



नव मंगलूर पत्तन प्राधिकरण
NEW MANGALORE PORT AUTHORITY
(पत्तन, पोत परिवहन और जलमार्ग मंत्रालय, भारत सरकार)
Ministry of Ports, Shipping & Waterways, Govt. Of India)

Mechanical Engineering Department Electrical Engineering Division Administrative Building, New Mangalore Port Authority, Panambur, Mangalore- 575010	Contact Details: Website: http://www.newmangaloreport.gov.in E-mail: mahalingam.v@nmpt.gov.in Tel: 0824-2887750
---	---

NITNO.:EE(E)/Techcell/A/2022-23/12/21

Date: 30.03.2023

TENDER DOCUMENT

FOR

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF
ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT
NMPA PREMISES INCLUDING COMPREHENSIVE
MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS
WARRANTY PERIOD) AND ONSITE SUPPORT FOR 5 YEARS**

**(NIT, GENERAL TERMS & CONDITIONS, SPECIAL TERMS & CONDITIONS
TECHNICAL SPECIFICATION & BOQ)**

LIST OF DOCUMENTS

Sl. No.	Description	Part	Page No.
1	Special Instructions to the Bidders for the E-Submission of the Bids Online Through E-Procurement Portal	PART – I	3-6
2	Tender Document	PART – II	8 - 160
3	Price Bid	PART– III	161-166
4	NMPA Bank Details	PART – IV	167
5	Checklist	PART – V	168

SPECIAL INSTRUCTIONS TO THE BIDDERS FOR THE E-SUBMISSION OF THE BIDS ONLINE THROUGH E-PROCUREMENT PORTAL

N.I.T. No. EE(E)/Techcell/A/2022-23/12/21

Date: 30.03.2023

Name of Work: “SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS”.

1. बोलीदाता को होम पेज में उपलब्ध क्लिक हियर टू एनरोल का उपयोग करके पोर्टल में ऑनलाइन नामांकन करना चाहिए। फिर पोर्टल पर लॉग इन करने के बाद ई-टोकन के साथ डिजिटल सिग्नेचर एनरोलमेंट करना होगा। Bidder should do Online Enrolment in the Portal using the option Click Here to Enroll available in the Home Page. Then the Digital Signature enrollment has to be done with the e-token, after logging into the portal.
2. तत्पश्चात बोलीधारक नामांकन के दौरान चुने गए उपयोगकर्ता आईडी / पासवर्ड पोर्टल में लॉग इन कर पाएंगे। Bidder then logs into the portal giving user id / password chosen during enrollment.
3. दूसरों द्वारा दुरुपयोग न करते हुए पंजीकृत ई-टोकन का उपयोग बोलीदाता द्वारा ही किया जाना चाहिए The e-token that is registered should be used by the Bidder and should not be misused by others.
4. किसी खाते में मैप किए जाने पर DSC को किसी अन्य खाते में दोबारा नहीं भेजा जा सकता है। यह केवल निष्क्रिय हो सकता है
DSC once mapped to an account cannot be remapped to any other account. It can only be inactivated.
5. बोलीदाता अग्रिम रूप से अद्यतन कर सकते हैं, दस्तावेज़ जैसे प्रमाणपत्र, खरीद आदेश विवरण आदि, मेरे दस्तावेज़ विकल्प के तहत और इन्हें निविदा आवश्यकताओं के अनुसार चुना जा सकता है और फिर बोली जमा करने के दौरान बोली दस्तावेजों के साथ संलग्न किया जा सकता है। यह बोली दस्तावेजों के कम अपलोड को सुनिश्चित करेगा। The Bidders can update well in advance, the documents such as certificates, purchase order details etc., under My Documents option and these can be selected as per tender requirement and then attach them along with bid documents during bid submission. This will ensure easier upload of bid documents.
6. निविदा कार्यक्रम डाउनलोड करने / प्राप्त करने के बाद, बोलीदाता को सावधानीपूर्वक उनके माध्यम से जाना चाहिए और फिर निविदा दस्तावेज के अनुसार दस्तावेज जमा करना चाहिए; अन्यथा, बोली अस्वीकार कर दी जाएगी After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit documents as stated in the tender document; otherwise, the bid will be rejected.
7. बीओक्यू टेम्पलेट को बोलीदाता द्वारा संशोधित / प्रतिस्थापित नहीं किया जाना चाहिए और संबंधित कॉलम भरने के बाद उसे अपलोड किया जाना चाहिए, अन्यथा बोलीदाता उस निविदा के लिए अस्वीकार किए जाने के लिए उत्तरदायी है। बोलीदाताओं को केवल बिडर नाम और वैल्यू दर्ज करने की अनुमति है।

The BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bid is liable to be rejected. Bidders are allowed to enter the Bidder Name and Values only.

8. यदि कोई स्पष्टीकरण हैं, तो यह ई-प्रोक्योरमेंट पोर्टल के माध्यम से या निविदा दस्तावेज में दिए गए संपर्क विवरण के माध्यम से ऑनलाइन प्राप्त किया जा सकता है। बोलीदाता को पोर्टल पर ऑनलाइन या <http://eprocure.gov.in/eprocure/app> or <http://www.newmangaloreport.gov.in> पर बोली प्रस्तुत करने से पहले प्रकाशित किए गए कोरिगेंडम को ध्यान में रखना चाहिए, बोलीदाता को अग्रिम में बोली दस्तावेज तैयार करने चाहिए। निविदा अनुसूची में दर्शाए अनुसार प्रस्तुत किया जाना चाहिए और वे पीडीएफ प्रारूपों में होने चाहिए। If there are queries connected with this tender, have to be clarified online through the e-Procurement Portal, or through the contact details given in the tender document. Bidder should take into account the corrigendum published before submitting the bids online on the portal or on <http://eprocure.gov.in/eprocure/app> or <http://www.newmangaloreport.gov.in>. All documents to be submitted, as indicated in the tender schedule should be in PDF formats.
9. बोलीदाता को निविदा में निर्दिष्ट बोली सुरक्षाकी व्यवस्था करनी (जैसा लागू हो) ईएमडी और निविदा शुल्क/ चाहिए। मूल को निविदा के लिए बोली जमा करने की तिथि और समय के भीतर, निविदा आमंत्रित करने वाले प्राधिकारी को व्यक्तिगत रूप से पोस्टव्यक्तिगत रूप से दिया जाना चाहिए।/कूरियर। Bidder should arrange for the Bid Security/EMD & tender fee (as applicable) as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission date and time for the tender.
10. बोली लगाने वाले को नियमों और शर्तों को पढ़ना चाहिए और बोलियों को जमा करने के लिए आगे बढ़ने के लिए उसी को स्वीकार करना चाहिए |
The Bidder should read the terms and conditions of the tender and accept the same before proceeding with submission to tender.
11. बोली प्रस्तुत करने की प्रक्रिया के दौरान किसी भी देरी या समस्या से बचने के लिए बोली लगाने वाले को निर्धारित समय से पहले निविदा दस्तावेजों को ऑनलाइन जमा करना चाहिए ।
The Bidder has to submit the tender document(s) online well in advance, before the prescribed time to avoid any delay or problem during the bid submission process.
12. सर्वर के अंत में अपलोड की गई फ़ाइल के आकार की कोई सीमा नहीं है। हालाँकि, अपलोड क्लाइंट सिस्टम पर उपलब्ध मेमोरी के साथ-साथ उस समय क्लाइंट साइड पर उपलब्ध नेटवर्क बैंडविड्थ पर तय किया जाता है। फ़ाइल का आकार कम करने के लिए, बोलीदाताओं को 75-100 DPI में दस्तावेजों को स्कैन करने का सुझाव दिया जाता है ताकि स्पष्टता बनी रहे और फ़ाइल का आकार कम हो जाए। यह बहुत कम बैंडविड्थ की गति पर भी त्वरित अपलोड करने में मदद करेगा |
There is no limit on the size of the file that can be uploaded at the server end. However, the upload is dependent on the Memory available at the Client System as well as the Network bandwidth available at the client side at that point of time. In order to reduce the file size, bidders are suggested to scan the documents in 75-100 DPI so that the clarity is maintained and file size is optimum. This will help in quick uploading even at very low bandwidth speeds.
13. यह ध्यान रखना महत्वपूर्ण है कि, बोली लगाने वाले को फ्रीज बोली बटन पर क्लिक करना होगा, यह सुनिश्चित करने के लिए कि वह बोली प्रस्तुत करने की प्रक्रिया पूरी करता है। बोलियां, जो अवरुद्ध हुए नहीं हैं, को अपूर्ण / अमान्य बोलियों के रूप में मानकर तथा मूल्यांकन उद्देश्यों के लिए नहीं माना जायेगा ।

It is important to note that, the bidder has to click on the Freeze Bid Button, to ensure that, Bid Submission Process is completed. Bids, which are not frozen, are considered as Incomplete/Invalid bids and are not considered for evaluation purposes.

14. स्थानीय मुद्दों के कारण बोलीदाताओं द्वारा ऑनलाइन बोली लगाने के दौरान किसी भी प्रकार की देरी या कठिनाइयों का सामना करने के लिए निविदा आमंत्रण प्राधिकरण (TIA) को जिम्मेदार नहीं ठहराया जाएगा।

The Tender Inviting Authority (TIA) will not be held responsible for any delay or the difficulties faced during submission of bids online by the bidders due to local issues.

15. बोलीदाता इस पोर्टल के माध्यम से ही बोली दस्तावेजों को ऑनलाइन मोड में जमा कर सकता है। इस प्रणाली के माध्यम से ऑफलाइन दस्तावेजों को संभाला नहीं जाएगा। तकनीकी बोली की केवल हार्ड कॉपी ईई (एम) III, एनएमपीटी को नियत तारीख से पहले पहुंचनी चाहिए। बोलीदाता यह सुनिश्चित करेगा कि न्यूनतम योग्यता से संबंधित सभी दस्तावेजों को तकनीकी बोली के साथ अनिवार्य रूप से अपलोड किया जाएगा, जिसमें असफल होने पर बोली को अस्वीकार कर दिया जाएगा। The bidder may submit the bid documents in online mode only, through this portal. Offline documents will not be accepted. The bidder shall ensure that all the documents pertaining to minimum qualification shall be compulsorily uploaded along with the technical Bid failing which the bid shall be rejected.

16. बोली को फ्रीज़ करने के समय, ई-प्रोक्योरमेंट सिस्टम सभी बोली दस्तावेजों को अपलोड करने के बाद एक सफल बोली अपडेटिंग संदेश देगा और फिर बोली सारांश को बोली नंबर, तिथि और जमा करने के समय के साथ दिखाया जाएगा। अन्य सभी प्रासंगिक विवरणों के साथ बोली लगाएं। बोलीकर्ताओं द्वारा प्रस्तुत दस्तावेजों को बोलीदाता के ई-टोकन का उपयोग करके डिजिटल रूप से हस्ताक्षरित किया जाएगा और फिर प्रस्तुत किया जाएगा।

At the time of freezing the bid, the e-Procurement system will give a successful bid updating message after uploading all the bid documents submitted and then a bid summary will be shown with the bid no., date & time of submission of the bid along with all other relevant details. The documents submitted by the bidder should then digitally signed using the e-token of the bidder and then submitted.

17. बोली प्रस्तुत करने के बाद, बोली सारांश को प्रिंट करना होगा और बोली प्रस्तुत करने के टोकन के रूप में एक एक्ज़ॉलेजमेंट के रूप में रखना होगा। बोली सारांश निविदा निविदा के लिए बोली प्रस्तुत करने के प्रमाण के रूप में कार्य करेगा और बोली उद्घाटन कार्यक्रम में भाग लेने के लिए प्रवेश बिंदु के रूप में भी कार्य करेगा।

After the bid submission, the bid summary has to be printed and kept as proof of submission of the bid. Entry to bid opening event will be restricted to bidders having proof of bid submission of the subject tender.

18. सिस्टम से सफल बोली प्रस्तुत करने का मतलब है, कि बोलीदाता द्वारा अपलोड की गई बोलियां प्राप्त होकर सिस्टम में संग्रहीत कर ली गयी हैं; सिस्टम इसकी शुद्धता के लिए प्रमाणित नहीं करता है। Successful bid submission means, the bids as uploaded by the bidder is received and stored in the system. System does not certify for correctness of the bid.

19. बोली लगाने वाले को यह देखना चाहिए कि प्रस्तुत किए गए बोली दस्तावेज वायरस से मुक्त हैं और यदि निविदा खोलने के दौरान वायरस के कारण दस्तावेज नहीं खुल पा रहे हैं तो बोली अस्वीकार कर दी जाएगी। इसके लिए आर्गेनाइजेशन जिम्मेदार नहीं होगी। The bidder should ensure that the bid documents submitted are free from virus. If NMPA is unable to open documents due to virus or any other reason during tender opening, the bid is liable to be rejected. NMPA will not be responsible for rejection of such bids.

20. टेंडर पोर्टल के शीर्ष पर सर्वर घड़ी से प्रदर्शित होने वाला समय, ई-प्रोक्योरमेंट पोर्टल में बोली प्रस्तुत करने, बोली खोलने आदि के अनुरोध के सभी कार्यों के लिए मान्य होगा। इस पोर्टल में अनुवर्ती समय भारतीय मानक समय (IST) के अनुसार है जो GMT + 5: 30 है। बोली लगाने के दौरान बोलीदाताओं को इस समय का पालन करना होगा। The time displayed from the server clock at the top of the tender Portal, will be valid for all actions of requesting bid submission, bid opening etc., in the e-Procurement portal. The Time followed in this portal is as per Indian Standard Time (IST) which is GMT+5:30. The bidders should adhere to this time during bid submission.
21. बोलीकर्ताओं से अनुरोध किया जाता है कि वे बोली प्रस्तुत करने की अंतिम तिथि और समय (सर्वर सिस्टम क्लॉक के अनुसार) से पहले निविदा प्रक्रिया के लिए ऑनलाइन ई-प्रोक्योरमेंट सिस्टम के माध्यम से निविदाएं प्रस्तुत करें। The bidders are requested to submit the bids through online e-Procurement system to the Tender Inviting Authority (TIA) well before the bid submission end date and time (as per Server System Clock).
22. भाग I- तकनीकी बीआईडी के साथ निविदा फार्म शुल्क, ईएमडी और बोली सुरक्षा घोषणा जमा किया जाएगा। फीस, बोली सुरक्षा घोषणा के बिना प्रस्तुत बीआईडी, जैसा कि ऊपर उल्लेख किया गया है, मूल्यांकन के लिए विचार नहीं किया जाएगा और सरसरी तौर पर खारिज कर दिया जाएगा। Tender form Fee, EMD and Bid security declaration shall be submitted with the Part I- Technical BID. BID submitted without fees and Bid security declaration, as mentioned above will not be considered for evaluation and shall be rejected.
23. बोली लगाने वाला / निविदाकार / ठेकेदार कर विभागों के साथ लागू रिटर्न समय में दाखिल करेगा और दस्तावेजी प्रमाण के रूप में प्रस्तुत करना होगा। The Bidder/Contractor shall file the applicable returns with Tax departments in time and submit the same as documentary proof.
24. पोर्ट को क्रेडिट करने के लिए जीएसटी लागू टैक्स चालान में एक अलग लाइन आइटम के रूप में दिखाया जाएगा। The GST applicable shall be shown as a separate line items in the Tax invoices to avail input credit to Port.
25. ईएमडी / एलडी / एसडी को जब्त करने की स्थिति में, जीएसटी लागू है; तथा जुर्माना लगाने के दौरान जीएसटी लागू किया जायेगा।
In the event of forfeiting the EMD/SD GST is applicable and while imposing penalty/LD applicable GST shall be collected.

सूचकांक/INDEX

Sl. No.	Description	Page No.
1	NOTICE INVITING TENDER.	8
2	INSTRUCTIONS TO BIDDERS	9
3	GENERAL TERMS & CONDITIONS OF CONTRACT	23
4	SPECIAL CONDITIONS OF CONTRACT	46
5	SCOPE OF WORK& TECHNICAL SPECIFICATIONS	52
6	PARTICULARS OF BIDDER – ANNEXURE – 1	116
7	TENDER FORM – ANNEXURE – 2	118
8	FORM OF AGREEMENT – ANNEXURE -3	120
9	FORMAT OF PERFORMANCE SECURITY DEPOSIT BANK GUARANTEE – ANNEXURE –4	122
10	FORMAT FOR DECLARATION – ANNEXURE –5	125
11	FORMAT OF POWER OF ATTORNEY – ANNEXURE –6 A & B	126
12	BANK INFORMATION FOR E-PAYMENT – ANNEXURE 7	130
13	DISPUTE REVIEW BOARD AGREEMENT – ANNEXURE 8	131
14	DETAILS OF ONGOING CONTRACTS WITH NMPA–ANNEXURE-9	136
15	VERIFICATION OF LOCAL CONTENT – ANNEXURE-10	136
16	UNDERTAKING ON INDEMNIFICATION – ANNEXURE-11	137
17	INDEMNITY BOND - ANNEXURE -12	138
18	INTEGRITY PACT – ANNEXURE -13	140
19	COUNTRY SHARING LAND & BORDER DECLARATION – ANNEXURE -14	150
20	COUNTRY OF ORIGIN DECLARATION – ANNEXURE -15	151
21	PAYMENT RECEIPT DETAILS CERTIFIED BY STATUTORY AUDITOR – ANNEXURE – 16	152
22	SITE VISIT CONFIRMATION LETTER – ANNEXURE-17	154
23	BID SECURITY DECLARATION -18	155
24	JOINT BIDDING AGREEMENT-19	156
25	BILL OF QUANTITIES	161
26	NMPA BANK DETAILS	167
27	CHECK LIST	168

SCHEDULE OF TENDER (SoT)

NIT No.: EE(E)/TECHCELL/A/2022-23/12/21 Dated: 30.03.2023

NOTICE INVITING TENDER

(Through E-Procurement only)

E-Tenders are invited by New Mangalore Port Authority through electronic tendering system under two bid system through CPP Portal i.e. <http://eprocure.gov.in/eprocure/app>.

Name of the Work	SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS
Mode of tender	E-Procurement System (Online Part I - Techno-Commercial Bid and Part II - Price Bid) through e-procurement portal https://eprocure.gov.in/cppp/
Estimated cost	Rs. 11,78,66,684/- (Rupees Eleven Crore Seventy Eight Lakhs Sixty Six Thousand Six Hundred Eighty Four Only) excluding GST
Tender Fees	Rs. 1680/- (Rupees One Thousand Six Hundred Eighty only) inclusive of 12% GST - Non-refundable OR exemption certificate as per clause No 2.2.1(n) of ITB
Earnest Money Deposit	Rs. 27,81,650/- (Rupees Twenty Seven Lakhs Eighty One Thousand Six Hundred Fifty only) inclusive of 18% GST 'OR' exemption certificate as per clause No 2.2.1(n) of ITB
Date of Tender Document available to parties to download	30.03.2023 at 18:00 Hrs
Date of starting of Pre Bid Queries	30.03.2023 at 18:00 Hrs
Date of closing of Pre Bid Queries	05.04.2023 at 17:00 Hrs.
Date of Starting of e-Tender for submission Bid on line at http://eprocure.gov.in/eprocure/cpp	06.04.2023 at 10:00 Hrs.
Date of closing of e-Tender for submission of Bid.	19.04.2023 at 17:00 Hrs.
Date & Time of opening of Technical Bids	21.04.2023 at 10:00 Hrs.
Date & Time of opening of Price Bid	Will be communicated separately to the qualified Bidders
Contract Period	SITC OF COMPLETE SYSTEM – 5 MONTHS CMC – 3 YEARS (AFTER 2 YEAR GUARANTEE PERIOD) DEPLOYMENT OF ONSITE SUPPORT- 5 YEARS. Contract Effective date shall be after the following Date of signing of Contract Agreement
Validity of Tender	120 days from the date of opening of Tender (Technical Bids)

Amendments to the tender (if any) will be issued only through web site

<http://www.newmangaloreport.gov.in> and on [CPP Portal www.eprocure.gov.in/eprocure/app](http://www.eprocure.gov.in/eprocure/app)

Sd/-
Executive Engineer (E)

2. INSTRUCTIONS TO THE BIDDERS (ITB)

2.1 SCOPE OF BID

E-Tenders in Two Cover system (Techno-Commercial Bid and Price Bid) are invited by Executive Engineer (E) on behalf of New Mangalore Port Authority for the work of “**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS**”.

2.2 TENDER SUBMISSION:

The Tender shall be uploaded as follows:

2.2.1 **Technical Bid** shall contain the following :

- a) Bid Security/EMD in the form of **Insurance Surety Bonds** or **Account Payee Demand Draft** or **Fixed Deposit Receipt** or **Banker’s Cheque** or **Bank Guarantee** from any of the Commercial Banks or **payment online** is accepted.
- b) Earnest Money Deposit of **Rs. 27,81,650/-** (Rupees Twenty Seven Lakhs Eighty One Thousand Six Hundred Fifty only) inclusive of 18% GST- proof of the same shall be uploaded along with the Technical Bid ‘**OR**’ exemption certificate as per clause No 2.2.1(n) of ITB. Failure in submission of EMD will render the Bidders disqualified, except in the case as per clause No. 2.2.1 (n) below.
- c) TENDER FEE for **Rs.1680/-** (Rupees One Thousand Six Hundred Eighty only) inclusive of 12% GST - non-refundable - NEFT Receipt shall be uploaded along with the Technical Bid ‘**OR**’ exemption certificate as per clause No 2.2.1(n) of ITB. Failure in submission of Tender fee will render the Bidders disqualified, except in the case as per clause No. 2.2.1 (n) below.
- d) All the documents should be as per the MQC. Technical Bid should not contain Price Bid. “**Disclosure/indication of Price in the Technical Bid shall render the tender disqualified and rejected**”.
- e) The Tender document duly signed and sealed by the Bidder on each page along with Annexure duly filled along with amendments issued by NMPA if any.
- f) Particulars of Bidder as per **Annexure – 1**.
- g) Supporting documentary evidence of work orders and also satisfactory completion certificate issued by the client,
- h) Tender Form as per **Annexure - 2**.
- i) Bank Details of the Bidder for E-Payment – **Annexure - 7**.
- j) Copies of the, GST Registration Certificate, ESI & PF Registration Certificate and PAN card to be submitted.
- k) Copies of profit and loss statements, balance sheet and Auditor’s report for the last three years.
- l) Form of Declaration – **Annexure - 5**
- m) Power of Attorney: - **Annexure – 6 A & B**
- n) Micro and Small Enterprises (MSE) registered with District Industries Centre (DIC) or Khadi and Village Industries commission or Khadi & Industries Board (KVIB) or Coir Board or National Small Industries Corporation (NSIC) or Directorate of Handicrafts

and Handlooms or Udyog Aadhar memorandum or any other body specified by Ministry of MSME shall be exempted of EMD & Tender Fee on producing self-attested supporting certificates and **Bid Security Declaration as per Annexure-18** along with Technical Bid.

- o) Dispute review Board – **Annexure - 8**
- p) Details of ongoing contracts at NMPA – **Annexure - 9**
- q) Verification of Local Content – **Annexure - 10**
- r) Undertaking on Indemnification – **Annexure – 11**
- s) Indemnity Bond – **Annexure-12**
- t) Integrity Pact – **Annexure-13**
- u) Country sharing land & border declaration - **ANNEXURE -14**
- v) Country of origin declaration – **ANNEXURE -15**
- w) Payment receipt details certified by statutory auditor – **ANNEXURE – 16**
- x) Site Visit confirmation letter – **Annexure-17**
- y) Bid Security Declaration - **Annexure-18**
- z) Joint Bidding Agreement- **Annexure-19**

2.2.2 Price Bid shall be uploaded only through ONLINE: Technical Bid and Price Bid shall be uploaded through online only. Price bid should be quoted in the BOQ template available in the CPP portal only. The BOQ template must not be modified/ replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for that tender. Bidders are allowed to enter the Bidder Name and Values only. Any condition imposed in the price bid shall make the tender liable for out-right rejection. The contract shall be for the whole works as described in the scope of work based on the priced Bill of Quantities submitted through CPP portal by the Bidder. The Bidder shall fill in rates and prices for all items of the works described in the Bill of Quantities through CPP portal. Items for which no rate or price is entered by the Bidder will not be paid for by the Port when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

2.3 ELIGIBLE BIDDER:-

- 2.3.1 The invitation for bids is open only to all eligible Bidders meeting the eligibility criteria as defined in clause No.2.4.
- 2.3.2 Tender Form information as per Annexure 2.
- 2.3.3 Government owned Enterprises may only participate if they are legally and financially autonomous operate under commercial law and are not a dependent agency of the employer subject to fulfillment of minimum qualifying criteria.
- 2.3.4 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the employer in accordance with clause No.2.21

2.4 MINIMUM QUALIFICATION CRITERIA OF THE BIDDERS: (MQC)

2.4.1 FINANCIAL CRITERIA

The Bidder should have an average Annual financial turnover of

Rs.3,53,60,005/- for the last 3 financial years 2019-20, 2020-21 & 2021-22

In case of joint venture, the Lead Bidder should have an average Annual financial turnover of **Rs.3,53,60,005/-** for the last 3 financial years 2019-20, 2020-21 & 2021-22.

Note:- 1. The Bidder shall upload the copy of annual financial turnover for last 3 years including relevant profit & loss A/c and Balance sheet).

2. If the bidder / Lead Bidder under Joint Venture is already having ongoing contracts in NMPA, then his combined work order value of all the ongoing contracts shall be deducted from his Financial Capacity. The Financial Capacity of the bidder shall be assessed from the Average Annual Financial Turnover of the Bidder for the last three years ending March 2022. The Bidder shall be technically qualified, only if his balance Financial Capacity after reduction, is equal to or more than the estimate put to tender.

{Example: If the Average Annual Turnover of the bidder is Rs.3,00,000/- (Rupees Three lakhs only), then the Financial Capacity of the Bidder is considered to be Rs.10,00,000/- (Rupees Ten lakhs only). If the contractor declares total ongoing works at NMPA of value Rs.4,00,000/- (Rupees Four lakhs only) in **Annexure-9**, then the contractor can Bid only for the remaining Financial Capacity i.e Rs.6,00,000/- (Rupees Six lakhs only)}

2.4.2 **TECHNICAL CRITERIA**

i) The Bidder shall have successfully completed **Similar Works** during last 7 (Seven) years ending last day of month previous to the one in which tenders are invited should be either of the following:

One similar completed work costing not less than **Rs.9,42,93,347/-** (Excluding GST)

OR

Two similar completed works each costing not less than **Rs.5,89,33,342/-** (Excluding GST).

OR

Three similar completed works each costing not less than **Rs.4,71,46,673/-** (Excluding GST).

“Similar Work” means **“SITC of CCTV surveillance system and allied works or SITC of IT infrastructure works which includes CCTV Surveillance system and allied works”**.

Note: If the projects consisting of SITC part including AMC works and the AMC is ongoing in such cases, the satisfactory completed SITC part work & value shall be considered for evaluation purpose excluding AMC part work & value.

- ii) In order to meet the Technical criteria as per clause No.2.4.2.(i) above, the bidder shall submit the following documents along with the technical bid:-
- a. The bidder has to submit the details of payments received for the works executed in **Annexure - 16** in full, duly signed and sealed by the statutory auditor with the UDIN number. In case any information in this annexure is found to be false or incorrect, that particular work shall not be considered for evaluation. Further, in case of false certification by the statutory auditor, same shall be informed to the Institute of Chartered Accountants of India (ICAI), for necessary action deemed fit.
 - b. Self-attested photo copies of LOA/Work Order/Agreements showing the awarded contract value for “similar works” and satisfactory Completion Certificates issued by the Client, indicating the date of Completion and completed Contract Value, for the contracts mentioned at **Annexure-16**. If the bidder does not enclose LOA/work order/Agreements/completion certificates along with the Technical bid, as desired for any of the works mentioned at **Annexure-16**, that particular work shall not be considered for further evaluation. The Bidder shall also enclose detailed BOQ with rates and scope of work supporting the LOA/work order/agreements/completion certificates submitted as per **Annexure-16** TDS certificate clearly showing the tax deduction from client for related work orders/agreements shall be attached for verification.
 - c. The works declared by the bidder in Annexure-16 only shall be considered for technical qualification of the bidders. LOA/Work orders/agreements other than the ones mentioned in this Annexure-16 shall not be considered for evaluation, even if they have been uploaded along with the technical bid. Bidder shall not have any claim on this account later on.

Note:

- i. If the completed/performance certificate uploaded is indicating completed value inclusive of Service Tax/GST as applicable, then the bidder shall submit a statutory auditors certificates as per Annexure-16, indicating the completed value of works excluding Service Tax/GST.
- ii. In case of Joint Ventures, Annexure – 16 shall be furnished separately by each member to the JV. The same may be consolidated by the lead bidder.

- iii. Lead Bidder shall upload GST Registration Certificate, ESI, PF and PAN Card and contact details of all the JV members along with technical bid.

2.4.3 Requirements of JV bidding: •

In case the bidder is single entity, he should satisfy all the requirements of specific Experience as per clause 2.4.2

- Single entities, which could not satisfy the above requirements on their own, may form a JV to enable fair and competitive bidding process. In case of JV, the lead member should satisfy at least one requirement among specific Experience single Order Value of 30% of estimate value and other requirements can be satisfied through their JV partner
- In the event of the bids are being submitted by a JV, the JV should satisfy the following criteria:
 - a. Number of members in a Joint Venture shall not exceed 3 (three);
 - b. subject to the provisions of clause (a) above, the Application should contain the information required for each Member of the Joint Venture;
 - c. Members of the Joint Venture shall nominate one member as the lead member (the “Lead Member”). Lead Member shall meet at least 30% requirement of Technical and Financial Capacity required as per Clause 2.4.1 and 2.4.2. The nomination(s) shall be supported by a Power of Attorney, as per the format at Annexure -6(B), signed by all the other Members of the Joint Venture
 - d. The Application should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial, technical and defect liability obligations;
 - e. An individual Applicant cannot at the same time be member of a Joint Venture applying for prequalification. Further, a member of a particular Applicant Joint Venture cannot be member of any other Applicant Joint Venture applying for prequalification;
 - f. The Lead Member shall itself undertake and perform at least 50 (Fifty) per cent or more of the Project.
 - g. Members of the Joint Venture shall have entered into a binding Joint Bidding Agreement, substantially in the form specified at Annexure -19 (the “Jt. Bidding Agreement”), for the purpose of making the Application and submitting a Bid in

the event of being pre-qualified. The Jt. Bidding Agreement, to be submitted along with the Application, shall, inter alia:

- i. convey the commitment(s) of the Lead Member in accordance with this RFP, in case the contract to undertake the Project is awarded to the Joint Venture;
- ii. Clearly outline the proposed roles and responsibilities, if any, of each member;
- iii. Commit the approximate share of work to be undertaken by each member;
- iv. include a statement to the effect that all members of the Joint Venture shall be liable jointly and severally for all obligations of the Contractor in relation to the Project until the completion of the Project (the “Defects Liability Period”) is achieved in accordance with the Contract; and
- v. Unless and otherwise provided for under this RFQ and the Bidding Documents, there shall not be any amendment to the Jt. Bidding Agreement.

2.4.4 Even though the Bidders meet the qualifying criteria as per clause 2.4, they are subject to be disqualified and debarred for a period of three (3) years from participating for tenders at New Mangalore Port Authority duly informing the MSME authorities if applicable, if they have:

2.4.4.1 made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or

2.4.4.2 Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history with New Mangalore Port Authority or financial failures etc.

2.4.5 **LAST DATE FOR SUBMISSION OF TENDER:** NMPA may at its sole discretion reserves the right to extend the date for receipt of tender.

2.5 RATES TO BE INCLUDED FOR ALL OPERATIONAL EXPENSES:

2.5.1 The contractor may visit the Port Authority area before quoting. The Bidder should quote the rate by taking into consideration all expenses.

2.5.2 The GST as applicable will be paid extra by the Port. The GST Registration Number of the Bidder shall be furnished invariably in the tender as well as the Bills/Invoices. Copy of GST registration certificate shall be enclosed along with the tender.

2.5.3 GST will be paid on production of documentary proof of registration with the Central Excise Department only.

2.6 AUTHORITY IN SIGNING TENDER DOCUMENTS:

- i. In case of a single entity, the tender should be signed by the person holding a valid Power of Attorney executed in his favour in accordance with the constitution of the Company.

- II. In case of a Joint Venture, the tender should be signed by the Lead Bidder holding 50% and above share as per Joint Venture agreement and a valid Power of Attorney executed in his favour in accordance with the constitution of the Company.
- III. The Power of Attorney for signing of Tender and the Power of Attorney for the Lead Member of JV, as per **Annexure- 6 A & B**

2.7 ONE BID PER BIDDER

- 2.7.1 Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.
- 2.7.2 A Bidder shall not have a conflict of interest. All Bidders found to have conflict of interest shall be disqualified. Bidders may be considered to have a conflict of interest with one or more parties in this Tendering process, if they are or
 - 1. have been associated in the past, with a firm or any of its affiliates which have been engaged by the Employer to provide consulting services for the preparation of the design, specifications, and other documents to be used for the services to be rendered under these Tendering Documents ; or
 - 2. Submit more than one Tender in this Tendering process.
- 2.7.3 A Bidder that is under a declaration of ineligibility by the Employer in accordance with ITB Clause 2.21, at the date of contract award, shall be disqualified.
- 2.7.4 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

2.8 BIDDER TO INFORM HIMSELF FULLY

- 2.8.1 The Bidder is expected to examine carefully the contents of all the documents provided like instructions to the Bidders, Tender Conditions, Scope of work etc. Failure to comply with the requirements of the tender will be at the Bidders own risk. The Bidder to ensure to make a complete and careful examination of requirements and other information set out in the tender document. The Bidder shall be deemed to have, visited the site and surroundings and have obtained all necessary information in all the matters whatsoever that might influence while carrying out the Works as per the conditions of the tender and to satisfy himself to sufficiency of his tender etc.
- 2.8.2 The Bidder shall examine carefully the conditions of contract in the Tender documents supplied herewith. Though every effort is made herein to give basic data as exhaustively as possible, the Bidder is advised to visit the New

Mangalore Port and its approaches and get himself thoroughly acquainted with all necessary data concerning weather conditions, working conditions, sea conditions, etc. for the purposes of making a correct offer. All costs, charges and expenses that may be incurred by the Bidder in connection with such investigations for the submission of his offer shall be borne by him and the Board accepts no liability or responsibility whatsoever therefore.

2.8.3 Bidder shall bear all costs associated with the preparation and submission of his tender and NMPA will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the tendering process.

2.8.4 Bidder shall visit the site and examine the feasibility and take site visit confirmation letter signed by Executive Engineer (Electrical), NMPA before submitting the bid. The Site Visit letter needs to be submitted in technical bid as per the **Annexure-17** of the Tender Document.

2.9 Earnest Money Deposit:

2.9.1 The tender shall be accompanied by proof of Earnest Money deposit of **Rs. 27,81,650/- (Rupees Twenty Seven Lakhs Eighty One Thousand Six Hundred Fifty only)** inclusive of 18% GST 'OR' exemption certificate as per clause No 2.2.1(n) of ITB. EMD in the form of Insurance Surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt or Banker's Cheque or Bank Guarantee from any of the Commercial Banks or payment online is accepted. The tender without EMD shall be rejected, except in the case as per clause No.2.2.1 (n).

2.9.2 In the event of Tenderer withdrawing his tender before the expiry of tender validity period of **120 days** from the date of opening, the tender shall be cancelled and EMD shall be forfeited. **Applicable GST shall be recovered on forfeiture of EMD.**

2.9.3 The Earnest Money Deposit of unsuccessful Tenderers shall be returned without interest as early as possible on award of Contract to the successful Tenderer. The Earnest Money Deposit of the successful Tenderer shall be refunded (without interest) only on receipt of **Security Deposit cum Performance Guarantee** as stipulated in the tender clause **2.20**. In the event of forfeiting of EMD/LD/SD and while imposing penalty GST shall be collected.

2.9.4 NMPA reserves the right to forfeit the Earnest Money Deposit in respect of successful Tenderer, if he fails to enter into a Contract and furnish the necessary Performance Guarantee towards performance within **21 days** from the date of issue of **Letter of Acceptance**, otherwise penalty @ 0.25% of the amount of the Performance Guarantee for each week or part thereof for the number of weeks delayed beyond the stipulated date of submission shall be levied maximum up to 2.5% of the amount of the Performance Guarantee.

2.9.5 In the event of forfeiting the Performance Security, GST is applicable and while imposing penalty & Liquidated damages GST as applicable shall be collected.

2.9.6 The bidder shall be disqualified/terminated duly forfeiting EMD (if applicable) and may be debarred for a period of three (3) years from participating for tenders at New

Mangalore Port Authority duly informing the MSME authorities if applicable, if

2.9.6.1 The Bidder withdraws the Bid after Bid opening during the period of Bid Validity;

2.9.6.2 The successful Bidder fails within the specified time limit to:

- a. Sign the Agreement AND / OR furnish the required Performance security.
- b. Fail to commence the work on the specified date as per LOA/Work order.
- c. If the bid is varied or modified in a manner not acceptable to the Employer during the validity or extended validity period duly agreed by the Bidder.
- d. If any information or representation submitted by Bidder is found to be false or incorrect.
- e. Any effort by the Bidder to influence the Employer on bid evaluation, bid comparison or contract award decision.

2.10 TENDER VALIDITY: The tender shall remain valid for acceptance for a period of 120 days from the date of opening of Technical Bid. NMPA reserves their right to extend the period of validity for a specific time. The request and the response, thereto, shall be made in writing by post or by Fax/e-mail. A bidder may refuse the request which may be accepted by NMPA. However, in the event of the Bidder agreeing to the request; he shall not be permitted to modify his tender.

2.11 AMENDMENTS:

2.11.1 At any time, prior to the last date for submission of tenders, NMPA reserves the right to amend and modify the tender document by issuing Addendum/Corrigendum which shall be uploaded in the CPP/PORT Websites.

2.11.2 The Addendum/Corrigendum so issued shall form part of the Contract and shall be binding upon the Bidders. NMPA may at their discretion, extend the last date for submission of the tender, to enable the Bidders to have reasonable time to submit their tender after taking into consideration such amendments, which shall also be uploaded to the Websites. The Bidder shall acknowledge receipt of such Addenda/ Corrigenda and submit the same along with his Tender duly signed and sealed in all pages.

2.12 LANGUAGE OF TENDER :

The Tender submitted by the Bidder and all correspondence and documents relating to the Tender exchanged by the Bidder and the NMPA shall be written in the *English language*. Any printed literature, other than English language, shall be accompanied by an English translation, in which case, for purpose of interpretation of the tender, the English translation shall govern.

2.13 MODIFICATION, SUBSTITUTION AND WITHDRAWAL OF PROPOSAL:

No offer shall be modified, substituted or withdrawn by the Bidder after the closing time on due date. Withdrawal of a proposal during the interval between closing time on proposed due date and expiry of the proposal validity period would result in disqualification of the bidder as per clause 2.9 of Tender Document.

2.14 TENDERED CURRENCIES:

Prices shall be quoted in Indian Rupees only and all payments will be made in Indian Rupees.

2.15 PRE BID QUERIES

Pre-bid queries received in online mode on CPP portal will only be considered. Queries received through email or post will not be considered.

2.16 TENDER OPENING AND EVALUATION:

2.16.1 OPENING OF TECHNICAL BID: Technical bids of the Tender, received up to closing time on stipulated date, shall be opened as per the Important Instructions of CPP.

2.16.2 SCRUTINY AND EVALUATION OF THE TENDER

2.16.2.1 Prior to the detailed evaluation of bid, the employer will determine whether each bid (a) meets the eligibility criteria defined at 2.3 & 2.4 above (b) has been properly signed by an authorized signatory holding Power of Attorney in his favor (c) accompanied by Tender fee (if applicable), EMD (if applicable) and (d) is responsive to the requirement of the bidding documents. If any of the above conditions are not satisfied, the bid shall be rejected outright.

2.16.2.2 **Conditional offer or alternative offers will not be considered further in the process of tender evaluation.**

2.16.2.3 A substantially responsive technical and Financial Bid is one which conforms to all the terms, conditions and specifications of the bidding documents, without material deviation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality or performance of the works; (b) which limits in any substantial way, the employers right or bidders obligations under the contract or (c) whose rectification would affect unfairly the competitive position of others bidders presenting responsive bids. The Bidder who does not fulfill the tender requirements shall not be considered for further evaluation.

2.16.2.4 After the tender opening, the whole process involving scrutiny, clarifications, evaluation and comparison of tenders and recommendations regarding award of Contract shall be confidential. Any efforts on part of any Bidder to influence the Port Authority in any way in the process of scrutiny, evaluation, comparison of tenders and decision concerning award of Contract may result in rejection of the Bidder's bid.

2.16.2.5 To assess the scrutiny, evaluation and comparison of tenders, the Port Authority may ask Bidder individually for clarifications. Clarifications shall be sought only on the documents submitted along with the bid. No new documents/work orders shall be entertained which was not part of the original submission whose acceptance would affect unfairly the competitive position of others bidders presenting responsive bids. Request for clarification and response thereto shall be in writing/email or through fax. If the Bidder fails to submit the requested documents within the time specified by the department, his bid is liable to be rejected. No change in Price or substance of the tender shall be sought, offered or permitted nor is the Bidder permitted to withdraw the tender before the expiry of the validity period of the tenders in the process of clarifications.

2.16.2.6 If a Technical Bid is not substantially responsive, it will be rejected by the employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation. The Price/Financial

Bid of those bidders shall not be opened.

2.16.3 OPENING OF PRICE BID:

- i. Tenders, which are found to be in conformity with NMPA's Tender requirement, shall be considered for opening of Price Bid.
- ii. The Bidders found to be qualified and responsive shall be informed about the date and time of opening of their Price Bids. On the stipulated date and time the Price Bids of such Bidders shall be opened online.
- iii. The Bidders has to quote the rate for the subject work in the price Bid format– PART III excluding GST.
- iv. The evaluation shall be done on the basis of **lowest value (L1)** quoted. The GST element if any will **not be considered** for comparison.
- v. Further, in order to promote the Make in India Initiative by the Government of India, Class I Local suppliers shall get purchase preference over Class II local suppliers as well as non-Local supplier as per the following procedure (Refer GCC Clause 3.1 definitions) :-
 - a. Among all qualified bids, the lowest bid will be termed as L1, if L1 is Class I Local supplier, the contract will be awarded to L1.
 - b. If L1 is not a Class-I Local Supplier, the lowest bidder among the Class-I local supplier, will be invited to match the L1 price subject to Class-I local Supplier's quoted price falling within the margin of Purchase preference, and the contract shall be awarded to such Class-I Local supplier subject to matching the L1 price.
 - c. In case such Lowest eligible Class- I local supplier fails to match the L1 price, the Class-I local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the Class I supplier within the margin of purchase preference matched the L1 price, the contract may be awarded to the L1 bidder.

Note: The Class-I local supplier/Class-II Local Supplier shall submit the self-attested copy of Annexure-10 compulsorily along with the Bid clearly indicating the percentage of local content (local staffs that the contractor shall be deploying, in case the contract is awarded to him) and provide self-certification that the services/items offered meets the local content requirement for Class I supplier/Class II local supplier, as the case may be.

- vi. The Bidder, whose bid is accepted by the Port Authority, shall be duly informed in writing. Within 7 days of receipt of intimation, regarding acceptance of its bid, the Bidder shall submit draft Contract agreement in the format approved by the Port Authority as in the **ANNEXURE-3** of Tender Document, and within a week thereafter the Contract agreement shall be signed between the Port Authority and the successful Bidder.
- vii. If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer or his Representative's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the implementation/construction methods and schedule proposed.
- viii. Offers, deviations & other factors which are in excess of the requirement of the Tender document or otherwise result in the accrual of unsolicited benefits to the Employer shall not be taken into account in Tender evaluation.
- ix. **The price Bid with any counter conditions will be summarily rejected.**

2.17 AWARD OF CONTRACT:

Award Criteria: The employer will award the contract to the L1 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 No.2.3 and (b) qualified in accordance with the provisions of clause No.2.4.

2.18 EMPLOYERS RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL :

Notwithstanding Clause No.2.17, the employer reserves the right to accept or reject any bid and to cancel the bidding process and reject all bids, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders of the grounds for employer's action. Further, NMPA does not bind them to accept the lowest offer.

2.19 NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT

2.19.1 The bidder whose bid has been accepted will be notified of the award by the employer prior to expiration of the bid validity period. This letter (herein after and in the conditions of contract called the "letter of acceptance") will state the sum that the employer will pay the contractor in consideration of the execution completion and maintenance of the works by the contractor as prescribed by the contract (hereinafter and in the contract called the "contract price").

2.19.2 The notification of award will constitute the formation of the contract subject only to the furnishing of a performance security in accordance with the provision of clause 2.20.

2.19.3 The agreement will incorporate all correspondence between the employer and the successful bidder. The Contractor shall enter into and execute the Contract Agreement, to be prepared and completed at the cost of the Contractor, in the **Annexure-3** with such modifications as may be necessary within **14 Days** from the Date of issue of LOA. The agreement to be executed on a non-judicial Stamp paper of value Rs.100/-. The completion period of the contract shall be as mentioned in the LOI/Work order. **The Bidder shall submit 10 sets of Agreement copies at his own cost.**

2.20 PERFORMANCE SECURITY:

i. Performance security for PART-I (Supply, Installation, Testing & Commissioning):

Performance security for a sum equivalent of **3%** of the total contract value (Part-I) including GST shall be submitted in the form of Insurance Surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt from a Commercial Bank or Bank Guarantee from a Commercial Bank or online payment are accepted in the approved format **within 21 days** from the date of issue of LOI. The Performance security shall be kept valid for the total contract period (5 months) and Guarantee for two year plus Three Months claim Period (for BG). Thereafter, the total of 3% of Performance Security shall be released to the Contractor after successful completion of the Guarantee Period of 2 years from the date of successful commissioning of the system, deducting any dues payable to the Port. Failure to comply with the above shall lead to termination of contract as per clause No. 2.9 of ITB. If the contract is extended on mutual consent at the same rates, terms and conditions of the contract, then the Performance security shall also be extended for the same period plus Three Months claim period (in case of BG).

ii. Performance Security for PART II (CAMC)

Performance security for a sum equivalent of **3%** of the total contract value (for Part-II) including GST shall be submitted in the form of Insurance Surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt from a Commercial Bank or Bank Guarantee from a Commercial Bank or online payment are accepted in the approved form before the expiry of the 2 years guarantee period. The Performance security shall be kept valid for total CAMC period of 3 years **or** one year (Three Months claim Period in case of BG) and the same has to be renewed for every year until the expiry of contract period (CAMC). Thereafter, the total of 3% of Performance Security shall be released to the Contractor after successful completion of the Contract period of CAMC, deducting any dues payable to the Port. Failure to comply with the above shall lead to termination of contract as per clause No. 2.9 of ITB. If the contract is extended on mutual consent at the same rates, terms and conditions of the contract, then the Performance security shall also be extended for the same period plus Three Months claim period (in case of BG).

iii. Performance Security for PART III (Onsite Support/Manpower)

Performance security for a sum equivalent of **3%** of the total contract value (for Part-III) including GST shall be submitted in the form of Insurance Surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt from a Commercial Bank or Bank Guarantee from a Commercial Bank or online payment are accepted in the approved form from the date of successfully completion of the SITC part. The Performance security shall be kept valid for five year for complete contract period **or** one year (Three Months claim Period in case of BG) and the same has to be renewed for every year until the expiry of contract period for onsite support/Manpower. Thereafter, the total of 3% of Performance Security shall be released to the Contractor after successful completion of the Contract period, deducting any dues payable to the Port. Failure to comply with the above shall lead to termination of contract as per clause No. 2.9 of ITB. If the contract is extended on mutual consent at the same rates, terms and conditions of the contract, then the Performance security shall also be extended for the same period plus Three Months claim period (in case of BG).

Note:-i) The Penalty for the delay in submission of the Performance Security within the stipulate date above shall be at the rate of 0.25% of the amount of performance Security for each week or part of the week for the number of weeks delayed beyond the stipulated date of submission.

ii) The performance security shall be complied as per the orders/amendments issued by the Authorities

2.21 CORRUPT OR FRAUDULENT PRACTICES

The Employer requires that Bidders/Suppliers/Contractors under this contract, observe the highest standard of ethics during the procurement and execution of this contract. In pursuance of this policy, the Employer

i. defines, for the purpose of these provisions, the terms set forth below as follows:

a. "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract

execution; and

- b. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
- ii. Will reject a proposal for award of work if he determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.
- iii. Will declare a Bidder ineligible, either indefinitely or for a stated period of time, to be awarded a contract/contracts if he at any time determines that the Bidder has engaged in corrupt or fraudulent practices in competing for, or in executing, the contract.

2.22 THE LAW, WHICH APPLIES TO THE CONTRACT: The Contract shall be governed by the Indian Contract Act and under the Indian Law. The Arbitration for settlement of disputes shall be held in Mangalore, Karnataka, India.

Apart from the above, conciliation through conciliation committees/ councils comprising of independent subject experts may also be explored to settle the disputes.

Executive Engineer (Ele)I

3 GENERAL CONDITIONS OF CONTRACT

A: GENERAL:

3.1 DEFINITIONS:

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

- i. **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
- ii. **Compensation Events** are those defined in Clause No.3.30.
- iii. The **Completion Date** is the date of completion of the Works as certified by the Engineer or his nominee in accordance with Clause No.3.36.
- iv. The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause No. 3.2(iii).
- v. The **Contract Data** defines the documents and other information which comprise the Contract.
- vi. The **Contractor** is a person or corporate body whose Bid to carry out the Works has been accepted by the Employer.
- vii. The **Contractor's Bid** is the completed Bidding documents submitted by the Contractor to the Employer.
- viii. The **Contract Price** is the price stated in the letter of acceptance and thereafter as adjusted in accordance with the provisions of the Contract.
- ix. **Days** are calendar days, **months** are calendar months.
- x. A **Defect** is any part of the Works not completed in accordance with the Contract.
- xi. The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date.
- xii. The **Employer** is the party who will employ the Contractor to carry out the Works.
- xiii. The **Site** is the area defined as such in the Contract Data.
- xiv. The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer or his nominee by issuing an extension of time.

- xv. **Materials** are all supplies, including consumables, used by the contractor for incorporation in the Works.
- xvi. The **Engineer or his nominee** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer or his nominee) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extensions of time and valuing the Compensation Events.
- xvii. **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer or his nominee.
- xviii. The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Date.
- xix. A **Variation** is an instruction given by the Engineer or his nominee which varies the Works.
- xx. The **Works** are what the Contract requires the Contractor to Supply, install and turn over to the Employer as defined in the Contract Data.
- xxi. **“Local Content”** means the amount of value added in India which shall unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- xxii. **“Class – I local supplier”** means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%.
- xxiii **“Class – II Local Supplier“** means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%.
- xxiv **“Non Local supplier”** means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%.
- xxv **“Margin of purchase preference”** means the maximum extent to which the price quoted by a Class – I local supplier may be above the L1 for the purpose of purchase preference, which shall be 20%.
- xxvi **“L1”** means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.
- xxvii **“Nodal Ministry”** means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

xxviii **“Procurement entity”** means a Ministry of Department or attached or subordinate office of or autonomous body controlled by, the Government of India and includes Government companies as defined in the companies act.

3.2 INTERPRETATION:

- i. In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer or his nominee will provide instructions clarifying queries about the Conditions of Contract.
- ii. If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion date for the whole of the Works).
- iii. The documents forming the Contract shall be interpreted in the following order of priority:
 - a. Agreement
 - b. Letter of Intent and work order.
 - c. Contractors Bid
 - d. Contract Data
 - e. Conditions of Contract including Special Conditions of Contract.
 - f. Specifications
 - g. Drawings, if any
 - h. Bill of quantities and
 - i. any other documents listed in the Contract Data as forming part of the Contract.

3.3 LANGUAGE AND LAW:

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

3.4 ENGINEER OR HIS NOMINEES DECISION:

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

3.5 DELEGATION:

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

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

3.7 PERSONNEL: The Contractor shall employ the personnel as Onsite Support Resource as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer or his nominee. The Engineer or his nominee will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the schedule.

If the Engineer or his nominee asks the contractor to remove a person who is a member of the contractor's staff of his work force stating the reasons, the contractor shall ensure that the person leaves the site within seven days and has no further connections with the work in the contract.

3.8 EMPLOYERS AND CONTRACTORS RISKS:

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

3.9 EMPLOYERS RISKS:

The Employers risks are

- a. in so far as they directly affect the execution of the Works in the country where the Permanent Works are to be executed:
 - 1. war and hostilities (whether war be declared or not), invasion, act of foreign enemies;
 - 2. rebellion, revolution, insurrection, or military or usurped power, or civil war;
 - 3. ionizing radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste, from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof;
 - 4. pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds; and
 - 5. riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the Works;
 - 6. Unforeseen Rains (Rains if any; during the period other than the Monsoon period as stated in the Tender), floods, tornadoes, earthquakes and landslides.
- b. loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;
- c. loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and
- d. any operation of the forces of nature (in so far as it occurs on the Site) which an experienced contractor:
 - 1. could not have reasonably foreseen, or

2. could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - A. prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - B. Insure against.

3.10 CONTRACTORS RISKS:

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

3.11 INSURANCE:

The insurance shall be as follows;

1. All the materials shall stand insured in the name of New Mangalore Port Authority from the time of arrival at site till commencement of installation against fire, pilferage and damage for the value of 90% of each item. The charges for the insurance shall be borne by the Contractor.
2. During erection and till the work is completed and satisfactory taken over by the NMPA after testing the materials shall stand covered by suitable erection Insurance also for the value of 110% of the item. The charges for the insurance shall be borne by the Contractor.
3. All the men/women to be deployed by the Contractor for performing the contract shall be insured against injury/accidents/death by the Contractor at his own cost.
4. The Contractor shall indemnify New Mangalore Port Authority against all losses and claims In case of death or injury caused to any person by him during the execution of the work.
5. The Contractor shall effect and maintain the following policies at no cost to NMPA, during Contract period with an Indian Insurance Company approved by Insurance Regulatory Development Authority of India (IRDA).
 - i. **Commercial General Liability (CGL):** The Contractor is required to take a Commercial General Liability (CGL) Insurance policy during execution of contract work to the extent of 50% of the contract value to cover Third party Liability with cross liability extension. The following third party liabilities shall be covered;
 - a. Third party bodily injuries / death / disablement (persons not belonging to Employer and/or Contractors.
 - b. Third party Property damage which includes damages to others materials/pipeline/cargo/inventories/equipment/other facilities belonging to third party and inclusive of properties during construction/erection/ Government properties.
 - c. The value of third party legal liability for compensation for loss of human life or partial / total disablement as well as for damage to others

equipment/material/property shall be of required statutory limit where applicable or as awarded by Court of Law.

The policy will be on claim made basis with retroactive date from the date of commencement of the contract and shall be valid throughout the tenure of the contract period (including defect liability period) and be also valid during the extended period if any.

The policy will be having claim series clause and extended notification clause with cross liability extension.

- ii. **Employer Liability Insurance:** The Contractor shall indemnify and keep indemnified the Employer against all damages or compensation payable at Law in respect of or in consequence of any accident or injury to any workman or other person in the employment of the Contractor or Sub-Contractor against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto and the Employer shall be at liberty to deduct or adjust from the Contractor's bills an amount that Employer may be called upon to pay towards claims, demands, proceedings, costs, charges and expenses whatsoever in respect of or in relation to any accident or injury referred to above without any reference to the Contractor.

The Contractor shall be registered under ESI as per the relevant statute and act and shall continue such insurance till completion of the Contract covering all the employees/workers/casual labour/contract labour/outsourced persons under his supervision deputed for the said contract work. The Contractor shall also submit such policy of insurance as and when required by the Employer / Employers representatives.

- iii. **Automobile Liability Insurance** covering use of vehicles / mobile equipment's used by Contractor or sub-contractor(s) (whether or not owned by them) in connection with the execution of the contract.
- iv. **Claim Lodgement:** In all cases the Contractor shall lodge the claim with the underwriters and also settle the claims. All claims shall be settled in India. However, the Contractor shall proceed with the repairs and/or replacement of the damaged structures / facilities without waiting for the settlement of the claims. In case seizure of materials by concerned authorities the Contractor shall arrange prompt release against bond, securities or cash as required.

The Contractor will indemnify to the fullest extent permitted by law and keep the Employer, its officers, employees and other related parties hold harmless from all claims for bodily injury and property damage that may arise from the performance of the work

3.12 THE WORKS TO BE COMPLETED BY THE INTENDED COMPLETION PERIOD:

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

3.13 SAFETY: The Contractor shall be responsible for the safety of all activities on the Site.

3.14 POSSESSION OF THE SITE:

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

3.15 ACCESS TO THE SITE:

The Contractor shall allow the Engineer or his nominee and any person authorized by the Engineer or his nominee access to the Site to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured, fabricated and/or assembled for the works.

3.16 INSTRUCTIONS:

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

3.17 DISPUTES:

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

3.17.1 SETTLEMENT OF DISPUTES:

If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with, or arising out of the Contract or the execution of the Works, whether during the execution of the Works or after their completion and whether before or after repudiation or after termination of the Contract, including any disagreement by either party with any action, inaction, opinion, instruction, determination, certificate or valuation of the Engineer or his nominee, the matter in dispute shall, in the first place be referred to the Disputes Review Board [DRB].

Unless the Contract has already been repudiated or terminated or frustrated the Contractor shall in every case, continue to proceed with the Works with all due diligence and the Contractor and the Employer shall give effect forthwith to every decision of the Engineer or his nominee unless and until the same shall be revised, as hereinafter provided, in a Dispute Review Board Recommendation / Arbitral Award.

3.17.2 Arbitration: Any dispute in respect of in respect of contracts where party is dissatisfied by the Dispute Review Board's (DRB) decision shall be decided by arbitration as set forth below:

- i) A dispute with contractor shall be finally settled by arbitration in accordance with the Indian Arbitration and Conciliation Act, 1996, or any statutory amendment

thereof. The arbitral tribunal shall consist of 3 arbitrators, one each to be appointed by the Employer and the contractor, and the third to be appointed by the mutual consent of both the arbitrators, failing which by making a reference to CIDC-SIAC Arbitration Center from their panel.

- ii) Neither party shall be limited in the proceedings before such arbitrators to the evidence or arguments already put before the Engineer or his nominee or the Board, as the case may be, for the purpose of obtaining said recommendations/decision. No such recommendations/decision shall disqualify the Engineer or his nominee or any of the members of the Board, as the case may be, from being called as a witness and giving evidence before the arbitrators or any matter whatsoever relevant to the dispute.
- iii) The reference to arbitration shall proceed notwithstanding that the works shall not then be or be alleged to be complete, provided always that the obligations of the Employer, the Engineer or his nominee and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the works. Neither party shall be entitled to suspend the works to which the dispute relates, and payment to the Contractor shall be continued to be made as provided by the contract.
- iv) If one of the parties fails to appoint its arbitrators in pursuance of sub-clause [i], within 14 days after receipt of the notice of the appointment of its arbitrator by the other party, then President/Chairman of the nominated Institution shall appoint arbitrator within 14 days of the receipt of the request by the nominated institution. A certified copy of the President's/Chairman's order, making such an appointment shall be furnished to both the parties.
- v) Arbitration proceedings shall be held at Mangalore, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be 'English
- vi) The Arbitration shall be conducted by the experts from the panel of CIDC-SIAC Arbitration Center.
- vii) The decision of the majority of arbitrators shall be final and binding upon both parties. The expenses of the arbitrators as determined by the arbitrators shall be shared equally by the Employer and the Contractor. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its case prior to, during and after the arbitration proceedings shall be borne by each party itself.
- viii) All arbitration awards shall be in writing and shall state the reasons for the award.
- ix) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the Employer shall not be withheld, unless they are subject matter of the arbitration proceedings.

3.18 **BAR CHART:**

1. Bar Chart showing stage wise activities of the work should be uploaded **along with the Technical Bid**. However, the successful Bidder shall review the Bar Chart & take prior approval from the Engineer before commencement of work.

2. An update of the Bar Chart shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
3. The Contractor shall submit to the Engineer on the first day of each week or such longer period as the Engineer may from time to time direct, a progress report in an approved form showing up-to-date total progress, progress achieved against planned progress, during the previous week and progress forecast for the following week for all important items in each section or portion of the Works, in relation with the approved Program.
4. The Contractor shall submit to the Engineer or his nominee, for approval an updated Program at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Program within this period, the Engineer or his nominee may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.
5. The Engineer or his nominee's approval of the Bar Chart shall not alter the Contractor's obligations. The Contractor may revise the Bar Chart and submit it to the Engineer or his nominee again at any time. A revised Bar Chart is to show the effect of Variations and Compensation Events.

3.19 EXTENSION OF INTENDED COMPLETION DATE:

1. The Engineer or his nominee shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.
2. The Engineer or his nominee shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer or his nominee for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

3.20 DELAYS ORDERED BY THE ENGINEER OR HIS NOMINEE:

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

3.21 MANAGEMENT MEETINGS:

1. Either the Engineer or his nominee or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
2. The Engineer or his nominee shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer.

The responsibility of the parties for actions to be taken is to be decided by the Engineer or his nominee either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

3.22 EARLY WARNING:

1. The Contractor is to warn the Engineer or his nominee at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Engineer or his nominee may require the Contractor to provide an estimate of the expected effect of the event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.
2. The Contractor shall cooperate with the Engineer or his nominee in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer or his nominee.

B. QUALITY CONTROL:

3.23 IDENTIFY DEFECTS:

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

3.24 TESTS:

If the Engineer or his nominee instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

3.25 CORRECTION OF DEFECTS:

1. The Engineer or his nominee shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
2. Every time notice of a Defect is given, the Contractor shall correct the notified defect within the length of time specified by the Engineer or his nominee's notice.

3.26 UNCORRECTED DEFECTS:

If the Contractor has not corrected a Defect within the time specified in the Engineer or his nominee's notice the Engineer or his nominee will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

C. COST CONTROL:

3.27 BILL OF QUANTITIES:

1. The Bill of Quantities shall contain items for the supply, installation, testing and commissioning work.
2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

3.28 VARIATIONS AND ITS VALUATION:

- i. The Quantities set out in the Bill of Quantities of the tender shall be treated as estimated quantities of the work and shall never be deemed as actual or correct quantities of the works to be executed by the contractor in fulfillment of his obligation under the contract.
- ii. The Engineer shall have the power to order the Contractor in writing to make any variation of the Quantity, quantity or form of the works or any part thereof that may, in his opinion, be necessary and the Contractor upon receipt of such an order shall act as follows;
 - a. Increase or decrease the quantity of any work included in the Contract.
 - b. Omit any work included in the contract.
 - c. Change the routes, position and dimensions of any part of the work.
 - d. Execute extra and additional work of any kind necessary for completion of the works.
- iii. No such variation shall in any way vitiate or invalidate the contract or be treated as revocation of the contract, but the value (if any) of all such variations evaluated in accordance with the Engineer's sole decision shall be taken into account and the contract price shall be varied accordingly.
- iv. Provided variation in the quantity of any work will be permitted which is necessary to complete the works where such increase is not the result of any variation order given under this clause but is the result of the quantities exceeding those stated in the bill of quantities. Provided the variation shall be complied with by the Contractor and the Engineer's subsequent written confirmation of such variation shall be deemed to be an order in writing within the meaning of this clause.
- v. No price escalation is allowed. The rate(s) quoted against the work shall remain firm during the entire contract period. Any change in Forex/rate shall not be considered for price variation.
- vi. The purpose of this document is to define the minimum requirements for the supply, design & engineering, manufacturing, installation, inspection, Commissioning and documentation of all the items and other activities as per BOQ (Bill of Quantities) attached with tender document, for the Job /construction contractor in performing the work of **"SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE**

CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) AND ONSITE SUPPORT FOR 5 YEARS”.

- vii. The Contractor shall note that all the activities that are required to be performed for completion and successful commissioning of the project needs to be considered in his scope of work. Any missing activities/ supplies in BOQ or in any other project issued documents, but essential for the completion and success full implementation of the project shall be the sole responsibility of the contractor at his cost.
- viii. a. The Contractor shall not be entitled to any claim of extra or additional work unless they have been carried out under the written orders of the Engineer.
- b. The Engineer shall solely determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra work done or work omitted by his order.
- c. All extra, additional or substituted work done or work omitted by order of the Engineer shall be valued on the basis of the rates and prices set out in the contract, if in the opinion of the Engineer, the same shall be applicable. If the contract does not contain any rates or prices directly applicable to the extra additional or substituted work, then the Engineer may decide the suitable rates on the basis of Schedule of Rates, if any thereon. In all other cases the Engineer shall solely determine suitable rates in the manner deemed by him as fair and reasonable, and his decision shall be final, binding and conclusive.

3.29 PAYMENTS:

A. Payment of PART-I

Running bills will be paid for at quoted rates for the items in schedule, after acceptance of Performance security on Part I, which shall be valid for whole contract period including Guarantee period. Running Account Bill claim shall be submitted separately and corresponding GST for the value shall be shown in the Bill Claim. Following are the stages of Payment;

- i. 70% (Seventy percent) on supply Item against receipt of material at site in good condition after the inspection and certification to release the payment by third party.
- ii. 20% (Twenty Percent) of supplied item rate after completion of Installation, Testing and commissioning etc. and 90% (Ninety Percent) of payment against items covering only Installation, Testing and commissioning after the inspection and certification to release the payment by third party.
- iii. Balance 10% (Ten percent) will be paid on successful completion of the work and issue of Taking Over Certificate in respect of the subject works and acceptance of Performance Security Deposit.
- iv. For BOQ items having “Supply and laying/installation/fixing/running/ testing/commissioning etc.....”, 70% of quoted rate will be considered for supply

of items and balance 30% will be considered for laying/installation/fixing/running/testing/commissioning etc. and payment terms at a, b & c above will be applied accordingly.

- v. The performance security deposit will be refunded after the expiry of one year guarantee period without interest less deduction of any sum that may be due from the Tenderer after completion of the work.

Payment along with applicable GST will be released within 15 days subject to recoveries if any, from the date of submission of Tax Invoice after satisfactory completion of work in all respect.

B. Payment of PART-II & III

Payment will be made on monthly basis on the quoted value of CAMC and On site Engineer charges in the respective year. The Contractor shall submit system generated working status report on Monthly basis along with the bills for payment.

- i. 100% of payment will be released within 15 days from the date of submission of monthly bill/Tax Invoice along with a copy of maintenance schedule and attendance register of the contract staffs. Also the contractor has to submit the receipt of ESI and EPF contribution paid to their staff and extract of wage payment Register for the month for which the contractor submits the bill, as documentary evidence.
- ii. **Provident Fund & ESI:** The contractor has to remit the PF & ESI contribution regularly to the concerned department for the staff engaged by him. The EPF and ESI contribution on the part of the employer in respect of this contract shall be paid by the contractor.
- iii. In case the Notice for non-compliance is received from the appropriate agencies (i.e. PF & ESI), the amount due will be deducted from the bills and other monies available with the Port.
- iv. The payment for the deployed personnel should not be less than the prescribed minimum wages and variation as and when issued by the concerned Authorities of Central Govt. during the contract period. Any financial implications due to increase in minimum wages shall be met by the Contractor himself during the contract period. If there is any non-compliance to adhere the minimum wages, necessary action will be taken to cancel the contract. The deployed personnel have to attend the duty. In case any personnel is on leave or absent from duty, suitable substitute should be provided by the Contractor, failing which deductions will be made from contractor's bill as applicable.

3.30 COMPENSATION EVENTS:

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

- a. The Employer does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.
- b. The Employer modifies the schedule of other contractors in a way which affects the work of the contractor under the contract.

- c. The Engineer or his nominee orders a delay or does not issue drawings, specifications or instructions required for execution of works on time.
- d. The Engineer or his nominee instructs the Contractor to uncover or to carry out additional tests upon work which is then found to have no Defects.
- e. The Engineer or his nominee gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- f. Other contractors, public authorities, utilities or the Employer does not work within the dates and other constraints stated in the Contract that cause delay or extra cost to the Contractor.
- g. Other Compensation Events listed in the Contract Data or mentioned in the contract.

Whenever any compensation event occurs, the Contractor will notify the employer, within 14 days in writing. If a compensation event would prevent the work being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Engineer or his nominee shall decide whether and by how much the Intended Completion Date shall be extended.

3.31 LIQUIDATED DAMAGES:

- i. In case of delay in completion of the contract/SITC work, liquidated damages (L.D) may be levied at the rate of 0.5% of the contract price plus applicable GST per week of delay or part thereof subject to a maximum of 10 per cent of the contract price.
- ii. The Employer, if satisfied, that the works can be completed by the contractor within a reasonable time after the specified time for completion, may allow further extension of time at its discretion with or without the levy of L.D. In the event of extension granted being with L.D, the Employer will be entitled without prejudice to any other right or remedy available in that behalf, to recover from the Contractor as agreed damages equivalent to 0.5% of the contract value plus applicable GST for each week or part thereof subject to the ceiling defined in Clause **3.31(i)**.
- iii. The Employer, if not satisfied that the works can be completed by the contractor, and in the event of failure on the part of the contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.

- iv. The Employer, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.
- v. In the event of such termination of the contract as described in clauses **3.31(iii)** or **3.31(iv)** or both the Employer shall be entitled to recover L.D. up to ten per cent (10%) of the contract value and forfeit the security deposit made by the Contractor besides getting the work completed by other means at the risk and cost of the Contractor.
- vi. Contractor hereby agree after due assessment of damages that there will be definite loss to the Employer in case of delay in completion of work and the amount of Liquidated damages fixed above is genuine and reasonable to be recovered. Contractor hereby further agrees that Employer is not required to prove the loss suffered to him before recovery of LD.

3.32 OBLIGATIONS OF THE CONTRACTOR:

- i. The Contractor shall exercise all reasonable care and diligence in the discharge of all technical, professional and contractual duties to be performed by them under this Contract within the Time for Completion. The Contractor shall be fully responsible to the NMPA for proper, efficient and effective discharge of their duties.
- ii. The Contractor shall when called upon so to do enter into and execute a Contract agreement as per clause **2.19** of this tender document.
- iii. The successful Tenderer shall furnish Performance Guarantee towards the performance of the work as per clause **2.20** of this tender document.
- iv. If the Board shall consider itself entitled to any claim under the performance Guarantee it shall forth with so inform the Contractor specifying the default of the Contractor upon which he relies. If the Contractor fails to remedy such default within 20 days after the receipt of such notice the Board shall be entitled to forfeit to the extent of the loss or damage incurred by reason of the default.
- v. The Contractor shall proceed with the Works in accordance with the decisions, instructions and orders given by the Engineer in accordance with the condition of the Contract.

3.33 EXECUTION:

The Contractor shall execute and do the works set forth as described in the scope of the work and specifications, including any amendments.

3.34 EXTRAS:

Any extra expenses incurred in connection to the Works by the NMPA in the performance of the Works owing to the neglect or omission on the part of the Contractor in any of the case mentioned in this Contract shall be deducted from any sum due or which may thereafter become due to the Contractor or from any amount lying with them or under their control or he may be called upon to pay the

amount of such extra expense to such person or persons as the NMPA may appoint to receive the same and in the event of the Contractor failing to make such payment, the said amount shall be recoverable from him in such manner as the NMPA may determine.

3.35 EXISTING SERVICES: The Contractor shall not store any materials or otherwise occupy any part of the site in a manner likely to hinder the Port operation. Any damage/loss caused by the contractor to the Port property, same shall be rectified at his own cost without any delay with the satisfaction of the Engineer.

3.36 COMPLETION PERIOD:

- i) The system shall be commissioned in all respect within **5 months** from the date of Signing of Agreement. After successful commissioning of the system, deployment of On Site Engineer will be for 5 years. The CMC for the entire system shall be for 3 years after expiry of 2 years warranty period.
- ii) The Part-I work (SITC) shall be completed within **five (05)** months from date of signing Agreement. The Contractor shall commence the works as soon as possible.
- iii) On expiry of contract, all the items which have been installed at NMPA by the contractor shall be handed over to NMPA. The contractor does not have any right to take back the system, since the installed items shall be the property of Port once the contract is expired.
- iv) Transition Management: After the completion of successful execution of project, the contractor shall extend full cooperation to give training to the Port Officials.

3.37 INSPECTION & TESTS:

- i. The Employer or his representative shall have right to inspect the work being carried out under this Contract and to test the system to confirm conformity with the specifications. The employer shall notify the Contractor in writing of the identity of a representatives retained for these purposes.
- ii. The tests may be conducted on the premises of the Contractor or its subcontractor (s) at point of delivery and at the final destination. Where conducted on the premises of the Contractor or its subcontractor (s), all reasonable facilities and assistance shall be furnished to the inspector at no discharge to the Employer.
- iii. Should any tested systems fail to conform to the specification, the Employer may reject them, and the Contractor shall make suitable alterations with prior approval of Employer to meet the requirements of the specifications, without any effect on cost of delivery times / project schedules.
- iv. The Employer's right to inspect, test and where necessary, reject the system shall be in no way limited or waived by reason of the systems having previously been tested and passed by the Employer or its representatives prior to dispatch of the system.
- v. The Contractor shall submit the Quality Assurance plan (QAP), Technical drawings for prior approval before commencement of Inspection / Test at manufacturer's work / Site to the Inspection Agencies / Engineers representatives.
- vi. To ensure compliance of relevant standards and Tender Specifications, the SITC of the entire system will be inspected by the TPI Agency engaged by NMPA. TPI charges will be borne by NMPA.
- vii. Payment shall be released to the contractor based on the certification received from the TPI Agency, on satisfactory compliance of the Terms and Conditions of the Tender, as per payment terms of the Tender.

3.38 FINAL ACCEPTANCE:

Upon completion of the work under the Contract a meeting shall be held for the purpose of accepting the system and services. Such meeting shall constitute the Final Acceptance Test under the Contract. In case defects or shortcomings or both which are considered essential, a new meeting shall be convened when the contractor has given notice of completion of the corrective work carried out. Otherwise NMPA may accept the system if the defects or shortcomings or both are not considered essential and the Contractor has agreed to carry out the modifications in conformity with this Contract.

3.39 REJECTION OF DEFECTIVE WORK:

- i. If the complete system at site or any portion thereof before being taken over, is defective, or fail to fulfill the requirements of the Contract, the Engineer shall give notice to the Contractor setting forth particulars of such defects and the Contractor shall forthwith make the defective supply/Installation good or alter the same to make it comply with the requirements of the Contract.
- ii. If Contractor fails to do so within a reasonable time, NMPA may reject and replace the same at the cost of Contractor, the whole, or any portion of the work, as the case may be, which is defective or fails to fulfill the requirements of the Contract. The Contractor's fails and extreme liability under this clause shall be satisfied by the payment to NMPA, the extra cost, if any, of such replacement delivered and erected. Such extra cost being ascertained shall be deducted from the Contractor's bill.
- iii. If any supply of defective items shall have caused delay in the completion of the Contract so as to give rise to a claim for damage on the part of the NMPA under Clause **3.26** of Tender Document nothing contained in this clause shall interfere with or prejudice any rights of the Board of Directors with respect to such claim.

3.40 TAKING OVER CERTIFICATE:

When the whole of the works have been substantially completed and have satisfactorily passed any tests on completion prescribed by the contract, the contractor may give a notice to that effect to the engineer, with a copy to the employer, accompanied by a written undertaking to finish with due expedition any outstanding work during the defects liability period. Such notice and undertaking shall be deemed to be a request by the contractor for the engineer to issue a taking over certificate in respect of the works. The Engineer shall, within 21 days of the date of delivery of such notice, either issue to the contractor, with a copy to the employer, a taking over certificate, stating the date on which, in his opinion, the works were substantially completed in accordance with the contract, or give instruction in writing

to the contractor specifying all the work which in the engineer opinion, is required to be done by the contractor before the issue of such certificate. The Engineer shall also notify the contractor of the any defects in the works affecting substantial completion that may appear after such instructions and before completion of the works specified there in. The contractor shall be entitled to receive such taking over certificate within 21 days of completion, to the satisfaction of the engineer, of the works so specified and remedying any defects so noticed.

3.41 DEFECT LIABILITY PERIOD AFTER TAKING OVER:

- i. In this condition the expression '**Defect liability period**' shall mean a period of **12 months** calculated from the date of Taking Over in accordance with clause **3.40** of Tender Document for **all works**.
- ii. The Contractor shall be responsible for making good with all possible speed at his expense any defect in or damage to any portion of the Works which may appear or occur during the defect liability period without extra cost to NMPA and which arises either;
 - a. From any defective materials, workmanship or Design or
 - b. From any act or omission of the Contractor done or omitted during the said period.
- iii. If any such defects shall appear or damage occur the Engineer shall forthwith inform the Contractor thereof stating in writing the nature of defect or damage. The provision of this clause shall apply to all replacements or renewals carried out by the Contractor to remedy defects and damage as if the said replacements and renewals had been taken over on the date they were completed to the satisfaction of Engineer but not so as to extend the Defects Liability Period in respect thereof beyond three years from the date of taking over decided by the Engineer as the respective case of remedying may warrant.
- iv. If any such defect or damages were not remedied within a reasonable time, NMPA may proceed to do the work at the Contractor's risk and expense provided that he does so in a reasonable manner.

3.42 INCOME TAX DEDUCTION:

Income Tax as at such rates applicable from time to time will be deducted at source from all running bills and Final Bill and a certificate to this effect will be issued. The deduction of Income Tax can, however, is waived if exemption certificate is produced from Income Tax Authorities. Deduction of income tax at reduced rate can be considered subject to production of valid certificate for the period from Income tax authorities.

The GST applicable shall be shown as a separate line item in the tax invoices, and shall be paid extra. Contractor should provide proper tax invoice as per GST act.

The Tenderer / Contractor shall file the applicable returns with tax departments in time and submit the same as documentary proof.

Contractor shall submit all the GST returns with in time specified. Any ITC lost by NMPA due to non-filing of return will be recovered from the contractor.

3.43 The payment will be made through E-Payment. The Tenderers are required to furnish Bank details for making E-Payment as per the schedule- III of this Tender document.

3.44 MAINTENANCE OF RECORDS/REGISTERS, INSTRUCTION BOOK:

The Instruction Book is to be kept by the Contractor at the site. Any order or instructions issued by the EIC or his authorized representative shall be entered in the book. The Contractor shall sign each entry in token of having seen the same. This shall be returned to the EIC in good condition after the completion of the Contract period. The contractor shall deploy the manning as per the instruction of EIC or his representative time to time after confirming the same to be displayed on the work places for reference. Instruction Book is to be kept by the Contractor at the site. Any order or instructions issued by the EIC or his authorized representative shall be entered in the book. The contractor shall sign each entry in token of having seen the same. The instructions regarding Operation and Maintenance work to be attended in shortest possible time and compliance date to be mentioned in the instructions Book against each item after compliance of the instructions. This shall be returned to the EIC in good condition after the completion of the Contract period.

3.45 NO INTEREST ON ACCOUNT OF DELAYED PAYMENTS: Any claim for interest will not be entertained by the NMPA with respect to any payment or balance which may be in their hands owing to any disputes between themselves and the Contractor or with respect to any delay on the part of the NMPA in making payment.

3.46 GUARANTEE PERIOD:

- i. The items to be supplied under this Contract shall be guaranteed for a period of **24** months for **all works** towards satisfactory performance. The Contractor shall be responsible for any defects that may develop under proper use arising from faulty materials, Designs, workmanship in the work but not otherwise and shall at his own cost remedy such defects when called upon to do so by the Engineer who shall state in writing in what respect any portion is faulty.
- ii. If it becomes necessary for the Contractor to replace or renew any defective portions of the supply of the items under this clause, the provisions of this clause shall apply to the portions of the supply so replaced or renewed until the expiry of 24 months from the date of such replacement or renewal of the above mentioned Guarantee **period of 24 months**, whichever may be later. If any defects are not remedied within a reasonable time, the Port may proceed to do the work at the Contractors' risk and expenses but without prejudice to any other rights, which the Port may have against the Contractor in respect of such defects.

3.47 EXTENSION OF COMPLETION PERIOD:

If the quantum of total work increases due to additional work against the BOQ for the subject works “**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS**” suitable extension of completion period shall be taken during the approval of additional work from the Competent Authority.

3.48 DEFAULT OF THE CONTRACTOR & TERMINATION:

If the Contractor makes any default or on the happenings of anyone or more of the following events that is to say;

- a. If the Contractor without reasonable cause abandons the Contract or
- b. Suspends the carrying out of the Works for a reasonable time after receiving written notice from the NMPA without any lawful excuse or fails to make proper progress with Works after receiving written notice from the Engineer or
- c. Fails to proceed diligently with the work or
- d. Fails to give the NMPA proper facilities for inspection of the Works of any part thereof for three days after receiving notice in writing by the NMPA demanding the same or
- e. The Contractor has become insolvent or
- f. The Contractor has gone into liquidation or passes the resolution for winding up or
- g. Upon the Contractor making an arrangement with or assignment in favour of his creditor or Upon his assigning this contract or
- h. Upon an execution being levied upon the Contractor's good or
- i. Upon winding up order being passed by the court or a Receiver or manager is appointed in respect of any of the property of the Contractor or
- j. Possession is taken by or on behalf of any holder of any debentures secured by floating charges of any of the property of the Contractor or
- k. Fails to complete all or any part of the Works during the time specified for completion of the Contract or such extended time as may be granted by the NMPA.

3.49 TERMINATION OF THE CONTRACT

In the event of repeated instances of unsatisfactory service or any failure at any time on the part of the contractor to comply with the terms and provisions of this contract to the satisfaction of NMPA (who shall be the sole judge and whose decision shall be final, it shall also be open to NMPA to terminate this contract by

giving not less than 30 (thirty) days' notice in writing to that effect and if the contractor, does not make good his default within the notice period, NMPA shall be entitled to terminate the contract as a whole or in part.

- i. In the event of such termination of the contract, NMPA shall be entitled to:
 1. forfeit the Performance Security as it may consider fit;
 2. get the balance/remaining work done by making alternative arrangements as deemed necessary and until such time NMPA is able to appoint a new regular Contractor; and recover from the contractor (appointed under this tender) any extra expenditure incurred by NMPA in getting the work done and damages which NMPA may sustain as a consequence of such action.
- ii. If the extra expenditure incurred by NMPA on account of unsatisfactory performance of the contractor as mentioned in paragraphs above is more than the Security Deposit proposed to be forfeited, the expenditure over and in excess of the Security Deposit may be recovered by deducting the said amount from pending bills of the contractor under this tender or from money due to the contractor by NMPA under this or any other contract or otherwise. The contractor shall have no claim whatsoever against NMPA, in consequence on such recoveries or termination of the contract, as stated above.
- iii. if at any time the contractor becomes insolvent or files an application for insolvency or any creditor of his moves the court for adjudicating him as an insolvent or, if he is convicted by any court of law, withdraws from the contract, NMPA will have the absolute option of terminating the contract forthwith and he shall have no right for damages or compensations on this account. Further, NMPA reserves the right to terminate/pre-close the contract at its convenience, without assigning reasons to the contractor by giving a notice period of 30 days. The contractor shall not have right of any claim on NMPA on account of such termination.

3.50 DEBARRING OF BUSINESS DEALINGS:

In the event of termination of contract in terms of provisions of clause 3.48 above, NMPA shall also be entitled to debar the Contractor for participation in future tenders of NMPA for a period of three (03) years.

Further, in case if it comes to the notice of NMPA that the Bidder/Contractor has used forged documents or misrepresented the facts in any manner either to get the contract or during the pendency of the contract, in such cases NMPA at its sole discretion may disqualify the bid / terminate the contract and debar such Bidder/Contractor for participation in future tenders of NMPA for a period of three (03) years.

3.51 NMPA's LIEN:

The NMPA shall have a lien on and over all or any money that may become due and payable to the Contractor under this Contract or any other Contract or from any amount lying with them or under their control and in respect of any debt or sum that may become due and payable by the NMPA to the Contractor either alone or jointly

with another or other and either under this Contract or under any other Contracts or transaction of any nature whatsoever the NMPA and the Contractor.

3.52 FORCE MAJEURE:

i. For Supply, Installation Testing & Commissioning:

If the Supply, installation, Testing & Commissioning of devices/materials is hindered due to force majeure such as, war, riots, civil commotion, fire, epidemics, natural calamities, such period shall be exempted from **Liquidated Damages** as mentioned in clause **3.31** of this tender document.

ii. For CAMC:

If the devices/materials is damaged during CAMC due to force majeure such as, war, riots, civil commotion, fire, epidemics, natural calamities, such period shall be exempted from imposition of penalty for non - adherence of SLA as mentioned in clause **4.26 & 4.27** of the tender document.

3.53 LABOUR LAWS:

The Contractor shall comply with all the provisions of the **Labour Laws and the rules and regulations** made there under as amended from time to time and as applicable from time to time with regard to the employees to be deployed by the Contractor for Electrification, Testing, Commissioning and Maintenance of the system.

3.54 ACTS & STATUTORY RULES:

The contractor shall comply with all the Central State and Municipal laws and rules and shall be solely responsible for complying with the provisions of the contract labour (regulations and abolition) Act 1970 and rules there under and the other enactments that may be applicable including ESI Act, the payment of wages Act, Provident Fund Act, the minimum wages Act, the factories Act, the workmen compensation act or any other applicable legislation and the Municipal by laws or other statutory rules and regulations whatsoever in force in so far as these are applicable. Any obligations finding or otherwise missed under any statutory enactments, rules and regulations there under shall be the responsibility of the contractor and the NMPA will take no responsibility for the same.

- i) The Tenderer must possess documents certifying registration under Employees State Insurance Act, EPF & MP Act and GST.
- ii) If the Tenderer is not registered under ESI Act and EPF & MP Act for the reasons that he has not employed 10 or more workers as required under said laws, he shall submit an affidavit in this regard that he has never employed 10 or more workers on any given day preceding 12 months from the inception of its operations.
- iii) The Tenderer to whom ESI Act and EPF & MP Act does not apply, shall mandatorily cover his workers deployed at NMPA site/premises under Employees Compensation Act Policy declaring proper wages.
- iv) The Tenderer shall submit "Indemnity Bond" as per **Annexure - 12** for undertaking to indemnify NMPA both loss/legal expenses incurred in case of

any claims filed against NMPA by EPFO/ESIC authorities with regard to the workers of the bidder/contractor.

3.55 SAFETY GEARS:

The Contractor shall at his own expenses provide all safety gears for all labours engaged during the work and failing to do so, the NMPA shall provide the same and recover the cost there of from any amount due or which may become due to the Contractor or from any amount lying with them or under their control.

3.56 INDEMNIFICATION:

The Contractor shall agree and undertake (ANNEXURE-11) to indemnify, keep indemnifies, depended and hold harmless the NMPA and its Officers against all losses, penalties, costs and expenses, duties of any kind whatsoever which may arise on account of breach un-authorized act, fraud deed or any other acts of Contractor or any of its personnel. The Contractor shall also agree and undertake to indemnify and keep indemnifies against any order passed by any executive, quasi-judicial or judicial authority wherein the NMPA is compelled to obey the order which arise due to breach of contract by the Contractor.

The Contractor shall indemnify, protect and defend at its own cost, New Mangalore Port Authority and its agents & employees from & against any/all actions, claims, losses or damages arising out of;

- i. Any violation by the Contractor in course of its execution of the contract of any legal provisions or any right of third parties.
- ii. Contractor's failure to exercise the skill and care required for satisfactory execution of the contract.
- iii. The Contractor shall indemnify NMPA against all claims for compensation by or on behalf of any workman employed by him in connection with the contract, for injury or death by accident under the Workman Compensation Act (Act VIII of 1923) as amended from time to time.
- iv. The Contractor shall be responsible for all commissions and omissions on part of manpower engaged for the purpose. NMPA shall not be responsible in any manner whatsoever, in matters of injury/death/health etc. of the Contractor's employees performing duties under the contract.
- v. Undertake to indemnify NMPA both loss/legal expenses incurred in case of any claims filed against NMPA by EPFO/ESIC authorities with regard to the workers of the bidder/contractor.
- vi. Shall mandatorily cover workers with Employees Compensation Act Policy if ESI Act and EPF & MP Act do not apply.

4. SPECIAL CONDITIONS OF CONTRACT

- 4.1 The rates quoted shall be Firm and inclusive of all cost & Duties and exclusive of applicable GST. The Employer shall not provide any concessional “C” or “D” Form.
- 4.2 The Contractor should have **GST & PAN** and the same should be uploaded along with the tender. GST will be paid on production of documentary evidences.
- 4.3 The Contractor shall carryout the work as a complete job i.e. Supply materials, their storage, keeping under safe custody, transporting to work site, fixing, testing and commissioning of the whole work. The Tenderers should satisfy themselves about the quantities indicated in the Schedule and it is the responsibility of the supplier to supply and make the system operational to the satisfaction of Engineer.
- 4.4 The supply items should have Test Certificates/warranty certificates and the same shall be submitted along with supply of materials.
- 4.5 Delay in making the execution site available to the Contractor will not form a cause for any claims. The Port Authority will inform the Contractor of such possible delay in advance and a suitable extension of time for completion shall be considered.
- 4.6 The Successful Contractor shall take approval from the Engineer in charge for technical datasheets, drawings etc. before procurement of material / fabrication of materials etc. and should supply all materials/equipments as per relevant standard & Tender specifications and carryout the complete work including Testing and commissioning as per applicable act.
- 4.7 Any part or whole of the system, which requires the approval of the statutory body, if any, should be arranged by the Contractor at his cost. It is the responsibility of the Contractor to submit the system drawings with all details to the statutory body and obtain their approval, if any.
- 4.8 All related Civil works shall be responsibility of the Contractor. The Contractor should take timely action to complete all civil works in all respects.
- 4.9 Power supply, if available, will be given to the Contractor **on free of cost**. Wherever such source is not available, the contractor has to make his own arrangements. Tapping of power from the source point of NMPA to the required location will have to be arranged by the Contractor at his cost conforming to IE Rules / Standards.
- 4.10 The Contractor has to make his own arrangement for engaging all tools & tackles, testing equipment's etc.
- 4.11 The Equipment shall be insured in the name of Employer for 110% of Ex-works cost from the place of dispatch to the place of destination & till handing over / taking over of the Equipment to the satisfaction of the Employer.

- 4.12 The Contractor has to make his own arrangements for construction of temporary stores; office work sheds etc., for their requirements at his own cost. Land for such temporary work sheds, stores, site office etc., till the work is completed will be given free of rent at spot approved by NMPA. The sheds shall be constructed with non-inflammable materials like G.I. sheets etc., and shall be removed in reasonable time after the work is completed. In case the Contractor fails to remove the same, the Department will remove the same and the cost of such removal will be recovered from any amount due from the Contractor.
- 4.13 **Site Register** is to be maintained by the Site Engineer (AE/AEE/EE) at site on daily basis with details of works carried out on that particular day, defects noticed by the Site Engineer (AE/AEE/EE) and instructions given to the Contractor etc. Any orders or instructions issued by the Engineer-in-Charge or Higher Authorities shall be entered in the book and shall be deemed to have been legally issued.
- 4.14 **Hindrance Register** is to be maintained by the Site Engineer (AE/AEE/EE) at site & should contain all the Hindrances to the work due to the reasons attributed either to the Contractor or Port date wise and date of resumption of work. The Contractor and Engineer in charge should sign each entry in token of having seen the same.
- 4.15 The Contractor is responsible for taking precautionary measures for the safety of the lives of the workmen working under him and the responsibility arising due to any mishap during the execution of work, the payment of any compensation etc., lies entirely on the part of the Contractor. Safety nets, life jackets, Helmets required while working in site and Danger Boards, barricades are to be provided by the Contractor without any extra cost to the Port Authority.
- 4.16 The Contractor should ensure, that all necessary arrangements for the safety of others and also his men and materials while performing the work, are well maintained at his cost, risk and responsibility. He should ensure proper watch of the signals by providing barricades, lights, vigils, precautionary measures etc., to ensure safety at his work.
- 4.17 The Port working hour is from 8.00 A.M. to 1.00 noon and from 2.00 P.M. to 5.00 P.M. If any work is carried out by the Contractor requiring supervision beyond Port working hours, the Contractor shall apply in writing well in advance of such work to the Engineer to arrange for such supervision.
- 4.18 All rules and regulations governing the New Mangalore Port Authority shall be applicable.
- 4.19 The site for the work will be handed over to the Contractor in phases for the execution as soon as the work order is given. In case the entire site is not handed over to the Contractor, he should programme his work in such a way so as not to hamper the progress in any way and a suitable extension of time shall be considered.

- 4.20 Any damages caused to the Port property either directly or indirectly shall be made good by the Contractor at his own cost.
- 4.21 The Tenderer(s) shall be required to quote his / their rates in figures as well as in words without any correction(s). If there is any correction(s) in the tender, such corrections should be attested by the Tenderer(s) before submission of the tender. However the rates shall be quoted in words and figures, in case of dispute, rates in words shall be taken as final.
- 4.22 Port entry passes to the Contractor and his workmen and vehicle during the period of work will be issued on a **chargeable basis to carry out the work as per rules.**
- 4.23 **Completion Drawing & Documentation:**
On the basis of drawings issued and additional drawings generated during the course of execution of works & documentation required for various components and sub-components, the Contractor should prepare completion documents generally as below but not limited to;
- a. Supply items - The contractor shall furnish one set of original manuals, leaflets etc. All drawings and documents are to be neatly filed in a heavy duty binder and indexed.
 - b. Copy of all the Test reports and Guarantee/Warranty certificates are to be presented separately in a folder for records and reference.
- 4.24 The successful Bidder / Contractor shall furnish an undertaking on their Firm's letterhead for the following before executing the Contract agreement;
- a. We will ensure that our workforce will be provided with and use all necessary safety gears and equipment's required for the job.
 - b. We will follow all the required safety procedures while executing the job.
 - c. We indemnify the Port for any accidents / incidents while carrying out the Contract.
- 4.25 The Department's Standard Operating Procedure (SOP) will be shared with the successful Bidder / Contractor at the time of signing of agreement. The successful Bidder / Contractor have to give an undertaking for complying with the same. In case if the successful Bidder / Contractor does have a defined SOP for carrying out the tendered work, the same shall be submitted to the Executive Engineer (E) for scrutiny and approval for its applicability before commencement of the work.
- 4.26 **SERVICE LEVEL AGREEMENT:**
The implemented system performance will be governed by the Service Level Agreement (SLA) format as given below. New Mangalore Port will use the following performance indicators to monitor and evaluate the performance of the System.

Sl. No.	Key Performance Indicators(KPI)	Minimum Guaranteed Performance
1	System Availability	100% at all times
2	CCTV system failure	Not more than 4 Hours

4.27 PENALTY:

4.1 PENALTY:

A. Camera Downtime Penalty

The penalty for the downtime of PTZ camera / Fixed (Bullet) Camera will be imposed as per the following structure;

Duration of downtime	Penalty
Upto 4 Hrs	No Penalty
4 Hrs to 24 Hrs	Rs.150/- Per Camera
24 Hrs to 48 Hrs	Rs. 225/- Per Camera
Beyond 48 Hrs	Rs.300/- Per Camera per day on Pro-rata basis.

B. System Penalty

The number of video streams displayed at Control room should be identical to the video streams displayed at all user location. Non availability of video stream at any or more of the monitoring stations/ user locations shall be treated as System breakdown. The following penalty shall be levied;

System Downtime	Penalty
Upto 4 Hrs	No Penalty
4 Hrs to 12 Hrs	Rs.300/- Per user location
12 Hrs to 24 Hrs	Rs.600/- Per user location
24 Hrs to 48 Hrs	Rs.1000/- Per user location
Beyond 48 Hrs	Rs.2000/- Per user location per day on pro-rata basis.

4.28 USER ACCEPTANCE TEST:

The contractor shall obtain user acceptance test signoff from the Chief Mechanical Engineer with a detailed end to end test cases, test plan & test reports before go live.

4.29 ADDITION / ALTERATION:

The Contractor shall not be entitled to any claim of extra or additional work unless they have been carried out under the written orders of the Engineer in charge.

4.30 TERMINATION OF (CMC) CONTRACT:

In the event of repeated instance of unsatisfactory performance of the systems or frequent breakdowns or contractor failure to comply with terms and provisions of this contract to the satisfaction of NMPA, contract liable to be terminated with one month Notice. Forfeit the security deposit as it may consider for and recover from the contractor any extra expenditure incurred by NMPA in getting the work done and damages which NMPA may sustain as consequence of such action. The contractor shall have no claim whatsoever against NMPA, in consequence on such recoveries or termination of the contract.

Due to any change in the Port Security scenario or due to any new Govt. policy in place or due to any other reason whatsoever, if NMPA decided to discontinue this CCTV surveillance system, NMPA reserve right to terminate the contract with one (01) month Notice.

4.31 DEPLOYMENT OF STAFF:

In case any personnel is on leave or absent from duty or reported misbehavior with Engineer-in-charge/Port Officers or due to incompetency of the deputed staff in the specified area of work, suitable substitute should be provided by the Contractor, failing which deductions will be made from contractor's bill as as given below;

In addition to Non-payment of per day wages paid to the staff, **Rs 500/- per day as penalty will be recovered** from the bill of contractor till posting of substitute staff by the contractor. Total number of days will be calculated & the amount will be recovered from running bill for failure of providing substitute staff.

4.32: The Technical specification mentioned in the Tender for the proposed items are of minimum requirement, the bidder can offer their technical specification with higher side/better also. However, if the bidder has offered Technical specification with partial deviation or lesser than the Tender Technical Specification requirement, such bid/bids will be rejected summarily without any further clarification.

4.33 Others:

- 1) Accommodation for the deployed staff shall be arranged by the Contractor at his own cost; however the Port quarters may be allotted on chargeable basis if available as per applicable rules of NMPA.

- 2) At the end of the period of contract, all the equipment under this tender shall be handed over to the Port on as is where basis is in good working condition.
- 3) The hardware, software and all related licenses thereto shall be under the ownership of the Port. The bidder shall obtain/issue licenses or such other certification/documentation required for the purpose in the name of the NEW MANGALORE PORT AUTHORITY.
- 4) The successful Bidder shall be responsible for insurance of all the manpower & hardware/network supplied and installed by vendor for risk coverage including accidental hazards, death & disability of person, material breakage due to negligence, theft, storm, fire or any other hazards which may occur due to trespassing of vehicles & /or natural adverse climatic conditions and calamities - War, Fire, Cyclone, salinity problems at shore etc.

5. Scope of Work and Technical Specifications

5.1 Scope of work

The Scope of Work, includes all design & engineering, procurement & supply of cameras, and associated network accessories with necessary software's, testing at manufacturers works, inspection, packing and forwarding, receipt, associated civil works, services, Migration of existing installation, testing and commissioning of CCTV system including Video Management Software with Analytics, servers, storage, passive/active network components with CAMC for 3 years post two years supply warranty. This also includes onsite support for operation and maintenance of the system for 5 years after successfully commissioning of the system.

The broad scope of work shall consist, but not limited to the following:

1. Existing H.264 cameras – 106units of cameras with 2MP Resolution & migrate with H.265 compression and above.
2. Supply and Installation of the 105 Nos. of new cameras with H.265 and above compression. Compatible IP camera of 4 MP and above along the NMPA Operational area & Water Bodies, NMPA Colony & CISF Barrack within NMPA on premises. Site Visit is mandatory to study existing infra and site requirement. To study the site requirement a technically qualified engineer has to be nominated. Site Visit Certificate is mandatory.
3. Network Infrastructure such as LAN cable, power cable, poles, network racks, Edge switches, active/passive components etc. required for the new 105 Nos. of cameras along the Operational area & Water Bodies, NMPA Colony & CISF Barrack and other areas of NMPA on premises needs to be covered under surveillance.
4. Up-gradation of Existing wireless network Backhauling from 300 Mbps to 600 mbps at NMPA.
5. Existing Network Attached Storage (NAS) 200TB shall be considered with proposed Video Management Software to meet tender requirement.
6. Up-gradation or New Video Management Software is required on Windows Platform to meet H.265 Video Compression for minimum 300 Cameras License is required with future scalability.
7. From 300 Cameras licensing, existing 106 Cameras & New 105 cameras will be considered for 90 days recording data compression of minimum H.265 or better. Remaining Camera license shall be factored for future scalability.
8. Earthing and surge protection devices need to be considered for every pole used to connect CCTV Camera with complete accessories.
9. UPS Earthing is needed as per IS 3043 standards or better.
10. One Resident Engineer (Highly Skilled) for managing the day today maintenance activity for 5 years & has to coordinate with NMPA support team for smooth maintenance activity.

11. System shall use video signals from various types of IP Cameras installed at different locations, process them for viewing on Work stations/monitors/Video Displays at CCTV Control room and simultaneously record all the cameras after compression using H.265 or better and above standard and streamed over the IP network, at full HD with minimum 25FPS. The picture quality of recorded replay should be as clear as live video without any loss of frame.
12. Video Management Software should provide the facility of viewing, recording, replay, backup and remote access simultaneously.
13. Database server shall keep track of all configurations & events. This is required to manage system administration & management of redundancies and other functional requirements.
14. Total 13 units of workstations will be connected in Wired/Wireless network. Client VMS software license to be provided with restricted control to live and play back depending upon the privilege assigned to the user. The retrieval of recorded video from the Server/SAN should happen seamlessly.
15. The system offered should provide 99.99% uptime and no data is lost. Suitable provision for disaster recovery mechanism should be available.
16. The equipment offered should have the capacity of functioning 24X7 – 365 days in Indian Climatic Conditions. Cameras & All Outdoor devices has to be corrosion resistant and required certification has to be submitted.
17. The camera shall be designed for commercial/industrial 24/7*365 use support for H.265 and above compression technology & IPv6 and POE/ POE+ as per IEEE 802.3af standard.
18. The new cameras shall have capability of edge analytics, equipped with integrated event functionality which can be triggered by external input, video motion detection, camera tampering etc.
19. The live video, recording and replay should be smooth & continuous without any jerks/interruptions. Necessary fine tuning on wired/wireless network has be considered.
20. The Network VMS shall be able to support all cameras at 25 fps and above, support 4K resolution and support all types of Dome, Bullet, PTZ cameras etc with H.264, H.265 and above compression techniques.
21. VMS shall preferably support Native Failover for both Management and Recording servers to avoid the single point of failure. Recording and client PC should not have the complete dependency on the Data based for running operation. In the event of failure of directory as well as failover directory at least limited functions of recording and display should be continued.
22. The VMS system proposed should be capable of failover recording feature, so that in the event of VMS failure the recording and live viewing is continued.
23. The recording resolution, motion detection and frame rate for each camera shall be user programmable at camera through VMS.
24. All the cameras and VMS shall confirm to Open Network Video Interface (ONVIF) standards.
25. The proposed system should have redundancy feature at server level and switch level to maintain the maximum uptime and high availability.

26. The VMS shall be able to support all types of IP cameras - HD/Megapixel (up to 8MP) resolution with a frame rate up to 60 frames per second, while maintaining less than 70% load on the Server.
27. The proposed solution should be able to generate various standard/ customized reports for event analysis / reporting purposes. Analytics report such as Facial Recognition & People Count reports are required.
28. The proposed system should have high level of network security. Hacking of the video_footages through VMS should not be happened at any cost. Suitable antivirus – Server Client Architecture for servers, storage, workstations etc. needs to be installed with end point protection. Periodic security audit of the video management system to protect the system against hacking and all possible best practices must be adopted.
29. The proposed antivirus software should be compatible with the VMS system offered. The antivirus system should be installed on the existing server provided by NMPA. Validity of the Server antivirus (original) should be licensed with free updation during the warranty period.
30. Forensic Study, Digitally Signed Export of Camera Videos should be integral feature of the VMS system.
31. During upgradation of Proposed Solution. The existing CCTV wired/Wireless Network should not interrupt with any data connectivity to the above said systems.
32. Consider existing server to utilize/configured Active directory, Antivirus server, DNS Servers& etc.
33. Excavation (900mm x 300mm), Refilling and laying of cable through 40/32mm HDPE Pipe. Including excavation & backfilling soil where ever required.
34. Supply and Installation of GI Pole up to 9 Meters along with required accessories and junction box, including foundation work etc.
35. **Electrical Works:**
 - Electrical cabling of system components, UPS, Supply Installation & commissioning of Distribution Boards, UPS DB loaded with MCB all under scope of supplier.
 - All electrical components to be supplied & installed shall have ISI marks and heavy duty to work in industrial environment.
36. Power taken from nearest point as per the guide line from NMPA & all power cable termination properly as per the Industrial Procedure with naming convention, Labeling for Incoming & Outgoing power cables is mandatory.
37. All LAN & Power cable laying at NMPA area need route marker for every 10 feet, should be installed with proper concrete foundation.
38. The new network Infrastructure for 105 cameras is required for peripheral CCTV system along the NMPA area. The new wireless network to be interfaced with the existing wireless network with network redundancy.
 - A. New wireless network should not create any interference to existing network and seamless migrate with new wireless network with sufficient bandwidth for simultaneous viewing and recording of minimum 300 cameras with future scalability.

- B. Upgrade the control room switches for 1G to 10G switches and connecting all Existing/New servers, Storage& client systems etc.
- C. The Power cable should be tested and commissioned to the required IS standard and test reports to be submitted.
- D. Power cable should be laid through HDPE pipe.
- E. Network connectivity between Servers, SAN, Distribution Switch should be 10Gbps or better Fiber connectivity. Edge connectivity to the cameras and client should be 1Gbps or better.

39. **Scope of work for Servers and Storage** shall include but shall not restrict to the following:

- A. Design for Existing NAS storage reconfiguration & installation, testing and commissioning of servers required for managing live and recording of 300 cameras considering the hot redundancy of servers.
- B. The configuration must be in such a way that at any point of time (with complete system up and running), server load/performance should not cross 70%.
- C. The camera servers should be the front-end recording of all cameras for 7 days Minimum on RAID 6. If either PRIMARY or SECOUNDARY recording servers fails, the recorded footage should be AUTO Consolidated with seamless integration between PRIMERY & SECONDARY recording servers without loss in recorded data. In any point of time recorded footage should be available for continuous play back at the client systems.
- D. The video stream should be recorded parallel in both i.e. Recording Server and SAN storage without interruption or delay. In case of loss of video to SAN storage due to any failure, there shall be provision to sync & update the data from recording server for the failure duration.
- E. Storage system shall be SANSTOARAGE: Capable to record video of -
 - Resolution: 2 megapixels minimum or better,
 - Frame Rate: Minimum 25fps or better
 - Duration of Recording: 24x7 continuous recording
 - Video retention Period: 90 Days
 - Free Storage: At least 20% space should be free after all recording archival of all cameras for 90 days.
- F. VMS Data base/ Recording servers must be configured in a hot backup configuration.
- G. Existing Storage reconfiguration of 200 TB for recording of 300 Nos cameras of 4MP and above for 90 days recording at a compression of H.265 and above with Raid 6 configuration considering 25 FPS and 100% activity level for recording minimum 1920X1080 pixel Full HD resolution. Minimum 1200TB usable storage after Raid 6 configuration.
- H. The bidder shall provide the storage capacity as per the above requirement for the various types of cameras and their recording duration. The bidder shall also furnish the calculations to establish that the offered storage capacity is adequate to meet the above requirement. If the existing offered storage capacity is found to be

insufficient at any point of time, the bidder shall provide additional storage without any additional cost.

- I. The bidder should provide details for the offered configuration: Drive type, Drive speed, Drive size, RAID group used to configure usable capacity (Data + parity + spares) along with total disks supported by the storage and balance disk space.

40. Detailed requirements of Video Management System:

The video management system shall be client/ server based for IP video that Provides seamless management of digital video across an IP network.

The system shall have following major features:

- A. Centralized, Enterprise Solution with scalable to support unlimited number of cameras.
- B. Open architecture
- C. Integration with 3rd party software's for Access control System, Fire Detection System, intrusion detection system etc.
- D. Licenses required for cameras, Servers, storage and client PCs.
- E. Scheduled, event based & alarm-based recording configuration
- F. Site Maps
- G. ONVIF compliant
- H. PTZ control
- I. Allow full virtual matrix switching & control
- J. Alarm Management
- K. Live, Recording & Playback
- L. Accelerate investigation with replay controls, play/pause/shuttle
- M. Snapshot video image as bitmap/ jpeg file.
- N. Real time clock

41. Up-gradation of Video Management Software or New VMS.

- A. **The Software shall be an enterprise solution, without license restriction on number of cameras that can be connected.**
- B. VMS should support minimum 2019 Windows or above updated Server operating system on Server machine. It should support latest Windows OS on Client machine, independent of what operating system is there in the servers. VMS should support SQL/ MySQL/ Oracle DBMS.
- C. The VMS shall support distributed video architecture which seamlessly integrates the video operations of numerous systems onto one virtual platform, allowing security operators to view and control all cameras, whether across a single facility or across the multiple locations.
- D. The VMS shall support seamless integration with other security and safety equipment /systems like UVSS, Fire Alarm System, Access Control system, Perimeter Protection System etc so as to monitor on the GUI, alert and automatically focus

the nearby CCTV camera towards the area of alarm/incident. Necessary Software Development Kit (SDK) to allow integration to and integration from 3rd party software.

- E. Integration of Under Vehicle Surveillance System & Analytics such as FRS & People Count is needed on VMS. Required SDK shall be coordinated from respective OEM's.
- F. The VMS shall Manage and support Enterprise Database servers, Recording Servers, Analytics Server, Storage and Operator workstations. Systems shall be scalable by adding additional Servers in future.
- G. The VMS shall support Analytics Servers dedicated to analyse video streams. The Analytics Servers shall process the live video using preconfigured rules and Intelligent Video Analytics algorithms to determine events of interest.
- H. VMS should be compatible with video controller/video wall.
- I. VMS shall preferably support Native Failover for both Management and Recording Server.

42. **REDUNDANCY:** The database server shall provide a central fault tolerant repository for all configurations and run time information for the complete system. The VMS must be capable of running a pair of similarly configured Database Servers in a hot backup configuration where at any point in time, one is the acting Primary and the other is acting as the Hot Backup. The backup Database Server shall be continuously synchronized with the Master Database Server to ensure that it is always up-to- date and ready for fail-over, when required.

43. Software updates to the VMS Client application and configuration software shall be automatically deployed from the management server.

44. The VMS shall ensure continues operation during management server down times and recording is not affected. When the failed system is back on-line, no special user or administrator action shall be required for the system to be back to a normal working mode.

45. The VMS offered shall comply with ONVIF Profile S and accept all the cameras of ONVIF profile and allow discovery of the same. All the setting of VMS shall be applicable on ONVIF cameras including PTZ.

46. The software shall have the following functions as minimum:

- a. The software shall record video over TCP/IP networks, supporting H.265+, H.265, H.264 and above updated data streams for all the cameras simultaneously, with expansion capability of unlimited channels in future. And it's should not support Non- compliant on GB/T 28181-2016 protocols
- b. The system shall support full-duplex operation with continuous alarm recording and having a full-featured record search capability based on camera number, event, time or date. The product shall also have integrated web server functionality.
- c. The software shall be capable of detecting & raising alarm messages for loss of any camera such as camera is offline/out of the network, the camera lens is covered (such as by cloth) or video is not available from any camera for a specified time.
- d. The software shall be directly installed in the server.

- e. Encode using the H.265+, H.265, H.264/ MPEG4 standard above updated compression technique. Compression technique shall be user selectable.
- f. Recording at the rate of minimum 25 fps or better at the same resolution as the resolution of the cameras with video motion detection feature.
- g. Multicast live video to server, monitors & client PCs from Camera.
- h. The software shall provide a user-dependent bookmark tree. The bookmark tree shall allow saving a time period or a single point in time for later investigation and export. Bookmarks shall be available both for live mode and for playback mode.

47. Dual Recording: VMS shall be capable with the ability to record streams from the cameras in 2 different recording servers at the same time for maintaining HA and to prevent data loss.

a. Edge Recording

The VMS shall support edge recording of video on SD/Micro card inside the camera in case of network connectivity between camera and VMS is down. The VMS shall support restoration of edge recorded video in the VMS storage once the network connectivity between camera and VMS is up.

b. Exporting Recordings

It shall be possible to export video from the software to any other network storage Devices including a network drive, CD and DVD. It shall be able to export any section of video from any recording.

c. Merge & Export Recordings / Forensic Search:

VMS shall have the provision to merge recorded video sequences from different or Overlapping time intervals from different cameras to one and same the export. It will provide a consolidated video evidence for a complete overview of incidents

48. Digitally Signed Export of Camera Videos

- a. The VMS shall support export of video for evidentiary purposes. It shall be possible to select the portion of video required and export only that portion in Windows Media Format and Native Format.
- b. The VMS must support all exported recordings and exported audit logs to be digitally signed to prove authentication (origin of the recording and audit log) and integrity (exported recording and audit log have not been altered or tampered with).
- c. The VMS system shall provide a default digital certificate for signing the exported recordings and audit logs. Customization shall also be provided to allow for the user to supply his/her own digital certificate.

49. Digital Zoom

- a. The VMS shall support the ability to digitally zoom into an area of the image as well as provide the ability to enhance the image viewed by adjusting the levels of brightness, contrast, noise levels and sharpness through camera Web page from live video. VMS client should support Hardware Acceleration feature by using the GPU for Video decoding to bring down the CPU utilization and support more number of cameras on any given workstation.

b. Site maps

Built-in map function in the client viewer shall provide an intuitive overview of the system and shall offer integrated access to all system components.

- c. It shall be possible to use any number of layered maps, and it shall be possible to easily drag-and-drop and point-and-click definition of cameras, servers, microphones, speakers, I/O devices, hot-zones, and PTZ camera pre-sets. Map function shall support central overview of the surveillance system via an alarm List containing alarm indicators of high, medium or low prioritized alarms.

The following features shall be available in the software:

- i. Accurately allocate event on the map with video verification
- ii. Navigate complex sites to get video live view wherever needed quickly
- iii. Support BMP, JPEG, Auto CAD
- iv. Support multi-layer Site map navigation

50. Administration Features in Software

Administration features shall cover the following:

- A. User management
- B. User Authentication
- C. Rules management. The software shall provide rules programming for all the devices with graphical logic editing user interface.
- D. License Management
- E. Disaster recovery & backup configuration
- F. Device organization, configuration & management. While adding a new device, a display with information such as device type, ID, name, tag, location, description, IP port, current date & time etc.
- G. Camera type definition administrators shall be able to change camera settings, camera details and configure the video settings.
- H. Camera details. The administrator shall be able to configure the following parameters for each camera:
 - Name
 - Location
 - Description
 - Camera Number
 - Camera connection

51. System Configuration, Maintenance & Diagnostics System configuration & maintenance shall include the following:

- A. Maintain database of system functions including devices error, alarms, and user actions which can be reported as per user's request.
- B. Continuously monitor system health status of key system components such as database, servers, cameras, storage, clients and workstation with notification to users immediately when abnormal status is detected.
- C. The Diagnostics applications shall provide a unified user interface for running tests, recording system activity, collecting diagnostic information and viewing system log files.
- D. System monitoring feature shall make it possible to view system information and create reports on CPU and memory usage related to all servers, camera status,

recording option, recording server for the selected camera and more related to cameras etc.

52. The VMS solution shall support a functionality to generate a PDF that shall document all parts of the system configuration, including preview of video

53. Video Management System Client

- A. Video Management System Client shall have video client and the Site map client. Video Management System Video Client shall be used to view real-time video & play-back recordings. It shall also have functions to configure video devices & other additional video functions.
- B. The Site map Client shall enable managing alarms/ events/ status conveniently.
- C. Functions such as live window operation, digital zoom, cameras status display (online, disconnected, alarm), video storage while viewing, viewing & managing alarms and events, Site map management operation, log recording & management shall be available on the Clients.
- D. Clients shall receive alarm & event from the video management server. The alarm & event information shall be available to all users, which have necessary privileges. Each user shall be able to view live video/ recordings from cameras related to the alarm & event they have security access to view. A list shall be displayed for alarms, events, status & tasks. The information such as location, date/time, type, detailed information as minimum shall be displayed in the list for alarm & events.
- E. The system shall support an indication for the Client regarding the connection state to the Video Management Server. This shall include connected, disconnected, and configuration out-of-sync between Server and Client.

54. **Documentation:** All relevant product information such as 3 sets of user manual, technical specification sheet etc. should be submitted. Also, as built diagrams & operational & Maintenance Manual (Parts catalogue, spare list, Electrical Diagram, Electrical/Electronic components details, OEM manuals etc.). Installation guides, datasheets, all software (OS, Application software etc.), installation CD's with license copies to be handed over to NMPA, after commissioning.

55. **Software License:** All Software Licenses should be for life time in the name of NMPA, Mangalore and during warranty period upgrade at free of cost as & when new versions are released.

56. **Training to user:** Supplier shall impart proper training to the users and Technical team for trouble free operation and maintenance of the machine. User training material and detailed backend Training material for the Technical team should be provided with details of installation, configuration and roles assignment, licensing, updating and backend related etc.

- A. The contractor shall supply the miscellaneous materials like Cables, junction box, anchor fasteners, screws, bolts and nuts, clamps, suitable angles, cable ties etc. for cable laying and carry out associated minor works for successful

completion of work. Contractor shall do any other related jobs that are not mentioned above, but found necessary at the time of execution to complete the job in all respect.

B. The bidder must provide a valid certificate of authorization for providing after sales service for all the Third-Party Equipment's / Systems supplied from the OEM. The certificate should be in the letter head of OEM issued on the name of bidder and currently valid.

57. Modifications: Supplier shall agree for any minor modifications in system upgradation (without having any additional financial implications) to match with specific requirements for successful completion of the project.

58. Final Acceptance Test (FAT):

- A. Testing of redundancy of Management Servers, Recording servers.
- B. Testing of hard disc failure in Raid6 Configuration of storage
- C. Testing of Usable capacity of Storage
- D. Testing of uplink between Wired /wireless network connectivity between Cameras to control room.
- E. Testing of video analytics, Facial recognition.
- F. Checking of recording, playback & other various features randomly
- G. Checking of recording, replay video quality, Frame rate etc. to ensure smooth & continuous video without any jerks.
- H. Checking of all software server & client has been installed correctly & running without any bug/error, testing of the functionality of the VMS features including Recording, retrieval of footages etc.
- I. Any other test necessary / relevant for full functioning of the system

59. DOCUMENTATION:

- A. Documents to be provided after award of PO, before supply of CCTV system
 - I. Technical catalogues /Datasheets of components to be supplied.
 - II. Factory test reports with serial No.
 - III. Execution Schedule
 - IV. Final BOM
 - V. Final drawing
 - VI. Quality Assurance Plan
 - VII. Factory Acceptance Test procedure
 - VIII. Installation layout of CCTV cameras, layout for poles, racks outdoor.
- B. Documents to be provided after commissioning of CCTV System.
 - I. O&M manual
 - II. Final BOM with make and details of each components
 - III. OEM manuals of cameras, servers SAN etc.
 - IV. Complete project deployment & Handholding Document – 3 sets to be submitted.

5.2 TECHNICAL COMPLIANCE

5 MP BULLET VARI-FOCAL with WDR					
SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specification Sheet with Page Number
1	Image Sensor	1/2.7" Progressive CMOS or Better			
2	Max. Resolution	2560x1920 (5MP) or Better			
3	Lens Type	Vari-focal, Remote Focus			
4	Focal Length	f = 2.8 ~ 13 mm or 2.8 ~ 8mm Lens			
5	Auto-iris	P-iris			
6	IR Illuminators	Built-in IR illuminators, effective up to 50 meters with IR LED*4			
7	On-board Storage	Slot type: MicroSD/SDHC/SDXC card slot with seamless recording			
8	Video Compression	H.265, H.264, MJPEG			
9	Maximum Streams	3 simultaneous streams or better			
10	Dynamic Range	110 dB or better			
11	Image Settings	Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, video rotation, 3DNR, DIS, HLC			
12	Users	Live viewing for up to 10 clients			
13	Interface	10 Base-T/100 Base-TX Ethernet (RJ-45)			
14	ONVIF	Supported			
15	Video Motion Detection	Five-window video motion detection, human detection			
16	Edge Analytics	Intrusion detection, loitering detection, line crossing detection, unattended object detection, missing object detection, face detection, crowd			

		detection, running detection			
17	Alarm Triggers	Motion detection, system boot, recording notification, camera tampering detection,			
18	Connectors	RJ-45 cable connector for 10/100Mbps Network/PoE connection			
19	Power Input	IEEE 802.3af PoE Class 0 DC 12V or suitable			
20	Safety Certifications	CE, FCC, UL, NEMA 4X or Equivalent certification from Indian Class			
21	Casing	IP66, IK10 (Metal Housing)			
22	Cyber security	Embedded			
23	Complaint	BIS			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

4MP - 200 Meter PTZ Camera					
SL. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specification Sheet with Page Number
1	Camera Features				
2	Image Sensor	1/2.8" Progressive CMOS or Better			
3	Max. Resolution	2560x1440 or Better			
4	Lens Type	30x Optical Zoom, Auto Focus			
5	Focal Length	f = 5.0 ~ 150mm or 6.91 - 214.64 mm, + or -5 variable			
6	Iris type	DC-Iris			
7	IR Illuminators	Built-in IR Illuminators up to 200 meters IR or better			
8	Pan Speed	Preset Speed: 350deg/sec			
9	Pan Range	360deg endless			
10	Tilt Speed	Preset Speed: 350deg/sec			
11	Tilt Range	-20 to 90deg (auto flip)			

12	On-board Storage	Slot type: Micro SD/SDHC/SDXC card slot			
13		Seamless Recording			
14	Video Compression	H265, H264, MJPEG			
15		30 fps @ 2560x1440			
16	Maximum Streams	3 simultaneous streams or better			
17	Image Settings	Adjustable image size, quality and bit rate; Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks, Scheduled profile settings, defog, 3DNR, EIS, HLC, anti-overexposure			
18	Audio				
19	Audio Capability	Two-way Audio			
20	Compression	G.711, G.726			
21	Interface	External microphone input			
22		External line output			
23	Network				
24	Users	Live viewing for up to 10 clients			
25	Interface	10 Base-T/100 Base-TX Ethernet (RJ-45)			
26	ONVIF	Profile G, S, T			
27	Intelligent Video				
28	Auto-Tracking	Auto-tracking on moving object			
29	Alarm and Event				
30	Alarm Triggers	Camera tampering detection, cyber security events, digital input, manual trigger, motion detection, , recording notification, , smart tracking trigger, system boot			
31	General				

32	Power Input	IEEE 802.3 Class 3/4/5 PoE, DC 48V, AC 24V (Simultaneous Power Redundancy Supported) or suitable			
33	Casing	IP66, IK10, NEMA 4X			
34	Safety Certifications	CE, FCC Class A, NEMA 4X, UL or Equivalent certification from Indian Class			
35	Cyber Security	Embedded			
36	Complaint	BIS			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

Surveillance Memory Card					
SL. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specification Sheet with Page Number
1	Capacity	128 GB			
2	Transfer Speed	Up to 80MB/s			
3	General	Class 10 for Full HD Video Recording and Playback			
4	Safety	Waterproof, Temperature-Proof, Shockproof, and X-Ray Proof			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

Video Management System					
SI. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specification Sheet with Page Number
1	VMS General Requirements				
1.1	The VMS shall be based on a true open architecture that shall allow the use of non-proprietary workstation and server hardware, non-proprietary network				

	infrastructure and non-proprietary storage.				
1.2	The VMS shall integrate cameras using dedicated driver or using the industry standards ONVIF Profile S , Profile G & Profile T.				
1.3	The VMS application must have native capability to scale into a full fetched Command & Control platform with native Access control, License plate recognition modules and capability to provide incident management features like Rule engine, SOP 's and Incident reports with no dependency on any external 3 rd party software.				
1.4	The Security application shall offer a complete and scalable video surveillance solution which allows cameras to be added on a unit-by-unit basis.				
1.5	The Proposed VMS Solution Shall support native Fail over for both management and Recording servers within application with no dependency on any external application for both hardware and application redundancy. The solution must not rely upon any kind of clustering or 3 rd party applications for providing failover and high reliability.				
1.6	The Fail over and Fall back management and recording Server shall be on hot standby, ready to take over during the primary management				

	server fails. No manual action from the user shall be required. The fail over time should not be beyond 1 Min and there should not be any loss in the Live video and recorded video.				
1.7	The Standby VMS server shall support disaster recovery scenarios where a server can be in another geographic area (or building) and only take over if Primary server become offline.				
1.8	The Standby Server shall support real-time synchronization of the configuration databases for high reliability.				
1.9	The Application shall offer a plug and play type hardware discovery service with the following functionalities:				
1.1	Automatically discover Video surveillance units as they are attached to the network.				
1.11	Discover Surveillance units on different network segments, including the Internet, and across routers with or without network address translation (NAT) capabilities.				
1.12	The Application shall have the capacity to configure the key frame interval (I-frame) in seconds or number of frames.				
1.13	The Application shall allow for multiple recording schedules to be assigned to a single camera.				
1.14	The Application shall support Direct Multicast from Camera natively with in application and no dependency on any external software / plugin. For network topologies				

	that restrict the Application from sending multicast UDP streams, the application shall redirect audio/video streams to active viewing clients on the network using multicast UDP.				
1.15	The Application shall allow important video sequences to be protected against normal disk cleanup routines.				
1.16	The application shall have the following options when protecting a video sequence: Until a specified date, for a specified number of days, indefinitely (until the protection is explicitly removed for evidence).				
1.17	The application shall support edge recording capabilities with ability to playback the video recorded at different speeds and ability to offload the video recorded on the application server on schedule, on event, or manually to store it on the recording server.				
1.18	The proposed software shall be scalable to support live viewing and automatic transfer of video recorded to the cloud on demand basis, based on the age of the video for future scalability and the hosted Cloud Platform must be among the approved vendors as per the GI Cloud initiative from Govt of India. The proposed application must provide a single interface to monitor, collaborate and action for both on premises and cloud devices like cameras, ANPR devices etc.				

1.19	The Application shall be capable to handle both IP v4 and IP v6 Unicast and Multicast traffic with both PIM - SM and PIM - DM support.				
1.2	The application management server should not have any limitation on the no of recording servers added on one single management / fail over server. Any limitations must be clearly specified by the bidder.				
1.21	There should not be any dependency on the end point MAC address for licensing for ease of operations.				
2	Human Machine Interface (HMI)				
2.1	The Monitoring UI shall fulfill the role of a Unified Security Interface that can monitor various Video and other system events and alarms, as well as view live and recorded video.				
2.2	To enhance usability and operator efficiency, the Monitoring UI shall support the following UI concepts:				
2.3	Dynamically adaptive interface that adjusts in real-time to what the operator is doing.				
2.4	A dynamic dashboard loaded with entity-specific widgets				
2.5	Use of transparent overlays that can display multiple types of data in a seamless fashion.				
2.6	Display tile menus and quick commands.				
2.7	Consolidated and consistent workflows.				
2.8	Tile menus and quick commands easily accessible within every				

	display tile of the user workspace.				
2.9	Single click functionality for reporting and tracking. The Monitoring UI shall support both single-click reporting for various system elements. Single-click reporting or tracking shall create a new task with the selected entities to report on or to track.				
2.1	Operator Workflows:				
2.11	A workflow shall be a sequence of operations an operator or administrator shall execute to complete an activity. The “flow” relates to a clearly defined timeline or sequence for executing the activity.				
2.12	User workspace customization:				
2.13	The user shall have full control over the user workspace through a variety of user-selectable customization options. Administrators shall also be able to limit what users and operators can modify in their workspace through privileges.				
2.14	Once customized, the user shall be able to save his or her workspace.				
2.15	The user workspace shall be accessible by a specific user from any client application on the network.				
2.16	Display tile patterns shall be customizable.				
2.17	Event or alarm lists shall span anywhere from a portion of the screen up to the entire screen and shall be resizable by the user. The length of event or alarm lists shall be user-defined. Scroll bars shall enable the user to				

	navigate through lengthy lists of events and alarms.				
2.18	The Monitoring UI shall support multiple display tile patterns (e.g. 1 display tile (1x1 matrix), 16 tiles (8x8 matrix), and multiple additional variations).				
2.19	Additional customization options include: show/hide window panes, show/hide menus/toolbars, show/hide overlaid information on video, resize different window panes, and choice of tile display pattern on a per task basis.				
2.21	The Monitoring UI shall provide an interface to support the following tasks and activities common to Various systems				
2.22	Monitoring the events from a live security system				
2.23	Generating reports, including custom reports.				
2.24	Monitoring and acknowledging alarms.				
2.25	Creating and editing incidents and generating incident reports.				
2.26	Displaying dynamic graphical maps and floor plans as well as executing actions from dynamic graphical maps and floor plans Unified with UC&C.				
2.27	The live video viewing capabilities of the Monitoring UI shall include:				
2.28	The ability to display all cameras attached to the system both Public, Collaborative monitoring and Cloud based entities.				
2.29	The ability to drag and drop a camera into a display tile for live viewing.				

2.3	The ability to drag and drop a camera from a map into a display tile for live viewing.				
2.31	Support for digital zoom on live camera video streams.				
2.32	The ability for audio communication with video units with audio input and output.				
2.33	The ability to control pan-tilt-zoom, iris, focus, and presets.				
2.34	The ability to bookmark important events for later retrieval on any archiving camera and to uniquely name each bookmark in order to facilitate future searches.				
2.35	The ability to start/stop recording on any camera in the system that is configured to allow manual recording by clicking on a single button.				
2.36	The ability to activate or de-activate viewing of all system events as they occur.				
2.37	The ability to switch to instant replay of the video for any archiving camera with the simple click of button.				
2.38	The ability to take snapshots of live video and be able to save or print the snapshots.				
2.39	The ability to browse through a list of all bookmarks created on the system and select any bookmarked event for viewing.				
2.4	Tools for exporting video and a self-contained video player on various media such as USB keys, CD/DVD-ROM and Proposed Evidence management and				

	Collaboration system. This video player shall be easy to use without training and shall still support reviewing video metadata.				
2.41	Tools for exporting video sequences in standard video formats, such as ASF, MP4				
2.42	The ability to encrypt exported video files with industry standard encryption.				
2.43	A tool building and exporting a set of videos into a single container. This tool shall allow the operator to build sequences of video to create a storyboard and allow the export of synchronous cameras.				
3	Cyber Security Requirements:				
3.1	The VMS shall support only secured media stream requests, unless explicitly configured otherwise. Secured media stream requests shall be secured with strong certificate based authentication leveraging RTSPS (aka RTSP over TLS). Client authentication for media stream requests is claims-based and may use a limited lifetime security token.				
3.2	The VMS shall offer the ability to encrypt the media stream, including video, audio, and metadata with authenticated encryption. Media stream encryption shall be done at rest and in transit and be a certificate-based AES 128-bit encryption.				
3.3	The VMS shall allow encryption to be set on a per camera basis for all or				

	some of the cameras.				
3.4	Provide up to 20 different certificates for different groups of users who have been granted access to decrypted streams.				
3.5	Use Secure RTP (SRTP) to encrypt the payload of a media stream in transit and allow multicast and unicast of the encrypted stream.				
3.6	Use a random encryption key and change periodically.				
3.7	Allow encrypted streams to be exported.				
3.8	The VMS shall support end to end encrypted streams with cameras supporting Secure RTP (SRTP) both in unicast and multicast from the camera.				
3.9	The Application shall support digitally sign recorded video using 248-bit RSA public/private key cryptography.				
3.1	The Application shall protect archived audio/video files and the system database against network access and non-administrative user access.				
3.11	Media encryption shall support with latest industry standards - AES-128.				
3.12	The application must support encryptions at the rest and not only on the exported videos footage				
3.13	The proposed VMS platform must be UL 2900-2-3 Level 3 OR STQC Certification issued by Ministry of Electronics and Information Technology, Government of India				

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM

has to be submitted.

CAMERA EDGE ANANLYTICS

SL. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specification Sheet with Page Number
1	Bullet Cameras	a. Bullet Cameras QTY: miniumum 20 cameras for Motion Detection, Intrusion Detection, Loitering Detection, Line Crossing Detection, Unattended Object Detection.			
2	PTZ Auto track	PTZ Camera with Auto Tracking analytics QTY: minimum 15 Cameras as per Technical compliance			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

FRS & PEOPLE COUNTING ANANLYTICS COMPLIANCE

Sl. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specification Sheet with Page Number
1		i) Below mentioned analytics are required:			
2		1) Facial Recognition - 2 Nos			
3		2) People Count - 2 Nos			
4	General/Video Analytic Platform	The Platform should be single Video Analytics Platform/Engine which will have different Video Analytics modules like PPE, Advance Intrusion, FRS, ANPR, People Count, Object Search video analytics on the same platform.			
5		The platform should be Server based with compute or Video Analytics engine using GPU (Preferred NVidia GPU CARDS).			
6		The Application should use LINUX/UBUNTU/RED HAT OS ONLY as performance and accuracy is better.			

7		The platform should be easy to install (PLUG AND PLAY) system.			
8		The platform should have alert options like HTTP, Integration to Various VMS's. The Platform should seamlessly connect to 3rd Party Applications (Software) through HTTP and 3rd Party Hardware through Web relay/Controller which will convert the Digital Input (HTTP) to Dry Contact (NO/NC/C).			
9		Other functions like Camera Health Monitoring, GOOGLE MAP/FLOOR PLAN Integration (Using Lat-Long Coordinates) to view exact location of Alert.			
10		Platform should have Mobile Application (IOS/Android) to View the alerts on Mobile Phone.			
11		The platform should have different options to connect to the camera (RTSP Stream, Connection through VMS, Connection through NVR's).			
12		THE PLATFORM SHOULD HAVE FUNCTIONS LIKE OBJECT TRACKING/ PEOPLE TRACKING etc.			
13		API's for Integration to any 3rd Party application should be readily available and shared when required			
14		Forensic Search/Object Search should be a default Video Analytics with Accuracies of over 95% and should be PLUG and PLAY.			
15		Over 40 different types of Objects which includes HUMAN ATTRIBUTES like Colour of cloths, Face Detection, Vehicles (Types of Vehicles, colour of Vehicles etc), Animals and Different Objects (30 +			

		Objects) Should be available.			
16		In case Object is not available then the training / adding the object should be possible			
17		Integrated to major VMS like Genetec, Milestone etc.			
18		User Management: A complete user management configuration to be provided, system should have capability to provide access to camera through user management			
19		System to be highly scalable and single dashboard integration should be possible			
20		Should have the feature of Remote health monitoring of the cameras as in-built feature.			
21		Object/People Cross Camera Tracking Functionality			
22		Local or remote processing of video analytics			
23		Minimum of 35000+ Video Analytics licenses should be implemented worldwide			
24		Should be able to connect to multiple external devices and video streams			
25	Face Recognition Video Analytics	Deep learning based Facial Recognition Server Software, should perform with high precision			
26		Face Recognition System shall work on real time and offline mode for identifying or verifying a face digital file and video source from any IP video streaming sensor like IP Camera, Body Worn Cameras, Mobile handset cameras, etc.			
27		FRS must be a latest generation Convolutional Neural Networks based facial tracking technology with Real-time 1:1 (one to one), 1: N (one to many)			

		matching application for various purposes for non-voluntary face detection & recognition in the open crowded scenarios and wild face scenario.			
28		FRS shall be able to capture face images from live & pre-recorded CCTV feeds received and generate alerts if a blacklist (face from suspect list) or white list (watch list) and stranger monitoring match is found.			
29		The FRS system shall be able to add photographs obtained to the subjects' repositories tagged for sex, age, etc. for future searches. System should be able to generate automatically the approximate age, gender and sentiment of the subject. System should also be able to detect the gaze duration of subject to the camera. without dependency on any third part application			
30		FRS client shall have ability to share recognition data like images for better reference, alarm, & incident management.			
31		The system shall be able to utilize multiple file formats like JPG, JPEG, PNG, BMP, TIFF etc. format for enrolment through the system.			
32		The Facial Recognition OEM should conform to latest NIST Standard			
33		System shall be able to detect the faces across the multiple CCTV video sources for online (real-time) and offline modes regardless of following conditions:			
34		a. Changes in Facial			

		expression			
35		b. Changes in facial hair or hairstyle			
36		c. Partially hidden faces or occluded faces like wearing dark glasses/face masks/ change in face etc. (Masking)			
37		d. Changes in lighting conditions			
38		Simple Search UI that facilitates quick and easy access to the collection of events recorded by the system without the constant monitoring by operators and must perform a full 1: N search of the probe image in under 2 seconds against a database of up to 50 thousand POIs. It shall support following:			
39		a. Search previous events by enrolled names			
40		b. Search previous events by date and time			
41		c. Search previous events by watch list group			
42		d. Search in Watch list by image			
43		e. In ideal condition of light, angle, height of camera, orientation of face towards the camera and distance of face from the camera; the software should give 80% (accuracy) or better match from the registered database (1:1 /1: N).			
44		The system should also have face search functionality by uploading photo and searching for faces			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

STORAGE FOR SURVEILLANCE

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specification Sheet with Page Number
1	Operating System & Clustering Support	<p>1. The storage array should support industry-leading Operating System platforms including: Windows 2016 / 2019 / 2022, VMware and Linux.</p> <p>2. Offered Storage Shall support all above operating systems in Clustering.</p>			
2	Capacity & Scalability	<p>1. The Storage Array shall be offered with 1200 TB Usable Capacity in RAID 6.</p> <p>2. For effective power saving, Storage subsystem shall support 2.5" Small form factor SFF drives however storage subsystem shall also support LFF drives with the addition of required disk enclosures.</p> <p>3. Storage shall be scalable to minimum of 120 number of SAS LFF drives with 2400TB raw capacity.</p>			
3	Front-end Ports & Back-end Ports	<p>1. Offered Storage system shall be supplied with 4 * 16Gbps FC ports per controller</p> <p>2. Offered storage system shall support 12G SAS Back-end connectivity.</p>			
4	Architecture	The storage array should support dual, redundant, hot-pluggable, active-active array controllers for high performance and reliability			
5	No Single point of Failure	Offered Storage Array shall be configurable in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc.			

6	Disk Drive Support	<p>1. Storage system shall support Enterprise SAS spinning drives, SSD and near line SAS / 7.2K RPM drives.</p> <p>2. Offered storage array shall also have support for FIPS 140-2 validating self-encrypted drives.</p>			
7	Cache	<p>1. Offered Storage Array shall be given with Minimum of 12GB cache per controller in a single unit.</p> <p>2. Cache shall be backed up in case of power failure for indefinite time either using batteries or capacitors or any other equivalent technology.</p> <p>3. Offered Storage shall also have optional support for Flash cache using SSD / Flash drives. Offered storage shall support at-least 8TB Flash Cache.</p> <p>4. Offered Flash cache shall be tuned for random read operations and shall remain activated even at less than 70% of random average read workload.</p>			
8	Raid Support	<p>1. Offered Storage Subsystem shall support Raid 1 , 10, 5 and Raid 6</p> <p>2. All Raid Sets shall support thin provisioning. Vendor shall offer the license of thin provisioning for complete supported capacity of the array.</p> <p>3. Thin provisioning shall be supported with offered Flash Cache.</p> <p>4. Raid processing shall be offloaded to a dedicated ASIC instead of CPU. In case vendor is not supporting it then vendor shall ensure that</p>			

		additional 12GB cache per controller is configured to offset the raid processing workload.			
9	Point in time and clone copy	<p>1. Offered Storage array shall be configured with array-based Snapshot and clone functionality and shall be configured for minimum of 512 snapshot licenses.</p> <p>2. Offered Storage array shall support at-least 512 point in time copies (Snapshots) and 128 volume / Clone copies</p>			
10	Replication	<p>1. Offered storage subsystem shall support storage-based replication to DR location. License for maximum supported capacity of the array shall be offered.</p> <p>2. Offered storage subsystem shall support replication to multiple storage array of the same family in fan-out mode. At least 1:4 mode shall be supported.</p>			
11	Virtualization and Thin provisioning	<p>1. Offered storage shall be offered and configured with virtualization capability so that a given volume can be striped across all spindles of given drive type within a given disk pool. Disk pool shall support all listed raid sets of Raid 1, Raid 10, Raid 5 and Raid 6.</p> <p>2. Offered Storage shall be offered and configured with Thin Provisioning capability.</p>			
12	Data Tiering	Offered Storage shall also be configured for Sub-Lun Data tiering in real time fashion across different type of drives within a given pool like SSD, SAS, NL-SAS etc. License shall be configured for			

		maximum supported capacity of the array.			
13	Global and dedicated Hot Spare	<p>1. Offered Storage Array shall support Global hot Spare for offered Disk drives.</p> <p>2. At least 2 Global hot spare drive shall be configured for every 40 drives.</p> <p>3. Offered storage array shall have the support for distributed hot spare</p>			
14	Logical Volume & Performance	<p>1. Storage Subsystem shall support minimum of 512 Logical Units. Storage Array shall also support creation of more than 120TB volume at controller level.</p> <p>2. Offered Storage shall have inbuilt performance management software. Configuration Dashboard shall show overall IOPS and MB/sec performance.</p>			
15	Load Balancing & Multi-path	<p>1. Multi-path and load balancing software shall be provided, if vendor does not support MPIO functionality of Operating system.</p>			
16	Performance	<p>Offered storage shall have listed benchmark for performance of more than 250,000 in Raid 5 using appropriate drives at 8k block size. Vendor shall provide documentary proof for it.</p>			
17	Array Integration	<p>Offered storage array shall have plug-in for VMware VCenter, Microsoft System center as well as storage APIs (VAAI) for array integration.</p>			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

RADIO DEVICE WITH INTGRETED ANTENA

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand	Specificatio n Sheet with Page Number
1	Frequency Band Support	Radio System should operate in India ISM Band (5 GHz)unlicensed frequency band as per WPC Regulation Notification No. G.S.R.1048[E]			
2	LOS,nLOSopreation	Radio Must support LOS, nLOS condition with iOFDM			
3	Throughput	System should support more than 1 Gbps aggregate throughput			
4	Channel Bandwidth	Radio must support 20 MHz / 40 / 80 MHz			
5	Spectral Efficiency	Should support more than 8 bps/Hz			
6	Channel Selection	Fixed frequency support and Automatic Channel Selection without affecting the active traffic			
		Continual Self-optimization to avoid interference			
7	Max Output Power at Antenna port	Should support up to 26 dBm or better, can vary with modulation and settings			
8	Modulation	OFDM, MIMO supported with QPSK, 16-QAM, 64-QAM, 256 QAM / MCS 0 TO MCS 9 with Forward Error Correction (FEC)			
9	Duplex Scheme	Time Division Duplex (TDD)			
10	Receiver Sensitivity	-90 dBm			
11	Distance Coverage	Support up to 50 Kms			
12	VLAN Support	VLAN support based on IEEE 802.1Q			
13	Security	FIPS 197 compliant AES 128-bit Encryption			
		Identity-Based user account			
		Configurable password rules			
		User Authentication and Radius Support			
14	Bandwidth	System should be able to configure symmetric & asymmetric bandwidth. Upload and download percentage should be user configurable.			
15	MIMO	Physical Layer 2x2 MIMO			

16	Interfaces	Should have 1 Gigabit Ethernet and 1 SFP port			
17	IPv6 support	System must support IPv6/IPv4 Dual stack support			
18	Spectrum analyzer mode	Built in Online Spectrum analyzer. Running spectrum should not affect the link performance			
19	Support for Dynamic Channel Selection	System should support Dynamic Channel Selection to deliver the hitless performance. There must not be any outage in case of switching frequency channel			
20	Deployment tools	Built-in e-alignment using GUI on Radio to assist in installation			
21	Management	IPv6/IPv4 dual-stack management support SNMPv2 and SNMPv3, HTTPS			
22	Quality of Service	Should support as per 802.1p / DiffServ			
23	ARQ	System should have the support of ARQ			
24	Ethernet Latency	Latency should be below 20ms			
25	Antenna Type	Radio must have Integrated antenna of at least 22dBi gain to avoid RF Cable/connector issues increasing the downtime			
26	GPS synchronization	System should support GPS synchronization technique to eliminate mutual interference			
27	Operation Temp.	40°c to 60°C Outdoor			
28	Wind survival	Minimum 200 km/h			
29	Protection	IP66 and IP67			
30	Certificates	FCC Part 15E ; RSS 247 Issue 2; EN 302 502; EN 301 893			
31		Safety: UL60950-1/22; IEC60950-1/22; EN60950-1.22; CSA-C22.2 No. 60950-1/22			
32		EMC: US Part 15B, Canada RSS-GEN, Europe – EN 301 489-1 and -17			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

RADIO DEVICE WITH DISH /SECTOR ANTENNA

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Frequency Support	802.11ac support preferred		
2	Throughput	System should support aggregated speed minimum 500mbps to 1+ Gbps or better in Real Throughput with Suitable antenna		
3	Modulation	Should be able to perform in High Density Area 256QAM or above as per the site requirement		
4		Should be capable of Multi-Mode		
5	Channel Bandwidth	Selectable Channel Width starting from 10 - 80 Mhz or above		
6		Auto Frequency Selection should be available		
7		Real-Time Reporting should be supported (EVM, SNI and CINR)		
8		In Built Spectrum Analyser is required		
9		Should Support QOS		
10		Should support AP Co-Location		
11	Networking Interface	Gigabit Ethernet Support is required		
12		Should support GPS frame synchronization		
13		RF Connectors should be Water proof		
14		Passive POE support preferred		
15		Should Support wide operating voltage (18-26VDC)		
16	Alignment	In built network Utilities like Antenna Alignment tool, Discovery tool, Ping, Trace route and Speed test are required.		
17	QoS	Should Support WMM		
18		Should have atleast 28dBm of Transmit Power		
19		Customizable Transmit Power limit is required		

20		Country Specific TPC is preferred		
21		Remote Radio Reset Facility is preferred		
22	ESD/EMP Protection	Should have ESD/EMP protection		
	Environmental and Physical			
23		Higher operating Temperature : -40° C to 80° C		
24		Should be capable of operating in higher humidity: 5 to 95% non-condensing		
25		Should be RoHS compliant		
26	Shock and Vibration	Shock and Vibration should be ETSI300-019-1.4		
27		Should support WMM		
28		Utility to Discover and upload firmware enmass should be available		
29	Certification	Product should have CE, FCC, and IC Certification.		
30		IP66 rated enclosure preferred		
31	Ethernet surge	Ethernet Surge protector		
32	Networking Interface	1000MBPS Ethernet Port		
	Antenna minimum Specification :	Product should be capable of 802.11ac standard.		
	Antenna Type "A"	Antenna should support 2x2 MIMO Base Station Sector Antenna		
		Product should support Dual Linear Polarization		
		Product Frequency should be at least 5.10 - 5.85 GHz		
		Product should have superior noise immunity		
		Product should have superior Beam Performance		
		Product should have an in-built spirit level for alignment on the tower		
		Product should have low SWR. Cannot exceed 1.5:1		
		Product should have not less than 25dB cross Polarization Isolation		
		Product should have a wind survivability of minimum 200km/h		
		Product gain should be 20 dBi or above.		

	Product should support atleast 60 Deg Beam width both vertically and horizontally		
	ETSI Specification: EN 302 326 DN2		
	Universal Pole Mount Brackets should be supplied along with the antenna		
	Antenna Type "B"		
	General Specification remains same as mentioned in Antenna Type "A"	Product should have not less than 35dB cross Polarization Isolation	
	Product gain should be 31 dBi.		
	Protective Radom preferred		

CLIENT Radio

SL No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Frequency Support	802.11ac support preferred		
2	Throughput	Should Support High Data Rates		
3	Modulation	Should be able to perform in High Density Area (256QAM)		
4		Should be capable of Multi-Mode		
5	Channel Bandwidth	Selectable Channel Width starting from 10 - 80 Mhz		
6		Auto Frequency Selection should be available		
7		In Built Spectrum Analyser is required		
8		Should Support QOS		
9	Networking Interface	Gigabit Ethernet Support is required		
10		Passive POE support preferred		
11		Should consume very Low power (7W)		
12		In built network Utilities like Discovery tool,Ping, Trace route and Speed test are required		
13		Should Support WMM		
14		Should have atleast 25dBm of Transmit Power		
15		Customizable Transmit Power limit is required		
16	Alignment	Country Specific TPC is preferred		

17		Remote Radio Reset Facility is preferred		
18		Should have ESD/EMP protection		
19		Should have in-built antenna		
20		Antenna gain should be 20 dBi or above.		
		Environmental and Physical		
21		Higher operating Temperature: -40° C to 70 ° C		
22	Environmental and Physical	Should be capable of operating in higher humidity: 5 to 95% non-condensing		
23		Pole mounting kit should be included		
24		Should support WMM		
25		Utility to Discover and upload firmware enmass should be available		
26	Shock and Vibration	Product should have CE, FCC, IC Certification.		
27		Wind Survivability should be minimum 200km/h		
28	Ethernet surge	Ethernet Surge protector		
29	Networking Interface	1000MBPS Ethernet Port		

SURGE PROTECTOR

SL. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Interface Connections	2 Nos of RJ45 Female Connectors		
2	ESD/EMP Protection	Absorbing Transient Current with Response to Surge Voltage from 100V/s to 1kV/μs		
3	DC Spark-Over Voltage	90V @ 100V/s		
4	Maximum Impulse Spark-Over Voltage	700V @ 1kV/μs		
5	Discharge Current	10kA+		
6	Maximum Insulation Resistance	1G ohm @ 50V		
7	Maximum Capacitance	1.0 pF @ 1 MHz		
8	Data Line Protection	RJ45 10/100/1000 Ethernet		

9	PoE Support	Yes		
10	Shock and Vibration Certification	ETSI300-019-1.4 Standard		
11	ENVIRONMENTAL PROTECTION	IP54 (Dust and Water Intrusion Protection)		
12	PROTECTION MODE	Line-to-line and line-to-ground		

48 Port 10G Switch

SL. No	Technical Specification	Compliance Yes/No	Offered Brand
	Hardware Capabilities:		
1	Switch shall have 48Nos.		
2	The switch shall have 6 nos of 40G QSFP ports		
3	The hardware of all these ports should be complete in all respect.		
4	The switch should support VSF or equivalent stacking methods		
5	The stacking cables/accessories provided with the switches to be from the same OEM		
6	Switch shall support Auto-MDIX (Media Dependent Interface Cross-over) on all 10G Base-FX/40G QSFP+ ports.		
7	Switch shall have minimum of 1440 Gbps forwarding bandwidth at layer 2 switching fabric.		
8	Switch shall have minimum 1071 Million packets (64 Byte packets) per second forwarding rate.		
9	Switch shall have dedicated ports for stacking/LAG of multiple switches with a minimum of 80Gbps stacking/LAG bandwidth (in addition to switching bandwidth specified in item no. 4		
10	At least 2 units that can be used in a single stack		
11	The switch hardware shall be designed to run both IPv4 & IPv6 simultaneously (Dual Stack) from day one.		
12	The switching fabric for all the LAN ports shall be non-blocking and each port shall run at wirespeed / line-rate.		
13	Switch shall have internal Hot-swappable Redundant Power Supply (RPS).		
14	The switch should not have any external power supplies		
15	Switch shall support for 19 Inch rack mountings.		

	Functional Requirements:		
16	Switch shall support Link Aggregation Control Protocol (LACP) as per IEEE 802.3ad.		
17	Switch shall support 802.1Q VLAN on all ports with support for minimum 255 VLANs.		
18	Switch shall support IEEE 802.1Q VLAN tagging on all ports.		
19	Switch shall support more than 128K MAC Addresses		
20	Switch shall support Spanning Tree Protocol as per IEEE 802.1d.		
21	Switch shall support Multiple Spanning Tree Protocol as per IEEE 802.1s.		
22	Switch shall support Rapid Spanning Tree Protocol as per IEEE 802.1w.		
23	Switch shall support Jumbo frames up to 12000 bytes.		
24	Switch shall support self learning of active unicast & multicast MAC addresses and associated VLANs.		
25	Switch shall support "Port Spanning" functionality for measurements using a network analyzer.		
26	Switch shall support TFTP/FTP.		
27	Switch shall support IGMP snooping V-1, 2 & 3.		
28	Switch shall support NTP (Network Time Protocol) or SNTP (Simple Network Time Protocol) for date & time synchronization from NTP Server.		
	Quality of Service (QoS) Features:		
29	Switch shall support classification and scheduling as per IEEE 802.1p on all ports.		
30	Switch shall support minimum four hardware queues per port.		
31	Switch shall support Strict Priority Queuing.		
	Security Features		
32	Switch shall support per port broadcast, multicast and unicast storm control to prevent degradation of overall system performance occurred due to faulty end stations.		
33	Switch shall support for IEEE 802.1x port based authentication with VLAN assignment, Port Security and ACL (Access control List) assignment.		
34	Switch shall support MAC Address based Filters / Access Control Lists (ACLs) on all switch ports.		
35	Switch shall support Port as well as VLAN based Filters / ACLs.		

	Management Features		
36	Switch shall have a console port with RS-232 Interface or RJ-45 Interface for configuration and diagnostic purposes.		
37	Switch shall be SNMP manageable with support for SNMP Version 1, 2 and 3.		
38	Switch shall support all the standard MIBs (MIB-I & II).		
39	Switch shall have Web based Managementfor configurationand management		
40	Switch shall support TELNET and SSH Version-2 for Command Line Management.		
41	Switch shall support 2 groups of embedded RMON (history, statistics, alarm and events).		
42	Switch shall support multiple privilege levels to provide different levels of access on console port and telnet sessions.		
43	The Switch shall support authentication, authorization and accounting through RADIUS / TACACS+.		
44	Switch shall support System & Event logging functions as well as forwarding of these logs onto a separate Server for log management.		
45	Switch shall support on-line software reconfiguration to implement changes without rebooting. Any changes in the configuration of switches related to Layer-2 functions, VLAN, STP, Security, QoS shall not require rebooting of the switch.		
46	The OEM should have a toll-free support number available and stationed in India only		
47	The OEM should have service centers available in PAN India		

SFP Module

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Architecture	1-port mini-GBIC LX SFP + LC TypeTransceiver		
2	Connector	It should have duplex LC Connector		
3	Speed	Should support data transfer speed of 10 Gbps		

4	Flow control.	Support 802.3e		
5	Mode	9/125 um Single mode Fiber Type up to 10 KM.		
6	Support wavelength	:1310nm		
7	Power Support:	3.3V		
8	CaseOperatingTemperature:	supports up to 0°~70°		
9	StorageRelativeHumidity:	supports 5% to 95%		

24 Port GIGABIT SWITCHES ADDITIONAL 4SFP PORTS LAYER -2

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	General Features			
	The switch should support a minimum of 24 nos. 10/100/1000 Ethernet Ports			
	The switch should support a minimum of 4 SFP Uplinks			
	The switch should support a total of 28 Ports			
2	Performance and Scalability			
	The switch should support Full-duplex Switching bandwidth of 56 Gbps			
	The switch should support 64-Byte Packet Forwarding Rate of 41.67 Mpps			
	The switch should support a Dual Core CPU			
	The switch should support 32 MB of Flash memory			
	The switch should support 128 MB of DRAM			
	The switch should support 64 VLANs			
	The switch should support 4096 VLAN IDs			
	The switch should support Jumbo frames of 9216 bytes			
	The switch should support Maximum transmission unit (MTU) of 9K			
	The switch should support 16000 shared Unicast MAC addresses			
3	Dimension			
	The Switch should be 1RU			
	The switch should support Operating temperature from 0°to 45°C			
	The switch should support Operating relative humidity 15% to 90% noncondensing			

4	Power Supply			
	The switch should support an auto-ranging power supply with input voltages between 100 and 240V AC			
5	Standards			
	The switch should support IEEE 802.1D Spanning Tree Protocol			
	The switch should support IEEE 802.1p			
	The switch should support IEEE 802.1Q Trunking			
	The switch should support IEEE 802.1s Multiple Spanning Tree (MSTP)			
	The switch should support IEEE 802.1w Rapid Spanning Tree (RSTP)			
	The switch should support IEEE 802.1x			
	The switch should support SNMP v1, v2c, and v3			
6	Layer-2 Features			
	The switch should support Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors			
	The switch should support IEEE 802.1Q VLAN encapsulation			
	The switch should support Spanning-tree root guard to prevent other edge switches becoming the root bridge.			
	The switch should support IGMP filtering			
	The switch should support Per-port multicast storm control to prevent faulty end stations from degrading overall systems performance			
	The switch should support Per-port unicast storm control to prevent faulty end stations from degrading overall systems performance			
	The switch should support IGMP v1, v2 Snooping			
	The switch should support IGMP v3 Snooping			
7	Network security features			
	The switch should support IEEE 802.1x to allow dynamic, port-based security, providing user authentication.			
	The switch should support Port-based ACLs for Layer 2 interfaces to allow application of security policies on individual switch ports.			
	The switch should support SSHv2 and SNMPv3 to provide network security by			

	encrypting administrator traffic during Telnet and SNMP sessions.		
	The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration.		
	The switch should support MAC address notification to allow administrators to be notified of users added to or removed from the network.		
	The switch should support Private VLAN or equivalent		
8	DHCP Features		
	The switch should support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses DHCP binding database, and to rate-limit the amount of DHCP traffic that enters a switch port.		
	The switch should support DHCP Option 82 data Insertion		
	The switch should support DHCP Option 82 - Configurable Remote ID and Circuit ID		

4 Port 1G Switch

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
	General Features			
1	4 or better 10/100/1000Mbps Ports	Gigabit Ethernet Unmanaged Switch		
2	CSMA/CD protocol support			
3	Switching capacity: 16 Gbps			
4	The switch supports data transfer at an average of 2000Mbps per port in full duplex mode.			
5	Complies with IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE802.3az standards			
6	Supports IEEE802.3x flow control for Full-duplex Mode and backpressure for Half-duplex Mode			

7	Supports MDI/MDI-X auto crossover			
8	8K MAC address table			
9	Temperature	Operating temperature: 0°C ~ 40°C		
10	Storage temperature: -10°C ~ 70°C			
11	Operating humidity: 10 %~90 % RH (non-condensing)			
12	Voltage	Power Adapter 5V DC, 0.6A		

Technical Specifications of Video Wall

VIDEOWALL & CONTROLLER

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	LCD Technology	In Plane Technology (IPS)		
2	Backlight	Direct LED		
3	Screen Size	55" Diagonal		
4	Resolution	Full HD (1920 x 1080)		
5	Aspect Ratio	16:09		
6	Brightness	500 Cd/m2 or better		
7	Brightness Uniformity	95% or better		
8	Contrast	1200:1 or better		
9	White Point	Native 10,000 K (typ.)		
10	Refresh Rate	60 Hz. Or better		
11	Screen Haze	25% or more		
12	Colour Depth of panel	8 bits/ colour i.e., 3 x 8 bits		
13	Response Time	8 Millisecond or less		
14	Viewing Angle (H, V)	178, 178 degrees		
15	Backlight life	Min 50,000 Hrs. or More		
16	Bezel dimension	0.88 mm or less (even)		
17	Combined bezel width	3.5 mm or less		
18	Design	Fan less (without any fan)		
19	VESA & Mounts	Standard 600 x 400 – Display should come with Quality mount of reputed manufacturer (Chief, Premier, Peerless AV or BTech) or from Display OEM only. (No Chinese Mounting)		

20	Colour and brightness Adjustment	Automatic colour and brightness calibration. Each LCD Panel must have Built-in light and colour sensors for measuring brightness and colours with feedback loop to ensure calibration is automatic		
21	Input signal flexibility	Support up to Quad HD resolutions at 60fps or higher using loop through connection. Each LCD panel shall have the ability to "loop-through" any selected digital input signal via a DP1.2 connection		
22	Pixel Clock	74.25 MHz or Higher		
23	Connectivity	2x DP1.2, 2x HDMI2.0, 1x USB, 1x LAN, 2x RS-232(RJ45), 1x IR Port		
24	HDCP Support	HDCPv1.4 and HDCP v2.2		
25	Service	Front Access only with Built-in on/off switch in each panel		
26	Operating Temperature	0 - 40°C		
27	Humidity	Up-to 90% (non-condensing)		
28	Max. Power Consumption	170 Watt or less		
29	Max. Heat Dissipation	580 BTU/Hr.		
30	Certifications	EMC Class A, RoHS, FCC, BSMI Class A, BIS		
31	Display Controller & Software	Display should be managed from external IP based system for remote manageability. Software Should be Web application accessed through browser.		
32		Display, Controller & Software Should be preferably from a single OEM.		
33	Signal cropping	Each LCD panel shall have signal "cropping" capabilities allowing a single image to be displayed across the entire video wall array		
34	Remote Management	The control of the wall shall be possible via a network. All LCD panels shall have their own LAN, and the control software can access all of them at the same time. The available features shall be: On/Off, Brightness and Colour, Input control		
35	Automatic calibration	brightness level of each LED Backlight to be controlled and adjusted automatically.		

36	Service & maintainability	The Software Should be able to Switch On & off each Displays on site and remotely Switch On & off the entire wall on site and remotely Select the input interface on site and remotely		
37		System should be AI (Artificial Intelligence) with Advance Proactive real-time Monitoring and Diagnosis of hardware over cloud for predictive failure to have maximum uptime		
38		The supplier shall provide the possibility to sign a maintenance contract template covering 5 years of operation.		
39		The LCD Panel shall include a "standard" 3-year manufacturer's warranty		
40	CPU	Min. Intel® Xeon® Octa core 2.1 GHz Processor (3.0GHz max. Turbo frequency) or better		
41	Memory	Min. 32 GB RAM and expandable up to 128 GB		
42	Cooling	Should be equipped with dual FAN for cooling		
43	Network	2x 1Gb/s LAN		
44	System backplane	Min. 7x slot PCI Express backplane		
45	Outputs	Min. 4 x UHD display output Port. Capacity to Support 16 4K or 64 HD Display		
46	Inputs (Simultaneous Support)	8x HDMI inputs Hard-wired		
47		8x over LAN using Screen Scrapping Solution		
48		Video Over IP (1x DVI, 1x HDMI, 1x DP using h.264 technology) with the use of suitable encoder		
49	Graphics Card	4ch Graphic card: Using Graphic Bus - PCI Express 3.0 x 16		
50		GPU Memory 5GB GDDR5 per Graphics Card to have flicker free and smooth graphics		
51		4x DisplayPort® 1.4		
52		Each port of graphics card should support minimum 3840x2160 @60Hz		
53		Min. Memory Bandwidth of 140 GB/s per Graphics Card and 160 bits memory interface of better		
54	Operating System	Windows 10 64-bit IoT Enterprise edition only		

55	Output	Display Port® 1.2 or better		
56	Protocols Supported	H.264, MPEG2/4, MxPEG, MJPEG, V2D, H.263, Screen Scrapping		
57	form factor	19" 4U Industrial Casing		
58	Operating Conditions	100-240V, 50/60Hz, Redundant Power supply		
59	Operating Temperature	0° to 40°C 32° to 104°F		
60	Humidity	Max. 80% Rh(non-condensing) @ 40°C		
61	Regulation Compliance	UL, CB, BIS, FCC, CE, IEC-60950, IEC-62368		
62	Software	The software should be able to preconfigure various display layouts and access them at any time with a simple mouse click or schedule/timer based.		
63	Software	The software should be able display multiple sources anywhere on video wall in any size. Key features of Video Wall management Software		
64		• Central configuration database		
65		• Browser based user interface		
66		• Auto-detection of network sources		
67		• Online configuration of sources, displays and system variables		
68	Software	Video Wall Control Software shall allow commands on wall level or cube level or a selection of cubes:		
69		• Switching the entire display wall on or off.		
70		• Setting all projection modules to a common brightness target, which can be either static (fixed) or dynamic to always achieve maximum (or minimum) common brightness between projection modules.		
71		• Fine-tune colour of each cube		
72	Software	Should support Multiple clients / Consoles to control the Wall layouts		
73	Software	The Software should be able to share layouts b/w available different video walls on same network as well as preview of sources on the workstation		

74	Software	Software should enable the user to display multiple sources (both local & remote) up to any size and anywhere on the display walls (both local & remote).		
75	Software	The software should be able to create layouts and launch them as and when desired		
76	Software	The Display Wall and sources (both local & remote) should be controlled from Remote PC through LAN without the use of KVM Hardware.		
77	Software	Software should support display of Alarms		
78	Software	The software should provide at least 2 layers of authentication		
79	Software	Software should be able to Save and Load desktop layouts from Local or remote machines		
80	Software	All the Layouts can be scheduled as per user convince. Software should support auto launch of Layouts according to specified time event by user		
81	Software	It should be possible to create layouts comprising of screen scrapped content of Workstations, DVI inputs, Web sources, URLs configured as sources. Layouts can be pre-configured or changed in real time.		
82	Software	It should be possible to schedule specific Layout based on time range It should be possible to share the layouts over LAN/WAN Network with Display in meeting room or on Remote Workstations connected on LAN/WAN Network		
83	Software	The system shall include complete Bi-directional Soft KVM to permit operators to take mouse & keyboard control of Displays, Screen Scrapped applications and DVI source		
84	Software	It should be possible to create two separate Tickers which run concurrently. These can be positioned at top or bottom and can run independently		

85	Software	The system should have the capabilities of interacting (Monitoring & Control) with various applications on different network through the single Operator Workstation. It shall be possible to launch layouts, change layouts in real time using Tablet		
86	Software	The control of the wall shall be possible via a network. All cubes shall have their own IP address, and the control software can access all of them at the same time. The available features shall be: On/Off, Brightness and Colour, Input control		
87	Software	Central setup & Connection management, Central configuration database, Fully distributed & modular component technology, Browser based UI, Auto-detection of network sources		
88	Software	Online configuration of sources, backup & restore, scheduled backup, fully features web services-based API covering all legacy and encrypted communications		
89	Software	Save and load layouts (complete display pre-sets including perspectives and applications), start stop and position applications & sources freely over the complete desktop, remote keyboard and mouse control from and towards other networked desktops (bi-directional)		

SERVER TECHNICAL SPECIFICATION

SI. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Processor	Minimum 10 Core or better dual socket Processor with Base Frequency. 2.10 GHz; Cache. 18 MB		
2	RAM	Min 64 GB and extendable up to 128 GB		
3	Storage	2 x 240 GB SSD/NVME configured as RAID1 for		

		OS		
		4X 600GB SAS (15k RPM) on RAID 6		
4	Network Interface	2 Nos 1 Gbps and 2 Nos 10Gbps Gigabit Ethernet ports 2 Nos of 10Gbps SFP+		
5	Graphics	1GB or better Graphic Card		
6	HBA interface	16Gbps Dual Port PCI-e FC HBA		
7	Operating System & License	The bidder shall provide "proven latest" licensed Operating system to meet the requirement of the project. Necessary licensing document shall be submitted & also license shall be perpetual & provided in the name of NMPA. Paper License should be		
9	Power Supply	Minimum 800watts Dual Redundant Power Supply		
10	Optical Drive	DVD +/-RW Internal		
11	Keyboards and Mouse	USB type		
12	USB port	Minimum 4 Nos USB ports		
13	Form Factor	Rack Type		
14	Expandable	RAM & HDD upgradable		
15	Communication Ports	1 No. Serial port		
16	Additional Features	Configuration upgrades should only with Cryptographically signed firmware, Secure Boot, Secure Erase etc.		

ANTIVIRUS

SL. No	Technical Specification	Compliance Yes/No	Offered Brand
1	Anti-Malware		
2	Antivirus, Anti-Phishing, Anti-Spam		
3	Firewall		
4	Application Control		
5	Application White Listing		
6	Web Control		

7	Must have the capability to block entire domain or a particular website/URL		
8	Removable Media scan		
9	Capability to grant allow, block, read-only access to various USB devices including USB Storage Media, USB Tethering device, Mobile, USB Modem etc.		
10	Capability to implement USB policy based on custom groups		
11	USB Removable storage device Encryption		
12	Capability to decrypt removable device encrypted in another network/Server		
13	Offline definition and patch updates and Version upgrade.		
14	Provision to archive endpoint/server logs.		
15	Hash based application blocking		
16	Network Admission Control		
17	Advanced Vulnerability Scanning		
18	Isolating devices from network in case of threat detection.		
19	Administrative privilege required to modify antivirus parameter or stop antivirus software		
20	Provision report generation for specific device or event		
21	Certificate of free from malicious code from OEM		
22	Unlimited updates/upgrades during warranty period		

CLIENT WORKSTATION

SI.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Processor	Minimum i9 Processor (19.25M Cache, 3.70 GHz, 10th Gen processor or higher		
2	RAM	32 GB or more		
3	Internal storage	Minimum 512GB NVMe Hard Disk & additional 1TB HDD		
4	Network Interface	1x10/100/1000 Mbps		
5	Graphics	6GB x 4Nos of DP Graph card		
6	Operating System	Microsoft Windows 10 / latest (64 bit) License Copy would be in the name of NMPA		
7	Optical Drive	DVD +/-RW Internal		

8	Keyboards and Mouse	USB type		
9	USB port	Minimum 4 Nos USB ports		
10	Form Factor	Tower type		
11	Expandable	RAM & HDD upgradable		

RACK's

SL.No	Parameter Technical Specification	Compliance Yes/No	Offered Brand
1	Supply and installation of 19" Rack, 42U with Accessories		
2	Racks manufactured out of steel sheet punched, formed, welded and Powder coated		
3	Rack should be from ISO 9001 & 14001 Certified Company & UL Listed		
4	Standard for Racks configuration will be welded frame with side panel and vented top cover / CKD type		
5	Rack should have Front Glass/ Convex Perforated Door and Dual Perforated door at Rear.		
6	Rack vertical frame should be made of 7-fold profile of CRCA material to withstand the load bearing capacity of 10K Newton		
7	Rack should have 2 nos of removable side panel with slam latch.		
8	Rack should have provision to mount racks on Floor		
9	Rack should be 42U (1U = 44.45 mm) in Height.		
10	It should be 800MM Wide, 1000MM Deep and Overall height 2100mm.		
11	Rack should Conform to DIN 41494 or Equivalent EIA /ISO / EN Standard		
12	Rack should have Adjustable mounting depth,		
13	Rack 4 No Adjustable, 19" verticals with Punched 9mm Square Hole and Universal		
14	Rack should have Numbered U positions,		
15	Rack should have 100% assured compatibility with all equipment's conforming to DIN 41494 (General industrial standard for equipment's)		
16	Powder coated finish with seven Tanks pre-treatment process meeting IS		
17	Rack should have Proper Grounding & Bonding		
18	Rack should have Fan module Mount		

9U OUTDOOR RACK

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	ENCLOSURE	9U IP55 Weatherproof Floor Standing Outdoor Cabinet With 2 FAN Filter , Power Distribution through 6 Socket of each 5 AMP, 1 x cantilever Shelf, 2adjustable Fix Shelf Compatible With Rack Depth, Fresh Air Filter With Louvers Outside, 2 IP Rated Cam Lock & 1 Swing Lock , Pad Lock provision, Galvanized Steel Structure 1.2mm With Polyester UV Protected Powder Coating, Adjustable Mounting Channels 1.5mm thick, 3 Pair Depth Channel Directly welded On rack Body, Integrated Slop type Canopy On Top With lifting hook/eyebolt , Cable Entry Through PG 29 Glands x 8, EPDM Gasket on Rack Opening, IEC 60529 IP55 Certified With From NABL Accredited Lab, Quality Confirms to ISO 9001:2015, ISO 14001:2015, IEC 62321:2013 RoHS Test Report as per directive 2011/65/EU.		
2	Certifications:	Lab Certified By NABL Accredited Laboratory- STQC , Quality Confirms to ISO 9001:2015, ISO 14001:2015		

1000 VA UPS

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Rating(VA/Watts)	1000VA/600W		
2	Mains Input			
3	Input Voltage Range	140 -295V		
4	Input Frequency	50 Hz/60Hz (Auto Sensing)		
5	Output Volts	195V-255V		
6	Charging current	1A		
7	Inverter			
8	Output Volts	230V		
9	Transfer Time	4ms - 10ms typical		
10	Output Volts Regulation	230V±10%		
11	Output Frequency	50Hz/60Hz		
12	Output Wave form	Stepped Sinewave		
13	Battery	7Ah *2		
14	Battery Voltage	24Vdc		
15	Back up Time	Refer runtime chart		
16	Recharge time	8 hrs for 90% charging		
17	Front Display	LED		
18	Indicator	Mains ON/On Batt./Low Battery/Fault/Overload		
19	Alarm	ON Batt./Fault, Over load, Low Battery		
20	Night guard protection	Available		
	Protection Features	Mains Ac Input Low/ High, Battery mode Input Low/High, Short circuit trip - Mains/ Battery, Over load Trip - Mains/ Battery mode		
21	Physical			

10KVA UPS

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	UPS Capacity	10KVA (8KW) with Inbuilt Isolation Transformer		
2	Rectifier Type	IGBT		
3	Rate Voltage	220/230/240VAC, 1phase, 2 wire+Gnd(L1-N/L1-L2+GND)		
4	Input Voltage Range	1 phase, 120VAC- to 300 VAC (Based on Load		

		percentage)		
5	Frequency Range	46Hz-54Hz		
6	Input Power Factor	Single Phase ≥ 0.99		
7	Battery Type	Sealed Lead Acid Maintenance Free		
8	DC Voltage	192/240		
9	Backups	2 hours		
10	Battery Type	Sealed Lead Acid Maintenance Free		
11	Battery Capacity & Numbers	100AH* 20 nos SMF Batteries		
12	Rated Power	10KVA/8KW		
13	Rated Voltage	Single Phase, 220VAC, 230VAC		
14	Output Voltage THD	<3% for linear load, <5% non-linear Load		
15	Load Crest Factor	3:1(Complied (EC-62040-3)		
16	Step Load Performance	100%		
17	Overload capacity	125% for 10 min, 130% for 1 min,		
18	Form Factor	Tower Mountable		
19	Conversion type	Online Double conversion		
20	Display	LCD		
21	Systems Efficiency	>90%		
22	Certificate	BIS		
23		ISO9001:2008		
24		NTH Certificate/ETDC/CPRI test report		
25		BIS Certificate		
26		PEP Certificate		
27		ROHOS Certificate		
28	Safety	EN 62040-1		
29	Performance	IEC/EN62040-3		

30 MTRS TOWER WITH ENCLOSURE

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	Tower Type	Triangular Hot Dip Galvanized (HDG)		
2	Height	30 Meters		

3	Base Pate	Required		
4	Extension Arms	For Mounting Antenna & Radio Modem.		
5	Lighting Arrestors	Required		
6	Grounding Earth & etc	Required		
7	Foundation	Civil Work with excavation for Foundation with necessary Concreting & erecting of Tower.		
8	Tower Drawing	Tower required to site condition to be designed and Detail Diagram has to be submitted as per site requirement for approval from the NMPT before commencement of work (For reference tower general arrangement drawing is enclosed)		
9	Tower Erection	As per the site location provided and towers base foundation to be designed to sustain wind speed of minimum 200 KMPH.		
ENCLOSURE				
10	TYPE	15 U Outdoor Floor+Pad Mount Free Standing		
11	Cabinet	IP55 Network Cabinet with 600mm Depth		
12	Accessories	4 FAN , 1 Cable manager, 2adjustable Stationary Shelf For UPS/Inverter , 1 Hardware		
13	PDU's	2 x PDU 6 Socket 5 AMP With On/off switch and Fuse		

14	ENCLOSURE FEATURES	Galvanized Steel Cabinet With Powder Coating , Canopy On Top With backside Slop & 50mm Extra Coverage For all round Corner ,Cable Entry Gland PG PG 29 x 5 ,Front Door With IP Gasket ting For Prevention of water & Dust ,Fan Mounted On Top Cover With Ventilation , IP55 Certifications, ,Galvanized Steel 1.2mm Thick Body Structure		
15	Certifications:	Lab Certified By NABL Accredited Laboratory-STQC , Quality Confirms to ISO 9001:2015, ISO 14001:2015.		

NOTE: 1. TOWER DRAWING NEEDS TO BE APPROVED FROM ENGINEER IN CHARGE BEFORE SUPPLY & INSTALLATION.

2. All Certification & Test Reports have to be submitted before Supply to Engineer In Charge at NMPA.

9 Mtrs Galvanized Tubular Pole

SL.No	Technical Specification	Compliance Yes/No	Offered Brand
1	9Mtr, Galvanization thickness: 90 Micron. The Poles should be erected with proper civil works i.e., concrete foundation base of suitable depth below the ground level.		
2	The pole and its construction can withstand wind speeds up to 150 km/h. The projected pipe should withstand at least 10 Kg of weight at top of the pole.		
3	Suitable nuts, bolts, clamps for camera fixing should be provided		
4	The Poles shall be in single section, there shall not be any circumferential weld joint.		
5	The poles shall be hot dip galvanized as per IS2629		

6	The Poles shall be bolted on a foundation with a set of four foundation bolts for greater rigidity.		
7	The galvanized mounting bracket shall be supplied along with the Poles for installation of the surveillance cameras		
8	The bracket shall have one coat of anticorrosion paint before dispatch to site and two coats of approved make and shade of enamel paint.		
9	Suitable openings for running the PoE Cable, earthing wire within the Pole should be available. No cables of camera should be projected outside after installation of cameras.		
10	Pipe Earthing should be provided.		

CAT 6 CABLE

SL.No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1		OEM Should have Direct Presence in INDIA / SAARC Countries for more than at-least 15 Years		
2		OEM Should have members participating in International Standard Bodies of EIA/TIA or ISO/IEC		
3		Copper Cabling Systems Shall be ETL Certified for 4 Connector Channels as per requirements of ANS/TIA 568-C.2		
4		OEM Shall be a member of Telecommunications Industry Association (TIA) Information and Communications Technology (ICT) Companies ICT Green Initiative to Support energy efficient environment.		
5		OEM Should have Technology Development Program partnership with any of the top 3 Active Networking (Switches&Routers) OEM's Globally.		
6		OEM Should have Min 3 RCDD Certified Person in INDIA or Globally.		
7		OEM Shall Provide Min 25 Years of Warranty on Performance for all the offered Products.		
8		All the offered Products Copper & Fibre Should be from same OEM.		
SL.No	CAT6 U/UTP 23 AWG , LSZH CABLE			
1	Type	Unshielded twisted pair cabling system		
2	Conductor Size	23 AWG		
3	Primary Insulation	Solid Polyethylene		
4	Nominal O.D.:	1.045 + 0.02mm		
5	Sheath Type	LS0H 332.1		
6	Minimal Wall	0.55mm		
7	Nominal O.D	6.1mm		

8	Pulling Force	11.5kgs		
9	Temperature Range			
10	Installation	0°C to +50°C		
11	Operation	-20°C to +70°C		
12	Commercial Standards			
13	EN 50173 2nd Edition, ISO/IEC 11801 2nd Edition, E 568.2-D IEC 60754-2, IEC 61034-2			
14	Fire Propagation Test	UL 1581 VW1, IEC 60332.1, EN0256		
15	Performance Characters	Category 6 EIA /TIA 568.2-D		
16	Cable Should be Tested and Certified by ETL/ Intertek & 4 Connector Channel. Intertek Reports should be at			
17	Cable should be tested as per ISO/ IEC & EIA/ TIA Sta for 700 MHZ. Test reports should be attached			
18	Approvals	ETL Approved.		
19	Environment	ROHS Complied		
SL.No	CAT6A Field Termination Plugs - RJ45			
1	FEATURES AND ADVANTAGES			
2	Supports 10GB networks			
3	Designed to accommodate conductors from 22 AWG –26 AWG			
4	IP 20 rating; TIA-568-C.2 Cat 6A MPTL compliant; Backward compatible with C6/C5e MPTL			
5	UL approved			
6	Tool-free, no punch down tool required			
7	PoE Compliant			
8	Commercial Standards:	IEC 60603-7-5, UL-1863, CSA C22.2 TIA-568-C.2 Cat 6A TIA-1096-A IEC-60603-7-51 IEEE 802.3 bt POE Type 3 / Type 4 with 90W at PSE Side		
9	Mechanical			
10	Transmission performance	Cat 6A/ Class EA Direct attach link and channels		
11	Plug protection category	IP20		
12	Wiring Label	TIA 568A/B & PNO		
13	Termination Capability			
14	Solid Wire	22-26 AWG		
15	Stranded wire	22-27 AWG		
16	Re-termination capability	5 times		
17	Plug Pins	Phosphor bronze with		

18		50u" gold plating		
19	Durability:	750 mechanical cycles		
20	Plug Housing	Zinc Alloy		
21	PoE Application Standards	IEEE 802.3bt from Type 1 to Type 4,		
22		CISCO UPoE+		
23		HD Base-T PoH up to 100W		
24		RP3 compliant as defined by EN 501		
25		2:2018, ISO/IEC 14763-2:2019 and AS/NZS		
26		14763.2:2020		
27	Electrical			
28	Current rating	1.5A		
29	Dielectric Withstanding voltage	1000V DC		
30	Insulation resistance	500M Ω min.		
31	Contact resistance	20m Ω max		

POWER CABLE

SL.No	Technical Specification	Compliance Yes/No	Offered Brand
1	3 core, 2.5sq mm copper conductor, PVC insulated, armored, cable conforming to IS:5831(Part-I) with FRLS PVC outer sheath. The cable shall have marking of length at each meter. The cables shall have identification tags of connections at each end and such details shall be submitted along with documentation		

POWER DISTRUBUTION BOARD

SL.No	Technical Specification	Compliance Yes/No	Offered Brand
1	Providing 32amps Double Pole MCB with required accessories as per the site condition. power end both location Proper power termination with Labeling is required as per NMPA requirement.		

SYSTEM TOOLS& TACKLES

SL.No	Technical Specification	Compliance Yes/No	Offered Brand
1	Minimum 10 th Gen or above processor with 8GB RAM,256GB SSD with Latest OS -1 Nos		

2	CRIMPING TOOL : Minimum Qty: 02 Nos		
3	LAN TRACKER with TESTER: Qty :01 No		
4	DIGITAL MULTIMETER: QTY: 02 Nos		
5	INDUSTRIAL DRILING MACHINE -02 Nos		
6	All Type Of Screwdriver Set-02 Sets		
7	All Type of Spanner & Hammer -01 Sets		
8	1TB External USB Drive -01 No		
9	64GB Pendrive-1 No		
10	All type of Align key Sets		

RESOURCE

SL. No	Parameter	Technical Specification	Compliance Yes/No	Offered Brand
1	The successful bidder shall deploy	Deployment of 1 Skilled Engineer/Technicians/Supervisors at site to carryout repair/replacement of worn-out spares, maintenance and servicing of installed CCTV system for Total 5 Years.		
2	following manpower;	Deployment as required for the equipment and system support round the clock for the uninterrupted functioning of the system.		
3		The deployed manpower shall have Diploma / Graduates (BE) holder with 2+ years of experience in CCTV Surveillance system shall be deployed with Video Management Software manage experience		
4		Engineer must have good behavior and PVC is must before Joining the services.		
5		Engineer must have good technical knowledge about Wireless Network and must have experience in Server, Storage & Network environment		
6	Bidder must submit CV of proposed engineer for approval from TIA with all relevant certificates.			

Note: The above technical requirements are minimum and mandatory, consider required associated accessories as per site condition if required & compliance confirmation from OEM has to be submitted.

5.3 ALLIED WORKS:

- a) All allied works as per the Bill of Quantities to be carried out by the Contractor in all respects invariably mentioned or not in the specification to complete the work in all respects.
- b) The materials required / intended for the work should be handled carefully and neatly installed / laid / commissioned and any damages during installation will be Contractors account and same shall be rectified immediately to its original condition.
- c) The Miscellaneous works to be carried out invariably whether clearly mentioned or not in the specifications and BOQ and to be completed in all respects the said project work

GENERAL NOTES:

- a) All the drawings of Design, Construction, Foundation Details, catalogues/Brochures of type Test certificates, routine Test certificates etc. should be submitted by the contractor in THREE sets invariably mentioned or not in the Tender Schedule. After the completion of work, As Built drawings in THREE sets to be submitted.
- b) All the drawings to be got approved by the Engineer –in –charge before Fabrication, Assembly, installation etc.
- c) All the works of installation, testing commissioning to be carried out in the presence of Engineer-in-charge.
- d) Since the project / works is on turnkey basis, the items / components not specifically mentioned but required, shall be considered and included in the quoted price at the time of submission of bid. No claim will be entertained after opening of Price bid.
- e) All the Hardware materials/Miscellaneous materials should be got approved by the Engineer – in-charge before installation and commissioning.
- f) The contractor should provide all facilities to test the materials at site.
- g) The total turn-key project should be guaranteed for a period of **12 months** from the last date of commissioning for all the materials and work carried out by the contractor. In the event of failure during the Guarantee Period, the restoration work shall be done free of cost by the Contractor within 24 Hours of giving notice or else, the expenditure incurred by New Mangalore Port Authority to carry-out the defective work will be recovered from the performance guarantee.

5.4 MANUFACTURER AUTHORIZATIONFORM:

Manufacturer Authorization Form (MAF) for the following items from the Original Equipment Manufacturer (OEM) has to be submitted along with the Tender.

PRODUCT	MAF
1. CCTV Camera 2. Video Management Software 3. Analytics Software 4. SERVERs 5. STORAGE	Required from OEM for all these items

5.5 MAKE & MODEL OFFERED:

List of offered makes & Road Map of the offered makes and models

Items	Offered Make	Offered Model
<ul style="list-style-type: none">1. CCTV Camera2. Video Management Software3. Analytics Software4. Wireless Radio Devices5. Network Switches6. SERVERS7. STORAGE8. VIDEO WALL DISPLAY & CONTROLLER9. UPS10. CABELS & RACKS		

PARTICULARS OF BIDDER:

All individual firms or each of the partners of an organization submitting the tender must complete the information in this form.

(a) Name :

(b) Country of incorporation:

(c) Address of the corporate headquarters and its branch office(s), if any, in India:

(d) Date of incorporation and/or commencement of business:

2. Brief description of the Company including details of its main lines of business and proposed role and responsibilities in this Project:

3. Details of individual(s) who will serve as the point of contact/ communication for the Authority:

(a) Name :

(b) Designation :

(c) Company :

(d) Address :

(e) Telephone No :

(f) (Mobile) :

(g) E-Mail Address :

(h) Fax Number :

4. Particulars of the Authorized Signatory of the Bidder:

(a) Name :

(b) Designation :

(c) Address :

(d) Telephone No :.....

(e) (Mobile) :.....

(f) Fax Number :

5. In case of a Joint Venture:

(a) The information above (1-4) should be provided for all the Members of the Joint Venture.

(b) A copy of the Jt. Bidding Agreement should be attached to the Tender.

(c) Information regarding the role of each Member should be provided as per table below:

Sl. No.	Name of Member	Role	Share of work in project

(d) The following information shall also be provided for each Member of the Joint Venture: Name of Bidder/ member of Joint Venture:

Sl. No. Criteria Yes No

1 Has the Bidder/ constituent of the JV been barred by the [Central/ State] Government, or any entity controlled by it, from participating in any project.

2 If the answer to 1 is yes, does the bar subsist as on the date of Tender 3 Has the Bidder/ constituent of the JV paid liquidated damages of more than 5% of the contract value in a contract due to delay or has been penalized due to any other reason in relation to execution of a contract, in the last three years? A statement by the Bidder and each of the Members of its Joint Venture(where applicable) or any of their Associates disclosing material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the recent past is given below (Attach extra sheets, if necessary):

Signature & seal of the Bidder

TENDER FORM

(Note: - Bidders are required to fill up all the blank spaces in this Tender Form)

To,

The Chief Mechanical Engineer,
New Mangalore Port Authority,
Panambur, Mangalore – 575 010.

India

1. Having examined the Instructions to Bidders, Conditions of Contract, Specifications and Schedules attached to the Tender with Annexure and having satisfied ourselves of the site conditions for the Tender for “**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) AND ONSITE SUPPORT FOR 5 YEARS**” we the undersigned, offer to execute the Contract as per conditions of contract, at rates for items of work in the Schedule of items of work and rates attached herewith.
2. We further undertake, if our tender is accepted, to deposit within 21 days from the date of receipt of the letter of acceptance, Performance Guarantees to the extent of **3% (Three percent)** of the contract price in the manner set forth in the GCC of tender.
3. We further undertake, if our tender is accepted, to enter into and execute within 14 days of our being called upon to do so, an Agreement in the form annexed and the conditions of contract with such modifications as are agreed upon.
4. Unless and until a formal agreement is prepared and executed, this tender together with your written acceptance thereof, shall constitute a binding contract between us.
5. We have submitted the Bid Security declaration as per the instructions.
6. We further agree that in the event of our withdrawing the tender before the receipt of the final decision or in the event of our failing to deposit the Performance

Security in such form as contained in the GCC of tender or in the event of our tender being accepted, fail to execute an agreement in the form aforesaid within 14 days or extended time thereafter from the date of receipt of letter of acceptance, we may be disqualified and debarred for a period of three (3) years from participating for tenders at New Mangalore Port Authority duly informing the MSME authorities if applicable.

7. We agree that the payment shall be made direct to us by the Port Authority in Rupees.
8. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ Day of _____ in the capacity of _____ duly authorized to sign the Tender for and on behalf of

(IN BLOCK CAPITALS)

Signature:

Witness

Address:

FORM OF AGREEMENT

THIS AGREEMENT made at Mangalore this _____ day of _____ BETWEEN M/s. _____ (hereinafter called "the Contractor") which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include his heirs, executors, administrators successors and permitted assigns) of the one part and THE BOARD OF NEW MANGLORE PORT AUTHORITY having its Office at Panambur, Mangalore (herein after called "The Board") which expression shall unless excluded by or repugnant to the context or meaning hereof, be deemed to include their successors and assigns) of other part, WHEREAS the Board have accepted a tender by the Contractor for **SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS** vide work order No.....dated.....

NOW THIS AGREEMENT WITNESSESTH AS FOLLOWS:

1. In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the conditions of Contract hereinafter referred to.
2. The following documents annexed herein shall be deemed to form and be read and construed as part of this Agreement, viz –
 - a) The said tender
 - b) The acceptance of tender
 - c) The conditions of Contract
 - d) The scope of work/specifications.
 - e) The Price schedule and all other Annexures
 - f) The Contractor's all correspondence, by which the Contract is added, amended, varied or modified in any way by mutual consent.
3. In consideration of the payments to be made to the Contractor as hereinafter mentioned the Contractor HEREBY COVENANT with the Board for **SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS**

AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS in conformity in all respects with the provision of the Contract.

- 4. The Board HEREBY COVENANT to pay to the Contractor in consideration of the work of “SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS”, the Contract Price or and such other sum as may be payable at the time and in the manner prescribed by the Contract.
- 5. IN WITNESS WHEREOF the parties hereunto have set their hands and seals, the day and year first above written. This Agreement is assigned as CMEA...../2022..... dated...../..../2022 and contains with.....pages in all.

Signed, sealed and delivered

by _____ for and on behalf of

(Contractor)

Witness:

1.

COMPANY SEAL

2.

CHIEF MECHANICAL ENGINEER

For and On behalf of the NMPA

(Board)

Witness

1.

2.

FORMAT OF PERFORMANCE SECURITY DEPOSIT BANK GUARANTEE

1. In consideration of the Board of the New Mangalore Port Authority (hereinafter called “The Board”) which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include its successors and assigns has awarded the Contract for **“SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS”** vide Work Order No. _____ (hereinafter called ‘the Contract’) to M/s. **“Name of the Contractor”** (hereinafter called the ‘Contractor’) which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include his heirs, executives, administrators, successors and permitted assigns under the terms and conditions of the Contract, made between the Contractors and the Board, the Contractor is bound to submit a performance Guarantee of Rs.----- /-(Rupees-----) to Board, we the Corporation Bank, full address of the bank to be mentioned (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 _____) 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, _____ (Name of the Bank), do hereby undertake to pay Rs. _____ /-(Rupees _____) as 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 the Contractor’s 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 an amount not exceeding Rs. _____ /-(Rupees _____).

3. We, _____(Name of the Bank), undertake to pay to the Board any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding 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 shall have no claim against us for making such payment.

4. We, _____(Name of the Bank), 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 the performance of the said Contract and 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 Chief Mechanical Engineer of the said Board certified 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. Unless the demand or claim under this guarantee is made on us in writing on or before _____, we shall be discharged from all liabilities under this guarantee thereafter. This Guarantee will remain in force from the date hereof, i.e. till _____ and unless a demand or suit or action to enforce any claim under the guarantee is made within three months from the date of expiry of this guarantee, i.e. on or before _____,all your rights under this guarantee shall be forfeited and we shall be relieved and discharged from all liabilities under this guarantee thereafter PROVIDED, that the Bank shall at 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, _____(Name of the Bank), further agree with the Board 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 Contractors from time to time to postpone from 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 extension being granted to the 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 remain valid for the entire period as agreed, even though there happens to be change in the constitution of the bank or that of the Contractor.
7. We, _____(Name of the Bank), lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Board in writing.
8. Our liability under this Guarantee shall not exceed Rs._____/-(Rupees_____).
9. This Guarantee shall valid up to _____.
10. We, are liable to pay the guaranteed amount or any part thereof under this guarantee only & only if you serve us a written claim or demand on or before ----/----/202 .
11. The Bank Guarantee is en-cashable at our _____ branch at Mangalore, Karnataka

Dated ----- day of -----2021

For

(Authorised Signatory/s)

(Name & Code No.)

(For and on behalf of Bank.)

Format for Declaration
(To be executed on bidder's letter head)

To

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS

Ref: _____

The undersigned, having studied the pre-qualification submission for the abovementioned project, hereby states:

- (a) The information furnished in our bid is true and accurate to the best of my knowledge.
- (b) That in case of being pre-qualified, we acknowledge that the Employer may invite us to participate in due time for the opening of Price cover of the tender on the basis of provisions made in the tender documents to follow.
- (c) When the call for tenders is issued, if the legal, technical or financial conditions, or the contractual capacity of the firm or joint venture changes, we commit ourselves to inform you and acknowledge your sole right to review the pre-qualification made.
- (d) We enclose all the required pre-qualification data format and all other documents and supplementary information required for the pre-qualification evaluation.
- (e) We state that no changes have been made by us in the downloaded tender documents and also understand that in the event of any discrepancies observed, the printed tender document No. _____ is full and final for all legal/contractual obligations (delete if not required).
- (f) No conditions are incorporated in the Financial 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.
- (g) We also state that we have not made any payment or illegal gratification to any person/authority connected with the bid process so as to influence the bid process and have not committed any offence under the PC Act in connection with the bid.
- (h) We also undertake that, currently we don't have any litigation.

Date:

Place:

Name of the Applicant : _____

Represented by (Name & capacity) _____

(To be executed on Non-Judicial Stamp Paper of Rs.100/-)

FORMAT OF POWER OF ATTORNEY (in original)

In favour of signatory/s to the Tender, duly authenticated by Notary Public.

POWER OF ATTORNEY IN FAVOUR OF ----- (Name, Designation, Company name)

TO ALL TO WHOM THESE PRESENTS shall come, I, (Name & address of the authorized person to sub-delegate/delegate powers, delegated on him by the Board of Directors) do hereby sub-delegate/delegate, in terms of the powers delegated to me by the Board of Directors, ----- (name of the Co.) to Shri ----- (name, designation & address of the Attorney) the following:

NOW KNOW YE AND THOSE PRESENTS that I, (Name & address of the authorized person to sub-delegate/delegate powers, delegated on him by the Board of Directors), do hereby authorize and empower Shri ----- (name, designation & address of the Attorney) to do severally amongst others, for the purpose of carrying on our business, the following:

- a) To represent lawfully the (name of the Co.) for obtaining bid/tender documents, prepare, sign, execute and submit tenders for execution of “**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS**”. Or any other works incidental to such works
- b) To discuss the technical and financial matters, negotiate and accept prices and take decisions regarding terms and conditions and sign agreements and contracts and also to bind the (name of the Co.) to the arbitration clause included in the contract.
- c) For all or any of the purposes here of to sign and deliver or otherwise execute such deed or deeds, transfer or transfers, endorsement or endorsements and to perform such other acts, matters, things as the Attorney shall consider requisite or advisable as full and effectively as the Company could do, if present and acting there.

I, (Name & address of the authorized person to sub-delegate/delegate powers, delegated on him by the Board of Directors) in terms of the powers delegated to me by the Board of Directors of (name of the Co.), do hereby agree that all acts, deeds and things done by the said Attorney by virtue of this power of attorney, shall be construed as acts, deeds and things done by the Company.

I, (Name & address of the authorized person to sub-delegate/delegate powers, delegated on him by the Board of Directors), further undertake to ratify and confirm whatever our said attorney shall do or cause to be done for the Company, the said Company, in the premises, by virtue of the powers hereby given.

WHEREAS, this sub-delegation is signed and delivered to Shri ----- (name & designation of the Attorney), on this _____ day of _____, 20____ (Two thousand _____).

WHEREAS, even though this sub-delegation is signed on this _____ day of _____ 20____ (Two thousand _____), will have effect from the date he signs and receives this delegation.

IN WITNESS WHEREOF, I, (Name & address of the authorized person to sub-delegate/delegate powers, delegated on him by the Board of Directors) has, this _____ day of _____ 20____ (Two thousand _____) set my hands and subscribed my signature unto this instrument.

SIGNED AND DELIVERED ON

_____ BY

(Name of authorized person to delegate powers)

WITNESS:

SIGNED AND RECEIVED ON

_____ BY

(Name & designation of Attorney)

[To be executed on non-judicial stamp paper of `100/- in India to be purchased in the name of the Lead Member of the Consortium]

Power of Attorney for Lead Member of Joint Venture

Whereas the New Mangalore Port Authority ("the Authority") has invited Tenders from interested parties for the "Upgradation of Local Area Network at New Mangalore Port Authority Campus".

Whereas and (collectively the "Joint Venture") being Members of the Joint Venture are interested in bidding for the Project in accordance with the terms and conditions of the Bid document and other connected documents in respect of the Project, and

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

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS We..... having our registered office at.....,M/s..... having our registered office at....., M/s..... having our registered office at....., and M/s..... Having our registered office at (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s..... having its registered office at.....,being one of the Members of the joint venture, as the Lead Member and true and lawful attorney of the JV (hereinafter referred to as the "Attorney"). We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Joint venture and any one of us during the bidding process and, in the event the joint venture is awarded the concession/contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the joint venture, all or any of such acts, deeds or things as are necessary 143 or required or incidental to the Bid Proposal of the joint venture and submission of its bid for the Project, including but not limited to signing and submission of all Tenders, bids and other documents and writings, participate in bidders and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the joint venture and generally to represent the joint venture in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the JV's bid for the Project and/ or upon award thereof till the Agreement is entered into with the Authority.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done

by us/ Joint venture.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF , 20
For..... [To be executed by all the Members of Joint venture] (Signature)
(Name and Title) For..... (Signature) (Name and Title)
For..... (Signature) (Name and Title)

Witnesses: 1.

2.

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

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

■ For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power

Bank Information for E-Payment

1	Name and full address of the Bidder	
2	Credit Account No. (Should be full 14 digit)	
3	Account type (SB or CA or OD)	
4	Name of the Bank	
5	Branch (Full address with Telephone No.)	
6	MICR code (should be 9 digit)	
7	Telephone/Mobile/Fax/ e-mail of the Bidder	Telephone:
		Mobile:
		e-mail:
8	Xerox copy of a cheque should be enclosed	
9	PAN (Xerox copy of Permanent Account Number shall be enclosed)	

Signature and seal of the Bidder

DISPUTES REVIEW BOARD AGREEMENT

(To be executed on Rs.100/- non-judicial Stamp Paper)

THIS AGREEMENT, made and entered into this Day of _____20_____ Between ("the Employer/ Board") and ("the Contractor"), and the Disputes Review Board ("the DR Board") consisting of One/three DR Board Members, (Members from either party, i.e contractor and Employer/ Board)

- (1)
- (2)
- (3)

[Note Delete whatever is not applicable]

WITNESSETH, that

WHEREAS, the Employer/ Board and the Contractor have contracted for the execution of (P r o j e c t n a m e) (t h e "Contract") and WHEREAS, the contract provides for the establishment and operation of the DR Board NOW THEREFORE, the parties hereto agree as follows -

- 1. The parties agree to the establishment and operation of the DR Board in accordance with this DR Board Agreement.
- 2. Except for providing the services required hereunder, the DR Board Members should not give any advice to either party or to the Engineer or Engineer's Representative concerning conduct of the Works.

The DR Board Members

- (a) shall have no financial interest in any party to the contract or the Engineer or Engineer's Representative, or a financial interest in the contract, except for payment for services on the DR Board_
- (b) shall have had no previous employment by, or financial ties to, any party to the contract, or the Engineer or Engineer's Representative, except for fee based consulting services on other projects, all of which must be disclosed prior to appointment to the DR Board.

- (c) shall have disclosed in writing to the parties prior to signature of this Agreement any and all recent or close professional or personal or personal relationships with any director, officer, or employee of any party to the contract, or the Engineer or Engineer's Representative, and any and all prior involvement in the project to which the contract relates;
 - (d) shall not, while a DR Board Member, be employed whether as a consultant or otherwise by either party to the contract, or the Engineer or Engineer's Representative, except as a DR Board Member.
 - (e) shall not, while a DR Board Member, engage in discussion or make any agreement with any party to the contract, or with the Engineer or Engineer's Representative, regarding employment whether as a consultant or otherwise either after the contract is completed or after services as a DR Board Member is completed;
 - (f) shall be and remain impartial and independent of the parties and shall disclose in writing to the Employer/ Board, the Contractor, the Engineer or Engineer's Representative, and one another any fact or circumstances which might be such to cause either the Port or the Contractor to question the continued existence of the impartiality and independence required of DR Board Members.
- 3 Except for its participation in the DR Board's activities as provided in the contract and in this Agreement none of the Employer/ Board, the Contractor, the Engineer or Engineer's Representative, and one another any fact or circumstances which might be such to cause either the Employer/ Board or the Contractor to question the continued existence of the impartiality and independence required of DR Board Members.
- 4 The Contractor shall
- a) furnish to each DR Board Members one copy of all documents which the DR Board may request including contract documents, progress reports, variation orders, and other documents, pertinent to the performance of the Contract.
 - b) in co-operation with the Employer/ Board, co-ordinate the Site visits of the DR Board, including conference facilities and secretarial and copying services.
5. The DR Board shall serve throughout the operation of the contract. It shall begin operation following execution of this Agreement, and shall terminate its activities after issuance of the taking over Certificate and the DR Board's issuance of its

Recommendations on all disputes referred to it.

6. DR Board Member, shall not assign or subcontract any of their work under this Agreement
7. The DR Board Members are independent and not employees or agents of either the Employer/ Board or the Contractor.
8. The DR Board Members are absolved of any personal or professional liability arising from the activities and the Recommendations of the DR Board.
9. Fees and expenses of the DR Board Member[s] shall be agreed to and shared equally by the Employer/ Board and the Contractor. If the DR Board requires special services, such as accounting, data research, and the like, both parties must agree and the costs shall be shared by them as mutually agreed
10. DR Board Site visits:
 - a) The DR Board shall visit the Site and meet with representatives of the Employer/ Board and the Contractor and the Engineer or Engineer's Representative at regular intervals, at times of critical construction events, and at the written request of either party. The timing of Site visit failing agreement shall be fixed by the DR Board.
 - b) Site meetings shall consist of an informal discussion of the status of the construction of the works followed by an inspection of the works, both attended by personnel from the Employer/ Board, the Contractor and the Engineer or Engineer's Representative.
 - c) If requested by either party or the DR Board, the Employer/ Board will prepare minutes of the meetings and circulate them for comments of the parties and the Engineer or Engineer's Representative.
11. Procedure for disputes referred to the DR Board :
 - a) If either party objects to any action or inaction of the other party or the Engineer or Engineer's Representative, the objecting party may file a written notice of Dispute to the other party with a copy to the Engineer or Engineer's Representative stating that it is given pursuant to Clause [number] and stating clearly and in detail the basis of the dispute.
 - b) The party receiving the notice of Dispute will consider it and respond in writing within 7 days after receipt.
 - c) This response shall be final and conclusive on the subject, unless a written

appeal to the response is filed with the responding party within 7 days of receiving the response. Both parties are encouraged to pursue the matter further to attempt to settle the dispute. When it appears that the dispute can not be resolved without the assistance of the DR Board either party may refer the dispute to the DR Board by written Request for Recommendation to the Board, the other party and the Engineer or Engineer's Representative stating that it is made pursuant to *(insert relevant clause no.)*.

- d) The Request for recommendation shall state clearly and in full detail the specific issues of the dispute to be considered by the DR Board.
- e) When a dispute is referred to the DR Board, and the DR Board is satisfied that the dispute requires the DR Board's assistance, the DR Board shall decide when to conduct a hearing on the dispute. The DR Board may request that written documentation and arguments from both parties be submitted to each DR Board Members before the hearing begins. The parties shall submit insofar as possible agreed statements of the relevant facts
- f) During the hearing, the Contractor, the Employer/ Board, and the Engineer or Engineer's Representative shall each have ample opportunity to be heard and to offer evidence. The DR Board's Recommendations for resolution of the dispute will be given in writing, to the Employer/ Board, the Contractor and the Engineer or Engineer's Representative as soon as possible, and in any event not more than 28 days after the DR Board's final hearing on the dispute.

12 Conduct of Hearings:

- a) normally hearing will be conducted at the Site, but any location that would be more convenient and still provide all required facilities and access to necessary documentation may be utilised by the DR Board. Private sessions of the DR Board may be held at any location convenient to the DR Board,
- b) The Employer/ Board, the Engineer or Engineer's Representative and the Contractor shall have representatives at all hearings.
- c) During the hearings, no DR Board Member shall express any opinion concerning the merit of any facet of the case.
- d) After the hearing is concluded, the DR Board shall meet privately to formulate its Recommendations. All DR Board deliberations shall be conducted in private, with all individual views kept strictly confidential. The DR Board's Recommendations, together with an explanation of its

reasoning shall be submitted in writing to both parties and to the Engineer or Engineer's Representative. The Recommendations shall be based on the pertinent contract provisions, applicable laws and regulations, and the facts and circumstances involved in the dispute.

The DR Board shall make every effort to reach a unanimous Recommendation. If this proves impossible, the majority shall decide and the dissenting member may prepare a written minority report for submission to both parties.

[Note: Delete if it is one member DR Board]

13. If during the contract period, the Employer/Board and the Contractor are of the opinion that the Dispute Review Board is not performing its functions properly, the Employer/Board and the Contractor may together disband the Disputes Review Board. In such an event, the disputes shall be referred to Arbitration straightway.

The Employer / Board and the Contractor shall jointly sign a notice specifying that the DR Board shall stand disbanded with effect from the date specified in the notice. The notice shall be posted by a registered letter with AD or delivery of the letter, even if he refuses to do so.

ANNEXURE -9

**DETAILS OF ONGOING CONTRACTS AT NEW MANGALORE PORT AUTHORITY
BEYOND 30.11.2022**

Sl no	Work Order Description	Work Order no. & date	Work Order Value	Department which has issued the Work order	Date of completion as per work order

Sign & Seal of the Contractor

ANNEXURE 10

VERIFICATION OF LOCAL CONTENT

Name of the work	Bidder shall enter, the % of Local Content (%)
SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS	

Sign & Seal of the Contractor

UNDERTAKING ON INDEMNIFICATION

We _____ (Bidders Name) hereby agree and undertake to indemnify, keep indemnifies, depended and hold harmless the NMPA and its Officers against all losses, penalties, costs and expenses, duties of any kind whatsoever which may arise on account of breach un-authorized act, fraud deed or any other acts of ours or any of our personnel. We hereby further agree and undertake to indemnify and keep indemnifies against any order passed by any executive, quasi judicial or judicial authority wherein the NMPA is compelled to obey the order which arise due to breach of contract by us.

We _____ (Bidders name) shall indemnify, protect and defend at our own cost, New Mangalore Port Authority and its agents & employees from & against any/all actions, claims, losses or damages arising out of;

- i. Any violation in course of execution of the contract of any legal provisions or any right of third parties.
- ii. Failure to exercise the skill and care required for satisfactory execution of the contract.
- iii. Shall indemnify NMPA against all claims for compensation by or on behalf of any workman employed by us in connection with the contract, for injury or death by accident under the Workman Compensation Act (Act VIII of 1923) as amended from time to time.

We _____ (Bidders name) shall be responsible for all commissions and omissions on part of manpower engaged for the purpose. NMPA shall not be responsible in any manner whatsoever, in matters of injury/death/health etc. of our employees performing duties under the contract.

We _____ (Bidders name) hereby undertake that ,

- a. The workforce deployed under this contract will be provided with all the necessary safety gears and equipment for the job.
- b. Bidder/deployed staffs will follow all the required safety procedures while executing the job.

Sign and Seal of the Bidder/ Bidders Authorized representative

INDEMNITY BOND

(To be furnished in Stamp paper not less than Rs.100 e-Stamp paper)

This deed of indemnity is executed by herein after referred to as 'Indemnifier' which expression shall unless repugnant to the context or meaning thereof, include its successors, Administrator, representatives and assignees in favour of New Mangalore Port Authority, Panambur, Mangalore 575010, herein after referred to as 'Indemnified' which expression shall unless repugnant to the context or meaning thereof include its representatives and assignees witnesses as to.

Whereas the indemnified herein as awarded to the indemnifier herein a Tender/Contract or for supply of / Construction of on terms and conditions set out interalia in the work order No..... valued at Rs.....

AND Whereas, the clauses No..... of the above mentioned work order provides for indemnifying the indemnified by the indemnifier for any accident, damage or compensation payable to any workmen or other person in the employment of the contractor or any sub contractor during the period of tender/contract.

AND Whereas, the Indemnifier hereby irrevocably agrees to indemnify the indemnified against all damages or compensation payable at law in respect of or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or sub-contractor against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto and the indemnified shall be at liberty to deduct or adjust from the bills payable to the indemnifier by the indemnified for an amount that the indemnified may be called upon to pay towards claims, demands, proceedings, costs, charges and expenses whatsoever in respect of or in relation to any accident or injury referred to above without any reference to the indemnifier.

The Indemnifier shall comply with all the Central State and Muncipal Laws and Rules and shall be solely responsible for complying with the provisions of the Contract Labour (Regulations & Abolition) Act, 1970 & the contract labour (Regulation & Abolition) Karnataka Rules 1974 and rules there under and the enactments that may be applicable including ESI Act, the payment of wages act, Provident Fund Act, the Minimum Wages Act, the Factory's Act, the Workmen Compensation Act or any other applicable legislation and the Muncipal by-laws or other statutory Rules and Regulations whatsoever in force if these are applicable. Any obligations finding or otherwise missed under any statutory enactments rules & regulations there under shall be the responsibility of the Indemnifier and the Indemnified will have no responsibility for the same. The Indemnifier shall obtain Workmen's Compensation Policy for his workers, who are not covered under ESI and submit the same to the ESIC immediately after commencement of the work.

The Indemnifier is liable to pay all Statutory Compensation to the Labourers / persons engaged by him for the satisfactory execution of the works. If any claim is made against Indemnified arising out of this work, the Port shall have the right to deduct the same from the bill amount payable to the Indemnifier after verification of the validity and if admissible as per rules.

The Indemnifier shall ensure the use of PPE such as helmets, safety shoes, nose masks, hand gloves, safety harness or any other equipment as required depending on nature of work by his staff at site.

In addition to complying of the above, the Indemnifier hereby undertakes to indemnify the indemnified against any unforeseen incidents / accidents, which may lead to fatality including death, permanent/ partial disablement, injury, financial loss, legal issues or any other etc of the labourers / workmen's/ staffs of the contractor / sub-contractor for which the indemnified and its officers / representation are in no way responsible.

For.....

INDEMINIFIER

(Signature with Name and Designation)

Company Seal

Station:

Date:

Witness:

1.....

Signature with Name, Designation & Address

2.....

Signature with Name, Designation & Address

PRE CONTRACT INTEGRITY PACT AGREEMENT

General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on ___ day of the month of _20_, between, on one hand, the Board of Trustees of New Mangalore Port Trust acting through ___, Chief Engineer (Civil), (Name & Designation of the Officer) New Mangalore 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 'BIDDER' which expressions shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the 'BUYER/EMPLOYER' has invited bids for "(name of work)". and the BIDDER is submitting his bid for the same and WHEREAS the BIDDER is a Private company / Public company / Government undertaking / registered partnership firm, constituted in accordance with the relevant law in the matter and the 'BUYER/EMPLOYER' is New Mangalore 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 the 'BUYER/EMPLOYER' to obtain the desired said stores/equipment/services/works at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and Enabling BIDDERS 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:

Commitments of the 'BUYER/ EMPLOYER'

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 BIDDER, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

The 'BUYER/EMPLOYER' will, during the pre-contract stage, treat all BIDDERS a like and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.

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.

In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER 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.

Commitments of BIDDERS

2. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contractor or post-contract stage in order to secure the contractor in furtherance to secure it and in particular commit itself to the following:-

The BIDDER 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 bidding, evaluation, contracting and implementation of the contract.

The BIDDER 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 Contractor for bearing to do or having done any action in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.

BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principal so associates.

BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.

The BIDDER further confirms and declares to the 'BUYER/EMPLOYER' that the BIDDER 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 to the BIDDER, 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.

The BIDDER, either while presenting the bid 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.

The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

The BIDDER 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 BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, 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 BIDDER's firm, the same shall be disclosed by the BIDDER 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.

The BIDDER 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

- a. The BIDDER 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 bidder's exclusion from the tender process.
- b. The BIDDER agrees that if it makes incorrect statement on this subject,

BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5 Earnest Money (Security Deposit)

While submitting commercial bid, the BIDDER shall deposit an amount as Earnest Money/Security Deposit, with the 'BUYER/ EMPLOYER'

through any of the following instruments:

i. Paid by RTGS in favour of FA&CAO, NMPA

b. The Earnest Money/Security Deposit shall be valid up to a period of 148 days or the complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and the 'BUYER/EMPLOYER', including warranty period, whichever is later.

c. In case of the successful BIDDER, a clause would also be incorporated in the Article pertaining to Performance Security in the Project Contract that the provisions of Sanctions for Violation 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.

d. No interest shall be payable by the 'BUYER/EMPLOYER' to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

3. Sanctions for Violations

Any breach of the aforesaid provisions by the BIDDER or any one employed by or acting on its behalf (whether with or without the knowledge of the BIDDER) 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 BIDDER. However, the proceedings with the other BIDDER(s) would continue.

ii) The Earnest Money Deposit (in pre-contract stage) and/or Security

Deposit/Performance Bond (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 BIDDER.
- iv) To recover all sums already paid by the 'BUYER/EMPLOYER', and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the 'BUYER/EMPLOYER' in connection with any other contract, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- v) To en cash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the 'BUYER/EMPLOYER', along with interest.
- vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall, be liable to pay compensation for any loss or damage to the 'BUYER/EMPLOYER' resulting from such cancellation/rescission and the 'BUYER/EMPLOYER' shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- vii) To debar the BIDDER from participating in future bidding processes for a minimum period of five years, which may be further extended at the discretion of the 'BUYER/EMPLOYER'.
- viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any

middleman or agent or broker with a view to securing the contract.

- ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the 'BUYER/EMPLOYER' with the BIDDER, the same shall not be opened.

Forfeiture of Performance Guarantee 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.

The 'BUYER/EMPLOYER' will be entitled to take all or any of the actions mentioned at para 6.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), 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.

The decision of the 'BUYER/EMPLOYER' to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

4. Fall Clause

- 7.1. The BIDDER undertakes that it has not performed/is not performing similar project at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar project was performed by the BIDDER in any other 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 BIDDER to the 'BUYER/EMPLOYER', if the contract has already been concluded.

5. Independent Monitors

The 'BUYER/EMPLOYER' has appointed the following Independent Monitor (hereinafter referred to as Monitor) for this Pact in consultation with the Central Vigilance Commission Name and Address of the Monitor:

**Shri Prem Chand Pankaj, Ex-CMD, NEEPCO, M402,
Pioneer Park, Sector 61, Golf Course,
Extn Road, Gurgaon
(Mob : 9717433886)
E-Mail ID : prempankaj@gmail.com**

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.

The Monitor shall not be subject to instructions by the representatives of the parties and perform his functions neutrally and independently.

Both the parties accept that the Monitor has the right to access all the documents relating to the project/bidding, including minutes of meetings.

As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the 'BUYER/EMPLOYER'.

The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the 'BUYER/EMPLOYER', including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.

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.

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 / BIDDER and, _____ should _____ the occasion arise, submit proposals for correcting problematic situations.

6. 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 BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

7. 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'.

8. 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.

9. Validity

The validity of this Integrity Pact shall be from 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 BIDDER, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

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.

If the BIDDER is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

2. The parties here by sign this Integrity Pact at _____ on _____

BUYER/EMPLOYER

BIDDER

Name of the Officer

CHIEF

EXECUTIVE OFFICER and Designation

Witness

Witness

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 bidders.

COUNTRY SHARING LAND & BORDER DECLARATION

Bidder shall be Individual/ firm/ company/ corporate / LLP / HUF / limited company/consortium intending to bid should be Bonafide, experienced, technically competent, resourceful and financially sound to carry out the assigned order.

*Any bidder from a country which shares a land border with India will be eligible to bid in the tender only if the bidder is registered with the Competent Authority (The Registered Committee constituted by the Department for Promotion of Industry and Internal Trade)

Sealed & Signed Annexure – 14 on company’s letter head.

**e-Tender No.
(To be submitted on the letterhead)**

DECLARATION

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that M/s is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that M/s fulfills all requirements in this regard and is eligible to be considered.” (Where applicable, evidence of valid registration by the Competent Authority shall be attached)

I, the undersigned, declare that the item originate in (Name of the country).

Signature _____

Name-----

Designation-----

Date-----

Stamp of the Organization-----

COUNTRY OF ORIGIN DECLARATION

Declaration from Bidder on all products proposed in this tender has to mention country of Origin and BIS certificate details has to be mentioned as per Annexure 15.

Country of Origin

Letter no:

Date:

To,

Tender Inviting Authority,
New Mangalore Port Trust
Mangalore

Dear Sir

,
Sub: Country of origin.

Ref: Tender Reference No.:

We M/s company hereby confirm the following products quoted for the subject tender And their country of origin, respectively.

SL NO	MAKE & MODEL NUMBER	COUNTRY OF ORIGIN	BIS CERTIFICATE

Please feel free to revert to the undersigned for any further clarifications.

Yours faithfully,

Signature _____

Name-----

Designation-----

Date-----

Stamp of the Organization-----

PRE-QUALIFICATION OF BIDDERS**PAYMENT RECEIPT DETAILS OF**

**M/s _____ (firms name) CERTIFIED BY STATUTORY
AUDITOR**

Name of the Work: **SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS**

Details of payment received for the completed similar work (For similar work, please refer Clause No.2.4.2 of ITB) during the last seven years:

Sl. No	Name of Work (i)	Work Order No. and Date (ii)	Extension orders to the work order mentioned at SNo.(ii) if any with order No and date.	Completion certificate No& date (iii)	Period of contract as per the Work order (iv)	Actual period of contract (including extensions if any) (v)		Final completed Value as per the completion certificate (Excl. of GST, ESI & PF) (vi)	Name and contact details of the client (vii)
						From	To		
1									
2									

I hereby **declare** that the information **given** in this Annexure-16 is true and correct to the best of my knowledge and belief and have been furnished duly verifying the documents submitted by the bidder.

Name of the Statutory Auditor:

Signature & Seal of the Statutory Auditor

UDIN No:

Ph. No:

Email ID:

NOTE:

- a. The bidder has to submit the details of payments received for the works executed in **Annexure-16** in full, duly signed and sealed by the statutory auditor with the UDIN number. In case any information in this annexure is found to be false or incorrect, that particular work shall not be considered for evaluation. Further, in case of false certification by the statutory auditor, same shall be informed to the Institute of Chartered Accountants of India (ICAI), for necessary action deemed fit.
- b. Self attested photo copies of LOA/work order/agreements showing the awarded contract value for “similar works” and satisfactory Completion Certificates issued by the Client, indicating the date of Completion and completed Contract Value, for the contracts mentioned at Annexure 16. If the bidders does not enclose LOA/work order/agreements/completion certificates along with the Technical bid, as desired for any of the works mentioned at Annexure 16, that particular work shall not be considered for further evaluation. The Bidder shall also enclose detailed BOQ with rates and scope of work supporting the LOA/work order/agreements/completion certificates submitted as per Annexure 16. TDS certificate clearly showing the tax deduction from client for related work orders/agreements shall be produced for verification.
- c. The works declared by the bidder in **Annexure - 16** only shall be considered for technical qualification of the bidders. **LOA/Work orders/agreements other than the ones mentioned in this Annexure-16 shall not be considered for evaluation, even if they have been uploaded along with the technical bid. Bidder shall not have any claim on this account later on.**
- d. In case of Joint Ventures, Annexure – 16 shall be furnished separately by each member to the JV. The same may be consolidated by the lead bidder.

Site Visit Confirmation

I, (Name of representative), (designation) from/on behalf of M/s(Firm/Company Name) have visited the site on..... and well acquainted with the site conditions, where the entire system to be commissioned.

Seal & Signature of the representative of the Company.

Certification by Executive Engineer (E), NMPA

Bid Security Declaration Form

Date: _____ Tender No. _____

To,

The Executive Engineer (Mech),
NMPT, Panambur, Mangaluru.

Sub : E-tender for **SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF
ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES
INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS
(AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS**

I/We. The undersigned, declare that:

I/We understand that, according to tender conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with NMPT for a period of three (3) year from the date of notification if I am /We

- a. are in a breach of any obligation under the bid conditions,
- b. made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements;
- c. If the bid is withdrawn or varied or modified in a manner not acceptable to the Employer during the validity or extended validity period duly agreed by the Bidder
- d. Any effort by the Bidder to influence the Employer on bid evaluation, bid comparison or contract award decision.
- e. Fail to commence the work on the specified date as per LOA/Work order and/or.
- f. sign the Agreement AND / OR furnish the required Performance security.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown)

in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

Joint Bidding Agreement [To be executed on non-judicial stamp paper of `100/- in India to be purchased in the name of the Lead Member of the Joint Venture]

THIS JOINT BIDDING AGREEMENT is entered into on this theday of 2023. AMONGST 1. {company name} and having its registered office at (hereinafter referred to as the “First Party” which expression shall, unless repugnant to the context include its successors and permitted assigns) AND 2. {company name} and having its registered office at (hereinafter referred to as the “Second Party” which expression shall, unless repugnant to the context include its successors and permitted assigns) AND 3. {Company Name and having its registered office at (hereinafter referred to as the “Third Party” which expression shall, unless repugnant to the context include its successors and permitted assigns)} The above mentioned First Party, Second Party and Third Party are collectively referred to as the “Parties” and each is individually referred to as a “Party” WHEREAS, (A) New Mangalore Port Authority, represented by its FA&CAO and having its offices at Panambur, Mangalore 575 010, Karnataka (hereinafter referred to as the “Authority” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited Tenders (“Tenders”) by its Bid document Ref.....dated for Qualification Requirement (QR) and Commercial & Price Bid for Upgradation of Local Area Network at New Mangalore Port Authority Campus. * Amend as required 146 (B) The Parties are interested in jointly bidding for the Project as Parties of a Joint Venture and in accordance with the terms and conditions of the Bid document and other bid documents in respect of the Project, and (C) It is a necessary condition under the Bid document that the Members of the Consortium shall enter into a Joint Bidding Agreement and furnish a notarised copy thereof with the Tender. NOW IT IS HEREBY AGREED AS FOLLOWS: 1. Definitions and Interpretations In this Agreement, the Capitalized Terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the Bid document. 2. Joint Venture 2.1. The Parties do hereby irrevocably constitute a Joint Venture ("Joint Venture") for the purposes of jointly participating in the Qualification Requirement (“QR”) under the Bid Document and, subject to meeting such QR, in the subsequent process of Commercial & Price bidding (collectively “Bidding Process”) for the Project. This Agreement and the cooperation between the Parties hereunder for this Project shall be deemed to be exclusive. 2.2. The Parties hereby undertake to participate in the Bidding Process only through this Joint Venture and not individually and/or

through any other Joint Venture or any other entity constituted for this Project, either directly or indirectly or through any of their Associates. 2.3. Subject to the Joint Venture meeting the QR and it being selected as the successful Bidder in its Commercial & Price bidding for the Project pursuant to the Bid document issued by the Authority, the Parties hereto shall, prior to issue of LoA to the Joint Venture by the Authority, enter into a detailed Joint Venture Agreement wherein the roles and responsibilities of each of the Parties shall be clearly defined. Such Agreement shall inter alia cover contractual rights, liabilities and obligations of the Parties to the Authority and the Parties inter se in line with the Modified General Conditions of the Contract and Conditions of Particular Application to this Project issued by the Authority along with this Bid document. The Parties agree to submit a notarized copy of such Agreement for approval of the Authority and carry out necessary amendments thereto if and when reasonably requested to do so by the Authority. A notarized copy of this Agreement shall be filed with the Authority by the Joint Venture. 2.4. Each of the Parties has, through all corporate actions and duly signed by its authorized representative, issued 147 requisite legally binding Power of Attorney to the Lead Member: i) To submit necessary Tender for (i) Qualification Requirement (QR) and (ii) Commercial & Price Bid for the Project in response to the Bid document issued by the Authority; ii) In the event the Parties to the Joint Venture are qualified and selected as the successful Bidder for Project pursuant to the said Bid document, to cause all the Parties to sign the Contract for the Project; iii) Following conclusion of such Contract, to be responsible to the Authority on behalf of the Parties for timely execution and completion of the Project, to receive payments from the Authority on behalf of the Parties for their respective scope of work and to incur any and all liabilities on their behalf; and iv) To submit notarized copies of (i) Power Attorney issued to the Authorized Signatory for signing the Bid as per format given in Annexure -VIII, (ii) Power of Attorney issued to the Lead Member of Consortium by all the Members of Consortium as per format given in Annexure -IX; and (iii) a copy of this Joint Bidding Agreement as part of Tender to be submitted by the Joint Venture in response to Bid proposal. 3. Covenants 3.1. One of the Parties to Joint Venture has purchased/downloaded the relevant Bid documents and all the Addendum thereto, obtained necessary clarifications and found them to be adequate for the intended purpose. 3.2. The Parties agree to co-operate and support each other and hereby undertake to submit necessary technical, financial and project execution and completion data and documentation and also comply fully with the technical, financial and project execution experience and other requirements as prescribed under the Bid document. 3.3. The Parties to this Joint Venture hereby agree to participate in the QR and Commercial & Price Bidding for the Project pursuant to the Bid document issued to the Joint Venture by the Authority. 3.4. The Parties hereby confirm that there shall be no change in

the structure of this Joint Venture or any substantial change in the shareholding pattern of the Parties constituting this Joint venture without the written consent from the Authority, as the case may be, both during the Bidding against the Bid proposal and hereafter, if qualified and selected as the successful Bidder for the Project, during the entire period of execution and completion of the Project. 3.5. None of the Parties hereto shall assign or transfer any of their rights or obligations under this Agreement without the prior written consent of the other Parties and the Authority. 148

4. Joint & Several Liability and Indemnity 4.1. The Parties do hereby undertake to be jointly and severally responsible for all the obligations and liabilities relating to the Project in accordance with the terms & conditions of this Bid document and, subject to award of Contract for the Project on the Parties to the joint venture, for successful execution and completion of the Project in terms of the said Contract. 4.2. The Parties hereto also undertake and agree that, notwithstanding division and allotment of the scope of work and responsibilities for the Project between the Parties, each of the Parties shall be jointly and severally liable for the performance or non- performance or any and all defaults in the performance of the scope of work of all the other Parties in addition to its own scope of work and responsibility for the Project and shall be liable for satisfactory execution and completion of the entire Contract despite such division and allotment of scope of work and responsibilities. 4.3. The Parties hereby agree to jointly and severally indemnify and hold the Authority harmless against any loss, cost and damage which may be incurred or sustained by the Authority as a consequence of any performance, nonperformance or any default in the performance of scope of work and responsibilities for the Project by any or all of the Parties hereto. 5. Roles & Responsibilities of the Parties The Parties hereby undertake to perform the roles and responsibilities as described below: 5.1. One of the Parties, which has successfully completed minimum 30% from Estimated Value of work at least for one Similar Project, or the Party on whose experience prequalification is sought by the Parties pursuant to the Bid document, shall be nominated as Lead Member of the Joint Venture (“Joint Venture Leader”) and has been authorized by all the Parties to represent them and to act for, receive instructions, incur liabilities, receive payments and discharge obligations on behalf of the Joint Venture. 5.2. All communications between the Authority and the Joint Venture shall be addressed to and routed through the Joint leader who shall be the sole point of contact between the Authority and the Parties regarding the Bid document both during QR and subsequently during Commercial & Price bidding process under the Bid proposal. 5.3. The Joint Venture hereby agree that the lead member shall undertake and perform at least 30 (thirty) percent of the project and above. 5.4. The Parties have agreed to establish a Management Committee (“Committee”) with equal representation from 149 all the Parties for expeditious and effective management of all the affairs of the Joint

Venture. 6. Representations & Warranties. 6.1. Each of the Parties hereto represents and warrants to the other Parties and the Authority, as of the date of this Agreement, that - a) Such Party is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement; b) The execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or governmental action and a certified copy of board resolution/power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Joint Venture of Parties is annexed to this Agreement, and will not, to the best of its knowledge: (i) require any consent or approval not already obtained; (ii) violate any Applicable Law presently in effect and having applicability to it; (iii) violate the Memorandum & Articles of Association, by-laws or other applicable organizational documents thereof; (iv) violate any clearance, permit, concession, grant, license or other governmental authorization, approval, judgement, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or (v) create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement; 150 c) This Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and d) There is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfilment of its obligations under this Agreement. 7. Term & Termination 7.1. This Agreement shall be effective from the date hereof and shall continue in full force and effect until the earlier of the following events – i) The Parties' Tender for QR and Commercial & Price Bid against the Bid document has not been successful; or ii) Upon meeting the QR of the Parties, the Commercial & Price Bid by the Parties has not been successful and the LoA and Contract for the Project has been awarded to another party, or iii) Upon issue of LoA and award of the Contract for the Project, the Project has been successfully executed and completed by the Parties or the Contract for the Project has been terminated; all payments due under the Contract have been received and liabilities between the Parties inter se, the Authority and third parties have been satisfactorily discharged or waived. iv) The Parties agree to terminate this Agreement with the prior written approval of the Authority

7.2. However, notwithstanding any such termination, the obligations already incurred by any of the Parties prior to such termination and those other obligations, which by their very nature are meant to continue, shall survive any such termination. 8. Miscellaneous 8.1. This Agreement shall be governed by laws of India. 8.2. The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Authority. IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE, MONTH AND YEAR FIRST ABOVE WRITTEN. SIGNED, SEALED AND DELIVERED (1) for and on behalf of FIRST PARTY or LEAD MEMBER WITNESSES: 151 By _____ Name: Title: (2) for and on behalf of SECOND PARTY by: 1. _____ By: _____ 2. Name: Title: (3) for and on behalf of THIRD PARTY by: By: _____ 1. Name: Title: Notes: 1. In respect of a Power of Attorney executed and issue in India, it shall be accompanied by a copy of the Board Resolution to issue of such power of attorney in favour of the person executing this Agreement, for the delegation of power and authority to execute this Agreement on behalf of the Party to the Joint Venture 2. In respect of a Power of Attorney executed and issued overseas, it shall be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorne

BILL OF QUANTITIES

Name of Work: SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ALLIED WORKS AT NMPA PREMISES INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT FOR 3 YEARS (AFTER 2 YEARS WARRANTY PERIOD) ONSITE SUPPORT FOR 5 YEARS

SI No	Description	Unit	Quantity	Rate	Amount
PART I : SUPPLY OF SURVEILLANCE SYSTEM					
1	SUPPLY OF IP CAMERA				
1a	Supply of 5MP Vari-Focal Lens Bullet Camera with accessories etc as per tender compliance.	Nos	90		
1b	Supply of 4 MP PTZ 200Mtrs IR with 30x Zoom with accessories etc as per tender compliance.	Nos	15		
1c	Supply 128GB Micro SD SURVEILLANCE Memory card	Nos	105		
2	VMS with H.265 Compression on Windows Platform				
2a	Up gradation/ Supply of Video Management Software for H.265 Compression as per tender compliance.	LUMSUM	1		-
2b	Camera Edge Analytics required for as per tender compliance.	LUMSUM	1		-
2c	Video Management Software Integration and Analytics as per tender compliance with minimum 20 Client Monitoring License.	LUMSUM	1		-

SI No	Description	Unit	Quantity	Rate	Amount
2d	Supply of 300 Camera License with Failover redundancy as per tender requirement.	Nos	300		
3	Supply of Storage System				
3a	Supply of Backup SAN Storage with Dual Controller for Maintaining Cameras recording backup of 300 Cameras for 90 Days. (1.2PB Usable space SAN Storage) as per tender compliance.	LUMSUM	1		-
4	Supply of NETWORK & ACCESSORIES				
4a	Supply and Installation of Integrated Radio Devices with Antenna & Accessories.	Nos	14		-
4b	Supply and installation of Dish Antenna minimum or higher as per site condition.	Nos	16		-
4c	Supply and Installation of Sector Antenna minimum or higher as per site condition.	Nos	12		-
4d	Supply and installation of Radio Devices with accessories minimum or higher as per site condition.	Nos	28		-
4e	Supply and installation of Radio Device with 1 Gbps with accessories minimum or higher as per site condition.	Nos	6		-
4f	Supply and installation of Client Radio Device with accessories.	Nos	92		-
4g	Supply and installation of surge protector minimum or higher as per site condition.	Nos	110		-
4h	Supply and installation of 48 Port 10G Copper with SFP+ ports and accessories.	Nos	3		-
4i	SUPPLY OF SM 10G SFP module and accessories.	Nos	4		-
4j	Supply and installation of 24 Port Layer 2, switch and accessories.	Nos	13		-
4k	Supply and installation of 4 Port 100/1000 Switch and accessories.	Nos	40		-
4l	Supply of Ethernet POE Injector and accessories.	Nos	77		-
5	Supply of DISPLAY & ACCESSORIES				
5a	Supply of 55" Video Wall Display with One Controller and Wall Mounting accessories.	Nos	6		-

SI No	Description	Unit	Quantity	Rate	Amount
6	Supply of SERVER + NATIVE FAILOVER,WORKSTATION& SOFTWARE.				
6a	Supply of Server Minimum 10 Core or better dual socket Processor with Base Frequency. 2.10 GHz ; Cache. 18 MB ,64GB RAM or better, 240 GB SSD Drive x 2 Nos, 600GBx 4Nos SAS, Network ports 1 Gbps x 2 Nos and 10Gbps Ethernet portx 2 Nos, 2 Nos of 10Gbps SFP+,Dual port HBA card,Dual power supply,DVD R/W,With Operating system and as the Tender technical compliance. The requirement is minimum and higher can be proposed as per VMS requirement.	Nos	4		-
6b	Supply of Latest Licensed Operating System to meet the requirement of the project.	Nos	4		-
6c	Supply of Latest Database Software to meet requirement of the project.	Nos	2		-
6d	Required Client Access License to meet the requirement of the project. (Minimum 30 CAL required, it may vary as per project requirement.)	Nos	87		-
6e	Supply of Antivirus License with server client architecture to meet the requirement of the project.	Nos	20		-
6f	Supply of Workstation with Minimum i9 Processor (19.25M Cache, 3.70 GHz ,10th Gen processor or higher 32GB RAM DDR4, 512GB NVMe + 1TB SATA 7200rpm ,16GB x 4Nos of DP Graph card, DVDRW, Win 11 DG to Win 10 Pro, Keyboard & Mouse with OEM Standard Warranty.	Nos	4		-
7	RACK & UPS with ACCESSORIES				
7a	Supply and installation of 42U Rack with Accessories.	Nos	1		-
7b	Supply of 9U Outdoor Rack IP55 with mounting Accessories	Nos	78		-
7c	Supply and installation of 1000VA UPS with inbuilt 7 AH with 30 Min backup.	Nos	77		-
7d	Supply and installation of 10KVA UPS single phase with Isolation transformer UPS with battery Rack & link.	Nos	1		-

SI No	Description	Unit	Quantity	Rate	Amount
7e	Supply of Batteries for 2 Hours Backups using 100AH* 20 Nos SMF Batteries.	Nos	1		-
7f	Providing Earthing for 10 Kva UPS as per IS 3043 Standards.	Nos	1		-
8	SUPPLY OF PASSIVE MATERIALS AND ACCESSOIRES				
8a	Supply with Erection of 30 Mtrs Galvanized Tower with required civil work for Foundation and accessories as per tender compliance.	Nos	7		-
8b	Supply and Installation of 9 Mtrs Pole tubular Galvanized with accessories as per tender compliance.	Nos	79		-
8c	Supply and Installation of 10 Feet 20mm GI Pipe.	Nos	4		-
8d	Providing Civil work for Pole Foundation and complete accessories.	Nos	79		-
8e	Supply and Installation Galvanized Brackets with Customized for PTZ.	Nos	14		-
8f	Supply and Installation Galvanized Bullet Cameras Bracket with Box.	Nos	85		-
8g	Providing Cat6 LAN Cable as per tender compliance	Meters	10350		-
8h	Supply of Power Cable with 3 Core 2.5sqmm Armoured Copper Cable along with required route markers as per guidance from NMPA.	Meters	9600		-
8i	Providing Power Cable with 6 Sqmm Copper Wire RED, BLACK, GREEN.	Meters	150		-
8j	Supply of Power Distribution board for Pole & Rack End as per project requirement.	Nos	67		-
8k	Supply and Installation of 100mm GI Pipe and accessories	Meters	800		-
8l	Supply of Functional Accessories required as per Site Condition such as Sandals 2" inch, Nails 1 1/2", Ghatta, POP Screw 3/4, Insulated Tape, 1 1/5" Clips double side nails, Industrial Flexible pipe 40mm, Power Distribution Box 32amps MCB Industrial Power Socket Top & Plug Connector, 100x 100 Metal tray with Closure 45 Connectors Cat 6 Connector, Distribution Board 8Way TPN	LUMSUM	1		-

SI No	Description	Unit	Quantity	Rate	Amount
	DB Horizontal, OFC patch Cord 3 Mtrs LC to SC with Crane services for Pole Erections.				
8m	Supply and Installation of 80x80 stuff as per project requirement.	Meters	30		-
8n	Supply and installation of 32/40" Dia HDPE pipe with rope wire with Caller, Bend and accessories asper project requirement.	Meters	6500		-
9	CONFIGURATION TESTING & COMMISSIONING OF SURVEILLANCE SYSTEM				
9a	Digging & Refilling 1 Mtrs depth on concrete/Road Cutting asper NMPA site conditions.	Meters	9500		-
9b	Lan Cable Laying with necessary Electrical Items asper NMPA site conditions.	Meters	10350		-
9c	Power Cable Laying with necessary Electrical Items asper NMPA site conditions.	Meters	9600		-
9d	Special Tools & tackles required at site during contract period. List of Materials as mentioned in tender document.	LUMSUM	1		-
9e	Installation Testing and commission of Surveillance System as per Project Commissioning.	LUMSUM	1		-
TOTAL PART I					-
PART: II COMPERHENSIVE ANNUAL MAINTAINCE CONTRACT FOR THE PERIOD OF 3 YEARS AFTER COMPLETION OF 2 YEARS WARRANTY PERIOD.					
10a	3rd Year CAMC for Cameras, Servers, Storage, Display, Workstation, Network Devices & accessories.	Months	12		-
10b	4th Year CAMC for Cameras, Servers, Storage, Display, Workstation, Network Devices & accessories.	Months	12		-

SI No	Description	Unit	Quantity	Rate	Amount
10c	5th Year CAMC for Cameras, Servers, Storage, Display, Workstation, Network Devices & accessories.	Months	12		-
TOTAL PART II					-
PART: III ONE RESIDENT ENGINEER FOR 5 YEARS					
11a	FIRST YEAR Resident Engineer Charges	Months	12		
11b	SECOND YEAR Resident Engineer Charges	Months	12		
11c	THIRD YEAR Resident Engineer Charges	Months	12		
11d	FOURTH YEAR Resident Engineer Charges	Months	12		
11e	FIFTH YEAR Resident Engineer Charges	Months	12		
	Total Part-III				
TOTAL PART I,II & III					

Note:

1. Applicable GST shall be mentioned separately.
2. L1 will be considered based on **BOQ** exclusive of GST.
3. It is advised to visit the site and to get acquainted with the site conditions before quoting for the subject work.
4. The rates for part-II shall be quoted for per month basis. The rate for part-III shall be quoted for Rate/month basis.

PART- IV

NMPA BANK DETAILS

Name of the Payee:

The FA & CAO, NMPA, Panambur, Mangalore for remitting Tender fee through NEFT / RTGS.

1	Name of the bank	State Bank of India, Panambur, Mangalore -575 010
2	Bank Account no.	10205649448
3	IFSC Code.	SBIN0002249
4	MICR Code.	575002011

CHECK LIST

PART – V

Tender No: EE(E)/TECHCELL/A/2022-23/12/21 **Dated:**30.03.2023

SCHEDULE FOR CHECKLIST OF DOCUMENTS TO BE UPLOADED ALONG WITH TECH NO-COMMERCIAL BID

DETAILS OF DOCUMENT TO BE SUBMITTED			YES	NO
TECHNICAL BID	1	EMD & Tender fee or supporting document for exemption of EMD /Tender Fee as per clause 2.2.1 (n)		
	2	Supporting documentary evidence of work orders and satisfactory completion certificate issued by the client duly self-attested and TDS certificate of the supporting work.		
	3	Copies of profit and loss Account statements, balance sheet and Auditor's report for the last three years, endorsed by Chartered Accountant with attestation.		
	4	Certificates a) GST Registration Certificate. b) Pan card copy c) ESI Registration Certificate d) PF Registration Certificate		
	5	Tender Document, sealed and signed by the bidder along with Pre-bid replies, Corrigendum/Addendums if any.		
	6	a) Annexure – 1 -Particulars of Bidder. b) Annexure – 2 – Tender Form c) Annexure –5 – Format of Declaration d) Annexure – 6 –Power of Attorney e) Annexure – 7 – Bank information for E-payment f) Annexure 8 - Dispute review Board agreement g) Annexure –9–Details of ongoing Contracts at NMPA h) Annexure – 10- Verification of Local Content i) Annexure – 11- Undertaking on indemnification j) Annexure- 12 Indemnity Bond k) Annexure-13 Pre contract integrity port l) Annexure - 14 Country Sharing Land & Border Declaration m) Annexure - 15 Country Of Origin Declaration n) Annexure-16 PAYMENT RECEIPT DETAILS CERTIFIED BY STATUTORY AUDITOR o) Annexure-17 Site visit Confirmation p) Annexure-18 Bid Security Declaration q) JV Agreement Annexure-19		
	7	a) Technical Specification for the items as mentioned in Clause No. 5.2 with company brochures/Catalogue. b) Manufacturer Authorization form for the items as mentioned in Clause No. 5.4. c) List of offered makes & models for the items as mentioned in Clause No. 5.5.		
		Self-Declaration document regarding the OEM of the items under the contract not being banned or blacklisted in any country.		
PRICE Bid	PART-III - Price Schedule (Online Mode Only)			