All fixtures / fittings shall be got approved by the Engineer-in-Charge before its use on work.

**1.2.11. FIBRE GLASS REINFORCED PLASTIC (FRP) DOOR FRAME FIXING**

The frames are to be fixed in prepared openings in the walls. All civil work and tiling should be completed before the fixing of the frames. The frames are to be fixed directly on the plastered wall. In case tiling is to be done in the place the frames are to be fitted, a 50 mm strip should be left untiled at the location where the frames are to be fitted. The frames are erected in the prepared opening such that the vertical members of the door frame are embedded 50 mm in the floor. The frame shall be fitted truly in plumb. A minimum of three anchor bolts or screws of size 65/100 shall be used to fix each vertical member. One bolt shall be fixed at 200 mm from the top member and one bolt shall be fixed at 200 mm from the floor. The third anchor bolt shall be fixed in the center. The top horizontal member shall be fixed using two 65/100 size anchor bolts or screws at a distance of 200 mm from both the corners.

**1.2.12. FIBRE GLASS REINFORCED PLASTIC (FRP) DOOR SHUTTERS**

- 1.2.12.1. FRP Shutters shall be manufactured conforming to the specifications as per IS: 14856 and nomenclature of item & direction of Engineer-in-Charge.
- 1.2.12.2. Blocks of any seasoned hardwood of bulk density not less than 450 kg./m<sup>3</sup> at 12 per cent moisture content or any other material of sufficient thickness and length shall be provided inside the shutter at suitable place to hold fittings and fixtures such as aldrops, tower bolt, handle, sliding door bolt, mortice lock etc. Blocks for hinges shall be provided at three locations, unless otherwise specified by the purchaser. One at the centre and other two at 200 mm from the top and the bottom of the shutter. Blocks shall be provided at predetermined places in the shutter so as to fix hinges mortice locks, tower bolts, aldrops, door closures, etc. The finished surface shall be buffed and polished with wax.
- 1.2.12.3. The lock rail of door shutters shall be so placed that its centre line is at a height 850 + 5 mm from the bottom of the shutter. Door shutter shall be fixed to the frame with three hinges, unless otherwise specified by the purchaser, of the type specified. These locations shall be, one at centre and other two at 200 mm from the top and the bottom of the shutter, where blocks have already been provided and suitable indication by depressing the profile has been made. Screws for fixing the hinges shall be screwed in with screwdrivers & not hammered. The length of screw should be 8/30 mm. The hinges used shall be stainless steel.
- 1.2.12.4. Fittings shall be provided as per schedule of fittings decided by Engineer-in-Charge. All the fittings and screws used shall be of stainless steel. Hardware such as handles, tower bolt, stopper, buffer etc. should be directly screwed (not pre-drilled) and fitted on the door.

### **1.2.13. PROVIDING FLOORING WITH VITRIFIED FLOOR TILES/ ANTISKID CERAMIC FLOOR TILES**

- 1.2.13.1. The tiles shall be set in cement mortar 1:4 (1 cement : 4 sand) of average 20 mm thick laid to required level/ slope. Before laying cement mortar, the concrete surface shall be scrubbed with wire brush, all loose particles, foreign matters etc. shall be removed and the surface shall be made clean. Any undulations in the concrete shall be chipped off or made good with additional concrete of the same grade used for the under layer. The surface thus prepared shall be wetted and smeared with a coat of cement slurry using cement at the rate of 2.2 kg/m<sup>2</sup> of area just before the application of the mortar, so as to get good bond between base course concrete and plastering. For fixing tiles to mortar, neat cement slurry of honey like consistency using cement at the rate of 3.3 kg/m<sup>2</sup> shall be smeared on top of mortar bed. The joints between the tiles shall be uniform and of minimum thickness.
- 1.2.13.2. After laying the tiles, the surplus cement grout along the joints shall be cleaned off. The day after the tiles are laid, all joints shall be cleaned with wire brush to a depth of 5mm and pointed with tile jointing powder, of same colour as tiles, of approved make.
- 1.2.13.3. When the floor is ready to use the same shall be washed clean and dried with soft cloth or linen. If any tile is disturbed or damaged it shall be refitted or replaced and properly jointed and pointed.
- 1.2.13.4. Measurement of the work under this head including cement mortar bed shall be made on the basis of the area of work done and rate quoted shall include the cost of all labour, materials, scaffolding etc required for completion of work.

### **1.2.14. VITRIFIED TILE SKIRTING**

Tiles for skirting shall be of specified thickness and size of approved quality. They shall be uniform in size. They shall be set on 1:3 C.M backing about 12 mm thick with neat cement paste backing, covering the full back of the skirting including corners. The joint shall be filled in with tile jointing powder of same colour of tiles. Hand polishing with Carborandum Stone nos. 1, 2 or 3 shall be done as required on site. Minimum 2 to 3 coats of hand polishing should be applied to get the edges of tile well polished.

### **1.2.15. PROVIDING AND FIXING CEILING WITH CALCIUM SILICATE BOARD PANEL**

- 1.2.15.1. All the components of the ceiling suspension system shall be of hot dipped galvanized steel sections.
- 1.2.15.2. Wall angles of size 24x24x0.40 mm thick shall be provided all round the boundaries of the area to be ceiled and it shall be fixed to the walls using stainless steel screws using fibre plug at a spacing not more than 600 mm keeping its bottom leg in perfectly horizontal plane.
- 1.2.15.3. The Main "T" sections of size 24x38x0.33 mm shall be suspended from the soffit of the beam with the help of rawl plugs and soffit cleat, 4 mm GI rod and level clips. Main 'T' sections shall be placed across the length of the area to be ceiled. Cross T sections shall be locked with the main T-sections. The main T- sections and cross T-sections of size 24x32x0.33 mm shall be placed

in intervals in such a way that will suit to the size of board panels to be placed. The bottom level of all the “ T” sections shall be perfectly in a horizontal plane as that of boundary angles.

- 1.2.15.4. Ceiling shall be done with decorative board panels of size 595mm x 595x 15mm, granular type.
- 1.2.15.5. The panels shall be perfectly joined so that no gap is visible and no level difference is also seen at the joints. The joints between panel and wall shall also be made perfectly without having no visible gaps.
- 1.2.15.6. The bottom face of the ceiling shall be truly level and plain without any undulations.
- 1.2.15.7. The rate quoted shall include the cost of all materials, fixtures, labour, scaffolding, all lift etc. required for the finished work. Measurement shall be made based on the area of work done. No deduction in measurements shall be made for openings of areas up to 40 sq. decimeter. Nothing extra shall be payable either for extra material or labour involved in fixing such openings.

#### **1.2.16. WEATHERING COURSE**

- 1.2.16.1. Weathering course over the roof slab shall be cement plastering with cement mortar mixed with approved quality water proofing compound as per manufacture’s specifications. The thickness and grade of mortar for plastering shall be as specified in the schedule of quantities.
- 1.2.16.2. The surface shall be scrubbed with wire brush and all loose particles, foreign matters etc. shall be removed and the surface shall be made clean. Any undulations in the concrete shall be chipped off or made good with additional concrete of the same grade used for the under layer. The surface thus prepared shall be wetted and smeared with a coat of cement slurry using cement at the rate of 2kg /m<sup>2</sup>of area just before the application of the mortar, so as to get good bond between base course concrete and plastering.
- 1.2.16.3. For ensuring even thickness and true surface, gauges of plaster 15cm x 15cm shall be laid at intervals not more than 1.5 m in both directions to serve as guide area for floor plastering. Surface of these guide area shall be truly in plane of the plastered surface. The mortar shall then be spread uniformly to a thickness slightly more than the specified thickness and shall then be brought to true and even surface by working a wooden straight edge reaching across the gauges. Finally the surface shall be finished true by working a trowel or a wooden float directed by the Engineer-in-Charge. Excessive trowelling shall be avoided. Sprinkling of dry cement or sand mixture on the surface to stiffen the mortar or to absorb excessive moisture shall not be permitted.
- 1.2.16.4. Final finishing shall follow immediately after trowelling. For this a thick cement slurry using cement at the rate of 2 kg /m<sup>2</sup> of area shall be spread over the flooring while the surface is still wet. The cement slurry shall then be properly pressed with a trowel and finished smooth.
- 1.2.16.5. The junctions of floor with walls shall be rounded off as per directions of the Engineer-in-Charge. While plastering the flooring, care shall be taken to see that the edge of the previously laid panels is not damaged and fresh mortar is not splashed over them. The joints between panels shall be truly finished. The



finished plastered surface shall be thread lined to the pattern, if so directed by the Engineer-in-Charge.

- 1.2.16.6. Curing shall be done for a minimum of 7 days after the floor surface is hardened. Covering with gunny bags shall be avoided as the colour is likely to be bleached with the remnants of the cement matter from the bags.
- 1.2.16.7. Measurement of the work under this head shall be made on the basis of the area of work done and rate quoted shall include the cost of labour, materials, scaffolding etc required for completion of work.

**1.2.17. PROVIDING AND APPLYING EXTERIOR / INTERIOR ACRYLIC EMULSION PAINT**

- 1.2.17.1. The surface shall be thoroughly cleaned of dust and then be sand papered to give a smooth and even surface. Over the prepared surface one base coat of primer for exterior/interior emulsion paint of same brand shall be applied with hand brush in horizontal stroke followed immediately by a vertical one which together shall constitute one coat. After the primer coat has dried for at least 48 hours, the surface shall be lightly sand papered to make it smooth. All loose particles shall be dusted off after rubbing and the surface cleaned well. The first finishing coat of exterior/interior emulsion paint shall then be applied with hand brush in horizontal stroke followed immediately by a vertical one which together shall constitute one coat. The second coat shall be applied in the same way of first coat to obtain an even surface, after the first finishing coat dried as per the directions of the Engineer-in –Charge.
- 1.2.17.2. Measurements of the work under this head shall be made on the basis of the area of work done and rate quoted shall include the cost of labour, materials, scaffolding etc. required for the completion of work.

**1.2.18. PROVIDING AND APPLYING SYNTHETIC ENAMEL PAINT**

- 1.2.18.1. Paints/ primers of approved premium brand and manufacture shall be used. Only ready mixed Paint (Exterior grade) as received from the manufacturer without any admixture shall be used. If for any reason, thinning is necessary in case of ready mixed Paint, the brand of thinner recommended by the manufacturer or as instructed by the Engineer-in-Charge shall be used.
- 1.2.18.2. The surface shall be thoroughly cleaned off all dirt, rust, dust, grease etc. with wire brush, sand paper etc., and be made perfectly clean and dry while painting. For wood surfaces visible knots, holes etc. shall be filled with appropriate filling material with some shade as paint and rubbed smooth before applying paint.
- 1.2.18.3. The number of coats shall be as per schedule. Successive coats shall be applied only on the next day after rubbing with the finest grade of wet abrasive paper and dusting of the loose particles.
- 1.2.18.4. Measurements of the work under this head shall be made on the basis of the area of work done and rate quoted shall include the cost of surface preparation, materials, labour, scaffolding etc. required for the completion of works as detailed above.

**1.2.19. PROVIDING AND FIXING UPVC JOINERIES**

UPVC joinery systems shall be with outer frame having profile thickness above 2 mm. Glass for windows shall be of min. 5 mm thick toughened and that of fixed glazing of doors shall be of 12mm thick toughened and it shall be fixed using Stainless steel screws and sealing sides top and bottom with silicon sealant etc. Windows and ventilators shall of approved colour and shade. The joinery shall be water resistant by providing water channel & EPDM gasket. Impact modifiers shall be used to ensure strength and durability and special additives to ensure UV resistance. UPVC Profiles shall withstand extreme temperature 0 – 50 degree temperature and ensure low maintenance. All fixtures shall be made up of stainless steel. The frame shall be fixed in prepared opening in the walls. All civil works shall be completed before fixing the frames.

**1.2.20. PROVIDING UNPLASTICISED PVC PIPES AND FITTINGS FOR SOIL AND WASTE WATERLINES**

- 1.2.20.1. The pipes used for soil and waste water lines shall of minimum class-3 ( $6\text{kg/cm}^2$ ) type of approved quality.
- 1.2.20.2. The joints shall be made perfectly water tight using approved solvent cement confirming to IS:14182. Pipe shall be secured to face of walls using PVC clamps fixed to walls by means of teak wood / fibre plugs and SS screws at maximum 1.5 metres intervals.
- 1.2.20.3. The fixing shall be done strictly in accordance with the directions of the Engineer-in-Charge.
- 1.2.20.4. The rate shall include cost of all specials like bends, door bends and 'tee's, 'Y's, couplings, clamps, screws, plugs etc., and cost of cutting masonry / concrete for laying / fixing pipes and its rectification on completion of work. Payment shall be done on running meter basis measured centerline length including all the fittings, specials etc. No separate payment shall be made for fixing fittings, valves etc. for completing the work to the full satisfaction.

**1.2.21. PROVIDING RAIN WATER DOWN PIPE AND FITTINGS**

- 1.2.21.1. The pipes used for rain water down lines shall of class-2 ( $4\text{kg/cm}^2$ ) type of approved quality. The joints shall be made perfectly water tight using approved solvent cement confirming to IS:14182-1994. The pipes shall be secured to the face of the walls with suitable PVC clamps fixed to walls by means of teak wood / fibre plugs and SS screws at maximum 3 metres intervals.
- 1.2.21.2. The rate shall include cost of all specials like bends, couplings, PVC clamps, plugs, screws etc. and cost of cutting masonry / concrete for laying / fixing pipes and its rectification on completion of work.
- 1.2.21.3. Fixing shall be done as per directions of the Engineer-in-Charge.

**1.2.22. PROVIDING AND LAYING OF PIPES FOR EXTERNAL WATER SUPPLY WORKS**

- 1.2.22.1. **General**

All the pipes of different diameters and fittings shall be conforming to IS: 15778. The rate quoted shall include cost of all specials like bends, tees, reducers etc., cost of burying or fixing on walls using all fittings as the case may be etc. complete, but excluding cost of taps, valves etc.

**1.2.22.2. Transporting**

Pipes, fittings and valves etc. shall be transported from the stacking place to the worksite with sufficient care to avoid damage to them.

**1.2.22.3. Other materials to be made available by the contractor**

All other materials except those supplied under specific items in the schedule, required for jointing and laying pipes and fixing valves, including rubber gasket, lead, spun yarn, solvent cement etc. shall be brought by the contractor at his own cost.

**1.2.22.4. Jointing of CPVC pipes**

Jointing of CPVC pipes shall be done with IS:15778-2007, solvent welded joint shall be used for jointing of CPVC pipes. Solvent welded joint shall be achieved by non-heat application method. Solvent cement used for the joint shall be fully recommended by the manufacturer.

**1.2.22.5. Testing of pipelines for leakage test**

The leakage test shall be conducted at a test pressure of 12.5 kg./cm<sup>2</sup> for a duration of 2 hours or as directed by the Engineer-in-Charge for duration of 2 hours. No pipe installation shall be accepted until the leakage per hour in cubic centimeter is less than the quantity (Q) determined by the formula

$$Q = \frac{N \times D \times \sqrt{P}}{3.3}$$

Where Q = Allowable leakage in cm<sup>3</sup> / hour,

N = No. of joints in the length of the pipeline tested,

D = Diameter of pipe in mm

and P = Test pressure during the leakage test in kg/cm<sup>2</sup>.

**1.2.22.6. Fixing of valves and fittings**

Fixing of valves and fittings shall form part of laying the pipeline as directed by the Engineer-in-Charge.

**1.2.22.7. Payment**

Payment shall be done on running meter basis measured center line length including all the fittings, valves, bolts, nuts etc. No separate payment shall be made for fixing fittings, valves etc. for completing the work to the full satisfaction. The rate quoted shall include the cost of all specials like bends, 'tee's, reducers etc. and materials like rubber gasket, lead, spun yarn, solvent cement, bolts, nuts etc. to be made available by the contractor for jointing pipes, providing suitable connections to the existing delivery line and testing the line as aforesaid.

**1.2.23. PROVIDING PIPES FOR INTERNAL WATER SUPPLY WORKS**

- 1.2.23.1. The CPVC pipes except installing through ducts, shafts etc shall be concealed in wall. The pipes and fittings are to be pressure tested prior to concealing the chases. The alignment of fittings and pipes shall be done correctly. Do not use nails for holding pipes in the chases.
- 1.2.23.2. The pipes shall be laid and properly clamped to wooden / fibre plugs embedded on the wall with CPVC clips. Horizontal pipes shall be supported with clamps at spacing not more than 1m center to center. For vertical pipes spacing may be increased by 50%. The pipes shall be aligned properly before fixing them on plugs with clamps. Even if the plugs are fixed using a plumb line the pipe shall also be checked for alignment before clamping.
- 1.2.23.3. All pipes exposed to sunlight shall be painted with a water based acrylic paint emulsion to enhance UV protection.
- 1.2.23.4. Connection to bib tap / stop valve shall be done by means of GI adapter of approved quality and make or as directed by the Engineer-in-Charge.

**1.2.23.5. Payment**

Payment shall be done on running meter basis measured center line length including all the fittings, valves, bolts, nuts etc. No separate payment shall be made for fixing fittings, valves etc. for completing the work to the full satisfaction. The rate quoted shall include the cost of fittings like ‘tee’s, bends, reducers etc. and materials like solvent cement, bolts, nuts, rubber gasket etc. to be made available by the contractor for jointing pipes etc.

**1.2.24. STEEL FABRICATION WORK**

- 1.2.24.1. The steel sections as specified shall be cut square accurately to correct lengths. The cut edges should be dressed to a neat and workmanship finish and be free from distortion where parts are to be in contact metal to metal. All materials shall be straight and if necessary, before being worked shall be straightened and/ or flattened and shall be free from twists.
- 1.2.24.2. The component parts shall be assembled and aligned in such a manner that they are neither twisted nor otherwise damaged and shall be so prepared that the specified camber, if any, is provided. Proper clamps, clips, jigs and other fasteners (bolts & welds) shall be placed in a balance pattern to avoid any distortion in the members and to ensure their correct positioning.
- 1.2.24.3. Welded connections shall be provided for joints except for the joints specially provided for erection purposes. For joints provided for erection purposes bolted connections shall be used.
- 1.2.24.4. All bolts shall be provided with washers of sufficient thickness. The threaded portion of each bolt shall project through the nuts at least one thread.
- 1.2.24.5. Welding shall be done in accordance with the specifications laid down in IS 816 and as per detailed working drawing. Welding edges and the adjacent areas of the members (extending up to 20mm) shall be thoroughly cleaned of all oil, grease, scale and rust and made completely dry. Gaps between the members to be welded shall be kept free from all foreign matters. The welding procedure adopted and consumables used shall be got specifically approved by the Engineer-in-charge. Excessive convexity, shrinkage, cracks, under cutting, improperly fitted / misaligned parts, members distorted by the

heat of welding etc. due to faulty welds shall be corrected- whole or portion- as directed by the Engineer-in-charge.

- 1.2.24.6. The steel sections as specified shall be straightened and cut square to correct lengths. The steel work shall be hoisted and placed in position carefully without any damage to itself and other building work and injury to workmen.
- 1.2.24.7. The suitability and capacity of all plants and equipments used for the work shall be to the complete satisfaction of the Engineer-in-charge.
- 1.2.24.8. Proper safety arrangements shall be provided for working and inspection at no extra cost wherever required.
- 1.2.24.9. If the fabrication is done outside the worksite premises the structurals and fabrication should be subject to the inspection by the departmental officials. Suitable transport facilities shall be provided for the inspection staff.
- 1.2.24.10. The electrodes required for the welding work shall be got approved before use. The electrodes should be stored properly without exposing them to atmospheric action. Proper protection should be given for site fabrication. The welding must be carried out under a covered roof.
- 1.2.24.11. The contractor should possess plant and equipments, derricks. Lifting tackles, wire ropes, chain pulleys, jacks, welding sets etc. that may be required for fabrication and erection. The equipment being used shall be kept in good condition throughout.
- 1.2.24.12. Fabrication and erection of steel work shall be in accordance with the provision of IS 800-2008.
- 1.2.24.13. All damages to steel works caused during the transit or otherwise at the time of fabrication or erection and after erection shall be made good at no extra cost.
- 1.2.24.14. All steel work shall be provided with one coat of iron primer Zinc Chromate. Before applying primer, all rust & scale shall be removed by scrapping or brushing with steel wire brushes. All dust & dirt shall be thoroughly wiped away from the surface. If the surface is wet, it shall be dried before priming coat is applied.
- 1.2.24.15. After completion of the required fabrication of gate/posts/ trusses/ purlins, the surface shall be well cleaned with wire brush and sandpapering as directed by the Engineer-in-charge and one coat of Zinc Chromate primer shall be applied. Before application of the primer coat all the welded joints shall be got inspected and approved by the Engineer in charge. Immediately after applying the primer, two coats of synthetic enamel/Aluminium paint as required shall be applied to all the steel works. All painting work shall be done after the erection of gate/ truss in position. Any damage to the painted surface during the course of erection shall be rectified as directed by the Engineer In charge after fixing the members in position. The fasteners like bolts, nuts etc. used during erection shall also be painted with a coat of primer and two coats of Synthetic enamel/Aluminium paint.
- 1.2.24.16. Sequence of erection of posts/ trusses/ purlins shall be so arranged that the structural stability is fully ensured.

- 1.2.24.17. Prior to the positioning of the post all laitance and loose materials shall be removed by wire brushing and chipping and bearing surfaces cleaned and made thoroughly wet and cement grout shall be applied or as directed by the Engineer in charge.
- 1.2.24.18. The rates given shall be for the finished items of work including fabricating, erecting and alignment with appropriate materials, all connections, welding, rectification wherever necessary, transporting and handling charges, all accessories equipments, scaffolding, all lifts etc. including cost of labour, materials other than those supplied by the department free of cost .
- 1.2.24.19. The finished post work including erection shall be measured in Kilogram inclusive of the weight of posts, M.S plate stiffeners, M.S base plates, foundation bolts, nuts, washers but no allowance shall be made for the welded material. The measurement for plates used on the work shall be made for the actual quantity used in work. The rate quoted per Kilogram shall be inclusive of cost of all materials & labour applying iron primer, erection in position, scaffolding, all transportation, lifts etc.
- 1.2.24.20. The finished truss work/ purlin including erection shall be measured in Kilogram inclusive of the weight of cleats, brackets, bolts, nuts, washers, distance pieces, separators, gusset plates etc. but no allowance shall be made for the welded material. The measurement for plates used on the work shall be made for the actual quantity used in work. The rate quoted per Kilogram shall be inclusive of cost of all materials, labour applying iron primer, erection in position, scaffolding, all lifts etc.

#### **1.2.25. ALUMINIUM COMPOSITE PANEL CLADDING**

- 1.2.25.1. Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including:
  - (a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.
  - (b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick).The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF Lumiflon based fluoro polymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.
  - (c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to

perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium items. The Contractor shall provide curtain wall with aluminium composite pane cladding, having all the performance characteristics all complete, asper the Architectural drawings, as per item description, as specified, asper the approved shop drawings and as directed by the Employer. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminium Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places."

#### **1.2.26. ROOFING WITH PUFF SHEET**

##### **General**

Supply and fixing of PUF Panel roof in 50mm thick made out of 0.50mm TCT colour coated aluminium sheets of approved colour

##### **Profile**

34.5mm crest height in 333.3mm pitch on the top and 0.50mm TCT colour coated aluminium slightly ribbed sheet at the bottom with Polyurethane Foam insulation as infill.

##### **Colour**

The colour coating on sheet shall have a total coating thickness of 35 micron comprising of 20 micron Silicon Modified Polyester Paint system of approved colour on the top and 5 microns back up epoxy coating at the bottom over 5micron primer coating on both sides.

##### **Infill**

The infill insulation material (PUF) shall be fire retardant self-extinguishing CFC/HCFC Free and Zero ODP (Ozone Depletion Potential). Polyurethane Foam shall have a density of 40 + 2Kg/M3 in 50mm thick (50 mm + 34.5mm at crest) injected in between the top & bottom sheet using a special foaming machine. The supply width of panel shall be 1080mm (1mtr effective width) and length to be as per the site requirement up to a maximum of 12mtr. The panel shall be manufactured from a continuous panel manufacturing line using pentane as blowing agent. The panel to be directly fixed to the purlins with galvanized imported self-drilling and self-tapping fasteners with EPDM washers. All the joints should be sealed with sealants and stitched with stitching screws wherever necessary.

#### **1.2.27. VERTICAL BLINDS**

Vertical blinds of approved make and colour shall be of 100 mm wide with head rail of extruded anodized high strength aluminium alloy. Head rail shall have 25mm decorative insert on either side of head rail. Control units shall be 'Derlin' (Celon) and shall be of tilting control and traverse code pulleys. The runner shall moulded from 'Derlin' (celon) with an antifriction additive. The spacer shall be made of stainless steel brackets for installation to be 14 gauge galvanized spring steel. Louver fabric shall be polyester viscouse/ polyester yarn, dyed in fast

colours job to be complete in all respects and to the approval of the Engineer-in-charge.

**1.2.28. Water Level Indicator**

The contractor shall supply and install float less type switch probes in sprinkler and hydrant system tank to give low level alarm, low water level cut-out and earthing probe. Each probe shall be of correct length for particular application and tank location. The electrode shall be of polished stainless steel 20mm OD. Electrode holder shall be connected and wired to the building earth system of the building. The earthing probe shall be installed inside a 200mm dia PVC pipe acting as wave barrier. The level switch set shall operate with a stepped down voltage at 24V maximum. Stepped down transformer shall be provided for each set of control probes and shall be installed inside centralized control cubical of pump room.

**1.2.29. ‘D’ TYPE RUBBER FENDER**

‘D’ type rubber fender to be used on work shall be of sizes 150mm H x 150mm W (overall) as per drawings and schedule of quantities, manufactured by approved manufacturer. The rubber used for manufacturing rubber fender shall be as per ASTM-D-2000-98c. Necessary test certificates, chemical composition of rubber tested in a NABL approved laboratory shall be produced by the contractor.

**1.2.29.1.1. Performance Details of Fenders**

Performance requirements of the fenders are as given in Table below.

| Description of the fendering system | Max. Permissible Deflection (%) | Min. Energy Absorption (Tonnetre) | Max. Permissible Reaction Force (t) | Max. Permissible Hull Pressure (t/m2) |
|-------------------------------------|---------------------------------|-----------------------------------|-------------------------------------|---------------------------------------|
| ‘D’ type fender 150mm x150mm        | 45%                             | 0.25 /m                           | 9.60/m                              | ....                                  |

**1.2.29.1.2. Rubber Compound for Fender Body**

The material used for the fender body shall be natural or synthetic rubber of high quality having sufficient resilience, anti-aging weather and wear resistance properties to meet all normal service conditions. Natural rubber /Synthetic rubber content shall not be less than 40%. The material shall be homogeneous, and shall not have any defective impurities, pores or cracks etc. and shall satisfy the physical test requirements as given in the following table based on the standards set by ASTM 2000-77a or its equivalent.

The tables below give the requirements of physical properties of rubber compounds which are to be used for making fenders and these properties shall be confirmed during quality assurance testing prior to fender manufacturing.

| Property | Testing Standard |        | Condition | Requirement |
|----------|------------------|--------|-----------|-------------|
|          | ASTM             | Others |           |             |
| Tensile  | ASTM             | Others | Original  | 16.0 MPa    |



|                        |                                 |                                                                    |                                                |                                                                      |
|------------------------|---------------------------------|--------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------|
| Strength               | ASTM D 412<br>Die C             | AS1683.11; BS<br>ISO 37;<br>JIS K 6251                             |                                                | (min)                                                                |
|                        |                                 |                                                                    | Aged for 96<br>hours at 70°C                   | 12.8 MPa<br>(min)                                                    |
| Elongation<br>at Break | ASTM D 412<br>Die C             | DIN 53504; AS<br>1683.11;<br>BS ISO 37; JIS K<br>6251              | Original                                       | 350%                                                                 |
|                        |                                 |                                                                    | Aged for 96<br>hours at 70°C                   | 280%                                                                 |
| Hardness               | ASTM D 2240                     | BS ISO 7619-1;<br>DIN ISO 7619-1;<br>AS 1683.15.2;<br>JIS K 6253-3 | Original                                       | 78° Shore A<br>(max)                                                 |
|                        |                                 |                                                                    | Aged for 96<br>hours at 70°C                   | Original +8°<br>Shore A<br>(max)                                     |
| Compression<br>Set     | ASTM D 395<br>Method B          | AS 1683.13 Type<br>1; ISO 815-1;<br>JIS K 6262                     | 22 hours at<br>70°C                            | 30% (max)                                                            |
| Tear<br>Resistance     | ASTM D 624<br>Die B             | AS 1683.12; BS<br>ISO;<br>JIS K 6252-1                             | Original                                       | 70kN/m (min)                                                         |
| Ozone<br>Resistance    | ASTM D 1149                     | DIN ISO 1431-1;<br>AS 1683-24;<br>BS ISO 1431-1;<br>JIS K 6259     | 50pphm at<br>20% strain,<br>40°C, 100<br>hours | No cracks                                                            |
| Seawater<br>Resistance | ASTM D 471                      | BS ISO 1817                                                        | 28 days at<br>95°C                             | Hardness:<br>• }10° Shore<br>A (max)<br>Volume:<br>+10/-<br>5% (max) |
| Abrasion<br>Loss       | –                               | BS 903 A9<br>Method B                                              | 3000<br>revolution                             | 1.5cc (max)                                                          |
| Bond<br>Strength       | ASTM D429...<br>Method B        | BS ISO 813                                                         | Rubber to steel                                | 7N/mm (min)                                                          |
| Dynamic<br>Fatigue     | ASTM D430-<br>95...<br>Method B | –                                                                  | 15,000 cycles                                  | #Grade 0–1                                                           |

#Grade 0 = No cracking has occurred

Grade 1 = Cracks at this stage appear as pin pricks to the naked eye. Grade as 1 if the pin pricks are less than 10 in number and less than 0.5 mm in length

The above properties are to be confirmed during quality assurance testing conducted at 3<sup>rd</sup> party laboratory in the presence of certifying agency prior to the fender manufacturing.

#### 1.2.29.1.3. Fixtures

All bolts, nuts, washers, sleeves etc. shall be of Stainless steel of 316 Grade of approved quality. The material for resin anchor sleeve, if required shall be made of synthetic resin and proved satisfactory to the following requirements.

1.2.29.1.4. **Installation**

While submitting the tender, tenderer shall specify the method by which the fender is installed. The installation work shall be carried out in accordance with the requirements of the Engineer-in-charge, employing sound engineering techniques and modern methods with the approval of the Engineer-in-charge.

1.2.29.1.5. **Rate**

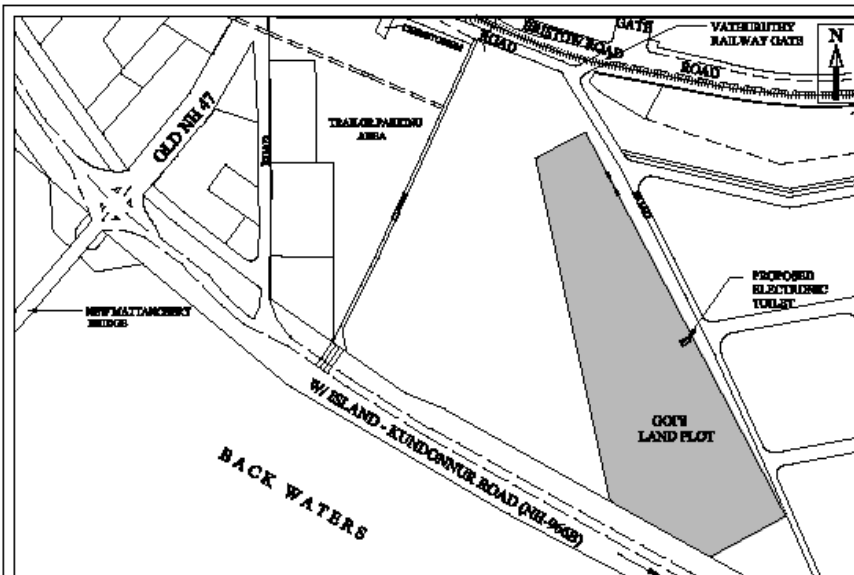
The rates quoted for the item of providing and fixing fenders shall be inclusive of all charges such as packing and forwarding charges, freight, transit/risk insurance charges, taxes, duties including customs duty if applicable, all fixtures and accessories such as frontal frame, frontal pad etc., making necessary holes in the concrete structure for providing anchor bolts etc. complete. The fixtures shall include all materials required for the installation of the fenders to the RCC frontage and bolts, nuts, washers etc. required for fixing frontal frame to fender body and for fixing frontal pad to frontal frame etc. Any fittings or accessories which may not be specifically mentioned in the specification but which are used or necessary are to be provided by the contractor without extra charge and the fender fixed must be complete in all respects.

### SCHEDULE OF FITTINGS

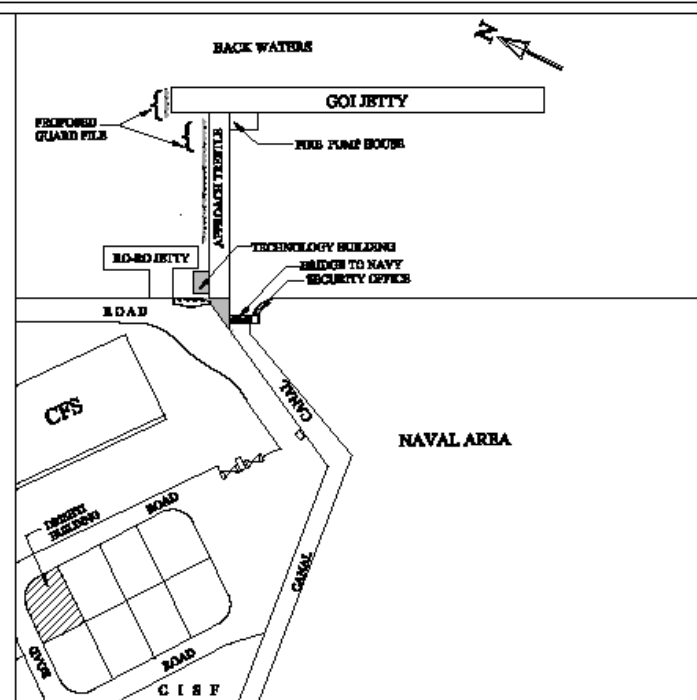
| Sl. No. | Description       | Details                                                                                                                                                                                                                                     |
|---------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2       | FRP moulded doors | 1. 125mm size ISI: 12817 marked stainless steel butt hinges with S.S. screws – 3 numbers minimum.<br>2. 200mm ISI marked oxidised S.S. tower bolt with 25mm S.S. screws – 1No.<br>3. 150mm S.S. Aldrop with necessary nuts and bolts - 1No. |

## LIST OF DRAWINGS

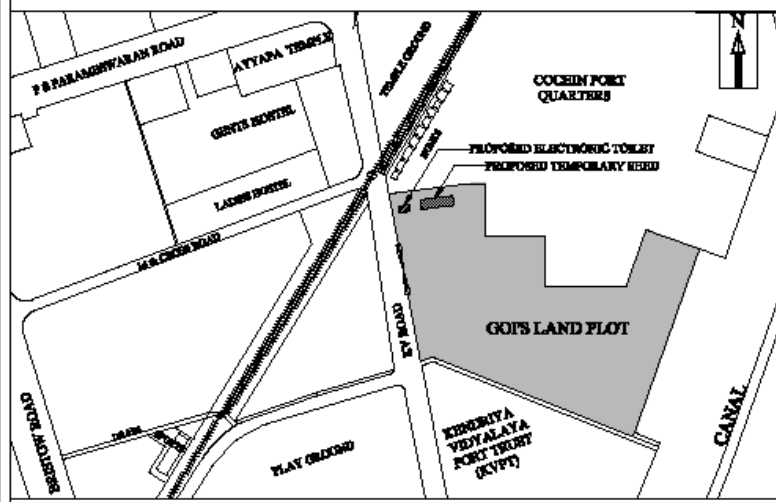
| <b>Sl. no</b> | <b>Drawing no.</b> | <b>Description of drawing</b>                                      | <b>No. of sheets</b> | <b>Page no.</b> |
|---------------|--------------------|--------------------------------------------------------------------|----------------------|-----------------|
| 1.            | 9768-01-2021       | Location Plan                                                      | 1                    | 139             |
| 2.            | 9768-02-2021       | Details of Security shelter & Roof Covering in Technology Building | 1                    | 140             |
| 3.            | 9768-03-2021       | Details of Temporary Shed at Land Plot near KVPT                   | 1                    | 141             |
| 4.            | 9768-042021        | Details of roofing on Security Building near GoI connecting Bridge | 1                    | 142             |
| 5.            | 9768-05-2021       | Details of Additional Renovation to Drishti Building near CFS      | 1                    | 143             |
| 6.            | 9768-06-2021       | Details of First Floor in Pump House at main Jetty                 | 1                    | 144             |
| 7             | 9768-07-2021       | Details of Additional Guard Piles & 'D'Fender                      | 1                    | 145             |



LOCATION AT LAND PLOT NEAR VATHURUTHY RAILWAY GATE



LOCATION PLAN OF GOI JETTY & DRISHTI BUILDING



LOCATION AT LAND PLOT NEAR KENDRIYA VIDYALAYA PORT TRUST

NOTE:-  
ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS  
IN METRES, UNLESS OTHERWISE SPECIFIED.

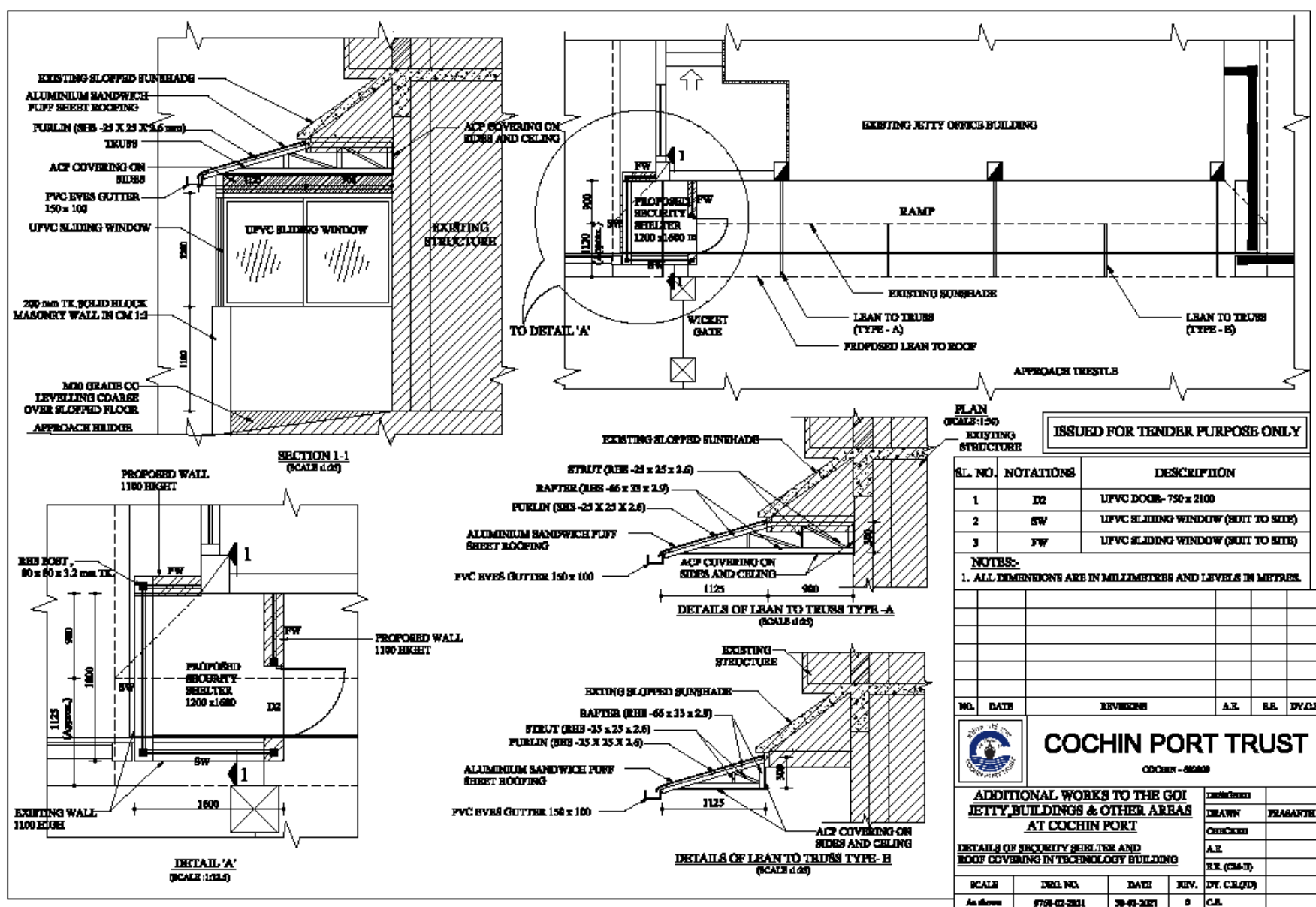
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| NO. | DATE | REVISION | BY | SCALE |
|-----|------|----------|----|-------|

**COCHIN PORT TRUST**  
COCHIN - 682009

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|------------|---------|
| APPROVED   |         |
| DRAWN      | PRAMATH |
| CHECKED    |         |
| A.S.       |         |
| P&S-3008-0 |         |

|       |              |            |      |          |
|-------|--------------|------------|------|----------|
| SCALE | THEM. NO.    | DATE       | REV. | BY/CL/PS |
| 1:100 | 9768-01-0021 | 26-03-2021 | 0    | C.H.     |



ISSUED FOR TENDER PURPOSE ONLY

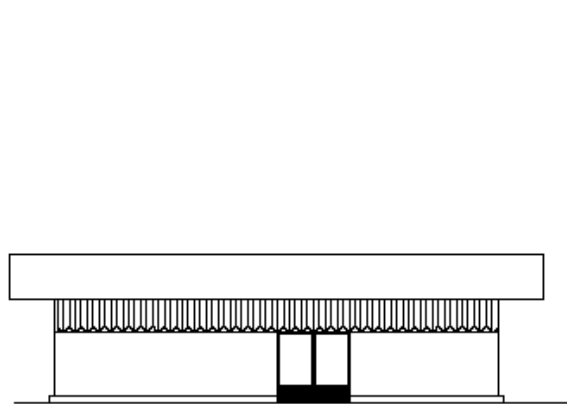
| SL. NO. | NOTATIONS | DESCRIPTION                        |
|---------|-----------|------------------------------------|
| 1       | DD        | UPVC DOOR- 750 x 2100              |
| 2       | SW        | UPVC SLIDING WINDOW (SUIT TO SITE) |
| 3       | FW        | UPVC SLIDING WINDOW (SUIT TO SITE) |

NOTES:  
1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS IN METRES.

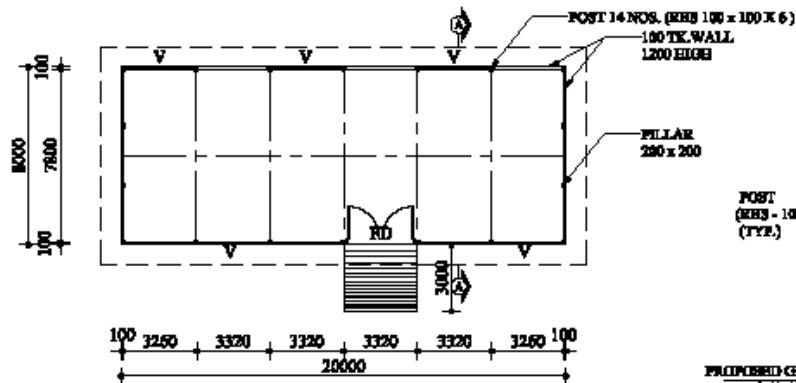
| NO. | DATE | REVISIONS | A.E. | S.E. | D.V.C.R. |
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**COCHIN PORT TRUST**  
COCHIN - 682002

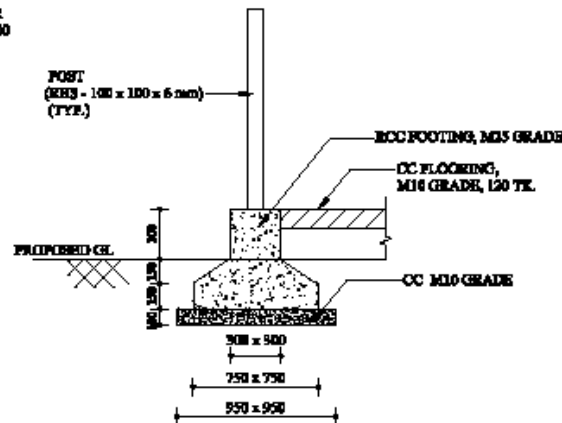
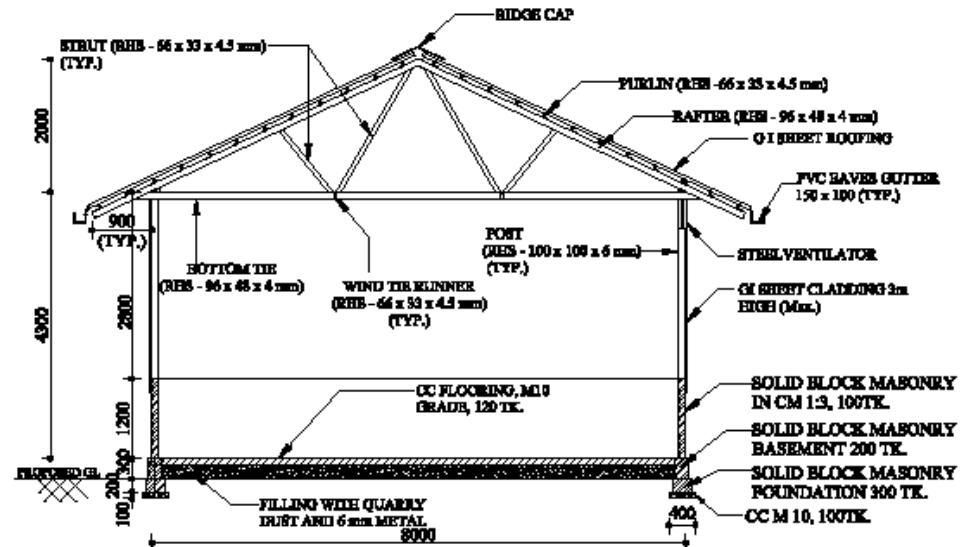
| ADDITIONAL WORKS TO THE GOI JETTY BUILDINGS & OTHER AREAS AT COCHIN PORT |              |            |      | DATE DRAWN    | FRAGANTE |
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| DETAILS OF SECURITY SHELTER AND ROOF COVERING IN TECHNOLOGY BUILDING     |              |            |      | A.E.          |          |
|                                                                          |              |            |      | S.E. (134-17) |          |
| SCALE                                                                    | DRG. NO.     | DATE       | REV. | DY. CHG.      |          |
| As shown                                                                 | 9758-02-2821 | 30-02-2021 | 0    | C.E.          |          |



**ELEVATION**  
(SCALE :1:150)



**PLAN**  
(SCALE :1:150)



**DETAILS OF FOUNDATION BELOW POST**  
(SCALE :1:20)

| SL. NO. | NOTATIONS | DESCRIPTION         | QTY         |
|---------|-----------|---------------------|-------------|
| 1       | FD        | M8 REINFORCED CONCR | 3000 x 1000 |
| 2       | FV        | STEEL VENTILATOR    | 3000 x 400  |

ISSUED FOR TENDER PURPOSE ONLY

**NOTES:-**

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METRES.

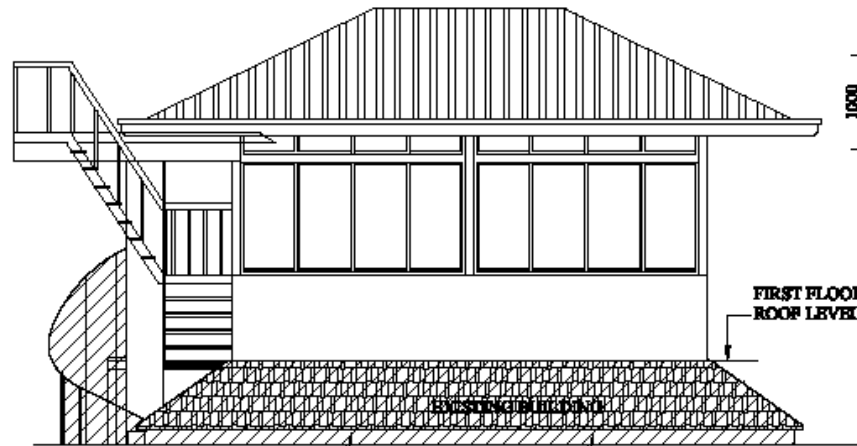
| NO. | DATE | REVISION | A.E. | E.E. | BY/CL. |
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**COCHIN PORT TRUST**  
 COCHIN - 682002

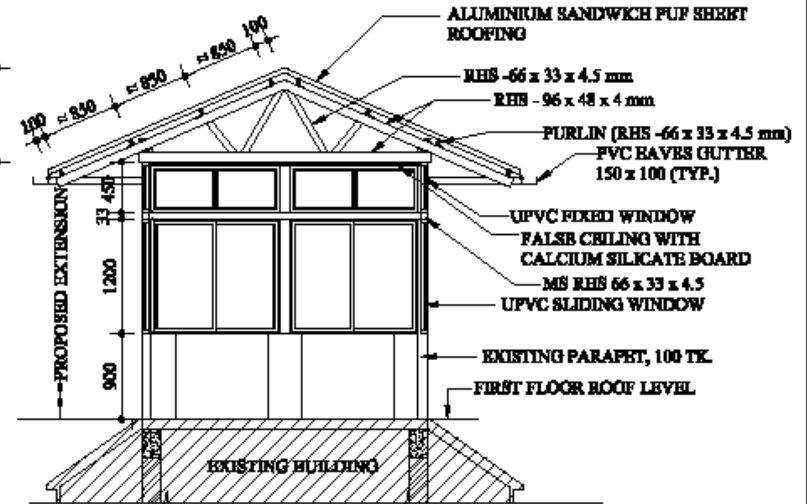
**ADDITIONAL WORKS TO THE GOI JETTY, BUILDINGS & OTHER ARRAYS AT COCHIN PORT**  
 DRAWN: PRAGANTH  
 CHECKED: A.E.  
 BY: (S&T)

**DETAILS OF TEMPORARY SHED AT LAND PLOT NEAR JETTY**  
 SCALE: As shown    DESG. NO: 9704-02-2021    DATE: 20-02-2021    REV: 0    BY: C.R.GUDU

| SCALE    | DESG. NO.    | DATE       | REV. | BY: C.R.GUDU |
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| As shown | 9704-02-2021 | 20-02-2021 | 0    | C.R.         |



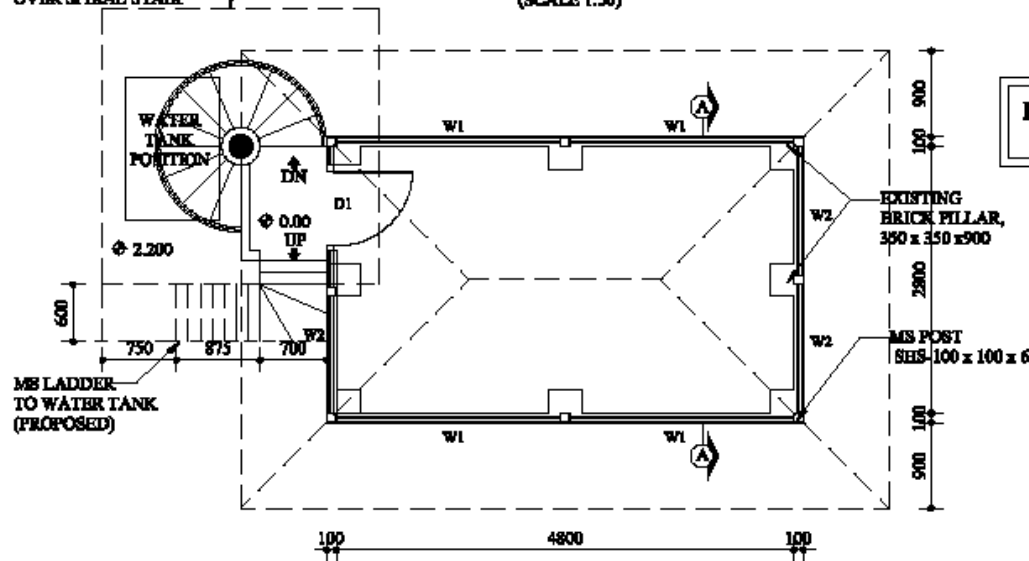
**ELEVATION**  
(SCALE 1:50)



**SECTION A-A**

(SCALE 1:50)

EXISTING SLAB  
OVER SPIRAL STAIR



**FIRST FLOOR ROOF PLAN**  
(SCALE 1:50)

**NOTES:-**

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METRES.

**ISSUED FOR TENDER  
PURPOSE ONLY**

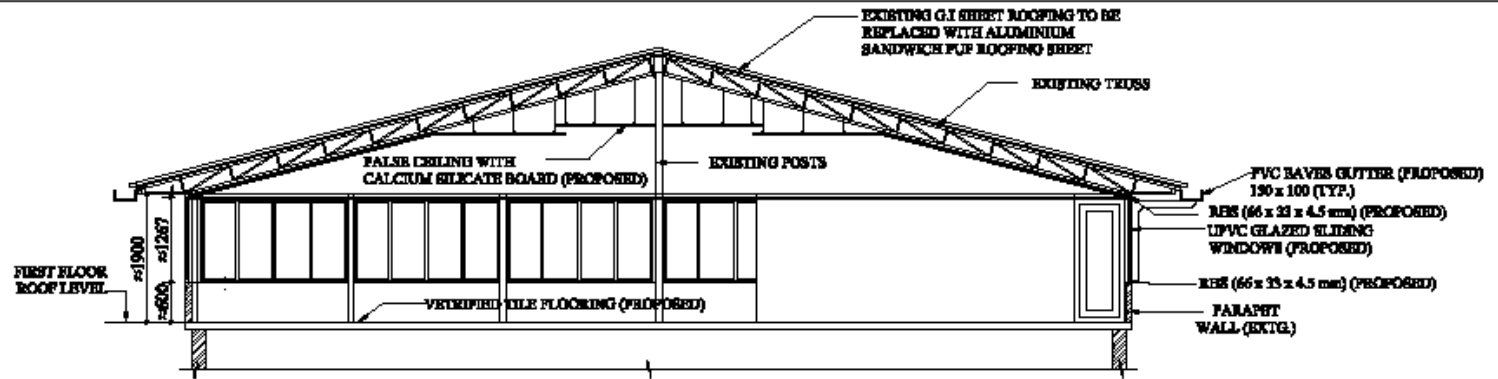
| SL. NO. | NOTATIONS | DESCRIPTION                                                    |
|---------|-----------|----------------------------------------------------------------|
| 1       | D1        | UPVC DOOR- 900 x 2100                                          |
| 2       | W1        | UPVC GLAZED WINDOW SLIDING - 2000 x 1200<br>FIXED - 2000 x 450 |
| 3       | W2        | UPVC GLAZED WINDOW SLIDING - 975 x 1200<br>FIXED - 975 x 450   |

| NO. | DATE | REVISIONS | A.E. | E.E. | DY.C.E. |
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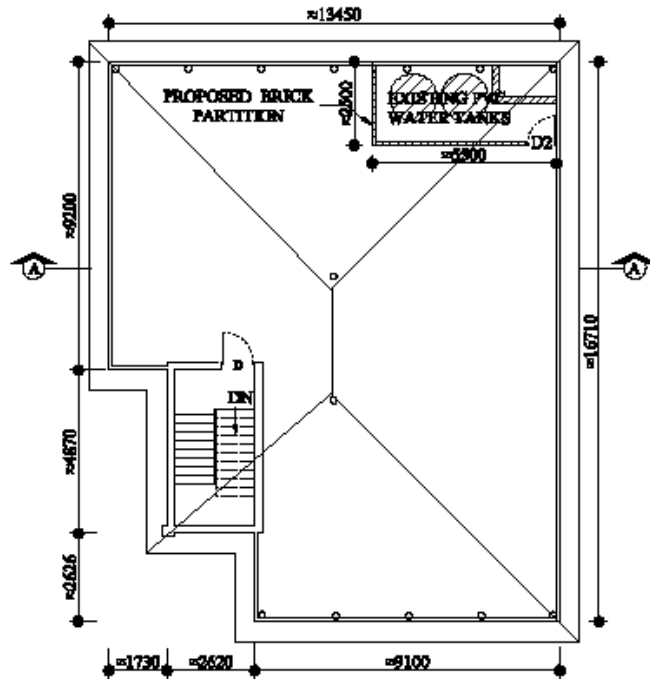
## COCHIN PORT TRUST

COCHIN - 682009

| ADDITIONAL WORKS TO THE GOI JETTY,<br>BUILDINGS & OTHER AREAS<br>AT COCHIN PORT |              |            |      | DESIGNED     | PRASANTH |
|---------------------------------------------------------------------------------|--------------|------------|------|--------------|----------|
| DETAILS OF ROOFING ON SECURITY BUILDING<br>NEAR GOI CONNECTING BRIDGE           |              |            |      | DRAWN        |          |
|                                                                                 |              |            |      | CHECKED      |          |
|                                                                                 |              |            |      | A.E.         |          |
|                                                                                 |              |            |      | E.E. (CM-II) |          |
| SCALE                                                                           | DRG. NO.     | DATE       | REV. | DY. C.E.(PD) |          |
| As shown                                                                        | 9768-04-2021 | 30-03-2021 | 0    | C.E.         |          |



**SECTION -A-A**  
(SCALE 1:50)



**FIRST FLOOR ROOF PLAN**  
(SCALE 1:100)

ISSUED FOR TENDER PURPOSE ONLY

| NO. | DATE | REVISIONS | A.E. | E.E. | D.V.C.E. |
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**COCHIN PORT TRUST**

COCHIN - 682002

| SL. NO. | NOTATIONS | DESCRIPTION                 | SIZE        |
|---------|-----------|-----------------------------|-------------|
| 1       | D         | UPVC DOOR                   | 1000 x 2100 |
| 2       | D2        | UPVC DOOR                   | 750 x 2100  |
| 3       |           | UPVC SLIDING WINDOW ALROUND |             |

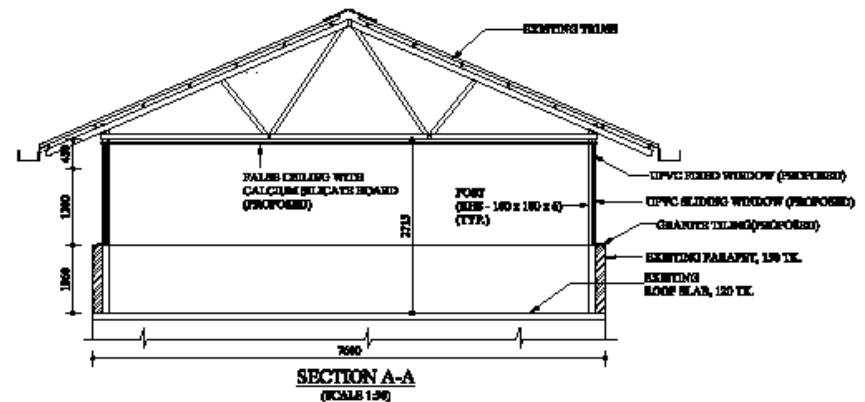
| ADDITIONAL WORKS TO THE GOI JETTY, BUILDINGS & OTHER AREAS AT COCHIN PORT |              |            |      | DESIGNED     | DRAWN | FRAMANTH |
|---------------------------------------------------------------------------|--------------|------------|------|--------------|-------|----------|
| DETAILS OF ADDITIONAL RENOVATION TO DEWEY BUILDING NEAR CPB               |              |            |      |              |       |          |
| SCALE                                                                     | DRG. NO.     | DATE       | REV. | DR. C.M.P.C. |       |          |
| As shown                                                                  | 9708-03-2021 | 30-03-2021 | 5    | C.E.         |       |          |





**ELEVATION**

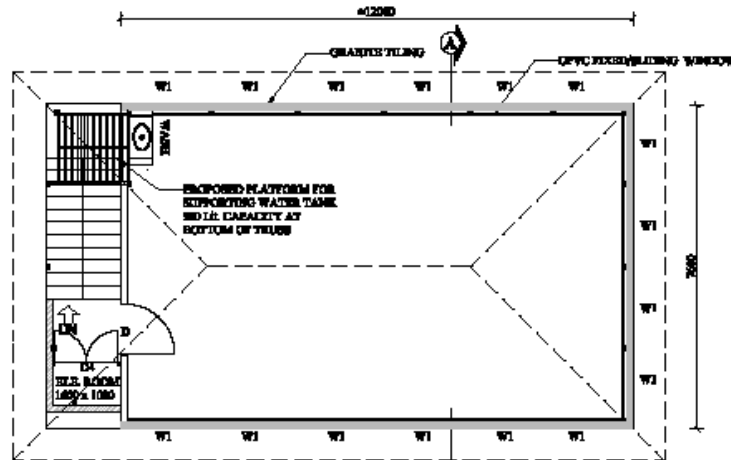
(SCALE - 1 : 75)



**SECTION A-A**

(SCALE 1:50)

ISSUED FOR TENDER PURPOSE ONLY



**FIRST FLOOR PLAN**

(SCALE - 1 : 75)

| SL. NO. | NOTATIONS | DESCRIPTION               | SIZE        |
|---------|-----------|---------------------------|-------------|
| 1       | D         | UPVC DOOR                 | 1000 x 2100 |
| 2       | D4        | UPVC DOORLESS DOOR        | 1800 x 2100 |
| 3       | W1        | UPVC SLIDING WINDOW FIXED | VARYING     |

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| NO. | DATE | REVISIONS | A.E. | S.E. | D.V.C.S. |
|-----|------|-----------|------|------|----------|
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|     |      |           |      |      |          |

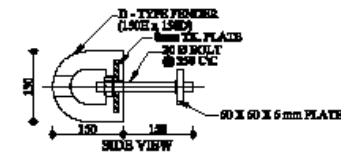


| ADDITIONAL WORKS TO THE GOVT JETTY BUILDINGS & OTHER AREAS AT COCHIN PORT |  |  |  | DESIGNED     | DRAWN | CHECKED | VERIFIED |
|---------------------------------------------------------------------------|--|--|--|--------------|-------|---------|----------|
| DETAILS OF FIRST FLOOR IN PUMP HOUSE AT MAIN JETTY                        |  |  |  |              |       |         |          |
|                                                                           |  |  |  | A.E.         |       |         |          |
|                                                                           |  |  |  | S.E. (26-11) |       |         |          |

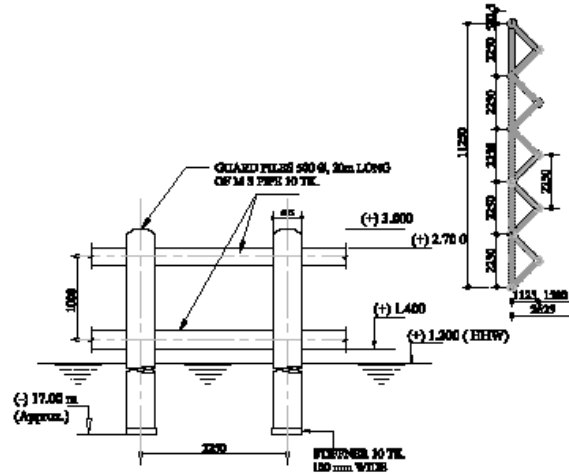
| SCALE    | DRG. NO.     | DATE       | REV. | DY. CHIEF |
|----------|--------------|------------|------|-----------|
| As shown | 9704-06-2021 | 30-01-2021 | 0    | C.E.      |



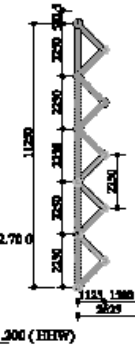
**ELEVATION**



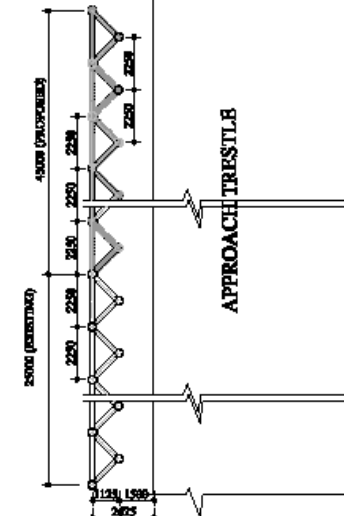
**FIXING DETAILS OF D - TYPE FENDER**  
(150 H x 150 D)  
(SCALE - 1:10)



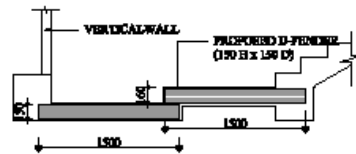
**DETAILS OF GUARD PILE**  
(SCALE - 1:75)



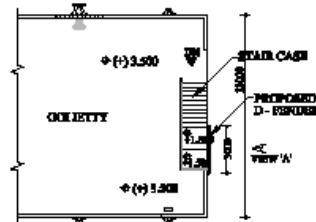
GOI JETTY



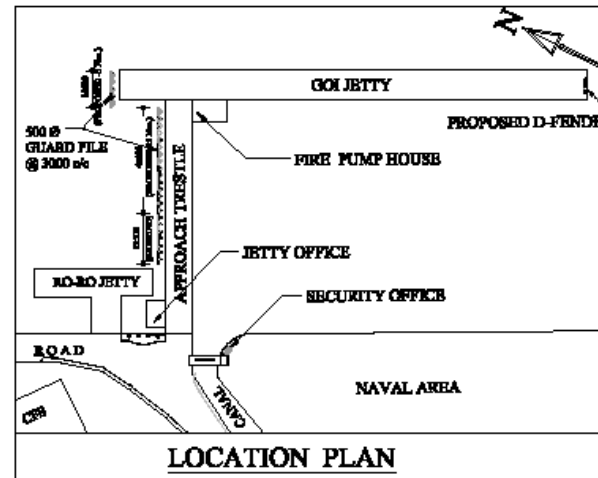
**LAYOUT OF GUARD PILES**



**VIEW 'A'**



**DETAILS OF D-FENDER AT LANDING SLABS**  
(SCALE - 1:20)



**LOCATION PLAN**

**NOTE:-**  
ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS, UNLESS OTHERWISE SPECIFIED.

|     |      |          |                           |
|-----|------|----------|---------------------------|
| NO. | DATE | REVISION | A.S.P.S./C.M./S.W./C.P.O. |
|-----|------|----------|---------------------------|

**COCHIN PORT TRUST**  
COCHIN - 682009

ADDITIONAL WORKS FOR  
GOVT. OF INDIA AT COCHIN PORT

DETAILS OF ADDITIONAL GUARD PILES  
AND D-FENDER

|          |              |            |          |
|----------|--------------|------------|----------|
| DESIGNED | DRAWN        | CHECKED    | APPROVED |
|          |              | A.S.P.     |          |
| SCALE    | ISBL. NO.    | DATE       | REV.     |
| As shown | 9788-07-0221 | 30-12-2021 | 0        |

