

EOI Document
for
Selection of back end partner for Provision of
Video Surveillance System at D & E Category
stations (149 stations) in WAT & KUR Divisions
over East Coast Railway

EOI No: TCIL/ITT-1/VSS_ECOR/2024/01

Date of Issue: 05/06/2024

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SECTION-1

EXPRESSION OF INTEREST (EOI)

EOIs are invited from all eligible bidders for Pre-Tender Tie-up with TCIL for “Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway” against client’s Tender no. SNTPBBS-042024-VSS, Dated: 13.05.2023.

Telecommunications Consultants India Ltd. (TCIL) is a Govt. of India Enterprise, under Department of Telecommunications, Ministry of Communications. It was set up in 1978 to share Indian experience and expertise with developing countries and to assist bulk users of telecom services in setting up dedicated telecom networks.

TCIL has been undertaking various projects in all fields of telecommunications and information technology and also continuously deploying new technologies in the field of Telecom Software, Switching and Transmission Systems, Cellular Services, Rural Telecommunications, Optical Fiber based Backbone Transmission Systems etc. TCIL has diversified its operation and has been executing projects in the field of Civil Infrastructure, Architecture and Power, Rural Roads and Civil Construction. TCIL has been executing projects in latest technologies like FTTH, VOIP, IPTV etc.

TCIL intends to participate in this “Selection of back end partner for Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway”. This EOI is floated for selection of back end partner ready to work in the above project for TCIL on exclusive basis.

Submission of Online Bids is mandatory for this EOI. Prospective bidders need to submit their bids with the most competitive Techno-commercial offer for the aforesaid work. EOI document is available on TCIL website (<https://www.tcil-india.net.in/nit.php>) & GePNIC portal ([www.etenders.gov.in](http://etenders.gov.in)). The important dates are as given below:-

1.1 IMPORTANT DATES

Date of Posting of EOI:	05.06.2024
Start Date of downloading/viewing EOI:	05.06.2024
Start date & time for Online submission of Bids:	05.06.2024
Last date & time for Online submission of Bids:	15.06.2024, 10:30 Hrs
Online Opening of Technical Bid (Part-I):	15.06.2024, 11:00 Hrs
Online Opening of Financial Bid (Part-II):	To be notified later

Bids shall be submitted on GePNIC Portal (<http://etenders.gov.in>). Bidders are advised to visit GePNIC portal (<http://etenders.gov.in>) and/or TCIL website regularly for updates/amendments, if any. Bidders can contact NIC for Telephonic Help Support on Toll Free Help Desk Number- 1800 3070 2232 for requisite queries regarding registration, training, demonstration, minimum system requirements etc. of Government e-Procurement System of NIC (GePNIC).

1.2 ELIGIBILITY CRITERIA

S.No.	QUALIFICATION CRITERIA	DOCUMENTS REQUIRED
(a)	<p>(i) In procurement of all goods, services or works in respect of which the nodal ministry/department has communicated that there is a sufficient local capacity and local competition, only Class-I local supplier as defined under the order shall be eligible to bid respective purchase value.</p> <p>(ii) Only Class-I and Class-II local supplier, as defined under the order shall be eligible to bid in procurement undertaken by procuring entity, except when global tender enquiry has</p>	<p>Undertaking regarding the same on the bidder’s Letter Head.</p> <p>And Local Content Calculation Sheet.</p>

S.No.	QUALIFICATION CRITERIA	DOCUMENTS REQUIRED
	been issued. (Mandatory Undertaking for Purchase Preference to MAKE In INDIA to be submitted along with this EOI. The bidder needs to submit calculation of local content as per format attached in Section-11. The detailed clause is mentioned at Clause 2.3 in Section-2 of this EOI and the documents required for verification of local content needs to be submitted as per this Clause.)	
(b)	The bidder should be an Indian Registered Company under Companies Act 1956 or 2013/ Proprietorship /Partnership Firm/ Government Societies. Copy of Certificate of Incorporation/ Registration/ Partnership Deed or any other relevant document, as applicable, should be submitted along with a copy of address proof.	Copy of Certificate of Incorporation/ Registration/ Partnership Deed or any other relevant document, as applicable
(c)	The bidder shall fulfill the following financial criteria:- i. Average Annual Financial Turnover during the last 3 years, ending 31 st March 2023 should be at least Rs. 4.21 Cr (Rs. 3.51 Cr for Micro and Small Enterprises (MSEs) & Startups). ii. Net worth should be positive as on 31st March of 2023 iii. The bidder should be in profit before tax (PBT) in two out of last three financial years.	Audited Balance Sheets & CA Certificate
(d)	Experience of having successfully completed similar works/supplies during the last 7 years from the date of bid submission should be either of the following:- Two similar works each costing not less than Rs. 4.21 Cr (Rs. 3.51 Cr for MSEs & Startups) OR One similar work costing not less than Rs. 5.62 Cr (Rs. 4.91 Cr for MSEs & Startups) “Similar Nature of work Means: Supply Installation, Testing and commissioning of IP/No-IP based CCTV cameras and accessories OR Integrated Emergency system OR IP based video Surveillance system OR Integrated Security system, where CCTV is a part OR any IP based Networking system such as Local Area networking (LAN) OR IP based telephone exchange networking OR Network video conferencing system. The bidder should have complete one of the above in any Govt./PSU/Smart City project.	The bidder should submit supporting document i.e. work order and completion certificate from client.
(e)	The bidder should have a valid PAN and GST Registration (copy of PAN card and GST Registration certificate should be submitted in	a) PAN copy b) GST copy

S.No.	QUALIFICATION CRITERIA	DOCUMENTS REQUIRED
	the bid). Copy of PAN card and GST Registration certificate should be submitted in the bid. In case GST registration is not available, the bidder shall give undertaking that it will get registered before start of work, if work is awarded to them	
(f)	MAF The bidder should submit Manufacturers Authorization Certificate (MAF) from Original Equipment Manufacturers (OEMs) specific to the bid for items mentioned in the end client RFP. In case of unavailability of MAF at the time of EOI response, bidder should submit an undertaking stating that the same shall be submitted before opening of Financial bid.	OEM MAFs to be submitted as per client RFP format.
(g)	The bidder should not be insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended and not be the subject of legal proceedings for any of the foregoing. An undertaking by the bidder should be submitted.	Undertaking regarding the same on the bidder's Letter Head.
(h)	The Bidder should not be blacklisted/debarred/banned/restricted by any Union Govt./State Govt. /PSU as on date of submission of the Bid. "No-Conviction Certificate" duly signed by authorized signatory signing the bid, should be submitted in the prescribed format.	"No Conviction Certificate" in prescribed format should be submitted
(i)	The bidder shall submit an undertaking on their letter-head stating that: "In reference to the Government of India, Ministry of Finance, Department of Expenditure, Office Memorandum No. F.No. 6/18/2019-PPD, Dated 23-07-2020. I hereby submit that: "We have read the Clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; We certify that we (in case of Consortium all the Consortium Partners) are not from such a country <i>or their beneficial owner is not from such a country or we will not sub-contract any work to a contractor from such countries</i> , if from such a country, have been registered with the Competent Authority. We hereby certify that we (in case of Consortium all the Consortium Partners) fulfill all requirements in this regard and are eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]".	Undertaking regarding the same on the bidder's Letter Head.
(j)	The bidder needs to submit un-priced BOQ along with their technical bid	Unpriced BoM should be submitted
(k)	The bidder needs to submit an Undertaking stating that: Vendors, whose Purchase	Undertaking regarding the same on the bidder's Letter Head.

S.No.	QUALIFICATION CRITERIA	DOCUMENTS REQUIRED
	Order(s) for any Project of TCIL was/were cancelled on risk & cost basis for non-performance or non-submission of performance guarantee in last 2 years, are not eligible to participate in this tender.	
(l)	Proof of PF registration to be submitted by the bidder.	Submit PF Proof of Registration.
(m)	The bidder should have GST registered Local Office where work is to be executed. Else, he should give an undertaking that he will open GST registered Local office after Award of Work.	Undertaking regarding the same on the bidder's Letter Head.
(n)	LABOUR LAWS (wherever applicable): The Bidder should have compliance to Labour laws, Payment of Minimum Wages Act, Workman's Compensation Act, EPF/ESI provisions and any such statutory provisions. In case the bidder is found to be not complying to any of the relevant statutory requirement, action as deemed fit may be initiated by TCIL at its sole discretion.	Undertaking regarding the same on the bidder's Letter Head.
(o)	It is a mandatory requirement that the bidder shall provide formally certified skilled workforce or commitment to the effect that they would ensure that all their workers would be skilled through Recognition of Prior Learning (RPL) within two months from the date of commencement of work under the project, at the cost of the bidder. This is in compliance to Ministry of Skill Development and Entrepreneurship (MSDE) D.O dated 12.09.2022.	The bidder shall provide undertaking to this effect.
(p)	Consortium is not allowed	
(q)	The bidder should give an undertaking on the company's letter head that all the documents/certificates/information submitted by them against this EOI are genuine. In case any of the documents/certificates/information submitted by the bidder is found to be false or forged, TCIL shall immediately reject the bid of such bidder(s) or cancel/terminate the contract and forfeit bid security / Performance Security submitted by the bidder and debar them from participation in future EOIs/tenders of TCIL for a period up to 2 years.	Undertaking regarding the same on the bidder's Letter Head.
(p)	A statement showing Clause-by-Clause compliance to all Terms & Conditions of all the Sections of this EOI as well as client's tender(which forms part of this EOI), duly Signed and Stamped on the Letter Head of their Organization. The bidder shall submit No-Deviation Certificate along with above. Bidder shall submit technical data sheet by	Undertaking regarding the same on the bidder's Letter Head.

S.No.	QUALIFICATION CRITERIA	DOCUMENTS REQUIRED
	highlighting each complied specification. Wherever technical specifications and operational/functional requirements are not mentioned in the datasheet, OEM compliance shall be submitted.	
(s)	<u>Integrity PACT</u>	Integrity pact on plain paper.
(v)	<u>Security Deposit and Performance Bank Guarantee</u> The Successful bidder has to submit Security Deposit of 5% of the total contract value and PBG @5% of the Total Project cost.	Bidder has to submit undertaking for this clause.
(w)	<u>Payment Terms</u>	On back to back basis except advance (if any)
(x)	<u>Liquidated Damages</u>	As per Client Tender on absolute terms
(y)	<u>SLA</u>	As per Client Tender

- 1.3** The bidder is required to submit the OEM eligibility documents as asked in the client tender.
- 1.4** Bidder shall submit Technical solution document, technical data sheet and OEM compliance on OEM letterhead.
- 1.5** Bidder is required to submit the undertaking that he will support & assist TCIL in the presentation, demo and POC at the client end.
- 1.6** The Client's tender No. SNTPBBS-042024-VSS, Dated: 13.05.2024 for RFP for "Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway" and its amendments forms an integral part of this EOI.

1.7 BID SECURITY (EARNEST MONEY DEPOSIT)

EMD shall be of **Rs. 5,00,000/-**

EMD amount can be submitted in the form of Demand Draft (DD) drawn in favour of "Telecommunications Consultants India Limited" payable at New Delhi along with the bid, OR in the form of a Bank Guarantee (BG) / e-BG in the prescribed format (Section-8) from a SFMS enabled Scheduled Commercial Bank through SFMS Platform OR as an Insurance Surety Bond as per format given in Section-22 OR Fixed Deposit Receipt (FDR) OR Bankers Cheque.

The validity period of Bid Security/EMD (in any form) should be 120 days.

Details of beneficiary for issue of BG under SFMS Platform is as below:

Name Of Beneficiary and ITS Details	Name	Telecommunications Consultants India Limited
	Address	TCIL Bhawan, Greater Kailash-1, New Delhi- 110048
	Account No	000705005880
Name Of Beneficiary Bank and ITS Details	Name	ICICI Bank Limited
	Address	9-A PHELPS Building, Connaught Place, New Delhi- 110001
	Unique Identifier code	TC503394486 (UID to be mentioned in field 7037 of the BG advising message code)
	IFSC Code	ICIC0000007

EMD can also be paid through the following prescribed electronic modes of payment (**UTR No. is to be provided by bidder in the technical online bid**):

- Debit card powered by RuPay
- Unified Payment Interface (UPI) (BHIM-UPI) – TCIL VPA ID – tcil80@ICICI
- Unified Payment Interface (UPI) Quick Response Code: As below.
- Bank details for NEFT: same as given above.



Note:- Bids received without Bid Security (EMD) may be summarily rejected.

In addition to this, the successful bidder is required to submit the balance back to back client EMD of **Rs. 7,86,900.00/-** (back to back client EMD of **Rs. 12,86,900.00/- for MSE & Start-Up**) in the form of BG/e-BG/Insurance Surety Bond/DD/NEFT/RTGS/FDR/Bankers Cheque in favour of “Telecommunications Consultants India Limited” payable at New Delhi along with the bid. This back to back EMD will not be exempted to any bidder. It is mandatory to submit this balance back to back EMD of **Rs. 7,86,900.00/-** (back to back client EMD of **Rs. 12,86,900.00/- for MSE & Start-Up**).

Bidder has to submit undertaking that if selected as Successful bidder, they will submit the balance back to back client EMD of **Rs. 7,86,900.00/-** (back to back client EMD of **Rs. 12,86,900.00/- for MSE & Start-Up**) in the form of BG/e-BG/Insurance Surety Bond/DD/NEFT/RTGS/FDR/Bankers Cheque in favour of “Telecommunications Consultants India Limited” payable at New Delhi along with the bid on or before bid submission of TCIL to End Client.

1.8 TENDER FEES

Tender Fees of Rs. 20,000 + 18% GST (i.e. Rs. 23,600/-). Tender Fee can be paid through the following prescribed electronic mode of payment (**UTR No. is to be provided by bidder in the technical online bid**):

- Debit card powered by RuPay
- Unified Payment Interface (UPI) (BHIM-UPI) – TCIL VPA ID – tcil80@ICICI
- Unified Payment Interface (UPI) Quick Response Code: As below.
- Bank details for NEFT: same as given above.



Notes for EMD and Tender Fees Exemption:

- Micro & Small Enterprises (MSEs)(For goods and services tenders) and Start-up Enterprises are exempted from the payment of EMD & Tender Fees
- To avail benefits prescribed in the tender for **Start-up Enterprises**, the bidder shall submit their registration certificate issued by DIPP/DPIIT. Non-submission of requisite proof shall be treated as non-Start-up Enterprise bid.
- To avail benefits prescribed in the tender for Micro & Small Enterprises (MSEs), the bidder shall submit Udyam Certificate for item/services (mentioned in this tender) along with a certificate from

their Statutory Auditors certifying the amount of investment in plant and machinery by Micro and Small Enterprise in accordance with provisions of MSMED Act 2006 to be read with notifications No SO 2119(E) dated 26.06.2020. Non-submission of requisite proof and certificate from statutory auditors shall be treated as non-MSE bid.

- d) Traders/ resellers / distributors/authorized agents will not be considered for availing benefits under MSME Act 2006 and PPP Policy 2012 as per MSE guidelines issued by MoMSME.
- e) MSEs who are manufacturer of Goods /Items and provider of Services, need to ensure that ALL delivered Goods/items and Services of the tender are listed in their MSME/NSIC certificate. Partial-listing of Goods/Services in their certificate shall render MSEs ineligible for benefits.
- f) The bids submitted without bid security/tender fees or inadequate bid security/tender fees will be rejected. No interest shall be payable on bid security amount.
- g) If bid security/tender fees is submitted as BG/DD, it should reach o/oTender Accepting Authority), TCIL Bhawan, 4th Floor, Greater Kailash-I, New Delhi-110 048 within the last date & time stipulated for bid submission in the tender.
- h) The EMD/Bid Security of unsuccessful bidder shall be returned as promptly as possible but not later than 30 days after expiry of the bid validity period.
- i) The EMD/Bid Security may be forfeited if:
 - (i) If the Bidder withdraws his bid during the period of bid validity specified by the Bidder on the Bid form or
 - (ii) fails or refuses to execute the Contract, if required; or
 - (iii) The successful bidder fails to submit performance security within the prescribed time. or
 - (iv) The proceed of EMD shall be payable to TCIL in case of breach of any of the terms and conditions of the contract/PO/tender by the vendor.

1.9 EVALUATION

- b) TCIL shall evaluate bids in respect to substantive responsiveness of the bid or otherwise. TCIL shall carry out detailed evaluation of the substantially responsive bids only.
- c) A bid determined as substantially non-responsive technically/financially shall be rejected, even after opening the price bid.
- d) TCIL may waive any minor infirmity or non-conformity or irregularity in the bid which does not constitute a material deviation.
- e) Among all technically qualified bids, the lowest bid will be termed as L1 (excluding taxes) derived from Price Bid Schedule. The Purchase Preference needs to be given as per Purchase Preference defined in this EOI.
- f) If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.
- g) NPV BASED EVALUATION CRITERIA:
 - (i) Applicable for works/tenders where scope of work includes CAPEX and OPEX (O&M/AMC) or only OPEX, where OPEX activity is spread over a period of two or more years.
 - (ii) Bids shall be evaluated on the basis of the lowest NPV (Net Present Value) without taxes.
 - (iii) Total cost shall be CAPEX+NPV of O&M/ AMC.
 - (iv) The discounting rate of 10% per annum shall be used for calculating NPV.

1.10 VALIDITY PERIOD OF BID

Bid shall remain valid for 120 days after the date of bid opening. The bid valid for a shorter period shall be rejected as non-responsive.

In exceptional circumstances, TCIL may request the bidder for an extension to the period of bid validity if same is extended by end client and accordingly, the bid security shall also be suitably extended by the bidder.

1.11 IP PROGRAMME :

As a part of implementation of Integrity Pact Programme (IPP) in TCIL, all tenders with the estimate value equal to or exceeding the threshold value will be covered under the Integrity Pact Programme (IPP) and the vendors are required to sign the IP document and submit the same to TCIL before or along with the bids. Latest IP document is available at TCIL website (www.tcil.net.in) Link-https://www.tcil.net.in/integrity_pact.php. Even in case of tenders with the estimated value less than the threshold value, the vendors would be required to sign the IP document if the total value of the Purchase Orders (POs) exceeds the threshold value in respect of:

- a. Multiple/repeat POs on the single vendors against a tender.
- b. POs placed on multiple vendors against a tender.

Only those vendors who have signed the IP document can send their grievances, if any, to the Independent External Monitors (IEMs) through the nodal officer, i.e., Chief Vigilance Officer (CVO). TCIL in the prescribed proforma.

NAME OF IEMs WITH THEIR CONTACT DETAILS:

- 1) Shri Anil Kumar Shrivastava, Independent External Monitor Email ID: anilifs86@gmail.com
- 2) Shri Harishwar Dayal, Independent External Monitor E mail ID: dayalagra@gmail.com

NAME & CONTACT DETAILS OF NODAL OFFICER (IP) IN TCIL:

Mr. V. K. Sinha, Chief Vigilance Officer E-mail ID: vk.sinha@tcil.net.in

If the Order, with total value equal to or more than the threshold value, is split to more than one vendor and even if the value of PO placed on any/each vendor(s) is less than the threshold value, IP document having been signed by the vendors at bid stage itself, the Pact shall continue to be applicable.

In respect of tenders for Pre-bid tie up/Expression of Interest (EOI) : In case of TCIL getting the Order from the client, before placement of Purchase Order/Work Order on technically & commercially qualified vendor, the selected vendor is required to sign the IP document.

IP document shall be in plain white sheet and to be signed by the vendor and TCIL with two witnesses from each party. The name, designation, company etc. of the persons signing the IP document and the project/tender name shall be clearly mentioned. All pages of the IP document shall be initialed by both parties along with company seal.

Tender received without signed & stamped copy of the Integrity Pact document will be liable to be rejected, and the bidder himself will be responsible for that.

1.12 INTEGRITY PACT

- a) This EOI is covered under Integrity Pact Programme of TCIL and bidders are required to sign the Integrity Pact Document and submit same to TCIL before or along with the bids.
- b) Integrity Pact Agreement duly signed and stamped by Authorized Signatory & Witnesses has to be submitted in physical form at the time of bid submission. In case of consortium bid, the lead partner shall sign as authorized signatory and the consortium partner as witness.
- c) EOI received without signed copy of the Integrity Pact document will be liable to be rejected.

- d) In case of Joint Venture, all partners of the joint venture should sign the Integrity Pact. In case of sub-contracting, the Principal Contractor shall take the responsibility of the adoption of IP by sub-contractor. It is to be ensured that all sub-contractors also sign the IP.
- e) Mediation Clause
In the event of any dispute between management and the contractor relating to those contracts where integrity pact is applicable, in case, both the parties are agreeable, the dispute may be settled through mediation before the panel of IEMs in a time bound manner. If required, the organizations may adopt any mediation rules for this purpose.
In case the dispute remains unresolved even after mediation by panel of IEMs, the organization may take further action as per terms and conditions of the contract.

1.13 AUTHORIZATION LETTER/ BOARD RESOLUTION :

The bidders need to submit board resolution along with authorization Letter in Online mode authorizing the signatory to act on behalf of the bidder. The Authorized person should be either authorized by Board or a employee authorized by one of the following person who has the Board Resolution to delegate authorization to other :

1. Managing director
2. The Chief Executive Officer
3. The manager;
4. The Company Secretary
5. The Whole-time director
6. The Chief Financial Officer

The bidder should ensure that the Digital Signature used for uploading the tender document in e tender portal should be of the authorized signatory.

1.14 MOU/AGREEMENT

Selected bidder will have to sign MoU with TCIL (as per format enclosed) before TCIL submits bid to the end client.

The template of Pre-bid MoU documents [(1) with consortium, and (2) without consortium] are enclosed. Necessary changes/modifications as applicable should be made prior to floating in EOI/signing the MoU. The relevant MoU format may be made a part of EOI document, so that it can be signed on selection of vendor at pre-bid stage.

1.15 SUBMISSION OF FORGED DOCUMENTS

Bidders should note that TCIL may verify authenticity of all the documents/certificate/information submitted by them against the EOI. In case at any stage of this process, if it is established that bidder has submitted forged documents/certificates/information towards fulfillment of any of the EOI/contract conditions, TCIL shall immediately reject the bid of such bidder(s) or cancel/terminate the contract and forfeit bid security / Performance Security submitted by the bidder and debar them from participation in future tenders of TCIL for a period upto 2 years.

1.16 CLARIFICATION FROM BIDDERS

The queries may be asked from bidders for submitting shortfall to be submitted within specified date and time. Also, every document submitted against following queries should be signed by the person authorized as per Authorization letter / Board Resolution submitted by bidder against tender, without which the documents will not be accepted as valid.

1.17 REGISTRATION OF MSE VENDORS

All MSE bidders may be registered on TReDS platform (www.rxil.cin) and MSME-SAMADHAAN portal. Participating MSE bidders shall submit an undertaking regarding the same.

- 1.18** The bidder must ensure that their bid is complete in all respects and conforms to EOI terms and conditions, EOI specifications etc. including client specifications, failing which the bids are liable to be rejected without seeking any clarifications on any exception/deviation taken by the bidder in their bid.
- 1.19** TCIL reserves the right to accept or reject any or all the EOIs without assigning any reason.
- 1.20** On award of work of the Tender/Work/Project, the vendor shall provide its GeM Seller id to TCIL (not applicable for “works” contract or non-Indian vendor).

1.21 CONTACT INFORMATION

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END OF SECTION-1

SECTION-2**GENERAL TERMS & CONDITIONS OF THE CONTRACT****2.1 FINANCING OF TRADE RECEIVABLES OF MSE'S THROUGH TRADE RECEIVABLES DISCOUNTING SYSTEM (TReDS) PLATFORM**

- a) Based on the initiatives of government of India to help MSME vendors get immediate access to liquid fund based on TCIL's credit rating by discounting MSE's trade receivables through an auction mechanism where multiple financiers can participate and bid, TCIL registered itself on TReDS platform with M/s RXIL.
- b) Micro and Small Enterprise (MSE) bidders / vendors can avail this benefit by registering themselves with M/s RXIL providing e-discounting/electronic factoring services on its TReDS platform and following the procedures defined therein.
- c) All costs relating to availing the facility of discounting on TReDS platform including but not limited to Registration charges, Transaction charges for financing, Discounting Charges, Interest on financing, or any other charges known by any name shall be borne by MSE Bidders / Vendor.
- d) MSE Bidders / Vendor hereby agrees to indemnify, hold harmless and keep TCIL and its affiliates, Directors, officers, representatives, agents and employees indemnified, from any and all damages, losses, claims and liabilities (including legal costs) which may arise from Sellers submission, posting or display, participation, in any manner, on the RXIL's TReDS Platform or from the use of Services or from the TCIL's breach of any of the terms and conditions of the Usage Terms or of this Agreement and any Applicable Law on a full indemnity basis.
- e) TCIL shall not be liable for any special, indirect, punitive, incidental or consequential damages or any damages whatsoever (including but not limited to damages for loss of profits or savings, business interruption, loss of information), whether in contract, tort, equity or otherwise or any other damages resulting from using facilities on RXIL's TReDS platform.

2.2 PRICE PREFERENCE TO MICRO AND SMALL ENTERPRISES

(Price Preference to MSEs shall be extended as per GOI guidelines applicable from time to time).

- a) If items mentioned in EOI are **non-splittable / non-dividable** and L1 is non-MSE bidder:
 - i) If a MSE vendor / bidder is within L1+15% price range, the complete purchase / work order shall be given to MSE bidder subject to their matching the L1 price.
 - ii) If MSE vendor / bidder is not within L1+15% price range, then complete purchase / work order shall be given to L1 bidder.
- b) If items mentioned in EOI are **splittable / dividable** and MSE is neither L1 nor within L1+15%, The purchase/work order shall be given to L1 bidder.
- c) If the items mentioned in EOI are **splittable / dividable** and MSE is not L1 but within L1+15%, 25% of total procurement shall be made from MSE, subject to their matching of L1 price. In case of more than such eligible MSEs who are within L1+15% range, procurement will be shared equally among such MSEs with a minimum 4% procurement from SC/ST MSEs, subject to their matching of L1 price. In event of failure of SC/ST MSEs to participate in EOI process or meet EOI requirements and L1 price or none of these SC/ST MSEs are in L1+15%, then this 4% sub-target shall be met from other MSEs. Minimum 3% reservation within above mentioned 25% reservation shall be applicable for women owned MSEs.

2.3 PURCHASE PREFERENCE: MAKE IN INDIA (Purchase Preference to Make IN India shall be given as per GOI guidelines applicable from time to time.)

- a) Minimum local content: **(to be specified)**

- b) Margin of purchase preference: 20%
- c) Subject to the provisions of this order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order. Purchase preference shall be given to Class –I local supplier in procurements undertaken by procuring entities in the manner specified here under
- d) In the procurements of goods or works, which are covered by para 1.2(a)(ii) and which are **divisible in nature** ‘Class –I local supplier’ shall get purchase preference over Class –II local supplier as well as non-local supplier’ as per following procedure:
 - i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is Class –I local supplier the contract for full quantity will be awarded to L1.
 - ii. If L1 bid is not a Class-I local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the Class –I local supplier will be invited to match the L1 price for the remaining 50% quantity subject to the Class –I local supplier’s quoted price falling within the margin of Purchase preference and contract for that quantity shall be awarded to such Class –I local supplier subject to matching the L1 Price. In case such lowest eligible Class –I local supplier fails to match the L1 price or accepts less than the offered quantity the next higher ‘Class –I local supplier’ within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.
- e) In the procurements of goods or works, which are covered by para 1.2(a)(ii) above and which are **not divisible in nature** and in procurement of services where the bid is evaluated on price alone, the ‘Class-I local suppliers’ shall get purchase preference over ‘Class-II local supplier’ as well as ‘Non-local supplier’ as per following procedure.
 - i) Among qualified bids, the lowest bid will be termed as L1. If L1 is Class-I local supplier, the contract will be awarded to L1.
 - ii) If L1 is not ‘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.
 - iii) 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 local supplier within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.
- f) ‘Class-II local supplier’ will not get purchase preference in any procurement undertaken by procuring entities.
- g) Verification of local content:
 - i. In cases of procurement for a value less than Rs. 10 crores, the local supplier (Class-I and Class-II), at the time of bidding, shall submit a self-certification that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made.
 - ii. In cases of procurement for a value in excess of Rs. 10 crores, the local supplier (Class-I & Class-II) shall be required to provide a certificate from statutory auditor or cost auditor of company (in case of companies) or from practicing cost accountant or chartered

accountant (in respect of suppliers other than companies) giving percentage of local content in addition to self-certification at point (i)

2.4 RESTRICTIONS ON PROCUREMENT FROM A BIDDER OF A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA

Bidders shall submit the certificate for sourcing products and services in tender as per clause 1.2.i. [wherever applicable the bidder must submit evidence of valid registration by Competent Authority]

- 2.4.1 The bidder shall offer and supply only those product(s)/goods/equipment(s)/Software(s) under this contract which are in compliance with Government of India, Ministry of Finance, Department of Expenditure, Office Memorandum No. F.No. 6/18/2019-PPD dated 23-07-2020, circular attached as Section-20 of this EOI.

GUIDELINES FOR ELIGIBILITY OF A 'BIDDER FROM A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA'

As per Order dated 23.07.2020, issued by Department of Expenditure, Ministry of Finance, Govt, of India in this regard, the following guidelines have been issued by DoE for tenders:-

1. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

Competent Authority for the purpose of registration shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), as mentioned under Annex I of the Order (Public Procurement No.1) dated 23.07.2020.

2. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
3. "Bidder from a country which-shares a land border with India" for the purpose of this Order means;-
 - i. An entity incorporated, established or registered in such a country; or
 - ii. A subsidiary of an entity incorporated, established or registered in such a country; or
 - iii. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - iv. An entity whose beneficial owner is situated in such a country; or
 - v. An Indian (or other) agent of such an entity; or
 - vi. A natural person who is a citizen of such a country; or
 - vii. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
4. The beneficial owner for the purpose of (3) above will be as under:

- i. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person (s), has a controlling ownership interest or who exercises control through other means.

Explanation-

- a) "**Controlling ownership interest**" means ownership of or entitlement to, more than **twenty-five per cent**, of shares or capital or profits of the company;
- b) "**Control**" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- ii. In case of a partnership firm, the beneficial owner is the natural person who, whether acting

alone or together, or through one or more juridical person, has ownership of entitlement to more than **fifteen percent of capital or profits of the partnership;**

- iii. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- iv. Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
- v. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- vi. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

2.4.2 PROCUREMENT OF PRODUCTS FROM TRUSTED SOURCES

If the supplied product(s) under this contract is to be connected with Telecommunication Network then such product(s)/goods/equipment(s)/Software(s) shall be only from Trusted Sources duly certified by NSCT as notified by Govt. of India, Ministry of Communication vide OM No. 20-271/2010 AS-I (Vol-III) dated 10.03.2021. Copy of circular/guidelines is attached as Section-21 of this EOI.

- 2.4.3 Bidder who is found violating these directions /guidelines of Govt. of India or any other guidelines in this regard shall be liable to face action from TCIL which may include non-award of work, cancellation of contract, rejection of goods supplied, getting the work done at risk and cost of the bidder, forfeiting the Performance Security , banning for future work for period up to **five (5) years** or any other action as deemed fit.

2.5 RISK PURCHASE

- a) In case, the sub-contractor/ Supplier is not performing its obligations under the contract, the notice shall be sent as per law to the sub-contractor informing that in case of non-performance by a particular date/period, the contract shall be terminated and the work/project will be executed (through a third party) at the risk and cost of the said sub-contractor/ supplier as per the terms of the contract.
- b) On completion of the specified period/date, the notice of termination shall be issued clearly specifying that the remaining work shall be executed (through a third party) at the risk and cost of the sub-contractor/supplier. Along with this notice of termination, intimation shall be sent to the said sub-contractor/supplier for joint preparation of inventory of the works performed/ supplies already undertaken by him. If the sub-contractor/supplier fails to turn up on an appointed date for joint preparation of inventory, in that situation he shall be proceeded ex parte and the inventory shall be prepared by TCIL/Employer and the same be sent to the sub-contractor/supplier.
- c) Further at the time of award of work to another sub-contractor/ Supplier, if the work is awarded at an additional cost than the original sub-contractor/ Supplier, another notice may be issued to the original sub-contractor/ Supplier specifying that the work has been awarded to another agency at the additional cost of such and such amount, and he is liable to pay that amount to TCIL.
- d) Demand notices may be sent to the original sub-contractor / supplier from time to time.

2.6 GENERAL LIEN / SET-OFF

- a) Whenever under this contract, any sum of money is recoverable from and payable by the supplier, the purchaser shall be entitled to recover such sum by appropriating in part or in whole the security deposit of the supplier, if a security is taken from the supplier. In the event of the security being insufficient or if no security has been taken from the supplier, the balance or the total sum recoverable, as the case may be, shall be deducted from any sum due to the supplier or which at any time thereafter may become due to the supplier under this or any other contract with the purchaser. Should this sum not be sufficient to cover the full amount recoverable, the supplier, shall pay to the purchaser on demand the remaining balance due.
- b) Any some of money (including refundable security deposit) due and payable to the supplier, under this contract or any other contract entered between the parties herein whether continuing or completed may be appropriated by TCIL and set off against any claim of TCIL of any nature whatsoever, arising under this contract or any other contract entered into between the parties, herein whether continuing or completed.

2.7 REPEAT / ADD-ON ORDER

- a) In exceptional situation where the requirement is of an emergent nature, the purchaser reserves the right to place repeat order up to 50% of the value of goods and services contained in the running tender/contract within a period of twelve months from the date of commissioning/commercialization of the project (date of acceptance of APO of the items procured in case where no installation, commissioning is involved) at the same rate or a rate negotiated (downwardly) with the existing vendors considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.
- b) Further if required, an additional order for 50% of the value of the goods & services limited to 100% of the value of goods and services contained in the running tender/contract may be placed within a period of twelve months from the date of commissioning/ commercialization of the project (date of acceptance of APO of the items procured in case where no installation, commissioning is involved) on the existing vendors at the same rate or a rate negotiated (downwardly) considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.(with due approval of the Board).

2.8 PURCHASERS RIGHT TO VARY QUANTITIES

TCIL will have the right to increase or decrease up to 25% of the value of goods and services specified in the schedule of requirements without any change in the unit price or other terms and conditions at the time of award of contract.

2.9 FORCE MAJEURE

The supplier shall be exempted from the responsibility for any non-performance arising from a case of force majeure or act of God, hereinafter called force majeure (a) war and (b) earthquake. If such circumstances should arise, the supplier shall inform the purchaser within 72 hours in writing of the existence of the fact before suspending work without penalty on either side from the period of such suspension not exceeding 3 months. Likewise, it must proceed to inform the end of such fact. As soon as the facts constituting a force majeure cease in their effects, the supplier shall restart or continue the fulfillment of its obligations agreed upon. Should suspension of work as explained above exceed three months, the contract shall be violable at the option of either party without penalty on either side.

2.10 DISPUTE RESOLUTION

- 1) The parties to this agreement/contract agree that they shall resolve all disputes or differences whatsoever arising between them under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU through a "Conciliation and Settlement Mechanism (CSM)" and the detailed guidelines/procedure for such CSM is annexed hereto as **Annexure-A** in Section-19 of this EOI. That it is understood and agreed between the parties that the CSM annexed

as **Annexure-A** with the present agreement forms and shall be treated as part and parcel of the present agreement.

- 2) If the parties fail to resolve such disputes through the conciliation proceedings, then and only then, a party shall refer the dispute to arbitration as mentioned in the following manner:
 - a. All disputes or differences whatsoever arising among the parties under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU shall be referred to and decided by a sole arbitrator, who shall be appointed by the CMD, TCIL only. The arbitration shall be conducted in accordance with Arbitration and Conciliation Act of 1996, as amended from time to time, and the venue of the arbitration shall be in New Delhi.
 - b. Notwithstanding the generality of the above, it is a term of this contract that no person other than a person appointed by CMD, TCIL as aforesaid, should act as arbitrator and if for any reason that is not possible or any party does not agree to such appointment of Arbitrator by CMD, TCIL for whatsoever reason, then the matter is not to be referred to arbitration at all and such disputes shall be resolved under the mechanism provided by the state in form of Courts of Law/Ordinary Civil Courts for resolution of such disputes under applicable Laws.
- 3) The courts at New Delhi shall have exclusive jurisdiction in respect to any dispute pertaining to this agreement.
- 4) The parties shall continue to perform their respective obligations as per the Agreement during the pendency of proceedings under this clause.

For Public Sector Undertaking / Government Departments:

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Enterprise (CPSEs)/Port Trusts inter se and also between CPSEs and Govt. Depts/ organizations (excluding disputes relating to Railways, Income Tax, Customs & Excise Dept), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/003/2019-FTS-10937 dated 14th December 2022 and the decision of AMRCD on the said dispute will be binding on both the parties

2.11 FALL CLAUSE

- a) The prices once fixed will remain valid during the scheduled delivery period. Further, if at any time during the contract

- I. It comes to the notice of purchaser regarding reduction of price for the same or similar equipment/ service

And/or

- II. The prices received in a new tender for the same or similar equipment/service are less than the prices chargeable under the contract.

The purchaser, for the purpose of delivery period extension/during rate contract, if any, will determine and intimate the new price, taking into account various related aspects such as quantity, geographical location etc., and the date of its effect for the balance quantity/ service to the vendor. In case the vendor does not accept the new price to be made applicable during the extended delivery period and the date of its effect, the purchaser shall have the right to terminate the contract without accepting any further supplies. This termination of the contract shall be at the risk and responsibility of the supplier and the purchaser reserves the right to purchase the balance unsupplied quantity/ service at the risk and cost of the defaulting vendor besides considering the forfeiture of his performance security.

- b) The vendor while applying for extension of time for delivery of equipment/services, if any, shall have to provide an undertaking as “We have not reduced the sale price, and/ or offered to sell the same or similar equipment/ service to any person/organization including Department of central/state Government or any central/state PSU at a price lower than the price chargeable under the contract for scheduled delivery period.”

In case undertaking as in (b) above is not applicable, the vendor will give the details of prices, the name(s) of purchaser, quantity etc. to the purchaser, while applying extension of delivery period.

2.12 OFFLINE DOCUMENTS

The Bidder should submit all the bid documents (except Bank Guarantee/DD) online as indicated in the Tender /EOI schedule. The Tender Fees / EMD if paid through online mode), UTR No. is to be provided by bidder in their online bid. Only Bank Guarantee if required in tender/EOI schedule shall be taken in offline mode. (Address to be given where it is to be submitted)

Documents submitted in online mode should be uploaded using DSC of the person authorized as per Authorization letter /Board Resolution for signing bid documents.

2.13 BANNING OF NON-PERFORMING VENDOR

In case any of the vendor's work/PO/agreement is cancelled/terminated by TCIL after award, due to non-performance, the vendor may be banned/blacklisted up to 2 years or action as deemed fit may be taken by TCIL.

2.14 AMENDMENT TO BID DOCUMENTS

- a) At any time, prior to the date of submission of bids, TCIL may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bid documents by amendments, which shall be available on TCIL Website and the e-tendering portal.
- b) In order to give the required time to the prospective bidders, in which to take the amendments into action in preparing their bid, TCIL may at its discretion extend the deadline for submission of bid suitably.

2.15 BID PRICE

- a) The prices quoted by the bidder shall remain firm during the entire period of the contract and shall not be subject to variation (unless asked by TCIL). Clauses such as “at actual”, “extra”, “to be given later” etc. shall also be treated as non-responsive & are liable for rejection.

2.16 MODIFICATION AND WITHDRAWAL OF BIDS

- a) Bid withdrawal/modification shall not be allowed after end date and time of bid submission.
- b) Withdrawal of a bid between the deadline for submission of bids and the expiration of the period of bid validity specified in the tender or as extended, may result in the forfeiture of the bid security. Such defaulting vendor is liable to be debarred from participating in future bids for a period of up to 2 years.

2.17 CLARIFICATION OF BIDS

During evaluation of bids, TCIL may at its discretion ask the Bidder for clarifications / confirmations / deficient documents of its bid. The request for clarification and the response shall be in writing and no change in the price of substance of the bid shall be sought or permitted.

2.18 PURCHASER'S RIGHT TO SEEK QUOTES DIRECTLY FROM OEM

During the EOI / NIT process, TCIL reserves its right to seek rates directly from OEM or its authorized representative / distributor for one or all items of BOQ under this EOI.

2.19 TERMINATION FOR DEFAULT

- a) TCIL may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the supplier, terminate this contract in whole or in part.
 - if the supplier fails to deliver any or all the services/goods within the time period specified in the contract, or any extension thereof granted by TCIL.
 - if the supplier fails to perform any other obligation(s) under the contract;
 - if the supplier, in either of the above circumstances, does not remedy his failure within a period of 15 days (or such longer period as TCIL may authorize in writing) after receipt of the default notice from TCIL.
 - Failure of the successful bidder to comply with the requirement of submission of performance security shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security.
- b) In the event TCIL terminates the contract in whole or in part pursuant to above clause, TCIL may procure, upon such terms and in such manner as it deems appropriate, goods/services similar to those undelivered and the supplier shall be liable to TCIL for any excess cost for such similar goods/services. However, the supplier shall continue the performance of the contract to the extent not terminated.

2.20 TERMINATION FOR INSOLVENCY

TCIL may at any time terminate the contract by giving written notice to the supplier, without compensation to the supplier, if the supplier becomes bankrupt or otherwise insolvent as declared by the competent court; provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to TCIL.

- 2.21 At any time, in case it comes to the knowledge of TCIL any of wrong information related with eligibility of the bidder or non-compliance to any terms and conditions of tender, then TCIL reserves the right to cancel or reject the bid of such bidder, cancel the tender or take any other action as deemed fit in accordance with tender terms and conditions.

2.22 ADDITIONAL CLAUSES FOR DEBARMENT:

- A. A bidder or any of its successor, shall be debarred from participating in any procurement process undertaken by TCIL for a period not exceeding **three (3) years** if he has been convicted of an offence as under:
 - a) under the Prevention of Corruption Act, 1988; or
 - b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.
- B. A bidder or any of its successor, shall be debarred from participating in any procurement process undertaken by TCIL for a period not exceeding **two (2) years** if the following code of integrity as per rule 175 of GFRs 2017, is breached:
 1. prohibition of

- a) making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.
 - b) any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained or an obligation avoided.
 - c) any collusion, bid rigging or anticompetitive behaviour that may impair the transparency, fairness and the progress of the procurement process.
 - d) improper use of information provided by the procuring entity to the bidder with an intent to gain unfair advantage in the procurement process or for personal gain.
 - e) any financial or business transactions between the bidder and any official of the procuring entity related to tender or execution process of contract; which can affect the decision of the procuring entity directly or indirectly.
 - f) any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.
 - g) Obstruction of any investigation or auditing of a procurement process.
 - h) *making false declaration or providing false information* for participation in a tender process or to secure a contract;
2. disclosure of conflict of interest.
 3. Disclosure by the bidder of any previous transgressions made in respect of the provisions of sub-clause (i) with any entity in any country during the last three years or of being debarred by any other procuring entity.
- C. A bidder or any of its successor, shall be debarred from participating in any procurement process undertaken by TCIL for a period not exceeding **two (2) years** if the following is breached:
- (i) If a Bidder withdraws the proposal or increases the quoted prices after opening of the Proposal and during the period of Bid validity period or its extended period, if any.
 - (ii) In case of a successful Bidder, if the Bidder fails to sign the Agreement in accordance with the terms and conditions (including timelines for execution of the Agreement) of this tender or fails to furnish the Performance Security in accordance with the terms and conditions (including timelines for furnishing Performance Security) of this tender.
 - (iii) During the Bid process, if a Bidder indulges in any act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.
- D. The debarment in all cases shall be automatically extended to all its allied firms. In case of Joint ventures/Consortium is debarred all partners shall also stands debarred for a period specified in debarment order. The names of partners should be clearly specified in the debarment order.

END OF SECTION-2

SECTION – 3**SPECIAL CONDITIONS OF CONTRACT**

Note: In case clauses/sub-clauses have any difference mentioned in this EOI at different places, the conditions mentioned in this section shall prevail. The terms and conditions of this section shall be on back to-back basis based as per client tender no. SNTPBBS-042024-VSS, Dated: 13.05.2024 for RFP for Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway”

3.1 PAYMENT TERMS

Back to back basis except any advance payment.

3.2 PERFORMANCE SECURITY AND SECURITY DEPOSIT

Performance Security can be submitted in the following modes:

- 1) Performance Bank Guarantee (PBG) / e-PBG (as per format given in Section-17)
 - 2) Fixed Deposit Receipts (FDR)
 - 3) Insurance Surety Bond (as per format given in Section-23)
 - 4) Bankers Cheque
- a) The bidder will submit undertaking to submit back-to-back PBG (Performance Security) @5% of the project cost and security deposit @5% of the total project cost as submitted by TCIL to end Client if the contract is awarded to TCIL by end Client.
- b) PBG to be submitted in the prescribed format from a SFMS enabled Scheduled Commercial Bank through SFMS Platform as per details below:

Name of Beneficiary and its Details	Name	Telecommunications Consultants India Limited
	Address	TCIL Bhawan, Greater Kailash-1, New Delhi- 110048
Name of Beneficiary Bank and its Details	Name	ICICI Bank Limited
	Account No	000705005880
	Address	9-A PHELPS Building, Connaught Place, New Delhi- 110001
	Unique Identifier Code	TC503394486 (UID to be mentioned in field 7037 of the BG advising message code)
	IFS Code	ICIC0000007

- c) The proceed of performance security or Security deposit shall be payable to TCIL in case of breach of any of the terms and conditions of the contract/PO/tender by the vendor. Recovery/adjustment due to LD or any other loss to TCIL shall be in addition to point f).
- d) The performance security and security deposit will be discharged by TCIL after completion of supplier's obligations, including any warranty obligations, under the contract.
- e) PBG and security deposit should be valid for 02 months more than the validity asked in the end client tender. The PBG and security deposit shall be refunded once the PBG and security deposit of TCIL is returned by the client.
- f) Failure of the successful bidder to submit the Performance Security or Security deposit or bidders' failure to complete its obligations under the contract shall constitute sufficient ground for

the annulment of the award / cancellation of the award of work and forfeiture of the bid security/performance security.

- g) Additionally, TCIL reserves the right to debar such defaulting bidder from participating in future bids for a period up to 2 years.

3.3 PRICE BASIS

As per Client tender

3.4 PAYING AUTHORITY

General Manager
TCIL Bhawan, Greater Kailash-I,
New Delhi -110048

3.5 INSURANCE

As per Client tender

3.6 DELIVERY / IMPLEMENTATION SCHEDULE

As per Client tender

3.7 WARRANTY

As per Client tender

3.8 PERIOD OF CONTRACT

As per Client tender

3.9 TERMINATION OF CONTRACT

As per Client tender

3.10 PENALTY

As per Client tender on absolute terms

3.11 SLA

As per Client tender

3.12 UPTIME

As per Client tender

3.13 LIQUIDATED DAMAGES

As per Client tender on absolute terms

3.14 DELIVERY PERIOD EXTENSION :

- a) DP extension beyond 16 weeks would not be generally allowed. The extension beyond 16 weeks may be decided in most exceptional circumstances on case to case basis, by the Tender approving authority, stating reasons and justifications for grant of extension of delivery period beyond 16 weeks.

- b) In the case of package supply/ turnkey projects when the delayed portion of the supply materially hampers installation and commissioning of the systems, LD charges shall be levied as above on the total value of the concerned package of the Purchase Order.
- c) Quantum of liquidated damages assessed and levied by the purchaser and decision of the purchaser thereon shall be final and binding on the supplier, further the same shall not be challenged by the supplier either before Arbitration tribunal or before the court. The same shall stand specifically excluded from the purview of the arbitration clause, as such shall not be referable to arbitration.
- d) The total value of the liquidated damages as per above sub-clauses shall be limited to a maximum of 12% (Twelve percent) i.e. LD shall be levied up to 15 weeks only as per provision at Para (a).
- e) The Liquidated Damages shall be calculated on the all inclusive Price CIF-destination inclusive of Freight, Forwarding Packing, insurance, any other incidental charges and other non-creditable taxes after discount, if any but excluding GST and other creditable taxes. GST on LD shall be calculated as per GST rule as applicable from time to time.
- f) If the deliveries are made after expiry of the contracted delivery period, without prior concurrence of the purchaser and accepted by the consignee, such delivery will not deprive the purchaser of its right to recover liquidated damages under clause 3.13.2 above.

3.15 In cases where the scheduled delivery period is distributed month-wise or is in installments, the liquidated damages shall be imposed for delay in each scheduled month/ installment. Liquidated damages shall be calculated separately for quantities to be supplied in every month/ installment and the corresponding delay. If the supplier supplies full quantity before the expiry of the scheduled delivery period of the last month/ installment but there is delay in month-wise/ installment-wise supply, then also liquidated damages shall be levied on the supplies against the earlier months/ installments that have been delayed. Twenty (20) weeks for the purpose of additional BG and grant of DP extension shall be counted from the last month/ installment.

3.16 Notwithstanding anything contained in this Agreement or any other agreement between the parties, the Purchaser may, without prejudice to its right to effect recovery by any other method, deduct the amount of Liquidated Damages from any money belonging to the supplier in its hand in relation to this or any other contract between the parties (which includes purchaser's right to claim such amount against invoices raised by the supplier or Bank Guarantees submitted by the supplier under this Contract or any other contract) or which may become due to the supplier. Any such recovery of Liquidated Damages shall not in any way relieve the supplier from any of its obligations to complete the Works or from any other obligation and liabilities under the Contract.

3.17 To facilitate recovery of Liquidated Damages from the invoices raised by the supplier, the Credit Note shall be issued by the supplier, failing which the purchaser shall adjust the amount to be recovered from the pending payments by issuing an invoice/debit note for the corresponding amount, at the risk and cost to the supplier including applicable GST, interest and penalty, if any.

3.18 Taxes (GST)

GST invoice / Debit Note / Credit Note:

- a. It shall be the responsibility of Bidder / Supplier / Contractor / Vendor to raise Tax Invoice (e-invoice wherever applicable) as per the provisions of GST Laws and send to TCIL promptly.

- b. The Bidder / Supplier / Contractor / Vendor shall ensure that Tax Invoice contains all the requirements as per GST Law from time to time, for eg. E-Way bill along with transportation details etc, wherever applicable. TCIL GST Number to be mentioned on the Invoices as advised by TCIL, etc.
- c. The Bidder / Supplier / Contractor / Vendor shall ensure to issue Debit / Credit Note (wherever applicable) as prescribed under GST Act and send to TCIL within the prescribed time limit. All documents should be received well in advance so as to enable TCIL to claim eligible credit.

GST Compliances:

- d. The Bidder / Supplier / Contractor / Vendor shall ensure
 - To issue Tax Invoice / Debit Notes / Credit Notes to enable TCIL to claim tax benefit on or before the stipulated time period provided by the GST law.
 - To file its GST Returns (GSTR – 1 and GSTR – 3B) within the time limits prescribed in GST Laws with all Debit and Credit Note details, so as to ensure availing ITC Credit of GST by TCIL.
 - To declare correct information on invoice and GSTN viz. the amount, the place of supply, rate of tax etc.
 - To issue all Tax Invoices / Debit Notes / Credit Notes to the registered premise of TCIL for availing of credit and ensure that the place of supply as per GST law is same as registered premise of TCIL.
- e. The Bidder / Supplier / Contractor / Vendor shall ensure to keep its GST Numbers active at all times and in case the same is blacklisted, cancelled or blocked etc by GST Authorities, the same needs to be promptly intimated to TCIL.

Tax Indemnity:

- f. There should not be any loss of ITC of GST to TCIL due to default of bidder. In case of any financial loss including interest, same will be recovered from the Bidder / Supplier / Contractor / Vendor for delay / non-compliance on the part of the Bidder / Supplier / Contractor / Vendor.
- g. In case, the eligibility of ITC of GST is questioned or denied to TCIL on account of default by the Bidder, the same would be recovered by TCIL from the Bidder / Supplier / Contractor / Vendor.
- h. No payment shall be made by TCIL against Performa Invoice issued by Bidder / Supplier / Contractor / Vendor. Payment will be made only against Valid Tax Invoice as per GST Laws.
- i. In case of delay in deposit of Tax & filling GSTR-1 by the Bidder / Supplier / Contractor / Vendor, the input tax credit will not be available to TCIL and as a result TCIL to pay the total output tax without availing input tax credit and in such case the financial loss including interest shall be recovered from the Bidder / Supplier / Contractor / Vendor.

Documents:

- j. Self-declaration along with evidence that the Bidder / Supplier / Contractor / Vendor is not blacklisted.
- k. An undertaking from the Bidder / Supplier / Contractor / Vendor that information provided by him is correct and in case of any loss, the Bidder / Supplier / Contractor / Vendor is fully responsible.

3.19 Release of GST Payment along with payment of RA Bill

- a) In all projects, where running bill continue to be raised periodically, GST shall be paid along with running bill but amount equivalent to GST of previous RA bill as well as current RA shall be withheld if GST of previous bill is not paid/reflecting at time of payment of next (current) RA bill.
- b) At the time of final bill of the project, GST shall be paid only if payment of all GST dues of the project by vendor is visible in GST portal.
- c) The above shall be applicable for all projects involving payment in multiple trenches (Running bill).

Note: As payment of GST dues in statutory requirement hence no undertaking is required separately for this from vendor.

END OF SECTION-3

SECTION-4**SCOPE OF WORK**

Brief scope of work includes IP based Video Surveillance System for Stations and Cluster of Stations consisting of Full HD and Ultra HD IP Cameras, Digital Keyboard, Large Format Display Monitor, PC Workstation, Servers, Network Video Recorders, External Storage Device, Ethernet Switches, Wireless Transmitter/Receiver Unit, Copper to Fiber Media Convertor, Video Management Software, Video Recording Software, Graphical User Interface Client Software, Artificial Intelligence (AI) enabled Video Analytics Software and Face Recognition Software (FRS) etc. for surveillance of different locations at Stations and other establishments of Railways from Centralized location.

Please refer end client tender for the detailed scope.

END OF SECTION-4

SECTION-5**PROJECT EXPERIENCE**

S. No	Item	Details
General Information		
1	Customer Name/Government Department	
2	Name of the Contact Person and Contact details for the Project	
Brief Description of scope of Project		
Size of the Project		
3	Contract Value of the Project (in crore) excluding taxes	
4	Contract Value of the Project (in crore) including taxes	
Project Details		
5	Name of the Project	
6	Start Date & End Date	
7	Current Status (work in progress in %, completed)	
8	Contract Tenure	
9	Type of Project	

END OF SECTION-5

SECTION – 6**PRICE BID SCHEDULE**

To: [Head of Department]

Dear Sir,

We, the undersigned, offer to provide the [Insert title of assignment] against your EOI No. [Insert EOI No.] dated [Insert Date]. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures1].

Yours sincerely,

Authorized Signature [*In full and initials*]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

[insert price bid format]

Note 1:- The bidder to provide un-priced Price-Bid along with Technical bid.

Notes2:-

- a) Lowest Bid will be on the basis of Grand Total.
- b) Bidder shall mandatory mention the 8 digit / 6 digit applicable HSN / SAC code of all the Quoted items.
- c) In case of change in rate due to change in Taxes/Duties the rate shall be applicable on prorated basis based on actual nos. of applicable days.
- d) Before Submitting their Duly Filled “Price Bid Schedule & BOQ” the bidders should ensure that they do not enter any Comments in the above Table like “ As per Actuals, Will be Intimated Later on etc” . If Bidder uses these type of Comments while filling up the above Table for Price Bid Schedule & BOQ Or if the charges for any item is left blank the Charges for the Items wherever such comments are used or if left blank shall be Considered as “Zero” and the same shall be a binding on the bidder.
- e) If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.
- f) The Bidder must specify the make of each product / Line items of the BOQ in the price bid.
- g) The requirement / Quantity mentioned above are indicative & may vary as per the actual requirements.

END OF SECTION-6

SECTION-7**MANUFACTURER'S AUTHORISATION FORM**

Bidders are required to submit the MAF in the format given in the end client tender for the items asked in the end client tender.

END OF SECTION-7

SECTION - 8

BID SECURITY / EMD (BANK GUARANTEE FORMAT)

Whereas (hereinafter called “the Bidder”) has submitted its bid dated For the supply of Vide Tender No. dated KNOW ALL MEN by these presents that WE OF Having our registered office at (hereinafter called “the Bank”) are bound unto Telecommunications Consultants India Limited (hereinafter called “the Purchaser”) in the sum of Rs. for which payment will and truly to be made of the said Purchaser, the Bank binds itself, its successors and assigns by these present.

THE CONDITIONS of the obligation are:

- 1. If the Bidder withdraws his bid during the period of bid validity specified by the Bidder on the Bid form or
- 2. If the Bidder, having been notified of the acceptance of his bid by the Purchaser during the period of bid validity
 - (i) fails or refuses to execute the Contract, if required; or
 - (ii) The successful bidder fails to submit performance security within the prescribed time or
 - (iii) The proceeds of EMD shall be payable to TCIL in case of breach of any of the terms and conditions of the contract / PO / tender by the vendor.

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand, the purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including THIRTY (30) days after the Period of bid validity and any demand in respect thereof should reach the Bank not later than the specified date/dates.

Name & Signature of witness
Address of witness

Signature of the Bank Authority
Name
Signed in Capacity of
Full address of Branch
Tel No. of Branch
Fax No. of Branch

END OF SECTION-8

SECTION-9

INTEGRITY PACT

[As per format given on TCIL Website]

Link on TCIL website: https://www.tcil.net.in/public/pdf/integrity_pact.pdf

END OF SECTION-9

SECTION-10**AUTHORIZATION LETTER****Format for Authorization letter to be submitted by Bidder**

Know all men by these presents that we (name of Company) _____, incorporated in India under the Companies Act, 1956 and having its Registered Office at _____. (India) ("Hereinafter called the Company") DOTH hereby nominate, constitute and appoint (Name, Designation) _____, S/o _____ to be true and lawful authorized signatory in fact and at law of the Company for and in the name and on behalf of the Company, to do, execute and perform all or any of the following acts, deeds, matters and things namely:-

1. To represent the Company to all intents and purposes in connection with the matters pertaining to signing & submission of (EOI No, EOI Date, EOI Description) _____, _____, _____ and all affairs ancillary or incidental thereto.
2. AND the Company hereby agrees that all acts, deeds and things lawfully done by the said authorized signatory shall be construed as acts, deeds and things done by the Company itself and the Company hereby undertakes to ratify and confirm all and whatever its authorized signatory shall lawfully do or cause to be done for and on behalf of the Company by virtue of the powers hereby given.

In witness whereof (Name , Designation) _____, _____ of the Company acting for and on behalf of the Company under the authority conferred by the Board of Directors of the Company in its _____ meeting held on (Date) _____ has signed this Authorization Letter at (place) _____ on this (Date) _____.

The signatures of (Name, Designation) _____ given below are hereby certified.

Signature: _____

Signature of (Name, Designation) _____

CERTIFIED

Signature: _____

WITNESS:

Signature: _____

(Name, Designation): _____

END OF SECTION-10

SECTION-11

CALCULATION OF LOCAL CONTENT

				Basic Rate W/o Tax (INR)		Total Cost W/o Tax (INR)		
Sl. No.	Description of the Item	Qty	Unit	Domestic (Excluding net Domestic indirect Taxes)	Imported (Including All Custom Duties)	Domestic (Excluding net Domestic indirect Taxes)	Imported (Including All Custom Duties)	Domestic + Imported
			a	b	c	d=a*b	e=a*c	f=d+e
1	Item Description	1	Nos					
2	Item Description	1						
3	Total				-		-	

% of Local Content = (Total Cost Domestic 3(d) / Total Cost (domestic + Imported) (3 (f))) * 100

(To be used by bidder for their internal calculation and to submit if demanded by TCIL at any stage)

END OF SECTION-11

SECTION-12**NO-CONVICTION CERTIFICATE****[To be submitted on the Letterhead of the Bidder]**

Offer No.: _____

Date: _____

To
[Head of Department]
Telecommunications Consultants India Limited,
TCIL Bhawan, Greater Kailash-I,
New Delhi-110 048 (INDIA)

Sub: Self Declaration of not been blacklisted for [EOI No.] dated [EOI date]

Dear Sir,

This is to notify you that our Firm /Company/ Organization <provide Name of the Firm/ Company/ **Organization**> intends to submit a proposal in response to [EOI No.] dated [EOI date] for [EOI Name].

In accordance with the above, we declare that:

- a. We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of goods / services as required under this [EOI No] dated [EOI date].
- b. We are neither banned/ debarred/ blacklisted/ put on holiday list nor action for banning / debarment / blacklisting / holiday listing has been initiated by any Central/ State Government/ agency of Central/ State Government of India or any other country in the world/ Public Sector Undertaking/ any Regulatory Authorities in India or any other country in the world for any kind of fraudulent activities on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as on date of submission of the Bid.

Yours sincerely,

(Signature of the Authorized signatory of the Bidding Organization)

Name:

Designation:

Contact details (including E-mail):

Business Address:

Date:

Seal:

END OF SECTION-12

SECTION-13**BID SUBMISSION FORM**

Offer No.:

Date:

To: [Head of Department], TCIL

Dear Sir,

In response to your Tender No. _____, we hereby submit our offer herewith.

1. Bidder Name : _____
2. Website Address : _____
3. Email Address : _____
4. Address for Communication : _____

5. Telephone Number : _____
6. Fax/Telefax Number : _____
7. Authorized Person -
Name : _____
Designation : _____
Mobile No. : _____
Email ID : _____
8. Alternate Person
Name: : _____
Designation : _____
Mobile No. : _____
Email ID : _____
9. PAN Number : _____
10. GST Regn. No. with Address : _____

11. Beneficiary's complete Bank Details.
Bank Account No. : _____
IFSC / NEFT Code : _____
Name of the Bank : _____
Address of the Branch : _____
12. Particulars of EMD
Amount : Rs. _____
Mode of Payment (DD/BG) : _____
DD/BG No. : _____
Date : _____
Name of the Bank : _____
Address of the Bank : _____
Validity of BG : _____
13. Particulars of Tender Fee
Amount : Rs. _____

DD No.

:

Date

:

Name of the Bank

:

Address of the Bank

:

14. Turnover of the Bidder in last 3 years:

Year	Year Annual Report attached at Page No.	Turnover in Rs. (Lakh)
Average Turnover		

15. Are you a MSME Unit. If yes, please furnish Registration Details, Name of the DIC/State.

16. If you are MSME, is it owned by SC/ST Entrepreneurs or Women Entrepreneurs? If Yes, please specify the Name of the Owner who is SC or ST or Women Entrepreneur (as applicable).

17. Following Documents are submitted to substantiate other eligibility criteria.

- i)
-
- ii)
-
- iii)
-

DECLARATION

1. We have read and understood the terms & conditions of the above-mentioned tender and comply to all Terms & Conditions of the Tender.
(In case of any deviation, the Bidder must attach a separate sheet clearly mentioning the Clause No. of the Tender and Deviation thereto)
2. We certify that the information mentioned above are true and correct to best of our knowledge.

Place:

Date:

Signature of Authorized Signatory with Seal

Name:

Designation:

END OF SECTION -13

SECTION-14**MAKE IN INDIA UNDERTAKING**

- A. Bidder shall furnish following self-certificate on its letter head along with their techno-commercial bid.**

"We M/s_____ (Name of bidder) hereby certify that we meet the mandatory minimum Local Content requirements of the Tender of equal to or more than 50% (for Class-I) / greater than 20% and less than 50% (for Class-II) (in value terms) quoted vide our offer No. _____ dated _____ against TCIL Tender No. ----- dated
 . Given below are the list of items (goods and services) which meets the Local Content Criteria. along with details of the location(s) at which the local value addition is made in respective items (goods and services)"

S#	Description of Items / Products / services	Make	Model	location(s) at which the local value addition is made

- B. If value of procurement is more than INR 10 Crore, above undertaking shall be supported by the following certificate from Statutory Auditor or cost auditor of the company** (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies giving the percentage of local content, on the letter head of such Statutory Auditor.

"We_____ the statutory auditor of M/s._____ (name of the bidder) hereby certify that M/s._____ (name of bidder) meet the mandatory Local Content requirements of the Project Work under this Tender i.e. equal to or more than 50% (for Class-I) / greater than 20% and less than 50% (for Class-II) (in value terms) quoted vide offer No. _____ dated _____ against TCIL Tender No. ----- dated ---- by M/s._____ (Name of the bidder).

(Note: In case of bidder(s) for whom Statutory Auditor is not required as per law, required certificates shall be provided by a practicing Chartered Accountant.)

For Details, Govt. of India Order NO. P-45021/2/2017-PP (BE-II) dated 04.06.2020 may be referred.

END OF SECTION-14

SECTION-15**EOI CHECKLIST**

S.No	Document	Submitted (Yes or No)
1	Tender Fee	
2	EMD (BG / DD / NEFT / Insurance Surety Bond / FDR etc.)	
3	For MSME Exemption, Udyam Registration Certificate and Statutory Auditor Certificate for Investment in Plant and Machinery.	
4	For StartUp DPIIT certificate	
5	Authorization Letter/Board Resolution	
6	MAKE IN INDIA Undertaking	
7	Certificate of Incorporation/ Registration/ Partnership Deed or any other	
8	Financial criteria	
9	Similar Experience Criteria	
10	Pan & GST	
11	MAF	
12	Insolvent Undertaking	
13	No-Conviction Certificate	
14	Land Border Sharing Declaration	
15	Unpriced BOQ	
16	Undertaking from Vendors for non-cancellation of Purchase Order(s) on risk and cost on risk & cost basis or non-performance.	
17	PF Registration	
18	Local Office Undertaking	
17	Labor Laws Compliance Undertaking	
18	Consortium Agreement	
19	Genuine Documents Undertaking	
20	No-Deviation Certificate/ Clause-by Clause Compliance	
21	Technical Brochure and Data Sheet	
22	Integrity Pact document as applicable	
23	Bid Submission Form	
24	NDA as applicable	
25	Any Other Undertaking/ document as per EOI.	

END OF SECTION-15

SECTION-16**RATE CONTRACT**

[The following terms and conditions need to be included in Rate Contracts only]

[Other terms and conditions shall be as per EOI format]

[Refer point 21 of EOI guidelines]

1. The quantity to be supplied during the currency of the rate Contract is not fixed and will be decided based on their actual requirement as per approved Budget/ Indent on “as and when” required basis.
2. The Company can place the orders during the validity of the rate contract period at the same rate, terms and conditions.
3. Normally, no variation is allowed except statutory variations in Sales Tax and Excise Duties. Sometimes, there are significant variations in the raw-material prices during the rate contract period. If there are downward variations and the client insists for revised quotations, the earlier rate contract is cancelled and new tenders are invited.
4. **FALL CLAUSE (applicable for Rate Contract)**
 - a) The prices once fixed will remain valid during currency of rate contract. Further, if at any time during the contract
 - i. It comes to the notice of purchaser regarding reduction of price by the supplier/vendor for the same or similar equipment/ service;
And/or
 - ii. The prices received in a new tender for the same or similar equipment/service are less than the prices chargeable under the contract.

The purchaser, for the purpose of rate contract, if any, will determine and intimate the new price, taking into account various related aspects such as quantity, geographical location etc., and the date of its effect for the balance quantity/ service to the vendor. In case the vendor does not accept the new price to be made applicable during the extended delivery period and the date of its effect, the purchaser shall have the right to terminate the contract without accepting any further supplies. This termination of the contract shall be at the risk and responsibility of the supplier/vendor/contractor and the purchaser reserves the right to purchase the balance unsupplied quantity/ service at the risk and cost of the defaulting vendor besides considering the forfeiture of his performance security.

- b) The vendor during any time of the currency of the rate contract, shall have to provide an undertaking as “We have not reduced the sale price, and/ or offered to sell the same or similar equipment/ service to any person/organization including Department of central/state Government or any central/state PSU at a price lower than the price chargeable under the contract for scheduled delivery period.”

In case clarification is required by TCIL, the vendor supplier shall produce related documents such as PO/Agreement etc.

END OF SECTION-16

SECTION -17
PERFORMANCE SECURITY (BANK GUARANTEE FORMAT)

(TO BE ISSUED BY A DELHI BRANCH)

M/s Telecommunications Consultants India Ltd.,
TCIL Bhawan, Greater Kailash-I
New Delhi – 110 048 (INDIA)

(With due stamp duty if applicable)

OUR LETTER OF GUARANTEE No: _____

In consideration of TELECOMMUNICATIONS CONSULTANTS INDIA LIMITED, having its office at TCIL Bhawan, Greater Kailash-I, New Delhi – 110 048 (INDIA) (hereinafter referred to as “TCIL” which expression shall unless repugnant to the content or meaning thereof include all its successors, administrators and executors) and having entered into an agreement dated _____/issued Purchase Order No. _____ dated _____ with/on _____ M/s _____ (hereinafter referred to as “The Supplier” which expression unless repugnant to the content or meaning thereof, shall include all the successors, administrators, and executors).

WHEREAS the Supplier having unequivocally accepted to supply the materials/Services as per terms and conditions given in the Agreement dated _____ /Purchase Order No. _____ dated _____ and TCIL having agreed that the Supplier shall furnish to TCIL a Performance Guarantee for the faithful performance of the entire contract, to the extent of 10% (ten percent) of the value of the Purchase Order i.e. for _____.

We, _____ (“The Bank”) which shall include OUR successors, administrators and executors herewith establish an irrevocable Letter of Guarantee No. _____ in your favour for account of _____ (The Supplier) in cover of performance guarantee in accordance with the terms and conditions of the Agreement/Purchase Order.

Hereby, we undertake to pay up to but not exceeding _____ (say _____ only) upon receipt by us of your first written demand accompanied by your declaration stating that the amount claimed is due by reason of the Supplier having failed to perform the Agreement and despite any contestation on the part of above named supplier.

The proceed of performance security shall be payable to TCIL in case of breach of any of the terms and conditions of the contract/PO/tender by the vendor.

This Letter of Guarantee will expire on _____ including 30 days of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Letter of Guarantee will become of no effect whatsoever whether returned to us or not.

Authorized Signature
Manager
Seal of Bank
Contact details

END OF SECTION-17

SECTION-18**MEMORANDUM OF UNDERSTANDING**

(*Format when backend partner is in consortium)
(To be signed by all Consortium Partners)

This Memorandum of Understanding (MoU) is made on ____ day of _____ at New Delhi by and between:

M/s Telecommunications Consultants India Limited, a Company registered under the Indian Companies Act 1956, with its registered and corporate office at TCIL Bhawan, Greater Kailash-1, New Delhi – 110048, hereinafter referred to as “**TCIL**”, which expression shall include its successors and its permitted assigns, of one part.

AND

_____ **CONSORTIUM** consisting of M/s _____ (**Vendor Name**), registered under the _____ Act, with its registered office at _____ (**Lead Member**), M/s _____ (**Vendor Name**), registered under the _____ Act, with its registered office at _____ (**Consortium Partner**) and M/s _____ (**Vendor Name**), registered under the _____ Act, with its registered office at _____ (**Consortium Partner**) hereinafter the said consortium shall be referred to as “_____”, which expression shall include its successors and permitted assigns, of the other part.

“TCIL” and “_____” are individually referred to as “Party” and collectively as “Parties”.

WHEREAS TCIL, a Government of India Enterprise under the Ministry of Communications and Information Technology, is a leading company in Telecommunications and Information Technology and has to its credit successful execution of many consultancy and turnkey projects in the fields of Telecom, IT and Civil both in India and abroad and it also acts as procurement consultant/agent/executing agency/implementing agency for number of Government of India enterprises/undertaking.

WHEREAS _____ (Name of Lead Member) is in the business of _____.

WHEREAS _____ (Name of Consortium Partner) is in the business of _____.

WHEREAS _____ (Name of Consortium Partner) is in the business of _____.

WHEREAS _____ (Client Name) (herein after called “_____”) issued TENDER No. _____ dated _____ for ‘_____, hereinafter referred to as “_____ (Client Name) tender” /”Work”/”Project”.

WHEREAS TCIL published EOI No. _____ dated _____ (hereinafter referred as TCIL EOI) for selection of back-end partner for _____ (Client Name) tender.

AND WHEREAS M/s _____ & M/s _____ has entered into a Consortium Agreement / Memorandum of Agreement dated _____ (**Annexure A**) and a Role & Responsibility Matrix dated _____ (**Annexure B**) for the purpose of forming a consortium to participate in TCIL EOI wherein it is mentioned that _____ shall act as the Lead Member & _____ shall act as consortium partner and the Lead Member is authorized to sign the MOU with TCIL and accordingly they have submitted their offer for _____ in response to TCIL EOI & pursuant to the same were selected by TCIL as back-end partner for _____ (Client name) Tender.

Now, therefore, it is agreed between the Parties as under:

1. The Parties wish to work together with the understanding that TCIL shall act as the bidder (lead bidder) and _____ (consortium name) (partner for _____) for participating in the _____ (client name) Tender.

**Please note that the term “Lead bidder” shall be mentioned only when TCIL shall bid in consortium with backend partner.*

2. _____ (consortium name) shall not participate directly or indirectly whether in consortium or separately in _____ (client name) Tender and shall not quote rates to any other party participating/pre-qualified for _____ (client name) Tender directly or indirectly through its subsidiary, partnership, ownership, individual firm etc.
3. On award of the work of the _____ (client name) Tender to TCIL, TCIL will enter into a detailed agreement with _____ (consortium name) based on the terms & conditions of this MoU, TCIL EOI and _____ (client name) Tender.
4. The term of this MoU shall be for _____ months (“Term”) from the date of signing of this MoU (“Effective Date”) or till the completion of the project & release of all payments thereof whichever is later. All obligations hereunder shall only apply during the Term of this MoU and to such obligations and commitments in relation to the Tender/Work/Project under the scope of TCIL EOI & _____ (Client name) tender, as may have been undertaken by the Parties during the Term with validity exceeding the Term. The Term of this MoU can be extended by mutual agreement between the Parties, depending upon the requirement.
5. After mutual consultation, a joint team consisting of representatives of the parties will be formed for various activities like, technical discussions, deciding the preparation of final Bid/offer, terms & conditions and demonstration of functionality required in the _____ (Client name) Tender/Work/Project.
6. TCIL and _____ (consortium name) hereby mutually agree that both of them shall remain as irrevocable members of this tie-up for the complete execution and completion of _____ (client name) Tender/Work/Project (as per scope of TCIL EOI & _____ (Client name) tender).
7. Expenses towards bid preparation would be borne by the individual Parties viz. TCIL and _____ (consortium name) for their respective work. TCIL will not reimburse any such expenses to _____ (consortium name) towards preparation and submission of the bid.
8. All technical, financial and commercial terms and conditions of the Tender, except pricing, risk purchase, limitation of liability, advance payment & termination, will apply on back-to-back basis between TCIL and _____ (consortium name), for their respective part/scope of work. However, if _____ (consortium name) or any of its member fails to fulfill its part of the work to the satisfaction of TCIL, then TCIL shall have the right to terminate the contract with _____ (consortium name) and get the same executed departmentally or by other agencies at the risk and cost of _____ (consortium name).
9. Both M/s _____ (Lead Member name) and M/s _____ (Consortium Partner name) shall be jointly and severally responsible for compliance of all the terms and conditions of the tender document, this MOU and TCIL’s contract with main client relating to performance of this MOU. Any non-compliance by either party of the Consortium shall be treated as a breach of this MOU.
10. Both M/s _____ (Lead Member name) and M/s _____ (Consortium Partner name) shall be jointly and severally liable to TCIL to compensate any losses or damages if so suffered by TCIL for any breach of this agreement and/or action initiated by the main client for non-performance of the contract.
11. In case of failure of either of M/s _____ (Lead Member name) or M/s _____ (Consortium Partner name), the total responsibility shall shift upon remaining party.
12. Notwithstanding anything contained in any other agreement, document, correspondence, arrangement between the parties in respect of _____ (Client name) Tender/ Works / Projects, the _____ (consortium name) understands, agrees and undertakes that:

- a) _____ (consortium name) participated in TCIL EOI and that all terms & conditions of the TCIL EOI shall apply to _____ (consortium name).
 - b) Prices quoted by _____ (consortium name) shall remain firm and fixed till the execution of the Tender.
 - c) the payments terms between TCIL & _____ (consortium name) are on back-to-back basis and the payment shall be released by TCIL only if and when received by TCIL from _____ (Client name) and subject to terms & conditions of agreement (as stipulated in 3 above) and submission of complete required documents.
 - d) _____ (consortium name) will not demand or make any claim under any law with respect to the pending payment till the time corresponding payment is received by TCIL from _____ (Client name). TCIL shall not be responsible in any manner whatsoever for any delay in releasing the payments or withholding of payments by _____ (Client name).
 - e) the (day) date of delivery of goods and/or rendering of services by the _____ (consortium name) shall be the date of realization of payment from the client once the goods and/or services are accepted by the client.
 - f) if in the instant contract, _____ (consortium name) is acting only as trader / reseller / distributor/authorized agents and/or is engaged in a WORKS contract, no benefits under MSME Act 2006 and PPP Policy 2012 as per MSE Guidelines issued by Ministry of MSME would be applicable to it on account of acceptance of back to back payment terms as above. By agreeing to the terms of _____ (client name) Tender, the _____ (consortium name) agrees to forgo its rights under this Act and Policy.
 - g) _____ (consortium name) hereby agrees to ensure timely GST compliances as per the statutory requirements. All the costs pertaining to any GST non-compliance including but not limited to any loss of eligible input tax credit due to non-payment/non-filing of GST return and applicable interest/penalties shall be borne/indemnified by _____ (consortium name). Further _____ (consortium name) hereby agrees that TCIL reserves the right for reimbursement of any such cost incurred out of the aforesaid non-compliance(s). _____ (consortium name) will provide payment of GST proof i.e. GSTR-1, GSTR-3B, cash ledger and challan for taking GST payment from TCIL against invoices.
 - h) Any deductions by the _____ (Client name) towards LD/penalties/contingencies shall be borne by _____ (consortium name) in terms of TCIL EOI.
 - i) At any given point of time, _____ (consortium name) may not assign or delegate its rights, duties or obligations under this MOU without prior written consent of TCIL.
 - j) On award of work of the Tender/Work/Project, _____ (consortium name) shall provide its GeM Seller id to TCIL (not applicable for “works” contract or non-Indian vendor).
 - k) In the event of breach of any of the terms & conditions of this MOU or in case of any default of any terms & conditions of this MOU, on the part of _____ consortium and/or M/s _____ (Lead Member name) and/or M/s _____ (Consortium partner Name), TCIL reserves the right to take necessary steps / action as per available documents, including but not limited to, termination of contract, forfeiture of Performance Security / EMD, blacklisting / banning etc. and execute the work at their risk & cost.
13. TCIL and _____ (consortium name) agree to keep confidential all information shared with each other and disclose to third party only after taking prior written consent of each other. This clause excludes information available in public domain. The confidentiality provisions of this MoU shall remain in full force and effect during the term of this MoU and 12 months thereafter.
14. Any sum of money (including refundable security deposit) due and payable to the _____ (consortium name) and/or _____ (Lead bidder name) and/or _____ (Consortium partner name), under this contract or any other contract entered between the parties herein whether continuing or completed may be appropriated by TCIL and set off against any claim of TCIL of any nature whatsoever, arising under this contract or any other contract entered into between the parties, herein whether continuing or completed.
15. Nothing in this MoU shall constitute, create or give effect or recognize a JV, partnership or business entity of any kind.
16. This MoU shall be construed and governed by the laws of India and the parties hereby submit to the exclusive jurisdiction of the Delhi Courts of Law.

17. Any matter which is not stipulated in the MoU, shall be settled in good faith by discussion among the parties in the spirit of understanding and cooperation.
18. **Dispute Resolution:**
 1. The parties to this agreement/contract agree that they shall resolve all disputes or differences whatsoever arising between them under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU through a “Conciliation and Settlement Mechanism (CSM)” and the detailed guidelines/procedure for such CSM is annexed hereto as Annexure-A (*Section-19 to made part of MOU*). That it is understood and agreed between the parties that the CSM annexed as Annexure-A with the present agreement forms and shall be treated as part and parcel of the present agreement.
 2. If the parties fail to resolve such disputes through the conciliation proceedings, then and only then, a party shall refer the dispute to arbitration as mentioned in the following manner:
 - a. All disputes or differences whatsoever arising among the parties under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU shall be referred to and decided by a sole arbitrator, who shall be appointed by the CMD, TCIL only. The arbitration shall be conducted in accordance with Arbitration and Conciliation Act of 1996, as amended from time to time, and the venue of the arbitration shall be in New Delhi.
 - b. Notwithstanding the generality of the above, it is a term of this contract that no person other than a person appointed by CMD, TCIL as aforesaid, should act as arbitrator and if for any reason that is not possible or any party does not agree to such appointment of Arbitrator by CMD, TCIL for whatsoever reason, then the matter is not to be referred to arbitration at all and such disputes shall be resolved under the mechanism provided by the state in form of Courts of Law/Ordinary Civil Courts for resolution of such disputes under applicable Laws.
 3. The courts at New Delhi shall have exclusive jurisdiction in respect to any dispute pertaining to this agreement.
 4. The parties shall continue to perform their respective obligations as per the Agreement during the pendency of proceedings under this clause.

**Please Note that in case of agreement/MoU with Government Organization, the following clause shall be applicable:*

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Center Enterprise (CPSEs)/Port Trusts inter se and also between CPSEs and Govt. Depts/ organizations (excluding disputes relating to Railways, Income Tax, Customs & Excise Dept), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/003/2019-FTS-10937 dated 14th December 2022 and the decision of AMRCD on the said dispute will be binding on both the parties

19. During its Term, this MOU will be terminated in the event of
 - a. Client withdrawing the Tender provided it does not create any financial obligation on TCIL.
 - b. Tender not awarded to TCIL
 - c. Mutual agreement between the “Parties”
 - d. As per TCIL EOI
20. Notices and other communications under this MoU shall be in writing and communicated through post, courier, fax, email or any other recognized mode of such communication. All such notices and communications shall be directed to the address as mentioned in the MoU.
21. By signing this MoU, the “Parties” acknowledge that it correctly records the understanding they have reached with regard to the Project.

22. EOI document, technical / financial bid, any further negotiations, all correspondences with or from _____ (consortium name) till EOI finalization shall be an integral of this MOU.

IN WITNESS WHEREOF, each party hereto has caused this MoU to be executed in duplicate to be effective as of the Effective Date, by its duly authorized representative.

For Telecommunications Consultants India Ltd

For _____ Private Limited

Signature:

Signature:

Name:

Name:

Designation:

Designation:

Date:

Date:

Witness:

Witness:

Memorandum of Understanding
(*Format when backend partner is a single bidder)

This Memorandum of Understanding (MoU) is made on ____th day of _____ at New Delhi by and between:

M/s Telecommunications Consultants India Limited, a Company registered under the Indian Companies Act 1956, with its registered and corporate office at TCIL Bhawan, Greater Kailash-1, New Delhi – 110048, hereinafter referred to as “**TCIL**”, which expression shall include its successors and its permitted assigns, of one part.

AND

M/s _____ (**vendor name**), registered under the Indian Companies Act 1956/2013 (whichever is applicable), with its registered office at _____, hereinafter referred to as “_____”, which expression shall include its successors and permitted assigns, of the other part.

“TCIL” and “_____” are individually referred to as “Party” and collectively as “Parties”.

WHEREAS TCIL, a Government of India Enterprise under the Ministry of Communications and Information Technology, is a leading company in Telecommunications and Information Technology and has to its credit successful execution of many consultancy and turnkey projects in the fields of Telecom, IT and Civil both in India and abroad and it also acts as procurement consultant/agent/executing agency/implementing agency for number of Government of India enterprises/undertaking.

WHEREAS _____ (vendor name) is in the business of _____.

WHEREAS _____ (Client Name) (herein after called “_____”) issued TENDER No. _____ dated _____ for ‘_____, hereinafter referred to as “_____ (Client Name) tender” /”Work”/”Project”.

WHEREAS TCIL published EOI No. _____ dated _____ (hereinafter referred as TCIL EOI) for selection of back-end partner for _____ (Client Name) tender.

AND WHEREAS _____ (Vendor Name) submitted their offer and pursuant to the same was selected by TCIL as back-end partner for _____ (Client Name) Tender.

Now, therefore, it is agreed between the Parties as under:

1. The Parties wish to work together with the understanding that TCIL shall act as the bidder (lead bidder) and _____ (vendor name) (partner for _____) for participating in the _____ (client name) Tender.
**Please note that the term “Lead bidder” shall be mentioned only when TCIL shall bid in consortium with backend partner.*
2. _____ (vendor name) shall not participate directly in _____ (client name) Tender and shall not quote rates to any other party participating/pre-qualified for _____ (client name) Tender directly or indirectly through its subsidiary, partnership, ownership, individual firm etc.
3. On award of the work of the _____ (client name) Tender to TCIL, TCIL will enter into a detailed agreement with _____ (vendor name) based on the terms & conditions of this MoU, TCIL EOI and _____ (client name) Tender.
4. The term of this MoU shall be for _____ months (“Term”) from the date of signing of this MoU (“Effective Date”) or till the completion of the project & release of all payments thereof whichever is later. All obligations hereunder shall only apply during the Term of this MoU and to such obligations and commitments in relation to the Tender/Work/Project under the scope of TCIL EOI & _____

- (Client name) tender, as may have been undertaken by the Parties during the Term with validity exceeding the Term. The Term of this MoU can be extended by mutual agreement between the Parties, depending upon the requirement.
5. After mutual consultation, a joint team consisting of representatives of the parties will be formed for various activities like, technical discussions, deciding the preparation of final Bid/offer, terms & conditions and demonstration of functionality required in the _____ (Client name) Tender/Work/Project.
 6. TCIL and _____ (vendor name) hereby mutually agree that both of them shall remain as irrevocable members of this tie-up for the complete execution and completion of _____ (client name) Tender/Work/Project (as per scope of TCIL EOI & _____ (Client name) tender).
 7. Expenses towards bid preparation would be borne by the individual Parties viz. TCIL and _____ (vendor name) for their respective work. TCIL will not reimburse any such expenses to _____ (vendor name) towards preparation and submission of the bid.
 8. All technical, financial and commercial terms and conditions of the Tender, except pricing, risk purchase, limitation of liability, advance payment & termination, will apply on back-to-back basis between TCIL and _____ (vendor name), for their respective part/scope of work. However, if _____ (vendor name) fails to fulfill its part of the work to the satisfaction of TCIL, then TCIL shall have the right to terminate the contract with _____ (vendor name) and get the same executed departmentally or by other agencies at the risk and cost of _____ (vendor name).
 9. Notwithstanding anything contained in any other agreement, document, correspondence, arrangement between the parties in respect of _____ (Client name) Tender/ Works / Projects, the _____ (vendor name) understands, agrees and undertakes that:
 - l) _____ (vendor name) participated in TCIL EOI and that all terms & conditions of the TCIL EOI shall apply to _____ (vendor name).
 - m) Prices quoted by _____ (vendor name) shall remain firm and fixed till the execution of the Tender.
 - n) the payments terms between TCIL & _____ (vendor name) are on back to back basis and the payment shall be released to _____ (vendor name) by TCIL only if and when received by TCIL from _____ (Client name) and subject to submission of complete documents and invoices etc. by it.
 - o) _____ (vendor name) will not demand or make any claim under any law with respect to the pending payment till the time corresponding payment is received by TCIL from _____ (Client name). TCIL shall not be responsible in any manner whatsoever for any delay in releasing the payments or withholding of payments by _____ (Client name).
 - p) the (day) date of delivery of goods and/or rendering of services by the _____ (vendor name) shall be the date of realization of payment from the client once the goods and/or services are accepted by the client.
 - q) if in the instant contract, _____ (vendor name) is acting only as trader / reseller / distributor/authorized agents and/or is engaged in a WORKS contract, no benefits under MSME Act 2006 and PPP Policy 2012 as per MSE Guidelines issued by Ministry of MSME would be applicable to it on account of acceptance of back to back payment terms as above. By agreeing to the terms of _____ (client name) Tender, the _____ (vendor name) agrees to forgo its rights under this Act and Policy.
 - r) _____ (vendor name) hereby agrees to ensure timely GST compliances as per the statutory requirements. All the costs pertaining to any GST non-compliance including but not limited to any loss of eligible input tax credit due to non-payment/non-filing of GST return and applicable interest/penalties shall be borne/indemnified by _____ (vendor name). Further _____ (vendor name) hereby agrees that TCIL reserves the right for reimbursement of any such cost incurred out of the aforesaid non-compliance(s). _____ (vendor name) will provide payment of GST proof i.e. GSTR-1, GSTR-3B, cash ledger and challan for taking GST payment from TCIL against invoices.

- s) Any deductions by the ____ (Client name) towards LD/penalties/contingencies shall be borne by ____ (vendor name) in terms of TCIL EOI.
 - t) At any given point of time, ____ (vendor name) may not assign or delegate its rights, duties or obligations under this MOU without prior written consent of TCIL.
 - u) On award of work of the Tender/Work/Project, ____ (vendor name) shall provide its GeM Seller id to TCIL (not applicable for “works” contract or non-Indian vendor).
 - v) In the event of breach of any of the terms & conditions of this MOU or in case of any default of any terms & conditions of this MOU, on the part of the ____ (vendor name), TCIL reserves the right to take necessary steps / action as per available documents, including but not limited to, termination of contract, forfeiture of Performance Security / EMD, blacklisting / banning etc. and execute the work at their risk & cost.
10. TCIL and ____ (vendor name) agree to keep confidential all information shared with each other and disclose to third party only after taking prior written consent of each other. This clause excludes information available in public domain. The confidentiality provisions of this MoU shall remain in full force and effect during the term of this MoU and 12 months thereafter.
11. Any sum of money (including refundable security deposit) due and payable to the ____ (vendor name), under this contract or any other contract entered between the parties herein whether continuing or completed may be appropriated by TCIL and set off against any claim of TCIL of any nature whatsoever, arising under this contract or any other contract entered into between the parties, herein whether continuing or completed.
12. Nothing in this MoU shall constitute, create or give effect or recognize a JV, partnership or business entity of any kind.
13. This MoU shall be construed and governed by the laws of India and the parties hereby submit to the exclusive jurisdiction of the Delhi Courts of Law.
14. Any matter, which is not stipulated in the MoU, shall be settled in good faith by discussion among the parties in the spirit of understanding and cooperation.

15. Dispute Resolution:

1. The parties to this agreement/contract agree that they shall resolve all disputes or differences whatsoever arising between them under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU through a “Conciliation and Settlement Mechanism (CSM)” and the detailed guidelines/procedure for such CSM is annexed hereto as Annexure-A (*Section 19 to be made part of MOU*). That it is understood and agreed between the parties that the CSM annexed as Annexure-A with the present agreement forms and shall be treated as part and parcel of the present agreement.
2. If the parties fail to resolve such disputes through the conciliation proceedings, then and only then, a party shall refer the dispute to arbitration as mentioned in the following manner:
 - a. All disputes or differences whatsoever arising among the parties under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU shall be referred to and decided by a sole arbitrator, who shall be appointed by the CMD, TCIL only. The arbitration shall be conducted in accordance with Arbitration and Conciliation Act of 1996, as amended from time to time, and the venue of the arbitration shall be in New Delhi.
 - b. Notwithstanding the generality of the above, it is a term of this contract that no person other than a person appointed by CMD, TCIL as aforesaid, should act as arbitrator and if for any reason that is not possible or any party does not agree to such appointment of Arbitrator by CMD, TCIL for whatsoever reason, then the matter is not to be referred to arbitration at all and such disputes shall be resolved under the mechanism provided by the state in form of Courts of Law/Ordinary Civil Courts for resolution of such disputes under applicable Laws.

3. The courts at New Delhi shall have exclusive jurisdiction in respect to any dispute pertaining to this agreement.
4. The parties shall continue to perform their respective obligations as per the Agreement during the pendency of proceedings under this clause.

**Please Note that in case of agreement/MoU with Government Organization, the following clause shall be applicable:*

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Center Enterprise (CPSEs)/Port Trusts inter se and also between CPSEs and Govt. Depts/ organizations (excluding disputes relating to Railways, Income Tax, Customs & Excise Dept), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/003/2019-FTS-10937 dated 14th December 2022 and the decision of AMRCD on the said dispute will be binding on both the parties

16. During its Term, this MOU will be terminated in the event of
 - b. Client withdrawing the Tender provided it does not create any financial obligation on TCIL.
 - c. Tender not awarded to TCIL
 - d. Mutual agreement between the “Parties”
 - e. As per TCIL EOI
17. Notices and other communications under this MoU shall be in writing and communicated through post, courier, fax, email or any other recognized mode of such communication. All such notices and communications shall be directed to the address as mentioned in the MoU.
18. By signing this MoU, the “Parties” acknowledge that it correctly records the understanding they have reached with regard to the Project.
19. EOI document, technical / financial bid, any further negotiations, all correspondences with or from _____ (vendor name) till EOI finalization shall be an integral of this MOU.

IN WITNESS WHEREOF, each party hereto has caused this MoU to be executed in duplicate to be effective as of the Effective Date, by its duly authorized representative.

For Telecommunications Consultants India Ltd

For _____ Private Limited

Signature:

Signature:

Name:

Name:

Designation:

Designation:

Date:

Date:

Witness:

Witness:

NOTE (For User Division):

The template of Pre-bid MoU documents [(1) with consortium, and (2) without consortium] are enclosed. Necessary changes/modifications as applicable should be made prior to floating in EOI/signing the MoU. The relevant MoU format may be made a part of EOI document, so that it can be signed on selection of vendor at pre-bid stage.

END OF SECTION-18

SECTION-19**Annexure-A to Dispute Resolution Clause****Establishment of a Conciliation & Settlement Mechanism (CSM) for Contractual Disputes under the contract agreements with the Contractors / Concessionaires / Consultants in TCIL.****1. Objective:**

The TCIL has been entering into various contract agreements with the Contractors/ Concessionaires/ Consultants for implementing projects and obtaining services in various modes. Several disputes have been arising under these contract agreements. The associated legal costs and diversion of manpower of both parties are enormous. The early resolution/ settlement of claim, preferably through an out-of-court settlement process, is in the interest of all the stakeholders.

2. The Standing Operating Procedure (SoP)

The procedure given hereunder will be implemented for resolving disputes through conciliation mechanism:

- 1) If any commercial/contractual dispute arises between TCIL and Bidder/MoU partner/Vendor/Contractor, then any of the party shall send a reference about the dispute containing a written brief identifying the subject of the dispute to the CMD, TCIL along with a copy of such reference to other party for resolution of dispute through conciliation.
- 2) CMD, TCIL or his authorized representative shall, within seven days of receipt of such a reference, nominate an officer of TCIL to act as the conciliator and shall arrange to issue necessary intimation to both the parties.
- 3) Within three days of appointment of conciliator by CMD, TCIL both the parties shall intimate to the conciliator, the name of their respective officer(s) who shall be representing such a party in the conciliation proceedings. The maximum number of such officer(s) shall not be more than three and no legal practitioner/advocate shall be part of such a team.
- 4) Thereafter, both the teams of the parties shall meet on the dates as fixed by the conciliator, discuss the agenda and explore the possibilities of conciliation/settlement. First such meeting shall be held within Seven (7) days of the nomination of the conciliation team by both the parties. The venue for conducting conciliation proceedings will be TCIL Bhawan, Greater Kailash-I, New Delhi 110048.
- 5) The conciliator shall assist the parties in an independent and impartial manner in their attempt to reach an amicable settlement of their dispute.

- 6) The conciliator shall be guided by principles of objectivity, fairness and justice, giving consideration to, among other things, the rights and obligations of the parties, the usages of the trade concerned and the circumstances surrounding the dispute, including any previous business practices between the parties.
- 7) The conciliator may conduct the conciliation proceedings in such a manner as he considers appropriate, taking into account the circumstances of the case, the wishes the parties may express, including any request by a party that the conciliator hear oral statements, and the need for a speedy settlement of the dispute.
- 8) The conciliator may, at any stage of the conciliation proceedings, make proposals for a settlement of the dispute. Such proposals need not be in writing and need not be accompanied by a statement of the reasons therefor.
- 9) The teams thereafter can meet any number of times under the guidance and supervision of Conciliator and will try to find a solution that is acceptable to both the parties. The conciliation may be successful or partially successful. On the points of dispute or part of a dispute wherein parties have agreed for a common ground, the officers representing each party shall seek approval of their respective company/entity. After that a settlement deed shall be drafted and signed by the authorized representatives of the parties. When the parties sign the settlement agreement, it shall be final and binding on the parties and persons claiming under them respectively and this shall not be challenged by any of the party in any court or under any law. The parties shall unequivocally affirm, declare and confirm in the settlement agreement that they have signed the agreement without any coercion, duress, inducement and were fully competent to sign the said agreement.
- 10) The conciliator shall endorse and authenticate the settlement agreement and furnish a copy thereof to each of the parties.
- 11) The conciliation process shall be concluded within 60 days of nomination of its representatives by the second party. However, the parties, with mutual consent can extend this period and then the conciliation proceedings shall be concluded in this extended period.
- 12) If no settlement is arrived between the parties in the time mentioned in clause 5) above, then the conciliation proceedings shall be deemed to have been failed.
- 13) The conciliator shall intimate the appointing authority the final outcome of the conciliation proceedings.

3. Resort to arbitral or judicial proceedings:

The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject-matter of the conciliation proceedings

except that a party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights.

4. Admissibility of evidence in other proceedings.

- 1) The parties shall not rely on or introduce as evidence in arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the conciliation proceedings,—
 - (a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute;
 - (b) admissions made by the other party in the course of the conciliation proceedings;
 - (c) Proposals made by the parties or conciliator;
 - (d) The fact that the other party had indicated his willingness to accept a proposal for settlement made by the other party.

5. Confidentiality.

Notwithstanding anything contained in any other law for the time being in force, the parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement.

6. Termination of conciliation proceedings.

The conciliation proceedings shall be terminated on happening of any of the conditions below:-

- 1) by the signing of the settlement agreement by the parties, on the date of the agreement; or
- 2) by a written declaration of the conciliator, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or
- 3) by a written declaration of the parties addressed to the conciliator to the effect that the conciliation proceedings are terminated, on the date of the declaration; or
- 4) by a written declaration of a party to the other party and the conciliator, if appointed, to the effect that the conciliation proceedings are terminated, on the date of the declaration; or
- 5) by the lapse of time or extended time as provided in clause 2(12) above

END OF SECTION – 19

SECTION - 20

Office Memo of Department of Expenditure regarding Rule 144 of GFR 2017

F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

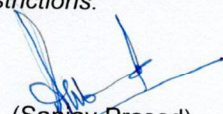
161, North Block,
New Delhi
23rd July, 2020

Office Memorandum

Subject: Insertion of Rule 144 (xi) in the General Financial Rules (GFRs), 2017

Rule 144 of the General Financial Rules 2017 entitled 'Fundamental principles of public buying', has been amended by inserting sub-rule (xi) as under:

Notwithstanding anything contained in these Rules, Department of Expenditure may, by order in writing, impose restrictions, including prior registration and/or screening, on procurement from bidders from a country or countries, or a class of countries, on grounds of defence of India, or matters directly or indirectly related thereto including national security; no procurement shall be made in violation of such restrictions.


(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To,
(1) Secretaries of All Ministries/ Departments of Government of India
(2) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

161, North Block,
New Delhi
23rd July, 2020

Order (Public Procurement No. 1)

Subject: Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

Attention is invited to this office OM no. 6/18/2019-PPD dated 23rd July 2020 inserting Rule 144 (xi) in GFRs 2017. In this regard, the following is hereby ordered under Rule 144 (xi) on the grounds stated therein:

Requirement of registration

1. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annex I**.
2. This Order shall not apply to (i) cases where orders have been placed or contract has been concluded or letter/notice of award/ acceptance (LoA) has been issued on or before the date of this order; and (ii) cases falling under **Annex II**.

Transitional cases

3. Tenders where no contract has been concluded or no LoA has been issued so far shall be handled in the following manner: -
 - a) *In tenders which are yet to be opened, or where evaluation of technical bid or the first exclusionary qualificatory stage (i.e. the first stage at which the qualifications of tenderers are evaluated and unqualified bidders are excluded) has not been completed:* No contracts shall be placed on bidders from such countries. Tenders received from bidders from such countries shall be dealt with as if they are non-compliant with the tender conditions and the tender shall be processed accordingly.
 - b) *If the tendering process has crossed the first exclusionary qualificatory stage:* If the qualified bidders include bidders from such countries, the

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entire process shall be scrapped and initiated *de novo*. The *de novo* process shall adhere to the conditions prescribed in this Order.

- c) As far as practicable, and in cases of doubt about whether a bidder falls under paragraph 1, a certificate shall be obtained from the bidder whose bid is proposed to be considered or accepted, in terms of paras 8, 9 and 10 read with para 1 of this Order.

Incorporation in tender conditions

4. In tenders to be issued after the date of this order, the provisions of paragraph 1 and of other relevant provisions of this Order shall be incorporated in the tender conditions.

Applicability

5. Apart from Ministries / Departments, attached and subordinate bodies, notwithstanding anything contained in Rule 1 of the GFRs 2017, this Order shall also be applicable
- a. to all Autonomous Bodies;
 - b. to public sector banks and public sector financial institutions; and
 - c. subject to any orders of the Department of Public Enterprises, to all Central Public Sector Enterprises; and
 - d. to procurement in Public Private Partnership projects receiving financial support from the Government or public sector enterprises/ undertakings.
 - e. Union Territories, National Capital Territory of Delhi and all agencies/ undertakings thereof

Definitions

6. "Bidder" for the purpose of this Order (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
7. "Tender" for the purpose of this Order will include other forms of procurement, except where the context requires otherwise.
8. "Bidder from a country which shares a land border with India" for the purpose of this Order means

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- a) An entity incorporated, established or registered in such a country; or
- b) A subsidiary of an entity incorporated, established or registered in such a country; or
- c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d) An entity whose *beneficial owner* is situated in such a country; or
- e) An Indian (or other) agent of such an entity; or
- f) A natural person who is a citizen of such a country; or
- g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

9. "Beneficial owner" for the purpose of paragraph 8 above will be as under:

- (i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation—

- a. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
- b. "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- (ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership or entitlement to more than fifteen percent of capital or profits of the partnership;
- (iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- (iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

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(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

10. "Agent" for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons.

Sub-contracting in works contracts

11. In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 8 above. This shall not apply to sub-contracts already awarded on or before the date of this Order.

Certificate regarding compliance

12. A certificate shall be taken from bidders in the tender documents regarding their compliance with this Order. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.

Validity of registration

13. In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

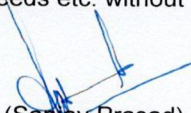
Government E-Marketplace

14. The Government E-Marketplace shall, as soon as possible, require all vendors/ bidders registered with GeM to give a certificate regarding compliance with this Order, and after the date fixed by it, shall remove non-compliant entities from GeM unless/ until they are registered in accordance with this Order.

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Model Clauses/ Certificates

15. Model Clauses and Model Certificates which may be inserted in tenders / obtained from Bidders are enclosed as **Annex III**. While adhering to the substance of the Order, procuring entities are free to appropriately modify the wording of these clauses based on their past experience, local needs etc. without making any reference to this Department.


(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To

- (1) Secretaries of All Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.
- (2) Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect of Public Enterprises.
- (3) Secretary DPIIT with a request to initiate action as provided under Annex I
- (4) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

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Annex I: Competent Authority and Procedure for Registration

- A. The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)*.
- B. The Registration Committee shall have the following members*:
- i. An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;
 - ii. Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;
 - iii. Any other officer whose presence is deemed necessary by the Chairman of the Committee.
- C. DPIIT shall lay down the method of application, format etc. for such bidders as stated in para 1 of this Order.
- D. On receipt of an application seeking registration from a bidder from a country covered by para 1 of this Order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.
- E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.
- F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.
- G. Registration shall not be granted unless the representatives of the Ministries of Home Affairs and External Affairs on the Committee concur*.
- H. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by Central Government and its agencies/ public enterprises etc. but **also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required.**

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- I. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.
- J. For national security reasons, the Competent Authority shall not be required to give reasons for rejection / cancellation of registration of a bidder.
- K. In transitional cases falling under para 3 of this Order, where it is felt that it will not be practicable to exclude bidders from a country which shares a land border with India, a reference seeking permission to consider such bidders shall be made by the procuring entity to the Competent Authority, giving full information and detailed reasons. The Competent Authority shall decide whether such bidders may be considered, and if so shall follow the procedure laid down in the above paras.
- L. Periodic reports on the acceptance/ refusal of registration during the preceding period may be required to be sent to the Cabinet Secretariat. Details will be issued separately in due course by DPIIT.

[*Note:

- i. In respect of application of this Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government and paragraph G above shall not apply. However, the requirement of **political and security clearance as per para D shall remain and no registration shall be granted without such clearance.**
- ii. Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

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Annex II: Special Cases

- A. Till 31st December 2020, procurement of medical supplies directly related to containment of the Covid-19 pandemic shall be exempt from the provisions of this Order.
- B. *Bona fide* procurements made through GeM without knowing the country of the bidder till the date fixed by GeM for this purpose, shall not be invalidated by this Order.
- C. *Bona fide* small procurements, made without knowing the country of the bidder, shall not be invalidated by this Order.
- D. In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this Order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.
- E. This Order shall not apply to procurement by Indian missions and by offices of government agencies/ undertakings located outside India.

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Annex III**Model Clause /Certificate to be inserted in tenders etc.**

(While adhering to the substance of the Order, procuring entities and GeM are free to appropriately modify the wording of the clause/ certificate based on their past experience, local needs etc.)

Model Clauses for Tenders

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The *beneficial owner* for the purpose of (iii) above will be as under:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

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- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. *[To be inserted in tenders for Works contracts, including Turnkey contracts]* The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Model Certificate for Tenders (for transitional cases as stated in para 3 of this Order)

"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 this bidder is not from such a country and is eligible to be considered."

Model Certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the

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Competent Authority. I hereby certify that this bidder 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.]"

Model Certificate for Tenders for Works involving possibility of sub-contracting

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder 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.]"

Model Certificate for GeM:

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

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END OF SECTION – 20

SECTION-21**Office Memo of DOT regarding amendment to Unified License
for procurement of Telecommunication Equipment**

**File No. 20-271/2010 AS-I (Vol-III)
Government of India
Ministry of Communications
Department of Telecommunications
(Access Services Wing)
20, Ashoka Road, New Delhi – 110001**

Dated 10th March, 2021

To,

All Unified Licensees

Subject: Amendment to the Unified License for procurement of Telecommunication equipment- reg.

In pursuance to Condition 5.1, the Licensor hereby amends the Unified License Agreement and appends the following sub-clause number 39.7.1 in Security Conditions, Chapter-VI of Part-I as under:

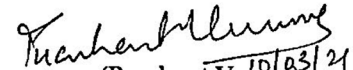
"39.7.1. The Government through the Designated Authority will have the right to impose conditions for procurement of Telecommunication Equipment on grounds of Defence of India, or matters directly or indirectly related thereto, for national security. Designated Authority for this purpose shall be National Cyber Security Coordinator. In this regard, the licensee shall provide any information as and when sought by the Designated Authority.

Designated Authority shall notify the categories of equipment for which the security requirement related to Trusted Sources are applicable. For the said categories of equipment, Designated Authority shall notify the Trusted Sources along with the associated Telecommunication Equipment (Trusted Products). The Designated Authority may also notify a list of Designated Sources from whom no procurement can be done. Procedure for inclusion of Telecommunication Equipment in the list of Trusted Sources will be issued by the Designated Authority.

With effect from 15th June 2021, the licensee, shall only connect Trusted Products in its network and also seek permission from Designated Authority for upgradation of existing Network utilizing the Telecommunication Equipment not designated as Trusted Products. However, these directions will not affect ongoing Annual Maintenance Contracts (AMC) or updates to existing equipment already inducted in the network as on date of effect.

The licensees shall comply with the Guidance for Enhanced Supervision and Effective Control of Telecommunication Networks, as per guidelines to be issued by the licensor."

2. This amendment shall be part and parcel of the Unified License Agreement and all others Terms & Conditions shall remain unchanged.


(Prashant Verma) 10/03/24

Assistant Director General (AS-I)
For and on behalf of the President of India
Ph. No. 23036580

Copy to:

1. Chairman, TRAI.
2. DG (T) HQ, DoT HQ.
3. CMD (BSNL)/ CMD (MTNL).
4. Advisor (Economics)/ Sr. DDG (TEC)/ Wireless Advisor/ DDG (LFP)/ DDG (LFA)/ DDG (WPF)/ DDG (SA)/ DDG (SPPI)/ CVO, DoT.
5. DDG (CS)/ DDG (DS)/ DDG (Satellite)/DDG (A/C) DoT HQ.
6. Director (IT) may kindly arrange to upload this letter on the website of DoT.
7. All Directors of AS Division.

END OF SECTION-21

SECTION – 22**FORMAT FOR INSURANCE SURETY BOND FOR EMD / BID SECURITY**

(To be stamped in accordance with Stamp Act of India)

(TO BE ISSUED FROM A DELHI BRANCH)

This BOND is made as a deed AMONG the following parties

The “Bidder” as contractor..... (name and address)

The “Surety Insurer” as guarantor (name and address) and “Purchaser” as Telecommunications Consultants India Limited, (TCIL), TCIL Bhawan, Greater Kailash -I, New Delhi 110048

Whereas (hereinafter called “the Bidder”) has submitted its bid dated for the vide Tender No. dated

KNOW ALL MEN by these presents that We Of Having our registered office at (hereinafter called “the Surety Insurer”) irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents and the RFP Document by the Bidder and are irrevocably and unconditionally bound unto Telecommunications Consultants India Limited (hereinafter called “the Purchaser”) to the sum of Rs. for which payment will and truly to be made of the said Purchaser, the Surety Insurer binds itself, its successors and assigns by these present.

THE CONDITIONS of the obligation are:

1. If the Bidder withdraws his bid during the period of bid validity specified by the Bidder on the Bid form or
2. If the Bidder, having been notified of the acceptance of his bid by the Purchaser during the period of bid validity
 - i. Fails or refuses to execute the Contract, if required; or
 - ii. The successful bidder fails to submit performance guarantee / security within the prescribed time.or
 - iii. The proceeds of Surety Bond (EMD) shall be payable to TCIL in case of breach of any of the terms and conditions of the tender by the bidder.

We, the Surety Insurer, undertake to immediately and forthwith pay to the Purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand, the purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

The Surety Bond shall not be affected by any change in the constitution or winding up of the Bidder or the Surety Insurer or any absorption, merger or amalgamation of the Bidder or the Surety Insurer with any other person.

This Surety Bond will remain in force up to and including THIRTY (30) days after the period of bid validity and any demand in respect thereof should reach the Surety Insurer not later than the specified date/dates. TCIL shall have the fullest liberty without affecting in any way the liability of the Surety Insurer under this Surety Bond from time to time to vary any of the terms and conditions in the said Bidding Documents or to extend time for submission of the Bids or the bid validity period or the period for fulfillment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder and the Surety Insurer shall not be released from its liability under these presents by any exercise by the TCIL of

the liberty as aforesaid or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Surety Insurer from its such liability.

The parties acknowledge and agree that neither this Surety Bond nor any obligations hereunder are transferable or assignable.

The Surety Insurer declares that this Insurance Surety Bond is issued as per applicable rules and regulations of Insurance Regulatory Development Authority of India (IRDAI).

Name & Signature of witness

Address of witness

Signature of the authorized Surety Insurer

Name

Signed in Capacity of

Full address of Branch

Tel No. of Branch

Fax No. / email of Branch

Notes:

- 1) The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
- 2) The Insurance Surety Bond should be on non-judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s).
- 3) The executing officer of the Surety Bond will indicate his name, designation, and Power of Attorney No. on last page of the Surety Bond.

END OF SECTION - 22

SECTION – 23**FORMAT OF INSURANCE SURETY BOND FOR PERFORMANCE GUARANTEE /
PERFORMANCE SECURITY**

(To be stamped in accordance with Stamp Act of India)

(TO BE ISSUED BY A DELHI BRANCH)

M/s Telecommunications Consultants India Ltd.,
TCIL Bhawan, Greater Kailash-I
New Delhi – 110 048 (INDIA)

Surety Bond No: _____

This BOND is made as a deed AMONG the following parties

The “Supplier” as contractor..... (name and address)

The “Surety Insurer” as guarantor (name and address) and “Purchaser” as Telecommunications Consultants India Limited, (TCIL), TCIL Bhawan, Greater Kailash -I, New Delhi 110048

WHEREAS TELECOMMUNICATIONS CONSULTANTS INDIA LIMITED, having its office at TCIL Bhawan, Greater Kailash-I, New Delhi – 110 048 (INDIA) (hereinafter referred to as “TCIL” which expression shall unless repugnant to the content or meaning thereof include all its successors, administrators and executors) has accepted the bid of the Supplier in relation to the Tender/RFP/EOI Number datedand having entered into an agreement dated _____ / issued Purchase Order No. _____ dated _____ with/on _____ M/s _____ (hereinafter referred to as “The Supplier”

which expression unless repugnant to the content or meaning thereof, shall include all the successors, administrators, and executors).

WHEREAS the Supplier having unequivocally accepted to supply the materials and/or Services as per terms and conditions given in the Agreement dated _____ / Purchase Order No. _____ dated _____ and TCIL having agreed that the Supplier shall furnish to TCIL a Surety Bond for the faithful performance of the entire contract, to the extent of xx% (xx percent) of the value of the Purchase Order / Agreement i.e. for Rs _____.

1. We, _____ (“The Surety Insurer”) which shall include OUR successors, administrators and executors irrevocably, unconditionally and without reservation guarantee the due and faithful fulfillment and compliance of the terms and conditions of the said Agreement/PO by the said Supplier and unconditionally and irrevocably undertake to pay forthwith to the TCIL an amount of Rs.*** ** (Rupees *** ** only (hereinafter referred to as the “Surety Bond”) as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Supplier, if the Supplier shall fail to fulfill or comply with all or any of the terms and conditions contained in the said Agreement/PO.
2. Hereby, we undertake to pay up to but not exceeding _____ (say _____ only) upon receipt by us of TCIL’s first written demand accompanied by TCIL’s declaration stating that the amount claimed is due by reason of the Supplier having failed to perform as per the Purchase Order / Agreement and despite any contestation on the part of above named supplier. Any such written demand made by the TCIL stating that the supplier is in default of the due and faithful fulfillment and compliance with the terms and conditions contained in the Agreement/PO shall be final, conclusive and binding on the surety Insurer, notwithstanding any differences between the TCIL and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other TCIL.
3. TCIL shall have the fullest liberty without affecting in any way the liability of the Surety Insurer under this Surety Bond from time to time to vary any of the terms and conditions in the said Agreement/PO or to extend time for fulfillment and compliance with all or any of the terms and conditions contained in the said Agreement/PO by the said supplier or to postpone for any time and

from time to time any of powers exercisable by it against the said supplier and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Agreement/PO, and the Surety Insurer shall not be released from its liability under these presents by any exercise by the TCIL of the liberty with reference to the matters aforesaid or by any change in the constitution of the TCIL or the Supplier or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect or releasing the Surety Insurer from its such liability. In the event of extension of time for performance of the contract, the Surety Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition or protest.

- 4. WE hereby acknowledge and understand that it shall not be necessary for TCIL to proceed against the said supplier before proceeding against the Surety Insurer and the Surety Bond herein contained shall be enforceable against the Surety Insurer, notwithstanding any other security which the TCIL may have obtained from the said supplier or any other person and which shall, at the time when proceedings are taken against the Surety Insurer hereunder, be outstanding or unrealized.
- 5. We, the Surety Insurer, further undertake not to revoke this Surety Bond during its currency except with the previous express consent of TCIL in writing.
- 6. The Surety Insurer declares that it has power to issue this Surety Bond and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Surety Bond for and on behalf of the Surety Insurer.
- 7. The Surety Bond shall not be affected by any change in the constitution or winding up of the Bidder or the Surety Insurer or any absorption, merger or amalgamation of the Bidder or the Surety Insurer with any other person.
- 8. This Surety Bond will expire on _____ including 30 days of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Surety Bond will become of no effect whatsoever whether returned to us or not.
- 9. The parties acknowledge and agree that neither this Surety Bond nor any obligations hereunder are transferable or assignable.
- 10. The Surety Insurer declares that this Insurance Surety Bond is issued as per applicable rules and regulations of Insurance Regulatory Development Authority of India (IRDAI).

Authorized Signature
Manager
Seal of Insurer Surety
Contact details

Name & Signature of witness
Address of witness

Signature of the authorized Surety Insurer
Name
Signed in Capacity of
Full address of Branch
Tel No. of Branch
Fax No. / Email of Branch

Notes:

- 1) The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).

- 2) The Insurance Surety Bond should be on non-judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s).
- 3) The executing officer of Surety Bond will indicate his name, designation, and Power of Attorney No. on last page of the Surety Bond

END OF SECTION – 23

EAST COAST RAILWAY								
Tender Schedule								
Name of the work: Provision of video Surveillance system at D & E Category Stations (149 Stations) in WAT & KUR Divisions over East Coast Railway. (135 No of E Class Stations: (PDT, KPL, ALM, KUK, NML, GVI, SGDM, DSI, ULM, PUN, GTLM, GRBL, GPI, KMX, DNV, SNM, GMDA, KNRT, JMPT, LDX, KTGA, BLMK, SKPI, LLGM, RUL, SGRM, LKMR, BGUA, KKGm, DMRT, MVW, SUP, BDVR, SLPM, TXD, CMDP, KVLS, SMLG, GPJ, DPC, PFU, BHJA, MKRD, PBV, SXV, MVF, JRT, MVG, CTS, DIR, KDPA, CJS, KPRR, AGB, AGZ, NKX, KMEZ, TPQ, BDXX, DMK, SZY, KMSD, KKLJ, KWGN, DPF, GIZ, DWZ, KMLR, BHNS, BCHL, KRDL of Waltair division) (BDBA, BGPL,BTV,BRAG,BRTG,BAV,BSTP,BUDR,BRST,BDPK,BYY,CBT,CLDR,DEG,GNGD, GAM, GHNH,GADH,GTA, GBK, GJTA,HDS,HND,HMA,JNP,JKPR,JEN,JPI,JRZ,KPXR, KASR, KDRP, KIS, KNPR,KED,KRIH, KUU,MLT,MCS,MMS,MZZ,MRDL, MWQ,NOR,NANR,NYG,NRG, NGMP, NKW, PRNR, ROP, RCTC, RHMA, RJGR, RBA, RTN, SSPR, SGDP, SOQ, STBJ, SLZ,SKND,SUDV,SLRD, TGRJ, TAP, TMKA of KUR Division) & 11 No. of 'D' Class stations CPP, KBM, KTV,NWP, PVP, PVPT, PDU, SPRD, TKRI, TIU in WAT division, & TLHD in KUR Division over East Coast Railway.								
	1. The rates are inclusive of GST, any other taxes, transportation charges from stores of SSE/Tele/Proj/BBS to work site and supply of sundry materials.							
	2. Telecom materials shall be procured from RDSO approved sources where available.							
	3. All material for the work shall be issued from the stores of SSE/Tele/Proj/BBS. The contractor shall transport all the materials to the work site at his own cost and after execution of work shall return in good condition all balance materials including materials released from site to store of SSE/Tele/Proj/BBS.							
Schedule-A (Supply)								
Sl.No	Description	unit	Qty	Rate	Amount	SI Unit rate	SI Total Rate	Above/below
1	Supply of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera as per RDSO spec. No:RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	149	44757.52	6668870.48			
2	Supply of Full HD Bullet type IP Colour camera as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	1341	13911.93	18655898.13			
3	Supply of STP CAT 6 cable compliant with latest EIA/TIA-568-B.2-1 with latest amendment. Make D link, Digisol, Molex or similar. Inspection by RITES.	Mtr.	37250	34.83	1297417.5			
4	Supply of 6 core armoured single mode OFC cable as Make Finolex, Sterlite, D Link per Specification attached. Inspection by RITES.	Mtr.	186354	28	5217912			
5	Supply of 3 core 2.5 sq mm, multi strand copper conductor, PVC insulated armoured power cable ,confirming to IS: 1554 Part-I. Inspection by RITES.	Mtr.	127890	80.86	10341185.4			
6	Supply of Single Mode OFC Patch Cord (length-5m) (LC-SC/SC-SC/LC-LC/FC-LC) as per site requirement Make: Santron, Syrotech, RSPRO, proxeon or similar. Inspection by RITES.	Nos.	3080	981	3021480			
7	Supply of Permanently lubricated two-layer type HDPE duct, outer dia 40 mm, inner dia 33 mm with three end plugs and two couplers for every Km length of pipe in length of 500 m conforming to RDSO Spec. No. RDSO/SPN/TC/45/2013. Rev.2.0 Amendment 2.0 or latest. Inspection by RITES. Note: The HDPE Duct should be pre inserted with 4 mm nylon rope, inside the HDPE Duct.	Mtr.	7450	138.51	1031899.5			
8	Supply of PVC Flexible pipe of 35mm (This includes all materials, clamps etc. required for laying, fixing and clamping).Inspection by RITES.	Mtrs	8700	24	208800			
9	Supply of PVC conduit pipe (minimum 35 mm dia./1.55 mm thick, 3-meter-long and ISI brand) with flexible pipes fixing/laying materials and all other accessories as per requirement. Inspection by RITES.	Mtr.	596106	32	19075392			
10	Supply of computer table, chair and Transportation to the site. Computer Table (1200 x 600x750): 1 No. with block board & Sunmica top and Chair cushioned 2 Nos (Godrej make or similar) with all accessories and fixing materials to the Consignee store, and Transportation to the site. Note: One set includes one table and two chairs. Inspection by authorized representative of Railway.	set.	25	18434.53	460863.25			
11	Supply of double walled corrugated pipe 6 mtr in length, 120 mm outer dia and 103 mm inner dia, with one suitable coupler conforming to RDSO Specification No. RDSO/SPN/204/2011 Version 1.1 Amdt 1 or latest for underground cable protection. Colour-Orange. Note: If required at site only, the DWC pipe shall be supplied split in two halves. Inspection by RDSO.	Nos.	50	4303	215150			
12	Supply of GI pipe 50 mm dia 3.65 mm thickness conforming to is:1239 (each pipe length in 6 meter with one end coupling, medium). inspection by RITES.	Mtr.	1490	332.48	495395.2			
13	Supply of RJ-45 patch cord of CAT 6 STP (0.5 meter length). Inspection by authorized representative of Railway.	Nos.	1490	99.96	148940.4			
14	Supply of Media Convertor as per RDSO specification no RDSO/SPN/TC/103/2013 revision 2.0 or latest. Inspection by RDSO.	Pair	174	3783.85	658389.9			
Schedule-A Total:					67497593.76	-	-	-
Schedule-B (Supply, Installation, testing & commissioning)								
Sl. no	Description	unit	Qty	Rate	Amount	SI Unit rate	SI Total Rate	Above/below
1	Supply, Installation, testing & commissioning of field Layer-2 Switch (minimum 8+2 port manageable) with 8 nos. 10/100/1000 Mbps Ethernet port, PoE and 2 nos. 1000 BaseX SM SFP port complete with all accessories etc. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Clause 14.0(iii). Inspection by RDSO	Nos.	596	17246	10278616			

2	Supply, Installation, testing & commissioning of rack mountable 24 port manageable Layer -2 aggregate switch with 24 x GE SFP port and 4x 10GE SFP+ ports as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest Clause 14.0(i). All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RDSO.	Nos.	149	98618.44	14694147.56			
3	Supply, Installation, testing & commissioning of rack mountable 24 port manageable Layer -2 switch with 4 nos. 1000 Base X SM SFP ports and 24 nos. GE port. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest Clause 14.0(ii). All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RDSO.	Nos.	25	36100	902500			
4	Supply, Installation, testing & commissioning of full HD large format display monitor (55"or higher) with HDMI & DVI Ports complete with all accessories and HDMI cables, remote controller as per RDSO SPN No. RDSO/SPN/TC/65/2021, Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos	50	57724.41	2886220.5			
5	Supply, Installation, testing & commissioning of PC Workstation for Viewing cameras in multi-screen mode, Monitoring and System management and 4K UHD LED Monitor of 24 inch size along with 2 HDMI PORT in graphic card including all required licensed software's for VSS(like OS, MS Office, Anti-virus with 03 years subscription), multifunction device for documentation, accommodate PC workstation & monitor with all accessories, spike buster (minimum 5 nos. 6A points with fuse), 500VA UPS, Mounting Rack and other required materials as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest Clause No. 11.0. Inspection by RDSO	Nos.	25	223945.65	5598641.25			
6	Supply, Installation, testing & commissioning of Single mode 1G SFP module compatible to Layer-2, Agregate & field switch Make: Syrotech, Cisco, Black Magic. Inspection by RDSO.	Nos.	1838	1491.15	2740733.7			
7	Supply, Installation, testing & commissioning of 12 port Fully loaded LIU rack mountable, LIU should be provided for terminating the optical fibre cables. It shall provide minimum bending radius and splice trays shall function as a splice cover for Pigtail Splicing. Cable glands shall be provided for secure anchoring of incoming cables. Rubber gromets shall be provided at the cable entry point for tight sealing. The splice tray should be made of ABS materials. LIU should be of reputed make. Make: D- Link/3M/ Digilink/ Molex/ Dax or similar. Inspection by RITES.	Nos.	919	5908.97	5430343.43			
8	Supply, Installation, Testing & Commissioning of 1 KVA Online UPS with isolation transformer suitable for single phase AC input and single phase AC output, RACK mounted type, 120 minutes' battery back-up as per Specification attached Make: NUMERIC/APC/ MICROTEK or similar. This also includes supply of one battery rack and one set (for input and output) compatible MCBs complete with cover & fixing materials. Make: Havells/Anchor or similar. All the accessories required for this installation is to be supplied by contractor within the same cost. Inspection by RITES.	Nos.	745	36900	27490500			
9	Supply, Installation, Testing & Commissioning of 5KVA online UPS with 120 minutes' backup make: APC/Emerson/APLAB or similar as per Specification attached. Inspection by RITES.	Nos.	25	164500	4112500			
10	Supply, Installation, Testing & Commissioning of software (per camera basis) for video management and video recording with license as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	1490	4916.27	7325242.3			
11	Supply, Installation, Testing & Commissioning of software (per camera basis) for artificial intelligence (AI) enabled video analytic as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	1341	8653.56	11604423.96			
12	Supply, Installation, Testing & Commissioning of Face Recognition software (per camera basis) as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	298	40267.32	11999661.36			
13	Supply, Installation, Testing & Commissioning of Graphical User Interface based Client software (per workstation basis) for work station as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	2498.67	62466.75			

14	Supply, Installation, Testing & Commissioning of VSS server Hardware for video management & video recording as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	297411.42	7435285.5			
15	Supply, Installation, Testing & Commissioning of VSS server Hardware for artificial intelligence (AI) enabled video analytics as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	298215.04	7455376			
16	Supply, Installation, Testing & Commissioning of VSS server Hardware for Face Recognition complete as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	302528.53	7563213.25			
17	Supply, Installation, testing and commissioning of External Storage Device (Hardware & Software) for 30 days recording at station/RPF/GRP Thana/Post along with all accessories required for installation purposes (Lot = Tera Byte, capacity of storage in TB). It should be compatible with item No.14 as per clause no.2.8 and 12.0 of RDSO spec. No: RDSO/SPN/TC/ 65/2021 Version 6.0 with amendment-1 or latest. (Each RPF post 60TB). Inspection by RDSO.	Lot	1500	4398	6597000			
18	Supply, Installation, Testing & Commissioning of panic switch (Ik10 and ip 66 rated) with mushroom cap push button in Red color, DPDT contacts 2 Amps 24 VDC, Stainless steel face plate with GI junction box of suitable size and flasher cum strobe of min.100dB as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	149	3387.04	504668.96			
19	Supply, Installation, Testing & Commissioning of Digital key board (joystick) compatible with PTZ cameras as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	15475	386875			
20	Supply, Installation, Testing & Commissioning of 19" 9U Rack with all accessories like Electrical fitting, Fan tray, STP Patch Panel, cable manager, spike buster for housing IP storage unit as per specification attached. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RITES.	Nos.	745	8046.5	5994642.5			
21	Supply, Installation, Testing & Commissioning of 19" 42U Rack with all accessories like Electrical fitting, Fan tray, STP Patch Panel, cable manager, spike buster for housing IP storage unit. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RITES.	Nos.	25	27327.2	683180			
22	Supply and installation of Electrical board with 3 nos of 6A/16A Socket, 3 nos of 16A Switch, MCB and Indicator for providing at Railway stations if required. Inspection by authorized representative of Railway.	Nos	174	882	153468			
23	Supply, Installation, Testing & commissioning of Maintenance Free and permanent Earth as per RDSO spec.No. RDSO/SPN/197 version 1.0 and Technical specification as per chapter 8. Inspection by RITES.	Nos.	25	64518.89	1612972.25			
24	Supply and installation of RJ 45 connector, D-link make or better. Inspection by authorized representative of Railway.	Nos.	2980	5.42	16151.6			
Schedule-B Total:					143528829.9	-	-	-
Schedule-C (Execution)								
Sl. no	Description	unit	Qty	Rate	Amount	SI Unit rate	SI Total Rate	Above/below
1	Installation, Testing & Commissioning of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera with ceiling mounting kit. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment 1 or latest. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost.	Nos.	149	711.58	106025.42			
2	Installation, Testing & Commissioning of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera with ceiling mounting kit. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment 1 or latest. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost.	Nos.	1341	211.44	283541.04			
3	Splicing/Dropping/Termination of each fibre/pigtail in the LIU/IO Box/Terminal Joints through fusion splicing of termination of OFC cables. The fibres terminated shall be tested and the test report (Hard copy and soft copy) shall be submitted to the site Engineer for records. Each fibre shall be properly marked with necessary ferrules/tags.	Core	5520	45	248400			
4	Fixing of PVC conduit pipe of ISI brand, medium type, minimum of 25mm dia/1.55mm thick (3 mtrs. Long) along with PVC bends, couplers and all fixing and clamping materials required for the work has to be provided by the contractor within the same cost.	Mtr.	596106	1	596106			

5	Laying of OFC/Power cable/CAT6 Cable on wall/ roof/ FOB/ platform structure/ underground through (i) HDPE pipe/PVC conduit/GI pipe/PVC Tray /casing capping with proper clamping arrangement of HDPE/PVC Conduit/Cable or (ii) through underground DWC pipe and cutting of masonry wall to the depth of 0.75 m at the entry of room as per instruction of Railway site in charge and repairing masonry wall cement plastering after cable laying. All fixing, clamping, patching, jointing etc. material like couplers, connectors, OFC patch chords, Power cable Joint Box, masonry materials etc. are to be supplied by contractor.	Mtr.	351494	4	1405976			
6	Cutting of trench across on platform for a depth of 10 cms and width of 10cm with marble cutting machine and fill in the trench after laying the cables and restoring the surface with plaster/original tiles etc to the normal condition (as the case may be).	Mtr	45000	116	5220000			
7	Transportation and Laying of permanently lubricated HDPE pipe in trench/open space, fixing and clamping of HDPE pipe on wall or structure and sealing of the duct after laying with proper fixing material. All the accessories like couplers, end caps/plugs to be provided by the contractor within the same cost and its protective work as per direction of site engineer.	Mtr.	7450	5	37250			
8	Design of complete system including system architecture, type and number of Servers, storage capacity, display/monitors, and No. Of cameras, network architecture for centralized control room, equipment room architecture at all stations for recording, Power supply, local work stations, display etc. The design of system should also cater for viewing any camera data/live stream/ recording stream from remote place through Railnet on web based platform with user ID and password protection etc.	Lot	149	1913	285037			
9	Excavation of trenches of depth 1.0 M and width 0.3 Meter detailed below including clearing of roots and trees etc. for all types of soil. This work also includes covering of cables laid in trench and backfilling, ramming, consolidation of soil as well as disposal of extra soil after cable is laid as specified in Guidelines on Signalling Cable laying given by RDSO and any latest circular issued by CSTE/ECOR/BBS. Note: Before refilling of the trenches, the cable laid are to be tested and recorded for its insulation value and after satisfaction of site Engineer the refilling process should start and after monsoon the route is to be attended for backfilling the rain cuts, wash out of soils where ever found.	Km	10	92853	928530			
10	Excavation of trenches including clearing of roots of trees etc., in rocky area up to a depth to be indicated by Railway Engineer at site as per the site condition [Minimum 0.6 meter] and width 0.3 Mts. at the bottom. This includes concreting & plastering as per the instructions of site Engineer and complete back filling by digging earth from a lead of 30 Mtr. In case 0.8 meter depth or higher is achieved no concreting is required, otherwise concreting up to 100 mm thickness should be done. All materials required for the above works shall be supplied by the Contractor.	Mtr	2600	266	691600			
11	Excavation of trenches in all kinds of soils including soft rocky area and clearing of track etc. to a depth of 1.0 M and width of 0.3 M for track crossing /pucca road/ level crossing gate/platform /station circulating area or any other place as advised by site Engineer including transportation and laying of DWC/RCC/Split RCC/G.I. pipes with or without coupler. This includes repairing of track/pucca road/level crossing gate/ platform/station circulating area surface to original position by ramming and concreting wherever required soon after the work is over. DWC/RCC/GI pipes shall be supplied by the Railway. DWC pipes wherever required shall be supplied in 6 Mtr. length and shall be cut to size as per requirement. All other materials including cement are to be supplied by the contractor.	Mtr	750	350	262500			
12	Cutting of masonry floor/walls at station building/ signal goomty/ Gate lodge at a depth of 0.5 mtr. to 1.0 mtr at places to be indicated by site Engineer for entering of cables inside the building. Only G.I pipes supplied by Railway and all materials as clamps, bolts & nuts as instructed by site Engineer supplied by tenderer. This includes repairing of masonry floors/walls after the cables are taken inside. Cement, Sand required for the work shall be supplied by the tenderer and also transportation of G.I Pipe from Store by the tenderer.	Nos.	174	6385	1110990			

13	Trenching and fixing of G.I. pipes of different sizes/DWC pipes in hard rocky area up to a depth of 0.3 M to 0.6 M or at places as per instruction of site Engineer and concreting [1 : 3 : 6] up to height of 100 mm above the pipes. G.I. pipes with the socket/DWC pipes shall be supplied by the Railway. All other materials required for the works shall be supplied by the contractor. Note: [1] In case of girder bridges, G.I. pipes shall be suitably clamped by the contractor as advised by the site Engineer. Clamps shall be supplied by the contractor. [2] The work including excavation of trenches in hard rock area up to a depth of 0.3 M to 0.6 M and back filling, ramming after completion of work where ever required. [3] In case of concrete bridges clearing of ballast for laying of pipes and re arranging the Railway ballast after completion of work shall be done by the contractor.	Mtr	1490	557	829930			
14	Supply and erection of 15 feet GI pipe of 4" dia, IS No: 1239 (Part1) 1990. Having iron base plate 10mm thick 30cm x 30cm welded at the bottom of pipe with 4 supports of iron bars of sizes 10mm dia. The 3 feet pipe shall be buried in the ground and 12 feet pipe shall be above the ground. The work includes digging of pit on platform, laying of cable in between poles in suitable underground GI pipes, erection of pole and filling the pit with 1:3:4 cement, concrete and sand. Final plastering should be done on the surface. The iron bracket on the top of the pole shall be provided to fix the CCTV camera and junction box. The work includes supply of all the material required in this item. Inspection done by RITES.	Nos.	298	14593.82	4348958.36			
Schedule-C Total:					16354843.82	-	-	-
Total Value Section A,B & C					22,73,81,267.45	-	-	-

**ECOR HQ-S AND T/ECOR
TENDER DOCUMENT**

Tender No: SNTPBBS-042024-VSS

Closing Date/Time: 18/06/2024 15:30

CSTE/Project acting for and on behalf of The President of India invites E-Tenders against Tender No **SNTPBBS-042024-VSS** Closing Date/Time 18/06/2024 15:30 Hrs. Bidders will be able to submit their original/revised bids upto closing date and time only. Manual offers are not allowed against this tender, and any such manual offer received shall be ignored.

1. NIT HEADER

Name of Work	Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway.		
Bidding type	Normal Tender		
Tender Type	Open	Bidding System	Two Packet System
Tender Closing Date Time	18/06/2024 15:30	Date Time Of Uploading Tender	13/05/2024 12:10
Pre-Bid Conference Required	No	Pre-Bid Conference Date Time	Not Applicable
Advertised Value	227381267.45	Tendering Section	SNT
Bidding Style	Single Rate for Each Schedule	Bidding Unit	
Earnest Money (Rs.)	1286900.00	Validity of Offer (Days)	60
Tender Doc. Cost (Rs.)	0.00	Period of Completion	12 Months
Contract Type	Works	Contract Category	Expenditure
Bidding Start Date	04/06/2024	Are Joint Venture (JV) firms allowed to bid	No
Ranking Order For Bids	Lowest to Highest	Expenditure Type	Capital (Works)

2. SCHEDULE

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule A-(SUPPLY)							67497593.76	Above/ Below/Par
1	1	149.00	Numbers	44757.52	6668870.48	AT Par	6668870.48	
	Description:- Supply of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.							
2	2	1341.00	Numbers	13911.93	18655898.13	AT Par	18655898.13	
	Description:- Supply of full HD Bullet Type IP Colour camera as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.							
3	3	37250.00	Metre	34.83	1297417.50	AT Par	1297417.50	
	Description:- Supply of STP CAT 6 cable compliant with latest EIA/TIA-568-B.2-1 with latest amendment. Make D link, Digisol, Molex or similar. Inspection by RITES.							
4	4	186354.00	Metre	28.00	5217912.00	AT Par	5217912.00	
	Description:- Supply of 6 core armoured single mode OFC cable as Make Finolex, Sterlite, D Link per Specification attached. Inspection by RITES.							
5	5	127890.00	Metre	80.86	10341185.40	AT Par	10341185.40	
	Description:- Supply of 3 core 2.5 sq mm, multi strand copper conductor, PVC insulated armoured power cable ,confirming to IS: 1554 Part-I. Inspection by RITES.							
6	6	3080.00	Numbers	981.00	3021480.00	AT Par	3021480.00	
	Description:- Supply of Single Mode OFC Patch Cord (length-5m) (LC-SC/SC-SC/LC-LC/FC-LC) as per site requirement Make : Santron, Syrotech, RSPRO, projexon or similar. Inspection by RITES.							
7	7	7450.00	Metre	138.51	1031899.50	AT Par	1031899.50	
	Description:- "Supply of Permanently lubricated two layer type HDPE duct, outer dia 40 mm, inner dia 33 mm with three end plugs and two couplers for every Km length of pipe in length of 500 m confirming to RDSO Spec. No. RDSO/SPN/TC/45/2013.Rev.2.0 Amendment 2.0 or latest. Inspection by RITES. Note: The HDPE Duct should be pre inserted with 4 mm nylon rope, inside the HDPE Duct."							
8	8	8700.00	Metre	24.00	208800.00	AT Par	208800.00	
	Description:- Supply of PVC Flexible pipe of 35mm (This includes all materials, clamps etc required for laying, fixing and clamping).Inspection by RITES.							
	9	596106.00	Metre	32.00	19075392.00	AT Par	19075392.00	

**ECOR HQ-S AND T/ECOR
TENDER DOCUMENT**

Tender No: SNTPBBS-042024-VSS

Closing Date/Time: 18/06/2024 15:30

9	Description:- Supply of PVC conduit pipe (minimum 35 mm dia./1.55 mm thick, 3 meter long and ISI brand) with flexible pipes fixing/laying materials and all other accessories as per requirement. Inspection by RITES.						
10	10	25.00	Set	18434.53	460863.25	AT Par	460863.25
	Description:- Supply of computer table, chair and Transportation to the site. Computer Table (1200 x 600x750) : 1 No. with block board & Sunmica top and Chair cushioned 2 Nos (Godrej make or similar) with all accessories and fixing materials to the Consignee store, and Transportation to the site. Note: One set includes one table and two chairs. Inspection by authorized representative of Railway.						
11	11	50.00	Numbers	4303.00	215150.00	AT Par	215150.00
	Description:- Supply of double walled corrugated pipe 6 mtr in length, 120 mm outer dia and 103 mm inner dia, with one suitable coupler conforming to RDSO Specification No. RDSO/SPN/204/2011 Version 1.1 Amdt 1 or latest for underground cable protection. Colour-Orange. Note: If required at site only, the DWC pipe shall be supplied split in two halves. Inspection by RDSO.						
12	12	1490.00	Metre	332.48	495395.20	AT Par	495395.20
	Description:- Supply of GI pipe 50 mm dia 3.65 mm thickness conforming to is:1239 (each pipe length in 6 meter with one end coupling, medium). inspection by RITES.						
13	13	1490.00	Numbers	99.96	148940.40	AT Par	148940.40
	Description:- Supply of RJ-45 patch cord of CAT 6 STP (0.5 meter length). Inspection by authorized representative of Railway.						
14	14	174.00	Pair	3783.85	658389.90	AT Par	658389.90
	Description:- Supply of Media Convertor as per RDSO specification no RDSO/SPN/TC/103/2013 revision 2.0 or latest. Inspection by RDSO.						

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule B- (SUPPLY, INSTALLATION, TESTING & COMMISSIONING)							143528829.87	Above/ Below/Par
1	1	596.00	Numbers	17246.00	10278616.00	AT Par	10278616.00	
	Description:- Supply, Installation, testing & commissioning of field Layer-2 Switch (minimum 8+2 port manageable) with 8 nos. 10/100/1000 Mbps Ethernet port, PoE and 2 nos. 1000 BaseX SM SFP port complete with all accessories etc. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest, Clause 14.0(iii). Inspection by RDSO.							
2	2	149.00	Numbers	98618.44	14694147.56	AT Par	14694147.56	
	Description:- Supply, Installation, testing & commissioning of rack mountable 24 port manageable Layer -2 aggregate switch with 24 x GE SFP port and 4x 10GE SFP+ ports as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest Clause 14.0(i). All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RDSO.							
3	3	25.00	Numbers	36100.00	902500.00	AT Par	902500.00	
	Description:- Supply, Installation, testing & commissioning of rack mountable 24 port manageable Layer -2 switch with 4 nos. 1000 Base X SM SFP ports and 24 nos. GE port as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest Clause 14.0(ii). All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RDSO.							
4	4	50.00	Numbers	57724.41	2886220.50	AT Par	2886220.50	
	Description:- Supply, Installation, testing & commissioning of full HD large format display monitor (55" or higher) with HDMI & DVI Ports complete with all accessories and HDMI cables, remote controller as per RDSO SPN No. RDSO/SPN/TC/65/2021, Rev 6.0 with amendment-1 or latest. Inspection by RDSO.							
5	5	25.00	Numbers	223945.65	5598641.25	AT Par	5598641.25	
	Description:- Supply, Installation, testing & commissioning of PC Workstation for Viewing cameras in multi screen mode, Monitoring and System management and 4K UHD LED Monitor of 24 inch size along with 2 HDMI PORT in graphic card including all required licensed software's for VSS (like OS, MS Office, Anti-virus with 03 years subscription), multifunction device for documentation, accommodate PC workstation & monitor with all accessories, spike buster (minimum 5 nos. 6A points with fuse), 500VA UPS, Mounting Rack and other required materials as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest Clause No. 11.0. (Inspection by RDSO)							
6	6	1838.00	Numbers	1491.15	2740733.70	AT Par	2740733.70	
	Description:- Supply, Installation, testing & commissioning of Single mode 1G SFP module compatible to Layer-2, Aggregate & field switch Make: Syrotech, Cisco, Black Magic. Inspection by RDSO.							
	7	919.00	Numbers	5908.97	5430343.43	AT Par	5430343.43	

**ECOR HQ-S AND T/ECOR
TENDER DOCUMENT**

Tender No: SNTPBBS-042024-VSS

Closing Date/Time: 18/06/2024 15:30

7	Description:- Supply, Installation, testing & commissioning of 12 port Fully loaded LIU rack mountable, LIU should be provided for terminating the optical fibre cables. It shall provide minimum bending radius and splice trays shall function as a splice cover for Pigtail Splicing. Cable glands shall be provided for secure anchoring of incoming cables. Rubber grommets shall be provided at the cable entry point for tight sealing. The splice tray should be made of ABS materials. LIU should be of reputed make. Make: D-Link/3M/ Digilink/ Molex/ Dax or similar. Inspection by RITES.						
8	8	745.00	Numbers	36900.00	27490500.00	AT Par	27490500.00
	Description:- Supply, Installation, Testing & Commissioning of 1 KVA Online UPS with isolation transformer suitable for single phase AC input and single phase AC output, RACK mounted type, 120 minutes battery back-up as per Specification attached Make: NUMERIC/APC/ MICROTEK or similar. This also includes supply of one battery rack and one set (for input and output) compatible MCBs complete with cover & fixing materials. Make: Havells/Anchor or similar. All the accessories required for this installation is to be supplied by contractor within the same cost. Inspection by RITES.						
9	9	25.00	Numbers	164500.00	4112500.00	AT Par	4112500.00
	Description:- Supply, Installation, Testing & Commissioning of 5KVA online UPS with 120 minutes backup make: APC/Emerson/APLAB or similar as per Specification attached. Inspection by RITES.						
10	10	1490.00	Numbers	4916.27	7325242.30	AT Par	7325242.30
	Description:- Supply, Installation, Testing & Commissioning of software (per camera basis) for video management and video recording with license as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
11	11	1341.00	Numbers	8653.56	11604423.96	AT Par	11604423.96
	Description:- Supply, Installation, Testing & Commissioning of software (per camera basis) for artificial intelligence (AI) enabled video analytic as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
12	12	298.00	Numbers	40267.32	11999661.36	AT Par	11999661.36
	Description:- Supply, Installation, Testing & Commissioning of Face Recognition software (per camera basis) as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
13	13	25.00	Numbers	2498.67	62466.75	AT Par	62466.75
	Description:- Supply, Installation, Testing & Commissioning of Graphical User Interface based Client software (per workstation basis) for work station as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
14	14	25.00	Numbers	297411.42	7435285.50	AT Par	7435285.50
	Description:- Supply, Installation, Testing & Commissioning of VSS server Hardware for video management & video recording as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
15	15	25.00	Numbers	298215.04	7455376.00	AT Par	7455376.00
	Description:- Supply, Installation, Testing & Commissioning of VSS server Hardware for artificial intelligence (AI) enabled video analytics as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
16	16	25.00	Numbers	302528.53	7563213.25	AT Par	7563213.25
	Description:- Supply, Installation, Testing & Commissioning of VSS server Hardware for Face Recognition complete as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
17	17	1500.00	Lot	4398.00	6597000.00	AT Par	6597000.00
	Description:- Supply, Installation, testing and commissioning of External Storage Device (Hardware & Software) for 30 days recording at station/RPF/GRP Thana/Post along with all accessories required for installation purposes (Lot = Tera Byte, capacity of storage in TB). It should be compatible with item No.14 as per clause no.2.8 and 12.0 of RDSO spec. No: RDSO/SPN/TC/ 65/2021 Version 6.0 with amendment-1 or latest.(Each RPF post 60TB). Inspection by RDSO.						
18	18	149.00	Numbers	3387.04	504668.96	AT Par	504668.96
	Description:- Supply, Installation, Testing & Commissioning of panic switch (ik10 and ip 66 rated) with mushroom cap push button in Red color, DPDT contacts 2 Amps 24 VDC, Stainless steel face plate with GI junction box of suitable size and flasher cum strobe of min.100dB as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
19	19	25.00	Numbers	15475.00	386875.00	AT Par	386875.00
	Description:- Supply, Installation, Testing & Commissioning of Digital key board (joystick) compatible with PTZ cameras as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.						
	20	745.00	Numbers	8046.50	5994642.50	AT Par	5994642.50

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20	Description:- Supply, Installation, Testing & Commissioning of 19" 9U Rack with all accessories like Electrical fitting, Fan tray, STP Patch Panel, cable manager, spike buster for housing IP storage unit as per specification attached . All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RITES.						
21	21	25.00	Numbers	27327.20	683180.00	AT Par	683180.00
	Description:- Supply, Installation, Testing & Commissioning of 19" 42U Rack with all accessories like Electrical fitting, Fan tray, STP Patch Panel, cable manager, spike buster for housing IP storage unit . All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RITES.						
22	22	174.00	Numbers	882.00	153468.00	AT Par	153468.00
	Description:- Supply and installation of Electrical board with 3 nos of 6A/16A Socket,3 nos of 16A Switch, MCB and indicator for providing at Railway stations if required. Inspection by authorized representative of Railway.						
23	23	25.00	Numbers	64518.89	1612972.25	AT Par	1612972.25
	Description:- Supply, Installation, Testing & commissioning of Maintenance Free and permanent Earth as per RDSO spenc.No. RDSO/SPN/197 version 1.0 and Technical specification as per chapter 8. Inspection by RITES.						
24	24	2980.00	Numbers	5.42	16151.60	AT Par	16151.60
	Description:- Supply and installation of RJ 45 connector, D-link make or better. Inspection by authorized representative of Railway.						

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule C- (Execution)							16354843.82	Above/ Below/Par
1	1	149.00	Numbers	711.58	106025.42	AT Par	106025.42	
	Description:- Installation, Testing & Commissioning of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera with ceiling mounting kit. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost.							
2	2	1341.00	Numbers	211.44	283541.04	AT Par	283541.04	
	Description:- Installation, Testing & Commissioning of Full HD Bullet Type IP Colour camera along with Mounting kit, as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost.							
3	3	5520.00	CORE	45.00	248400.00	AT Par	248400.00	
	Description:- Splicing/Dropping/Termination of each fibre/pigtail in the LIU/IO Box/Terminal Joints through fusion splicing of termination of OFC cables. The fibres terminated shall be tested and the test report (Hard copy and soft copy) shall be submitted to the site Engineer for records. Each fibre shall be properly marked with necessary ferrules/tags.							
4	4	596106.00	Metre	1.00	596106.00	AT Par	596106.00	
	Description:- Fixing of PVC conduit pipe of ISI brand , medium type, minimum of 25mm dia/ 1.55mm thick (3 mtrs. Long) along with PVC bends, couplers and all fixing and clamping materials required for the work has to be provided by the contractor within the same cost.							
5	5	351494.00	Metre	4.00	1405976.00	AT Par	1405976.00	
	Description:- Laying of OFC/Power cable/CAT6 Cable on wall/ roof/ FOB/ platform structure/ underground through (i) HDPE pipe/PVC conduit/GI pipe/PVC Tray /casing capping with proper clamping arrangement of HDPE/PVC Conduit/Cable or (ii) through underground DWC pipe and cutting of masonry wall to the depth of 0.75 m at the entry of room as per instruction of Railway site in charge and repairing masonry wall cement plastering after cable laying, All fixing, clamping, patching, jointing etc. material like couplers, connectors, OFC patch chords, Power cable Joint Box, masonry materials etc. are to be supplied by contractor.							
6	6	45000.00	Metre	116.00	5220000.00	AT Par	5220000.00	
	Description:- Cutting of trench across on platform for a depth of 10 cms and width of 10cm with marble cutting machine and fill in the trench after laying the cables and restoring the surface with plaster/original tiles etc to the normal condition (as the case may be).							
7	7	7450.00	Metre	5.00	37250.00	AT Par	37250.00	
	Description:- Transportation and Laying of permanently lubricated HDPE pipe in trench/open space, fixing and clamping of HDPE pipe on wall or structure and sealing of the duct after laying with proper fixing material. All the accessories like couplers, end caps/plugs to be provided by the contractor within the same cost and its protective work as per direction of site engineer.							
	8	149.00	Lot	1913.00	285037.00	AT Par	285037.00	

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8	Description:- Design of complete system including system architecture, type and number of Servers, storage capacity, display/monitors , and No. Of cameras , network architecture for centralized control room, equipment room architecture at all stations for recording, Power supply, local work stations , display etc. The design of system should also cater for viewing any camera data/live stream/ recording stream from remote place through railnet on web based platform with user ID and password protection etc						
9	9	10.00	Kilometre	92853.00	928530.00	AT Par	928530.00
	Description:- Excavation of trenches of depth 1.0 M and width 0.3 Meter detailed below including clearing of roots and trees etc. for all types of soil. This work also includes covering of cables laid in trench and backfilling, ramming, consolidation of soil as well as disposal of extra soil after cable is laid as specified in Guidelines on Signaling Cable laying given by RDSO and any latest circular issued by CSTE/ECOR/BBS. Note: Before refilling of the trenches, the cable laid are to be tested and recorded for its insulation value and after satisfaction of site Engineer the refilling process should start and after monsoon the route is to be attended for backfilling the rain cuts, wash out of soils where ever found.						
10	10	2600.00	Metre	266.00	691600.00	AT Par	691600.00
	Description:- Excavation of trenches including clearing of roots of trees etc., in rocky area up to a depth to be indicated by Railway Engineer at site as per the site condition [Minimum 0.6 meter] and width 0.3 Mts. at the bottom. This includes concreting & plastering as per the instructions of site Engineer and complete back filling by digging earth from a lead of 30 Mtr. In case 0.8 meter depth or higher is achieved no concreting is required, otherwise concreting up to 100 mm thickness should be done. All materials required for the above works shall be supplied by the Contractor.						
11	11	750.00	Metre	350.00	262500.00	AT Par	262500.00
	Description:- Excavation of trenches in all kinds of soils including soft rocky area and clearing of track etc. to a depth of 1.0 M and width of 0.3 M for track crossing /pucca road/ level crossing gate/platform /station circulating area or any other place as advised by site Engineer including transportation and laying of DWC/RCC/Split RCC/G.I. pipes with or without coupler. This includes repairing of track/pucca road/level crossing gate/platform/station circulating area surface to original position by ramming and concreting wherever required soon after the work is over. DWC/RCC/GI pipes shall be supplied by the Railway. DWC pipes wherever required shall be supplied in 6 Mtr. length and shall be cut to size as per requirement. All other materials including cement are to be supplied by the contractor.						
12	12	174.00	Numbers	6385.00	1110990.00	AT Par	1110990.00
	Description:- Cutting of masonry floor/walls at station building/ signal goomty/ Gate lodge at a depth of 0.5 mtr. to 1.0 mtr at places to be indicated by site Engineer for entering of cables inside the building. Only G.I pipes supplied by Railway and all materials as clamps, bolts & nuts as instructed by site Engineer supplied by tenderer. This includes repairing of masonry floors/walls after the cables are taken inside. Cement, Sand required for the work shall be supplied by the renderer and also transportation of G.I Pipe from Store by the tenderer.						
13	13	1490.00	Metre	557.00	829930.00	AT Par	829930.00
	Description:- Trenching and fixing of G.I. pipes of different sizes/DWC pipes in hard rocky area up to a depth of 0.3 M to 0.6 M or at places as per instruction of site Engineer and concreting [1 : 3 : 6] up to height of 100 mm above the pipes. G.I. pipes with the socket/ DWC pipes shall be supplied by the Railway. All other materials required for the works shall be supplied by the contractor. Note: [1] in case of girder bridges, G.I. pipes shall be suitably clamped by the contractor as advised by the site Engineer. Clamps shall be supplied by the contractor. [2] The work including excavation of trenches in hard rock area up to a depth of 0.3 M to 0.6 M and back filling, ramming after completion of work where ever required. [3] In case of concrete bridges clearing of ballast for laying of pipes and re arranging the Railway ballast after completion of work shall be done by the contractor.						
14	14	298.00	Numbers	14593.82	4348958.36	AT Par	4348958.36
	Description:- Supply and erection of 15 feet GI pipe of 4" dia, IS No: 1239 (Part1) 1990. Having iron base plate 10mm thick 30cm x 30cm welded at the bottom of pipe with 4 supports of iron bars of sizes 10mm dia. The 3 feet pipe shall be buried in the ground and 12 feet pipe shall be above the ground. The work includes digging of pit on platform, laying of cable in between poles in suitable underground GI pipes, erection of pole and filling the pit with 1:3:4 cement, concrete and sand. Final plastering should be done on the surface. The iron bracket on the top of the pole shall be provided to fix the CCTV camera and junction box. The work includes supply of all the material required in this item. Inspection done by RITES.						

3. ITEM BREAKUP

No item break up added

4. ELIGIBILITY CONDITIONS

Important : All documents uploaded and remarks / confirmation entered by the bidders against any eligibility condition shall be opened as part of technical bid only

Standard Financial Criteria

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S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	The tenderer must have minimum average annual contractual turnover of V/N or 'V' whichever is less; where V= Advertised value of the tender in crores of Rupees, N= Number of years prescribed for completion of work for which bids have been invited. The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover. The tenderers shall submit requisite information as per Annexure-B of Chapter-7 along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet, otherwise the offer is liable for rejection.	No	No	Allowed (Mandatory)

Standard Technical Criteria

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	(a)The tenderer must have successfully completed or substantially completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:(i) Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or(ii) Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or (iii)One similar work each costing not less than the amount equal to 60% of advertised value of the tender.(b)(1) In case of composite works (e.g. works involving more than one distinct component, such as Civil Engineering works, S&T works, Electrical works, OHE works etc. and in the case of major bridges - substructure, superstructure etc.), tenderer must have successfully completed or substantially completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited: (i) Three similar works each costing not less than the amount equal to 30% of advertised value of each component of tender, or (ii) Two similar works each costing not less than the amount equal to 40% of advertised value of each component of tender, or(iii) One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender. Note for b(1): Separate completed works of minimum required values shall also be considered for fulfillment of technical eligibility criteria for different components.(b)(2) In such cases, what constitutes a component in a composite work shall be clearly pre-defined with estimated tender cost of it, as part of the tender documents without any ambiguity. (b)(3) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be either executed by tenderer himself if he has work experience as mentioned in clause 7 of the Standard GCC or through subcontractor fulfilling the requirements as per clause 7 of the Standard GCC or jointly i.e.,partly himself and remaining through subcontractor, with prior approval of Chief Engineer in writing. However, if required in tender documents by way of Special Conditions, a formal agreement duly notarised, legally enforceable in the court of law, shall be executed by the main contractor with the subcontractor for the component(s) of work proposed to be executed by the subcontractor(s),and shall be submitted along with the offer for considering subletting of that scope of work towards fulfilment of technical eligibility.Such subcontractor must fulfill technical eligibility criteria as follows: The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract, costing not less than 35% value of work to be subletted, in last 5 years, ending last day of month previous to the one in which tender is invited through a works contract. Note: for subletting of work costing up to Rs 50 lakh, no previous work experience of subcontractor shall be asked for by the Railway. In case after award of contract or during execution of work it becomes necessary for contractor to change subcontractor, the same shall be done with subcontractor(s) fulfilling the requirements as per clause 7 of the Standard GCC, with prior approval of Chief Engineer in writing.(Refer Item 10.1 of Chapter-2 of Annexed Document)	No	No	Allowed (Mandatory)
1.1	(1)Tenderer should submit authorization of OEM/OEMs from which the VSS/CCTV equipment is to be supplied, along with the tender. This shall be applicable for IP Cameras, Switches, Servers, VSS Software, External storage device, PC Workstations, Displays/TV and UPS. (2)After award of the contract, MOU with the same OEM/OEMs whose authorization was taken at the time of bidding, covering supply of the equipment, installation, testing and commissioning of CCTV/VSS equipment (IP Cameras, Switches, Servers, VSS Software, External storage device, PC Workstations, Displays/TV and UPS) including after sales support during warranty period of 3 years and beyond warranty period up to 5 years, should be submitted in the tender bid. (3)In case tenderer fails to supply the MOU within 30 days of issue of LOA his tender will be terminated. Offers without authorization of OEM/OEMs will be liable to be rejected.	No	No	Allowed (Mandatory)

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1.2	Similar nature of work- "Supply Installation, Testing and commissioning of IP/No-IP based CCTV cameras and accessories OR Integrated Emergency system OR IP based based video surveillance system OR Integrated Security system, where CCTV is a part OR any IP based Networking system such as Local Area networking(LAN) OR IP based telephone exchange networking OR network video conferencing system.The bidder should have complete one of the above in any Govt./PSU/Smart City project."	No	No	Not Allowed
1.3	Security certificate: - To ensure security of VSS (Camera & Software) from vulnerabilities & breaches and discourage false undertaking from OEMs, security auditing and testing of equipment including source code of camera and software shall be carried out from STQC (Ministry of Electronics & Information Technology) only. The Regulatory Approvals / Certifications are to be provided by bidder from STQC (Ministry of Electronics & Information Technology) only. In case any security breach is found in the system at any stage including at POC level, immediate strict penal action is to be initiated by the purchaser. It should also comply to the latest Gazette Notification and advisory on CCTV cameras and software issued by Railway Board vide letter no.2024/TeleDev/Security in CCTV system (3454081) dated-18.03.2024. The document proof of STQC certification is to be submitted along with the bid.	No	No	Allowed (Mandatory)

Bidders shall confirm and certify on the behalf of the tenderer including its constituents as under:

S.No.	Description
1	I/we the tenderer (s) am/are signing this document after carefully reading the contents.
2	I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
3	I/we hereby declare that I/we have downloaded the tender documents from Indian Railway website www.ireps.gov.in . I/we have verified the content of the document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the railway Administration shall be final and binding upon me/us.
4	I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5	I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6	I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
7	I/we certify that I/we the tenderer(s) is/are not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of submission of bids, either in individual capacity or as a HUF/ member of the partnership firm/LLP/JV/Society/Trust.
8	I/we understand that if the contents of the certificate submitted by us are found to be forged/false at any time during process for evaluation of tenders, it shall lead to forfeiture of the Bid Security and may also lead to any other action provided in the contract including banning of business for a period of upto two year. Further, I/we and all my/our constituents understand that my/our offer shall be summarily rejected.
9	I/we also understand that if the contents of the certificate submitted by us are found to be false/forged at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of Bid Security/Security Deposit and Performance guarantee and may also lead to any other action provided in the contract including banning of business for a period of upto two year.
10	I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/We are not from such a country or, if from such a country, have been registered with the competent Authority. I/We hereby certify that I/we fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed)

Partnership firm/Joint Venture (JV) / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc.

S.No.	Description
1	Partnership firm/Joint Venture (JV) / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc. Please submit a certificate in the prescribed format (please download the format from the link given below). Non submission of the certificate, or submission of certificate either not properly filled in, or in a format other than the prescribed format shall lead to summary rejection of your offer. (Click here to download the Format of Self Certification)

5. COMPLIANCE

Important : All documents uploaded and remarks / confirmation entered by the bidders against any compliance condition shall be opened as part of technical bid only.

Check Lst

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
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1	All Optional documents to be submitted before signing of Contract Agreement/or at the time of submission of Bid.	No	No	Not Allowed
2	List of documents which are to be submitted by the tenderer along with their offer failing which the tender shall be summarily rejected.	No	No	Not Allowed
2.1	If Bid Security is submitted through mode of Bank Guarantee then submission of scanned copy of the Bank Guarantee towards Bid Security of the bid on e-tendering portal (IREPS) and original of above Bank Guarantee within 5 working days of deadlines of submission of bids as per Para-5 of Instructions to Tenderers (ITT) in Chapter-2 and Para-6, Annexure-I in Chapter-2 of Annexed Document.	No	No	Not Allowed
2.2	Technical Eligibility Criteria as per Para 10.1 & Para 17.15.1 of Chapter-2	No	No	Not Allowed
2.3	Financial Eligibility Criteria as per Para 10.2 & 17.15.2 of Chapter-2 along with Certificate issued from Chartered Accountant.	No	No	Not Allowed
2.4	Bid Capacity as per Para 10.3 & 17.15.3 duly filled up Annexure-G, Chapter-7 of Annexed Document.	No	No	Not Allowed
2.5	Certificate as per the proforma enclosed vide Annexure-A and an additional certificate in case of other than Company/Proprietary firm, Annexure-A(I) shall also be submitted by the each member of a Partnership Firm/ Joint Venture (JV)/ Hindu Undivided Family (HUF)/ Limited Liability Partnership (LLP) etc. as the case may be as per Annexure-A(I) vide Chapter-7 of the Annexed Document.	No	No	Not Allowed
2.6	Power of attorney duly notarized and in in favour of a single individual should be submitted. As per Para 14,15, 17 & 18 of SGCC.	No	No	Not Allowed
3	List of important documents which are to be submitted by the tenderer along with their offer.	No	No	Not Allowed
3.1	Certificate of familiarization to the work site as per Chapter-6 of the Annexed Document.	No	No	Not Allowed
3.2	Certificates regarding contractual payments received, along with duly filled up Annexure-B, Chapter-7 of Annexed Document, to this effect which may be an attested Certificate from the concerned department/client or Audited Balance Sheet duly certified by the Chartered Accountant duly supported by Audited Balance Sheet.	No	No	Not Allowed
3.3	List of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work as per the format vide Annexure-D, Chapter-7 of Annexed Document.	No	No	Not Allowed
3.4	List of personnel/organization on hand and proposed to be engaged for the tendered work as per the format vide Annexure-E, Chapter-7 of the Annexed Document.	No	No	Not Allowed
3.5	Details of works completed/substantially completed during previous 07 years ending last day of month previous to the one in which tender has been invited as per the format vide Annexure-F, Chapter-7 of the Annexed Document.	No	No	Not Allowed
3.6	All documents reflected as Mandatory in the Commercial Compliance are to be submitted other wise the offer is liable to be rejected.	No	No	Not Allowed

Commercial-Compliance

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Please submit the Certificate of familiarization to the work site as per Chapter-6 of the Annexed Document.	Yes	Yes	Allowed (Optional)
2	Please submit copy of Certificate as per the proforma enclosed vide Annexure-A, Chapter-7 of the Annexed Document. An additional certificate in case of other than Company/Proprietary firm, Annexure-A(I) shall also be submitted by the each member of a Partnership Firm/Joint Venture (JV)/Hindu Undivided Family (HUF)/ Limited Liability Partnership (LLP) etc. as the case may be. Non-submission of the Certificates by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.	Yes	No	Allowed (Mandatory)

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3	Please submit details of the constitution of Firm i.e. Proprietary Firm/Partnership Fm/HUF/JV/Company Registered under Companies Act-2013/Limited Liability Partnership/Registered Society & Registered Trust etc along with signed Annexure-C, Chapter-7 of the Annexed Document.And also submit the following mandatory supporting documents such as copies of Partnership Deed, Power of Attorney, Memorandum of Articles, Articles of Association, Authorisation, Certificate of Incorporation, Certificate of Registration, Deed of Formation, Memorandum of Understanding, JV Agreement etc as applicable as per under Para 14, 15, 17 & 18 of Annexure-I, Chapter-2 of Annexed Document. Important Note:-(a)The Power of Attorney duly Notarized shall be submitted even if such specific person is authorized for above purpose through Partnership Deed/Memorandum of Understanding/Article of Association or such other document. (b) In case one or more of the members of JV is/are partnership firm(s)/Proprietary Firm/HUF/Companies/LLP Firm(s)/Society(s)/Trust(s), the required documents of each individual member of JV shall be submitted along with the documents to be submitted on behalf of the JV. (c) Non-submission of above documents (except PAN Card & Undertaking regarding not blacklisted/debarred from participation of tenders/contracts) or submission of incomplete documents shall lead to summarily rejection of the offer.	Yes	No	Allowed (Mandatory)
3.1	Please submit copy of the PAN Card.	Yes	No	Allowed (Optional)
4	Please submit list of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work as per the format vide Annexure-D, Chapter-7 of Annexed Document. Non-compliance with this condition liable to result in the tender being rejected.	Yes	No	Allowed (Optional)
5	Please submit list of personnel/organization on hand and proposed to be engaged for the tendered work as per the format vide Annexure-E, Chapter-7 of the Annexed Document. Non-compliance with this condition liable to result in the tender being rejected.	Yes	No	Allowed (Optional)
6	Please submit details of works successfully completed or substantially completed during last 07 years ending last day of month previous to the one in which tender has been invited as per the format vide Annexure-F, Chapter-7 of the Annexed Document. Non-compliance with this condition is liable to result in the tender being rejected.	Yes	No	Allowed (Mandatory)
7	The tenderer(s) are required to upload the information as per Annexure-G of Chapter-7, Annexed Document duly signed by the tenderer(s) and verified by Chartered Accountant since the information is required to evaluate the bid capacity of the tenderer(s) for tenders valuing more than Rs. 20 Cr. However, the tenderer(s) may submit any additional information, if they desire so. In case, the tenderer(s) failed to submit the minimum required information as per Annexure-G of Chapter- 7 along with the offer or submit in any other format omitting required information essential to work out Bid capacity, his/their offer shall be rejected summarily. This information is to be based on Annexure-B & Annexure-G1, Chapter-7 of Annexed Document.	Yes	No	Allowed (Mandatory)
7.1	Please submit the required information for evaluation of Bid Capacity as per Annexure-G1, Chapter-7 of the Annexed Document.	Yes	Yes	Allowed (Mandatory)
8	Please submit the information regarding association of Railway Officers with tenderer(s) in reference to Clause 16, Chapter-2 of Annexed Document along with the declaration as per the format vide Annexure-H, Chapter-7 of the Annexed Document. Also non-submission of information required as per Clause 16 (a), (b) & (c) of Chapter-2 in Annexed Document, contract is liable to be dealt in accordance with provision of Clause 43 of Chapter-3 (Clause 62 of General Conditions of Contract).	Yes	No	Allowed (Mandatory)
9	Please submit list of court cases as per the format vide Annexure-I, Chapter-7 of the Annexed Document.	Yes	Yes	Allowed (Optional)
10	Please submit list of arbitration cases as per the format vide Annexure-J, Chapter-7 of the Annexed Document.	Yes	Yes	Allowed (Optional)
11	Please submit broad plan of execution of work as per the format vide Annexure-K, Chapter-7 of the Annexed Document.	Yes	No	Allowed (Optional)
12	Please submit details of other credentials/facilities as per the format vide Annexure-N, Chapter-7 of the Annexed Document.	Yes	Yes	Allowed (Optional)

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13	Please submit your bank details i.e. Name of Bank along with Bank Branch Code, Accounts Number as appearing in the cheque book, IFSC Code and PAN Number, duly certified by the authorised official of the bank, to facilitate payment through ECS/NEFT/RTGS as per Annexure-O of Chapter-7 of Annexed Document. In lieu of Bank Certificate, scanned copy of a cancelled cheque may be attached for verification of the above particulars.	Yes	Yes	Allowed (Optional)
14	If Bid Security is submitted through mode of Bank Guarantee then please upload scanned copy of the Bank Guarantee (as per Specimen Format at Annexure-Q, Chapter-7 of Annexed Document) submitted towards Bid Security original of which should be delivered in person to the official nominated as indicated in the tender document within 5 working days before closing date for submission of bids. Non submission of scanned copy of Bank Guarantee with the bid on e-tendering portal (IREPS) and/or non submission of original Bank Guarantee within above specified period shall lead to summary rejection of bid. In case of the Bid Security deposited through e- payment gateway, then the same should be confirmed by the tenderer.	Yes	No	Allowed (Mandatory)
15	Please submit the option for taking payment through Letter of Credit (LC) arrangement for tenders having advertised cost of Rs. 10 lakhs and above. For details refer Clause-7, Chapter- 4 of Annexed Document.	Yes	Yes	Allowed (Optional)
16	Please submit the required certificate (duly certified by a Cost Accountant /CA) as per Clause 8.9(b), Chapter-4 of Annexed Document.	Yes	Yes	Allowed (Mandatory)
17	Please submit the Tender Form i.e. Annexure-I of Chapter-2 of Annexed Document.	Yes	No	Allowed (Mandatory)
18	Please enter the percentage of local content in the material being offered. Please enter 0 for fully imported items, and 100 for fully indigenous items. The definition and calculation of local content shall be in accordance with the Make in India policy as incorporated in the tender conditions.	No	Yes	Allowed (Mandatory)
19	Please enter the percentage of local content in the material being offered. Please enter 0 for fully imported items, and 100 for fully indigenous items. The definition and calculation of local content shall be in accordance with the Make in India policy as incorporated in the tender conditions.	No	Yes	Allowed (Optional)

General Instructions

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Indian Railways Standard General Conditions of Contract - 2022 corrected up to the date of closing of tender, USSOR- 2019 corrected up to the date of closing of tender and the Annexed Documents are part of the tender document. Excerpts of G.C.C is available at Chapter-3 of Annexed Document.	No	No	Not Allowed
2	No manual tenders sent by Post/FAX/Courier or in person shall be accepted.	No	No	Not Allowed
3	Payment of Bid Security shall be accepted either in cash through e-Payment Gateway or as Bank Guarantee bond from a Scheduled Commercial Bank of India. BG shall be as per Annexure-Q, Chapter-7 of Annexed Document. No other mode of payment shall be accepted. Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Bid Security. Labour Cooperative Societies shall submit only 50% of the Bid Security.	No	No	Not Allowed
4	In case the date of closing mentioned in the NIT Header of e- tender document is declared a holiday/bandh/strike etc. on any account, the date of closing tender online will not be changed as the application in the website of IREPS does not permit submission of any offer after closing date and time of the tender. However, opening of tenders online will be on the following working day after the closing date/time of tenders.	No	No	Not Allowed
5	Rates quoted by the tenderer in the relevant fields of the Financial Bid Page only will be the ruling terms for deciding inter-se-ranking and any condition having financial repercussions, if quoted anywhere else shall not be considered for deciding the inter-se-ranking.	No	No	Not Allowed
6	For guidelines for participation of Joint Venture Firms in Works Tender, Clause-17, Chapter-2 of Annexed Document may be referred to.	No	No	Not Allowed
7	For more details, the Instructions to the Tenderers vide Chapter- 2 and all other details available in the Annexed Document to the E-Tender Document may be referred to.	No	No	Not Allowed

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8	The Tenderer should submit a Certificate(s) as per the proforma enclosed vide Annexure-A & A(I), Chapter-7 of the Annexed Document. Non-submission of Certificate(s) by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.	No	No	Not Allowed
9	(a) In case of any information submitted by tenderer is found to be false forged or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender Bid Security besides banning of business for a period of upto five years. (b) In case of any information submitted by tenderer is found to be false forged or incorrect after the award of contract, the contract shall be terminated. Bid Security, Performance Guarantee and Security Deposit available with the railway shall be forfeited. In addition, other dues of the contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of upto five years.	No	No	Not Allowed
10	The tender shall be finalised based on submitted documents & no post tender correspondence shall be entertained. However, if any clarification is required by the Railway, the same will be sought from the tenderer which need to be provided by tenderer(s) within stipulated time failing which his/their offer(s) shall be dealt based on available information with Railways interpretation only.	No	No	Not Allowed
11	While submitting offers the tenderer(s) generally commit mistakes in submitting the mandatory documents like Certificates regarding contracting experience, Audited Balance Sheet duly certified by the Chartered Accountant, Certificate in respect to true and factuality of documents, information in connection with evaluation of bid capacity, Power of Attorney, submission of tenders by authorised signatory, JV related documents etc. As such, the tenderer(s) should go through the tender document very carefully before submitting his/their offer and accordingly upload all the mandatory documents and other relevant documents as per the formats annexed in the tender document. The tender shall be finalised based on submitted documents & no post tender correspondence shall be entertained. However, if any clarification is required by the Railway, the same will be sought from the tenderer which need to be provided by tenderer(s) within stipulated time failing which his/their offer(s) shall be dealt based on available information with Railways interpretation only.	No	No	Not Allowed
12	All optional documents should be submitted before signing of the contract agreement/or during the submission of the bid.	No	No	Not Allowed

Special Conditions

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Tenderers are requested to refer Chapter-4 of the Annexed Document for Special Conditions of Contract.	No	No	Not Allowed
2	Tenderers are requested to refer Chapter-8 of the Annexed Document for Additional Special Conditions of Contract i.e. Technical Conditions of Contract.	No	No	Not Allowed

Undertakings

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	I/ We have visited the works site and I / We am / are aware of the site conditions.	No	No	Not Allowed
2	I/We have read the various conditions attached/referred to in this tender document and agree to abide by the said conditions.	No	No	Not Allowed
3	I/We also hereby agree to abide by the Indian Railways Standard General Conditions of Contract-2022 with all Correction Slips up to date of closing of tender and to carry out the work according to the Special Conditions of Contract and Specifications of Materials and works as laid down by Railway in the annexed Special Conditions/Specifications, Schedule of Rates with all correction slips up to the date of closing of tender for the present contract.	No	No	Not Allowed

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4	I/We hereby confirm that the rates, rebates and/or other financial terms, if any, quoted by us in the relevant fields of the Financial Bid page will only be the ruling terms for deciding the inter-se-ranking and any such conditions having financial repercussions, if quoted by us anywhere else including attached documents shall not be considered for deciding inter- se-ranking.	No	No	Not Allowed
5	I/We agree to keep our offer open for acceptance for the period of days as mentioned on NIT HEADER from the date of closing of tender and in default thereof, I/We will be liable for forfeiture of my/our Bid Security.	No	No	Not Allowed
6	The amount as stipulated in tender document is herewith forwarded as Bid Security shall stand forfeited without prejudice if :-	No	No	Not Allowed
6.1	I/We resile from my/our offer or modify the terms and conditions thereof in a manner not acceptable to the Railways during validity period of the offer as mentioned on NIT HEADER.	No	No	Not Allowed
6.2	I/We do not submit a Performance Guarantee in any of the prescribed form within 60 days from the date of issue of letter of acceptance.	No	No	Not Allowed
6.3	I/We do not execute the contract within 7 days after receipt of notice by Railway that such documents are ready.	No	No	Not Allowed
6.4	I/We do not commence the work within fifteen days after receipt of Letter of Acceptance to that effect.	No	No	Not Allowed
7	Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer to this work.	No	No	Not Allowed
8	I/we hereby confirm that I/we have satisfied myself/ourselves by actual inspection of the site and locality of the work that all conditions liable to be encountered during execution of the work are taken into account and that the rates entered in the tender are adequate and all inclusive, in accordance to the provision in Clause-37 Pt-II of the Indian Railway Standard General Conditions of Contract-2022 with corrections up to the date of closing of tender.	No	No	Not Allowed

6. Documents attached with tender

S.No.	Document Name	Document Description
1	TENDER_DOCUMENT042024VSS.pdf	Tender Document 042024 VSS

This tender complies with Public Procurement Policy (Make in India) Order 2017, dated 15/06/2017, issued by Department of Induswww Promotion and Policy, Ministry of Commerce, circulated vide Railway Board letter no. 2015/RS(G)/779/5 dated 03/08/2017 and 27/12/2017 and amendments/ revisions thereof.

As a Tender Inviting Authority, the undersigned has ensured that the issue of this tender does not violate provisions of GFR regarding procurement through GeM.

Signed By: PRAVAKAR SAHU

Designation : ASTE PROJECT 1

**EAST COAST RAILWAY
PROJECT UNIT(S&T) ORGANISATION**



**ANNEXED DOCUMENT TO THE
E-TENDER DOCUMENT**

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**INDEX**

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CHAPTER-1**EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION****TOP SHEET-1**

1.	Tender Notice No.	SNTPBBS-042024-VSS
2.	Bidding System.	Two Packet System
3.	Pre-bid Conference <i>(Applicable in tender having advertised value more than Rs. 50 Crores)</i>	NOT APPLICABLE
4.	Name of Work:	Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway.
5.	Dy. CSTE Unit	Dy.CSTE/Tele & NW/BBS
6.	CSTE/P/BBS Unit	CSTE/PROJECT/BBS
7.	Applicability of Eligibility Criteria	APPLICABLE.
8.	Applicability of Bid Capacity <i>(Applicable in tender having advertised value more than Rs. 20 Crores)</i>	APPLICABLE.
9.	Permissibility of Participation of Joint Venture Firms <i>(Applicable in tender having advertised value more than Rs. 10 Crores)</i>	APPLICABLE.
10.	Applicability of Reverse Auction <i>(Applicable in tender having advertised value more than Rs. 50 Crores.)</i>	NOT APPLICABLE.
11.	Applicability of Price Variation Clause <i>(Applicable in tenders having advertised value above Rs. 2 Crores.)</i>	NOT APPLICABLE.
12.	Applicability of Advances to the Contractor. <i>(Applicable in tender having advertised value more than Rs. 50 Crores.)</i>	NOT APPLICABLE.
13.	Measurement of Works by Railway/Measurement of Works by Contractor	Measurement of Works by Railway.
14.	Estimate No. & Allocation No.	Estimate No: 1. 2020/Tele-Dev/DE of CCTV project dt-01.06.2020. (PB-766/ER of 2024-25) Allocation: CAP, Plan Head: 6400
15.	Location of work site (State)	Odisha, Andhra Pradesh & Chhattisgarh.
16.	Address for physical submission of original B.G. towards Bid Security. (Refer Para- (3) of Chapter-2)	O/o The Dy.CSTE/Tele & NW/BBS, Ground Floor, North Block, Rail Sadan, C.S.PUR, Bhubaneswar – 751017 (Odisha).
17.	Special Instructions, if any	For Schedule wise/Item wise Instructions/

		Notes, please refer Chapter -9 of this Annexed Document.
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TOP SHEET-2**CHECK LIST FOR SUBMISSION OF TENDERS**

1	All Optional documents to be submitted before signing of Contract Agreement/or at the time of submission of Bid.
2	List of documents which are to be submitted by the tenderer along with their offer failing which the tender shall be summarily rejected.
2.1	If Bid Security is submitted through mode of Bank Guarantee then, the original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document within 5 working days before closing date for submission of bids as per Para-3 (Bid Security) of Instructions to Tenderers (ITT) of Chapter-2 and Para-6 (Second Sheet), Annexure-I of Chapter-2 of Annexed Document.
2.2	Technical Eligibility Criteria as per Para 10.1 & Para 17.15.1 of Chapter-2
2.3	Financial Eligibility Criteria as per Para 10.2 & 17.15.2 of Chapter-2 along with Certificate issued from Chartered Accountant. Certificates regarding contractual payments received, along with duly filled up Annexure-B, Chapter-7 of Annexed Document, to this effect which may be an attested Certificate from the concerned department/client or Audited Balance Sheet duly certified by the Chartered Accountant duly supported by Audited Balance Sheet.
2.4	Bid Capacity as per Para 10.3 & 17.15.3 duly filled up Annexure-G & G-1, Chapter-7 of Annexed Document.
2.5	Certificate as per the Performa enclosed vide Annexure-A, Chapter-7 of the Annexed Document. <u>In addition to Annexure-A, in case of other than Company/Proprietary firm, Annexure-A(I) shall also be submitted by the each member of a Partnership Firm/Joint Venture (JV) / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc, as the case may be.</u>
2.6	Power of attorney duly notarized and in in favour of a single individual should be submitted. As per Para 14, 15, 17 & 18 of SGCC.
3	List of important documents which are to be submitted by the tenderer along with their offer.
3.1	Certificate of familiarization to the work site as per Chapter-6 of the Annexed Document.
3.2	Certificates regarding contractual payments received, along with duly filled up Annexure-B, Chapter-7 of Annexed Document, to this effect which may be an attested Certificate from the concerned department/client or Audited Balance Sheet duly certified by the Chartered Accountant duly supported by Audited Balance Sheet.
3.3	List of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work as per the format vide Annexure-D, Chapter-7 of Annexed Document.
3.4	List of personnel/organisation on hand and proposed to be engaged for the tendered work as per the format vide Annexure-E, Chapter-7 of the Annexed Document.
3.5	Details of works completed/substantially completed during previous 07 years ending last day of month previous to the one in which tender has been invited as per the format vide Annexure-F, Chapter-7 of the Annexed Document.
3.6	All documents reflected as Mandatory in the Commercial Compliance are to be submitted otherwise the offer is liable to be rejected.

CHAPTER-2**EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION****Instructions to Tenderers (ITT)****TENDERS FOR WORKS**

1. Tender Form: Tender Forms shall embody the contents of the contract documents either directly or by reference and shall be as per specimen form, Annexure-I. E-Tender Forms shall be issued free of cost to all tenderers.

2. Omissions & Discrepancies: Should a tenderer find discrepancies in or omissions from the drawings or any of the Tender Forms or should he be in doubt as to their meaning, he should at once notify the authority inviting tenders. The tender inviting authority may, if deemed necessary, clarify the same to all tenderers. It shall be understood that every endeavour has been made to avoid any error which can materially affect the basis of tender and successful tenderer shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.

3. Bid Security:

(1)(a) The tenderer shall be required to submit the Bid Security with the tender for the due performance with the stipulation to keep the offer open till such date as specified in the tender, under the conditions of tender. The Bid Security shall be as under:

Value of the Work	Bid Security
For works estimated to cost up to ₹ 1 crore	2% of the estimated cost of the work
For works estimated to cost more than ₹ 1 crore	₹ 2 lakh plus ½% (half percent) of the excess of the estimated cost of work beyond ₹ 1 crore subject to a maximum of ₹ 1 crore

Note:

- (i) The Bid Security shall be rounded to the nearest ₹100. This Bid Security shall be applicable for all modes of tendering.
- (ii) Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Bid Security detailed above.
- (iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.
- (b) It shall be understood that the tender documents have been issued to the tenderer and the tenderer is permitted to tender in consideration of stipulation on his part, that after submitting his tender, he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Engineer. Should the tenderer fail to observe or comply with the said stipulation, the aforesaid amount shall be liable to be forfeited to the Railway.
- (c) If his tender is accepted this Bid Security mentioned in sub clause (a) above will be retained as part security for the due and faithful fulfilment of the contract in terms of Clause 16 of the Standard General Conditions of Contract. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.

- (2) The Bid Security shall be deposited in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall be as per **Annexure-Q of Chapter-7** and shall be valid for a period of 90 days beyond the bid validity period.
- (3) In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:
 - i. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.
 - ii. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document within **5 working days before closing date for submission of bids**.
 - iii. Non submission of scanned copy of Bank Guarantee with the bid on e-tendering portal (IREPS) and/or non submission of original Bank Guarantee within the specified period shall lead to summary rejection of bid.
 - iv. The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
 - v. The details of the BG, physically submitted should match with the details available in the scanned copy and the data entered during bid submission time, failing which the bid will be rejected.
 - vi. The Bank Guarantee shall be placed in an envelope, which shall be sealed. The envelope shall clearly bear the identification "Bid for the Project" and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of the envelope.
 - vii. The envelope shall be addressed to the officer and address as mentioned in the tender document.
 - viii. If the envelope is not sealed and marked as instructed above, the Railway assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

4. Care in Submission of Tenders:

- (a) (i) Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all-inclusive to accord with the provisions in Clause-37 of the Standard General Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.
- (a)(ii) Tenderers will examine the various provisions of The Central Goods and Services Tax Act, 2017(CGST)/ Integrated Goods and Services Tax Act, 2017(IGST)/ Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state's State Goods and Services Tax Act (SGST) also, as notified by Central/State Govt. & as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
- (a)(iii) The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to railway immediately after the award of contract, without which no payment shall be released to the Contractor. The Contractor shall be responsible for deposition of applicable GST to the concerned authority.

- (a)(iv) In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/ SGST Act, the railway shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.
- (b) When work is tendered for by a firm or company, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.
- (c) The Railway will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

4.1 The tenderers shall submit a copy of **certificate** stating that all their statements/documents submitted along with bid are true and factual. Standard format of certificate to be submitted by the bidder is enclosed as **Annexure-A of Chapter-7. In addition to Annexure-A, in case of other than Company/Proprietary firm, Annexure-A(I) shall also be submitted by the each member of a Partnership Firm/Joint Venture(JV)/Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP) etc, as the case may be.** Non submission of above certificate(s) by the bidder shall result in **summarily rejection** of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested/digitally signed by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.

CONSIDERATION OF TENDERS

5. Right of Railway to Deal with Tenders: The Railway reserves the right of not to invite tenders for any of Railway work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or reject any tender or all tenders without assigning reasons for any such action. In case if tender is accepted in part by Railway administration, Letter of Acceptance shall be issued as counter offer to the Tenderer, which shall be subject to acceptance by the Tenderer.

5A. Two Packets System of Tendering: With a view to assess the tenders technically without being influenced by the financial bids, 'Two Packets System of tendering' shall be adopted wherein tender documents provide for the same.

5B. Pre-Bid Conference: In tenders having advertised value more than Rs 50 Crore or as mentioned in the tender document, Railway shall conduct Pre-Bid Conference(s) with the prospective bidders.

5C. Make in India Policy: Provisions of Make in India Policy 2017 issued by Govt. of India, as amended from time to time, shall be followed for consideration of tenders.

5D. Permission to Bid for a bidder from a country which shares Land boundary with India: Any bidder from the countries sharing a land border with India will be eligible to bid in any procurement of works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India. For interpretation of this para, Department of Expenditure, Ministry of Finance, Government of India letter F.No.6/18/2019-PPD dated 23/07/2020 shall be referred.

5E. Clarification of Bids: To assist in the examination, evaluation & comparison and prequalification of the Tender, the Railway may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Railway shall not be entertained or considered. The Railway request for clarification and the response of the bidder in this regard shall be in writing.

However, if a Bidder does not provide clarification of its bid by the date and time communicated in the Railway request for clarification, the bid shall be evaluated as per the documents submitted along with the bid.

6. Execution of Contract Document: The Tenderer whose tender is accepted shall be required to appear in person at the office of General Manager/General Manager (Construction), Chief Administrative Officer (Construction), Divisional Railway Manager or concerned Engineer, as the case may be, or if tenderer is a firm or corporation, a duly authorized representative shall appear (there would be no need for appear in person if agreement is signed digitally) and execute the contract agreement within seven days of notice from Railways that the Contract Agreement is ready. The Contract Agreement shall be entered into by Railway only after submission of valid Performance Guarantee by the Contractor. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender. In such cases the Railway may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and the Railway shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The failed Contractor shall be debarred from participating in the re-tender for that work.

7. Form of Contract Document: Every contract shall be complete in respect of the document it shall so constitute. Not less than 2 copies of the contract document shall be signed by the competent authority and the Contractor and one copy given to the Contractor (there would be no need for appear in person if agreement is signed digitally).

(a) For contracts for specific works, the contract document required to be executed by the tenderer whose tender is accepted shall be an agreement as per specimen form **Annexure-2 of Chapter-8**.

ANNEXURE - I

**EAST COAST RAILWAY
(PROJECT UNIT(S&T) ORGANISATION)
TENDER FORM (First Sheet)**

Tender No. _____

Name of Work: _____

To
The President of India
Acting through the CSTE/PROJECT/BBS East Coast Railway

I/We _____ have read the various conditions to tender attached hereto and agree to abide by the said conditions. I/We also agree to keep this tender open for acceptance for a period of _____ days from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our "Bid Security". I/We offer to do the work for East Coast Railway, at the rates quoted in the attached bills of quantities and hereby bind myself/ourselves to complete the work in all respects within _____ months from the date of issue of letter of acceptance of the tender.

2. I/We also hereby agree to abide by the Indian Railways Standard General Conditions of Contract, with all correction slips up-to-date and to carry out the work according to the Special Conditions of Contract and Specifications of materials and works as laid down by Railway in the annexed Special Conditions/Specifications, Updated Rates with all correction slips up-to-date for the present contract.

3. A Bid Security of ₹ _____ has already been deposited online/submitted as Bank Guarantee bond. Full value of the Bid Security shall stand forfeited without prejudice to any other right or remedies in case my/our Tender is accepted and if:

- (a) I/We do not submit the Performance Guarantee within the time specified in the Tender document;
- (b) I/We do not execute the contract documents within seven days after receipt of notice issued by the Railway that such documents are ready; and
- (c) I/We do not commence the work within fifteen days after receipt of orders to that effect.

4. (a) I/We am/are a Start-up firm registered by Department of Industrial Policy and Promotion (DIPP) and my registration number is valid up to (Copy enclosed) and hence exempted from submission of Bid Security.

5. We are a Labour Cooperative Society and our Registration No. is withand hence required to deposit only 50% of Bid Security.

6. Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.

Signature of Witnesses:

(1) _____

(2) _____

Signature of Tenderer(s)

Date _____

Address of the Tenderer(s)_____

ANNEXURE - I (Contd. ...)**TENDER FORM (Second Sheet)**

1. Instructions to Tenderers and Conditions of Tender: The following documents form part of Tender / Contract:

- (a) Tender Forms – First Sheet and Second Sheet
- (b) Special Conditions/Specifications (enclosed)
- (c) Bill(s) of quantities (as per E-Tender Document)
- (d) Standard General Conditions of Contract and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected up to latest correction slips, copies of which can be seen in the office of Dy.CSTE/Tele & NW/BBS or obtained from the office of the CSTE/PROJECT/BBS, East Coast Railway on payment of prescribed charges.
- (e) Standard Schedule of Rates (Updated Rates) as amended / corrected up to latest correction slips, copies of which can be seen in the office of Dy.CSTE/ Tele & NW /BBS or obtained from the office of the CSTE/PROJECT/BBS, East Coast Railway on payment of prescribed charges.
- (f) All general and detailed drawings pertaining to this work which will be issued by the Engineer or his representatives (from time to time) with all changes and modifications.

2. Drawings for the Work: The Drawing for the work can be seen in the office of the Dy.CSTE/ Tele & NW /BBS at any time during the office hours. The drawings are only for the guidance of Tenderer(s). Detailed working drawings (if required) based generally on the drawing mentioned above, will be given by the Engineer or his representative from time to time.

3. The Tenderer(s) shall quote his / their rates as a percentage above or below the Standard Schedule of Rates (Updated Rates) of East Coast Railway as applicable to Engineering Department (Construction) except where he/they are required to quote item rates and must tender for all the items shown in the Bill(s) of Quantities attached. The quantities shown in the attached Bill(s) of Quantities are given as a guide and are approximate only and are subject to variation according to the needs of the Railway. The Railway does not guarantee work under each item of the Bill(s) of Quantities. The tenderer(s) shall quote rates / rebates only at specified place in Tender Form supplied by Railway. Any revision of rates / rebates submitted (quoted) through a separate letter whether enclosed with the bid (Tender Form) or submitted separately or mentioned elsewhere in the document other than specified place shall be **summarily ignored and will not be considered**.

3.1 In addition to check list given in E-Tender Document under 'Compliance' the tenderer should check once more on important items as under:

- i) Whether the tender offer is accompanied by Power of Attorney and it is accepted by Power of Attorney holder.
- ii) Whether the details submitted in required format duly signed by tenderer and Chartered Accountant as in Annexure-B, G&G1.
- iii) Whether all other mandatory documents uploaded without which tender offer is to be summarily rejected or is liable to be rejected.

4. Tenders containing erasures and / or alterations of tender documents are liable to be rejected. Any correction made by tender(s) in his/their entries must be attested by him / them.

4.1 The tender shall be finalised based on submitted documents & no post tender correspondence shall be entertained. However, if any clarification is required, the Railway at its discretion may sought such clarification from the Tenderers.

The Railway's request for clarification and the response of the contractor shall be in writing. No change in substance of the Bid shall be sought, offered or permitted except required clarification needed by Railway during evaluation. If the Bidder does not provide clarifications of its Bid by the date and time set in the Railway's request for clarification then his/their offer(s) shall be dealt based on available information with Railways interpretation only.

4.2 While submitting offers the tenderer(s) generally commit mistakes in submitting the mandatory documents like Certificates regarding contracting experience, Audited Balance Sheet duly certified by the Chartered Accountant, Certificate in respect to true and factuality of documents, information in connection with evaluation of bid capacity, Power of Attorney, submission of tenders by authorised signatory, JV related documents etc. As such, the tenderer(s) should go through the tender document very carefully before submitting his/their offer and accordingly upload all the mandatory documents and other relevant documents as per the formats annexed in the tender document.

5. The works are required to be completed within a period of months **as mentioned on the NIT Header of E-Tender document** from the date of issue of acceptance letter.

6. Bid Security:

(a) Subject to exemptions provided under para 5(1) (a) of Part-1 (ITT) of this document, the tender must be accompanied by a Bid Security as mentioned in tender documents, failing which the tender shall be summarily rejected.

(b) The Tenderer(s) shall keep the offer open for a minimum period of 60 days from the date of closing of the Tender. It is understood that the tender documents have been issued to the Tenderer(s) and the Tenderer(s), is / are permitted to tender in consideration of the stipulation on his / their part that after submitting his / their tender subject to the period being extended further, if required by mutual agreement from time to time, he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Dy.CSTE/Tele & NW/BBS or CSTE/PROJECT/BBS of East Coast Railway. Should the tenderer fail to observe or comply with the foregoing stipulation, the amount deposited or Bank guarantee bond submitted as Bid Security for the due performance of the above stipulation, shall be forfeited to the Railway.

(c) If his tender is accepted,

(i) the Bid Security mentioned in sub para(a) above deposited in cash through e-payment gateway will be retained as part security for the due and faithful fulfilment of the contract in terms of Clause 16 of the Standard General Conditions of Contract;

(ii) the Bid Security mentioned in sub para(a) above submitted as Bank guarantee bond, will be encashed as part security for the due and faithful fulfilment of the contract in terms of Clause 16 of the Standard General Conditions of Contract.

The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation to the Bid Security that may happen thereto while in their possession, nor be liable to pay interest thereon.

(d) In case Contractor submits the Term Deposit Receipt/Bank Guarantee Bond towards either the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway shall return the Bid Security so retained as per sub para(c) above, to the Contractor.

7. Rights of the Railway to deal with Tender: The authority for the acceptance of the tender will rest with the Railway. It shall not be obligatory on the said authority to accept the lowest tender or any other tender, and tenderer(s) shall neither demand any explanation for the cause of rejection of his/ their tender nor the Railway to assign reasons for declining to consider or reject any particular tender or tenders.

8. If the tenderer(s) deliberately gives / give wrong information in his / their tender or creates / create circumstances for the acceptance of his / their tender, the Railway reserves the right to reject such tender at any stage.

9. If any partner(s) of a partnership firm expires after the submission of its tender or after the acceptance of its tender, the Railway shall deem such tender as cancelled/contract as terminated under clause 61 of the Standard General Conditions of Contract, unless the firm retains its characters per partnership agreement. If a sole proprietor expires after the submission of tender or after the acceptance of tender, the Railway shall deem such tender as cancelled / contract as terminated under clause 61 of the Standard General Conditions of Contract.

10. Eligibility Criteria:

10.1 Technical Eligibility Criteria:

(a) The tenderer must have successfully completed or substantially completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

Three similar works each costing not less than the amount equal to **30%** of advertised value of the tender, or

Two similar works each costing not less than the amount equal to **40%** of advertised value of the tender, or

One similar work each costing not less than the amount equal to **60%** of advertised value of the tender.

(b) (1) In case of composite works (e.g. works involving more than one distinct component, such as Civil Engineering works, S&T works, Electrical works, OHE works etc. and in the case of major bridges – substructure, superstructure etc.), tenderer must have successfully completed or substantially completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

Three similar works **each** costing not less than the amount equal to **30%** of advertised value of each component of tender, or

Two similar works **each** costing not less than the amount equal to **40%** of advertised value of each component of tender, or

One similar work **each** costing not less than the amount equal to **60%** of advertised value of each component of tender.

Note for b (1): Separate completed works of minimum required values shall also be considered for fulfilment of technical eligibility criteria for different components.

(b) (2) In such cases, what constitutes a component in a composite work shall be clearly pre-defined with estimated tender cost of it, as part of the tender documents without any ambiguity.

(b) (3) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be either executed by tenderer himself if he has work experience as mentioned in clause 7 of the Standard General Conditions of Contract or through subcontractor fulfilling the requirements

as per clause 7 of the Standard General Conditions of Contract or jointly i.e., partly himself and remaining through subcontractor, with prior approval of CSTE/PROJECT/BBS in writing.

However, if required in tender documents by way of Special Conditions, a formal agreement duly notarised, legally enforceable in the court of law, shall be executed by the main contractor with the subcontractor for the component(s) of work proposed to be executed by the subcontractor(s), and shall be submitted along with the offer for considering subletting of that scope of work towards fulfilment of technical eligibility. Such subcontractor must fulfil technical eligibility criteria as follows:

The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract, costing not less than 35% value of work to be subletted, in last 5 years, ending last day of month previous to the one in which tender is invited through a works contract.

Note: for subletting of work costing up to Rs 50 lakh, no previous work experience of subcontractor shall be asked for by the Railway.

In case after award of contract or during execution of work it becomes necessary for contractor to change subcontractor, the same shall be done with subcontractor(s) fulfilling the requirements as per clause 7 of the Standard General Conditions of Contract, with prior approval of CSTE/PROJECT/BBS in writing.

Note for Item 10.1:

Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organisation, work experience certificate issued by Public listed company having average annual turnover of Rs. 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporation/registered at least 5 year prior to the date of closing of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public listed company to issue such certificates.

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant. TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

10.2. Financial Eligibility Criteria: The tenderer must have minimum average annual contractual turnover of V/N or 'V' whichever is less; where

V= Advertised value of the tender in crores of Rupees.

N= Number of years prescribed for completion of work for which bids have been invited.

The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.

The tenderers shall submit requisite information as per **Annexure-B of Chapter-7** along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

10.3. Bid Capacity: The tender/technical bid will be evaluated based on bid capacity formula detailed as **Annexure-G & G1 of Chapter-7**.

10.4 Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under:

The conversion rate of US Dollars into Rupees shall be the daily representative exchange rates published by the Reserve Bank of India or entity authorized by RBI to do so for the relevant date or immediately previous date for which rates have been published. Where, relevant date shall be as on the last day of month previous to the one in which tender is invited. In case of any other currency, the same shall first be converted to US Dollars as on the last day of month previous to the one in which tender is invited, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date or immediately previous date for which rates have been published.

[Explanation for clause 10 including clause 10.1 to 10.4 - Eligibility Criteria:

1. Substantially Completed Work means an ongoing work in which payment equal to or more than 90% of the present contract value (excluding the payment made for adjustment of Price variation (PVC), if any) has been made to the contractor in that ongoing contract and no proceedings of termination of contract on Contractor's default has been initiated. The credential certificate in this regard should have been issued not prior to 60 days of date of invitation of present tender.

2. In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfilment of credentials.

3. If a work is physically completed and completion certificate to this extent is issued by the concerned organization but final bill is pending, such work shall be considered for fulfilment of credentials.

4. In case of completed work, the value of final bill (gross amount) including the PVC amount (if paid) shall be considered as the completion cost of work. In case final bill is pending, only the total gross amount already paid including the PVC amount (if paid) shall be considered as the completion cost of work.

In case of substantially completed work, the total gross amount already paid including the PVC amount (if paid), as mentioned in the certificate, shall be considered as the cost of substantially completed work.

5. If a bidder has successfully completed a work as subcontractor and the work experience certificate has been issued for such work to the subcontractor by a Govt. Organization or public listed company as defined in Note for Item 10.1 Para 10 of the Tender Form (Second Sheet), the same shall be considered for the purpose of fulfilment of credentials.

6. In case a work is considered similar in nature for fulfilment of technical credentials, the overall cost including the PVC amount (if paid) of that completed work or substantially completed work, shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.

7. In case of newly formed partnership firm, the credentials of individual partners from previous proprietary firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of $0.3 \times 0.2 \times$ value of the work done in the previous entity. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.

8. In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm (e.g. in a partnership firm of partners A, B &

C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.

9. In case of existing partnership firm if any other partner(s) joins the firm without any modification in the name and PAN/TAN no. of the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.

10. Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.

11. In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the succession Updated Rates.

12. If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.

13. In a partnership firm "AB" of A&B partners, in case A also works as propriety firm "P" or partner in some other partnership firm "AX", credentials of A in propriety firm "P" or in other partnership firm "AX" earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.

14. In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm.

15. In case company A is merged with company B, then company B would get the credentials of company A also.]

11. Tenderer Credentials:

Documents testifying tenderer previous experience and financial status should be produced along with the tender.

Tenderer(s) who is / are not borne on the approved list of the Contractors of East Coast Railway shall submit along with his / their tender:

- (i) Certificates and testimonials regarding contracting experience for the type of job for which tender is invited with list of works carried out in the past.
- (ii) Certificates which may be an attested Certificate from the client, Audited Balance Sheet duly certified by the Chartered Accountant etc regarding contractual payments received in the past.
- (iii) The list of personnel / organization on hand and proposed to be engaged for the tendered work. Similarly list of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work.
- (iv) A copy of **certificate** stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the **certificate**

to be submitted by the bidder is enclosed as **Annexure-A of Chapter-7. In addition to Annexure-A, in case of other than Company/Proprietary firm, Annexure-A(I) shall also be submitted by the each member of a Partnership Firm/Joint Venture(JV)/Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP) etc, as the case may be.** Non submission of **certificate** by the bidder shall result in **summarily rejection** of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested/digitally signed by which they/he are/is qualifying the Qualifying Criteria mentioned in the Tender Document.

- (v) The Railway reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the Railway, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the Railway shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the Railway there under.
- (vi) (a) In case of any information submitted by tenderer is found to be false, forged or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender Bid Security besides banning of business for a period of up to two years.
 (b) In case of any information submitted by tenderer is found to be false, forged or incorrect after the award of contract, the contract shall be terminated. Bid Security, Performance Guarantee and Security Deposit available with the railway shall be forfeited. In addition, other dues of the contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of upto two years.

12. Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.

13. Execution of Contract Documents: The successful Tenderer(s) shall be required to execute an agreement with the President of India acting through the CSTE/PROJECT/BBS or Dy.CSTE/Tele & NW/BBS, East Coast Railway for carrying out the work according to Standard General Conditions of Contract, Special Conditions / Specifications annexed to the tender and Standard Specifications (Works and Materials) of Railway as amended/corrected up to latest correction slips, mentioned in tender form (First Sheet).

14. Documents to be submitted along with Tender:

(i) The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm / company / Joint Venture (JV) / Registered Society / Registered Trust/Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP) etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern, and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.

(ii) Following documents shall be submitted by the tenderer:

(a) Sole Proprietorship Firm:

- (i) All documents in terms of Para 10 of the Tender Form (Second Sheet) above.

(b) HUF:

- (i) A copy of notarized affidavit on Stamp Paper declaring that he who is submitting the tender on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.
- (ii) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

(c) Partnership Firm:

- (i) All documents as mentioned in para 18 of the Tender Form (Second Sheet).

(d) Joint Venture (JV): All documents as mentioned in para 17 of the Tender Form (Second Sheet).

(e) Company registered under Companies Act 2013:

- (i) The copies of **MOA (Memorandum of Association) / AOA (Articles of Association)** of the company
- (ii) A copy of Certificate of Incorporation
- (iii) A copy of Authorization/Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual to sign the tender on behalf of the company and create liability against the company.
- (iv) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

(f) LLP (Limited Liability Partnership):

- (i) A copy of LLP Agreement
- (ii) A copy of Certificate of Incorporation
- (iii) A copy of Power of Attorney/Authorization issued by the LLP in favour of the individual to sign the tender on behalf of the LLP and create liability against the LLP.
- (iv) An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
- (v) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

(g) Registered Society & Registered Trust:

- (i) A copy of the Certificate of Registration
 - (ii) A copy of Memorandum of Association of Society/Trust Deed
 - (iii) A copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust.
 - (iv) A copy of Rules & Regulations of the Society
 - (v) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above
- (iii) If it is NOT mentioned in the submitted tender that tender is being submitted on behalf of a Sole Proprietorship firm / Partnership firm / Joint Venture / Registered Company etc., then the tender shall be treated as having been submitted by the individual who has signed the tender.
- (iv) After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society / HUF/LLP etc. shall be neither asked nor considered, if submitted. Further, no suo moto cognizance of any document available in public domain (i.e., on internet etc.) or in Railway's record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted.
- (v) A tender from JV / Partnership firm etc. shall be considered only where permissible as per the tender conditions.

(vi) The Railway will not be bound by any change of power of attorney or in the composition of the firm made subsequent to the submission of tender. Railway may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

15. The tenderer whether sole proprietor/ a company or a partnership firm / registered society/ registered trust/ HUF/ LLP etc. if they want to act through agent or individual partner(s), should submit along with the tender, a copy of power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person specifically authorizing him/them to submit the tender, and further to deal with the Tender/ Contract up to the stage of signing the agreement except in case where such specific person is authorized for above purposes through a provision made in the partnership deed / Memorandum of Understanding / Article of Association / Board resolution, failing which tender shall be summarily rejected.

A separate power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, shall be submitted after award of work, specifically authorizing him/them to deal with all other contractual activities subsequent to signing of agreement, if required.

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

16. Employment/Partnership etc. of Retired Railway Employees:

- (a) Should a tenderer
 - i) be a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, whether in the executive or administrative capacity or whether holding a pensionable post or not, in the Engineering or any other department of any of the railways owned and administered by the President of India for the time being, OR
 - ii) being partnership firm / joint venture (JV) / registered society / registered trust etc have as one of its partners/members a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, OR
 - iii) being an incorporated company have any such retired Engineer of the gazetted rank or any other gazetted officer working before his retirement as one of its directors

AND

in case where such Engineer or officer had not retired from government service at least 1 year prior to the date of submission of the tender

THEN

the tenderer will give full information as to the date of retirement of such Engineer or gazetted officer from the said service and as to whether permission for taking such contract, or if the Contractor be a partnership firm or an incorporated company, to become a partner or director as the case may be, has been obtained by the tenderer or the Engineer or officer, as the case may be from the President of India or any officer, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender.

- b) In case, upon successful award of contract, should a tenderer depute for execution of the works under or to deal matters related with this contract, any retired Engineer of gazette rank or retired gazetted officer working before his retirement in the Engineering or any other department of any of the railways owned and administered by the President of India for the time being, and now in his employment, then the tenderer will ensure that retired Engineer or retired gazetted officer had retired from government service at least 1 year prior to the date of his employment with tenderer and in case he had retired from service within a year then he possesses the requisite permission from the President of India or any officer, duly authorized by him in this behalf, to get associated with the tenderer.
- c) Should a tenderer or Contractor being an individual, have member(s) of his family or in the case of partnership firm/ company / joint venture (JV) / registered society / registered trust etc. one or more of his partner(s)/shareholder(s) or member(s) of the family of partner(s)/shareholder(s) having share of more than 1% in the tendering entity employed in gazetted capacity in the Engineering or any other department of the railway, then the tenderer at the time of submission of tender, will inform the authority inviting tenders the details of such persons.

Note:-If information as required as per 16.a), b), c) above has not been furnished, contract is liable to be dealt in accordance with provision of clause 62 of Standard General Condition of contract.

JOINT VENTURE (JV) IN WORKS TENDERS

17. Participation of Joint Venture (JV) in Works Tender: This para shall be applicable for works tenders wherein tender documents provide for the same.

17.1 Separate identity/name shall be given to the Joint Venture.

17.2 Number of members in a JV shall not be more than three, if the work involves only one department (say Civil or S&T or Electrical or Mechanical) and shall not be more than five, if the work involves more than one Department. One of the members of the JV shall be its Lead Member who shall have a majority (at least 51%) share of interest in the JV. The other members shall have a share of not less than 20% each in case of JV with up to three members and not less than 10% each in case of JV with more than three members. In case of JV with foreign member(s), the Lead Member has to be an Indian firm/company with a minimum share of 51%.

17.3 A member of JV shall not be permitted to participate either in individual capacity or as a member of another JV in the same tender.

17.4 The tender form shall be purchased and submitted only in the name of the JV and not in the name of any constituent member. The tender form can however be submitted by JV or any of its constituent member or any person authorized by JV through Power of Attorney to submit tender.

17.5 Bid Security shall be submitted by JV or authorized person of JV either as:

- (i) Cash through e-payment gateway or as mentioned in tender document, or
- (ii) Bank Guarantee bond either in the name of JV, or in the name of all members of JV as per MOU irrespective of their share in the JV if the JV has not been constituted legally till the date of submission of tender.

17.6 A copy of Memorandum of Understanding (MoU) duly executed by the JV members on a stamp paper, shall be submitted by the JV along with the tender. The complete details of the members of the JV, their share and responsibility in the JV etc. particularly with reference to financial, technical and other obligations shall be furnished in the MoU.

17.7 Once the tender is submitted, the MoU shall not normally be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Bid Security

shall be liable to be forfeited.

17.8 Approval for change of constitution of JV shall be at the sole discretion of the Railway. The constitution of the JV shall not normally be allowed to be modified after submission of the tender bid by the JV, except when modification becomes inevitable due to succession laws etc. provided further that there is no change in qualification of minimum eligibility criteria by JV after change of composition. However, the Lead Member shall continue to be the Lead Member of the JV. Failure to observe this requirement would render the offer **invalid**.

17.9 Similarly, after the contract is awarded, the constitution of JV shall not be allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and minimum eligibility criteria should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract conditions.

17.10 On award of contract to a JV, a single Performance Guarantee shall be submitted by the JV as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc. shall be accepted only in the name of the JV and no splitting of guarantees amongst the members of the JV shall be permitted.

17.11 On issue of LOA (Letter of Acceptance), the JV entity to whom the work has been awarded, with the same shareholding pattern as was declared in the MOU/JV Agreement submitted along with the tender, shall be got registered before the Registrar of the Companies under 'The Companies Act - 2013' (in case JV entity is to be registered as Company) or before the Registrar/Sub-Registrar under the 'The Indian Partnership Act, 1932' (in case JV entity is to be registered as Partnership Firm) or under 'The LLP Act 2008' (in case JV entity is to be registered as LLP). A separate PAN shall be obtained for this entity. The documents pertaining to this entity including its PAN shall be furnished to the Railways before signing the contract agreement for the work. In case the tenderer fails to observe/comply with this stipulation within 60 days of issue of LOA, contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The entity so registered, in the registered documents, shall have, inter-alia, following Clauses:

17.11.1 Joint and Several Liability - Members of the entity to which the contract is awarded, shall be jointly and severally liable to the Railway for execution of the project in accordance with General and Special Conditions of Contract. The members of the entity shall also be liable jointly and severally for the loss, damages caused to the Railways during the course of execution of the contract or due to non-execution of the contract or part thereof.

17.11.2 Duration of the Registered Entity - It shall be valid during the entire currency of the contract including the period of extension, if any and the maintenance period after the work is completed.

17.11.3 Governing Laws - The Registered Entity shall in all respect be governed by and interpreted in accordance with Indian Laws.

17.12 Authorized Member - Joint Venture members in the JV MoU shall authorize Lead member on behalf of the Joint Venture to deal with the **Contract**, sign the agreement or enter into contract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV.

17.13 No member of the Joint Venture shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the Railway in respect of the said tender/contract.

17.14 Documents to be enclosed by the JV along with the tender:

17.14.1 In case one or more of the members of the JV is/are partnership firm(s), following documents shall be submitted:

- (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
- (ii) A copy of consent of all the partners or individual authorized by partnership firm, to enter into the Joint Venture Agreement on a stamp paper,
- (iii) A notarized or registered copy of Power of Attorney (duly registered as per prevailing law) in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm.
- (iv) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.

17.14.2 In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed:

- (i) A copy of notarized affidavit on Stamp Paper declaring that his Concern is a proprietary Concern and he is sole proprietor of the Concern OR he who is signing the affidavit on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.

17.14.3 In case one or more members of the JV is/are companies, the following documents shall be submitted:

- (i) A copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement,
- (ii) The copies of **MOA (Memorandum of Association) / AOA (Articles of Association)** of the company
- (iii) A copy of Certificate of Incorporation
- (iv) A copy of Authorization/copy of Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual to sign the tender, sign MOU/JV Agreement on behalf of the company and creates liability against the company.

17.14.4 In case one or more members of the JV is/are LLP firm/s, the following documents shall be submitted:

- (i) A copy of LLP Agreement
- (ii) A copy of Certificate of Incorporation of LLP
- (iii) A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement
- (iv) A copy of Authorization /copy of Power of Attorney issued by the LLP firm (backed by resolution passed by the Partners) in favour of the individual, to sign the tender and/or sign the MOU/ JV agreement on behalf of the LLP and create liability against the LLP.
- (v) An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are

partners/members. Any Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.

17.14.5 In case one or more members of the JV is/are Society/s or Trust/s, the following documents shall be submitted:

- (i) A copy of Certificate of Registration
- (ii) A copy of Memorandum of Association of Society/Trust Deed
- (iii) A copy of Rules & Regulations of the Society
- (iv) A copy of Power of Attorney, in favour of the individual to sign the tender documents and create liability against the Society/Trust.

17.14.6 All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

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

17.15 Credentials & Qualifying Criteria: Technical, financial eligibility and Bid capacity of the JV shall be adjudged based on satisfactory fulfilment of the following criteria:

17.15.1 Technical Eligibility Criteria ('a' or 'b' mentioned hereunder):

(a) For Works without composite components

The technical eligibility for the work as per para 10.1 above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV'.

Each other (non-lead) member(s) of JV, who is/ are not satisfying the technical eligibility for the work as per para 10.1 above, shall have technical capacity of minimum 10% of the cost of work i.e., each non-lead member of JV member must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of advertised value of the tender.

(b) For works with composite components

The technical eligibility for major component of work as per para 10.1 above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV' and technical eligibility for other component(s) of work as per para 10.1 above, shall be satisfied by either the 'JV in its own name & style' or 'any member of the JV'.

Each other (non-lead) member(s) of JV, who is/ are not satisfying the technical eligibility for any component of the work as per para 10.1 above, shall have technical capacity of minimum 10% of the cost of any component of work mentioned in technical eligibility criteria. i.e., each other (non-lead) member of must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of cost of any component of work mentioned in technical eligibility criteria.

Note for Clause 17.15.1:

- (a) The Major component of the work for this purpose shall be the component of work having highest value. In cases where value of two or more component of work is same, any one work can be classified as Major component of work.
- (b) Value of a completed work done by a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the

above mentioned technical eligibility criteria in the tender under consideration.

17.15.2 Financial Eligibility Criteria

The JV shall satisfy the requirement of "Financial Eligibility" mentioned at para 10.2 above. The "financial capacity" of the lead partner of JV shall not be less than 51% of the financial eligibility criteria mentioned at para 10.2 above.

The arithmetic sum of individual "financial capacity" of all the members shall be taken as JV's "financial capacity" to satisfy this requirement.

Note: Contractual payment received by a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying compliance of the above mentioned financial eligibility criteria in the tender under consideration.

17.15.3 Bid Capacity

The JV shall satisfy the requirement of "Bid Capacity" requirement mentioned at para 10.3 above. The arithmetic sum of individual "Bid capacity" of all the members shall be taken as JV's "Bid capacity" to satisfy this requirement.

18. Participation of Partnership Firms in works tenders:

18.1 The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.

18.2 The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized prior to date of tender opening as per the Indian Partnership Act prior to submission of tender.

18.3 Separate identity / name should be given to the partnership firm. The partnership firm should have PAN / TAN number in its own name and PAN /TAN number in the name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.

18.4 Once the tender has been submitted, the constitution of the firm shall not be allowed to be modified / altered / terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior permission should be taken from Railway and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the Railways and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after submission of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full Bid Security shall be forfeited.

If any Partner/s withdraws from the firm after submission of the tender and before the award of the contract, the offer shall be rejected and Bid Security of the tenderer will be forfeited. If any new partner joins the firm after submission of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the tenderer fails to inform Railway beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

18.5 A partner of the firm shall not be permitted to participate either in his individual capacity or as a partner of any other firm in the same tender.

18.6 The tender form shall be submitted only in the name of partnership firm. The Bid Security shall be submitted by partnership firm through e-payment gateway or as mentioned in tender document. The EMD submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.

18.7 On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee, guarantee for various Advances to the Contractor shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.

18.8 On issue of Letter of Acceptance (LOA), contract agreement with partnership firm shall be executed in the name of the firm only and not in the name of any individual partner.

18.9 In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing of contract agreement.

(a) Joint and several liabilities:

The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the Railway for execution of the contract in accordance with General and Special Conditions of the Contract. The partners shall also be liable jointly and severally for the loss, damages caused to the Railway during the course of execution of the contract or due to non-execution of the contract or part thereof.

(b) Duration of the partnership deed and partnership firm agreement:

The partnership deed/partnership firm agreement shall normally not be modified/altered/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of Railway, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

(c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.

(d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the Railway.

18.10 The tenderer shall clearly specify that the tender is submitted on behalf of a partnership firm. The following documents shall be submitted by the partnership firm, with the tender:

(i) A notarized copy of partnership Deed or a copy of the Partnership deed registered with the Registrar.

(ii) A notarized or registered copy of Power of Attorney (duly registered as per prevailing law) in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm.

(iii) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India / any State Govt. from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.

(iv) All other documents in terms of **Para 10 of the Tender Form (Second Sheet) above.**

18.12 Evaluation of eligibility of a partnership firm:

Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfilment of the eligibility criteria laid down in **Para 10 of the Tender Form (Second Sheet) above.**

19. Advances to Contractor –

If specifically provided in Tender Documents of tender having advertised value more than Rs 50 Crores, Railway shall make payment, as an Interest bearing advances, as per Contractor's request. These advances shall carry a simple interest @ **RBI Bank Rate + 5% (Ref- Rly Board's Lr. No. 2018/CE-I/CT/1 dtd. 10.03.2022).** The payment and recovery of such advances shall be made as per manners prescribed in Clause 46.4 of the Standard General Conditions of Contract.

(Signature)

(Designation)

Signature of Tenderer(s) _____ Railway Date _____

Date _____

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION
EXCERPTS OF STANDARD GENERAL CONDITIONS OF CONTRACT
GENERAL OBLIGATIONS

1. (1) Law Governing the Contract: The contract shall be governed by the law for the time being in force in the Republic of India. (Para-3. (1) of SGCC-2022)

1.(2) Compliance to Regulations and Bye-Laws: The Contractor shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The Contractor shall be bound to give all notices required by statute, regulations or bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof. (Para-3.(2) of SGCC-2022)

1.(3) Environmental and Forest clearances:

The Railway represents and warrants that the environmental and forest clearances pertaining to the work commensurate with the progress of work/agreed programme will be obtained by Engineer. In the event of any delay in securing respective clearances leading to delay in execution of work, the Contractor shall be entitled to Extension of Time for the period of such delay in accordance with the provisions of Clause-17A(ii) of SGCC-2022. (Para-3. (3) of SGCC-2022)

2. Communications to be in Writing: All notices, communications, reference and complaints made by the Railway or the Engineer or the Engineer's Representative or the Contractor inter-se concerning the works shall be in writing or e-mail on registered e-mail IDs and no notice, communication, reference or complaint not in writing or through e-mail, shall be recognized. (Para-4 of SGCC-2022)

3. Service of Notices on Contractors: The Contractor shall furnish to the Engineer the name, designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have been duly given to the Contractor, if delivered to the Contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post/*e-mail* or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by the Contractor to the Engineer. (Para-5 of SGCC-2022)

4. Occupation and Use of Land: No land belonging to or in the possession of the Railway shall be occupied by the Contractor without the permission of the Railway. The Contractor shall not use, or allow to be used the site for any purposes other than that of executing the works. Whenever non-railway bodies/persons are permitted to use railway premises with competent authority's approval, conservancy charges as applicable from time to time may be levied. (Para-6 of SGCC-2022)

5. Assignment or Subletting of Contract: The Contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein any manner whatsoever without the special permission in writing of the Chief Engineer, save as provided below. Any breach of this condition shall entitle the Railway to rescind the contract under Clause 62 of Standard General Conditions of Contract and also render the Contractor liable for payment to the Railway in respect of any loss or damage arising or ensuing from such cancellation; provided always that execution of the details of the work by petty Contractor under the direct and personal supervision of the Contractor or his agent shall not be deemed to be sub-letting under this clause.

In case Contractor intends to subcontract part of work, he shall submit a proposal in writing seeking permission of Chief Engineer for the same. While submitting the proposal to railway, Contractor shall ensure the following:

(a) (i) Total value of work to be assigned to sub-contractor(s) shall not be more than 50% of total contract value.

(ii) The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract in last 5 years, ending date of submission of proposal by Contractor to Railway, costing not less than 35% value of work to be subletted, through a works contract. For fulfilment of above, Work Experience Certificate issued by a Govt. Department/Organisation shall be considered. Further, Work Experience Certificate issued by a Public listed company shall be considered provided the company is having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, registered at least 5 years back from the date of submission of proposal by Contractor to Railway and work experience certificate issued by a person authorised by the Public Listed Company to issue such certificates.

Note: for subletting of work costing up to Rs 50 lakh no previous work experience shall be asked for by the Railway.

In case contractor submits subcontractor's work experience certificate issued by public listed company, the contractor shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

(iii) There is no banning with the sub-contractor in force over IR.

(b) The Contractor shall provide to the Engineer a copy of the agreement to be entered into by Contractor with subcontractor. No subcontractor shall be permitted without a formal agreement between Contractor and subcontractor. This agreement shall clearly define the scope of work to be carried out by subcontractor and the terms of payment in clear & unambiguous manner.

(c) On receipt of approval from Chief Engineer, Contractor shall enter into a formal agreement legally enforceable in Court of Law with subcontractor and submit a copy of the same to the Engineer.

(d) The Contractor shall intimate to the Engineer not less than 7 days in advance, the intended date of commencement of subcontractor's work.

(e) Once having entered into above agreement, Contractor shall discontinue such arrangement, if he intends to do so at his own or on the instruction of Railway, with prior intimation to Chief Engineer.

(f) The Contractor shall indemnify railway against any claim of subcontractor.

(g) The Contractor shall release payment to the Sub-contractor(s) promptly and shall endeavour to resolve all issues amicably and speedily with the Sub-contractor(s), so that the execution of work is not affected in any manner whatsoever.

(h) In addition to issuance of work experience certificate to Contractor, the Engineer, when, based on documents, is satisfied that subcontracted work has been carried out by subcontractor, shall issue work experience certificate to the subcontractor also for the portion of work subcontracted and successfully completed by the sub-contractor.

Note: Work Experience Certificate to the subcontractor shall be issued only when the contractor's work is complete and contractor is entitled for the issuance of Work Experience Certificate. However, in the same contract, when the Chief Engineer, based on documents, is satisfied that the subcontractor has successfully carried out subletted work, without issuance of work experience certificate to subcontractor at this stage, the Chief Engineer can, only once, consider the successfully completed subletted work for the fulfilment of eligibility for further subletting of work to the subcontractor in the same contract. When the contractor's work

is complete and contractor is entitled for the issuance of work experience certificate, the subcontractor shall be issued one Work Experience Certificate for the total scope of work executed by the subcontractor in the contract.

(i) The responsibility of successful completion of work by subcontractor shall lie with Contractor. Subcontracting will in no way relieve the Contractor to execute the work as per terms of the Contract.

(j) Further, in case Engineer is of the view that subcontractor's performance is not satisfactory, he may instruct the Contractor to remove the subcontractor from the work and Contractor has to comply with the above instructions with due promptness. Contractor shall intimate the actual date of discontinuation of subcontract to Engineer. No claim of Contractor whatsoever on this account shall be entertained by the Railway and this shall be deemed as 'excepted matter' (matter not arbitrable).

(k) The permitted subcontracting of work by the Contractor shall not establish any contractual relationship between the sub-contractor and the Railway and shall not relieve the Contractor of any responsibility under the Contract. (Para-7 of SGCC-2022)

6. Assistance by Railway for the Stores to be obtained by the Contractor: Owing to difficulty in obtaining certain materials (including Tools & Plant) in the market, the Railway may have agreed without any liability therefore to endeavour to obtain or assist the Contractor in obtaining the required quantities of such materials as may be specified in the Tender. In the event of delay or failure in obtaining the required quantities of the aforesaid material, the Contractor shall not be deemed absolved of his own responsibility and shall keep in touch with the day to day position regarding their availability and accordingly adjust progress of works including employment of labour and the Railway shall not in any way be liable for the supply of materials or for the non-supply thereof for any reasons whatsoever nor for any loss or damage arising in consequence of such delay or non-supply. (Para-8 of SGCC-2022)

7. Railway Passes: No free railway passes shall be issued by the Railway to the Contractor or any of his employee/worker. (Para-9 of SGCC-2022)

8. Representation on Works: The Contractor shall, when he is not personally present on the site of the works place, keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself to the Engineer and orders given by the Engineer or the Engineer's representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the Contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with this provision at any time will entitle the Railway to rescind the contract under Clause 62 of these Conditions. (Para-12 of SGCC-2022)

9. Excavated Material: The Contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stone, clay ballast, earth, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings and produce shall be the property of the Railway provided that the Contractor may, with the permission of the Engineer, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer. (Para-14 of SGCC-2022)

10. Indemnity by Contractors: The Contractor shall indemnify and save harmless the Railway from and against all actions, suit, proceedings, losses, costs, damages, charges, claims and demands of every nature and description brought or recovered against the Railways by reason of any act or omission of the Contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained. (Para-15 of SGCC-2022)

11.(1) Security Deposit: The Security Deposit shall be **5% of the contract value**. The Bid Security submitted by the Contractor with his tender will be retained/encashed by the Railways as part of security for the due and

faithful fulfillment of the contract by the Contractor. Provided further that, if Contractor submits the Cash or Term Deposit Receipt issued from a Scheduled commercial bank of India or irrevocable Bank Guarantee Bond from a Scheduled commercial bank of India, either towards the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway shall return the Bid Security, to the Contractor.

Balance of Security Deposit may be deposited by the Contractor in cash or Term Deposit Receipt issued from Scheduled commercial bank of India or irrevocable Bank Guarantee bond issued from Scheduled commercial bank of India, or may be recovered at the rate of 6% of the bill amount till the full Security Deposit is recovered. Provided also that in case of defaulting Contractor, the Railway may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.

The Irrevocable Bank Guarantee submitted towards Security deposit shall be initially valid up to the stipulated date of Maintenance period plus 60 days and shall be extended from time to time, depending upon extension of contract granted in terms of Clause 17A and 17B of the Standard General Conditions of Contract.

Note: Security Deposit deposited in cash by the Contractor or recovered from the running bills of a Contractor or submitted by contractor as Term Deposit Receipt(s) can be refunded/returned to the contractor, in lieu of irrevocable Bank Guarantee bond issued from scheduled commercial bank of India, to be submitted by him, for an amount equal to or more than the already available Security Deposit, provided however that, in a contract of value less than Rs. 50 Crore, such refund/ return of the already available Security Deposit is permitted up to two times and in a contract of value equal to or more than Rs. 50 Crore, such refund / return of the already available Security Deposit is permitted up to three times. (Para-16(1) of SGCC-2022)

11.(2)(i) Refund of Security Deposit: Security Deposit mentioned in sub clause (1) above shall be returned to the Contractor after the following:

- (a) Final Payment of the Contract as per clause 51.(1) of GCC and
- (b) Execution of Final Supplementary Agreement or Certification by Engineer that Railway has No Claim on Contractor and
- (c) Maintenance Certificate issued, on expiry of the maintenance period as per clause 50.(1) of GCC in case applicable. (Para-16.(2)(i) of SGCC-2022)

11.(2)(ii) Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions, the Security Deposit already with railways under the contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 62 (1) of these conditions, the Security Deposit shall not be forfeited. (Para-16.(2)(ii) of SGCC-2022)

11.(3) No interest shall be payable upon the Bid Security and Security Deposit or amounts payable to the Contractor under the Contract, but Government Securities deposited in terms of Sub-Clause 11.(4)(b) of this clause will be payable with interest accrued thereon. (Para-16.(3) of SGCC-2022)

11.(4) Performance Guarantee

The procedure for obtaining Performance Guarantee is outlined below:

- (a) The successful bidder shall have to submit a Performance Guarantee (PG) within 21 (Twenty-one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (Twenty-one) days and up to 60 days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 12% per annum shall be charged for the delay beyond 21(Twenty-one) days, i.e. from 22nd day after the date of issue of LOA. Further, if the 60th day happens to be a declared holiday in the concerned office of the Railway, submission of PG can be accepted on the next working day.

In all other cases, if the Contractor fails to submit the requisite PG even after 60 days from the date

of issue of LOA, the contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit Bid Security and other dues payable against that contract. In case a tenderer has not submitted Bid Security on the strength of their registration as a Startup recognized by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry, DIPP shall be informed to this effect.

The failed Contractor shall be debarred from participating in re-tender for that work.

- (b) The successful bidder shall submit the Performance Guarantee (PG) in any of the following forms, amounting to **5% of the original contract value**:
- (i) A deposit of Cash;
 - (ii) Irrevocable Bank Guarantee;
 - (iii) Government Securities including State Loan Bonds at 5% below the market value;
 - (iv) Pay Orders and Demand Drafts tendered by any Scheduled Commercial Bank of India;
 - (v) Guarantee Bonds executed or Deposits Receipts tendered by any Scheduled Commercial Bank of India;
 - (vi) Deposit in the Post Office Saving Bank;
 - (vii) Deposit in the National Savings Certificates;
 - (viii) Twelve years National Defence Certificates;
 - (ix) Ten years Defence Deposits;
 - (x) National Defence Bonds and
 - (xi) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of FA&CAO (free from any encumbrance) may be accepted.
- (c) The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G. shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the Contractor shall get the validity of P.G. extended to cover such extended time for completion of work plus 60 days.
- (d) The value of PG to be submitted by the Contractor is based on original contract value and shall not change due to subsequent variation(s) in the original contract value.
- (e) The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily.
- (f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed in addition to forfeiture of Security Deposit available with railway.
- (g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:

- (i) Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.
- (ii) Failure by the Contractor to pay President of India any amount due, either as agreed by the Contractor or determined under any of the Clauses/Conditions of the Agreement, within 30 days of the service of notice to this effect by Engineer.
- (iii) The Contract being determined or rescinded under clause 62 of these conditions. (Para-16.(4) of SGCC-2022)

12. Force Majeure Clause: If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics/pandemics, strikes, lockouts or acts of God (hereinafter, referred to events) provided, notice of the happening of any such event is given by either party to the other within 30 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Engineer as to whether the works have been so resumed or not shall be final and conclusive, PROVIDED FURTHER that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party. (Para-17 of SGCC-2022)

12-A Extension of Time in Contracts: Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the Contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:

- (i) **Extension due to Modification:** If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the cause thereof shall arise and in any case not less than one month before the expiry of the date fixed for completion of the works.
- (ii) **Extension for Delay not due to Railway or Contractor:** If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of Railway's employees or by other Contractor employed by the Railway under Sub-Clause (4) of Clause 20 of Standard General Conditions of Contract or in executing the work not forming part of the contract but on which Contractor's performance necessarily depends or by reason of proceeding taken or threatened by or dispute with adjoining or to neighbouring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the Contractor not having received in due time necessary instructions from the Railway for which he shall have specially applied in writing to the Engineer or his authorized representative then upon happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening, but shall nevertheless make constantly his best endeavours to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The Contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time. The Engineer on receipt of such request from the Contractor shall consider the same and shall grant such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forward to the extended period of time; the same rates, terms and conditions of contract being applicable

as if such extended period of time was originally provided in the original contract itself.

- (iii) **Extension for Delay due to Railways:** In the event of any failure or delay by the Railway to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the Railway due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the Contractor to damages or compensation therefor, but in any such case, the Railway may grant such extension or extensions of the completion date as may be considered reasonable.

The Contractor shall indicate the period for which the work is likely to be delayed and shall seek extension of time as may be considered necessary under clause 12A(i) or/and 12A(ii) or/ and 12A(iii) above, as soon as the cause thereof shall arise and, in any case, not less than 15 days before the expiry of the date fixed for completion of the works. The Engineer shall consider the same and shall grant and communicate such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forward to the extended period of time; the same rates, terms and conditions of contract being applicable, as if such extended period of time was originally provided in the original contract itself.

The non-submission of request for extension or submission of request within less than 15 days before the expiry of the date fixed for completion of the works, shall make him ineligible for extension under these sub clauses, subject to final decision of Engineer. (Para-17A of SGCC-2022)

12-B Extension of Time with Liquidated Damages (LD) for delay due to Contractor: The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s) as specified in the contract. If the Contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in Clause 12 and 12-A, the Railway may, if satisfied that the works can be completed by the Contractor within reasonable short time thereafter, allow the Contractor for further extension of time (Proforma at Annexure-VII of Standard General Condition of Contract) as the Engineer may decide. On such extension the Railway will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the Contractor as agreed damages and not by way of penalty for each week or part of the week, a sum calculated at the *rate of Liquidated Damages as decided by Engineer, between 0.05% to 0.30% of contract value of the works for each week or part of the work.*

For the purpose of this Clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition shall not exceed 5% of the contract value or of the total value of the item or groups of items of work for which a separate distinct completion period is specified in the contract.

Provided further, that if the Railway is 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 the work within further extension of time allowed as aforesaid, the Railway shall be entitled without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's Security Deposit and rescind the contract under Clause 62 of GCC, whether or not actual damage is caused by such default.

NOTE:

In a contract, where extension(s) of time have been allowed once under clause 12B, further request(s) for extension of time under clause 12A can also be considered under exceptional circumstances. Such extension(s) of time under clause 12A shall be without any Liquidated damages, but the Liquidated damages already recovered during extension(s) of time granted previously under clause 12B shall not be waived. However, Price variation during such extension(s) shall be dealt as applicable for extension(s) of time under clause 12B.

(Para-17B of SGCC-2022)

12-C Bonus for Early Completion of Work: In case of open tenders having value more than Rs. 20 crore and original period of completion 12 months or more, when there is no reduction in original scope of work by more than 10%, and no extension granted on either railway or Contractor's account, Contractor shall be entitled for a bonus of 1% for each 30 days' early completion of work. The period of less than 30 days shall be ignored while working out bonus. The maximum bonus shall be limited 3% of original contract value. The completion date shall be reckoned as the date of issuance of completion certificate by Engineer. (Para-17C of SGCC-2022)

EXECUTION OF WORKS

13.(1) Contractor's understanding: It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract. (Para-19.(1) of SGCC-2022)

13.(2) Commencement of Works: The Contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay. (Para-19.(2) of SGCC-2022)

13.(3) Accepted Programme of Work: The Contractor who has been awarded the work shall as soon as possible but not later than 30 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organisation (in terms of labour and supervisors), plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the Contractor shall endeavor to fulfill this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the Contractor in achieving earlier completion of item or whole of the works than indicated in the programme.

In Contracts for works of New Line/Gauge Conversion/Doubling/Railway Electrification, finalized through Tenders having advertised value more than Rs.100 crores, the Contractor shall submit a detailed time programme to the Engineer within 30 days after issue of LOA. The program shall include the physical and Financial Progress vis-à-vis program and forecast cash flow adopting Project Management Software such as Primavera/Sure Track/MS Project etc. The program must identify the milestones, interface requirements and program reporting elements. The Contractor shall supply, free of cost one set of authorized software to the Engineer and the soft copy of structured program for the project. This shall be updated every month. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress. Each programme shall include:

The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage, Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing, each of these stages for work by each Subcontractor, if any, the sequence and timing of inspections and tests specified in the Contract, and a supporting report which includes:

a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and

details showing the Contractor's reasonable estimate for the number of each class of Contractor's Personnel & Equipment, required on the Site for each major stage.

Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Engineer shall be entitled to rely upon the programme when planning their activities.

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer within 15 days in accordance with this Sub-Clause. (Para-19.(3) of SGCC-2022)

13.(4) Setting out of Works: The Contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The Contractor shall execute the work true to alignment, grade, levels and dimensions as shown in the drawing and as directed by the Engineer's representative and check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall co-operate with the Engineer's representative for checking of all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error appear or arise in any part of the work, the Contractor, on being required so to do by the Engineer's representative shall, at his own cost rectify such errors, to the satisfaction of the Engineer's representative.

Such checking shall not absolve the Contractor of his own responsibility of maintaining accuracy in the work. The Contractor shall carefully protect and preserve all bench marks, sight rails, pegs and other things used in setting out the work. (Para-19. (4) of SGCC-2022)

14.(1) Compliance to Engineer's Instructions: The Engineer shall direct the order in which the several parts of the works shall be executed and the Contractor shall execute without delay all orders given by the Engineer from time to time; but the Contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects. (Para-20. (1) of SGCC-2022)

14.(2) Alterations to be Authorized: No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorised, except under instructions from the Engineer. The Contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer. (Para-20.(2) of SGCC-2022)

14.(3) Extra Works: Should works over and above those included in the contract require to be executed at the site, the Contractor shall have no right to be entrusted with the execution of such works which may be carried out by another Contractor or Contractors or by other means at the option of the Railway. (Para-20.(3) of SGCC-2022)

14.(4) Separate Contracts in Connection with Works: The Railway shall have the right to let other contracts in connection with the works. The Contractor shall afford other Contractors reasonable opportunity for the storage of their materials and the execution of their works and shall properly connect and coordinate his work with theirs. If any part of the Contractor's work depends upon proper execution or result upon the work of another Contractor(s), the Contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The Contractor's failure so-to inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other Contractor's work after the execution of his work. (Para-20.(4) of SGCC-2022)

15. Instruction of Engineer's Representative: Any instructions or approval given by the Engineer's representative to Contractor in connection with the works shall bind the Contractor as though it had been given by the Engineer provided always as follows:

(a) Failure of the Engineer's representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof.

(b) If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative, he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision. (Para-21 of SGCC-2022)

16.(1) Adherence to Specifications and Drawings: The site and the detailed drawings shall be made available to the contractor commensurate with the accepted programme of work submitted under clause 13(3). The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If Contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer, he shall bear all the costs arising or ensuing therefrom and shall be responsible for all loss to the Railway. (Para-22.(1) of SGCC-2022)

16.(2) Drawings and Specifications of the Works: The Contractor shall keep one copy of Drawings and Specifications at the site, in good order, and such contract documents as may be necessary, available to the Engineer or the Engineer's Representative. (Para-22.(2) of SGCC-2022)

16.(3) Ownership of Drawings and Specifications: All Drawings and Specifications and copies thereof furnished by the Railway to the Contractor are deemed to be the property of the Railway. They shall not be used on other works and with the exception of the signed contract set, shall be returned by the Contractor to the Railway on completion of the work or termination of the Contract. (Para-22.(3) of SGCC-2022)

16.(4) Compliance with Contractor's Request for Details: The Engineer shall furnish with reasonable promptness, after receipt by him of the Contractor's request, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable therefrom. (Para-22.(4) of SGCC-2022)

16.(5) Meaning and Intent of Specification and Drawings: If any ambiguity arises as to the meaning and intent of any portion of the Specifications and Drawings or as to execution or quality of any work or material, or as to the measurements of the works the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the Contractor) to the Chief Engineer who shall have the power to correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive. (Para-22.(5) of SGCC-2022)

17. Working during Night: The Contractor shall not carry out any work between sun-set and sun-rise without the previous permission of the Engineer. However, if the Engineer is satisfied that the work is not likely to be completed in time except by resorting to night work, he may order the same without confirming any right on the Contractor for claiming any extra payment for the same. (Para-23 of SGCC-2022)

18. Damage to Railway Property or Private Life and Property: The Contractor shall be responsible for all risk to the work and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or to any other property of the Railway or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the Railway, although all reasonable and proper precautions may have been taken by the Contractor. In case the Railway shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the Contractor; the amount of any costs or charges including costs and charges in connection with legal proceedings, which the Railway may incur in reference thereto, shall be charged to the Contractor. The Railway shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the Contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of

such proceedings, charging to Contractor, as aforesaid; any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise, and the incurring of any such expenses shall not be called in question by the Contractor.(Para-24 of SGCC-2022)

19. Sheds, Storehouses and Yards: The Contractor shall at his own expense provide himself with sheds, storehouses and yards in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the Contractor shall keep at each such sheds, storehouses and yards a sufficient quantity of materials and plant in stock as not to delay the carrying out of the works with due expedition and the Engineer and the Engineer's representative shall have free access to the said sheds, store houses and yards at any time for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plant which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, storehouses or yards by the Contractor. The Contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipments necessary for the execution of the works. (Para-25 of SGCC-2022)

20.Provision of Efficient and Competent Staff at Work Sites by the Contractor:

20.1The Contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound & proper manner and shall employ only such supervisors, workmen & labourers in or about the execution of any of these works as are careful and skilled in the various trades.

20.2The Contractor shall at once remove from the works any agents, permitted sub-contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him.

20.3In the event of the Engineer being of the opinion that the Contractor is not employing on the works a sufficient number of staff and workmen as is necessary for proper completion of the works within the time prescribed, the Contractor shall forthwith on receiving intimation to this effect deploy the additional number of staff and labour as specified by the Engineer within seven days of being so required and failure on the part of the Contractor to comply with such instructions will entitle the Railway to rescind the contract under Clause 62 of Standard General Conditions of Contract.(Para-26 of SGCC-2022)

21A. Deployment of Qualified Engineers at Work Sites by the Contractor:

21A.1The Contractor shall also employ qualified Graduate Engineer(s) or equivalent or qualified Diploma Engineer(s), as prescribed in the tender document.

21A.2In case the Contractor fails to employ the Engineer, as aforesaid in Para 21A.1, he shall be liable to pay liquidated damages at the rates, as prescribed in the tender document.

21A.3No. of qualified Engineers required to be deployed by the Contractor for various activities contained in the works contract shall be specified in the tender documents as 'Special Condition of Contract.' (Para-26A of SGCC-2022)

22.(1)Workmanship and Testing: The whole of the works and/or supply of materials specified and provided in the contract or that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars, instructions and drawings given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions which the Contractors may from time to time receive from the Engineer. The materials may be subjected to tests by means of such machines, instruments and appliances as the Engineer may direct and wholly at the expense of the Contractor. (Para-27.(1) of SGCC-2022)

22.(2) Removal of Improper Work and Materials: The Engineer or the Engineer's Representative shall be entitled to order from time to time:

(a) The removal from the site, within the time specified in the order, of any materials which in his opinion are not in accordance with the specifications or drawings.

(b) The substitution of proper and suitable materials, and

(c) the removal and proper re-execution, notwithstanding any previous tests thereof or on account payments therefor, of any work which in respect of materials or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Contractor in carrying out such order, the Railway shall be entitled to rescind the contract under Clause 62 of GCC.

(d) The provision of Construction and Demolition Waste Management Rule 2016 issued by Ministry of Environment Forest and Climate Change dated 29.03.2016 and published in the Gazette of India, Part – II, Section -3, Sub-section (ii) are binding upon the Contractor. Contractor shall implement these provisions at worksites, for which no extra payment will be payable. (Para-27. (2) of SGCC-2022)

23.(1) Contractor to Supply Water for Works: Unless otherwise provided in the Contract, the Contractor shall be responsible for the arrangements to obtain supply of water necessary for the works. (Para-31. (1) of SGCC-2022)

23.(2) Water Supply from Railway System: The Railway may supply to the Contractor part or whole of the quantity of the water required for the execution of works from the Railway's existing water supply system at or near the site of works on specified terms and conditions and at such charges as shall be determined by the Railway and payable by the Contractor, provided that the Contractor shall arrange, at his own expense, to effect the connections and lay additional pipelines and accessories on the site and that the Contractor shall not be entitled to any compensation for interruption or failure of the water supply. (Para-31. (2) of SGCC-2022)

23.(3) Water Supply by Railway Transport: In the event of the Railway arranging supply of water to the Contractor at or near the site of works by travelling water tanks or other means, the freight and other charges incurred thereby, including demurrage charges that may be levied, shall be paid by the Contractor in addition to the charges referred to in Sub-Clause (2) of the Clause provided that the Contractor shall not be entitled to any compensation for interruption or failure of the water supply. (Para-31. (3) of SGCC-2022)

23.(4)(a) Contractor to Arrange Supply of Electric Power for Works: Unless otherwise provided in the contract, the Contractor shall be responsible for arrangements to obtain supply of Electric Power for the works. (Para-31.(4) (a) of SGCC-2022)

(b) Electric Supply from the Railway System: The Railway may supply to the Contractor part or whole of the electric power wherever available and possible, required for execution of works from the Railway's existing electric supply systems at or near the site of works on specified terms and conditions and such charges as shall be determined by the Railway and payable by the Contractor provided the cost of arranging necessary connections to the Railway's Electric Supply systems and laying of underground/overhead conductor, circuit protection, electric power meters, transmission structure, shall be borne by the Contractor and that the Contractor shall not be entitled to any compensation for interruption or failure of the Electric supply system. (Para-31.(4) (b) of SGCC-2022)

24.(1) Tools, Plant and Materials Supplied by Railway: The Contractor shall take all reasonable care of all tools, plant and materials or other property whether of a like description or not belonging to the Railway and committed to his charge for the purpose of the works and shall be responsible for all damage or loss caused by him, his agents, permitted sub-contractor, or his workmen or others while they are in his charge. The Contractors shall sign accountable receipts for tools, plants and materials made over to him by the Engineer and on completion of the works shall hand over the unused balance of the same to the Engineer in good order and repair, fair wear and tear excepted, and shall be responsible for any failure to account for the same or any damage done thereto. (Para-33.(1) of SGCC-2022)

24.(2) Hire of Railway's Plant: The Railway may hire to the Contractor such plant as concrete mixers, compressors and portable engines for use during execution of the works on such terms as may be specified in the special conditions or in a separate agreement for Hire of Plant. (Para-33.(2) of SGCC-2022)

25.(1) Precaution During Progress of Works: During the execution of works, unless otherwise specified, the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property. (Para-34.(1) of SGCC-2022)

25.(2) Roads and Water Courses: Existing roads or water courses shall not be blocked cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any unauthorized closure, cutting through, alteration, diversion or obstruction to such roads or water courses by the Contractor or his agent or his staff shall be recoverable from the Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India. (Para-34.(2) of SGCC-2022)

25.(3) Provision of Access to Premises: During progress of work in any street or thoroughfare, the Contractor shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or means of lighting which may be interrupted by reasons of the execution of the works and shall react and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day, if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible. (Para-34.(3) of SGCC-2022)

25.(4) Safety of Public: The Contractor shall be responsible to take all precautions to ensure the safety of the public whether on public or railway property and shall post such look out men as may, in the opinion of the Engineer, be required to comply with regulations appertaining to the work. Contractor shall ensure placement of barricading / partitions at the place of work to ensure safety of habitants of adjacent area, failing which Engineer may advise stoppage of work as per his discretion. (Para-34.(4) of SGCC-2022)

25.(5) Display Board: The Contractor shall be responsible for displaying the details of works i.e. name of work, approximate cost, expected date of completion, name and address of the Contractor and address of Engineer on a proper steel Board of size not less than 1m x 1m. (Para-34.(5) of SGCC-2022)

26. Use of Explosives: Explosives shall not be used on the works or on the site by the Contractor without the permission of the Engineer and then also only in the manner and to the extent to which such permission is given. Where explosives are required for the works, they shall be stored in a special magazine to be provided by and at the cost of the Contractor in accordance with the Explosive Rules. The Contractor shall obtain the necessary license for the storage and the use of explosives. All operations in which or for which explosives are employed shall be at the sole risk and responsibility of the Contractor and the Contractor shall indemnify the Railway in respect thereof. (Para-35 of SGCC-2022)

27. Rates for Items of Works:

(i) The rates, entered in the accepted Schedule of Rates of the Contract are intended to provide for works duly and properly completed in accordance with the General and Special (if any) Conditions of the Contract and the Specifications and drawings together with such enlargements, extensions, diminutions, reductions, alterations or additions as may be ordered in terms of Clause 42 of Standard General Condition of Contract and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply, including full freight of materials, stores, patterns, profiles, moulds, fittings, centerings, scaffolding, shoring props, timber, machinery, barracks, tackle, roads, pegs, posts, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the Railway, the erection, maintenance and removal of all temporary works and buildings, all watching, lighting, bailing, pumping and draining, all prevention of or compensation for trespass, all barriers

and arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the Railway, the setting of all work and of the construction, repair and upkeep of all centre lines, bench marks and level pegs thereon, site clearance, all fees duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties or expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the execution of the contract and all such other incidental charges or contingencies as may have been specially provided for in the Specifications.

However, if rates of existing GST or cess on GST for Works Contract is increased or any new tax /cess on Works Contract is imposed by Statute after the date of opening of tender but within the original date of completion/date of completion extended under clause 17 & 17A of Standard General Conditions of Contract and the Contractor thereupon properly pays such taxes/cess, the Contractor shall be reimbursed the amount so paid.

Further, if rates of existing GST or cess on GST for Works Contract is decreased or any tax/cess on Works Contract is decreased / removed by Statute after the date of opening of tender, the reduction in tax amount shall be recovered from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India. (Para-37 of SGCC-2022)

28.(1) Rates for Extra Items of Works: Standard Schedule of Rates (SSOR) Items: Any item of work carried out by the Contractor on the instructions of the Engineer which is not included in the accepted Bill(s) of Quantities but figures in the Standard Schedule of Rates (SSOR), shall be executed at the rates set forth in the "Standard Schedule of Rates (SSOR)" modified by the tender percentage as accepted in the contract for that chapter of Standard Schedule of Rates (SSOR).

For item(s) not covered in this sub clause, the rate shall be decided as agreed upon between the Engineer and the Contractor before the execution of such items of work as per sub clause (b).

(b) Other Items: For any item of work to be carried out by the Contractor but not included in the accepted Bill(s) of Quantities and also not covered under sub clause (a) above, the Contractor shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted Bill(s) of Quantities does not include rate or rates for such extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the Railway shall be entitled to execute the extra works by other means and the Contractor shall have no claim for loss or damage that may result from such procedure.

The assessment of rates for extra items shall be arrived at based on the prevailing rates and by taking guidance from the following documents in order of priority.

- (i) Analysis of Rates for "Unified Schedule of Rates of Indian Railways (USSOR)"
- (ii) Analysis of Rates for "Delhi Schedule of Rates issued by CPWD (DSR)"
- (iii) Market Analysis (Para-39.(1) of SGCC-2022)

28.(2) Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore-mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to the rates as shall be fixed by the Engineer. However, if the Contractor is not satisfied with the decision of the Engineer in this respect, he may appeal to the Chief Engineer within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The Chief Engineer's decision after hearing both the parties in the matter would be final and binding on the Contractor and the Railway. (Para-39.(2) of SGCC-2022)

29. Offloading of Part(s) of Work: At the final stage of completion/ commissioning of work, in case the contractor fails to complete the final part(s) of the work and the value of such part(s) of the work is limited to 5% of the original contract value, the Engineer may allow/decide for offloading of such part(s) of works, either after the Contractor's request in writing to do so or after serving a 14 (Fourteen) days suo-moto notice (as per annexure- VIIA of GCC-2022), if the Engineer is of the opinion that :-

- (i) Such Offloading of works (up to 5% of original contract value) would enable successful completion of contract/work,
- (ii) Termination/ Part termination of the contract at this stage is not be in the interest of the Railway/work, and
- (iii) The anticipated additional cost for execution of such works through other mode would not be substantial and can be recovered from the pending dues of the contractor;

The Contractor shall be informed, in due course, by the Engineer of the mode and cost of execution of such offloaded work through other agency (ies) (as per annexure- VIIB). The extra expenditure so incurred in execution of the offloaded work, shall be recovered from subsequent Bill(s) or any other dues of the Contractor, but not exceeding the value of Performance Guarantee available in the contract. There shall be no other repercussion of such offloading on execution of the balance contract. The Contractor shall have no claim on account of above mentioned offloading of works. (Para-40A of SGCC-2022)

VARIATIONS IN EXTENT OF CONTRACT

30. Modification to Contract to be in Writing: In the event of any of the provisions of the contract required to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the Railway and the Contractor and no work shall proceed under such modifications until this has been done. Any verbal or written arrangement abandoning, modifying, extending, reducing or supplementing the contract or any of the terms thereof shall be deemed conditional and shall not be binding on the Railway unless and until the same is incorporated in a formal instrument and signed by the Railway and the Contractor, and till then the Railway shall have the right to repudiate such arrangements. (Para-41 of SGCC-2022)

30.(1) Powers of Modification to Contract: The Engineer on behalf of the Railway shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character position, site, quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the Contractor will not be entitled, to any compensation for any increase/reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order. (Para-42(1) of SGCC-2022)

30.(2)(i) Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of each individual item of the contract would be up to 25% of the quantity originally contracted, except in case of foundation work (in which no variation limit shall apply). However, the rates for the increased quantities shall be as per sub- para (iii) below.

(ii) The Contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever up to the limit of 25% variation in quantity of individual item of works.

(iii) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates

- (a) Quantities operated in excess of 125% but up to 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
- (b) Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;

(c) Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

(d) Variation to quantities of Minor Value Item:

The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original agreement value.

d.(i) Quantities operated upto and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender;

d.(ii) Quantities operated in excess of 100% but upto 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;

d.(iii) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

(iv) In case of earthwork, the variation limit of 25% shall apply to the gross quantity of earthwork items and variation in the quantities of individual classifications of soil shall not be subject to this limit.

(v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SOR schedule as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (Non-SSOR) items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate). (Para-42(2) of SGCC-2022)

30.(3) Valuation of Variations: The enlargements, extensions, diminution, reduction, alterations or additions referred to in Sub-Clause (2) of this Clause shall in no degree affect the validity of the contract; but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressly included and provided for in the Specifications and Drawings and the amounts to be paid therefor shall be calculated in accordance with the accepted Bills of Quantities. Any extra items/quantities of work falling outside the purview of the provisions of Sub-Clause (2) above shall be paid for at the rates determined under Clause-39 of Standard General Conditions of Contract. (Para-42(3) of SGCC-2022)

CLAIMS

31.(1) Quarterly Statement of Claims: The Contractor shall prepare and furnish to the Engineer once in every quarter commencing from the month following the month of issue of Letter of Acceptance, an account giving full and detailed particulars of all claims for any additional expenses to which the Contractor may consider himself entitled to and of all extra or additional works ordered by the Engineer which he has executed during the preceding quarter and no claim for payment for such work will be considered which has not been included in such particulars. (Para-43(1) of SGCC-2022)

31.(2) Signing of "No Claim" Certificate: The Contractor shall not be entitled to make any claim whatsoever against the Railway under or by virtue of or arising out of this contract, nor shall the Railway entertain or consider any such claim, if made by the Contractor, after he shall have signed a "No Claim" Certificate in favour of the Railway in such form as shall be required by the Railway after the works are finally measured up. The Contractor shall be debarred from disputing the correctness of the items covered by "No Claim" Certificate or demanding a clearance to arbitration in respect thereof. (Para-43(2) of SGCC-2022)

MEASUREMENTS, CERTIFICATES AND PAYMENTS

32. Quantities in Bills of Quantities Annexed to Contract: The quantities set out in the accepted Bills of Quantities with items of works quantified are the estimated quantities of the works and they shall not be taken

as the actual and correct quantities of the work to be executed by the Contractor in fulfillment of his obligations under the contract. (Para-44 of SGCC-2022)

33(i). Measurement of Works by Railway: The Contractor shall be paid for the works at the rates in the accepted Bills of Quantities and for extra works at rates determined under Clause 39 of Standard General Conditions of Contract on the measurements taken by the Engineer or the Engineer's representative in accordance with the rules prescribed for the purpose by the Railway. The quantities for items the unit of which in the accepted Bills of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bills of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the Contractor who shall be present at the site and shall sign the results of the measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measurements. Failing the Contractor's attendance, the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement books provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:

(a) It shall be open to the Contractor to take specific objection to any recorded measurements or Classification on any ground within seven days of the date of such measurements. Any re-measurement taken by the Engineer or the Engineer's representative in the presence of the Contractor or in his absence after due notice has been given to him in consequence of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and Classification of the measurements.

(b) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements. (Para-45(i) of SGCC-2022)

33(ii). Measurement of Works by Contractor's Authorized Representative (in case the contract provides for the same):

(a) The Contractor shall be paid for the works at the rates in the accepted Bills of Quantities and for extra works at rates determined under Clause 39 of Standard General Conditions of Contract on the measurements taken by the Contractor's authorized Engineer in accordance with the rules prescribed for the purpose by the Railway. The quantities for items the unit of which in the accepted Bills of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bills of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the Engineer.

The date and time of test checks shall be communicated to the Contractor who shall be present at the site and shall witness the test checks, failing the Contractor's attendance the test checks may be conducted in his absence and such test checks shall not withstanding such absence be binding upon Contractor provided always that any objection made by Contractor to test check shall be duly investigated and considered in the manner set out below:

(i) It shall be open to the Contractor to take specific objection to test checks of any recorded measurement within 7 days of date of such test checks. Any re-test check done by the concerned Railway's authority in the presence of the Contractor or in his absence after due notice given to him in consequent of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurements.

- (ii) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.

(b) Incorrect measurement, actions to be taken: If in case during test check or otherwise, it is detected by the Engineer that agency has claimed any exaggerated measurement or has claimed any false measurement for the works which have not been executed; amounting to variation of 5% or more of claimed gross bill amount, action shall be taken as following:

- (i) On first occasion of noticing exaggerated/ false measurement, Engineer shall recover liquidated damages equal to 10% of claimed gross bill value.
- (ii) On any next occasion of noticing any exaggerated/false measurement, railway shall recover liquidated damages equal to 15% of claimed gross bill value. In addition, the facility of recording of measurements by Contractor as well as release of provisional payment shall be withdrawn. Once withdrawn, measurements shall be done by railway as per clause 33(i) above. (Para-45(ii) of SGCC-2022)

34.(1) "On-Account " Payments: The Contractor shall be entitled to be paid from time to time by way of "On-Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the contract. All payments due on the Engineer's/Engineer's Representative's certificates of measurements or Engineer's certified "Contractor's authorized Engineer's measurements" shall be subject to any deductions which may be made under these presents and shall further be subject to, unless otherwise required by Clause 16 of Standard General Conditions of Contract, a retention of ten percent by way of Security Deposits, until the amount of Security Deposit by way of such retentions shall amount to 5% of the total value of the contract provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and that the Engineer may withhold any certificate, if the works or any part thereof are not being carried out to his satisfaction. (Para-46(1) of SGCC-2022)

34.(2) Rounding off Amounts: The total amount due on each certificate shall be rounded off to the nearest rupee, i.e. sum less than 50 paise shall be omitted and sums of 50 paise and more upto ₹1 will be reckoned as ₹1. (Para-46(2) of SGCC-2022)

34.(3) On Account Payments not Prejudicial to Final Settlement: "On-Account" payments made to the Contractor shall be without prejudice to the final making up of the accounts (except where measurements are specifically noted in the Measurement Book as "Final Measurements" and as such have been signed by the Contractor and Engineer/Engineer's Representative) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such accounts nor of any particular quantity of work having been executed nor of the manner of its execution being satisfactory. (Para-46(3) of SGCC-2022)

34.(4) If payment(s) of Advances are applicable in the contract, as mentioned in the Tender Documents, Railway shall make payment(s) of Interest bearing advances, on the request of contractor. The payment and recovery of such Advances shall be made as under:

(a): Mobilisation Advance –

This shall be limited to 10% of the Contract value and shall be paid in 2 stages:

Stage 1 – 5% of Contract Value on signing of the contract agreement.

Stage 2 – 5% on mobilization of site-establishment, setting up offices, bringing in equipment and actual commencement of work.

The stage 1 of advance shall be payable immediately after signing of contract agreement.

The stage 2 of advance shall be payable at the time of mobilisation, only after submission of an utilization certificate by the contractor that the Stage 1 advance has been properly utilized in the contract.

These Advances shall be payable against irrevocable guarantee (Bank Guarantee, FDRs) from a scheduled commercial bank of India of at least 110% of the value of the sanctioned advance amount (covering principal plus interest).

(b): Advance Against Machinery and Equipment –

This advance shall be limited to a maximum of 10% of the contract value against new Machinery & Equipment, involving substantial outlay, brought to site and essentially required for the work. This advance shall not exceed 75% of the purchase price of such Equipment and shall be payable when Equipment is hypothecated to the President of India by a suitable bond or alternatively covered by an irrevocable Bank Guarantee from a scheduled commercial bank of India for full cost of the Plant & Equipment in a form acceptable to Railways. The Plant & Equipment shall be insured for the full value and for the entire period, they are required for the work. This Plant & Equipment shall not be removed from the site of work without prior written permission of the Engineer. No advance should be given against old Plant & Machinery.

The advances under sub clause (a) and (b) above, are subject to the following conditions -

(i) The full amount of Advances shall be recovered from contractor dues. The recovery shall commence when the value of contract executed reaches 15% of original contract value and shall be completed when the value of work executed reaches 85% of the original contract value. The instalments on each "on account bill" will be on pro-rata basis.

Interest shall be recovered on the advance outstanding for the period commencing from the date of payment of advance till date of particular on-account bill (through which recovery of principal is effected) and adjusted fully against on-account bill along with pro-rata principal recovery. In the event of any short-fall, the same shall be carried forward to the next on-account bill and shall attract interest.

(ii) The advances shall be used by the Contractor for the purpose of the Contract, and for the purpose for which they are paid. Under no circumstances, shall the advances be diverted for other purposes. Any such diversion shall be construed as a breach of the Contract and the Contractor shall be asked to return the advance at once and pay interest at 15% per annum till the advance is recovered back from him. The Contractor shall return the advance and pay the interest in one go without demur. The Contractor, if required by the Engineer shall provide the details of utilisation of Mobilisation advance.

(iii) If the Contractor is found to have contravened the provision, it will constitute a breach of contract and Railway shall be entitled to terminate the contract and forfeit his Performance Guarantee as well as Security Deposit.

(iv) In cases, where the Contract is rescinded as per clause 62 of the contract or short closed under any other condition(s) of the contract, without making full recovery of advances and accrued interest thereon, by the Railway, such balance of advances and accrued interest thereon shall immediately become due and payable by the Contractor to the Railway. The same shall be recovered from any due of Contractor with the Government of India. (Para-46(4) of SGCC-2022)

34.(5) Manner of Payment: Unless otherwise specified payments to the Contractor will be transferred electronically to his bank account. (Para-46(5) of SGCC-2022)

35. Price Variation Clause (PVC): (Para-46A of SGCC-2022)

35.1 Applicability: Price Variation Clause (PVC) shall be applicable only in tender having advertised value above **Rs. 2 Crores and having completion period above 12 months**. Provided further that, in a contract where PVC is applicable, following shall be outside the purview of price adjustments (i.e. shall be excluded from the gross value of the work for the purpose of price variation):

a) Materials supplied by Railway to the Contractors, either free or at fixed rate;

b) Any extra item(s) included in subsequent variation falling outside the purview of the Bill(s) of Quantities of tender, under clause 39. (1)(b) of these Standard General Conditions, unless applicability of PVC and 'Base Month' has been specially agreed, while fixing the rates of such extra item(s).

35.2 Base Month: The Base Month for 'Price Variation Clause' shall be taken as the one month prior to closing of tender including extensions, if any, unless otherwise stated elsewhere. The quarter for applicability of PVC shall commence from the month following Base month. The Price Variation shall be based on the average Price Index of the quarter under consideration.

35.3 Validity:

Rates accepted by Railway Administration shall hold good till completion of work and no additional individual claim shall be admissible except:

- (a) Payment/recovery for increase/decrease in GST on works contract or imposition/removal of any tax/cess on Works Contract as per Clause 37 of Standard General Conditions of Contract,
- (b) Payment/recovery for overall market situation as per Price Variation Clause given hereunder.

35.4 Components of various items in a contract on which variation in prices be admissible, shall be

steel, cement, ferrous material, non-ferrous material, insulators, zinc and other materials, labour, plant & machinery, fuel, explosives, detonators etc. Adjustment for variation in prices of these items shall be determined in the manner prescribed.

35.5 No price variation shall be admissible for fixed components.

35.6 The percentages of various components in various type of works shall be as specified for all item (s)/ Bill(s) of Quantities in tender document and the same shall be fixed as per table & classifications given below:

(I). For Civil Engineering Works

S N	Classification		1A, 2 & 3A	4A	5A	6A	7	8A	9A	1B, 3B, 4B, 5B, 6B 8B & 9B	1C, 3C, 4C, 5C, 6C, 8C & 9C	3D, 4D, 5D, 6D, 8D & 9D	3E, 4E, 5E, 6E, 8E & 9E
	Components												
1	Fixed	*	15	15	15	15	15	15	15	15	15	15	15
2	Labour	L _c	20	25	30	20	50	20	20	0	0	10	25
3	Steel	S _c	0	0	0	0	0	0	0	85	0	50	0
4	Cement	C _c	0	0	15	0	0	0	0	0	85	0	0
5	Plant Machinery & Spares	PM _c	30	15	5	20	15	20	30	0	0	10	30
6	Fuel & Lubricants	F _c	25	15	5	15	15	20	15	0	0	10	20
7	Other materials	M _c	10	15	30	30	5	25	20	0	0	5	10
8	Detonators & Explosive	E _c	0	15	0	0	0	0	0	0	0	0	0
Total			100	100	100	100	100	100	100	100	100	100	100

* It shall not be considered for any price variation.

The classification mentioned in the table above represents following type of item(s) in the work(s) –

1 Earthwork in Formation

- 1A All Item(s) excluding 1B or/and 1C
- 1B Item(s) for supply of Steel
- 1C Item(s) for supply of Cement

2 Ballast Supply Works**3 Tunnelling Works (Without Explosives)**

- 3A All Item(s) excluding 3B or/and 3C or/and 3D or/and 3E
- 3B Item(s) for supply of Steel
- 3C Item(s) for supply of Cement or/and Grout
- 3D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 3E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

4 Tunnelling Works (With explosives)

- 4A All Item(s) excluding 4B or/and 4C or/and 4D or/and 4E
- 4B Item(s) for supply of Steel
- 4C Item(s) for supply of Cement or/and Grout
- 4D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 4E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

5 Building Works

- 5A All Item(s) excluding 5B or/and 5C or/and 5D or/and 5E
- 5B Item(s) for supply of Steel
- 5C Item(s) for supply of Cement
- 5D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 5E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

6 Bridges & Protection work

- 6A All Item(s) excluding 6B or/and 6C or/and 6D or/and 6E
- 6B Item(s) for supply of Steel
- 6C Item(s) for supply of Cement
- 6D Item(s) for Fabrication, Assembly, Erection& Launching of Girders including supply of Steel
- 6E Item(s) for Fabrication, Assembly, Erection & Launching of Girders excluding supply of Steel

7 Permanent Way linking**8 Platform, Passenger Amenities**

- 8A All Item(s) excluding 8B or/and 8C or/and 8D or/and 8E
- 8B Item(s) for supply of Steel item/fittings
- 8C Item(s) for supply of Cement Item
- 8D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 8E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

9 Any Other Works not covered in Classification 1 to 8

- 9A All Item(s) excluding 9B or/and 9C or/and 9D or/and 9E
- 9B Item(s) for supply of Steel

9C Item(s) for supply of Cement or/and Grout

9D Item(s) for Fabrication & Erection of Structures including supply of Steel

9E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

35.7 Formulae: The Amount of variation in prices in various components (labour, material etc.) shall be worked out by the following formulae:

$$(i) \quad L = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (L_Q - L_B) \times L_C}{L_B \times 100}$$

$$(ii) \quad M = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (M_Q - M_B) \times M_C}{M_B \times 100}$$

$$(iii) \quad F = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (F_Q - F_B) \times F_C}{F_B \times 100}$$

$$(iv) \quad E = \frac{(W) \times (E_Q - E_B) \times E_C}{E_B \times 100}$$

$$(v) \quad PM = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (PM_Q - PM_B) \times PM_C}{PM_B \times 100}$$

$$(vi) \quad S = \frac{(W \text{ or } W_S \text{ or } W_{SF}) \times (S_Q - S_B) \times S_C}{S_B \times 100}$$

$$(vii) \quad C = \frac{(W \text{ or } W_C) \times (C_Q - C_B) \times C_C}{C_B \times 100}$$

35.8 The demands for escalation of cost shall be allowed on the basis of provisional indices as mentioned above in Clause 46A.7 of Standard General Conditions of Contract. Any adjustment needed to be done based on the finally published indices shall be made as and when they become available.

35.9: (1) Relevant categories of steel for the purpose of operating Price Variation formula as mentioned in this Clause shall be as under:

SL	Classification	Rates to be used for calculating S _Q or S _B
1.	Reinforcement bars and other rounds	Average of per tonne rates of 10mm dia TMT & 25mm dia TMT; confirming IS1786; Fe 500
2.	All types and sizes of angles, channels and joists	Average of per tonne rates of 'Angle 75x75x6mm, Mild Steel Plate 10mm thickness and Channel 150x75mm; confirming IS2062, E250 Gr "A"
3.	All types and sizes of plates	Average of per tonne rates of 'MS Plates 10mm thickness and 25mm thickness; confirming IS2062, E250 Gr "A"
4.	Any other section of steel not covered in the above categories	Average of price for the 3 categories covered under SL 1, 2 & 3 in this table.

(2). Relevant city for referring "JPC (Joint Plant Committee)" rates of steel items (S_Q /S_B) in different Zonal Railways shall be as under:

SL	City	Railway
1.	Delhi	Northern , North Central, North Eastern, North Western
2.	Kolkata	Eastern, East Central, East Coast, Northeast Frontier, South Eastern, Southeast Central

3.	Mumbai	Central, Western, West Central
4.	Chennai	Southern, South Central & South Western

35.10 Price Variation during Extended Period of Contract

The price adjustment as worked out above, i.e. either increase or decrease shall be applicable upto the stipulated date of completion of work including the extended period of completion where such extension has been granted under Clause 17-A of the Standard General Conditions of Contract. However, where extension of time has been granted due to Contractor's failure under Clause 17-B of the Standard General Conditions of Contract, price adjustment shall be done as follows:

- In case the indices increase above the indices applicable to the last month of original completion period or the extended period under Clause 17-A of Standard General Conditions of Contract, the price adjustment for the period of extension granted under Clause 17-B of Standard General Conditions of Contract shall be limited to the amount payable as per the Indices applicable to the last month of the original completion period or the extended period under Clause 17-A of the Standard General Conditions of Contract; as the case may be.
- In case the indices fall below the indices applicable to the last month of original/ extended period of completion under Clause 17-A of Standard General Conditions of Contract, as the case may be; then the lower indices shall be adopted for the price adjustment for the period of extension under Clause 17-B of the Standard General Conditions of Contract. (Para-46A of SGCC-2022)

36. Maintenance of Works: The Contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the Tender Form after the date of issue of the certificate of completion by the Engineer or any other earlier date subsequent to the completion of the works that may be fixed by the Engineer, be responsible for and effectively maintain and uphold in good substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times as often as the Engineer shall require, any damage or defect that may during the above period arise in or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the Contractor shall be liable for and shall pay and make good to the Railway or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to by reasons or in consequence of the operations of the Contractor or of his failure in any respect. (Para-47 of SGCC-2022)

37.(1)Final Payment: On the Engineer's certificate of completion in respect of the works, adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's certified measurements or Engineer's certified "contractor's authorized engineer's measurements" of the total quantity of work executed by the Contractor upto the date of completion and on the rates accepted in Bill(s) of Quantities and for extra works on rates determined under Clause 39 of Standard General Conditions of Contract shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having signed delivered to the Engineer enclosing either a full account in detail of all claims he may have on the Railway in respect of the works or having delivered No Claim Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claims are not covered under excepted matter i.e. Clauses 7(i), 8, 18, 22(5), 39.1, 39.2, 40A, 43(2), 45(i)(a), 55, 55-A(5), 57, 57A, 61(1), 61(2) and 62(1), 63(iv) and 63.2.211 of the Standard General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion and found to be in good and substantial order, that all properties, works and things, removed, disturbed or injured in consequence of the works have been properly replaced and made good and all expenses and demands incurred by or made upon the Railway for or in the respect of damage or loss by from or in consequence of the works, have been satisfied agreeably and in conformity with the contract. (Para-51. (1) of SGCC-2022)

LABOUR

38. Wages to Labour: The Contractor shall be responsible to ensure compliance with the provision of the Minimum Wages Act, 1948 (hereinafter referred to as the “said Act”) and the Rules made thereunder in respect of any employees directly or through petty Contractors or sub-contractors employed by him for the purpose of carrying out this contract.

If, in compliance with the terms of the contract, the Contractor supplied any labour to be used wholly or partly under the direct orders and control of the Railways whether in connection with any work being executed by the Contractor or otherwise for the purpose of the Railway such labour shall, for the purpose of this Clause, still be deemed to be persons employed by the Contractor.

If any moneys shall, as a result of any claim or application made under the said Act be directed to be paid by the Railway, such money shall be deemed to be moneys payable to the Railway by the Contractor and on failure by the Contractor to repay the Railway any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the Railways shall be entitled to recover the same from Contractor’s bills/Security Deposit or any other dues of Contractor with the Government of India. (Para-54 of SGCC-2022)

38-A. Apprentices Act: The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued thereunder from time to time in respect of apprentices directly or through petty Contractors or sub-contractors employed by him for the purpose of carrying out the Contract.

If the Contractor directly or through petty Contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the Railway may, in its discretion, rescind the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act. (Para-54-A of SGCC-2022)

39. Provisions of Payments of Wages Act: The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees employed by him either directly or through petty Contractors or sub-contractors in the works. If in compliance with the terms of the contract, the Contractor directly or through petty Contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer, such labour shall nevertheless be deemed to comprise persons employed by the Contractor and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the Contractor to repay such money to the Railways deduct the same from any moneys due to the Contractor in terms of the contract. The Railway shall be entitled to recover the same from Contractor’s bills/Security Deposit or any other dues of Contractor with the Government of India all moneys paid or payable by the Railway by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this Clause shall be final and binding upon the Contractor. (Para-55 of SGCC-2022)

39-A. Provisions of Contract Labour (Regulation and Abolition) Act, 1970:

39-A. (1) The Contractor shall comply with the provision of the contract labour (Regulation and Abolition) Act, 1970 and the Contract labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the Railway from and against any claims under the aforesaid Act and the Rules. (Para-55-A.(1) of SGCC-2022)

39-A. (2) The Contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure to fulfill the requirement shall attract the penal provision of the Act. (Para-55-A.(2) of SGCC-2022)

39-A. (3) The Contractor shall pay to the labour employed by him directly or through sub-contractors the wages as per provision of the aforesaid Act and the Rules wherever applicable. The Contractor shall

notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour, indirectly engaged on the works including any engaged by sub-contractors in connection with the said work, as if the labour had been immediately employed by him. (Para-55-A.(3) of SGCC-2022)

39-A. (4) In respect of all labour directly or indirectly employed in the work for performance of the Contractor's part of the contract, the Contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and Rules wherever applicable. (Para-55-A.(4) of SGCC-2022)

39-A.(5) In every case in which, by virtue of the provisions of the aforesaid Act or the rules, the Railway is obliged to pay any amount of wages to a workman employed by the Contractor or his sub-contractor in execution of the work or to incur any expenditure on account of the contingent, liability of the Railway due to the Contractor's failure to fulfill his statutory obligations under the aforesaid Act or the rules, the Railway will recover from the Contractor, the amount of wages so paid or the amount of expenditure so incurred and without prejudice to the rights of the Railway under the Section 20, Sub-Section (2) and Section 2, Sub-Section (4) of the aforesaid Act, the Railway shall be at liberty to recover such amount or part thereof from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India. The Railway shall not be bound to contest any claim made against it under Sub-Section (1) of Section 20 and Sub-Section (4) of Section 21 of the aforesaid Act except on the written request of the Contractor and upon his giving to the Railway full security for all costs for which the Railway might become liable in contesting such claim. The decision of the Chief Engineer regarding the amount actually recoverable from the Contractor as stated above shall be final and binding on the Contractor. (Para-55-A.(5) of SGCC-2022)

39-B. Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952: The Contractor shall comply with the provisions of Para 30 & 36-B of the Employees Provident Fund Scheme, 1952; Para 3 & 4 of Employees' Pension Scheme, 1995; and Para 7 & 8 of Employees Deposit Linked Insurance Scheme, 1976; as modified from time to time through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952", wherever applicable and shall also indemnify the Railway from and against any claims under the aforesaid Act and the Rules. (Para-55-B of SGCC-2022)

39-C (i) Contractor is to abide by the provisions of various labour laws in terms of clause 54, 55, 55A & 55B of the Standard General Condition of Contract. In order to ensure the same, an application has been developed and hosted on website 'www.shramikkalyan.indianrailways.gov.in'. Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The Registration/ updation of Portal shall be done as under:

- (a) Contractor shall apply for onetime registration of his company/firm etc. in the Shramikkalyan portal with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration in the portal within 7 days of receipt of such request.
- (b) Contractor once approved by any Engineer, can create password with login ID (PAN No.) for subsequent use of portal for all Letter of Acceptance (LoAs) issued in his favour.
- (c) The contractor once registered on the portal, shall provide details of his Letter of Acceptances (LoAs) / Contract Agreements on shramikkalyan portal within 15 days of issue of any LoA for approval of concerned engineer. Engineer shall update (if required) and approve the details of LoA filled by contractor within 7 days of receipt of such request.
- (d) After approval of LoA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on shramikkalyan portal on monthly basis.
- (e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.

(ii) While processing payment of any 'On Account bill' or 'Final bill' or release of 'Advances' or 'Performance Guarantee / Security deposit', contractor shall submit a certificate to the Engineer or Engineer's representatives that "I have uploaded the correct details of contract labours engaged in connection with this

contract and payments made to them during the wage period in Railway's Shramikkalyan portal at 'www.shramikkalyan.indianrailways.gov.in' till ____ Month, ____ Year." (Para-55-C of SGCC-2022)

39-D. Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996":

The tenderers, for carrying out any construction work, shall get themselves registered with the Registering Officer under Section-7 of the Building and Other Construction Workers' Welfare Cess Act, 1996 and rules made thereto by the concerned State Govt., and submit certificate of Registration issued from the Registering Officer of the concerned State Govt. (Labour Dept.). The Cess shall be deducted from contractor's bills as per provisions of the Act. (Para-55-D of SGCC-2022)

40. Reporting of Accidents: The Contractor shall be responsible for the safety of all employees directly or through petty Contractors or sub-contractor employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineers Representative and shall make every arrangement to render all possible assistance. (Para-56 of SGCC-2022)

41. Provision of Workmen's Compensation Act: In every case in which by virtue of the provisions of Section 12 Sub-Section (1) of the Workmen's Compensation Act 1923, Railway is obliged to pay compensation to a workman directly or through petty Contractor or sub-contractor employed by the Contractor in executing the work, Railway will recover from the Contractor the amount of the compensation so paid, and, without prejudice to the rights of Railway under Section 12 Sub-section (2) of the said Act, Railway shall be at liberty to recover such amount or any part thereof from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India. Railway shall not be bound to contest any claim made against it under Section 12 Sub-Section (1) of the said Act except on the written request of the Contractor and upon his giving to Railway full security for all costs for which Railway might become liable in consequence of contesting such claim. (Para-57 of SGCC-2022)

41-A. Provision of Mines Act: The Contractor shall observe and perform all the provisions of the Mines Act, 1952 or any statutory modifications or re-enactment thereof for the time being in force and any rules and regulations made thereunder in respect of all the persons directly or through the petty Contractors or sub-contractors employed by him under this contract and shall indemnify the Railway from and against any claims under the Mines Act, or the rules and regulations framed thereunder, by or on behalf of any persons employed by him or otherwise. (Para-57-A of SGCC-2022)

42. Railway not to Provide Quarters for Contractors: No quarters shall normally be provided by the Railway for the accommodation of the Contractor or any of his staff employed on the work. In exceptional cases where accommodation is provided to the Contractor at the Railway's discretion, recoveries shall be made at such rates as may be fixed by the Railway for the full rent of the buildings and equipments therein as well as charges for electric current, water supply and conservancy. (Para-58 of SGCC-2022)

DETERMINATION OF CONTRACT

43.(1) Right of Railway to Determine the Contract: The Railway shall be entitled to determine and terminate the contract at any time should, in the Railway's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the Railway of such determination and the reasons therefor shall be conclusive evidence thereof. (Para-61.(1) of SGCC-2022)

43.(2) Payment on Determination of Contract: Should the contract be determined under sub clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the Railways shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The Railway's decision on the necessity and propriety of such expenditure shall be final and conclusive. (Para-61.(2) of SGCC-2022)

43.(3) The Contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract. (Para-61.(3) of SGCC-2022)

44.(1) Determination of Contract owing to Default of Contractor:

If the Contractor should:

- (i) Becomes bankrupt or insolvent, or
- (ii) Make an arrangement for assignment in favour of his creditors, or agree to carry out the contract under a Committee of Inspection of his creditors, or
- (iii) Being a Company or Corporation, go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or
- (iv) Have an execution levied on his goods or property on the works, or
- (v) Assign the contract or any part thereof otherwise than as provided in Clause 7 of GCC, or
- (vi) Abandon the contract, or
- (vii) Persistently disregard the instructions of the Engineer, or contravene any provision of the contract, or
- (viii) Fail to adhere to the agreed programme of work by a margin of 10% of the stipulated period, or
- (ix) Fail to execute the contract documents in terms of Clause 8 of the Instructions to Tenderers.
- (x) Fails to submit the documents pertaining to identity of JV and PAN in terms of Clause 17.11 of Tender Form (Second Sheet) of Annexure I available in the Instructions to Tenderers.
- (xi) Fail to remove materials from the site or to pull down and replace work after receiving from the Engineer notice to the effect that the said materials or works have been condemned or rejected under Clause 25 and 27 of GCC, or
- (xii) Fail to take steps to employ competent or additional staff and labour as required under Clause 26 of GCC, or
- (xiii) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under Clause 28 of GCC, or
- (xiv) Promise, offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of the Railway or to any person on his or on their behalf in relation to the execution of this or any other contract with this Railway.
- (xv) Fail to adhere to the provisions of Clause 16 of Tender Form (Second Sheet) of Annexure I of the Instructions to Tenderers, or provision of Clause 59(9) of General Conditions of Contract.
- (xvi) Submits copy of fake documents / certificates in support of credentials, submitted by the tenderer

Then and in any of the **said Clause**, the Engineer on behalf of the Railway may serve the Contractor with a notice (Proforma at Annexure-IX of SGCC) in writing to that effect and if the Contractor does not within seven days after the delivery to him of such notice proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid of the entire satisfaction of the Engineer, the Railway shall be entitled after giving 48 hours' notice (Proforma at Annexure-X or XII of SGCC, as the case may be) in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and after expiry of 48 hours' notice, a final termination notice (Proforma at Annexure-XI or XIII of Standard General Conditions of Contract, as the case may be) should be issued.

Note: Engineer at his discretion may resort to the part termination of contract with notices (Proforma at Annexure- IX, XII and XIII of Standard General Conditions of Contract), only in cases where progress of work is more than or equal to 80% of the original scope of work. (Para-62.(1) of SGCC-2022)

44.(2) Right of Railway after Rescission of Contract owing to Default of Contractor: In the event of any or several of the courses, referred to in Sub-Clause (1) of this Clause, being adopted:

(a) The Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and Contractor shall not be entitled to recover or be paid any sum for any work thereto for actually performed under the contract unless and until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the Contractor shall only be entitled to be paid the value so certified.

(b) In the contract which has been rescinded as a whole, the Security Deposit already with railways under the contract shall be encashed/ forfeited and the Performance Guarantee already submitted for the contract shall be encashed. The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership

firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

Further the authorized representative of failed Contractor cannot be accepted as authorized representative in new contract.

(c) In the contract rescinded in part or parts,

(i) The full Performance Guarantee for the contract shall be recovered. No additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract. The contract value of part terminated contract stands reduced to the balance value of work under the contract.

(ii) The Security Deposit of part terminated contract shall be dealt as per clause 16(2) of SGCC.

(iii) The defaulting Contractor shall not be issued any completion certificate for the contract.

(iv) The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

(v) Further the authorized representative of failed Contractor will not be accepted as authorized representative in new contract.

(d) The Engineer or the Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or any part thereof until the completion of the works without the Contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.

(e) The Engineer shall as soon as may be practicable after removal of the Contractor fix and determine ex-parte or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) had at the time of rescission of the contract been reasonably earned by or would reasonably accrue to the Contractor in respect of the work then actually done by him under the contract and what was the value of any unused, or partially used materials, any constructional plant and any temporary works upon the site. The legitimate amount due to the Contractor after making necessary deductions and certified by the Engineer should be released expeditiously. (Para-62.(2) of SGCC-2022)

CHAPTER-4**EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION****SPECIAL CONDITIONS OF CONTRACT****1 DEPLOYMENT OF QUALIFIED ENGINEERS AT WORK SITES BY THE CONTRACTOR:**

- 1.1 The contractor shall also employ Qualified Graduate Engineer or Qualified Diploma Holder Engineer, based on value of contract, as may be prescribed by the Ministry of Railways through separate instructions from time to time.
- 1.2 In case the contractor fails to employ the Engineer, as aforesaid in Para 1.1, he shall be liable to pay penalty at the rates, as may be prescribed by the Ministry of Railways through separate instructions from time to time for the default period for the provisions, as contained in Para 1.1.
- 1.3 Number of qualified engineers required to be deployed by the Contractor for various activities contained in the works contract shall be specified in the tender documents as 'special condition of contract' by the tender inviting authority.

NOTE:

- i. Contractor shall also employ following Qualified Engineers during execution of the allotted work:
 - (a) One Qualified Graduate Engineer when cost of work to be executed is Rs.200 lakh/Rs.2.0 Crore and above, and
 - (b) One Qualified Diploma Holder Engineer when cost of work to be executed is more than Rs.25 lakh, but less than Rs.200 lakh/Rs.2.0 Crore.
 - ii. Further, in case the contractor fails to employ the Qualified Engineer, as aforesaid in para 1 above, he, in terms of provisions of Clause 1.2 (i.e 26A.2 to the Indian Railway Standard General Conditions of Contract), **shall be liable to pay an amount of Rs. 40,000 and Rs. 25,000 for each month or part thereof** for the default period for the provisions, as contained in Para 1(a) and 1(b) of NOTE above respectively.
 - iii. Provision for deployment of Qualified Engineers (Graduate Engineer or Diploma Holder Engineer) shall be for the values as prescribed above. However, for the works contract tenders, if it is considered appropriate by the tender inviting authority, not to have the services of qualified engineer, the same shall be so mentioned in the tender documents by the concerned Executive with the approval of Officer not below the level of SAG Officer, for reasons to be recorded in writing.
 - iv. For track related contractual works of values as specified above individuals having Diploma in Railway Engineering awarded by IPWE (India) shall also be considered as qualified Diploma Holder Engineers and Contractors for track contract works can employ such individuals at their work site on Indian Railways. (Ref: Railway Board letter No. 2012/CE-I/CT/0/20 dtd. 12.07.2013).
- 1.4 No compensation towards any accident whatsoever will be paid by the Railway.

INDEMNITY BOND:

- 1.5 The Contractor shall also be required to furnish an **Indemnity Bond** on the proforma as per **Annexure-T** for a sum of **Rs.30,00,000/- [Rupees Thirty lakhs only] or the value of the agreement whichever is less** for the materials, which will be handed over to him by Railway Administration for works. The quantity of materials that shall be handed over to the Contractor for execution of the works and the cost of the quantity remaining unused in the custody of the Contractor shall under no circumstances exceed at any time, the value of the Indemnity Bond.

- 1.6 **No Mobilisation, Machinery or any other advances will be allowed for this work.**
- 1.7 All the works included in the tender/contract shall be completed within the time specified in the tender/agreement.
2. **PRICE VARIATION CLAUSE (PVC) –**
PVC clause will not be applicable for this Tender.
3. **UTILIZATION OF RAILWAY STONES:**
3.1 Notwithstanding the inclusion of some of the rates in the schedules with contractor's stones/aggregate, the Contractor(s) shall utilize the Railway's usable surplus stones, if available for use as such or by converting them into aggregate of sizes required. The cost of boulder shall be recovered for one cubic metre net of such stones as per the prevailing rate of the area or @Rs. 375/- per cum or as may be decided by the Railway (after deducting 30% for voids). The Contractor(s) shall collect the boulders from locations within the limit of contract section wherever they are offered to him within the section limits. The rate per cubic metre net includes royalty, collection as required. The rate also includes loading, transportation of cut spoils which has to be done by the Contractors at his/their own risk and cost and the rate is towards the cost of cut stone available on "as is and where is basis". The boulder issued to the Contractor(s) for the above purpose will be used only for the works of the agreement and shall neither be disposed of nor be used for any other agreement.
4. **REGISTRATION WITH LABOUR DEPARTMENT OF STATE GOVERNMENT:**
The tenderers for carrying out any construction work in Odisha/Andhra Pradesh/ Chhattisgarh must get themselves registered from the Registering Officer under Section-7 of the Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Cess Act 1996 and Rules made thereto. The tenderer shall be required to submit certificate of Registration issued from the Registering Officer of the Govt. of Odisha/Andhra Pradesh/ Chhattisgarh (Labour Department). The cess shall be deducted from the contractor's bills as per provisions of the Act.
5. **USE OF PATENTED ITEMS**
5.1 In case, the agency supplying the patented item is not the contractor to whom the work is assigned and these items are being procured by the Contractor, the concerned contractor will obtain prior approval from the Engineer-in-charge of the work (Min. JA Grade Officer), who will ensure that all design and safety aspects are taken care of. For any specify requirement concerning execution, warranty etc., an agreement/MOU is to be entered between the main contractor and the party supplying the patented items, clearly bringing out the responsibility of party supplying such patented items. A copy of such MOU will be furnished to the Engineer-in-charge by the main contractor to whom work has been assigned by the Railway and after the approval of Engineer-in-charge; such item can be used in work.
5.2. The agency supplying the patented item shall provide complete details/specifications/ drawings of the items including the manner in which it is to be used.
5.3. During the installation of such patented items, authorised representative of the firm supplying such patented/propriety items shall be present and after the execution of work, a certificate to be issued by the firm supplying the patented item indicating its proper installation. Such certificate will have to be kept in record by the concerned Engineer-in-charge executing the contract, before releasing payment for the work done. (Ref: Rly Board's Lr. No. 2018/CE-I/Innov/1 dtd. 18.01.2018)
6. **PRE-CAUTION TO BE TAKEN WHILE PLYING OF VEHICLES ADJACENT TO RUNNING LINES TO PREVENT ACCIDENT TO TRAINS.**

- 6.1 Vulnerable locations where construction work adjacent to running line can cause accident should be protected by suitable strong barrier which should be included as a paid item in contract schedule. These locations should be decided by Executive In-charge of the work at the beginning of construction and intimated to contractor in writing.
- 6.2 The barrier should be painted by retro-reflective paint at suitable interval to give warning at night.
- 6.3 No work adjacent to running track should be carried out at night without express written authority from the Engineer In-charge of the work. In fact, no contractor should do any kind of night working unless the Executive Engineer In-charge of the work gives the specified spots according to priority of work where night working has to be done. These spots should be well lit at night. In addition, the work should always; be done under supervision of Railway supervisors in addition to Contractor's supervisors. Suitable Railway personnel should be posted at site with safety equipment's like banner flags, hand signal flags, hand signal lamps and detonators to arrange protection of trains. The Railway supervisors in charge of such work should also give suitable message to adjacent stations as well as through control for issuing caution orders to the trains approaching the work site. For this purpose, he should be equipped with field telephone/walkie talkie set.
- 6.4 The Contractor shall not allow any road vehicle belonging to him or his suppliers etc., to ply in railway land next to the running line. If for execution of certain works viz, earthwork for parallel Railway Line and supply of ballast for new or existing rail line gauge conversion etc., road vehicles are necessary to be used in Railway land next to the railway line, the Contractor shall apply to the Engineer-in –Charge for permission giving the type & No. of individual vehicles, names and License particulars of the drivers, location, duration & timings for such work/movement. The Engineer in Charge or his authorised representative will personally counsel, examine & certify, the road vehicle drivers, Contractor's flagmen & supervisor and will give written permission giving names of road vehicle drivers, Contractor's flagmen and supervisor Rates to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions.
- (i) The road vehicles will ply only between sunrise & sunset.
 - (ii) Nominated vehicles & drivers will be utilised for work in the presence of at least one flagman & one supervisor certified for such work.
 - (iii) The vehicles shall ply 6m clear of track. Any movement/work at less than 6m and up to minimum 3.5m clear of track centre shall be done only in the presence of railway employee authorised by the Engineer-in-Charge. No part of the road vehicle will be allowed at less than 3.5m from track centre. Cost of such railway employee shall be borne by the Railway.
 - (iv) The Contractor shall remain fully responsible for ensuring safety & in case of any accident, shall bear cost of all damages to this equipment and new and also damages to railway & its passengers.
 - (v) The Contractor shall also be bound by the provisions of this agreement to ply the road Vehicle only with adequate margin of safety, well clear of the fixed structure profile of infringement, as stipulated in the rules made under the Indian Railway's Act and to seek and be guided by the Signals and other directions of any look-out men or other personnel retained for the purpose of ensuring safety, and to ensure extra care and vigilance while turning, reversing or moving the road Vehicles in any other manner at an inclination to the running Railway Track or the siding as the case may be. The Contractor shall employ necessary look-out; men also at his own cost, irrespective of any other arrangement that Railway may make in this regard.

- (vi) Any breach of these conditions by the Contractor and/or his agents affecting the safety of movement of Trains, Engines, or other rolling stock of the Railway shall constitute a breach of Contract by the Contractor entailing liability with termination of contract for default on the part of the Contractor.

7.0 Mode of Payment Through Letter of Credit (LC) as option in works contract having advertised cost of Rs. 10 lakhs and above: -.

- 7.1 (i) For all the tenders having advertised cost of Rs. 10 Lakh or above, the contractor shall have the option to take payment from Railways through a letter of credit (LC) arrangement.
- (ii) This option of taking payment through LC arrangement has to be exercised in IREPS (Indian Railway Electronic Procurement System-the e-application on which tenders are called by Railways) by the tenderer at the time of bidding itself and the tenderer shall affirm having read over and agreed to the terms and conditions of the LC option.
- (iii) The option so exercised, shall be an integral part of the bidder's offer.
- (iv) The above option of taking payment through LC arrangement, once exercised by tenderer at the time of bidding, shall be final and no change shall be permitted, thereafter, during execution of contract.
- (v) In case tenderer opts for payment through LC, following shall be the procedure to deal release of payment through LC:
- (a) The LC shall be a sight LC.
- (b) The contractor shall select his Advising/Negotiating bank for LC. The incidental cost towards issue of LC and its operation thereof shall be borne by the contractor.
- (c) SBI, New Delhi, Main Branch will be the nodal branch for issue of LC's based on online requests received from Railway Accounts Units for tenders opened in financial year 2018-19. SBI branches where the respective Railway Accounts Office has its Account (Local SBI Branch) will be the issuance/reimbursing branch for LC issued under this arrangement. The Bank shall remain same for this tender till completion of contract. The incidental cost @ 0.15% per annum of LC value, towards issue of LC and operation thereof shall be borne by the contractor and shall be recovered from his bills.
- (d) The LC shall be opened initially for duration of 180 to 365 days in consultation with contractor. The LC shall be extended time to time as per the progress of the contract, on the request of the contractor. The value of LC to be opened initially as well as extended thereafter shall be finalized by the engineer in consultation with the contractor on the basis of expected progress of work.
- (e) The LC terms and conditions shall inter-alia indemnify and save harmless the Railway from and against all losses, claims and demands of every nature and description brought or recovered against the Railways by reason of any act or omission of the contractor, his agents or employees, in relation to the letter of Credit (LC). All sums payable/borne by Railways on this account shall be considered as reasonable compensation and paid by contractor.
- (f) The LC terms and conditions shall inter-alia provide that Railways will issue a Document of authorization (**format enclosed as Annexure-N of Chapter-7**) after passing the bill for completed work to enable contractor to claim the authorized amount from their bank.
- (g) The acceptable, agreed upon document for payments to be released under the LC shall be the Document of Authorisation.

(h) The Document of Authorisation shall be issued by Railway Accounts Office against each bill passed by Railways.

(i) On issuance of Document of Authorisation, a copy of Document of Authorisation shall be posted on IREPS for download by the contractor. A digitally signed copy of Document of Authorisation shall also be sent by Railway Accounts Office to Railway's bank (Local SBI Branch).

(j) The contractor shall take print out of the Document of Authorisation available on IREPS and present his claim to his bank (advising Bank) for necessary payments as per LC terms and conditions. The claim shall comprise of copy of Document of Authorisation, Bill of Exchange and Bill.

(k) The payment against LC shall be subject to verification from Railway's Bank (Local SBI Branch).

(l) The Contractor's bank (advising bank) shall submit the documents to the Railway's Bank (Local SBI Branch)

(m) The railway's bank (issuing bank) shall, after verifying the claim so received w.r.t. the digitally signed Document of Authorisation received from Railway Accounts Office, release the payment to contractor's bank (advising bank) for crediting the same to contractor's account.

(n) Any number of bills can be dealt within one LC, provided the sum total of payments to contractor is within the amount for which LC has been opened.

(o) The LC shall be closed after the release of final payment including PVC amount, if any, to the contractor.

(p) The release of performance guarantee or security deposit shall be dealt directly by railway with the contractor i.e. not through LC.

7.2. For opening of LC, executive department shall make a request letter to concerned Accounts Department on a format, placed as **Annexure-1 of Chapter-4**.

8. Public Procurement (Preference to Make in India), Order-2017: -

Whereas it is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, and

Whereas procurement by the Government is substantial in amount and can contribute towards this policy objective, and

Whereas local content can be increased through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them.

Now therefore the following Order is issued:

8.1. **This Order is issued pursuant to Rule 153(iii) of the General Financial Rules 2017.**

8.2. **Definitions:** For the purposes of this Order:

'*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.

'Local Supplier' means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed under this Order or by the competent Ministries/Departments in pursuance of this Order.

'L 1' means the lowest tender or lowest bid of 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.

'margin of purchase preference' means the maximum extent to which the price quoted by a local supplier may be above the L 1 for the purpose of purchase preference.

'Nodal Ministry' means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services.

'Procuring entity' means a Ministry or 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.

8.3. **Requirement of Purchase Preference:** Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to local suppliers in all procurements undertaken by procuring entities in the manner specified hereunder:

a. In procurement of goods in respect of which the Nodal Ministry has communicated that there is sufficient local capacity and local competition, and where the estimated value of procurement is Rs. 50 Lakhs or less, only local suppliers shall be eligible. If the estimated value of procurement of such goods is more than Rs. 50 Lakhs, the provisions of sub-paragraph b or c, as the case may be, shall apply.

b. In the procurement of goods which are not covered by paragraph 8-(3a) and which are divisible in nature, the following procedure shall be followed.

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is from a local supplier, the contract for full quantity will be awarded to L1.

ii. If L1 bid is not from a local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the local suppliers will be invited to match the L1 price for the remaining 50% quantity subject to the local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such local supplier subject to matching the L1 price. In case such lowest eligible local supplier fails to match the L1 price or accepts less than the offered quantity, the next higher local supplier within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on local suppliers, then such balance quantity may also be ordered on the L1 bidder.

c. In procurements of goods not covered by sub-paragraph 8-(3a) and which are not divisible, and in procurement of services where the bid is evaluated on price alone, the following procedure shall be followed.

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is from a local supplier, the contract will be awarded to L1.

ii. If L1 is not from a local supplier, the lowest bidder among the local suppliers, will be invited to match the L1 price subject to local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such local supplier subject to matching the L1 price.

iii. In case such lowest eligible local supplier fails to match the L1 price, the 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 local suppliers within the margin of purchase preference matches the L1 price, then the contract may be awarded to the L1 bidder.

- 8.4. Exemption of small purchases:** Notwithstanding anything contained in paragraph 8.3. procurements where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this Order.
- 8.5. Minimum local content:** The minimum local content shall ordinarily be 50%. The Nodal Ministry may prescribe a higher or lower percentage in respect of any particular item and may also prescribe the manner of calculation of local content.
- 8.6. Margin of Purchase Preference:** The margin of purchase preference shall be 20%.
- 8.7. Requirement for specification in advance:** The minimum local content, the margin of purchase preference and the procedure for preference to Make in India shall be specified in the notice inviting tenders or other form of procurement solicitation and shall not be varied during a particular procurement transaction.
- 8.8. Government E-market place:** In respect of procurement through the Government E-market place (GeM) shall, as far as possible, specifically mark the items which meet the minimum local content while registering the item for display, and shall, wherever feasible, make provision for automated comparison with purchase preference and without purchase preference and for obtaining consent of the local supplier in those cases where purchase preference is to be exercised.
- 8.9. Verification of local content:**
- a. The local supplier at the time of tender, bidding or solicitation shall be required to provide self-certification that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made.
 - b. In cases of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.**
 - c. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.
 - d. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/accountant's certificates on random basis and in the case of complaints.
 - e. Nodal Ministries and procuring entities may prescribe fees for such complaints.
 - f. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of this General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.
 - g. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from

the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 8.9h below.

h. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:

i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convenor of the Standing Committee and the Department of Expenditure through the concerned Ministry/Department or in some other manner.

ii. On a periodical basis such cases are consolidated and a centralized list or decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);

iii. in respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the such a manner that ongoing procurements are not disrupted.

8.10. Specifications in Tenders and other procurement solicitations:

a. Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.

b. Procuring entities shall endeavour to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of local suppliers who would otherwise be eligible, beyond what is essential for ensuring quality of creditworthiness of the supplier.

c. Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.

d. If a Nodal Ministry is satisfied that Indian suppliers of an item are not allowed to participate and/ or compete in procurement by any foreign government, it may, if it deems appropriate, restrict or exclude bidders from that country from eligibility for procurement of that item and/or other items relating to that Nodal Ministry. A copy of every instruction or decision taken in this regard shall be sent to the Chairman of the Standing Committee.

e. For the purpose of sub-paragraph 8.10 d above, a supplier or bidder shall be considered to be from a country if (i) the entity is incorporated in that country, or (ii) a majority of its shareholding or effective control of the entity is exercised from that country; or (iii) more than 50% of the value of the item being supplied has been added in that country. Indian suppliers shall mean those entities which meet any of these tests with respect to India".

9. Reverse Auction (Applicable for works tenders valued more than Rs. 50 Cr.)

9.1 Selection criteria for tender cases proposed through Reverse Auction (e-RA) route: -

- (a) In the first phase, following method of purchase through Reverse Auction shall be the preferred method for tenders valued more than Rs. 50 Cr. in each case.
- (b) The process of procurement through Reverse Auction shall be followed only in case of tenders where there are at least three proven/likely competitive sources, prima facie competent for execution of work.
- (c) Financial Bids in single currency/parameter only shall be allowed.
- (d) For cases on Zonal Railways, personal approval of the PHOD/CHOD duly vetted by associate finance shall be required for any exception in tendering method for cases otherwise eligible to be processed through the method of procurement detailed herein.

- (e) Even for cases which do not satisfy the selection criteria as detailed above, Railways may follow the process of Reverse Auction, as detailed herein if they so desire, with vetting of associate finance and approval of competent authority.

9.2 Procedure for award of contracts through Reverse Auction: -

- (a) The procedure discussed herein shall be fully implemented through IREPS. Any reference to Reverse Auction in these instructions shall imply e-RA.
- (b) Conduct and reporting of Reverse Auction shall be as per **Annexure-2 of Chapter-4**.
- (c) Each tender should clearly specify essential technical and commercial parameters in a transparent manner. No deviation to such essential Technical & Commercial conditions shall be permitted to the vendors in the electronic bid form.

9.2.1 Technical Bid and Initial Price Offer:

- (a) e-RA shall be adopted only for those cases where evaluation is on the basis of single parameter/currency.
- (b) Bidder shall be simultaneously required to electronically submit a Technical & Commercial Bid and Initial Price Offer.
- (i) Offer found eligible for award of contract/meeting eligibility criteria shall be categorised as Qualified for Award of Contract for the purpose of e-RA.
- (c) Offers not complying with essential technical & commercial requirements of the tender shall be declared as Ineligible for award of contract.
- (d) Technical & Commercial evaluation of bids shall be done by a Tender Committee, as per extant guidelines, delegation and the estimated value of tender. Recommendations of Tender Committee shall be considered by Tender Accepting Authority, as per existing guidelines.
- (e) Initial Price Offer of only those bidders categorised as Qualified for Award of contract shall be opened and tabulated by system separately. Extant instructions for electronic tabulation shall apply for tabulation of Initial Price Offer.

9.2.2 Financial Bid:

Financial Bid shall comprise of Final Price Offer obtained through Reverse Auction. Following conditions and procedure shall be followed in selection of bidders for conduct of Reverse Auction:

- (a) Selection of vendors for Reverse Auction for award of Contract:

Number of tenderers Qualified for Award of contract	Number of tenders to be selected for Reverse Auction	Remarks
< 3	NIL*	The bids disallowed from participating in the Reverse Auction shall be the highest bidder(s) in the tabulation of Initial Price Offer. In case the highest bidders quote the same rate, the Initial Price Offer received last, as per time log of IREPS, shall be removed first, on the principle of last in first out, by IREPS system itself.
3 to 6	3	
More than 6	50% of Vendors Qualified for award of contract (rounded off to next higher integer)	

Note: -

- (i) * If the number of tenderers qualified for Award of Contract is less than 3, RA shall not be done and tender may be decided on the basis of Initial Price Offer(s).
- (ii) Make in India criteria: All bidders eligible for benefits under Public Procurement (Preference to Make in India) Order – 2017, found Qualified for Award of Contract and are within the specified range of price preference of lowest Initial Price Bid shall be permitted to participate in the Reverse

Auction, irrespective of their interseranking on the basis of Initial Price Bid. Such bidders shall be over and above the number of vendors selected for Reverse Auction, as per **Para 9.2.2 (a)**.

(b) During Reverse Auction process, bidders shall not be allowed to bid a rate higher than the lowest Initial Price Offer.

9.2.3 Reverse Auction among bids categorised as Qualified for award of contract shall be conducted on IREPS/Suitable Platform. Bidders shall be able to see the auction screens.

9.2.4 After obtaining the final bids of Reverse Auction, tenders shall be finalised as per existing policy (including Make in India Order, 2017, vide **Para-8 of Chapter-4**, if applicable). All the relevant policies of Government of India at the relevant time shall be applicable.

9.2.5 The level of Tender Committee to consider the Final Price Offers shall be determined on the basis of lowest Initial Price Offer of bid Qualified for award of contract as opened prior to Reverse Auction. In case of level Tender Committee which evaluated technical & commercial bids as per **Para 9.2.1(d)** was higher than the level of TC competent to consider lowest Initial Price Offer of bid Qualified for award of contract, the higher level TC shall continue to finalise such tender cases.

9.3 Considering the fact that execution of works of paramount importance, Zonal Railways should resort to tendering through other appropriate methods to meet any exigency.

10. **Vitiation with respect to variation in quantities:** -

The aspect of vitiation of tender with respect to variation in quantities should be checked and avoided. As a result of variations, a contract value shall be considered "vitiating" only when, the following percentage variation in contract value between tenderers are noticed to have been exceeded.

SN	Value of contract	Percentage difference between present Contractor and new L-1 as a result of variation (percentage shall be calculated with base as the revised contract quantities multiplied by the rates of the present contractor)
1	Small value contracts (Tender Value less than Rs. 50 lakh)	10
2	Other than small value contracts (Tender Value equal to or more than Rs. 50 lakh)	5

10.1 When the percentage difference between present Contractor and new L-1 is noticed as becoming beyond the values specified above, the following action shall be taken.

The Railway administration should immediately examine whether it is practicable to bring in a new agency to carry out the extra quantity of work keeping in view the progress of the work in accordance with the original contract and the nature and the lay-out of the work. If it is found that there will be no serious practical difficulty in meeting the additional quantity of work done by another agency, then fresh tenders for the extra quantity may be invited otherwise negotiating the rate with the existing contractor for arriving at a reasonable rate for the additional quantities of work, may be adopted.

10.2 The above shall be regulated as under: -

a) The case shall be decided by the tender accepting authority competent for the revised quantity) and shall not be treated as a case of single tender. The provisions of Railway Board Letter No. 2007/CE.I/CT/18/Pt.XII dated 31.12.2010 hereby gets suspended.

b) These instructions will be similarly applicable to earning contracts with H-1, H-2 substituted for L-1, L-2 and so on.

c) Executives while executing the work shall make all efforts to ensure that no vitiation takes place in normal circumstances. Vitiations should be an exception rather than a routine affair. Efforts should be made to invite bids on the basis of percentage above/below/at par.

d) Vitiations should always be computed with respect to the items, rates, quantities and conditions as available at the time of Tender Opening and subsequent changes/additions by way of new items will not be counted for computing vitiation.

11. Qualifying/Eligibility criteria of eligible tenderers has to be deliberated for comparison of the cost of work during variation for checking of vitiation.

12. Police Verification of staff/labour deployed by Contractors on Railway Premises.

- 12.1 No person shall be engaged by any contractor for executing any contract on railway premises without a police verification report and an identity card issued thereafter.
- 12.2 The contractor shall submit name, address and contact number of each staff/labour proposed to be deployed by him to the Contract Manager in the form in **Annexure-3 of Chapter-4** for obtaining police verification.
- 12.3 The Contract Manager shall promptly submit online/hard copy application for each prospective staff/labour intimated by the contractor after award of contract to the under-mentioned authorities as applicable. The contractor must necessarily submit these details within 15 days of award of contract.
 - 12.3.1 Supdt. Of Police (SP)/Dy. Commissioner of Police (DCP) having jurisdiction over the permanent residence of concerned staff.
 - 12.3.2 SP/DCP having jurisdiction over the place where the concerned staff has resided for more than 6 months in last 5 years.
 - 12.3.3 Sr.DSCs/DSCs having jurisdiction over permanent residence and where the person has resided for more than 6 months in last 5 years.
 - 12.3.4 Sr.DSCs/DSCs having jurisdiction over the place where the person is to be engaged. In case of on-board staff on trains, Sr.DSC/DSC having jurisdiction over the primary maintenance depot of the train.
- 12.4 Sr.DSC/DSCs concerned will coordinate with SPs/DCPs concerned and expedite the police verification. On receipt of the police verification report, the Contract Manager shall give a copy to the Sr. DSC/DSC.
- 12.5 On receipt of police verification report, Contract Manager will arrange to issue to each staff/labour of the contractor, an identity card in the format at **Annexure-4 of Chapter-4**. This identity card shall be necessarily displayed on the body of the person while being at the worksite.
- 12.6 No contract staff/labour be deployed at any railway premises without a police verification report on record. However, if the police verification report is delayed beyond 30 days of receipt by the police authority, the Contract Manager is authorized to permit deployment of the contract staff/labour provisionally for one month, in which time all efforts shall be made to get the police verification report issued.
- 12.7 These provisions shall not apply to emergency situations like accidents, natural calamities etc., where restoration work has to start immediately on receipt of information. However, if such restoration work has to continue beyond 10 days, deployment of staff/labour can be permitted against an undertaking from the contractor in the form at **Annexure-5 of Chapter-4** to be submitted to the Contract Manager.

- 12.8 These provisions shall not be applicable to daily-wage, contract staff/labour, who can be deployed on production of identify proof e.g. Aadhar Card, Voter ID Card, PAN Card, Ration Card, Driving License, Gas connection receipt, etc. whose copy shall be attested by his contractor.

13. Measurement and Recording of "Executed Works" by the Contractor in Railway Construction works:

E.1316A (Applicable for contracts wherein the measurement of work by contractor is permitted):

Para 1316 of Engineering Code shall not be applicable for these contracts. For such contracts, contractor shall be responsible for carrying out measurements of work executed and recording of measurements for the release of on account/final payment. In such cases, the detailed procedure for recording of measurements, provisional payment, test check and final payment shall be as follows:

Contractor's Measurement Book:

13. 1. Railway shall arrange contractor's measurement book (CMB), each having sheet No, 1A to 4A (Form E 1313) (**Annexure-6 to 9 of Chapter-4**), followed by 100 machine number pages (Form E 1313, sheet No, 5A) (**Annexure-10 of Chapter-4**). On the top of each sheet of CMB, there shall be provision for recording the name of the work, agreement number, name of contractor and CMB number.
13. 2. CMBs shall be printed in such a way so as to keep a clear margin of 50 mm on the left side of page, Further, the left side shall have pinhole tear line at a distance of 15 mm from edge for ease of taking out sheets from these books. The binding shall be within 15mm of the margin available between edge and pinhole tear line. This shall ensure availability of minimum 35 mm clear margin to re-bind measurement books later on.

Movement and upkeep of Contractor's Measurement Book:

- 13.3. Dy. CSTE/Tele & NW/BBS in charge of contract shall hand over required No. of CMBs to Assistant/Executive Engineer in-charge of contract (ASTE/DSTE) after taking receipt of the same on sheet No. 2A (Form E.1313) (**Annexure-7 of Chapter-4**) for further issuance to contractor time to time as per progress of work.
- 13.4. CMB shall be registered with unique No. in the Register of Measurement Books (Form E.1314) maintained in the office of Dy.CSTE/Tele & NW/BBS. Separate accountal of CMBs for each agreement shall be maintained in the office of Dy.CSTE/Tele & NW/BBS.
- 13.5. In case of change of 'contractor's authorized engineer', fresh approval shall be taken from before recording of measurement.
- 13.6. While issuing the CMB to contractor, ASTE/DSTE shall take out sheet No. 2A to 4A (**Annexure-6 to 8 of Chapter-4**) from the CMB, take receipt of CMB from contractor on sheet No. 3A (Form E.1313) (**Annexure-7 of Chapter-4**), and keep the same in safe custody.
13. 7. Similar system as for CMB, shall be followed for issuing Field Book/Level Book (E.1317/A) to contractor for recording of levels in the field book/level book.

Measurement

- 13.8. The contractor's authorized engineer shall record the measurements in CMB neatly in his own handwriting, without any use of eraser/overwriting, without use of any typing fluid or any such thing. All cuttings shall be initiated. No page shall be damaged /destroyed. No page shall be kept blank in between the measurements.
- 13.9. The Contractor shall communicate the date of measurement to ASTE/DSTE in sufficient advance' to witness any measurement. Witnessing of measurement by railways is not compulsory except for initial

levels in case of earthwork and hidden measurements. Initial levels of earthwork and hidden measurements are to be recorded in the presence of railway officials and test checked as prescribed.

- 13.10. In oil account contract certificate, measurement shall be recorded for the items and quantities to be paid in the concerned on account contract certificate.
- 13.11. However, in every 4th on account contract certificate and final contract certificate, the recording of measurement for works executed shall include all the items and their quantity included in previous on account contract certificates, irrespective of whether to be paid or not in the current On Account Contract Certificate/Final Contract Certificate.
- 13.12. No payment shall be processed on Lump sum measurement taken by contractor's authorized engineer except for earthwork. For earthwork, every 4th bill shall be based on actual levels taken and detailed calculations carried out for the work done.
- 13.13. The contractor shall take out carefully from CMB the used pages of CMB with one extra blank page for processing the bill; staple them for submission to ASTE/DSTE along with bill, duly signing the measurements. The contractor shall keep a photocopy of the measurements with him for future reference.
13. 14. At the time of submission of final bill, the contractor shall submit all the remaining CMBs (unused as well as partially used) with him along with bill to ASTE/DSTE.
13. 15. The contractor shall submit required copies of invoice and on account contract certificate/ final contract certificate (similar to form E.1337 and E.1338) to the ASTE/DSTE duly marking them - original or copy. Original shall be used for release of payment whereas duplicate copies shall be used for record purpose in different offices.
- 13.16. In case contractor requires provisional payment of on-account bill; the contractor shall submit his invoice and provisional on account contract certificate for 75% of amount of work done (before deduction of taxes). The contractor shall write 'For Provisional payment 'on top of such on-account contract certificate.
- 13.17. ASTE/DSTE while issuing receipt of stapled sheets of CMB to contractor shall clearly record the same in sheet 4 (E.1314) of concerned CMB, kept in the office of ASTE/DSTE.

Release of Provisional Payment

- 13.18. Senior Section Engineer / Junior Engineer with 5 year experience' (SSE/JE) and ASTE/DSTE shall sign & record a certificate on the original provisional 'on account contract certificate' as under:

"Certified that the payment being made is less than the amount due for the quantities of works executed by the contractor".

In case of payment of earthwork items in any contract, calculation of quantity of such items along with field book /level book must be enclosed. This shall be cross checked, as considered appropriate by SSE/JE & ASTE/DSTE, to ensure that no excess payment is being made. At this stage no test check of measurements by railway is required.

- 13.19. ASTE/DSTE shall keep a copy of contractor's invoice & provisional on account contract certificate in his office, and submit original invoice & original provisional on account contract certificate along with required number of duplicate copies, and used sheets of CMB to the Dy.CSTE/Tele & NW/BBS unit for passing the bill and release of payment.

13.20. The provisional on account contract certificate shall be passed by Dy.CSTE/Tele & NW/BBS and payment shall be released by associate based on above certification of SSE/JE and ASTE/DSTE. After release of payment, blank sheet of CMB (if any) shall be crossed by Dy.CSTE/Tele & NW/BBS before sending the measurement sheets back to ASTE/DSTE for carrying out required test checks. At this stage measurement shall not be crossed.

13.21. No provisional payment shall be allowed in final contract certificate, Further, once provisional payment has been released in any on-account contract certificate, the next on account contract certificate can be raised by contractor only when accounts of previous on account certificate (Provisional as well as remaining payment) has been finalized,

Test Check

13.22. Necessary test checks shall be carried out by the SSE/JE and ASTE/DSTE for the works done before full payment of on-account contract certificate/final contract certificate, SSE/JE and ASTE/DSTE shall communicate the date of test checks to contractor in advance. The contractor can accompany during test check. The contractor shall provide support staff and all required tools& plants to facilitate test check by railway officials. 13.23. The stipulated test checks for ASTE/DSTE and SSE/JE Level is tabulated as under:

S.No.	Description of works	Test Check in terms of % of value by	
		SSE/JE	ASTE/DSTE
(a)	Measurement of Ballast, pitching stone, Earth work and hidden items.	100%	100%
(b)	Measurement of all other items.	100%	20%
(c)	Initial and Final levels along centre line for earthwork in embankment and cutting.	100%	100%
(d)	Intermittent levels along centre line for earthwork in embankment and cutting.	100%	20%
(e)	Initial, intermittent and final levels except centre line for earth work in embankment and cutting.	100%	20%

Note: The check regarding levels of earthwork invariably shall be carried out in cross sections having heavy cross slopes.

13. 24. Contractor's recorded measurement sheets shall be checked for any corrections/over writing during test check. All the corrections/over writing shall be initiated by SSE/JE.

13. 25. The discrepancy noted (if any) during test check of recorded measurement shall be communicated by ASTE/DSTE to the contractor.

13. 26. In case of discrepancy noticed during test check, the contractor shall submit original and required copies of fresh invoice of amount corrected for discrepancy, and in case provisional payment has been released earlier, the required copies of fresh invoice of remaining amount corrected for discrepancy (if any), along with on account/final contract certificate to ASTE/DSTE.

Full payment of On Account Contract Certificate/Final Contract Certificate

13. 27. ASTE/DSTE shall submit original copy of invoice and on account contract certificate of remaining amount/ Final Contract along with required number of duplicate copies and used sheets of CMBs (all used/blank CMBs in case of final contract certificate), duly signed by SSE/JE and ASTE/DSTE to the Dy.CSTE/Tele & NW/BBS for passing the bill and release of payment.

- 13.28. Once the payment is released, Dy.CSTE/Tele & NW/BBS shall return back the used sheets of CMB to ASTE/DSTE for safe custody. duly crossing of measurements by finance officer.
- 13.29. Once all used of a particular CME is received back by ASTE/DSTE from Dy.CSTE/Tele & NW/BBS, the ASTE/DSTE shall re-bind all 100 pages of CMB along with sheet No. 1A to 4A (**Annexure-6 to 9 of Chapter-4**) for submission of CMB to Dy.CSTE/ Tele & NW /BBS office. Dy.CSTE/ Tele & NW /BBS office shall record the receipt of same in sheet No. 2A of CMB (**Annexure-7 of Chapter-4**) and Register of Measurement Books (Form E1314).
- 13.30. The final contract certificate shall be passed by Dy.CSTE/Tele & NW/BBS only receipt of all CMBs (used/blank) from ASTE/DSTE.
- 13.31. The provisions of this para 1316A shall be applicable to all the departments of Indian railways and to be executed through equivalent authorities of respective departments.

14. **Warranty Period: -**

As per Clause No-3201 of Indian railway standard condition of contract, the contractor/Seller hereby covenants that it is a condition of the contract that all goods/stores/articles furnished to the purchaser under this contract shall be of the height grade. Free of all defects and faults and of the best materials, quality, manufacture and workmanship throughout and consistent with the established and generally accepted standards for materials of the type ordered and in full conformity with the contract specification, drawing or sample, if any and shall, if operable, operate properly.

The warranty of work shall start from the date of commissioning of entire equipment and shall expire **03 year [36 months]** after commissioning. The Contractor shall be responsible for the proper functioning of the system for the period of warranty.

During the period of warranty, the contractor shall remain responsible to arrange replacement and for setting right at his own cost any equipment supplied by him which is of defective manufacturer of defective design or defective material/component becomes unworkable due to any cause whatsoever. The decision to attend to any damage or defect in work shall be final and binding on the Contractor.

Annual Maintenance Contract: For AMC, a separate agreement will be executed by the concerned Division after completion of maintenance period of 3 years and payment for the same will be made by the respective Division. OEM shall provide AMC support after successful completion of the maintenance obligations, for a minimum period of 5 years.

The long term maintenance support shall be comprehensive and include all hardware and software of equipment supplied against this contract. Railway should be extended the benefits of software update/upgrades made by Bidder on the system from time to time to improve performance.

15. **ISSUE OF MATERIALS:**

- 15.1 If materials outside the contract are supplied for use on a work on the application of a contractor, the Engineer-in-charge of the work should specify in each case the rate to be charged, which should be the market rate prevailing at the time of supply or the issue rate whichever is higher, Plus departmental charges which shall be computed as below:-Market rate or issue rate whichever is higher, plus freight 5%, incidental charges 2% and 12.1/2 % departmental charges to cover the cost of Supervision, Storage, interest on outlay.

- 15.2 The materials issued to contractor but remaining unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the Engineer-in-Charge at a place where directed by him.
- 15.3 In case the contractor fails to return the unused or excess materials supplied outside the contract as per para 14.1 above, over the requirement as calculated, the cost as arrived at in para 14.1 above, increased by 100% will be charged and recovered from the contractor's dues without prejudice the provision of the relevant conditions regarding return of materials governing the contract.
16. **STORAGE OF RAILWAY MATERIALS:**
- 16.1 The Contractor shall make his own arrangements at the site of work for the safe storage and custody of Railway material issued to him. Such Railway materials issued to the Contractor and stored at the site of work shall be opened for inspection by the Engineer-in-charge or his representative at any time.
- 16.2 Contractor's sheds, stores, camp office, yard etc., for stacking Railway materials shall be located in the Railway premises only at the locations approved by the Engineer-in-charge. The land available will be given on standard charge fixed by the Railway for the period of construction only. On completion of work, he shall leave the site free of all structures, debris etc. non-compliance of same the Engineer-at-site will decide the amount to be deducted from payment due to the contractor(s) and this shall be final & binding on the contractor(s).
17. **ISSUE OF RAILWAY MATERIALS:**
- 17.1 The materials required for the work will be supplied by the Railway at **Senior Section Engineer/Tele/Project/Bhubaneswar Stores godown or as directed by Dy.CSTE/Tele & NW/BBS.** The quantity required would be determined by the Railway according to the quantum of work to be done. The Contractor shall be responsible for checking before taking delivery that the all materials given to him are in good condition. The receipt of materials shall be acknowledged by the Contractor or his representative, mentioning details of materials and their quantities on prescribed proforma. The Contractor shall make his own arrangements for transportation of these materials to the work spot and guarding thereof till the works are completed and provisional acceptance certificate issued by the Railway.
- 17.2 The Contractor shall be liable to render full account of all the materials issued by the Railway. If any quantity of Railway materials consumed excess or wasted or damaged or lost or otherwise not satisfactorily accounted for, necessary recovery shall be made from him at the prevalent market rate plus Railway freight, handling, loading, supervision and incidental charges at rates fixed by the Railway Administration.
- 17.3 The Contractor shall return all the excess or unused materials supplied to him by the Railway including empty cement bags, empty cable drums and all released materials to the authorized Railway representative at Stores godown of **Senior Section Engineer/Tele/Project/Bhubaneswar or as directed by Dy.CSTE/Tele & NW/BBS.**
- 17.4 For the works carried out under the East Coast Railway schedule of labour and material rates, the cost of the transportation and handling of Railway's materials will be paid to the contractor in accordance with the actual leads from the Railway's godown at which the materials are supplied to the site of work at the appropriate rate of the schedule of rates increased or decreased by the percentage quoted by the contractor as per terms of SOR.
- 17.5 The materials referred to above shall be issued to the contractor as per actual requirements. The contractor/s has/have to return excess materials if any issued, to the Railway's store depot in perfectly good condition to the railway at his/their own cost failing which the cost thereof shall be recovered

from him/them at issue rates plus Railway's freight, handling, loading, supervision and other incidental charges at rates fixed by the Railways. To this will have to be added an increase of 100%.

18. **PAYMENT CONDITION:**

18.1 Subject to any deduction which Railway may be entitled to make under the contract, the Contractor shall, (unless or otherwise agreed to by them) be entitled to payments as follows: -

18.2 The Contractor shall be entitled to be paid from time to time by way of "On Account" Payments only for such works as in the opinion of the Railway's Engineer he has executed in terms of the contract. Such payments will be made on the basis of actual measurements taken by the Railway's representative not below the rank of inspector-in-charge. All payments due on the Engineer's or the Engineer's Representative's Certificate of actual measurement shall be subject to any deduction as indicated.

18.3 **Payment clauses for supply Schedule items: - (Schedule-A)**

1. 80% of payment on materials under supply schedule will be released after supply and submission of relevant documents.
2. 10% of the payment on materials under supply schedule will be released after successful erection and installation of the items.
3. Balance 10% payment on materials under supply schedule will be released after successful commissioning of the work of that particular station/section: -

- (i) After keeping proper accountal for the station/section by the concerned executing department.
- (ii) For releasing of the payment, balance 10%, proper accountal with records have to be submitted along with the bill.

18.4 **Payment clause for supply, installation, testing and commissioning (SITC) schedule items: (Schedule-B)**

1. **90%** payment on materials under supply, installation, testing and commissioning of that part will be released after supply, installation, testing and commissioning of each milestone and submission of the following documents: -

- a) Inspection Certificate:** The materials should be duly inspected and certified w.r.t. the specifications specified in the P.O./contract agreement by the inspecting authority authorized by Railways/RDSO/RITES/the agency, as specified in the P.O./contract agreement.
- b) Certificate of receipt of material in good conditions and specification** at the destination/stores depot/ site as mentioned in the P.O. /contract agreement. The certificate should be issued by the authorized railway official/SSE (telecom/signal) and **countersigned by a gazetted officer.**
- c)** The certificate should be issued by the authorized Railway official/SSE (Telecom/Signal) and counter signed by a Gazetted officer.
- d) Warranty clause:** Submission of the warranty/guarantee certificate for the materials/equipment supplied if applicable.
- e)** Should submit a bank guarantee for 10% of the amount claimed on material, under supply, installation, testing and commissioning schedule along with invoices. If the contractor is unable to

furnish BG, equivalent amount cash would be held by Railways from the payments due from the contractor.

2. **Balance: 10%** payment on materials under supply, installation, testing and commissioning schedule will be released on successful erection, installation and commissioning of the project/work as a whole on the basis of the completion certificate issued by the officer in charge (gazetted) officer.

BG submitted vide payment clause 1(e) of SITC schedule items will be released after successfully completion of the project in all respect.

18.5 Payment clause for execution schedule items of telecom items: (Schedule-C)

1. **90%** of the payment for execution of schedule items of telecom works will be released after successful completion of execution of work of each mile stone on pro-rate basis on the basis of completion certificate issued by the officer in charge (Gazetted) officer.
2. **10%** of the payment will be released after completion of the complete project/work assigned under contract on the basis of completion certificate issued by the officer in charge (Gazetted) officer.

- 18.6 It may be noted that under the Finance Act of 1972, a 2% deduction with appropriate surcharge thereon will be made from Contractor's bills paid on or after 1.6.1972 when the contract value exceeds Rs.5000/- and Surcharge on Income Tax as levied by Ministry of Finance, Government of India, time to time is also recoverable from the bills.

18.7 **Implementation of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996":**

The tenderer for carrying out any construction work must get themselves registered from the Registering Officer under Section-7 of the Building and Other Construction Workers Act, 1996 and rules made thereto by the concerned State Govt. and submit certificate of Registration issued from the Registering Officer of the concerned State Govt. (Labour Dept). As per this Act, the tenderer shall be levied a cess @ 1% of cost of construction work, which would be deducted from each bill. Cost of Material, when supplied under a separate schedule item, shall be outside the purview of cess."

- (i) The contractor bill amount shall be debited to concerned work and the recoverable amount of BOCW Cess @1% shall be credited under Suspense Head-Deposit Misc (BOCW Cess) before arranging payment to the contractor.
- (ii) Suspense Head- Deposit Misc (BOCW Cess) shall be cleared/ debited at the time of payment to respective BOCW Fund/ Board by credit to the Suspense Head-Cheques & Bills.

- 18.8 The Security money deposited by the contractor will be refunded as per above clause.

19. **INSPECTION CHARGES:**

The materials/equipment to be supplied by the tenderer shall be inspected by RDSO/RITES/Authorised representative of Railway before dispatch of the materials as specified in the schedule of the work. Consignee inspection will be conducted by authorized representative of Railway. The cost of inspection shall be borne by the tenderer. If required these materials/equipment may be subjected to the further inspection at site also as advised by the Railway Engineer, the cost of such inspection shall be borne by the tenderer.

20. **Special Conditions of Contract for Telecom Items:**

Whenever the tendered telecom work involves OFC system, ISDN/NGN, networking, IT and if the tenderer is not RDSO/TEC approved vendor for the same then additionally he shall have an MoU with RDSO/TEC approved vendor (OEM) for the respective item for the supply, installation, testing and commissioning of the same as covered in the tendered work. Such MoU should have been signed before the date of tender opening and covering the entire period of the contract. OEM to certify that all the installation and commissioning has been done as per OEM's quality and installation standards.

21. **Penalty during warranty period: -**

SI. No.	TYPE OF EQUIPMENT FAILURE	TIME OF RECTIFICATION OF FAILURE	TYPE OF PENALTY for Non-Compliance
1	Camera, TV, Switch & Networking Device, UPS.	12 Hrs. from intimating the failure on given address of communication in this Tender.	Rs. 500 per equipment per day.
2	Servers, work stations, storage device & Software.	12 Hrs. from intimating the failure on given address of communication in this Tender.	Rs. 1000 per Day.

Note: At each station complaint registers will be provided by tenderer. Date and time of failure along with its rectification time will be logged in this complain register. Concerned JET/SSET and tenderer representative should sign in the register.

Annexure-1 of Chapter-4**EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION****Request Letter from Executive Branch to Accounts Office for opening of LC**

Office of -----

East Coast Railway

No. _____

Dated _____

The FA&CAO/Sr. DFM/Dy. FA
 HQ/Division/Workshop/Con.

Sub: Opening of LC

Ref: Contract Agreement No.

It is requested to open a sight LC against the above referred Order/Agreement in favour of _____. The details of beneficiary are as under:

- (i) Name of Contractor
- (ii) Vendor Code
- (iii) Address
- (iv) Tender No.
- (v) Contract Agreement No.
- (vi) Description of Goods/Service
- (vii) Value of Contract
- (viii) Stages of payment
- (ix) Expected payment within 6 months (LC Amount)
- (x) Beneficiary bank details
 - (a) Bank name
 - (b) Address
 - (c) Account No.
 - (d) IFSC Code
- (xi) Validity/Period for which LC is to be opened.

It is certified that the supplier/contractor has exercised the option of taking payment due against the tender through LC arrangement in IREPS portal at the time of bidding itself and the option has been flagged in the IREPS. This has the approval of _____.

(Signature)

Name: _____

Designation: _____

(Official Seal)

Annexure-2 of Chapter-4**EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION****Procedure for Conduct and Reporting of Reverse Auction**

1. The tendering authority shall solicit bids through an invitation to the electronic Reverse Auction to be published or communicated in accordance with the provisions similar to e-procurement.
2. Convenor of the tender committee shall fix the following, on case to case basis, depending upon the nature of work and complexity of case on hand. These shall be indicated in the tender for e-RA itself.
 - a. **Initial e-RA period:** This shall be the initial time interval for e-RA. E-RA shall be open for this duration.
 - b. **Auto extension period:** In case any offer is received in the time period equal to auto extension period before close of initial e-RA period, the e-RA shall be extended for time equal to auto extension period from the time of last bid. There shall be no upper limit on number of auto extensions. When no offer is received in the last auto extension period, e-RA shall close.
 - c. Minimum decrement in percentage of value of the last successful bid.
3. Date and time for start of e-RA shall be communicated to qualified tenderers by the convener after evaluation of Technical Bids.
4. After submission of Initial Price Bid, tenderers will not be allowed to revise the taxes and other levies.
5. During auction period, identities of the participating tenderers will be kept hidden.
6. Minimum admissible bid value will be last bid value minus minimum decrement as specified by the tendering authority before starting of reverse auction. Starting point for reverse auction shall be lowest initial Price Bid of the tenderer eligible for award of contract.
7. After close of the RA, tabulation of last (minimum) bids received from all the tenderers will be generated and made visible to Railways and participating tenderers.
8. Railway users can also view the bidding history in chronological order.
9. Bidders not be allowed to withdraw their last offer.
10. L-1 will be defined as the lowest bid obtained after the closure of R.A. session.

Annexure-3 of Chapter-4

POLICE VERIFICATION

PHOTO

(Of applicant
signed by
contractor)

Sl.No	Particulars	
1	Full Name with Aliases	
2	Parent's Name	
3	Nationality	
4	Present Address in full with Police Station & District	
5	Period of Residence	
6	Home/Permanent Address in full with Police Station & District	
7	Addresses with police stations and districts where the applicant has resided continuously for more than 6 months in the past 5 years	
8	Amhara Number*	
9	The applicant has been involved in a criminal case as accused (Yes/No). If yes, then details	
10	The applicant has been arrested in connection with a criminal case (Yes/No). If Yes, then details	
11	The applicant has been convicted for a criminal offence (Yes/No). If yes, then details	

*optional

Declaration (By Applicant): I certify the above information is correct and complete to the best of my knowledge and belief.

Countersigned by:	Signature of Applicant
	Date: Place:
Contracting Railway Supervisor	
Date: Place:	

Police Certificate:

The details as stated above are correct & the above person does not have any criminal case registered or pending against him in any court of law as per official records available.

**Counter Signature of Authorized
Signatory with Stamp**

Annexure-4 of Chapter-4

Identity Card

Valid up to (month & year)

Issued by (Name & address of the contracting department):

Identity card no.

Photo

Signature of the authorized railway supervisor across the photo

Police verification ref.

Name of the contractor:

Contract reference number:

Name of contractual staff/labour:

Date of birth:

Father's name:

Present Address:

Permanent Address:

Mobile No.:

Nature of work:

Address of the work site:

Name, address & mobile No. of the person to be contacted in emergency:

Signature of the authorized Railway supervisor
With official stamp

Signature of tenderer with seal

Signature of the Railway officer

Annexure-5 of Chapter-4FORM OF UNDERTAKING

To

.....

Sub: Undertaking for non-submission of PVR of

Sir,

I, the undersigned-----, S/D of-----
 -----, R/o-----
 ----- is working as----- of -----
 -

I am to state that -----, S/D of-----
 -----, R/o-----
 -----, is working as ----- under me and engaged in-
 ----- since -----.

Sir,

At present I am not in a position to obtain the Police verification of aforesaid -----
 ----- and I assure that I will submit the same after obtaining necessary PVR by -----
 ----. In this connection I also assure that the character and antecedent of above man force is -----
 ----- and nothing adverse found against him. Till submitting such PVR, I am submitting herewith AADHAR
 Card/Voter Id Card/PAN Card/DL/or other documents showing address proof of ----- I
 undertake that in case of any adverse report or conduct by my worker, I shall be held responsible for action as
 deemed fit in law/rules.

Photograph Of concern staff
Specimen signature

Yours faithfully

.....

(Name and address of contractor)

~COVER

E.1313

(Sheet 1A)

Railway.....

CMB No.....

CONTRACTOR’S MEASUREMENT BOOK

Department

Division/ PROJECT UNIT.....

Name of Work.....

Agreement No.....

Name of Agency.....

Name to whom Issued.....

Designation.....

Date of Issue.....

Date of return.....

(Title page)

E.1313

(Sheet 2A)

Railway.....

CMB No.....

CONTRACTOR'S MEASUREMENT BOOK

Department.....

Division/ PROJECT UNIT.....

Name of Work.....

Agreement No.....

Name of Agency.....

Issued to.....

(Name & designation)

..... on.....

(Station)

(date)

Received by.....

(Signature)

.....

(Designation)

(Station)

On.....

(date)

Date of first entry.....

Date of last entry.....

Date received back in Division/ GATI SHAKTI UNIT}

Office after completion of book }.....

Certified that this Measurement Book contains 100 machine numbered pages from
 To.....(both pages inclusive) which have been counted by me and are correct.

Signature.....

Date.....

Designation.....

Annexure-8 of Chapter-4

E.1313

(Sheet 3A)

Railway..... CMB No..... CONTRACTOR'S MEASUREMENT BOOK					
Name of work..... Agreement No Name of Agency..... Issued to <div style="text-align: center;">(Contractor's name)</div> <div style="display: flex; justify-content: space-between;"> <div>..... (Station)</div> <div>on..... (date)</div> </div>					
Certified that this Measurement Book contains 100 machine numbered pages from..... to.....(both pages inclusive) which have been counted by me and are correct. No sheet in torn.					
I understand that the measurement book is very important document and hence I shall ensure its proper upkeep and safe custody.					
Received by..... <div style="text-align: center;">(Signature of contractor)</div> <div style="display: flex; justify-content: space-between;"> <div>..... (Name)</div> <div>..... (Station)</div> <div>..... (date)</div> </div>					
Date of first entry..... Date of last entry.....					
Certified that this Contractor's Measurement Book pages returned by contractor have been counted by me and are correct. The details of pages received by me is as under:					
S. No.	On Account Bill No.	Page No. From.....To	No of Pages	Date of receipt in ASTE/DSTE Office	Sign & Designation of Railway Official
1					
2					
3					
4					
5					
6					
7					

Annexure-9 of Chapter-4

E.1313

(Sheet 4A)

Railway.....

CMB No.....

CONTRACTOR'S MEASUREMENT BOOK

Name of work.....

Agreement No

Name of Agency.....

INDEX OF M.B

S. No.	Particulars of Entries-running Of final	Agreement or Work order ref.	Page		Remarks
			From	To	

Annexure-10 of Chapter-4

E.1313

(Sheet 5A)

Railway.....

CMB No.....

Division/PROJECT Unit

*Space for Machine
numbering with six digits
unique number*

CONTRACTOR'S MEASUREMENT BOOK

Name of work.....

Agreement No

Name of Agency.....

INDEX OF M.B

Particulars	No	L	B	D	Contents

CHAPTER-5**ANNEXURE-1****EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION****SPECIMEN FORMAT FOR LETTER OF ACCEPTANCE****(IN CASE OF MANNUAL MODE LOAs)**

Without Prejudice

By Regd. Post with A.D**By Special Man****EAST COAST RAILWAY**Office of the
Dy.CSTE/ Tele & NW /BBS
Bhubaneswar-17

No: S&T/Proj/BBS/

Dtd:

To

Dear Sir(s),

Sub: - (Name of work).**Ref: - E-Tender Notice No.-----**

01. With references to above, your offer has been accepted by the Railway Administration at a total value of Rs. -----/- (Rupees ----- only) with Contract Period of -- months from the date of issue of this Acceptance Letter at the following rates shown against each item under Schedules-A, B, C--- as enclosed to this letter.

Schedule-'A' : ----- % accepted rate in Above/below/at par**Schedule-'B' : -----% accepted rate in Above/below/at par****Schedule-'C' : -----% accepted rate in Above/below/at par**

----- : -----

Other terms and conditions as incorporated in the tender documents issued for the work will be included in a formal agreement to be executed by you for carrying out the work.

02. An amount of Rs ----/- (Rupees ---- only) is to be deposited towards Security Deposit.

The EMD submitted on line vide IREPS Ref Id/Bank Trans Id No: ----- dtd. ----- for Rs. -----/-(Rupees - ----- only) is adjusted towards Security Deposit. Balance amount of Security Deposit i.e., Rs. -----/- (Rupees ----- only) is to be deposited in cash with FA&CAO/C/E.Co.Railway/Bhubaneswar or otherwise if you so desire amount of balance Security Deposit will be recovered at the rate of 6% from your running bills of the contract.

03. You are requested to give a performance guarantee in any acceptable form as mentioned in the tender document, for an amount of **Rs -----** (-----) before signing of the agreement and it

should be valid upto the stipulated date of completion plus 60 days. If the performance guarantee is in the form of B.G then it should be as per standard B.G format (enclosed).” **Bank Guarantees (BGs) to be submitted by suppliers/contractors should be sent directly to the concerned authorities by the issuing bank under Registered post. A.D.**

04. Until a formal Agreement is prepared and executed, acceptance of this Tender shall constitute a binding contract. As such you are requested to submit a Performance Guarantee (PG) within 21 (twenty one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (twenty one) days and upto 60 days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 12% per annum shall be charged for the delay beyond 21 (twenty one) days, i.e. from 22nd day after the date of issue of LOA. Further, if the 60th day happens to be a declared holiday in the concerned office of the Railway, submission of PG can be accepted on the next working day.

In all other cases, if the Contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit Earnest Money Deposit and other dues payable against that contract. In case a tenderer has not submitted Earnest Money Deposit on the strength of their registration as a Startup recognized by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry, DIPP shall be informed to this effect. The failed Contractor shall be debarred from participating in re-tender for that work.

05. Please contact Dy.CSTE/Tele & NW/BBS immediately with your execution programme for further instructions to start the work on the authority of this Acceptance Letter.
06. Please acknowledge receipt of this letter of Acceptance and confirm that you are taking action as stated above.

Encl: E-Tender Document & Chapter-9 of Annexed Document.

Yours faithfully,

Dy.CSTE/Tele & NW/BBS
E. Co. Railway/ Bhubaneswar
For & on behalf of President of India.

No:

Dtd.

Copy with copy of enclosures forwarded for information to: -

01. Sr.AFA/C/BBS----- (Expenditure Section). The EMD submitted on line vide IREPS Ref Id/Bank Trans Id No: ----- dtd. ----- for Rs. -----/(Rupees ----- only) may be adjusted towards Security Deposit.
02. Sr.AFA /C/BBS /----- (Finance Section).
03. Principal Director of Audit (Con)/E.Co.Rly./Bhubaneswar.
04. Dy.CSTE/Tele & NW/BBS/E.Co.Rly/----- . No work order should be issued to the contractor. The contractor should start the work straightway on the basis of this Acceptance Letter for the items and specifications covered therein. Before starting the work, the execution programme should be signed by ASTE/DSTE/Dy. CSTE and Contractor.
05. Regional employment Exchange/BBS/Orissa.

06. Central Industrial Machinery, C/o. Ministry of Labour, 686, Swastik Bhawan, Saheed Nagar, Bhubaneswar.

07. Dy. Chief Vigilance Officer/E.Co.Rly/BBS.

08. Regional Labour Commissioner (Central), -----.

09. Labour Enforcement Officer (Central), -----.

Encl: E-Tender Document & Chapter-9 of Annexed Document.

Dy.CSTE/Tele & NW/BBS
E. Co. Railway/ Bhubaneswar

ANNEXURE - 2

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION
CONTRACT AGREEMENT OF WORKS

1.	Contract Agreement No.	
2.	Approximate value of contract (in figures & words)	
3.	Total Security Deposit (in figures & words)	
4.	Initial SD deposited by the Contractor (details of the deposit with amount in figures and words)	
5.	Balance SD to be recovered from the contractor (in figures and words)	
6.	Performance guarantee & Penalty amount, if any deposited.	
7.	Date of completion of work	
8.	Name of work	
9.	Estimate No, Allocation with Plan Head of expenditure.	

ARTICLES OF AGREEMENT made this _____ day of _____ 20____ between President of India acting through the _____ of East Coast Railway Administration hereafter called the "Railway" of the one part and _____ herein after called the "Contractor" of other part.

WHEREAS the Contractor has agreed with the Railway for performance of the above works set forth in the Bills of Quantities hereto annexed upon the Standard General Conditions of Contract, updated with correction slips issued up to date of inviting tender or otherwise specified in the tender documents and the Specifications of Indian Railways Unified Standard Specifications (Works & Materials)/Specifications of CPWD DSR-2019 updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents and the applicable Standard Schedule of Rates (UPDATED RATES) of East Coast Railway updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents and the Special Conditions and Special Specifications, if any and in conformity with the drawings here-into annexed AND WHEREAS the performance of the said works is an act in which the public are interested.

NOW THIS INDENTURE WITNESSETH that in consideration to the payments to be made by the Railways, the Contractors will duly perform the said works in the said Bills of Quantities set forth and shall

execute the same with great promptness, care and accuracy in a workman like manner to the satisfaction of the Railway and will complete the same in accordance with the said specifications and said drawings and said conditions of contract on or before the ____ day of _____ 20__ and will maintain the said works for a period as mentioned in the tender document from the certified date of their completion and will observe, fulfill and keep all the conditions therein mentioned (which shall be deemed and taken to be part of this contract, as if the same have been fully set forth herein), AND the Railway, both hereby agree that if the Contractor shall duly perform the said works in the manner aforesaid and observe and keep the said terms and conditions, the Railway will pay or cause to be paid to the Contractor for the said works on the final completion thereof the amount due in respect thereof at the rates specified in the Bills of Quantities hereto annexed.

Contractor _____ (Signature)

Address _____

Date _____

Railway: Designation _____

(For President of India)

Date _____

[Signature of **Witnesses** (to Signature of Contractor) with address:

Witnesses: _____

CHAPTER-6**EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION****CONTRACTOR'S FAMILARIZATION**

I/We hereby solemnly declare that I/we have visited the site of above work and have familiarized myself/ourselves of the working conditions there in all respects and in particular the following:

1. Topography of the area and existing Road network (high ways & Village, Pucca &Kacha) and availability of Service Roads,
2. Soil Conditions at the site of the work.
3. Sources and availability of construction material.
4. Rates for Construction materials.
5. Availability of local labour, both skilled and unskilled and the prevailing labour rates.
6. Availability of Water and Electricity.
7. Availability of space for putting up labour camps, offices Store Godowns, Engineering yards etc.

CHAPTER-7**EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION****ANNEXURES –A to U**

1.	ANNEXURE – A:	FORMAT FOR CERTIFICATE TO BE SUBMITTED / UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS
2.	ANNEXURE – B:	COMPLIANCE OF FINANCIAL ELIGIBILITY CRITERIA BY THE TENDERER REGARDING CONTRACTUAL PAYMENT RECEIVED
3.	ANNEXURE – C:	HISTORY SHEET OF THE TENDERER
4.	ANNEXURE – D:	DETAILS OF CONSTRUCTION MACHINERIES, TOOLS & PLANTS, VEHICLES ETC
5.	ANNEXURE – E:	DETAILS OF TECHNICAL AND OTHER PERSONNELS AVAILABLE ON HAND & PROPOSED TO BE ENGAGED IN WORK
6.	ANNEXURE – F:	DETAILS OF WORKS COMPLETED/SUBSTANTIALLY COMPLETED DURING LAST SEVEN YEARS BY THE TENDERER(S)
7.	ANNEXURE – G & G1 :	COMPLIANCE OF ELIGIBILITY CRITERIA BY THE TENDERER REGARDING BID CAPACITY
8.	ANNEXURE – H:	DECLARATION REGARDING ASSOCIATION OF RAILWAY OFFICER(S) WITH TENDERER(S)
9.	ANNEXURE – I:	LIST OF COURT CASES DURING LAST 3 YEARS
10.	ANNEXURE – J:	LIST OF ARBITRATION CASES DURING LAST 3 YEARS
11.	ANNEXURE – K:	BROAD PLAN OF EXECUTION OF THIS WORK WITHIN THE STIPULATED COMPLETION PERIOD
12.	ANNEXURE – L:	FORMAT OF MOU FOR JOINT VENTURE PARTICIPATION
13.	ANNEXURE – M:	FORMAT OF JOINT VENTURE AGREEMENT FOR JOINT VENTURE PARTICIPATION
14.	ANNEXURE – N:	DETAILS OF OTHER CREDENTIALS/ FACILITIES AVAILABLE WITH THE FIRM/CONTRACTOR
15.	ANNEXURE – O:	MANDATE FORM OF EFT
16.	ANNEXURE – P:	DOCUMENT OF AUTHORISATION
17.	ANNEXURE – Q:	SPECIMEN FORMAT FOR BANK GUARANTEE FOR BID SECURITY
18.	ANNEXURE – R:	SPECIMEN FORMAT FOR BANK GUARANTEE FOR PERFORMANCE GUARANTEE
19.	ANNEXURE – S:	PROFORMA FOR OEM's AUTHORIZATION CERTIFICATE / MAF
20.	ANNEXURE – T:	PROFORMA FOR INDEMNITY BOND
21.	ANNEXURE – U:	LOCATION LIST

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE-A****FORMAT FOR CERTIFICATE TO BE SUBMITTED / UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS**

I..... (Name and designation) **appointed as the attorney/authorized signatory of the tenderer (including its constituents),

M/s_____ (hereinafter called the tenderer) for the purpose of the Tender documents for the work of _____ as per the tender No._____ of_____ (Railway), do hereby solemnly affirm and state on the behalf of the tenderer including its constituents as under:

1. I/we the tenderer (s) am/are signing this document after carefully reading the contents.
2. I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the tender documents from Indian Railway website www.ireps.gov.in . I/we have verified the content of the document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the railway Administration shall be final and binding upon me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. **I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.**
6. **I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.**
7. I/we certify that I/we the tenderer(s) is/are not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of submission of bids, either in individual capacity or as a HUF/ member of the partnership firm/LLP/JV/Society/Trust.
8. I/we understand that if the contents of the certificate submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender Bid Security and may also lead to any other action provided in the contract including banning of business for a period of upto two year. Further, I/we (insert name of the tenderer) **_____and all my/our constituents understand that my/our offer shall be summarily rejected.
9. I/we also understand that if the contents of the certificate submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of Bid Security/Security Deposit and Performance guarantee and may also lead to any other action provided in the contract including banning of business for a period of upto two year.

10. I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/we are not from such a country

or,

If from such a country, have been registered with the competent Authority. I/We hereby certify that I/we fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed)

SEAL AND SIGNATURE
OF THE TENDERER

Place:

Dated:

** The contents in Italics are only for guidance purpose. Details as appropriate are to be filled in suitably by tenderer.

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**ANNEXURE-A(I)**

Reference Para 4.1 of ITT

(This certificate is to be given by attorney/authorized signatory/each member of Partnership firm/Joint Venture (JV) / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc.)

I/We (Name), attorney/authorized signatory of the
 (Constituent firm/constituent partner) and member/partner of the
 (Tendering firm) hereby solemnly affirm and state as under:

1. I/we certify that (constituent firm/constituent partner) is/are not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of submission of bids, either in individual capacity or as a HUF/ member of the partnership firm/LLP/JV/Society/Trust.
2. I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/We are not from such a country or, if from such a country, have been registered with the competent Authority. I/We hereby certify that I/we fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed).

SEAL AND SIGNATURE
OF THE CONSTITUENT FIRM/CONSTITUENT PARTNER

Place:

Dated:

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE-B****Compliance of Financial Eligibility Criteria by the Tenderer regarding Contractual Payments received during the qualifying period (Reference-Para 10.2 & 17.15.2 of Tender Form (Second Sheet) of Annexure-I.**

Each Bidder or each member of a JV must fill in this form separately:

NAME OF BIDDER/JV PARTNER:

Annual Contractual Turnover Data for the Previous 3/4 Years (Contractual Payment only)			
Year	Amount Currency	Exchange Rate	Indian National Rupees Equivalent
Average Annual Contractual Turnover for last 3 years			

1. The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.
2. The information supplied shall be substantiated by data in the audited balance sheets and profit and loss accounts for the relevant years in respect of the bidder or all members constituting the bidder.
3. Contents of this form should be certified by a Chartered Accountant duly supported by Audited Balance Sheet duly certified by the Chartered Accountant.

SEAL AND SIGNATURE OF THE BIDDER

Certified that all figures and facts submitted in this form have been furnished after full consideration of all observations/notes in Auditor's reports. _____

(Signature of Chartered Accountant)

Name of CA: _____

Registration No: _____(Seal)

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION

ANNEXURE- C**HISTORY SHEET OF THE TENDERER**

i)	Name of the Company	:
ii)	Address of Registered Office	:
	Phone:	
	Fax:	
iii)	Constitution of the Company	:
a)	Ownership particulars whether Sole Proprietary Firm/ HUF/Partnership firm/Joint Venture (JV)/Company registered under Company Act-2013/ Limited Liability Partnership Firm registered under LLP Act-2008,/ Registered Society/ Registered Trust or any other type duly supported by the documents such as Partnership Deed, Power of Attorney, PAN Card, Memorandum of Articles/Articles of Association, Authorisation, Certificate of Incorporation, Certificate of Registration, Deem of Formation, JV related documents etc. as applicable as per tender condition.	:
b)	Name and address of collaborator(s)	:
c)	Nature of participation by collaborator(s) in shareholding	:

	of the Company	
d)	Extent and nature of proposed participation by collaborator(s) in execution of this work	:
iv)	Number of years the firm has been in operation in India under its present	:
v)	Any Other information	

Signature of tenderer
Along with Seal

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION

ANNEXURE – D

DETAILS OF CONSTRUCTION MACHINERIES, TOOLS & PLANTS, VEHICLES ETC.

AVAILABLE ON HAND AND PROPOSED TO BE UTILIZED IN WORK[illegible]

Signature of tenderer

Along with Seal

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE – E****DETAILS OF TECHNICAL AND OTHER PERSONNELS AVAILABLE ON HAND & PROPOSED TO BE ENGAGED IN WORK**

Sl	N a m e	Age	Technical qualification(s)	Position with the tenderer	Commencement of present employment	Total experience	Emoluments
1	2	3	4	5	6	7	8

Signature of tenderer
Along with Seal

Signature of tenderer with seal

Signature of the Railway officer

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE – F****DETAILS OF WORKS COMPLETED/SUBSTANTIALLY COMPLETED DURING PREVIOUS SEVEN YEARS BY THE TENDERER(s).**

Sl	Name of the work with value of contract	Full address of the authority under whom the work has been executed with Telephone No. & Fax No.	Date of Award & Original completion period	Actual Date commencement & Actual Date of completion	Final value of contract in Rs.	Documentary proof of completion of work (enclose copies separately for each work and indicate Annexure No. in this column)
1	2	3	4	5	6	7
(A)	Successfully Completed works:-					
(B)	Substantially Completed works:-					

Signature of Tenderer
Along with Seal

Note: - The list of works as mentioned in the above table supported with documentary proof shall only be considered for evaluating the Technical Eligibility Criteria. Non-compliance with this condition is liable to result in the tender being rejected.

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE – G****Compliance of Eligibility criteria by the tenderer regarding Bid Capacity for the tenders having advertised value more than Rs. 20 Crore.**

1. Name and style of the Tenderer with address (present tenderer)
2. The available bid capacity calculated is as under:

$$\text{Available Bid Capacity} = [A \times N \times 2] - 0.33 \times N \times B$$

Where

A = Rs. _____ (i.e. Maximum value of construction works executed and payment received in any one financial year during the current and last three financial years immediately preceding the current financial year, upto date of opening of tender, taking into account the completed as well as works in progress.)

N = _____ Years (i.e. Number of years prescribed for completion of work for which bids has been invited.)

B = Rs. _____ (i.e. Value of existing commitments and balance amount of ongoing works with the tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started up to the date of inviting of the tender.)

$$\text{Bid Capacity} = \text{Rs.} \underline{\hspace{2cm}}$$

3. Details of the Chartered Accountant verifying the Bid Capacity.

- (i) Name :-
- (ii) Address:-
- (iii) Phone No:-
- (iv) Fax No:-
- (v) e-mail ID:-

4. Declaration by the tenderer: I hereby declare that the information given above are true. If any of the information given above is found to be wrong at any time, my tender will liable to be rejected.

Signature of the Tenderer

Verified and signed

Details of Tenderer along with seal

Details of Chartered Accountant along with seal

Note: -

- (a) The Tenderer(s) shall furnish the details of -
 - (i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) for calculating A, and
 - (ii) Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.

- (b) In case if a bidder is JV, the tenderer(s) must furnish the details of
- (i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) by each member of JV for calculating A, and
 - (ii) Existing commitments and balance amount of ongoing works with each member of JV either in individual capacity or as a member of other JV as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to each member of JV either in individual capacity or as a member of other JV but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.

- (c) Value of a completed work/work in progress/work awarded but yet not started for a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned bid capacity in the tender under consideration.
- (d) The arithmetic sum of individual "bid capacity" of all the members shall be taken as JV's "bid capacity".
- (e) In case, the tenderer/s failed to submit the above statements along with offer, their/his offer shall be considered as incomplete and will be rejected **summarily**.
- (f) The available bid capacity of tenderer shall be assessed based on the details submitted by the tenderer as per Annexure-B & Annexure-G1, Chapter-7 of Annexed Document which should be duly signed by tenderer(s) and verified by Chartered Accountant. In case, the available bid capacity is lesser than estimated cost of work put to tender, his offer shall not be considered even if he has been found eligible in other eligibility criteria/tender requirement.

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION

ANNEXURE-G1

(FOR EVALUATION OF BID CAPACITY FOR WORKS COSTING MORE THAN Rs. 20 CRORE)

**LIST OF EXISTING COMMITMENTS AND BALANCE AMOUNT OF ONGOING WORKS
WITH THE TENDERER**

Sl. No.	Name of work	Agreement No. & date	Designation & address of agreement signing authority	Contract Agreement value (Rs.)	Amount received so far (Rs.)	Balance amount (Rs.)	Due date of completion as per Agreement/ Supplementary Agreement	Value of existing commitments, balance amount of ongoing works and the works awarded but not yet started upto date of inviting tender(B)(Rs.)
1	2	3	4	5	6	7	8	9
Railway Works								
1								
2								
..								
Central/State Govt./PSU Works/Public Listed Company as specified in IRGCC								
1								
2								
..								
TOTAL OF (B) VALUE (in Rs.)=								

Signature of the Tenderer

Verified and signed

Name of the Tenderer along with seal

Details of Chartered Accountant along with seal

Note: -

1. The above statement should be submitted by the tenderer(s) duly signed by him and verified by Chartered Accountant.
2. In case of JV, the tenderer(s) must furnish the details of each member of JV separately.
3. The tenderer(s) may submit any additional information in the above subject, if they desire so.

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE – H****DECLARATION REGARDING ASSOCIATION OF RAILWAY OFFICER(S) WITH TENDERER(S)**

Sl	N a m e	Status with the tenderer	If working in Rly on the date of tendering, designation & place of posting	If retired on the date of tendering		
				Date of retirement	Status at retirement	Particulars of permission taken for associating with the tenderer
1	2	3	4	5	6	7

Signature of Tenderer

Along with Seal.

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE – I****LIST OF COURT CASES DURING PREVIOUS THREE FINANCIAL YEARS**

Sl	Name of work	Value of work	Name of Client Deptt.	Name of the Court	Date of institution of case	Relief sought from Court	Brief reason of dispute	Final/Present position of the case
1	2	3	4	5	6	7	8	9

Signature of tenderer
Along with Seal

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE – J****LIST OF ARBITRATION CASES DURING PREVIOUS THREE FINANCIAL YEARS.**

Sl	Name of work	Value of work	Name of Client Deptt.	Amount and date of claim preferred	Claim of Deptt. if any	Brief reasons of disputes	Final/Present position of the case
1	2	3	4	5	6	7	8

Signature of Tenderer

Along with Seal

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION

ANNEXURE – K

BROAD PLAN OF EXECUTION OF THIS WORK WITHIN THE STIPULATED COMPLETION PERIOD

[illegible]

Signature of Tenderer
Along with Seal

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**Annexure-L****MEMORANDUM OF UNDERSTANDING (MOU) FOR JOINT VENTURE PARTICIPATION**

(To be executed on non-judicial stamp paper of appropriate value in accordance with relevant stamp Act. The stamp paper is to be issued in the name of the Joint Venture Firm).

JOINT VENTURE PARTICIPATION**BETWEEN**

(indicate the name of member) having its registered office at (indicate the address of the member) represented by their (indicate designation/capacity e.g Manager/General manager/Director/Managing Director/ Partner/Managing Partner/Proprietor etc.), Shri. (indicate the name) aged aboutyears, S/o Shri (indicate the name of father) resident of (indicate Address) (hereinafter known as authorized signatory of the member) in the capacity of Lead Member of the first part.

AND

(indicate the name of member) having its registered office at (indicate the address of the member) represented by their (indicate designation/capacity e.g manager/General manager/Director/Managing Director/ Partner/Managing Partner/Proprietor etc.), Shri. (indicate the name) aged aboutyears, S/o Shri (indicate the name of father) resident of (indicate Address) (hereinafter known as authorized signatory of the member) in the capacity of the constituent member of the other part.

(In case of more than two members, include the details accordingly).

Now, the Joint Venture Firm (JV) formed by the members i.e. (indicate name of lead member) and (indicate name of constituent member) and (indicate name of other constituent member) will be known as (indicate JV firm name and address).

The expressions (indicate name of the lead member) and (indicate name of the constituent members), shall whatever the context admits, mean and include their respective legal representatives, Updated Rates-in-interest and assigns, and shall collectively be referred to as **"Joint Venture Firm"** and individually as the **"Member"**

WHEREAS; President of India, acting through Ministry of Railways, **East Coast Railway Project (S&T) ORGANISATION** (hereinafter referred to as **"Employer"**) has invited Tender for "(indicate name of work as mentioned in Notice inviting Tender)".

NOW, THEREFORE, THE MEMBERS AGREE AS FOLLOWS:

1. The **'Members'** have studied the documents and have agreed to submit their Tender as Joint Venture (JV) Firm.

The following documents shall be deemed to form and be read and construed as an integral part of this MOU.

- i) Notice inviting Tender,
- ii) Tender document,
- iii) Any Addendum/Corrigendum issued by (East Coast Railway **Gati Shakti Unit** organization), and

iv) The Tender for work submitted by Joint Venture Firm through Authorized member.

2. (a) (indicate the name of the Lead Member) shall be the **"Lead member"** of the JV Firm, for all intents and purposes having majority share (at least 51%) in Joint Venture Firm having fulfilled desired Technical & Financial Eligibility Criteria for this work.

(b) (indicate the name of the other Constituent Members as applicable for JV upto 03 members) shall be the **"member"** of the JV Firm, for all intents and purposes having majority share (at least 20%) in Joint Venture Firm having fulfilled desired Technical & Financial Eligibility Criteria for this work.

(c) (indicate the name of the other Constituent Members as applicable for JV more than 03 members) shall be the **"member"** of the JV Firm, for all intents and purposes having majority share (at least 10%) in Joint Venture Firm having fulfilled desired Technical & Financial Eligibility Criteria for this work.

3. The 'Members' resolve that the distribution of share of Financial, Technical, and other responsibilities of the constituent members of JV Firm is as under:

(a) (indicate name & Address of Lead Member) **Share%**
Lead Member

(b) (indicate name & Address of Constituent Member) **Share%**
Constituent Member

(c) (indicate name & Address of Other Constituent Member) **Share%**
Other Constituent Member

4. **JOINT AND SEVERAL RESPONSIBILITY**

The Members undertake that they shall be jointly and severally liable to the Employer (Railways) for execution of the work in accordance with General and Special Conditions of Contract. The JV members shall also be liable jointly and severally for the loss, damages caused to the Employer (Railways) during the course of execution of the contract or due to non-execution of the contract or part thereof.

5. **ASSIGNMENT AND THIRD PARTIES**

No member of the Joint Venture firm shall have the right to assign or transfer the interest, right or liability in the contract without the written consent of the other members and that of the Employer (Railways) in respect of the said tender/contract.

6. **AUTHORIZED MEMBER**

We, authorize (indicate lead member or any one of the constituent member of JV firm nominated as authorized member), as **Authorized member** represented by their authorized signatory Shri. (indicate the name) to act on behalf of the Joint Venture Firm to deal with the tender, sign the agreement or enter into contract in respect of the said tender/contract, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/ contract. However, authorized member shall not submit any such proposals, clarifications or commitments without securing clearance of other JV constituents(s).

All notices/correspondences with respect to the tender/contract would be sent by Employer (Railways) **only to the authorized signatory of Authorized member at the address of JV firm**. All such notices/correspondences sent by Employer shall be legally binding on all the members of the J.V Firm.

7. **GUARANTEES AND BONDS**

Earnest Money Deposit and all bonds/guarantees to the Employer (Railways) shall be submitted in the name JV Firm, which shall be legally binding on all the members of the J.V Firm.

8. INDEMNITY

Each member hereto agrees to indemnify the other members against its respective parts in case of breach/default of the respective part of the contract/tender of any liabilities sustained by the Joint Venture Firm.

9. For the execution of the respective portions of works, the members shall make their own arrangements to bring the required finance, plants and equipment, materials, manpower and other resources.

10. DOCUMENTS & CONFIDENTIALITY.

Each member shall maintain confidentiality regarding the information related to the tender/contract, commercial and technical information received or generated in the course of preparation and submission of the Tender.

11. ARBITRATION

Any dispute, controversy or claim arising out of or relating to this agreement shall be settled in the first instance amicably between the members. If an amicable settlement cannot be reached as above, it will be settled by arbitration in accordance with the Indian Arbitration and Conciliation Act 1996 or any amendments thereof. The Venue of the arbitration shall be (indicate the name of place). Notwithstanding settlement of any dispute among the members of the JV Firm, the JV members shall ensure satisfactory completion of awarded work as per the contract with the Employer (Railways).

12. VALIDITY

This MOU shall remain in force till the occurrence of the earliest of the following, unless by mutual consent, the members agree in writing to extend the validity for a further period

- a. Tender submitted by the joint venture Firm is declared unsuccessful, or
- b. Cancellation/shelving of the work by the Employer (Railways) for any reasons prior to award of work.

In case, the Tender submitted by the joint venture Firm is declared successful; the validity of this MOU shall be upto the entire period of completion (inclusive of period of extension, if any) including maintenance period.

13. This MOU is drawn innumber of copies with equal legal strength and status. One copy is held by (indicate name of lead member) and the other by (indicate name of constituent member) & (indicate name of other constituent member) and one copy submitted with the tender to Employer (Railways).

14. This MOU shall in all respects be governed by and interpreted in accordance with Indian Laws.

15. NOTICES/CORRESPONDANCE

All Notices/Correspondence by Employer (Railways) in writing shall be sent by Fax confirmed, by registered post or commercial courier to the following Fax number and address. (Indicate name of authorized signatory of authorized member, name & address of JV Firm with Fax number)

16. JV Agreement.

We the constituent member of the JV Firm are aware that after issue of Letter of Acceptance by the Employer (Railways), an agreement among the members of the JV firm has to be executed and got registered before the Registrar of Companies under the Companies Act or with the Registrar/Sub-Registrar under the Registration Act. This agreement shall be submitted by the JV firm to the Employer (Railways) as

per Standard J.V. Agreement format before signing the contract agreement for the work. In case the JV members fail to observe/comply with stipulations, the Earnest Money Deposit, deposited with the Employer (Railways) shall be forfeited and other penal actions due shall be taken against the members and the JV Firm by the Employer (Railways).

- 17.** We, the members of JV Firm shall furnish along with the tender, requisite documents as mentioned under para 17.1, 17.2, 17.3 (as the case may be) of the Guidelines for Participation of J.V. firms in works tender.

18. Declaration

It is certified that we are not blacklisted or debarred by the Railways or any other Ministries/Departments/PSU (Public Sector Undertaking) of the Govt. of India/State Govt. from participation in tenders /contracts on the date of opening of Tender either in our individual capacity or as a member of the JV Firm in which we were/are members.

IN WITNESS WHEREOF THE MEMBERS, have executed this MOU on (indicate day, month and year).

(indicate name of authorized signatory) <u>(indicate name & address of lead member)</u> <p style="text-align: center;">(Seal)</p>	(indicate name of authorized signatory) <u>(indicate name & address of constituent member)</u> <p style="text-align: center;">(Seal)</p>
---	--

Witness:

1..... (Name & Address)

2..... (Name & Address)

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**Annexure-M****JOINT VENTURE AGREEMENT FOR JOINT VENTURE PARTICIPATION**

(The J.V. Agreement to be executed on non-judicial stamp paper of appropriate value, in accordance with relevant stamp Act. The stamp paper is to be issued in the name of the Joint Venture Firm and should not be more than six months old from the date of execution of the J.V. Agreement, on it)

JOINT VENTURE AGREEMENT**BETWEEN**

(indicate the name of member) having its registered office at (indicate the address of the member) represented by their (indicate designation/capacity e.g Manager/General manager/Director/Managing Director/ Partner/Managing Partner/Proprietor etc.), Shri. (indicate the name) aged aboutyears, S/o Shri (indicate the name of father) resident of (indicate Address) (hereinafter known as authorized signatory of the member) in the capacity of Lead Member of the first part.

And

(indicate the name of member) having its registered office at (indicate the address of the member) represented by their (indicate designation/capacity e.g manager/General manager/Director/Managing Director/ Partner/Managing Partner/Proprietor etc.), Shri. (indicate the name) aged aboutyears, S/o Shri (indicate the name of father) resident of (indicate Address) (hereinafter known as authorized signatory of the member) in the capacity of the constituent member of the other part.

(In case of more than two members, include the details accordingly).

Now, the Joint Venture Firm (JV) formed by the members i.e. (indicate name of lead member) and (indicate name of constituent member) and (indicate name of other constituent member) will be known as (indicate JV firm name and address).

The expressions (indicate name of the lead member) and (indicate name of the constituent members), shall whatever the context admits, mean and include their respective legal representatives, Updated Rates-in-interest and assigns, and shall collectively be referred to as **"Joint Venture Firm"** and individually as the **"Member"**

1. WHEREAS; President of India, acting through Ministry of Railways, **East Coast Railway Project Unit (S&T) ORGANISATION** (hereinafter referred to as **"Employer"**) has invited Tender for "(indicate name of work as mentioned in Notice inviting Tender)".

And whereas, the above members to the Joint Venture Firm have submitted the tender in the name of the said JV Firm formed as per the MOU signed on dated..... and whereas the said tender has finally been accepted by the Employer (Railways) vide Letter Of Acceptance No.....dated....., we (indicate name of the lead member) and (indicate name of the constituent members), herewith sign the above formal JV agreement for registration of the above joint venture Firm viz (indicate JV firm name and address) and for entering into contract Agreement with the "Employer" (Railway).

2. NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

The following documents shall be deemed to form and be read and construed as an integral part of this J.V. Agreement.

- i) Notice inviting Tender,
- ii) Tender document,

- iii) Any Addendum/Corrigendum issued by (East Coast Railway),
 - iv) MOU signed on.....by us.
 - iv) Tender submitted on our behalf by the Authorized Member.
 - vi) Letter of Acceptance issued by Employer (Railways).
3. The 'Members' have studied the documents, JV guidelines and have agreed to participate in submitting the 'Tender' jointly; signed the JV MOU and submitted the tender accordingly.
4. (a) (indicate the name of the Lead Member) shall be the "**Lead member**" of the JV Firm, for all intents and purposes having majority share (at least 51%) in Joint Venture Firm having fulfilled desired Technical & Financial Eligibility Criteria for this work.
- (b) (indicate the name of the other Constituent Members as applicable for JV upto 03 members) shall be the "**member**" of the JV Firm, for all intents and purposes having majority share (at least 20%) in Joint Venture Firm having fulfilled desired Technical & Financial Eligibility Criteria for this work.
- (c) (indicate the name of the other Constituent Members as applicable for JV more than 03 members) shall be the "**member**" of the JV Firm, for all intents and purposes having majority share (at least 10%) in Joint Venture Firm having fulfilled desired Technical & Financial Eligibility Criteria for this work.
5. We, authorize (indicate lead member or any one of the constituent member of JV firm nominated as authorized member), as **Authorized member** represented by their authorized signatory Shri. (indicate the name) to act on behalf of the Joint Venture Firm to deal with the tender, sign the agreement or enter into contract in respect of the said tender/contract, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/ contract. However, authorized member shall not submit any such proposals, clarifications or commitments without securing clearance of other JV constituents(s).
- All notices/correspondences with respect to the tender/contract would be sent by Employer (Railways) **only to the authorized signatory of Authorized member at the address of JV firm**. All such notices/correspondences sent by Employer shall be legally binding on all the members of the J.V Firm.
6. The 'Members' resolve that the distribution of share of Financial, Technical, and other responsibilities of the constituent members of JV Firm is as under:
- | | |
|--|--------------------|
| (a) <u>(indicate name & Address of Lead Member)</u> | Share% |
| Lead Member | |
| (b) <u>(indicate name & Address of Constituent Member)</u> | Share% |
| Constituent Member | |
| (c) <u>(indicate name & Address of Other Constituent Member)</u> | Share% |
| Other Constituent Member | |
7. The constitution of JV firm shall not be altered during the currency of the contract except when modification become inevitable due to succession laws etc. provided that the minimum eligibility criteria are not got vitiated. Failure to observe this stipulation shall be deemed to be breach of contract, which will entitle the Employer (Railway) to take all consequential action as per contract conditions.

8. **JOINT AND SEVERAL RESPONSIBILITY**

The Members undertake that they shall be jointly and severally liable to the Employer (Railways) for execution of the work in accordance with General and Special Conditions of Contract. The JV members

shall also be liable jointly and severally for the loss, damages caused to the Employer (Railways) during the course of execution of the contract or due to non-execution of the contract or part thereof. The members solemnly affirm and declare that every possible care will be taken by them for ensuring satisfactory execution and completion of the work awarded under the contract.

9. ASSIGNMENT AND THIRD PARTIES

No member of the Joint Venture firm shall have the right to assign or transfer the interest, right or liability in the contract without the written consent of the other members and that of the Employer (Railways) in respect of the said tender/contract.

10. GUARANTEES AND BONDS

All bonds/guarantees e.g. Performance Guarantee, Bank Guarantee etc. to the Employer (Railways) shall be submitted by the JV Firm as per tender conditions, only in the name of J.V Firm.

11. INDEMNITY

Each member hereto agrees to indemnify the other members against its respective parts in case of breach/default of the respective part of the contract/tender of any liabilities sustained by the Joint Venture Firm.

12. USE OF MACHINERY, INSTRUMENT, LABOUR FORCE etc.

For the execution of the respective portions of works, the members shall make full arrangements to bring the required finance, plants and equipment, materials, manpower and other resources. However, the members here to undertake that whatever the machinery, instruments, labour force, (including unskilled, skilled, inspectors, Engineer etc.) they possess at the time of entering into Joint Venture Agreement or which subsequently shall come in their possession and if such machinery, instruments, labour force is required for the speedy and efficient execution of any portion of the work, the member/members having the control over the said machinery, instruments, labour force etc. without having any regard to their share of profit and loss agreed to between the members in Joint Venture Agreement shall hand over the same which shall be placed at the disposal of the other member actually executing that portion of the work at mutually agreed terms for the purpose of execution of the contract without any hindrance and obstacle

13. DOCUMENTS & CONFIDENTIALITY.

Each member shall maintain confidentiality regarding the information related to the tender/contract, commercial and technical information received or generated in the course of preparation and submission of the Tender and execution of contract.

14. ARBITRATION

Any dispute, controversy or claim arising out of or relating to this agreement shall be settled in the first instance amicably between the members. If an amicable settlement cannot be reached as above, it will be settled by arbitration in accordance with the Indian Arbitration and Conciliation Act 1996 or any amendments thereof. The Venue of the arbitration shall be (indicate the name of place). Notwithstanding settlement of any dispute among the members of the JV Firm, the JV members shall ensure satisfactory completion of awarded work as per the contract with the Employer (Railways).

15. DURATION OF JOINT VENTURE AGREEMENT

It shall be valid during the entire currency of the contract including the period of extension if any and the maintenance period after the work is completed and till Security Deposit is released.

16. NOTICES/CORRESPONDANCE

All Notices/Correspondence by Employer (Railways) in writing shall be sent by Fax confirmed, by registered post or commercial courier to the following Fax number and address.

(Indicate name of authorized signatory of authorized member, name & address of JV Firm with Fax number)

17. Governing Laws: The J.V. Agreement shall in all respect be governed by and interpreted in accordance with Indian Laws.

Declaration: -

It is certified that we are not blacklisted or debarred by the Railways or any other Ministries/Departments/PSU (Public Sector Undertaking) of the Govt. of India/State Govt. from participation in tenders /contracts on the date of opening of Tender either in our individual capacity or as a member of the JV Firm in which we were/are members.

IN WITNESS WHEREOF THE MEMBERS, have executed this JV Agreement on **(indicate day, month and year)**

(Indicate name of authorized signatory) (Indicate name of authorized signatory)

(indicate name & address of constituent member) (indicate name & address of lead member)

(Seal)

(Seal)

Witness:

1..... (Name & Address)

2..... (Name & Address)

Place :

Date :

(The J.V. Agreement should be got registered with Registrar of Company Act or with the Registrar/Sub-registrar under the registration act.)

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION

ANNEXURE – N

OTHER CREDENTIALS/FACILITIES OF THE FIRM/CONTRACTOR (WHICH ARE NOT COVERED IN ANNEXURE-A
TO ANNEXURE –M)



Signature of Tenderer
Along with Seal.

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**ANNEXURE – O**

The Contractor/supplier having their bank accounts on any of the city centres where reserve bank of India's EFT (Electronic Fund Transfer) facility exists will receive their payments through EFT scheme in case of being awarded with the work/supply order. For that they (the agency) will have to furnish the **mandate form of EFT** (As per proforma given below)) along with the tender document.

Electronic clearing service (Credit clearing) Model Mandate form
(Investor/Customer's Option to receive payments through Credit Clearing Mechanism).

Name of the scheme and the periodicity of payment

No.

- 1) Contractor/supplier's Name
- 2) Particulars of their Bank Account
 - a) Name of Bank:
 - b) Name of the Branch
Address
Telephone No.
 - c) 9 Digit Code Number of the bank and branch
Appearing on the MICR cheque issued by the bank.
 - d) Type of the Account (S.B. Current or cash Credit)
With IFS Code
 - e) Ledger and ledger folio Number.
 - f) Account number (as appearing on the cheque book)

(In lieu of the bank certificate to be obtained as under, please attach a bank cancelled cheque or photocopy of a cheque issued by your bank for verification of the above particulars)

3) Date of effect

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge the responsibility expected of me as a participant under the scheme.

Signature of the Contractor/Supplier.

Date: _____

Certified that the particulars furnished above are correct as per our records.

Bank's stamp.

Date: _____

Signature of the Authorized Official of the Bank.

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**Annexure-P**

LC/DA No (18 DIGIT IPAS GENERATED NO.)

Dated _____

DOCUMENT OF AUTHORISATION**Reference:** (i) Works Contract No. _____ Dated _____

(ii) Inland Letter of Credit No. _____ Dated _____

This document is issued against Contract No. -----(FROM IREPS) ----- dated----- for work of -----(DESCRIPTION OF WORK FROM IREPS) -----

The beneficiary of aforementioned Letter of Credit M/s (NAME AND VENDOR CODE)(Vendor Code as per IREPS.....) is entitled to receive payment aggregating INR.....SSS.....(FROM ABSTRACT OF BILL PASSED) out of a total LC amount of INR.....(FROM MASTER TABLE OF LC OPENED) against the first/second* commercial Invoice No. (FROM IPAS) datedFROM IPAS.....for INR (FROM IPAS)raised against the above contract from State Bank of India(branch..... FROM LC MASTER TABLE) on the strength of this Certificate.

The details of payments already made to the beneficiary under this Letter of Credit are as follows:

Sl. No.	Invoice No.	Invoice date	Invoice Amount (INR)	LCDA No.	LCDA date	Amount paid (INR)
Total Paid						

THIS PAYMENT: _____ SSS _____

LC BALANCE AFTER THIS PAYMENT: _____

(Signature of authorised Railway authority)

Name

Designation

Official Seal

ANNEXURE-Q**SPECIMEN FORMAT OF BANK GUARANTEE BOND FOR SUBMISSION OF BID SECURITY**

Bank Guarantee Bond from any scheduled commercial bank of India

(On non-judicial stamp paper, which should be in the name of the Executing Bank).

Name of the Bank: -----

President of India,

Acting through,

East Coast Railway,

Beneficiary: FA&CAO (Con), East Coast Railway

Date:

Bank Guarantee Bond No.:

Date: -----

In consideration of the President of India acting through----- (***Designation & address of Contract Signing Authority***), Railway, (Hereinafter called "The Railway") having invited the bid for_____through Notice inviting tender (NIT) No.. _____, we have been informed that [***Insert name of the Bidder***] (Hereinafter called "the Bidder") intends to submit its bid (hereinafter called "the Bid").

WHEREAS, the Bidder is required to furnish Bid Security for the sum of [***Insert required Value of Bid Security***], in the form of Bank Guarantee, according to conditions of Bid.

AND

WHEREAS,[***Insert Name of the Bank***], with its Branch[***Insert Address***] having its Headquarters office at..... [***Insert Address***], hereinafter called the Bank, acting through[***Insert Name and Designation of the authorised persons of the Bank***], have, at the request of the Bidder, agreed to give guarantee for Bid Security as hereinafter contained, in favour of the Railway:

1. KNOW ALL MEN that by these present that I/We the undersigned [***Insert name(s) of authorized representatives of the Bank***], being fully authorized to sign and incur obligations for and on behalf of the Bank, confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Railway full amount in the sum of [***Insert required Value of Bid Security***] as above stated.
2. The Bank undertakes to immediately pay on presentation of demand by the Railway any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway on the Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.
3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the Bidder and without the Railway being required to show grounds or give reasons for its demand of the amount so demanded.
4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.
5. The Bank agrees that no change, addition, modifications to the terms of the Bid document or to any documents, which have been or may be made between the Railway and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Railway at any time.

6. This guarantee will remain valid and effective from.....[*insert date of issue*]till[*insert date, which should be minimum 90 days beyond the expiry of validity of Bid*]. Any demand in respect of this Guarantee should reach the Bank within the validity period of Bid Security.
7. The Bank Guarantee is unconditional and irrevocable.
8. The expressions Bank and Railway herein before used shall include their respective succeUpdatedRatess and assigns.
9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Railway. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758.
10. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee to the following bank details –

IFSC CODE	SBIN000RAIL
IFSC TYPE	BRANCH
BANK NAME	STATE BANK OF INDIA
BRANCH NAME	RAIL
CITY NAME	NAVI MUMBAI
ADDRESS	SECTOR-11, CBD BELAPUR, NAVI MUMBAI
DISTRICT	NAVI MUMBAI
STATE	MAHARASHTRA
BG ENABLED	BG ENABLED

11. The Guarantee shall be valid in addition to and without prejudice to any other security Guarantee(s) of Bidder in favour of the Railway. The Bank, under this Guarantee, shall be deemed as Principal Debtor of the Railway.

Date.....

Place.....

Bank's Seal and authorized signature(s)
 [Name in Block letters]
 [Designation with Code No.].....
 [P/Attorney] No.

Witness:

1 Signature, Name & Address & Seal

2 Signature, Name& address & Seal

Bank's Seal
 [P/Attorney]No.

Note: All italicized text is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.

ANNEXURE-R**SPECIMEN FORMAT OF BANK GUARANTEE BOND FOR PERFORMANCE GUARANTEE**

In consideration of the President of India (herein after called the Government) having agreed to exempt (indicate name and address of tenderer) (hereinafter called the said Contractor(s)" from the demand, under the terms and conditions of an Agreement (indicate acceptance letter no. and date) made between (indicate Dy.CSTE/Tele & NW/BBS or CSTE/Project/BBS ,East coast Railway as applicable) and (indicate name and address of tenderer) for (indicate the name of work as mentioned in tender) (hereinafter called "the said Agreement"), of security deposit for the due fulfillment by the said Contractor(s) of the terms and conditions contained in the said Agreement, on production of a bank Guarantee for Rs. _____ (Rupees_____only).

1. We, (indicate the name and address of the bank) (hereinafter referred to as "the Bank") at the request of (indicate name and address of tenderer) (contractor's) do hereby undertake to pay to the Government an amount not exceeding Rs. _____ against any loss or damage caused to or suffered or would be caused to or suffered by the Government by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.
2. We (indicate the name and address of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount/claimed is due by way of loss or damage caused to or would be caused to or suffered by the Government by reason of breach by the said contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. 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. _____.
3. We undertake to pay to the Government any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s)/supplier(s) in any suite or proceeding pending before any court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the contractor(s) /supplier(s) shall have no claim against us for making such payment.

4. We, (indicate the name and address of the bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance/of the said Agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till (Indicate Dy.CSTE/Tele & NW or CSTE/Project/BBS ,East coast Railway as applicable) Office/ Department) Ministry of Railway certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all liability under this guarantee thereafter.
5. We (indicate the name and address of the bank) further agree with the government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said Contractor(s) and forbear or enforce

any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the Government or any indulgence by the Government to the said Contractor(s) or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6.This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s)/Supplier(s).

7.We, (indicate the name and address of the bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Government in writing.

Dated the ____ ____ day of _____ 2022

For (indicate the name and address of the bank)

PROFORMA FOR OEM's AUTHORIZATION CERTIFICATE / MAF

Note : This authorization letter should be printed on the letterhead of the Original Equipment Manufacturer (OEM) and should be signed by a competent person.

To,
The President of India,
Acting through CSTE/Project/BBS,
East Coast Railway,
Bhubaneswar-751017.

Dear Sir,

Subject: Manufacturer Authorization form (MAF) to M/s for
Ref: Bid No.....dated.....

Dear Sir,

We, M/s....., are established and reputed manufacturer and service provider of
(Product details), having our registered office at

We hereby authorize M/s (Bidder name), Office to
participate in bid and subsequently upon award of the bid to execute the supply and Installation
& Commissioning of our range of products against your above said bid.

We further extend our warranty for 03 years and AMC for 05 years for our range of products
offered by M/s against the above-said bid.

Thanking you,

Place:

Date:

Seal and signature of the OEM

Place:

Date:

Seal and signature of the Tenderer

ANNEXURE-T

EAST COAST RAILWAY

INDEMNITY BOND FORM.

To,

The President of India,
Acting through CSTE/Project/BBS,
East Coast Railway,
Bhubaneswar-751017.

Sub: INDEMNITY BOND FORM.

Whereas _____ (herein-after called the Contractor) have entered into a contract with the President of India acting through the CSTE/Project/BBS, East Coast Railway, (herein-after called the Railway) vide Agreement No. _____ Whereas the Railway has agreed to issue to contractor as the provision of the contract the Railway materials for use in the above work costing of ` _____ only. The contractor hereby undertakes to ensure safe custody of all Railway Materials and to use them exclusively for the purpose for which they have been issued. The contractor further undertakes to fully Account for all Railway materials at regular intervals as may be prescribed by the Railway as also when otherwise so demanded by the Railway and return all unused cables and other materials arising as per the provisions of the contract. The Contractor further agrees that they will give all the facilities to the Railway for physical verification of the Railway materials whenever so directed by the Railway.

By this bond of indemnity, we, _____ undertake to keep the Railway indemnified against any loss or damage which they may suffer by default of the Contractor in fulfilment of the above conditions.

Further, we, the Contractor are bound to the Railway or their successors and as signs in the sum of ` _____.

Signed and delivered by ourselves on this _____ day of _____ 20

Place:

Date:

Signature _____

Witness: _____

List of Locations**Annexure-U****RPF POSTS for providing VSS SERVER of selected D & E category Stations for monitoring in
WALTAIR & KURDA DIVISION**

SL NO.	Station	station Name	Nominated RPF POST for placing server for making network monitoring
1	BDVR	BODDAVARA	ARK
2	CMDP	CHIMIDIPALLI	
3	GPJ	GORAPUR	
4	KVLS	KARAKAVALASA	
5	MVW	MALLIVEDU	
6	SLPM	SLPM	
7	SMLG	SIMILIGUDA	
8	SUP	SRUNGAVARAPUKOTA	
9	TXD	TYADA	
10	LVK	LAKKAVARAPUKOTA	
11	PVPT	PARVATHIPURAM TOWN	RGDA
12	SPRD	SINGAPUR ROAD	
13	GMDA	GUMMADA	
14	JMPT	JIMIDIPETA	
15	KNRT	KUNERU	
16	LDX	LADDA	
17	KTGA	KEUTGUDA	
18	KBM	KOTABOMMALI	CHE
19	NWP	NOUPADA	
20	PDU	PONDURU	
21	TIU	TILARU	
22	DSI	DUSI	
23	PUN	PUNDI	
24	ULM	URLAM	
25	CPP	CHIPURUPALLI	VZM
26	SGRM	SIGADAM	
27	ALM	ALAMANDA	
28	KPL	KANTAKAPALLI	
29	KUK	KORUKONDA	
30	NML	NELLIMARLA	
31	GVI	GARIVIDI	
32	PVP	PARVATHIPURAM	VBL
33	DNV	DONKINAVALASA	
34	GPI	GAJAPATINAGARAM	
35	GRBL	GARUDABILLI	
36	GTLM	GOTLAM	
37	SNM	SEETHANAGARAM	

38	KMX	KOMATAPALLI	
39	LKMR	LAXMIPUR ROAD	LKMR
40	TKRI	TIKKIRI	
41	BGUA	BAIGUDA	
42	BLMK	BALUMASKA	
43	LLGM	LELIGUMA	
44	SKPI	SIKARPAI	
45	KKGM	KAKRIGUMA	
46	DBF	DAPAL	DWZ
47	DWZ	DANTEWARA	
48	KKLU	KAKULUR	
49	KWGN	KAWARGAON	
50	KMSD	KUMAR SODARA	
51	GIZ	GIDDAM	
52	BCHL	BACHELI	KRDL
53	BHNS	BHANSI	
54	KRDL	KIRANDUL	
55	KMLR	KAMLUR	
56	BDXX	BADIARPUR	JDB
57	DMK	DILMILLI	
58	KMEZ	KUMAR MARANGA	
59	NKX	NAKTISEMRA	
60	TPQ	TOKAPAL	
61	SZY	SILAKJHORI	
62	AGZ	AMBAGURA	
63	BHJA	BHEJA	KRPU
64	CJS	CHARAMULAKUSUMI	
65	CTS	CHATHARIPUT	
66	DPC	DARLIPUT	
67	DIR	DHANAPUR	
68	MKRD	MACHKHAND ROAD	
69	MVG	MALLIGURA	
70	MVF	MANABAR	
71	PFU	PADUA	
72	PBV	PALIBA	
73	SXV	SUKU	
74	KPRR	KOTPADROAD	
75	KDPA	KADAPA	
76	AGB	AMBAGOAN	
77	JRT	JARATI	
78	DMRT	DUMIRIPUT	
79	JYP	JEYPORE	
80	PDT	PENDURTHI	MPM
81	KTV	KOTTAVALASA	

KUR DIV

82	DEG	DELANG	PURI
83	BRST	BIRPURUSOTTAMPUR	
84	KASR	KANAS ROAD	
85	MLT	MALATIPATPUR	
86	RBA	RAMBHA	BAM
87	HMA	HUMMA	
88	GAM	GANJAM	
89	JNP	JAGANNATHPUR	
90	GTA	GOLANTHRA	
91	SLRD	SURLA ROAD	PSA
92	JPI	JHADUPUDI	
93	BAV	BARUVA	
94	MMS	MANDASA	
95	SUDV	SUMMADEVI	KUR
96	GNGD	GANGADHARPUR	
97	KUU	KUHURI	
98	SLZ	SOLARI	
99	MWQ	MOTARI HALT	
100	RTN	RETANG	
101	KPXR	KAIPADHAR ROAD	BBS
102	TAP	TAPANG	
103	BRAG	BARANG	
104	MCS	MACHESWAR	
105	NQR	NARAJ MARTHAPUR	
106	RQP	RADHAKISHOREPUR	CTC-1
107	GHNH	GHANTIKHAL NIDHIPUR	
108	BRTG	BARITHENGARH	
109	BYY	BYREE	
110	CBT	CHARBATIA	
111	GBK	GOPALPUR BALKDA	
112	KIS	KAPILAS ROAD	CTC-2
113	KNPR	KENDRAPARA ROAD	
114	NRG	NERGUNDI	
115	GJTA	GURUDIJHATIA	
116	KDRP	KANDARPUR	
117	RCTC	RAGHUNATHPUR	
118	SQQ	SALAGAON	JJKR-1
119	BDBA	BADABANDHA	
120	RHMA	RAHAMA	
121	HDS	HARIDASPUR	
122	JKPR	JAKHAPURA	
123	JEN	JENAPUR	
124	NGMP	NEW GARHMANDHUPUR	
125	SKND	SUKINDA ROAD	

126	SGDP	SAGADAPATA	JJKR-2
127	BGPL	BAGHUAPAL	
128	TGRL	TANGIRIAPAL	
129	TMKA	TOMKA	
130	BTB	BAITARANI ROAD	BHC
131	BUDR	BAUDPUR	
132	KED	KENDUAPADA	
133	KRIH	KORAI	
134	MZZ	MANJURI ROAD	KDJR-1
135	BSTP	BASANTAPUR	
136	CLDR	CHILIKINDARA	
137	GADH	GOALDIH	
138	NANR	NARANPUR	KDJR-2
139	NYG	NAYAGARH	
140	NKW	NILAKANTHESWAR	
141	PRNR	PORJANPUR	
142	STBJ	SITABINJ	TLHR
143	TLHD	TALCHER ROAD	
144	BDPK	BURHAPANKA	
145	MRDL	MERMANDOLI	DNKL
146	HND	HINDOL ROAD	
147	JRZ	JORANDA ROAD	
148	RJGR	RAJATHGARH	
149	SSPR	SADASHIBAPUR	

Note: The above figures may be modified (i.e. add or delete or modify) the location/station/RPF post as per the Railway requirements while execution of the work.

CHAPTER-8

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION
ADDITIONAL SPECIAL CONDITIONS OF CONTRACT

(TECHNICAL CONDITIONS)

Sl.No.	Description
1	Code of practice and Specifications (Section – A).
2	Rates quoted/Accepted (Section – B).
3	Taxes and duties, royalties etc. (Section – C).
4	Safety Rules (Section – D).
5	Felling of trees, safe working methods etc. (Section – E).
6	Drafting of vehicles & working hours (Section – F).
7	Timeline for passing of contractual bills (Section-G).
8	Special Conditions of Contract for Signal & Telecom Works & Technical Specifications (Section-H).

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**Section – A****Code of Practice and Specifications****1. General:**

The specification shall apply to all such works as are required to be executed under the contract or otherwise, directed by the Engineer. In every case the work shall be carried out to the satisfaction of the Engineer and shall conform to grades and cross sections shown on the drawings or as indicated by the Engineer, the succeeding sections. Where the drawings and specifications describe of portion of the work in only general terms and not in complete details, it shall be understood that only the best general practice is to prevail. Materials and workmanship of the best quality are to be explored and that the instructions of the engineer are to be fully complied with and shall be binding on the Contractor. The contractor shall be fully responsible to ensure that the finished works are free from any defects, weakness, crack etc.

Code of practice and Specifications:

The abbreviations mentioned elsewhere for standard specifications and code of practice shall be considered to have the following meaning:

IS: Indian Standard Specifications of the Bureau Indian Standards.

GCC (General Conditions of Contract): Indian Railways Standard General Conditions of Contract-2022 (with up to date correction slips & addendums).

IRC: Indian Road Congress Standard Specifications.

RDSO: Research, Design and Standard Organization (Ministry of Railways), Lucknow.

MORT& H: Ministry of Road Transport & Highways.

IRS: Indian Railways Standard Specifications and code of practice, i.e Concrete Bridge Code, Bridge Substructure & Foundation code, Bridge rules, Indian Railways Unified Standard Specifications (Formation work, Bridge work and P.Way work)-2019, etc.

Wherever the term an "Engineer" comes in above specifications, it shall be read as defined in Indian Railway Standard General Conditions of Contract-2022 in connection with Engineering works.

Wherever a reference is made to any of the standard specifications and code of practices, it shall be taken as a reference to the latest version/ revision of the same and shall include all the errata / corrections made in the same from time to time.

In case of any contradiction between provisions in the Special Specifications laid down hereunder and in the specifications and codes which have been referred to the former shall prevail and that in all cases, the decision of the engineer shall be final and binding on the contractor.

All measurements shall be made in the metric system. Different items of the works shall be measured in accordance with the procedures set forth in the relevant sections read with conjunction with SGCC and Special Conditions of Contract.

All measurements and computations, unless otherwise indicated shall be carried nearest the following limits:

1. Length and breadth: 5mm
2. Height and depth or thickness of earth work, CC work, Structural members etc: 5 mm
3. Area: 0.01 sqm

4. Cubic contents: 0.01 cum.

Site clearance wherever involved shall be undertaken and the same shall be considered incidental to the earth work items and the contract unit rates for the same shall be deemed to be inclusive of clearing and grubbing operations.

All matters and specifications not provided for or specified in the tender documents for this work shall be in accordance with Indian Railway Standard Specifications (with up to date correction slips & addendums), and the contractor shall be bound by them for the performance of the contract.

Specifications for items not provided or specified in the tender documents will be same as of similar/comparable items of ECoR Updated Rate-2022 or latest.

2.0 **Miscellaneous:**

- 2.1 When the earth for making formation is borrowed from adjacent private land, contractor must ensure that minimum distance of borrow pit in private land from the toe of new bank is at least equal to the height of the bank plus 3.0 mtr.
- 2.2 Under no circumstances incomplete work will be taken over by the department. Contractor shall notify sufficiently in advance his intension of handing over a particular stretch of completed finished work so as to enable recording.
- 2.3 The contractor should make his own arrangement at his cost to employ qualified Engineers who will always be present at site during the progress of work with required instrument like Theodolite, levelling instruments, Steel Tapes, levelling stages and other equipment and labour etc. as required to control the day to day work and also to take measurements of work done to assess the quantity for payment.

3.0 **USE OF TECHNICAL TERMS AND CONDITIONS:**

- 3.1 Definitions, Technical words and symbols used in circuits and other places shall be as per Indian Standard Specifications. Where they are not available, they should conform to appropriate British Standard Specification.
- 3.2 The Tenderer's Representative and the Railway's Supervisor shall jointly inspect the site and make out a programme and put up to concerned Deputy Chief Signal & Telecom Engineer/ Tele & NW, East Coast Railway or his authorized representative for approval.
- 3.3 The work shall be carried out as per the fixed programme approved by Dy.Chief Signal & Telecom Engineer/ Tele & NW, East Coast Railway, Bhubaneswar or his authorized representative.

4.0 **DISCREPANCY IN DRAWING AND OTHER DOCUMENTS:**

- 4.1 The Tenderer shall carryout at his expense any alteration of the works due to any discrepancy, error or omission in the drawings or other particulars. Any approval given by the Railway for this purpose shall in no ways absolve the Tenderer from any or all responsibilities for the correct and safe functioning of the equipment. In this regard, the sole responsibility rests with the Tenderer in all respects. Any fittings or accessories, which may not be specifically mentioned in the Tender or the agreement executed thereon, but which are usual and or necessary as per the normal Signal Engineering practice are to be provided by the tenderer without extra charges so that the installation is complete in all respects for rendering useful service.

The Railway may require such alternations to be made on the work during the progress that may be necessary, but should the said alterations be such that either party to the contract considers alterations in prices justified for such alterations, the same shall not be carried out until amended prices submitted by the Tenderer and accepted by the Railway and intimated in writing to the Tenderer.

5.0 FUTURE DEVELOPMENT:

If during the period between the date of Tender and signing of the contract, there have been any developments resulting in improvements to this equipment to be installed, in its design or fabrication, the Tenderer shall make available to the Railways all information. The Railway may modify the orders to take advantage of these developments on the basis of mutually agreed terms. The purchaser reserves the right for the alteration/ modification/decision in respect of the work at any stage of the execution. The charges incurred there are to be settled mutually between the Purchaser and Contractor.

- 5.1 It should be clearly understood that it is entirely Contractor's responsibility and liability to find, procure all the machinery, tools and plants and methodical execution of the work. Delay in procurement of such items due to their non-availability or import difficulties or any other causes whatsoever will not be taken as excuse for slow or non-performance of the work.

6.0 INSPECTION OF WORK AND MEASUREMENT:

- 6.1 After completion of the stages of work the Tenderer should inform in writing about the completion of the work to the Railway Supervisor and request for a joint inspection. The measurement of quantities for the purpose of payment to the Contract will be undertaken as per clause No. 45 of GCC Part-III.

6.2 INSPECTION OF THE WORK:

The Engineer or the Railway Supervisor may inspect and test the various portions of the work at all stages and shall have full power to reject all or any portion of the work that he may consider to be defective or inferior in quality of material or workmanship or design in comparison to that is called for in the Specification.

In the event of any work already executed and not in accordance with Specifications as in this Tender and/ or determined by the Engineer of which the Tenderer has been apprised, the Tenderer shall carryout alteration/ replacement to such works to the satisfaction of the Engineer for which no additional expenses will be borne by the Railway Administration.

The Tenderer shall carryout such tests at his own expenses as are necessary in the opinion of the Engineer-in-charge to determine that the contract is being complied with satisfaction and that the Tenderer is not entitled to the payment in respect thereof.

All materials to be used by the Tenderer on the work shall be of approved quality and shall be approved by the Engineer-in-charge before being used in the work.

No extra charges shall be paid to the Contractor towards carriage, loading, un-loading and handling etc., of the materials supplied by the Tenderer and he shall include all such charges in supply of materials.

If the completed work or any portion thereof before it is taken over or during the guarantee period [works includes equipment also] be found defective or otherwise failed to fulfil the requirement of Specification or its purpose, the Railway shall give the Contractor notice setting forth, particulars of such defects or failure and the Contractor shall forthwith make good the defective work or alter the same to make it satisfactory to comply with the said requirement free of cost. Should the Contractor fail to do so within a reasonable time [which time to be decided by the Engineer-in-charge] after the service of this said notice, the Railway may reject and replace the whole or part of such defective work as the case may be at the cost of the Tenderer. Such replacement shall be carried out by or at the instance of the Railway within a reasonable time, and so far reasonably practicable under competitive conditions. The Tenderer's full liability under this clause shall be satisfied by the payment to the Railway of the extra cost being the ascertained difference between the prices paid by the Railway under the above mentioned provisions for such replacement and

the contract price for the work so replaced plus the sum if any paid by the Railway to the Tenderer in respect of such defective work.

If it becomes necessary for the Tenderer to replace or review any defective portion of the work under the clause above, then the provision of the said clause, shall also apply to the portion of work as replaced or renewed until expiry of three months from the date of such replacement or renewal or until the end of the above mentioned period of six months whichever is later. If any defects be not remedied within a reasonable time during the aforesaid period, the Railway proceed to do the work, at the Tenderer's risk and expenses but without prejudice to any other rights or remedies which the Railway may have against the Tenderer in respect of such defects or faults.

In the event of such rejection as aforesaid, the Railway without prejudice to other rights and remedies, and in particular without prejudice to their rights under the clause just preceding, be entitled to the use of the rejected work in a reasonable and proper manner for a time reasonably sufficient and to enable him to obtain other replacement. During such period, if the rejected work is used commercially, the Tenderer shall be entitled to a reasonable sum as payment for such use but the Tenderer shall not be entitled to claim any damage in respect of such period.

Railway reserves the right to suspend the progress of work or any part thereof by reason of whether conditions or by some default on the part of the Contractor or necessary for proper execution and the safety of the work for such time or times and in such manner as may be considered necessary by the Engineer and the Tenderer shall during such suspension period protect and secure the work as is necessary in the opinion of the Engineer. The Tenderer shall not be entitled to the extra cost [if any] incurred by him during the period of suspension ordered by the Engineer owing to the reasons other than aforementioned and when each such period of suspension exceeds 14 days, the Tenderer shall be entitled to such extension of time for completion of the work as Railway may consider proper.

If during the progress of the works the cable or any other materials of the Railways are damaged the cost of the repairs or replacement of such cables or accessories shall be recovered from the Tenderer. Decision of the CSTE/Project/BBS, Dy.CSTE/Tele & NW/BBS in regards to the cost to be recovered towards repairs or replacement of materials supplied by the Railway Administration shall be final and binding on the Tenderer.

7.0 **MATERIALS:**

The percentage quoted by the Tenderer above/below the rates incorporated for various items/ works in schedules shall be inclusive of cost of supply of these items, to be procured by the Contractor. The tendered rates shall also be inclusive of all taxes, such as Central/State/Local including loading, un-loading, lifting, stacking and re-handling of all materials including transportation to the work site. Even after the cables are laid and refilled and On Account payments are made to the Contractor, the security of the Cables laid and other associated equipment solely lies with the Contractor and he has to replace the same at his own cost, if any, theft or loss or damage occurs till the entire section is commissioned to the complete satisfaction of Railway and the same is handed over to the Railway.

8.0 **INSPECTION OF MATERIALS:**

The materials/equipment to be supplied by the tenderer shall be inspected by RDSO/RITES/ Authorised representative of Railway before dispatch of the materials as specified in the schedule of the work. Consignee inspection will be conducted by authorized representative of Railway. OEM test report is required to submit by vendor for consignee inspection. The cost of inspection shall be borne by the tenderer. If required these materials/equipment may be subjected to the further inspection at site also as advised by the Railway Engineer, the cost of such inspection shall be borne by the tenderer.

The cost of inspection, if levied by RDSO authorities, and transport to the respective work site shall be borne by the Tenderer. If required by Railway Engineer, these materials/equipment shall be subjected to further inspection at the work site also and the cost thereof shall be borne by the Tenderer.

9.0 **MISCELLANEOUS & CONSUMABLE STORES:**

9.1 For execution of the work, the Tenderer shall procure all items of materials inclusive of miscellaneous and consumable items of stores from approved list of suppliers.

9.2 The rates quoted by the Tenderer shall be inclusive of cost of miscellaneous, consumable and fastening materials, and nothing extra will be paid for the above stores broadly covering nuts and bolts of different sizes, solder soft, Resin core, screws of different sizes, plastic sleeves and polythene sleeves, copper battery lugs and eyelids, ALCA 'P' Solder, Eyre Flux, insulating tapes, coloured twine balls, French polish, lead wool for packing, Signal & poles name plates, cable tags, foundation bolts for signal & apparatus cases, PVC bunching tape with button, charcoal, common salt, Brush, eyelets Dowel Make CAT. No. 7076, 7928, 71556, Steel hose pipe, MS clamps, MS flats, MS Angles, Aluminium Angles & Flats etc., required for executing the work.

9.3 Materials those are necessarily relevant for execution of the item mentioned in work schedule i.e. Schedule but not specifically mentioned in the particular item of execution will be arranged by the Contractor. Materials, indicated to be supplied by the Railway, for the work will be supplied by the Railway to the Tenderer free of cost. The Tenderer shall collect the materials at the Railway's Stores depot i.e. Sr. Section Engineer /Tele/Project /BBS or as instructed by Engineer in-charge under Dy.CSTE/Tele & NW/BBS and carry the materials to the work spot. No extra cost on account of this over and above the rates quoted in the schedule of rates will be accepted.

9.4 The Tenderer will have to give a clear receipt for the materials issued from Railway stores every time when issue is made on prescribed Performa.

The Tenderer shall take out and keep in force policy/policies of insurance, at his own costs, for an amount and period to be approved by the Railway in advance for all the Railway materials in his custody and the insurance cover shall be on any approved General Insurance Corporation/Undertaking of the Government of India.

The Tenderer shall have to make his own arrangement to store the Railway materials in godown at his cost. While storing Railway materials, the Tenderer should guard against loss due to any cause whatsoever and proper care should be taken in handling materials. The Tenderer will be responsible for storing the materials as mentioned above at the site of work according to Standard conditions and Specifications.

The Railway Administration shall have no liability for late supply of materials by the Railway Administration and the Tenderer shall not be entitled to any compensation due to the late supply of the same. In the event of any appreciable delay in the supply of the materials by the Railway Administration, the completion date may be extended for the work, directly affected by the Engineer-in-charge of the work at his sole discretion and this shall be binding on the Tenderer. The Tenderer should however apply for extension of time required by him, bringing out clearly the nature of the delay and justifying the extension as asked for. Where items not covered by the Schedule are to be executed the rates for such non-itemized works will be negotiated before commencement of such work or got executed through any other agency at the discretion of the Railway Administration.

Only Tenderers having experience in similar works in Signalling & Telecom need to quote for the work in advertised tender. Certificates regarding previous experience for execution of works of the same kind must accompany each Tender.

10. **ALTERATIONS AND DEVIATIONS:**

Any alteration or deviation from the specifications, drawings, layout plans to suit the site conditions or to meet the instructions or for any reason whatsoever shall be got approved by Dy.CSTE/Tele & NW, East Coast Railway, Bhubaneswar before effecting such changes.

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**Section-B****RATES QUOTED/ACCEPTED**

- A)** The tenderer shall carefully study the Railways Schedule of Rates, Indian Railway Unified Standard Specifications (Formation work, Bridge work and P.Way work)-2019 and Indian Railways Standard General Conditions of Contract-2022 including correction slips issued up to the date of closing of tender along with various General, Special and Additional special conditions as incorporated in the tender document.

Descriptions of Schedule of Rate Items mentioned in tender schedules are for guidance only, in case of discrepancy, the description etc. as mentioned in Schedule of Rates will hold good. The basic rates for Schedule of Rate Items shall be as mentioned against the item in the Schedule of rate.

- B)** Unless specifically provided for in the items, the rates quoted for all items of Schedule shall include the cost of:
1. All taxes, royalty and all other taxes including octroi levied by State, Central Govt or Local authorities from time to time.
 2. All labour skilled/unskilled, supervisory, specialized as required.
 3. All equipment, tools, jacks, cranes, drilling equipment, grouting equipment, plant and machinery etc. as may be required for executing the work in a modern and workman like manner as per specifications, inclusive of cost of such equipment, bringing to site, labour and fuel for operation, maintenance etc. complete.
 4. All temporary arrangements like shuttering, scaffolding, staging, supports, shoring, making templates etc. inclusive of all labour and materials required for providing, erection use, dismantling of such arrangement after completion of permanent work and removing from site including submission of detailed drawings/designs for such temporary arrangements and getting the same approved by Railway if and as required by the Engineer-in-charge at site.
 5. **Arrangement of Clean potable water with all lead, lift etc required for the work and Curing of all works involving use of cement.**
 6. Bailing/ pumping/ diverting of seepage water either manually or by mechanical means including bunding, channelling etc. required in the process of excavation for foundation trenches and laying concrete or any other purpose. Before diverting the flow of water, contractor shall obtain the permission of Engineer-in-charge. Contractor will be permitted to use excavator for earth work in excavation for completion the work early. No separate/additional payment for the excavation by excavator will be paid to the contractor.
 7. The charges for testing the cement/ reinforcement/aggregate/water, other materials etc, including cost of materials and transportation of materials to be tested from site of work to laboratories.
 8. Execution of all works as per specification of tender documents, G.C.C. relevant IS/IRS /IRC, MORT & H specifications etc. as applicable to best quality and finish.
 9. All other incidental charges other than those listed in these notes, as may be necessary for execution of the work as per items of schedule complete in all respect. All the works shall be carried out in accordance with the approved drawings.
 10. Carrying out the work at any height/depth, above/below the ground, at any location at the work site.

11. Taking all safety precautions for keeping the working spaces free from obstructions without endangering the Railway property and personnel.
 12. All lead, lift, ascent, descent, jungle clearance, cutting and uprooting of small trees, crossing of railway tracks, safety precautions required due to proximity of existing railway line, and all handling, re-handling, loading, unloading, transportation of material.
- C)** The 'sectional limits 'will be deemed to cover the entire contract section.

EAST COAST RAILWAY PROJECT UNIT(S&T) ORGANISATION**Section-C****TAXES AND DUTIES, ROYALTIES ETC.**

1. Subsequent to the enactment of GST Act, the following paras are applicable: -
 - (i) Tenderers will examine the various provisions of The Central Goods and Services Tax Act, 2017(CGST)/Integrated Goods and Services Tax Act, 2017(IGST)/Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state's State Goods and Services Tax Act(SGST) also, as notified by Central/State Govt & as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
 - (ii) The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to railway immediately after the award of contract, without which no payment shall be released to the contractor. The contractor shall be responsible for deposition of applicable GST to the concerned authority.
 - (iii) In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/ SGST Act, the railway shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.
2. i) The tenderer shall quote the rate by taking into account all the statutory duties/GST/taxes/cess/royalty etc. applicable to the work up to the date of opening of tender.
 - ii) Any new impost or revision in the duties/GST/taxes/cess during the original currency of the contract will be to the Railway's account subject to production of Govt. Notification and documentary evidence. This will also be applicable for the work done during the extended period, if such extension is on Railway's account.
 - iii) However, if the extension of contract period is on account of failure of contractor, no compensation shall be made towards upward revision or imposition of any new taxes.
 - iv) Any benefit on account of downward revision of duty/GST/taxes/cess either in original contract period or during the extended contract period shall be passed on by the contractor to the Railways.
 - v) The Contractor should get the measurement recorded in M.B within 7 days of effective date of new impost or revision in the duties/Taxes/cess to segregate the work done before change and after change. In the event of failure to do so, Railways decision shall be final and conclusive.
3. Income Tax @2.3% or at the rate as specified/proposed by the Income Tax Deptt, Govt. of India from time to time is deductible from all the bills of the contractor.
4. Any other taxes/duties like Royalty etc. shall be on contractor's accounts.
5. The present rates of royalty charges (Odisha State) are as under:

Sl.No	Name of minor minerals	Rate of royalty per Cubic Metre
1.	Ordinary Sand	
2.	Ordinary clay, silt, rehmatti, brick-earth, ordinary earth, moorum	
3.	Sandstone, laterite and slate in shape of slabs and tiles	
4.	Ordinary boulders used for road and civil constructions	

5.	Road metals including ballast and chips	
6.	Bajri and crusher fines	

The revised rates if any will be recovered as per the directions of the State Govt. of ----- from time to time.

6. The tenderers for carrying out any construction work must get themselves registered from the Registering Officer under Section-7 of the Building and Other Construction Workers' Welfare Cess Act, 1996 and rules made thereto by the concerned State Govt. and submit certificate of Registration issued from the Registering Officer of the concerned State Govt. (Labour Dept.). Cess shall be deducted from the contractor's bills as per provisions of the Act.

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**Section-D****SAFETY RULES**

- 1.1 Suitable scaffolds should be provided for workmen for all works that cannot be safely done from the ground or from solid construction except for such short periods work as can be done safely from ladders. When a ladder is used an extra labour shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable foot holds and hand holds shall be given an inclination not steeper than 1 to 4 (1 Horizontal to 4 Vertical).
- 1.2 Scaffolding or staging more than 3.5 metres above the ground or floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly attached, bolted, bracketed and otherwise secured at least 1 metre high above the floor or platform of such scaffolding or staging and extending along the entire length thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be fastened as to prevent it from swaying from the building or structure.
- 1.3 Working platform gangways and stairways should be so constructed that they should not sway unduly or unequally and where the height of the platform or the gangway or the stairway is more than 3.5 metres above ground level or floor level they should be closely boarded, should have adequate width and should be suitably fastened as described in the Para above.
- 1.4 Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 10 metres in length while the width between side rails in swung ladder shall in no case be less than 300 mm. for ladder up to and including 3.5 metres in length.
 - 1.4.1 For longer ladders this width should be increased by at least 20 mm. each additional metre of length. Uniform steps spacing shall not exceed 300 mm. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed so as to cause danger or inconvenience to any persons or the public. The Contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defences of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person shall be paid by the Contractor to compromise any claim by any such person. In case the Contractor fails to settle such problems, the Railway Administration will make payments arising on account of the conditions given above to the concerned parties and recover the same from Contractor's dues without any delay. Contractor will not have any claim on this account at any stage.
- 1.5 Demolition: Before any demolition work is commenced and also during the process of work.
 - a) All roads and open area adjacent to the work site shall either be closed or suitably protected.
 - b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
 - c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosives or flooding. No floor, roof or other part of the building shall be so over loaded with debris or materials as to render it unsafe.
- 1.6 All necessary personal safety equipment as considered adequate by the Engineer-in- charge should be kept available for the use of the persons employed in the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment

by these concerned.

- a) Workers employed on mixing asphaltic materials cement and mortar shall be provided with protective goggles.
- b) Those engaged in white washing and mixing or stacking of cement bags or any materials which are injurious to the eye shall be provided with protective goggles.
- c) Those engaged in welding works shall be provided with welder's protective eye sight lids.
- d) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

- 1.7 When the work is done near any place where there is risk of drowning, all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any persons in danger and adequate provision should be made for prompt first aid treatment of all injuries like to be sustained during the course of the work.
- 1.8 Use of hoisting machines and tackles including their attachment anchorage and supports shall confirm to the following standards of condition.
 - a) (i) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept in good repair and in good working order.
(ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength and free from patent defects.
 - b) Every crane driver or hoisting appliances operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding.
 - c) In case of every hoisting machine and every cable ring, hook, shackle, swivel and pulley block used in hoisting or as means of suspension safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of hoisting machine having a variable safe working load of the conditions under which it is applicable shall be clearly indicated. No part of any machinery or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - d) In case of departmental machine, the safe working load shall be notified by the Technological Engineer-in-Charge. As regards Contractor's machines, the contractors shall notify the safe working load of machine to the Engineer-in-charge whenever he brings any machinery to site of work, get it verified by the Engineer concerned.
- 1.9 Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safe guards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental decent of the load; adequate precautions should be taken to reduce the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on Electrical installations which are already energized, insulating mats wearing apparel, such as gloves, sleeves and both as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
- 1.10 All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate warning facilities should be provided at or near places of work.
- 1.11 These safety provisions should be brought to the notice of all concerned by display on a notice board, at a prominent place at the work spot. The persons responsible for compliance of the safety code shall be named therein by the Contractor.

1.12 To ensure effective endorsement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer, Engineer-in-charge of the Department or their representative.

1.13 Notwithstanding the above clause from 1 to 12, there is nothing in these to exempt the contractor from the operations of any other act or rule in force in the Republic of India.

1.14 PRECAUTION TO BE TAKEN WHILE PLYING OF VEHICLES ADJACENT TO RUNNING LINES/STRUCTURES.

Whenever a Lorry or any other Form of Road transport is required to ply along or in the vicinity of a running line or any other Rly track where Rly Engines or Trains are liable to move, the Contractor shall inform the Engineer in writing, of such requirement specify in the locations and duration of time over which such specified Road Vehicles have to operate in the area (for loading or unloading of earth, ballast or any other materials, or plants or equipments) without any obstruction or dislocation to the running Trains.

1.14.1 The Contractor shall also furnish the particulars of Vehicles and the names and Photographs of Driver and attendant retained for each Vehicle to enable the Engineer to issue necessary permits allowing the holder to operate the Vehicles, with such restrictions regarding duration and /or location as are considered necessary. Such permit shall be returned to the Engineer as soon as the work for which it is issued is over.

1.14.2 The Engineer-In-Charge or his Authorized Representative will personally counsel, examine and certify the road Vehicle Drivers, Contractor's Flag Man and Supervisor and will give written permission giving names of Road Vehicle Drivers, Contractor's Flag Man and Supervisor to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions:

(a) The Road Vehicles will ply only between sunrise and sunset.

(b) Nominated Vehicles and Drivers will be utilized for the work in presence of at least one Flag Man and on Supervisor Rates certified for such work.

(c) The Vehicle shall ply 6 mtr Clear of track. Any movement / work at less than 6 mtr and up to minimum 3.5 mtrs clear of track centre shall be done only in presence of Rly. Employee authorized by the Engineer-In-Charge. No part of the Road Vehicle will be allowed at less than 3.5 mtrs from track centre. Cost of such Rly Employee shall be the Rly.

(d) The Contractor shall remain fully responsible for ensuring safety and in case of any accident shall bear the cost of all damages to this equipment and crew and also damages to Rly and its Passengers. Engineer-In-Charge may impose any other condition necessary for a particular work of site. Such permit shall be returned to the Engineer, as soon as the work for which it is issued is over.

1.14.3 The Contractor shall execute a Bond undertaking to ply the Road Vehicles in a safe and satisfactory manner and strictly in accordance with the stipulation and other conditions specified by the Engineer and to engage and retain only the permit Holder to be the Contractor's Agent In-Charge of the Vehicle and the attendance shall at all time, be vigilant and on the look-out for signals from the Look Out Man, Flag Man or other personnel available at Site with a view to stop or late the road movement so as to ensure adequate margin of safety for the timely passage of an approaching Train or a Rly Engine, without any delay or detention.

1.14.4 The Contractor shall also be bound by the provisions of this Agreement to ply the Road Vehicles only with adequate margin of safety, well clear of the fixed structure profile of infringement, as stipulated in

the rules laid under the Indian Rly.'s Act and to seek and be guided by the signals and other directions of any Look Out Man or other personnel retained for the purpose of ensuring safety, and to ensure extra care and vigilance while turning, reversing or moving the Road Vehicles in any other manner at an inclination to the running Rly track or the siding as the case may be. The Contractor shall employ necessary Look-out Man also at his own cost, irrespective of any other arrangements that Rly may make in this regard.

- 1.14.5 The Contractor also undertakes to make good at his cost, any inconvenience, loss, damage or other expenses, costs incurred by the Rly. Administration and to pay such amount as are determined by the Engineer to be recoverable from Contractor as penalty or damages from any omission, negligence, carelessness, over sight or accident on the part of any Contractor's Agent, Drivers or Attendant or any other person to whom the services of the Holder of the permit (issued by the Engineer) has been lent or otherwise made accessible available.
- 1.14.6 Any breach of these conditions by the Contractor and his Agents affecting the safety of movement of Trains, Engines, or other rolling stock of the Rly, shall constitute a breach of contract by the Contractor entitling liability termination of contract for the fault on the part of the contract.
- 1.14.7 In exceptionally vulnerable locations, physical barrier in the form of barricades a height of 1.5 mtr of trenches on ground shall be provided so as to indicate the limit up to which the Vehicle can be approached the running line. The locations or circumstances under which such barriers have to be put will be decided personally by the Engineer-In-Charge.
- 1.14.8 Suitable gates/barriers should be installed across the new embankment, preferably adjoining the manned/unmanned level crossings. The entry for the vehicles shall be regulated by an authorized representative of the Engineer- in -charge during the working hours.

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**Section –E****Felling of Trees, Safe working Methods etc.****1.0 Felling of Forest Trees:**

- 1.1 The section generally passes through forest land. Trees coming on the proposed formation are only to be cut as directed by the Engineer-in-charge and under no circumstances trees falling outside the scope of proposed formation should be cut/up rooted. The Contractor or his labours are prohibited to cut the trees for the purpose of fire wood or for any other purpose. Cutting of trees as required under the items of works indicated in the tender schedules may be carried out strictly as directed by the Engineer-in-charge of the work. Unauthorized felling of trees will result in prosecution and imprisonment, so it is the contractor's responsibility to cause no damage to the forest growth and any fuel required by the contractor for own use or for the use by his labourers, should be arranged by the contractor at his own cost. The contractor should take this aspect into consideration while quoting the rates against the tender.

2.0 Safe Working Methods:

- 2.1 The Contractor shall, at all times, adopt such safe methods of work as well ensure safety of structure, equipment and labour. If at any time, the Railway finds the safety arrangements inadequate or unsafe, the contractor shall take immediate corrective action as directed by Railway's representative at site. Any direction in the matter shall in no way absolve the contractor of his sole responsibility to adopt safe working methods. It shall be noted by the contractor that the work involves working in close proximity to the existing track. The contractor shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property the rates quoted shall be inclusive of all leads, lift, re-handling if any due to crossing of track and also shall cover risk to track, life and property during execution of work. The contractor shall adopt all precautionary measures to safeguard track, life, property, structure while execution of work and the rates shall include all measures.

3.0 Procurement of Machinery by Contractor:

- 3.1 In case arrangement by hire is proposed through collaboration proper legal documents to the effect should be furnished in sufficient detail. The Railway shall not be responsible/ liable to pay any dues by the tenderer/contractor in case the plant & machinery is taken on hire from a third party by the tenderer/contractor. In other words, it shall mean that the contract is only between the tenderer/contractor and the President of India acting through Ministry of Railways.

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**Section -F****Drafting of Vehicles & Working Hours****1.0 Drafting of vehicles:**

- 1.1 The Railway shall reserve the right to draft any of the vehicles and/or equipment mobilized by the contractor at the site of the work along with its operator employed by the contractor to assist in rescue and restoration operation in case of any accidents/natural calamities involving human lives. The contractor shall be responsible to arrange mobilization of his operator/equipment/vehicle so drafted with shortest possible delay.
- 1.2 The Railway shall arrange to duly compensate the contractor whose vehicle/equipment/operator or so drafted by the operation of suitable Non-scheduled (N.S) items as per Railway's existing norms.
- 1.3 The working hours of labourers in summer months of April and May will be from 6 Hrs to 11 Hrs and 16.00 Hrs to 19.00 Hrs but within sunrise to sunset period.

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**Section -G****TIME LINE FOR PASSING OF CONTRACTUAL BILLS**

Sl. No.	Item	On-Account Bill	Final Bill
1.	Maximum no. of days required for recording approximate measurement by Railway Engineer-in-charge or authorised representative for submitting to Higher authority with relevant Documents for Test-check.	03 days for lump sum measurement and 07 days for Detailed measurement.	45 days for Detailed measurement.
2.	Maximum no. of days for Test-check by the higher authority before submitting for bill passing.	One day for lump sum measurement and 03 days for Detailed measurement.	10 days for Detailed measurement.
3.	Preparation of Bill by bill section of Executive and checking of bills by Sr.DSO (A) and submission of bills to Accounts by bill passing officer i.e. Dy.CSTEs.	03 days	30 days.
4.	Passing of Contractor bills in Account office.	Within 03 working days of receipt in Account office. (In case of any observations during internal check, the same is to be communicated within 02 working days of the receipt of bill).	Within 07 working days of receipt in Accounts Office. (In case of any observations during internal check, the same is to be communicated within 03 working days of the receipt of bill).
5.	On-line payment released to contractor.	Within 01 day from the date of generation of CO7 Report.	Within 01 day from the date of generation of CO7 Report.

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION**SECTION – H****SPECIAL CONDITIONS OF CONTRACT FOR SIGNAL & TELECOM WORKS
[CCTV/VSS] & TECHNICAL SPECIFICATIONS**

1. The entire work should be completed within 12(Twelve) months from the date of issue of Acceptance letter.
2. The Tender signed by the tenderer shall be taken to mean as part and parcel of agreement.
3. The rate quoted by the contractor shall take into account and nothing extra on this account shall be paid for.
4. The rates given and accepted shall be inclusive of all taxes Leviable by the Union of India or State Government. No 'D' forms will issue to the contractor for supply of materials against the work.
5. Tools and plants and other equipment shall be arranged by the tenderer at his own cost.
6. Indian Railways STANDARD GENERAL CONDITIONS OF CONTRACT 2022 shall be applicable and binding on the contractor.
7. Sand and stone chips at site will be supplied by the contractor. Water shall be arranged by the contractor.
8. The contractor will be solely responsible for the materials issued to him and released from the site of works unless and until handed over to concern Sr.Section Engineers/Junior Engineers. The released and unused materials shall be returned to the store of concerned Sr.Section Engineers/Junior Engineers or as advised by office of Dy.CSTE/Tele & NW/BBS. This includes transportation also.
9. The contractor should appoint a qualified person as site supervisor and the supervisor should have full knowledge of the Signal &Telecom works and should be well versed in the safety rules of Railways. However, the site supervisor will be tested for his knowledge in Signal &Telecom works and safety rules by the Engineer-In-Charge and only after being certified by the Engineer-In-Charge he can be allowed to supervise the works at site. The decision of the Engineer-In-Charge regarding the suitability of a person to act as site supervisor shall be final. However, the contractor himself may supervise works if certified fit by Engineer-In-Charge.

10. **Payment clause:** Subject to any deduction Railway may be entitled to make under the contract, the contractor shall be entitled for payment as follows:

Payment clauses for supply Schedule items: - (Schedule-A)

1. 80% of payment on materials under supply schedule will be released after supply and submission of relevant documents.
2. 10% of the payment on materials under supply schedule will be released after successful erection and installation of the items.
3. Balance 10% payment on materials under supply schedule will be released after successful commissioning of the work of that particular station/section: -
 - (i) After keeping proper accountal for the station/section by the concerned executing department.
 - (ii) For releasing of the payment, balance 10%, proper accountal with records have to be submitted along with the bill.

Payment clause for supply, installation, testing and commissioning (SITC) schedule items: (Schedule-B)

1. **90%** payment on materials under supply, installation, testing and commissioning of that part will be released after supply, installation, testing and commissioning of each milestone and submission of the following documents: -
 - a) **Inspection Certificate:** The materials should be duly inspected and certified w.r.t. the specifications specified in the P.O./contract agreement by the inspecting authority authorized by Railways/RDSO/RITES/the agency, as specified in the P.O./contract agreement.
 - b) **Certificate of receipt of material in good conditions and specification** at the destination/stores depot/ site as mentioned in the P.O. /contract agreement. The certificate should be issued by the authorized railway official/SSE (telecom/signal) and **countersigned by a gazetted officer.**
 - c) The certificate should be issued by the authorized Railway official/SSE (Telecom/Signal) and counter signed by a Gazetted officer.
 - d) **Warranty clause:** Submission of the warranty/guarantee certificate for the materials/equipment supplied if applicable.
 - e) Should submit a bank guarantee for 10% of the amount claimed on material, under supply, installation, testing and commissioning schedule along with invoices. If the contractor is unable to furnish BG, equivalent amount cash would be held by Railways from the payments due from the contractor.
2. **Balance: 10%** payment on materials under supply, installation, testing and commissioning schedule will be released on successful erection, installation and commissioning of the project/work as a whole on the basis of the completion certificate issued by the officer in charge (gazetted) officer.

BG submitted vide payment clause 1(e) of SITC schedule items will be released after successfully completion of the project in all respect.

Payment clause for execution schedule items of telecom items: (Schedule-C)

1. **90%** of the payment for execution of schedule items of telecom works will be released after successful completion of execution of work of each mile stone on pro-rate basis on the basis of completion certificate issued by the officer in charge (Gazetted) officer.
 2. **10%** of the payment will be released after completion of the complete project/work assigned under contract on the basis of completion certificate issued by the officer in charge (Gazetted) officer.
11. Work Incharge: Overall in-charge for this work is Dy.CSTE/Tele & NW/BBS. He is the nodal officer for all contract related correspondence with vendor. Dy.CSTE/Tele & NW/BBS will nominate SSE/JE for accountal of materials, issue of commissioning certificate and recording of measurement book etc.
 12. Supply of Materials: Materials shall be supplied to SSE/Tele/Project/Store/BBS as per the progress of the work as decided by the Railway Engineer. Contractor shall submit a certificate from OEM for critical equipment such as NVR, switches, networking devices, cameras, UPS etc. that the material has been procured from OEM or its authorized dealer and OEM is ready to extend necessary support during warranty and maintenance period.

13. The materials as per Schedule should be inspected by the authorized representative of Railway except the items to be inspected by RITES/RDSO.
14. The contractor will be transporting the materials from store of **SSE/Tele/Project/BBS** or as advised by office of Dy.CSTE/Tele & NW/BBS to site of work at his own cost and no separate payment will be made for the same.
15. The contractor will quote only single percentage below/above/At par for the total cost of the schedule not for individual item.
16. The transportation cost of materials has been included in individual item of Schedule 'A, B & C'.
17. Contractor has to conduct joint site survey with Railway officials and contractor should prepare complete site plan (wiring diagram) and submit to Dy.CSTE/T/NW/BBS for approval before execution of work.
18. Cement wherever required shall be supplied by the tenderer.
19. Nuts and bolts of required sizes shall be provided by the contractor.
20. The tenderers must also submit a bar chart in their offer indicating the time period by which the supply of materials will be completed.
21. The tenderer should indicate the details of total technical staff under their employment and also details of technical staff proposed to be deployed by them for the subjected work.
22. Material will be issued as per site requirement and decision of Railway shall be final.
23. The Unit/Contractor concerned should maintain single register in connection with attendance of the workmen and also acquaintance roll for ensuring payment of wages under Minimum Wages.
24. The contractor shall also be required to furnish an Indemnity Bond on the pro-forma as per **Annexure-T** for a sum of ` 30, 00, 000/- (`Thirty lakh) only for the materials/Cards/Cables which will be handed over to him by Railway Administration for works. The quantity of materials/Cards that shall be handed over to the Contractor for execution of the works and the cost of the quantity remaining unused in the custody of the contractor shall under no circumstances exceed at any time, the value of the Indemnity Bond i.e. `30,00,000/- (`Thirty lakh).
25. Railway can terminate the contract at any time depending on overall performance of services rendered by the firm during the period contract at its own discretion.
26. Detailed list of stations is mentioned in Annexure-U.

SPECIAL CONDITIONS OF CONTRACT

Name of the work: - Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway. The work covers the provision of recording the video of surrounding of all platforms and networking with RPF post at 149 D & E category stations of KUR division and Waltair division over East Coast Railway.

Note 1:

1. Tenderer should submit authorization of OEM/OEMs from which the VSS/CCTV equipment is to be supplied, along with the tender. This shall be applicable for IP Cameras, Switches, Servers, VSS Software, External storage device, PC Workstations, Displays/TV and UPS.
2. After award of the contract, MOU with the same OEM/OEMs whose authorization was taken at the time of bidding, covering supply of the equipment, installation, testing and commissioning of CCTV/VSS equipment (IP Cameras, Switches, Servers, VSS Software, External storage device, PC Workstations, Displays/TV and UPS) including after sales support during warranty period of 3 years and beyond warranty period up to 5 years, should be submitted in the tender bid.
3. In case tenderer fails to supply the MOU within 30 days of issue of LOA his tender will be terminated.

Note2:

Offers without authorization of OEM/OEMs as per special note 1, will be liable to be rejected.

A. LONG TERM PRODUCT SUPPORT/TECHNICAL SUPPORT:

- (i) Bidder/OEM shall provide long term Product support/Technical support after successful completion of the warranty obligations.

WARRANTY:

All the equipment should have warranty of 03 years from the date of commissioning. The contractor shall be responsible for proper maintenance & supervision of the equipment for 24*7 in this period of 3 years from the date of final commissioning for each station. During this period of maintenance supervision, if any lacuna is noticed in the functioning as a result of any defect in design or manufacture, the same will be rectified by the contractor at his own cost. During such rectification if any faulty equipment/modules need replacement or repair, they shall be provided by the contractor from the set of equipment or modules that the contractor should bring to the site of installation in addition to all the materials to be supplied against this contract. During Warranty period the Contractor should have sufficient spares in his stock for immediate replacement during failures to reduce the downtime.

The OEM should give technical support for supplied equipment, software and spares for 5 years or more as directed by Railway Board guideline after completion of warranty period of 03 years.

- (ii) The OEM should provide after warranty above support shall be comprehensive and include all hardware and software of equipment, Video Management Software, Face recognition Software, Video Analytics etc. supplied against this contract. KUR, WAT, SBP Division should be extended the benefits of software update/Driver upgrades/various software patches made by Bidder/OEM on the system from time to time to improve performance.

- (iii) For CCTV/VSS work at stations, bidder shall keep sufficient numbers of Support engineer in Field for proper operation and support of the system and to maintain the Service Level Agreement (SLA) defined in the tender document. Bidder may also require engaging additional manpower on case to case basis for proper operation & support of the system. The bidder shall arrange the suitable replacement in case the assigned support engineer goes on leave or is unavailable due to any other reason to ensure uninterrupted support service.

B. EQUIPMENTS–SOURCE, MOU & LICENSE ETC:

- (i) The Procurement of materials: - The materials for which RDSO approved firms exist should be procured from "APPROVED VENDORS" only. In case of those materials for which there is no Approved firm, it can be procured from "VENDORS FOR DEVELOPMENTAL ORDERS"- firm if they exist. No materials are to be procured from firms, which are banned by Railway Board/RDSO.
- (ii) The contractor will submit a list of Make and Model of item being quoted for supply against Schedule of Work. The make and model shall be clearly written in the list of make and model. Superficial words such as approved make/better make shall not be written. This shall be liable to rejection of technical bid. All the Material's Make and model shall be supported by enclosed Technical brochure /Data sheet with technical bid. The Signalling and Telecomm materials which are to be inspected by Consignee as per Schedule of Work shall be of same make and model as per quoted list of equipment's make and model submitted by bidder with technical bid. Any deviation will require Prior approval of Dy.CSTE/Tele & NW/BBS for change in make and model no. (With reasonable justification) of the materials before supply of the same. The Contractor shall also submit OEM Test Certificate for the materials supplied to ensure that these are as per Technical Specification provided in this document.

C. REMOVAL OF DEFECTIVE WORKS:

If in the opinion of the Engineer, any of the works had been executed with improper materials or defective workmanship, the contractor when required by the Engineer, shall re-execute the same and substitute proper materials and workmanship forthwith at his own cost and in case of default of contract in so doing within a week, the Engineer shall have full power to employ other persons to execute the work and the cost thereof shall be borne by the contractor.

D. REFUND OF SECURITY DEPOSIT

As mentioned in General Condition of Contract 2022 or latest.

E. TRAINING

- (i) The tenderer shall undertake to impart training to Railway staff either at site of installation or their factory premises in different aspects of equipment, its architecture, functioning and planning, management supervision, field installation supervision, commissioning, testing and maintenance both for H/W and S/W areas in order to transfer complete know how so as to impart full knowledge and confidence to independently execute successfully commissioning of Video Surveillance System. The training courses should include hands on the equipment, visits to installations apart from formal classes.
- (ii) The OEM should train the Railway personnel to such level of proficiency that they may carry out changes in VSS or other OEM specialized system without the help of OEM.

- (iii) The training course to be conducted at the manufacturing facilities shall be designed to train the trainees in all aspects of System engineering, equipment operation, installation and functional details, theory of operation of equipment, trouble shooting and familiarization with the equipment at card and component level.
- (iv) All equipment used for training shall be identical to those quoted and supplied for site installation in hardware and software versions.
- (v) Expenses on travel, accommodation and the incidental expenditure on training program for the Railway Staff will be borne by Contractor.
- (vi) The subjects of training, details of courses etc. should be furnished on demand of the Railway and it should be ensured that the trainees are given sufficient material for technical reference and guidance as well as for imparting complete know-how. The complete documentation on the courses should be supplied to the trainees. Railway, however reserves the right to vary the number personnel as well as course modules and training periods so considered necessary. CD/DVD/USB storage made with the specific intent of giving training on the theory and maintenance of equipment shall also be supplied by the contractor.
- (vii) The Purchaser/Engineer reserves their right to suggest any additions/deletions in the program, which shall be incorporated by the bidder at no additional cost.

F. PENALTY CLAUSE:

If in the opinion of Engineer-in-Charge,

- 1) The contractor is not able to follow or execute or comply any instructions by Engineer or Engineer-in Charge or any of his nominated representative at site, intimated to the contractor or his authorized representative from time to time through letter or email or telephone or through any other mode of communication, within seven days from intimation of such instruction,

OR

- 2) If progress of the work being executed by the Contractor is not satisfactory. Penalty may be imposed on the contractor and recovered from running bills at the following rate:
 - (i) In case of first instance, Penalty of Rs. 500/- (Five hundred) per day will be imposed on the contractor after seven days from intimation of instruction till complete execution or compliance of the same.
 - (ii) In case of second instance, Penalty of Rs. 1000/- (One Thousand) per day will be imposed on the contractor after seven days from intimation of instruction till complete execution or compliance of the same.
 - (iii) In case of third or more instances, Penalty as may be deemed fit by Engineer or Engineer-in-Charge; will be imposed on the contractor.

Imposition of any Penalty amount shall be intimated to the contractor and recovered from running bills.

G. Situation of work: -

- (a) The work will be executed as per list of stations attached over KUR, WAT Division of ECoR.
- (b) The place / site of installation will be indicated by the authorized representative of Railway.
- (c) You are requested to contact Dy.CSTE/Tele & NW/BBS for the work.
- (d) The firm must provide at least two Telephone Nos./Mobile Telephone Nos. for reporting the failure of the system round the clock i.e. 24hrs. for speedy repair of the problem.

H. Project preparation for achieving different targets for CCTV/VSS. –

The successful bidder shall submit a detailed plan as per the project deliverables timelines indicating all important milestones in tender before the commencement of the project. PERT chart shall be prepared and graphical presentation of programme Evaluation and review shall be shown.

I. OTHER SPECIAL CONDITIONS:

The newly installed CCTV System/VSS should be integrated with the existing CCTV system/VSS system/ISS installed at different stations over KUR & WAT division and same to be networked at Zonal and Divisional Control Centre. The list of Existing infrastructure of CCTV/VSS/ISS will be communicated to bidder if desired from tendering authority.

LIST OF SOURCES FOR SPECIFICATIONS/DRAWINGS

1. IRS Drawings and Specification - Director General, R.D.S.O., Lucknow
2. TEC Drawings & specifications - Telecommunications Engineering Centre, Kurshid Lal Bhawan, Janpath, New Delhi -110 001.
3. Standard Specifications (BSS & ISS, etc.) - Indian Standard Institution, 9, Mathura Road, New Delhi.
4. Railway Publications such as Railway Rules, Codes and Practices, etc. - Government of India, Ministry of Railways, Rail Bhawan, New-Delhi.
5. East Coast Railway Drawings –Office of PCSTE/ECORly. /BBS.
6. Central Government Laws and Acts - Government of India, Ministry of Information, Publications Division, Tilak Road, New-Delhi.
7. Manual of Instructions for Installation of S&T Equipment 25 KV 50 C/S single phase Electrified Section - Director General, R.D.S.O., Lucknow.

NOTE

1. All the equipment to be supplied should be of standard make.
2. All the materials will be inspected by consignee before installation.
3. Work is to be executed with contractor's own tools and plants.
4. Any other sundry item required for commissioning has to be supplied by the contractor.
5. Any technical clarification required, has to be carried out at tendering stage itself.

Specification of IP Based Video Surveillance System RDSO Specification

No. RDSO/SPN/TC/65/2021, Version 6.0

1.0 SCOPE:

The Specification covers technical specification and requirement of IP based Video Surveillance System for Stations and Cluster of Stations consisting of Full HD and Ultra HD IP Cameras, Digital Keyboard, Large Format Display Monitor, PC Workstation, Servers, Network Video Recorders, External Storage Device, Ethernet Switches, Wireless Transmitter/Receiver Unit, Copper to Fiber Media Convertor, Video Management Software, Video Recording Software, Graphical User Interface Client Software, Artificial Intelligence (AI) enabled Video Analytics Software and Face Recognition Software (FRS) etc. for surveillance of different locations at Stations and other establishments of Railways from Centralized location.

2.0 SYSTEM DESCRIPTION:

- 2.1 Video Surveillance System shall be suitable for provision at stations (25 KV AC Railway Electrified & Non-Railway Electrified Section) and other Railway establishments.
 - 2.2 Video Surveillance System shall be end to end IP based with IP Cameras as per site requirement.
 - 2.3 In IP based Video Surveillance System, the Cameras shall be provided at different locations so that the output is available as Ethernet and connected to the Servers/NVRs.
 - 2.4 It shall be possible to integrate the surveillance system using the existing LAN/ WAN infrastructure on Optical Fibre network of Railways.
 - 2.5 The system shall be able to work on both wired as well as wireless network. The wireless network is envisaged for extreme areas like, yards, foot over bridges and any other area in the station where cable is difficult to lay and maintain.
 - 2.6 Tentative Implementation Schemes of IP based Video Surveillance System are shown in Schematic Diagram-1, Schematic Diagram-2 and Schematic Diagram-3 as applicable. These schematics are indicative in nature. Purchaser may specify any of the schemes or combination of the schemes as applicable or any other scheme of implementation as per site requirement.
- 2.6 (a) Schematic Diagram-1: (Station only / Standalone architecture):
- i) The proposed implementation scheme of Video Surveillance System is meant for such Stations where Video Management, Video Recording, Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software for the Cameras of a Station are provided in the Station.
 - ii) The Cameras of Station Platforms shall be connected to Field Ethernet Switch. The Field Ethernet Switch shall stream Video data to a suitable location at Station such as CCTV Control Room through Aggregation Switch. CCTV Control Room may be connected to MPLS/ IP network through the Core Switch.
 - iii) Video Management and Video Recording shall be deployed on Servers/Network Video Recorders. For Viewing and Monitoring of Cameras, requisite numbers of PC Workstations and Large format display monitors shall be provided at Station

CCTV Control Room. Required Storage shall be provided on External Storage Devices/Servers/Network Video Recorders.

- iv) Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software shall be deployed on Servers at the Station CCTV Control Room or any other location as specified by the purchaser.
- v) There shall be a provision for Viewing and Monitoring of Camera streams at Divisional HQ/ any other centralized location or other Clients connected to MPLS/ IP network as per requirement of purchaser.

2.6 (b) Schematic Diagram-2: (RPF/GRP Thana/Post Clustered based architecture):

- i) The proposed implementation scheme of Video Surveillance System is meant for Cluster of Stations where Video Streams of Cameras of Stations are aggregated to a nearest suitable location such as RPF/GRP Thana/Posts for Video Management (Viewing and Monitoring) and Video Recording. Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software shall be deployed at Divisional HQ or RPF/GRP Thana/Posts or any other location as specified by the purchaser.
- ii) The Cameras of Station Platforms shall be connected to Field Ethernet Switch. Field Ethernet Switch shall stream Video data to RPF/GRP Thana/Posts through Aggregation Switch. RPF/GRP Thana/Posts shall be connected to MPLS/ IP network through the Core Switch.
- iii) Video Management and Video Recording shall be deployed on Servers/Network Video Recorders at RPF/GRP Thana/Posts, where the Video streams are aggregated. For Viewing and Monitoring of Cameras, requisite numbers of PC Workstations and Large format display monitors shall be provided at RPF/GRP Thana/Posts. Required Storage shall be provided at RPF/GRP Thana/Posts on External Storage Devices/Servers/ Network Video Recorders. Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software shall be deployed on Servers.
- iv) There shall be a provision for Viewing and Monitoring of Camera streams at Divisional HQ/ any other centralized location or other Clients connected to MPLS/ IP network as per requirement of purchaser.
- v) For centralized management of such multiple Clusters if specified by the purchaser, Video Management Server and Server for Face Image database shall be deployed with N:1 redundancy at Data centres i.e. Divisional/Zonal HQ or any other centralized location as specified by the purchaser.
- vi) Face Image Database Server at Data centre shall be in sync with each individual RPF/GRP Thana/Posts local FRS Servers as and when any subject or alarm is generated/updated. Synchronization shall be done at least once daily.
- vii) The System shall have a storage solution at Datacenters for keeping flagged/marked video data by RPF/GRP personnel for longer retention, FRS and Artificial Intelligence (AI) enabled Video Analytic alerts across all stations for 30 days, Audit trail logs, application data etc. as per solution requirement or as defined by the purchaser.

2.6 (c) Schematic Diagram-3: (Cloud based architecture):

- i) The proposed implementation scheme of Video Surveillance System is meant for

Cluster of Stations where Video Streams of Cameras of Stations are aggregated to a nearest suitable location such as RPF/GRP Thana/Posts for Video Management (Viewing and Monitoring) and Video Recording. Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software shall be deployed at the Cloud. Video Data shall be stored at RPF/GRP Thana/Posts on External Storage Devices/Servers/Network Video Recorders and at Cloud as per requirement.

- ii) The Cameras of Station Platforms shall be connected to Field Ethernet Switch. Field Ethernet Switch shall stream Video data to RPF/GRP Thana/Posts through Aggregation Switch. The RPF/GRP Thana/Posts shall be connected to the MPLS/ IP network and the Cloud through the Core Switch.
- iii) The Video Management and Video Recording shall be deployed on Servers/Network Video Recorders at RPF/GRP Thana/Posts, where the Video streams are aggregated. For Viewing and Monitoring of Cameras, requisite numbers of PC Workstations and Large format display monitors shall be provided at RPF/GRP Thana/Post. In case VMS (Video Management and Video Recording Software) is required for operation of Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software at Cloud, same may be provided at Cloud or as specified by the purchaser.
- iv) There shall be a provision for Viewing and Monitoring of Camera streams at Divisional HQ/ any other centralized location or other Clients connected to MPLS/ IP network as per requirement of purchaser.
- v) All Video data and alarms generated by Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software at the Cloud shall be available at RPF/GRP Thana/Posts and Divisional HQ/ any other centralized location or any other clients through Cloud.

2.6 (d) In case of any failure or interruption of MPLS/IP network, the Camera shall automatically start recording on Edge Storage Memory Card at resolution and frames per second as required and when the network recovers, the Video data shall automatically be transferred to the External Storage Device/Server/NVR installed at respective Stations or RPF/GRP Thana/Post without any impact on the system operations.

2.6(e) (i) Video Monitoring and Live Viewing: Continuous Video Monitoring/ Live Viewing is required for all the Cameras through PC Workstations and Large Format Display Monitors with Full HD and 4K UHD resolution display support. One such Monitor shall display 16 Cameras on a single unit. For simultaneous viewing of more cameras, more monitors can be provided.

(ii) Video Playback: One 32/64/128 Channel Server/NVR shall support Playback of recorded video for minimum 16 Channels simultaneously @ Full HD or higher.

2.7 The system shall have diagnostics facility for Video & Network interfaces. System logging shall be possible either through system software, remote client or console port on the system.

2.8 a) The Recording shall be stored for at least 30 days at 25 FPS and Full HD resolution for Full HD Cameras and 25 FPS Ultra HD resolution for 4K UHD Cameras with H.265 or higher Video Compression.

- b) In case implementation is done as per Schematic Diagram-1, Video data and Alarms shall be stored for at least 30 days or as specified by the purchaser at Stations.
- c) In case implementation is done as per Schematic Diagram-2, Video data and Alarms shall be stored for at least 30 days or as specified by the purchaser at RPF/GRP Thana/Posts.
- d) In case implementation is done as per Schematic Diagram-3, Video and Alarm data shall be stored for at least 30 days in Cloud and for at least 7 days or as specified by the purchaser at RPF/GRP Thana/Posts.
- e) The approximate storage capacities per Camera with H.265 Video Compression and 25 FPS shall be as under:

Days	Full HD Camera (@1920x1080)	4K UHD Camera (@3840x2160)
30 Days	750 GB after RAID 5/6	3TB after RAID 5/6

In case higher compression protocol is offered, it is permitted that the requirement of minimum storage is reduced in proportion to improvement due to compression. Purchaser may specify the minimum number of days for which the recording is to be stored and accordingly the storage capacity shall be provided.

- 2.9 Full HD Fixed Box type IP Colour Camera/ Full HD Bullet type IP Colour Cameras shall be provided in parking area, entrance/exit points, platforms, yards etc. or any other locations as decided by purchaser as per site requirement.
- 2.10 Full HD Fixed Dome type IP colour Cameras shall preferably be provided in indoor locations such as waiting halls, ticket counters, offices etc. or any other locations as decided by purchaser as per site requirement.
- 2.11 Full HD PTZ (Pan,Tilt,Zoom) IP colour Cameras shall preferably be provided in parking area, circulating area, platforms, foot over bridges etc. and for general perimeter surveillance. The whole area under CCTV surveillance must be fully covered by fixed cameras and PTZ camera should be used additionally where closer monitoring of a large area is required or any other locations as decided by purchaser as per site requirement.
- 2.12 Typically minimum two nos. of 4K UHD Fixed Box / 4K UHD Bullet Cameras (Type A: 1/ 1.8" or larger, Progressive scan, CMOS sensor for crowded stations and Type B: 1/ 2.8" or larger, Progressive scan, CMOS sensor for less crowded wayside stations) need to be provided on each platform with Face Recognition Software in addition to one such Camera each on entry and exit points to the station or any other location as decided by purchaser as per site requirement.

Note: The above schemes given in Clause No. 2.9, 2.10, 2.11 and 2.12 are tentative in nature, however the scheme may vary as per site condition as specified by purchaser.

- 2.13 The power supply available at the stations shall be 220 V / 50 Hz AC nominal. In case of fluctuation in the power supply, suitable stabilisation shall be provided by Railways. Such Provision of UPS etc. are out of the scope of this specification.
- 2.14 There shall be provision of Panic Button/Buttons at various locations at Stations. Pressing Panic Button, alarm shall be sent to the central location through available network. Panic Button System shall utilize same network system provided for CCTV system at Stations.

Number of Panic Buttons and location of Panic Buttons shall be decided by the purchaser as per site conditions.

3.0 GENERAL REQUIREMENTS INCLUDING CYBER SECURITY:

3.1 The Video Surveillance System shall be based on non-proprietary open architecture where the Video Management Software, Video Recording Software, Artificial Intelligence (AI) enabled Video Analytics Software and Face Recognition Software can work and integrate with any make of IT hardware like Server, Storage, Workstation, Network Video Recorder and Switches etc.

3.2 Profile „S“ defines interoperability between Video Management Software/NVR and Camera. Profile „G“ defines interoperability between Video Management Software/NVR and SD (memory) Card in the Camera.

Software Development Kit (SDK) of all Hardware is to be shared with the purchaser for integration purposes.

The System i.e. IP Cameras, Network Video Recorders and Software (Video Management and Video Recording) shall be compliant to global standards ONVIF Profile „S“ & „G“ for the interface of network video product (ONVIF – Open Network Video Interface Forum). The quoted camera models should appear on the ONVIF conformant products under Device List & quoted Video Management Software/NVR should appear under conformant Client List on the ONVIF website and a confirmation certificate for the offered models should be available at the time of supply. It should be confirmed from ONVIF Website at the time of supply while offered for inspection.

In case ONVIF „S“ and / or „G“ certifications are not available, then to fulfill requirement of interoperability between Video Management Software / NVR and Camera and interoperability between Video Management Software / NVR and SD (memory) Card in the Camera, certification from Indian bodies i.e. TEC / TSEC, STQC, BIS or any accredited lab by them or any other Government / NABL

accredited lab, is a mandatory requirement to be submitted by the OEM / Vendor at the time of supply while offered for inspection.

3.3 IP Camera and Software (Video Management, Video Recording and Artificial Intelligence (AI) enabled Video Analytic Software) may be from the same manufacturer or from different manufacturers. In case, IP Cameras and Softwares are from different manufacturers, then all features of Cameras shall be available through the Software for viewing, recording and analytics.

3.4 Required number of licenses shall be provided by OEM/Vendor for Video Management, Video Recording, Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software as required by the purchaser as per site requirement. Licenses related compliance shall be ensured by purchaser depending upon the requirement.

3.5 Either Server based solution or Network Video Recorder based solution or combination of both can be accepted for Video Management and Video Recording for the implementation schemes as per Schematic Diagram-1, Schematic Diagram-2 & Schematic Diagram-3 as applicable. Software capabilities (as per Clause no. 18.1, 18.2 and 18.3) and Storage capacities shall be same for both the solutions.

_Note: -

- i. The Storage shall be external (as per clause no. 12.0) when Server based solution is provided. Storage can be either external (as per clause no. 12.0) and/or internal (built in) in case Network Video Recorder based solution is provided.
- ii. In case, Video Management and Video Recording is deployed on Network Video Recorders (NVRs) then NVRs shall integrate seamlessly with Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software deployed on Servers or at Cloud.

3.6 The Video Recording and Management System shall provide secured recording for evidence purposes and user authentication to protect data integrity.

3.7 Redundant Servers/NVRs may be provided if specified by the purchaser as per Schematic Diagram-1 and Schematic Diagram-2. The Redundancy System shall support defined number of Servers/NVRs in N+1 configuration (Value of N to be specified by the purchaser) so that the recording and playback availability is not affected in case of failure of any Server/NVR. The recording of last 30 days at any given point of time should be available through redundant Server /NVR in case of a Server/NVR failure.
For data stored and computed at Cloud as per Schematic Diagram-3, the Cloud shall provide for protection of data and operation.

3.8 The equipments shall be able to work in the temperature range and humidity as specified in the corresponding clauses of the specification. Purchaser may specify any other temperature requirement and humidity as per site requirement.

3.9 To ensure security of VSS (Camera & Software) from vulnerabilities & breaches and discourage false undertaking from OEMs, security auditing and testing of equipment including source code of camera and software shall be carried out from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization. In order to ensure security of network and other IT equipment of VSS system, before bulk supply and installation, purchaser should ensure that security auditing and testing at the time of POC (Proof of Concept) as well as at the time of completion of project are conducted or as specified by the purchaser. In case any security breach is found in the system at any stage including at POC level, immediate strict penal action is to be initiated by the purchaser.

3.10 OEMs must submit a declaration certificate regarding their genuinity, have their own manufacturing setups and IPR for the hardware(s)/software(s), and shall not have 3rd party manufacturing from any company blacklisted in India or abroad (due to proven backdoor access and data vulnerability) or any company sharing land border with India. The Intellectual Property Rights (IPR) of all manufactured final product and source code of all software including camera firmware, switch firmware, FRS algorithm, Command Control Centre Software etc. should not reside in countries sharing land borders with India, until unless specifically allowed by the Government of India and is registered with the Competent Authority of Government of India. Proof of IPR & source code residing in which country and requisite permission & registration with Competent Authority of Govt. of India, as applicable to comply with the above, shall be provided by the OEMs. The purchaser should ensure that latest Public Procurement Policy & other related orders issued by Government of India are followed. In case any breach or false declaration is found at any stage, immediate strict penal action is to be initiated by the purchaser.

3.11 OEM need to confirm that the equipment, like Cameras etc., shall not be installed with standards like - GB28181, GB/T28181-2011, GB/T 28181-2011, GBT 28181- 2011,

GBT28181-2011, GB/T28181-2016, etc., protocols/standards and there shall be no option in the camera web page/settings to activate or deactivate such protocols/standards any of their version(s) or any such protocol which allow certain organizations to bypass all security parameters and look into the devices directly.

3.12 The MAC address of all cameras should not be registered in the name of any OEM/ company/ entity sharing land border with India until unless specifically allowed by the Government of India.

3.13 Mean Time Between Failure (MTBF) calculated at 40°C for each type of camera should not be less than 1,00,000 hours for which OEM shall submit complete and detailed test reports issued from Govt. / NABL Accredited Test Labs / 3rd party test house of International repute such as UL, TUV etc.

3.14 There shall be provision to view any camera from the Divisional, Zonal Headquarters and from the Railway Board at the time of emergency or whenever desired.

4.0 TECHNICAL REQUIREMENTS: The technical requirements for different components of IP based Video Surveillance System shall be as below:

S. No.	Components
i.	Full HD Fixed Box Type IP Colour Camera with Varifocal Lens and Housing & Mount as per Clause no. 5.1 & 5.3
ii.	4K UHD Fixed Box Type IP Colour Camera (Type A / Type B) with Varifocal Lens and Housing & Mount as per Clause no. 5.2 & 5.3
iii.	Full HD Bullet type IP Colour Camera as per Clause no. 5.4
iv.	4K UHD Bullet type IP Colour Camera (Type A / Type B) as per Clause no. 5.5
v.	Full HD Fixed Dome Type IP Colour Camera as per Clause no. 6.0.
vi.	Full HD PTZ (Pan,Tilt,Zoom) IP Colour Camera as per Clause no. 7.0.
vii.	Digital Keyboard as per Clause no. 8.0
viii.	Large Format Display Monitor as per Clause no. 9.0.
ix.	Server / Workstation Hardware as per Clause no. 10.1
x.	Network Video Recorder (NVR) as per Clause no. 10.2
xi.	PC Workstation as per Clause no. 11.0
xii.	External Storage Device as per Clause no. 12.0
xiii.	Core Switches as per Clause no. 13.0
xiv.	(I) Aggregation Switches (II) Layer 2 Switches (24Port) a. PoE b. Non-PoE and (III) Field Switches a. 8 port b. 4 port as per Clause no. 14.0
xv.	Wireless Transmitter/Receiver Unit as per Clause no. 15.0.
xvi.	Copper to Fiber Media Convertor as per Clause no. 16.0
xvii.	Various types of cables as per Clause no. 17.0
xviii.	Video Management Software as per Clause no. 18.1
xix.	Graphical User Interface Client Software as per Clause no. 18.2

xx.	Video Recording Software as per Clause no. 18.3
xxi.	Artificial Intelligence (AI) enabled Video Analytics Software as per Clause no. 18.4
xxii.	Remote viewing on Web and Mobile App as per Clause no. 18.5
xxiii.	Functional Requirement of Command Control Centre (CCC) Software as per Clause no. 18.6
xxiv.	Face Recognition Software as per Clause No. 19.0
xxv.	Software License as per Clause no. 20.0

5.0 Fixed Box Type IP Colour Camera and Bullet Type IP Colour Camera:

5.1 Full HD Fixed Box Type IP Colour Camera:

The Full HD Fixed Box Type IP Colour Camera with Varifocal Lens shall have the following minimum specifications: -

S. No.	Parameter	:	Specification
i.	Image Sensor	:	1/ 2.8" or larger, Progressive scan, CMOS sensor
ii.	Pixels	:	2.0 Mega Pixel Full HD (1920x1080)
iii.	Video Compression	:	H.265 or higher
iv.	Streaming Capability	:	Four (4) H.265 or higher Streams
v.	Video resolutions	:	a) For Main stream: i)1920x1080 (Full HD). ii)Configurable from Full HD to other HD/SD resolutions. b) For Second Stream: Configurable from Full HD to other HD/SD resolutions or Configurable form HD to D1 resolution. c) For Third & Fourth Stream: VGA or CIF or QVGA or QCIF resolutions.
vi.	Resolution and Frame Rate	:	Full HD @ 25 FPS with H.265 or higher compression on one stream. FHD / HD / D1 @ 25 FPS with H.265 or higher compression on 2nd stream. VGA or CIF or QVGA or QCIF @ 15 FPS with H.265 or higher compression on 3rd & 4th stream.
vii.	Minimum Illumination :		
	a) Colour Mode	:	0.5 Lux
	b) Night Mode (Black & White)	:	0.05 Lux
viii.	Shutter speed	:	Maximum shutter speed should be 1/8000 sec or higher
ix.	Signal to Noise Ratio	:	≥ 45 dB
x.	Video Standard	:	PAL
xi.	Lens mount	:	CS/C mount or any other mount

xii.	Varifocal Lens	:	8 – 50 mm IR corrected, 1 m minimum object distance, Auto IRIS Control, Manual focus and zoom control Lens suitable for Full HD Box type IP Colour Camera. The Lens may be of same make of Camera or different make.
xiii.	Day/Night Camera	:	Auto Day/Night Configuration
xiv.	Data rate	:	Shall work on 3 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 or higher Video Compression. The camera shall also support Constant Bit Rate (CBR).
xv.	Video Streaming	:	Unicast and Multicast streams
xvi.	Text Superimposing	:	Camera shall support superimposing the title and date & time on the video
xvii.	Edge Storage	:	Edge Storage slot suitable for 128 GB SD/SDHC/SDXC memory or higher along with memory card.
xviii.	Activity Controlled Video Recording	:	Required. During periods of negligible motion, the bits rate shall drop and when motion occurs, the bit rate shall return to normal without any perceptible delay.
xix.	Network Connectivity	:	Ethernet, 10/100 Base T
xx.	Discovery Interface	:	OEM interface to detect the Camera automatically and configure network settings
xxi.	Network Protocols	:	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)
xxii.	Web Server	:	Internal Web server required with embedded operating system.
xxiii.	Automatic Gain Control	:	Required
xxiv.	Back light Compensation (BLC) or High Light Compensation (HLC)	:	Required
xxv.	Automatic White Balance	:	Required
xxvi.	Wide Dynamic Range (WDR)	:	≥ 120 dB
xxvii.	Two way/ Bi-directional Audio Input / Output	:	Required

xxviii.	Alarm Inputs / outputs	:	1 input & 1 output
xxix.	Input Voltage	:	Power should be drawn on PoE, 220V AC Voltage (Nominal) / 24V AC or DC /12V DC
xxx.	PoE	:	IEEE 802.3af/ at compliant
xxxi.	Operating Temperature	:	0°C to + 50°C
xxxii.	Humidity	:	20 to 80% RH non-condensing
xxxiii.	MAC Address	:	The MAC address of the IP Cameras must be registered in the name of OEM supplying the Cameras.
xxxiv.	MTBF	:	Mean Time Between Failure (MTBF) calculated at 40°C should not be less than 1,00,000 hours.
xxxv.	Interoperability/ ONVIF Compliance	:	ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2. SDK is to be shared with the purchaser for integration purposes.
xxxvi.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.
xxxvii.	Security Verification Certification	:	The Full HD Fixed Box Type IP Colour Camera shall have security features which can be deployed meeting the security assurance requirements as per relevant clauses / paras mutually decided by Purchaser & STQC (or other Govt. agency as per note below) regarding “Appendix C of OWASP: Internet of Things Verification Requirements” of OWASP Application Security Verification Standard version 4.0 - Level 2 for CCTV with relevant and equivalent safeguards. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empaneled Information Security Auditing Organization.

5.2 4K UHD Fixed Box Type IP Colour Camera:

The 4K UHD Fixed Box Type IP Colour Camera with Varifocal Lens (with image sensor 1/1.8” as Type A or 1/2.8” as Type B) shall have the following minimum specifications:

S. No.	Parameter	:	Specification
i.	Image Sensor	:	Type A: 1/ 1.8" or larger, Progressive scan, CMOS sensor OR Type B: 1/2.8" or larger, Progressive scan, CMOS sensor
ii.	Pixel Resolution	:	8.0 Mega Pixel Ultra HD (3840x2160) or Higher
iii.	Video Compression	:	MJPEG/H.265 or higher
iv.	Streaming Capability	:	Four (4) H.265 or higher Streams
v.	Video resolutions	:	a) For Main stream: i) Ultra HD (3840x2160). ii) Configurable from Ultra HD to other FHD/HD/SD resolutions. b) For Second Stream: Configurable from Full HD to other HD/SD resolutions. c) For Third & Fourth Stream: VGA or CIF or QVGA or QCIF resolutions.
vi.	Resolution and Frame Rate	:	Ultra HD (3840x2160) @ 25 FPS or more with H.265 or higher compression on one stream. Full HD @ 15 FPS or more with H.265 or higher compression on second stream. VGA or CIF or QVGA or QCIF @ 10 FPS with H.265 or higher compression on 3rd & 4th stream.
vii.	Minimum Illumination :		
	a) Colour Mode	:	0.5 Lux
	b) Night Mode (Black & White)	:	0.05 Lux
viii.	Shutter speed	:	Maximum shutter speed should be 1/8000 sec or higher
ix.	Signal to Noise Ratio	:	≥ 45 dB
x.	Video Standard	:	PAL
xi.	Lens mount	:	CS or C mount or any other mount
xii.	Varifocal Lens	:	4.5 to 10 mm, IR corrected, 1 m minimum object distance, Auto IRIS Control, Manual focus and zoom control Lens suitable for 4K Ultra HD Fixed Box type Camera. The Lens may be of same make of Camera or different make.
xiii.	Day/Night Camera	:	Auto Day/Night Configuration
xiv.	Data rate	:	Shall work on 5 Mbps bit rate or less (average) for UHD@ 25FPS at Variable Bit Rate (VBR) on

			individual (Single) stream with H.265 or higher Video Compression. The camera shall also support Constant Bit Rate (CBR).
xv.	Video Streaming	:	Unicast and Multicast streams
xvi.	Edge Storage	:	Edge Storage slot suitable for 128 GB SD/SDHC/SDXC memory or higher along with memory card.
xvii.	Activity Controlled Video Recording	:	Required. During periods of negligible motion, the bits rate shall drop and when motion occurs, the bit rate shall return to normal without any perceptible delay.
xviii.	Network Connectivity	:	Ethernet, 10/100 Base T
xix.	Discovery Interface	:	OEM interface to detect the Camera automatically and configure network settings
xx.	Network Protocols	:	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)
xxi.	Web Server	:	Internal Web server required with embedded operating system.
xxii.	Automatic Gain Control	:	Required
xxiii.	Back light Compensation (BLC) or High Light Compensation (HLC)	:	Required
xxiv.	Automatic White Balance	:	Required
xxv.	Wide Dynamic Range (WDR)	:	≥ 120 dB
xxvi.	Two way/ Bi-directional Audio Input / Output	:	Required
xxvii.	Alarm Inputs / outputs	:	1 input & 1 output
xxviii.	Input Voltage	:	Power should be drawn on PoE, 220V AC Voltage (Nominal) / 24V AC or DC/ PoE
xxix.	PoE	:	IEEE 802.3af/ at compliant
xxx.	Operating Temperature	:	0°C to + 50°C
xxxi.	Humidity	:	20 to 80% RH non-condensing
xxxii.	MAC Address	:	The MAC address of the IP Cameras must be

			registered in the name of OEM supplying the Cameras.
xxxiii.	MTBF	:	Mean Time Between Failure (MTBF) calculated at 40°C should not be less than 1,00,000 hours.
xxxiv.	Interoperability/ ONVIF Compliance	:	ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2. SDK is to be shared with the purchaser for integration purposes.
xxxv.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.
xxxvi.	Security Verification Certification	:	The 4K UHD Fixed Box Type IP Colour Camera shall have security features which can be deployed meeting the security assurance requirements as per relevant clauses / paras mutually decided by Purchaser & STQC (or other Govt. agency as per note below) regarding “Appendix C of OWASP: Internet of Things Verification Requirements” of OWASP Application Security Verification Standard version 4.0 - Level 2 for CCTV with relevant and equivalent safeguards. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization.

5.3 Housing and Mount for Fixed Box Type IP Colour Camera (Full HD & 4K UHD):

- 5.3.1 Housing arrangement shall be designed for both outdoor and indoor use and shall meet customer requirements for Camera enclosures.
- 5.3.2 It shall protect Camera and lens combination.
- 5.3.3 The Housing and Mount arrangement shall have the following minimum specifications:

S. No.	Parameter	:	Specification
i.	Window	:	3 mm (0.12 inch) glass
ii.	Camera Mounting	:	Removable Camera/lens tray, mounted with two screws or other industry standard arrangement.
iii.	Construction	:	Aluminum/ Fiberglass Reinforced Composite/

			Polycarbonate housing & casing, neoprene gaskets, UV-resistant polymer end caps.
iv.	Tamper-resistance	:	Tamper-resistant screws for locking clasps shall be provided.
v.	Enclosure Protection	:	IP66 or NEMA-4 or better.
vi.	Vandal Proofing	:	The housing shall be vandal proof as per IK 10 standards and impact resistant.
vii.	Heater and Blower	:	Inbuilt heater and blower kit shall be provided.
viii.	Power Supply	:	Power supply required for Housing shall be derived from Switch through PoE/PoE+.
ix.	Infra-Red	:	Built-in or External Infra-Red Illuminator complying IP66 or NEMA-4 or better with range 30 m or more. The Infra-Red Illuminator shall be of the same make as Housing
x.	Mount	:	Mounts shall be suitable for indoor and outdoor mounting units designed for Fixed box type Cameras or Camera Housing installations. The Mounts shall be of the same make as Housing. The Mount shall have following minimum features: i). Feed-through design for cable management (Entry of Cables/Wires inside Housing through Mount) ii). 360 deg rotation, 180 deg tilt iii). Versatile design iv). Adjustable mount heads v). Corrosion-resistant finish
xi.	Operating Temperature	:	0°C to + 50°C
xii.	Humidity	:	20 to 80% RH non-condensing
xiii.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.

5.4 Full HD Bullet type IP Colour Camera:

The Full HD Bullet type IP Colour Camera shall have the following minimum specifications:

S. No.	Parameter	:	Specification
i.	Image Sensor	:	1/2.8" or larger, Progressive scan, CMOS sensor
ii.	Pixel Resolution	:	2.0 Mega Pixel Full HD (1920x1080)
iii.	Video Compression	:	H.265 or higher
iv.	Streaming Capability	:	Four (4) H.265 or higher Streams
v.	Video resolutions	:	a) For Main stream: i)1920x1080 (Full HD). ii)Configurable from Full HD to other HD/SD resolutions. b) For Second Stream: Configurable from Full HD to other HD/SD resolutions or Configurable from HD to D1 resolution. c) For Third & Fourth Stream: VGA or CIF or QVGA or QVGA resolutions.
vi.	Resolution and Frame Rate	:	Full HD @ 25 FPS with H.265 or higher compression on one stream. FHD / HD / D1@ 25 FPS with H.265 or higher compression on 2nd stream. VGA or CIF or QVGA or QCIF @ 15 FPS with H.265 or higher compression on 3rd & 4th stream.
vii.	Minimum Illumination :		
	a) Colour Mode	:	0.5 Lux
	b) Night Mode (Black & White)	:	0.05 Lux
viii.	Shutter speed	:	Maximum shutter speed should be 1/8000 sec or higher
ix.	Signal to Noise Ratio	:	≥ 45 dB
x.	Video Standard	:	PAL
xi.	Motorized Varifocal Lens	:	4.5 mm – 10 mm, 1 m minimum object distance, IR corrected Lens suitable for 2 Mega Pixel Full HD Camera
xii.	Infra-Red	:	Built-in Infra-Red Illuminator with range 20 m or more
xiii.	Day/Night Camera	:	Auto Day/Night Configuration
xiv.	Data rate	:	Shall work on 3 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 or higher Video Compression. The camera shall also support Constant Bit Rate (CBR).
xv.	Video Streaming	:	Unicast and Multicast streams
xvi.	Text Superimposing	:	Camera shall support superimposing the title and

			date & time on the video
xvii.	Edge Storage	:	Edge Storage slot suitable for 128 GB SD/SDHC/SDXC memory or higher along with memory card.
xviii.	Activity Controlled Video Recording	:	Required. During periods of negligible motion, the bits rate shall drop and when motion occurs, the bit rate shall return to normal without any perceptible delay.
xix.	Network Connectivity	:	Ethernet, 10/100 Base T
xx.	Discovery Interface	:	OEM interface to detect the Camera automatically and configure network settings
xxi.	Network Protocols	:	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)
xxii.	Web Server	:	Internal Web server required with embedded operating system.
xxiii.	Automatic Gain Control	:	Required
xxiv.	Back light Compensation (BLC) or High Light Compensation (HLC)	:	Required.
xxv.	Automatic White Balance	:	Required.
xxvi.	Wide Dynamic Range (WDR)	:	≥ 120 dB
xxvii.	Two way/ Bi-directional Audio Input / Output	:	Required
xxviii.	Alarm Inputs / outputs	:	1 input & 1 output
xxix.	Input Voltage	:	Power should be drawn on PoE, 220V AC Voltage (Nominal)/ 24V AC or DC/12V DC
xxx.	PoE	:	IEEE 802.3af/ at compliant
xxxi.	Operating Temperature	:	0°C to +50°C
xxxii.	Humidity	:	20 to 80% RH non-condensing
xxxiii.	Ingress Protection	:	IP66 or NEMA-4 or better
xxxiv.	Enclosure Protection	:	Vandal proof as per IK 10 standards and Impact resistant
xxxv.	MAC Address	:	The MAC address of the IP Cameras must be registered in the name of OEM supplying the Cameras.

xxxvi.	MTBF	:	Mean Time Between Failure (MTBF) calculated at 40°C should not be less than 1,00,000 hours.
xxxvii.	Interoperability/ ONVIF Compliance	:	ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2. SDK is to be shared with the purchaser for integration purposes.
xxxviii.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.
xxxix.	Security Verification Certification	:	The Full HD Bullet Type IP Colour Camera shall have security features which can be deployed meeting the security assurance requirements as per relevant clauses / paras mutually decided by Purchaser & STQC (or other Govt. agency as per note below) regarding “Appendix C of OWASP: Internet of Things Verification Requirements” of OWASP Application Security Verification Standard version 4.0 - Level 2 for CCTV with relevant and equivalent safeguards. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empaneled Information Security Auditing Organization.

5.5 4K UHD Bullet type IP Colour Camera:

The 4K UHD Bullet type IP Colour Camera (with image sensor 1/1.8” as Type A or 1/2.8” as Type B) shall have the following minimum specifications:

S. No.	Parameter	:	Specification
i.	Image Sensor	:	Type A: 1/ 1.8” or larger, Progressive scan, CMOS sensor OR Type B: 1/ 2.8” or larger, Progressive scan, CMOS sensor
ii.	Pixel Resolution	:	8.0 Mega Pixel Ultra HD (3840x2160) or Higher
iii.	Video Compression	:	MJPEG/ H.265 or higher
iv.	Streaming Capability	:	Four (4) H.265 or higher Streams
v.	Video resolutions	:	a) For Main stream: i) Ultra HD (3840x2160).

		ii) Configurable from Ultra HD to other FHD/HD/SD resolutions. b) For Second Stream: Configurable from Full HD to other HD/SD resolutions. c) For Third & Fourth Stream: VGA or CIF or QVGA or QCIF resolutions.
vi.	Resolution and Frame Rate	: Ultra HD (3840x2160) @ 25 FPS or more with H.265 or higher compression on one stream. Full HD @ 15 FPS or more with H.265 or higher compression on second stream. VGA or CIF or QVGA or QCIF @ 10 FPS with H.265 or higher compression on 3rd & 4th stream.
vii.	Minimum Illumination :	
	a) Colour Mode	: 0.5 Lux
	b) Night Mode (Black & White)	: 0.05 Lux
viii.	Shutter speed	: Maximum shutter speed should be 1/8000 sec or higher
ix.	Signal to Noise Ratio	: ≥ 45 dB
x.	Video Standard	: PAL
xi.	Motorized Varifocal Lens	: 4.5 mm – 10 mm, 1 m minimum object distance, IR corrected Lens suitable for 4K UHD Bullet type IP Colour Camera
xii.	Infra-Red	: Built-in Infra-Red Illuminator with range 20 m or more
xiii.	Day/Night Camera	: Auto Day/Night Configuration
xiv.	Data rate	: Shall work on 5 Mbps bit rate or less (average) for UHD@ 25FPS at Variable Bit Rate (VBR) on individual (Single) stream with H.265 or higher Video Compression. The camera shall also support Constant Bit Rate (CBR).
xv.	Video Streaming	: Unicast and Multicast streams
xvi.	Text Superimposing	: Camera shall support superimposing the title and date & time on the video
xvii.	Edge Storage	: Edge Storage slot suitable for 128 GB SD/SDHC/SDXC memory or higher along with memory card.
xviii.	Activity Controlled Video Recording	: Required. During periods of negligible motion, the bits rate shall drop and when motion occurs, the bit rate shall return to normal without any perceptible delay.
xix.	Network Connectivity	: Ethernet, 10/100 Base T

xx.	Discovery Interface	:	OEM interface to detect the Camera automatically and configure network settings
xxi.	Network Protocols	:	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)
xxii.	Web Server	:	Internal Web server required with embedded operating system.
xxiii.	Automatic Gain Control	:	Required
xxiv.	Back light Compensation (BLC) or High Light Compensation (HLC)	:	Required
xxv.	Automatic White Balance	:	Required
xxvi.	Wide Dynamic Range (WDR)	:	≥ 120 dB
xxvii.	Two way/ Bi-directional Audio Input / Output	:	Required for sound detection
xxviii.	Alarm Inputs / outputs	:	1 input & 1 output
xxix.	Input Voltage	:	Power should be drawn on PoE, 220V AC Voltage(Nominal)/ 24V AC or DC/ 12V DC
xxx.	PoE	:	IEEE 802.3af/ at compliant
xxxi.	Operating Temperature	:	0°C to + 50°C
xxxii.	Humidity	:	20 to 80% RH non-condensing
xxxiii.	Ingress Protection	:	IP66 or NEMA-4 or better
xxxiv.	Enclosure Protection	:	Vandal proof as per IK 10 standards and Impact resistant
xxxv.	MAC Address	:	The MAC address of the IP Cameras must be registered in the name of OEM supplying the Cameras.
xxxvi.	MTBF	:	Mean Time Between Failure (MTBF) calculated at 40°C should not be less than 1,00,000 hours.
xxxvii.	Interoperability/ ONVIF Compliance	:	ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2. SDK is to be shared with the purchaser for integration purposes.

xxviii.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.
xxxix.	Security Verification Certification	:	The 4K UHD Bullet Type IP Colour Camera shall have security features which can be deployed meeting the security assurance requirements as per relevant clauses / paras mutually decided by Purchaser & STQC (or other Govt. agency as per note below) regarding "Appendix C of OWASP: Internet of Things Verification Requirements" of OWASP Application Security Verification Standard version 4.0 - Level 2 for CCTV with relevant and equivalent safeguards. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization.

6.0 Full HD Fixed Dome Type IP Colour Camera:

The Full HD Fixed Dome Type IP Colour Camera shall have the following minimum specifications: -

S. No.	Parameter	:	Specification
i.	Image Sensor	:	1/2.8" or larger, Progressive scan, CMOS sensor
ii.	Pixels	:	2.0 Mega Pixel Full HD (1920x1080)
iii.	Video Compression	:	H.265 or higher
iv.	Streaming Capability	:	Four (4) H.265 or higher Streams
v.	Video resolutions	:	a) For Main stream: i) 1920x1080 (Full HD). ii) Configurable from Full HD to other HD/SD resolutions. b) For Second Stream: Configurable from Full HD to other HD/SD resolutions or Configurable from HD to D1 resolution. c) For Third & Fourth Stream: VGA or CIF or QVGA or QCIF resolutions.
vi.	Resolution and Frame Rate	:	Full HD @ 25 FPS with H.265 or higher compression on one stream.

			FHD / HD / D1@ 25 FPS with H.265 or higher compression on 2nd stream. VGA or CIF or QVGA or QCIF @ 15 FPS with H.265 or higher compression on 3rd & 4th stream.
vii.	Minimum Illumination :		
	a) Colour Mode	:	0.5 Lux
	b) Night Mode (Black & White)	:	0.05 Lux
viii.	Shutter speed	:	Maximum shutter speed should be 1/8000 sec or higher
ix.	Signal to Noise Ratio	:	≥ 45 dB
x.	Video Standard	:	PAL
xi.	Lens	:	3.8mm - 8mm, 1 m minimum object distance, IR corrected Lens suitable for 2 Mega Pixel Full HD Fixed Dome Type Camera
xii.	Day/Night Camera	:	Auto Day/Night Configuration
xiii.	Infra-Red	:	Built-in Infra-Red Illuminator with range 20 m or more
xiv.	Data rate	:	Shall work on 3 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 or higher Video Compression. The camera shall also support Constant Bit Rate (CBR).
xv.	Video Streaming	:	Unicast and Multicast streams
xvi.	Text Superimposing	:	Camera shall support superimposing the title and date & time on the video
xvii.	Edge Storage	:	Edge Storage slot suitable for 128 GB SD/SDHC/SDXC memory or higher along with memory card.
xviii.	Activity Controlled Video Recording	:	Required. During periods of negligible motion, the bits rate shall drop and when motion occurs, the bit rate shall return to normal without any perceptible delay.
xix.	Network Connectivity	:	Ethernet, 10/100 Base T
xx.	Discovery Interface	:	OEM interface to detect the Camera automatically and configure network settings
xxi.	Network Protocols	:	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)
xxii.	Web Server	:	Internal Web server required with embedded operating system.
xxiii.	Automatic Gain Control	:	Required

xxiv.	Back light Compensation (BLC) or High Light Compensation (HLC)	:	Required.
xxv.	Automatic White Balance	:	Required
xxvi.	Wide Dynamic Range (WDR)	:	≥ 120 dB
xxvii.	Two way/ Bi-directional Audio Input / Output	:	Required
xxviii.	Alarm Inputs / outputs	:	1 input & 1 output
xxix.	Input Voltage	:	Power should be drawn on PoE, 220V AC Voltage (Nominal) / 24V AC or DC/12V DC
xxx.	PoE	:	IEEE 802.3af/ at compliant
xxxi.	Operating Temperature	:	0°C to +50°C
xxxii.	Humidity	:	20 to 80% RH non-condensing
xxxiii.	Enclosure Protection	:	Vandal proof as per IK 10 standards and Impact resistant Aluminium enclosure with IP66 or NEMA-4 or better with suitable mounting accessories.
xxxiv.	MAC Address	:	The MAC address of the IP Cameras must be registered in the name of OEM supplying the Cameras.
xxxv.	MTBF	:	Mean Time Between Failure (MTBF) calculated at 40°C should not be less than 1,00,000 hours.
xxxvi.	Interoperability/ ONVIF Compliance	:	ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2. SDK is to be shared with the purchaser for integration purposes.
xxxvii.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.
xxxviii.	Security Verification Certification	:	The Full HD Fixed Dome Type IP Colour Camera shall have security features which can be deployed meeting the security assurance requirements as per relevant clauses / paras mutually decided by Purchaser & STQC (or other Govt. agency as per note below) regarding “Appendix C of OWASP: Internet of Things Verification Requirements” of

		<p>OWASP Application Security Verification Standard version 4.0 - Level 2 for CCTV with relevant and equivalent safeguards.</p> <p>Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization.</p>
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7.0 Full HD PTZ (Pan, Tilt, Zoom) IP Colour Camera:

The Full HD PTZ (Pan, Tilt, Zoom) IP Colour Camera shall have the following minimum specifications: -

S. No.	Parameter	:	Specification
i.	Image Sensor	:	1/2.8" or larger, Progressive scan, CMOS sensor
ii.	Pixels	:	2.0 Mega Pixel Full HD (1920x1080)
iii.	Video Compression	:	H.265 or higher
iv.	Streaming Capability	:	Four (4) H.265 or higher Streams
v.	Video resolutions	:	a) For Main stream: i)1920x1080 (Full HD). ii)Configurable from Full HD to other HD/SD resolutions. b) For Second Stream: Configurable from Full HD to other HD/SD resolutions or Configurable from HD to D1 resolution. c) For Third & Fourth Stream: VGA or CIF or QVGA or QCIF resolutions.
vi.	Resolution and Frame Rate	:	Full HD @ 25 FPS with H.265 or higher compression on one stream. FHD / HD / D1@ 25 FPS with H.265 or higher compression on 2nd stream. VGA or CIF or QVGA or QCIF @ 15 FPS with H.265 or higher compression on 3rd & 4th stream.
vii.	Minimum Illumination :		
	a) Colour Mode	:	0.5 Lux
	b) Night Mode (Black & White)	:	0.05 Lux
viii.	Shutter speed	:	Maximum shutter speed should be 1/8000 sec or higher.
ix.	Signal to Noise	:	≥ 45 dB

	Ratio		
x.	Video Standard	:	PAL
xi.	Lens	:	a) Optical zoom 36x or better IR corrected lens suitable for Full HD PTZ Camera. b) Focal length of lens: Upper range shall be 125 mm or higher. c) 3 m minimum object distance, IR corrected Lens
xii.	Digital zoom	:	12x or better
xiii.	Infra-Red	:	Built-in Infra-Red Illuminator with range 250 m or more
xiv.	Focus & Iris	:	Automatic with manual override
xv.	Pan/Tilt adjustment	:	360° continuous pan; 0° to 90° tilt from horizontal plane
xvi.	Preset speed	:	90°/sec \pm 0.5° accuracy
xvii.	Pan/Tilt speed	:	1°/sec to 90°/sec
xviii.	Sector Blanking	:	Required. Camera 360-degree pan rotation to be divided in 8 sectors and any sector shall be blanked as required by the operator
xix.	Preset Titling	:	The Camera shall allow the storage of up to 99 preset scenes with each preset programmable for 16-character titles
xx.	Data rate	:	Shall work on 3 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 or higher Video Compression. The camera shall also support Constant Bit Rate (CBR).
xxi.	Video Streaming	:	Unicast and Multicast streams
xxii.	Text Superimposing	:	Camera shall support superimposing the title and date & time on the video
xxiii.	Edge Storage	:	Edge Storage slot suitable for 128 GB SD/SDHC/SDXC memory or higher along with memory card.
xxiv.	Activity Controlled Video Recording	:	Required. During periods of negligible motion, the bit rate shall drop and when motion occurs, the bit rate shall return to normal without any perceptible delay.
xxv.	Network Connectivity	:	Ethernet, 10/100 Base T
xxvi.	Discovery Interface	:	OEM interface to detect the Camera automatically and configure network settings
xxvii.	Network Protocols	:	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)

xxviii.	Web Server	:	Internal Web server required with embedded operating system.
xxix.	Automatic Gain Control	:	Required
xxx.	Back light Compensation (BLC) or High Light Compensation (HLC)	:	Required
xxxi.	Automatic White Balance	:	Required
xxxii.	Wide Dynamic Range (WDR)	:	≥ 120 dB
xxxiii.	Two way/ Bi-directional Audio Input / Output	:	Required
xxxiv.	Alarm Inputs / outputs	:	1 input & 1 output
xxxv.	Input Voltage	:	Power should be drawn on PoE, 220V AC Voltage (Nominal) / 24V AC or DC/ 12VDC
xxxvi.	PoE	:	IEEE 802.3af/ at compliant
xxxvii.	Operating Temperature	:	0°C to + 50°C
xxxviii.	Humidity	:	20 to 80% RH non-condensing
xxxix.	Enclosure Protection	:	Vandal Proof as per IK 10 standards and Impact Resistant Aluminium enclosure with IP66 or NEMA-4 or better with suitable mounting accessories.
xl.	Interoperability/ ONVIF Compliance	:	ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2. SDK is to be shared with the purchaser for integration purposes.
xli.	MAC Address	:	The MAC address of the IP Cameras must be registered in the name of OEM supplying the Cameras.
xl ii.	MTBF	:	Mean Time Between Failure (MTBF) calculated at 40°C should not be less than 1,00,000 hours.
xl iii.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.

xliv.	Security Verification Certification	:	<p>The Full HD PTZ (Pan,Tilt,Zoom) IP Colour Camera shall have security features which can be deployed meeting the security assurance requirements as per relevant clauses / paras mutually decided by Purchaser & STQC (or other Govt. agency as per note below) regarding “Appendix C of OWASP: Internet of Things Verification Requirements” of OWASP Application Security Verification Standard version 4.0 - Level 2 for CCTV with relevant and equivalent safeguards.</p> <p>Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization.</p>
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8.0**Digital Keyboard:****8.1**

The Digital Keyboard shall be fully functional, multipurpose keyboard used for controlling of connected PTZ Camera.

8.2

Digital Keyboard shall include an integral variable speed Pan,Tilt,Zoom joystick and shall be able to select PTZ Camera.

8.3

Digital Keyboard shall support RS-232/RS-485 or Ethernet or USB port connectivity and shall be supplied along requisite interface units.

8.4

Digital Keyboard shall be of same make as PTZ Camera.

8.5

The Digital Keyboard shall be able to withstand 0°C to + 50°C temperature and Humidity of 20 to 80% RH non-condensing.

8.6

The Digital Keyboard shall have BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.

9.0**Large Format Display Monitor:****9.1**

Large Format Display Monitors shall be used for displaying multiple Camera videos in conjunction with viewing workstation. These monitors shall be suitable for 24x7 (round the clock) use.

9.2

One such Monitor shall display minimum 16 Cameras on a single unit. Selection of these Cameras shall be as per software specifications.

9.3

Large Format Display Monitors shall be LED backlit type and shall have the following minimum specifications:

S. No.	Parameter	:	Specification
i.	Screen Size	:	55" (inches) or larger
ii.	Video Resolution	:	Full HD (1920 x 1080)
iii.	Brightness	:	350cd/m ² or above
iv.	Contrast Ratio	:	1100:1
v.	Viewing angle (H/V)	:	170°
vi.	Response Time	:	≤ 12 ms

vii.	Digital Input	:	HDMI
viii.	Analog Input	:	RGB/VGA/BNC
ix.	USB Port	:	01 no.
x.	External Control	:	RJ45
xi.	Display Control	:	Monitor control on screen display, programmable with remote.
xii.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity.

10.0 Server / Workstation Hardware and Network Video Recorders (which should be able to work 24x7, 365 days):

10.1 Server / Workstation Hardware (which should be able to work 24x7, 365 days):

10.1.1 Server / Workstation (which should be able to work 24x7, 365 days) hardware for Video Management & Recording, Command Control Centre Software, Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software shall have the following minimum specifications:

10.1.1.1 Minimum Hardware for Video Management & Recording of 32/64/128 Cameras. Minimum Hardware requirements for Command Control Centre Software shall also be similar to following:

S. No.	Parameter	Specification
i.	Processor	Latest Generation x86 Intel / AMD Processor
ii.	No. of Cores & No. of Processors	Minimum 8 Cores in Single Processor or 2 nos. of 4 Core Processor (Dual Socket)
iii.	No. of Threads	2 Threads per Core
iv.	Frequency	2.1 GHz or higher
v.	Memory	16 GB or higher, DDR4 SDRAM or latest.
vi.	Operating System	Windows Operating System or Linux, latest with required no. of Client licenses as specified by the purchaser.
vii.	LAN/ Ethernet	Onboard/ on slot Gigabit Ethernet (RJ45) with Load Balancing and Fail over Support, IPv6 compliant. (Minimum 2 nos. of 1G ports should be available)
viii.	Interface type	FC or iSCSI or SAS or FCoE or Ethernet interface for connecting External Storage device.
ix.	Hard Disk Drive	Hot Pluggable Enterprise SATA HDDs / Hot Pluggable SSD or SAS (10000 RPM or higher for SAS) HDD, 4x600 GB, with minimum 06 nos. or higher internal drive bays. (Storage may be built-in in case of 32 nos. of cameras for VMS.)
x.	HDD RAID Controller	Hardware based - SATA / SAS / SSD - RAID Controller with RAID 0/1/5 configuration.
xi.	DVD R/W Drive (internal) & USB Ports	Required
xii.	USB/ PS/2 mouse and keyboard	Required
xiii.	Power Supply	Dual and Redundant Power Supply
xiv.	Should be able to run 24x7 at ambient room temperature of 27 °C.	
xv.	Chassis Type	19" Rack mountable with sliding rails and fittings to install into a Rack.

xvi.	Regulatory Approvals/ Certifications	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity.
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Note: Video Management and Video Recording of 32/64/128 nos. of Full HD Cameras or 8/16/32 numbers of 4K UHD Cameras or a mix of both on pro-rata basis or more no. of Cameras

10.1.1.2 Minimum Hardware for Artificial Intelligence (AI) enabled Video Analytics (one each for 32 nos. of Cameras):

S. No.	Parameter	Specification
xvii.	Processor	Latest Generation x86 Intel / AMD Processor
xviii.	No. of Cores & No. of Processors	Minimum 4 Core Processor in single processor
xix.	No. of Threads	2 Threads per Core
xx.	Frequency	2.1 GHz or higher
xxi.	Memory	8GB or higher DDR4 SDRAM or latest and recommended GPU card
xxii.	Operating System	Windows Operating System or Linux, latest with required no. of Client licenses as specified by the purchaser.
xxiii.	LAN/ Ethernet	Onboard/ on slot Gigabit Ethernet (RJ45) with Load Balancing and Fail over Support, IPv6 compliant. (Minimum 2 nos. of 1G ports should be available)
xxiv.	Interface type	FC or iSCSI or SAS or FCoE or Ethernet interface for connecting External Storage device.
xxv.	Hard Disk Drive	Hot Pluggable Enterprise SATA HDDs / Hot Pluggable SSD or SAS (10000 RPM or higher for SAS) HDD, 4x600 GB, with minimum 06 nos. or higher internal drive bays. (Storage may be built-in in case of 32 nos. of cameras for VMS.)
xxvi.	HDD RAID Controller	Hardware based - SATA / SAS / SSD - RAID Controller with RAID 0/1/5 configuration.
xxvii.	DVD R/W Drive (internal) & USB Ports	Required
xxviii.	USB/ PS/2 mouse and keyboard	Required
xxix.	Power Supply	Dual and Redundant Power Supply
xxx.	Should be able to run 24x7 at ambient room temperature of 27 °C.	
xxxi.	Chassis Type	19" Rack mountable with sliding rails and fittings to install into a Rack.
xxxii.	Regulatory Approvals/ Certifications	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity.

10.1.1.3 Minimum Hardware for FRS (One each for minimum 4 numbers of Cameras):

S. No.	Parameter	Specification
i.	Processor	Latest Generation x86 Intel / AMD Processor
ii.	No. of Cores & No. of Processors	Minimum 16 Cores in Single Processor or 2 nos. of 8 Core Processor (Dual Socket)

iii.	No. of Threads	2 Threads per Core
iv.	Frequency	2.1 GHz or higher
v.	Memory	32 GB or higher DDR4 SDRAM or latest and recommended GPU card.
vi.	Operating System	Windows Operating System or Linux, latest with required no. of Client licenses as specified by the purchaser.
vii.	LAN/ Ethernet	Onboard/ on slot Gigabit Ethernet (RJ45) with Load Balancing and Fail over Support, IPv6 compliant. (Minimum 2 nos. of 1G ports should be available)
viii.	Interface type	FC or iSCSI or SAS or FCoE or Ethernet interface for connecting External Storage device.
ix.	Hard Disk Drive	Hot Pluggable Enterprise SATA HDDs / Hot Pluggable SSD or SAS (10000 RPM or higher for SAS) HDD, 4x600 GB, with minimum 06 nos. or higher internal drive bays. (Storage may be built-in in case of 32 nos. of cameras for VMS.)
x.	HDD RAID Controller	Hardware based - SATA / SAS / SSD - RAID Controller with RAID 0/1/5 configuration.
xi.	DVD R/W Drive	Required
	(internal) & USB Ports	
xii.	USB/ PS/2 mouse and keyboard	Required
xiii.	Power Supply	Dual and Redundant Power Supply
xiv.	Should be able to run 24x7 at ambient room temperature of 27 °C.	
xv.	Chassis Type	19" Rack mountable with sliding rails and fittings to install into a Rack.
xvi.	Regulatory Approvals/ Certifications	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity.

- 10.1.2 Server / Workstation (which should be able to work 24x7, 365 days) specifications for Face Recognition Software will be same as per clause no. 10.1.1.3 with any other additional items (like: recommended GPU of any make) which can fulfill FRS requirement.
- 10.1.3 One 17-inch Monitor or as specified by the purchaser with Keyboard, Mouse, KVM Switch along with associated accessories shall be provided for each Rack for Servers or Workstation (which should be able to work 24x7, 365 days).
- 10.2 Network Video Recorder (NVR):**
- 10.2.1 The Network Video Recorders shall have the following minimum specifications or otherwise as specified by the purchaser:

S. No.	Parameters	Specifications		
		32 Channel NVR	64 Channel NVR	128 Channel NVR
i.	Channels	32 nos.	64 nos.	128 nos.
ii.	Video Management and Recording	One 32/64/128 Channel NVR shall support Video Management and Recording of 32/64/128 nos. of Full HD Cameras or 8/16/32 nos. of 4K UHD Cameras, respectively or a mix of both on pro-rata basis with required Storage		
iii.	Recording Bandwidth	The Average Recording Bandwidth shall be @ 3 Mbps per channel for Full HD Camera. The maximum recording bandwidth shall be as below:		
		256 Mbps or higher	320 Mbps of higher	576 Mbps or higher
		The NVR should be able to record all channels simultaneously at FHD resolution.		
iv.	Storage Capacity (Built in)	As specified in Clause no. 2.8 of the specification.		
v.	Video Playback	16 Channels Simultaneously @ Full HD or higher		
vi.	Power Supply	Dual and Redundant Power Supply		
vii.	Should be able to run 24x7 at ambient room temperature of 27 °C.			
viii.	Camera Type	IP, 2 Mega Pixel Full HD (1920x1080) and 8.0 Megapixel Ultra HD (3840x2160) Cameras		
ix.	Recording Resolution and Frame Rate	Support Full HD (1920x1080) @ 25 FPS and 8.0 Megapixel Ultra HD (3840x2160) @ 25 FPS depending on Camera		
x.	Supported Image Resolution	Support SD resolutions, HD resolution, Full HD resolution and Ultra HD resolution depending on Camera		
xi.	Operating System	Embedded Windows or Linux		
xii.	Video Compression	MJPEG/ H.265 or higher		
xiii.	Drive	SATA/SAS HDD, 7200 RPM or higher or SSD		
xiv.	Network Protocols	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (as required for system working)		
xv.	Discovery Interface	OEM interface to detect the camera automatically and configure network settings		
xvi.	Network Interface	Ethernet, 10/100/1000 Base T or 10/100/1000 Base X ports		
xvii.	Video Output/ Interface (Optional)	HDMI or VGA		
xviii.	USB Interface	Required		
xix.	Monitoring	USB Mouse Control, Digital Keyboard Control		
xx.	Chassis Mounting	19” Rack Mounted		

xxi.	Software Features	Video Management Software & Graphic User Interface Client Software and Video Recording Software shall be as per Clause no. 18.1, 18.2 and 18.3 of Software Requirement of the specification.
xxii.	Interoperability/ Compliance	ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2.
xxiii.	Regulatory Approvals/ Certifications	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity. Note: The Regulatory Approvals/ Certifications are to be provided from NABL/NABCB accredited Labs or internationally reputed and accredited Labs/Agencies.

10.2.2 One 17-inch Monitor or as specified by the purchaser with Keyboard, Mouse, KVM Switch along with associated accessories shall be provided for each Rack for NVRs.

11.0 PC Workstation:

11.1 PC Workstations (One Workstation shall be required for two nos. of Large Format Display Monitors) shall be provided for viewing Cameras in multi-screen mode on Large Format Display Monitors.

11.2 The PC Workstation shall have the following minimum specifications:

S. No.	Parameter	:	Specification
i.	Processor	:	Latest generation x86 Intel Processor/ AMD Processor
ii.	No. of Cores	:	4 Cores or higher
iii.	No. of Threads	:	8
iv.	Frequency	:	3.0 GHz or higher
v.	Cache	:	10 MB
vi.	Memory	:	16 GB or higher DDR4 SDRAM or latest
vii.	Operating System	:	Windows Operating System or Linux, latest
viii.	LAN/ Ethernet	:	10/100/1000 base T, Onboard/ on slot Gigabit Ethernet (RJ45), IPv6 compliant.
ix.	Graphics Card	:	One no. of dual Port 4 GB NVIDIA Quadro Graphic Card or dual Port 4 GB AMD Radeon Pro WX Graphic Card or similar with Full HD and 4K UHD resolution display support.
x.	Hard Disk Drive	:	2 x 500GB : SATA (5400 RPM or higher) / SSD
xi.	RAID Controller	:	RAID Controller with RAID 0/1 configuration.
xii.	DVD R/W Drive & USB Ports	:	Required
xiii.	USB/ PS/2 mouse and keyboard	:	Required

xiv.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity.
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11.3 4K UHD LED Monitor of 24-inch size or as specified by the purchaser shall be provided along with PC Workstation.

12.0 External Storage Device:

12.1 The Storage Capacity of External Storage Device shall be as specified in Clause no. 2.8 of the specification.

12.2 External Storage Device shall have the following minimum specifications:

S. No.	Parameter	:	Specification
i.	Mounting	:	19" Rack Mounted
ii.	Processor	:	Latest Intel/AMD processor.
iii.	No. of Controllers	:	02 nos. in redundant mode.
iv.	Host interface Type	:	FC or iSCSI or SAS or FCoE or Ethernet
v.	No of Host interface	:	08
vi.	Drive	:	The drive shall only be SAS HDD, 7000 RPM or higher (NL-SAS is not acceptable).
vii.	Cache	:	8GB per Controller
viii.	Storage scalability	:	240 TB Raw or higher as per site requirement
ix.	Power Supply and FAN	:	Dual, Redundant
x.	RAID configuration	:	RAID 5/6
xi.	Virtual Drives/ LUN	:	Maximum 256 virtual drives
xii.	Hot Spare Disk	:	It shall provide at least one hot spare disk.
xiii.	Regulatory Approvals/ Certifications	:	BIS/UL/EN/CE/IEC certification for Safety and BIS/CE/FCC Certifications for EMC & Immunity.

13.0 Core Switch: The Core Switch shall have the following minimum specifications: -

S. No.	Specification
1.	20x10G SFP+ port and Additional 4x10G (minimum) BASE-T/SFP+ combo ports.
2.	Should have RJ-45 console ports for out - of - band CLI management
3.	One USB Port for easy management for images and configuration files, that can be copied to and from the NVRAM of the Switch
4.	Port Standards & Functions: IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit Ethernet, 802.3ae 10 GbE, 802.3an 10GBASE-T, IEEE 802.3x Flow Control for Full-Duplex Mode, Auto-negotiation
5.	Should have AC power supply arrangement as given without any external adaptors with redundant power supply: AC power supply 100 to 240 V AC with 50 to 60 Hz.
6.	Switching Capacity should be 480 Gbps or more as per port configuration

7.	64-byte Packet Forwarding rate should be 357 Mpps or more as per port configuration
8.	MAC Address Table should be 48K or more.
9.	Should have 802.1D STP, 802.1w RSTP and 802.1s MSTP Spanning Tree Protocol.
10.	Should support Loop guard and Root guard & Loop Back detection
11.	Should support 802.1AX / 802.3ad Link Aggregation Protocol
12.	Should support 4K VLAN Groups and configurable VLAN ID: 0 to 4094 VID's
13.	Should support Port-based VLAN, 802.1v VLAN, Double VLAN (Q-in-Q), Voice VLAN, VLAN trunking, IEEE 802.1Q Tagged VLAN protocol
14.	Should supports 256 IP interfaces.
15.	Should support Loopback Interface.
16.	Should support VRRPV2 and V3.
17.	Should have 4K hardware routing entries for IPv4/IPv6.
18.	Should support Static Route, Default Route, RIP and Policy-based Route (PBR) for IPv4 and IPv6, OSPF for IPv4 and IPv6, PIM-DM/SM/SM v6/SSM/SDM, IGMPv1/v2/v3.
19.	Should support 802.1p Quality of Service with 8 queues per port.
20.	Should support Queue Handling with Strict Priority Queue, Weighted Round Robin/ Shaped Round Robin/ Deficit Round Robin (DRR), SPQ + WRR/SRR and Weighted Deficit Round Robin (WDRR).
21.	Should support QoS based on 802.1p Priority Queues, MAC address, IP address, IPv6 traffic class, IPv6 Flow Label, DSCP, VLAN, TCP/UDP port, ToS/IP Preference, Switch port, Ether Type and Protocol type.
22.	Should support Ingress and Egress ACL.
23.	Should support Access Control List based on 802.1p priority, Protocol type, MAC address, VLAN, Ether type, TCP/UDP port number, DSCP, IP address, IPv6 Traffic Class and IPv6 flow label.
24.	Should have Port Security with 1K or higher MAC addresses per port.
25.	Support per port Broadcast/Multicast/Unicast Storm Control.
26.	Require Dynamic ARP Inspection and ARP Spoofing Prevention.
27.	Should have SSH and SSL for IPv4 and IPv6.
28.	Should support DHCPv6 Guard, IPv6 Route Advertisement (RA) Guard and IPv6 ND Inspection, BPDU Attack Protection, Duplicate Address Detection (DAD)
29.	Should support Compound Authentication with multiple option, which should include 802.1X Port based, 802.1X Host based MAC for access control.
30.	Should support RADIUS and TACACS+ authentication with Authentication Database Failover.
31.	Able to manage through Web-GUI, Fully functional CLI interface and Telnet.
32.	Should support SNMP v1, v2c, v3 and SNMP Traps and RMON v1 and RMON v2.
33.	Should have multiple Image and configuration file support to reduce down time for the switches.
34.	Should support sFlow (RFC3176) or Netflow for monitoring traffic in data networks.

35.	Should have SNTP/NTP protocol for time synchronization.
36.	Should support LLDP or LLDP-MED.
37.	AC Input: 100 to 240V AC, 50Hz internal universal power supply.
38.	Operating Temp.: 0 °C to 50 °C.
39.	It should have safety certificates as per BIS/UL/IEC/EN 60950.
40.	The switch should have EMC certification as per BIS/EN/CE/FCC standards
41.	Switch should be supplied with the all necessary hardware accessories like Power cord, Rack-mount bracket, Installation Guide, etc. and necessary software image file to fulfill all above mention feature set from day 1.

14.0 (I) Aggregation Switch: The Aggression Switch shall have following minimum specifications: -

S. No.	Specification
1.	Should have minimum 24 x GE SFP based ports
2.	Should have minimum 4 nos. SFP+ based 10 GE ports.
3.	Should have at least 64 Gbps full duplex line rate traffic.
4.	Should have support for 802.3x flow control.
5.	Should support 802.1D spanning tree control/RSTP support and MSTP support.
6.	Should support management features viz. Web-based GUI/SSH, SNMP, TFTP Client System Log.
7.	Should support Auto MDI-II/MDI-X uplink for all the twisted pair ports.
8.	Should support 802.1Q VLAN, 802.1p Priority queues.
9.	Should support port mirroring, jumbo frame & should have at least 16K MAC address
10.	Should support console port and telnet-based management.
11.	Should have AC power supply arrangement as given below in chassis without any external adaptors with redundant power supply (RPS): AC power supply 100 to 240 V AC with 50 to 60 Hz.
12.	Should support Port-based VLAN, 802.1Q Tagged VLAN along with Management VLAN.
13.	Should support ITU-T G.8032 Ethernet Ring protection for Loop Protection and fast convergence time (Sub 50 ms) in ring topologies/ IEEE 802.1W RSTP for Sub Second failover. Industry Standard IEEE 802.1W RSTP is standard for Ring /STP topology.
14.	Switch should support Surge Protection on power input as per requirement at Indian Railway Station.
15.	Should support Quality of Service (QoS) features viz. Priority Queue, Class of Service (CoS), Rate Limiting (Bandwidth Control), Strict Priority Queue (SPQ), Weighted Round Robin (WRR) or better, DOS attack prevention.
16.	IPv6 feature should be ready from day 1.
17.	Minimum Operating Temperature 0 to 50 degree.
18.	It should have safety certificates as per BIS/UL/IEC/EN 60950. The switch should have EMC certification as per BIS/EN/CE/FCC standards.

19	Switch shall be with Rack Mountable clamps for standard 19-inch rack mountable.
20	The Switch shall be designed for continuous operations.
21	Should support port Trunking of at least 2 Nos. GE/10GE ports.
22	Switch should support LLDP or similar functionality.
23	Should support following security features viz.: i) SSL (HTTPS)/SSH, ii) Broadcast/Multicast/Unicast Storm Control, iii) DoS Attack Prevention/ DAI
24	Switch should support following SNMP traps or syslog i) Interface UP & Down ii) Optical Power SFP threshold alarms iii) STP Topology Changes and New root bridge iv) LLDP table changes

14.0 (II) Layer 2 Switches (24 ports): The PoE and Non-PoE Layer 2 Switches shall have following minimum specifications: -

S. No.	Specification
1.	The Switch Should have: a. 24 x 10/100/1000 BASE-T PoE ports • 4 x 1G (minimum) SFP+ ports with minimum PoE Power Budget of 370W or better. or b. Non-PoE 24 x 10/100/1000 BASE-T ports • 4 x 1G (minimum) SFP+ ports.
2.	Switching capacity should be 56 Gbps or better; forwarding rate 41.7 MPPS or better
3.	Should have support for 802.3x flow control.
4.	Should support 802.1D spanning tree control / RSTP support, sflow or netflow.
5.	Should support management features like Web-based GUI, SNMP, TFTP Client, System Log, DHCP/BootP.
6.	Should support Auto MDI-II/MDI-X uplink for all the twisted pair ports.
7.	Should support for 802.1Q VLAN, 802.1p Priority queues.
8.	Should support port mirroring.
9.	Should support jumbo frame.
10.	Should support console port or telnet and web GUI based management.
11.	Should have AC power supply arrangement as given below in chassis without any external adaptors with redundant power supply: AC power supply 100 to 240 V AC with 50 to 60 Hz.
12.	Should support at least 16000 entries in the MAC table.
13.	Should support Port-based VLAN, 802.1Q Tagged VLAN & Voice VLAN along with Management VLAN.
14.	Should support spanning-tree root guard or similar functionality.
15.	Should support spanning-tree Port Fast guard for fast convergence or similar functionality.
16.	Should support security features like SSL (HTTPS)/SSH, Broadcast/Multicast/ Unicast Storm Control, DoS Attack Prevention.

17.	Should support Quality of Service (QoS) like Priority Queue, Class of Service (CoS), Rate Limiting (Bandwidth Control), Strict Priority Queue (SPQ), Weighted Round Robin (WRR)/ Shaped Round Robin (SRR).
18.	IPv6 feature should be ready from day 1.
19.	Switch shall be with Rack Mountable clams for standard 19-inch rack mountable.
20.	Minimum Operating Temperature 0 to 50°C.
21.	Switch should support LLDP or similar functionality.
22.	Switch should have EMI CERTIFICATE as per BIS/EN/FCC/CE.
23.	Switch should have SAFETY CERTIFICATE as per BIS/UL/ IEC/EN 60950
24.	Switch should support following SNMP traps or syslog: i) Interface UP & Down ii) Optical Power SFP threshold alarms iii) STP Topology Changes and New root bridge iv) LLDP table changes v) Threshold alarms for Temperature
25	Should support following for min. 64 Groups: i) IGMP Snooping, ii) IGMP v1/v2/v3 awareness Snooping, iii) IGMP Snooping Queried

14.0 (III) Field Switches: The Field Switches shall have following minimum specifications: -

S. No.	Specification	
	Field Switches (8 Ports)	Field Switches (4 Ports)
1.	Switch Should Support 8 10/100 BASE-T PoE and 2 SFP 1000 Mbps Uplink ports	Switch Should Support 4 10/100 BASE-T PoE and 2 SFP 1000 Mbps Uplink ports
2.	Switch Should Support Min. 20 Gbps Switching Capacity and Maximum 64 Byte Packet Forwarding Rate is 14.88 MPPS. Switch Should Support 4K VLAN ID's, Min 256 static VLAN and Voice & Video VLAN	Switch Should Support Min. 10 Gbps Switching Capacity and Maximum 64 Byte Packet Forwarding Rate is 7.44 MPPS
3.	Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and minimum 120W Power Budget.	Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and minimum 60W Power Budget.
4.	Switch should support surge protection of 2kV as per IEC/EN 61000-4-5	
5.	Switch should support IGMP Snooping v1, v2 and MLD snooping v1/v2	
6.	Switch shall support IEEE 802.1AB Link Layer Discovery Protocol (LLDP) or LLDP-MED.	
7.	Switch should support Port Mirroring One to one/Many to One	
8.	Switch should support Quality of Service (QoS), 802.1p, Strict, Weighted Round Robin (WRR)/ Shaped Round Robin (SRR) scheduling.	
9.	Switch should support Access Control List (ACL), Port Base, MAC Base, IP Based, L2 & L3 ACL (IPv4 and IPv6)	

10.	Switch Should Support Security Features like Broadcast/Multicast/Unicast Storm Control, Traffic segmentation, TLS, DoS attack prevention, 802.1X Port- based Access Control, Port Security, ARP Spoofing Prevention, DHCP Server Screening, IP-MAC-Port Binding, ARP Inspection, DHCP Snooping, 802.1X Authentication local/RADIUS database (IPv4 & IPv6), port-based access control.
11.	Switch Should Support features IPv4 & IPv6 Inspection, SSH v2 feature, Flow Control governed by IEEE 802.3x.
12.	Switch Should Support Management thru console Port/Web-based/CLI.
13.	Switch Should Support SNMP v1/v2c/v3.
14.	Operating temperature/ Humidity: 0°C to 50°C, 10%-90% non-condensation.
15.	The switch should work on 100-240V AC, 50Hz power supply.
16.	Switch should have EMI CERTIFICATE as per BIS/EN/FCC/CE.
17.	Switch should have SAFETY CERTIFICATE as per BIS/UL/ IEC/EN 60950.

15.0**Wireless Transmitter/Receiver Unit:****15.1**

Wireless Transmitter/Receiver Unit shall be used to send IP video signals from Cameras to central location switch from extreme areas like yards, foot over bridges and any other area in the station where cabling is difficult to install & maintain.

15.2

Wireless Transmitter/Receiver Unit shall be compact in design and shall be easily integrated with Fixed Cameras and PTZ Cameras. It shall enable digital transmission of both video & data for PTZ control over the same frequency channel.

15.3

Outdoor Unit of Transmitter/Receiver Unit shall be with enclosure of rating IP66 / NEMA 4 or better with all external connector for easy installation.

15.4

Wireless Transmitter/Receiver Unit shall have the following minimum specifications:

S. No.	Parameter	Specification
i.	Frequency Range (License Free Band)	Dual Band
ii.	Throughput	50 Mbps or Higher
iii.	Line of Sight Range	It should be near L.O.S with OFDM technology with 20 dBi or higher antenna.
iv.	Ethernet Interface	10/100 BaseT
v.	Protocols to be Used	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)
vi.	Network Management	HTTP, TELNET, FTP, SNMP
vii.	Standard	AP should have support of 802.11ac
viii.	Transmitted power	Should be max. permitted as per guidelines for license free band.
ix.	Regulatory Approvals/ Certifications	BIS or UL or EN or CE or IEC or IS certification for Safety, BIS or CE or FCC Certifications for EMC & Immunity.

16.0**Copper to Fiber Media Converter:**

Media Converter shall generally be as per RDSO specification no. RDSO/ SPN/TC/103/2013, Revision 0.0 (with latest revision/ amendments).

Note: The above specifications for Media Converter are generic. Any deviation/ additional requirements specific to Video Surveillance System installations or as per site requirement can be specified by the purchaser.

17.0 Cables:
Following Cables shall be provided for connectivity of different equipment in the system:

17.1 STP CAT-6 Cable:
STP (Shielded Twisted Pair) CAT-6 Cable shall be compliant with latest EIA/TIA- 568-B.2-1 standard for CAT 6 cable or as specified by purchaser. The screen of the STP cable should be properly grounded.

17.2 Optic Fiber Cable:
17.2.1 Underground Optic Fibre Cable shall be 24 / 48 Fibre Armoured Optic Fibre Cable as per latest RDSO specifications.

17.2.2 Overhead Optic Fibre cable shall be 6 / 12 / 24 fibre as per latest TEC/BSNL specification.

17.3 Power Cable:
Power Cable 3 Core, 2.5 sq mm, multi strand copper conductor, PVC insulated, Armoured, confirming to IS: 1554 Part-I shall be provided or as specified by purchaser.

18.0 SOFTWARE REQUIREMENT:
The software requirements of IP based Video Surveillance System shall be as below:

18.1 Video Management Software:
18.1.1 This shall be a highly scalable enterprise level software solution. It shall offer a complete video surveillance solution that will be scalable to required numbers of Cameras that can be added on a unit-by-unit basis.

18.1.2 The video management software shall be licensed and shall operate on open architecture and shall require no proprietary IT hardware.

18.1.3 The video management software shall allow for video to be streamed on workstation in Matrix or on a video wall.

18.1.4 The user with administrative rights shall create clients (users) and give access to the software client application based on predefined user access rights.

18.1.5 The system shall allow the recording, live monitoring, playback of archived video and data simultaneously.

18.1.6 The software shall provide the following:

18.1.6.1 Several simultaneous live picture connections of Camera in network.

18.1.6.2 Configuration of monitoring situation (site maps).

18.1.6.3 Programming of alarm-triggered automatic events in various alarms configuration.

18.1.6.4 System set up with limited operation options for clearly defined surveillance tasks.

18.1.6.5 Programming of automatic recording events on a network recorder.

18.1.7 The software shall display dual MJPEG/H.265 or higher video streams in real time simultaneously at frame rates ranging from 1 fps to 25 fps and resolution ranging Full HD/Ultra HD to other HD/SD resolution.

18.1.8 Each Camera's bit rate, frame rate and resolution shall be set independently from other Cameras in the system, and altering these settings shall not affect the recording and display settings of other Cameras.

18.1.9 The software shall provide automatic search and discovery of components of video surveillance system on the network which can be network Cameras.

- 18.1.10 The software shall provide drag & drop functions on the system and also for set up of connection between Cameras and monitors connected to one workstation.
- 18.1.11 The software shall allow:
 - 18.1.11.1 Live display of Cameras.
 - 18.1.11.2 Live display of Camera sequences.
 - 18.1.11.3 Control of PTZ Cameras.
 - 18.1.11.4 Playback of archived video.
 - 18.1.11.5 Retrieval of archived video.
 - 18.1.11.6 Instant Replay of live video.
 - 18.1.11.7 Use of site maps.
 - 18.1.11.8 Configuration of system settings.
 - 18.1.11.9 Configuration and programming of PTZ Cameras, features like auto tours, presets etc.
- 18.1.12 The software shall be able to do video recording on any of the following options - inbuilt hard disks on the server, direct attached storage boxes attached to servers, network attached storage, storage area network.
- 18.1.13 The software shall be capable of handling Camera and alarm icons on area maps. The area map shall be configurable to pop up upon the receipt of an alarm received from a Camera on the map. This can be on the same or other monitors on the PC.
- 18.1.14 The software shall be able to select the required recording based on the time recording was activated, the duration of recording, operator activated recording, event activated recording, scheduled recording.
- 18.1.15 The software shall provide a reporting utility for tracking for the following minimum options. Video clips and image snapshots shall be stored with reports for documenting events.
 - 18.1.15.1 Alarms
 - 18.1.15.2 Incidents
 - 18.1.15.3 Operator logs
- 18.1.16 The software shall have the facility to export the desired portion of clipping of video from a desired date/time to another desired date/time on DVD/ on any client/ network storage device. Viewing of this recording shall be possible on authorized player which shall be provided by software manufacturer or in media player on computer utilizing a Window environment.
- 18.1.17 The Video Management Servers shall not limit the number of Video Recording Servers which can be networked together to form video management and recording system.
- 18.1.18 The Video Management Servers shall maintain a catalog of settings for all the clients, servers, and IP Cameras & IP enabled Cameras in the system. If Video Management servers & recording cannot be managed by single server, in such cases, additional server shall be provided.
- 18.1.19 The software shall enable the client to dynamically create connections between Cameras and clients and view live or recorded video on Monitors.
- 18.1.20 The software shall provide the client seamless operation of all Cameras and clients available in the system regardless of the actual connection to different Network Video Recording servers.
- 18.1.21 The software shall detect signal loss and have the capability to alert the systems administrator.

- 18.1.22 The software shall receive all incoming events (motion detection and triggered digital input and relay output) in the system and take appropriate actions based on user-defined event/action relationships.
- 18.1.23 The software shall create an audit trail of all events and user activities.
- 18.1.24 The Video Management Software shall support the following:
- 18.1.24.1 The Video Management Software shall provide a full matrix operation of IP video to display monitors.
- 18.1.24.2 The Video Management Software shall have the capability of creating Camera sequences with the following functionalities:
- 18.1.24.2.1 Each Sequence shall have capability up to hundreds of Cameras.
- 18.1.24.2.2 Each Camera in the sequence shall have its own individual dwell time, from 1 to 60 seconds.
- 18.1.24.2.3 Multiple users shall be able to view the same Camera sequence simultaneously, not necessarily synchronized one with the other.
- 18.1.25 The software shall provide alarm management module.
- 18.1.25.1 The alarm management shall be able to set any monitor or groups of monitors to automatically display Cameras in response to alarm inputs.
- 18.1.25.2 The alarm management shall be able to reset automatically or manually alarmed video.
- 18.1.26 It shall be possible to search for recordings in the software by Camera, date and time. If a data and time is specified, playback shall commence from that date and time. It shall be possible to playback more than one Camera simultaneously.
- 18.1.27 The software shall support at least 128 video streams concurrently. It shall support at least 8 monitors in one server/ workstation for displaying live video. It shall allow minimum 5 levels of user and alarm prioritization. It shall allow minimum 16 Cameras to be replayed simultaneously.
- 18.1.28 The Video Management System shall be seamlessly integrated with Face recognition Software & Artificial Intelligence (AI) enabled Video Analytics and have capability to receive the alerts.
- 18.1.29 The Video Management Software shall support redundancy with N:1 redundancy configuration for Video Management Servers/ Network Video Recorders.
- 18.1.30 The Video Management Software shall be compliant to global standards ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2.SDK is to be shared with the purchaser for integration purposes.
- 18.1.31 The VMS should have the feature of mobile phones clients so that in case of any emergency, the authorized users can upload videos and snapshot to local VMS server from the registered mobile phones, which should include identification of location. A proper protocol for segregation, storage and retrieval shall also be available. Operator at centralized location should have ability to view these alarms and playback video, if required, from stations. Operator at centralized location shall be able to push the alarms to selected RPF/Thana and registered mobile phone of concerned security officer.
- 18.1.32 Security Verification Certification: The Video Management Software shall have security features which can be deployed meeting the security assurance requirements as per Relevant clauses / paras to be applicable for security, vulnerabilities, etc. Such clauses / paras shall be mutually decided by Purchaser and STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In

empanelled Information Security Auditing Organization for testing and issuing the certificate / clearance.

18.2 Graphic User Interface Client Software Features:

- 18.2.1 The GUI software shall perform the following applications simultaneously without interfering with any of the storage server operations (recording, alarms, etc.):
 - 18.2.1.1 Live display of Cameras.
 - 18.2.1.2 Live display of Camera sequences.
 - 18.2.1.3 Control of PTZ Cameras.
 - 18.2.1.4 Playback of archived video.
 - 18.2.1.5 Retrieval of archived video.
 - 18.2.1.6 Instant replay of live video.
 - 18.2.1.7 Use of graphical controls (maps) and alarm management.
 - 18.2.1.8 Configuration of system settings.
- 18.2.2 The GUI software shall support any form of IP network connectivity including LAN, WAN and wireless LAN technologies.
- 18.2.3 The GUI software shall support multicast and unicast video streaming.
- 18.2.4 The GUI software shall provide an authentication mechanism, which verifies the validity of the user.
- 18.2.5 The GUI software shall allow for live monitoring of video.
- 18.2.6 It shall enable view of 1 to minimum 16 video tiles simultaneously on a single digital monitor at 25 fps per Camera.
- 18.2.7 The software shall provide on each of the digital monitors independently the following tile views:
 - 18.2.7.1 Full screen
 - 18.2.7.2 Quad view
 - 18.2.7.3 4x4 (16-view)
 - 18.2.7.4 The Software shall also support any other window division based on the site requirement.
- 18.2.8 The GUI software shall allow operators to view an instant replay of any Camera.
- 18.2.8.1 The operator shall be able to define the amount of time he wishes to go back from a timeline bar or through a custom setup period.
- 18.2.8.2 The operator shall be able to control the playback with play, pause, forward, and speed buttons.
- 18.2.9 The operator shall be able to choose and trigger following minimum action from a macro/site map:
 - 18.2.9.1 View Camera in a video tile.
 - 18.2.9.2 View map or procedure in a video tile.
 - 18.2.9.3 Starting/stopping PTZ pattern.
 - 18.2.9.4 Go to PTZ preset.
- 18.2.10 The GUI software shall provide management and control over the system using a standard PC mouse, keyboard and Digital keyboard.
- 18.2.11 The GUI software shall display all Cameras attached to the system regardless of their physical location on the network.
- 18.2.12 The GUI software shall display all Camera sequences created in the system.
- 18.2.13 The GUI software shall allow operators to control (pause/play, skip forwards, skip backwards) Camera sequences.
- 18.2.14 The GUI software shall display all Cameras, sequences and users in a logical tree.

- 18.2.15 The GUI software operator shall be able to drag and drop a Camera from a tree of available Cameras into any video tile for live viewing.
- 18.2.16 The GUI software operator shall be able to view the Camera from a tree of available Cameras into any video tile for live viewing.
- 18.2.17 The GUI software shall support graphical site representation (map) functionality, where digital maps are used to represent the physical location of Cameras and other devices throughout facility.
- 18.2.18 The maps shall have the ability to contain hyperlinks to create a hierarchy of interlinked maps.
- 18.2.19 The GUI software operator shall be able to view the Camera from a map into a video tile for live viewing in the same browser without opening a new browser.
- 18.2.20 The operator shall be able to click on an icon in a map to initiate PTZ Camera preset, run PTZ pattern, view Camera in an analog monitor or send an I/O stream.
- 18.2.21 The GUI software shall support digital zoom on a fixed Camera's live video streams.
- 18.2.22 The GUI software shall support digital zoom on a PTZ Camera's live video streams.
- 18.2.23 The operator shall be able to control Pan, Tilt and Zoom patterns of PTZ Camera.
- 18.2.24 The software shall be able to display video of Cameras on 55 inch Large Format Display Monitors and Workstation Monitors.
- 18.2.25 The software shall allow the control of display from the client PC.
- 18.2.26 The operator from the GUI software shall be able to decide the screen layout and also the Cameras that shall be displayed on the monitors.
- 18.2.27 The software shall support multicasting.
- 18.2.28 It shall be possible to switch the screen layout in response to an alarm.
- 18.2.29 The GUI Software shall support text superimposing the title and date & time on the video.
- 18.2.30 Security Verification Certification: The Video Management Software shall have security features which can be deployed meeting the security assurance requirements as per Relevant clauses / paras to be applicable for security, vulnerabilities, etc. Such clauses / paras shall be mutually decided by Purchaser and STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization for testing and issuing the certificate / clearance.
- 18.3 Video Recording Software:**
- 18.3.1 Software shall support recording of MJPEG/H.265 or higher video streams. It shall support recording of video and audio for all the channels.
- 18.3.2 Software shall support triplex applications, recording, re-play and backup simultaneously. It shall be compatible with windows Server OS or Linux for highest performance and reliability.
- 18.3.3 The Video Recording Software shall support absolute recording redundancy with N:1 redundancy configuration for Video Recording Servers/ Network Video Recorders.
- 18.3.4 Software shall operate on open architecture and shall not require any proprietary hardware.
- 18.3.5 Software shall be able to record minimum 128 different video streams or more simultaneously. It shall be accessible from any client PC connected to the network.
- 18.3.6 Software shall provide network time server function to ensure the synchronization of the

video servers and the recordings.

- 18.3.7 The Servers/NVRs shall be connected to the network so that these can be placed at any location which has network access.
- 18.3.8 The Software shall be able to receive alarms of different types from equipment to start a recording. These alarms can be motion detection, video loss, unified picture and trigger input.
- 18.3.9 The Software alarm recording shall support pre-and post-alarm periods. Both can be configured in duration.
- 18.3.10 The Software shall provide a status of the available recording capacity.
- 18.3.11 Fault Tolerant Recording:
 - 18.3.11.1 If Software & Server(s)/ NVRs operation are interrupted, like power disconnection and once the server(s) are restarted, these shall automatically resume recording of any Cameras these were recording prior to the interruption.
 - 18.3.11.2 The Software shall support network fault-tolerant recording such that if the network connection becomes unavailable, for example through cable breakage, network congestion or WLAN interruption, the system operation shall automatically recover when the connection is restored.
- 18.3.12 Search & Export:
 - 18.3.12.1 It shall be possible to search for recordings in the software by Camera, date and time. If a data and time is specified, playback shall commence from that date and time. It shall be possible to playback more than one Camera simultaneously.
 - 18.3.12.2 The Software shall be able to export sections of recordings to a separate Windows folder, which can then be written to CD-ROM, DVD-ROM or USB Flash Drives etc. to be played back at a location not connected to the network video management & recording network. The export process shall make available a player application, which can be provided with the exported video. Export shall be possible in Windows media player or any other media player compatible format. Simultaneous export of multiple Cameras shall also be possible.
- 18.3.13 The Software shall provide secured recording for evidence purposes and user authentication to protect data integrity.
- 18.3.14 The Software shall support activity controlled video recording. This is required to automatically adjust recording bit rate depending on motion & scene. During periods of negligible motion, the recording bits rate shall drop and when motion occurs, the recording bit rate shall return to normal without any perceptible delay.
- 18.3.15 The Video Recording Software shall be compliant to global standards ONVIF Profile „S“ & „G“ or interoperability compliance as per Clause 3.2. SDK is to be shared with the purchaser for integration purposes.
- 18.3.16 Edge Storage Recording: In case of any failure or interruption of MPLS/IP network, the Camera shall automatically start recording on Edge Storage Memory Card at resolution and frames per second as required and when the network recovers, the Video data shall automatically be transferred to the Server/External Storage Device/NVR without any impact on the system operations.
- 18.3.17 Security Verification Certification: The Video Recording Software shall have security features which can be deployed meeting the security assurance requirements as per Relevant clauses / paras to be applicable for security, vulnerabilities, etc. Such clauses /

paras shall be mutually decided by Purchaser and STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization for testing and issuing the certificate / clearance.

18.4

Artificial Intelligence (AI) enabled Video Analytics Software:

18.4.1

Possible applications of Artificial Intelligence (AI) enabled analytics software over the IP based video surveillance system, for specified number of Cameras for specific stations, as defined by purchaser shall include the following minimum Artificial Intelligence (AI) enabled video analytics software.

- i) Intrusion Detection
- ii) Camera Tampering
- iii) Loitering Detection
- iv) Human & Vehicle Detection
- v) Search of Humans based on Attribute
- vi) Colour Search
- vii) Fallen Person
- viii) Combination Search (Human/Vehicle & Colour)

18.4.2

Intrusion Detection:

18.4.2.1

The offered Artificial Intelligence (AI) enabled video analytic software shall include a comprehensive intrusion detection feature. The intrusion detection shall be used for generating alarm under following scenarios:

- i) People crossing the tracks at platform ends.
- ii) People entering railways operation areas.
- iii) It shall also generate directional alarms in defined areas like parking places, elevators etc.

18.4.2.2

The software shall have filters to distinguish between humans/animals and vehicles/ objects.

18.4.3

Camera Tampering:

18.4.3.1

The software shall be able to detect sabotage or tampering to the Cameras. It shall be able to detect Camera blurring, Camera blinding and change of orientation of fixed Cameras.

18.4.3.2

Camera tampering feature shall be provided for all Cameras.

18.4.3.3

AI enabled VA is not implemented on PTZ cameras.

18.4.4

Loitering Detection:

18.4.4.1

The operator shall be able to define area and detection time in software.

18.4.4.2

The software shall give an alarm as soon as a person is detected in a defined area above a predefined time limit.

18.4.5

Human & Vehicle Detection:

18.4.5.1

The software shall be able to detect and classify humans and vehicles in live viewing and give alert only when the classified objects break a rule.

18.4.6

Search of Humans based on Attribute:

18.4.6.1

The AI should be able to sorts through hours of video with ease, to quickly locate a specific person of interest. Attribute Search should improve incident response time and enhance forensic investigations by helping operators compile robust video evidence, create a powerful narrative of events, and reveal an individual's route or last-known location.

18.4.6.2

AI software should allow operator to mark a person who has been identified as a suspect

in any playback video or in live mode. It should then have the capability to track and search the objects movements across multiple cameras based on the Attribute of the person and show the results so that the user can track the movement of the person across cameras.

18.4.6.3 In the event when a suspect's face is not captured clearly or not recognizable due to any reason, the AI software should allow operators to search a Person based on a person's Attribute characteristics and retrieve intelligent information to locate a specific person or vehicle of interest across multiple recorded video streams from FHD Bullet/Box, Dome and PTZ cameras.

18.4.6.4 It should sort through hours of video across all the station cameras with ease, to quickly locate the specified person across cameras based on his Attribute, reducing search time from day and hours down to minutes.

18.4.7 Colour Search:

18.4.7.1 In the event when suspect face is not clearly visible, in such case a colour base detection and search should be available with Artificial Intelligence (AI) enabled video analytics.

18.4.8 Fallen Person

18.4.8.1 In the areas like Waiting room / hall, Tracks, Ticket Counter etc in case of any person falling due to any reason should be detected.

18.4.9 Combination Search (Human/Vehicle & Colour)

18.4.9.1 Artificial Intelligence (AI) enabled video analytics should be able to search for suspects with combination of search criteria like Colour and Object (Human / Car).

18.4.10 Artificial Intelligence (AI) enabled Video Analytics Software can be implemented either at firmware level at fixed IP Cameras or at server/ workstation (which should be able to work 24x7, 365 days) level in the control room.

18.4.11 Artificial Intelligence (AI) enabled Video analytics software shall be implemented either at firmware level or server level for fixed IP Cameras as per details mentioned in the table or as specified by the purchaser. Purchaser has to specify numbers of Cameras to be provided with different types of video analytics software.

S. No.	Type of Artificial Intelligence (AI) enabled Video Analytics	:	Location of Cameras on which Artificial Intelligence (AI) enabled Video Analytics is to be provided
i.	Intrusion Detection	:	Cameras at Platform ends, Railway Control Room or as specified by purchaser
ii.	Camera Tampering	:	All Cameras or as specified by purchaser
iii.	Loitering Detection	:	All Fixed Cameras or as specified by purchaser
iv.	Human & Vehicle Detection	:	All Fixed Cameras or as specified by purchaser
v.	Search of Humans based on Attribute	:	All Fixed Cameras or as specified by purchaser
vi.	Colour Search	:	All Fixed Cameras or as specified by purchaser
vii.	Fallen Person	:	All Fixed Cameras or as specified by purchaser

viii.	Combination Search (Human/Vehicle & Colour)	:	All Fixed Cameras or as specified by purchaser
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18.4.12 The Artificial Intelligence (AI) enabled Video Analytic Software deployed at Cloud as per Schematic Diagram -3, shall be seamlessly integrated with Video Surveillance System for Cluster of Stations aggregated to RPG/GRP Thana.

18.4.13 The Artificial Intelligence (AI) enabled Video Analytic Software shall support redundancy with N:1 redundancy configuration for Artificial Intelligence (AI) enabled Video Analytic Servers.

18.4.14 Security Verification Certification: The Artificial Intelligence (AI) enabled Video Analytics Software shall have security features which can be deployed meeting the security assurance requirements as per Relevant clauses / paras to be applicable for security, vulnerabilities, etc. Such clauses / paras shall be mutually decided by Purchaser and STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization for testing and issuing the certificate / clearance.

18.5 Remote Viewing on Web and Mobile App:

- i) System should be provisioned for at least 1000 users and 100 concurrent logins.
- ii) The system shall support transcoding to meet the network bandwidth limit between the remote (users on web and mobile App) and recording system as defined under schematic diagram-1, 2 and 3. Transcoder shall be able to access live / playback video streams from the system and provide transcoded streams to the clients as per network limitations. Transcoder shall be capable to automatically modify the frame rate, resolution and compression while transcoding the request live/playback stream.

iii) **Mobile App for VSS system**

VMS system shall also be provided with a mobile app for Android as well as Apple iOS based smartphones to allow secure access of VMS Server live and recorded video streams using smartphone or a tablet from Divisional HQ/any other centralized location or other clients connected to MPLS/IP network as per requirement of purchaser. Mobile App should be easy to use application allowing simultaneous multiple camera monitoring.

Mobile App should be easy to use application allowing simultaneous multiple camera monitoring with minimum following features:

- Dashboard: showing various performance/statics reports of the system
- Menu based selection to select and view video feeds on demand/ need based
- Should work on pull based mechanism which will allow authorized user to access the video feeds after user authentication
- Mobile application should allow MAC/IMEI No./Unique Mobile Device binding, role-based user access over secured VPN client on users mobile/smart phone.
- Controls PTZ.
- Supports easy connection to dynamic IP device through DDNS Service.
- The DDNS service should be secured over SSL/TLS.
- Support Event Push Notifications (when supported by phone).

- Minimum 4 channels simultaneous real time live monitoring.
- Search and Playback
- Search Calendar (Date & Time)
- Search Event (Motion Detection, Video loss, Tampering)
- Sequence Mode to view more channels next page.

iv) Security Verification Certification: The Remote Viewing on Web and Mobile App shall have security features which can be deployed meeting the security assurance requirements as per Relevant clauses / paras to be applicable for security, vulnerabilities, etc. Such clauses / paras shall be mutually decided by Purchaser and STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization for testing and issuing the certificate / clearance.

18.6 Functional Requirement of Command Control Centre (CCC) Software:

- 18.6.1 Command & Control Centre software shall allow an operator to view live/recorded video from any camera installed on stations.
- 18.6.2 Not all cameras would be simultaneously viewed at CCC software.
- 18.6.3 It should have the capability to manage hundreds to thousands of cameras and connected devices for centralized or highly distributed video surveillance architectures.
- 18.6.4 It should provide facility to capture critical information such as location, name, status, time of the incident and be modifiable in real time by multiple authors with role associated permissions (read, write).
- 18.6.5 The system shall provide an integrated dashboard with an easy to navigate user interface for managing profiles, groups, message templates, communications, tracking receipts and compliance.
- 18.6.6 It shall provide tools to assemble personalized dashboard views of information pertinent to incidents, emergencies & operations of CCC software.
- 18.6.7 The software should have an objective to implement integrated video & surveillance management, alert management, incident report creation with enhanced capability to show the generated alerts by equipment deployed at various railway stations and manage critical alerts.
- 18.6.8 The CCC software should be an established solution with existing deployments on field with DMR/Tetra integration for seamless communication with RPF
- 18.6.9 The software should be an established solution and should be able to integrate with leading Camera brands. It should have an integrated VMS and Analytical engine for basic analytics like Tripwire etc.
- 18.6.10 It should be able to integrate least one leading brand of Tetra/DMR based communication devices which should work in conjunction. Users will provide SDK/API for Tetra/DMR dispatcher for final installation.
- 18.6.11 CCC software should have capability to send alerts to DMR handsets. The SDK/API of DMR handsets will be provided by the purchaser. This will provide Seamless integration with RPF/authorized person(s).
- 18.6.12 The proposed system should be able to leverage and integrate with existing & new CCTV cameras supporting Interoperability/ONVIF profile „S“ (as specified in clause no. 3.2) or through SDK/API and video management systems either through camera level or VMS level, to provide an integrated video surveillance at the command center.

- 18.6.13 Command & Control application software should not be connected to end points i.e Cameras directly for Live or recorded video feeds. It should communicate to respective existing VMS and perform deep integration for live and recorded video retrieval purposes. This integration will also allow capturing the VMS level alerts.
- 18.6.14 The Command & Control Software should be installed at the central location identified by purchaser and should have a GIS, Alarm/Alert screen, SOP screen, Health Reports and live screen.
- 18.6.15 Command & Control Centre software should have following four modules:-
- 18.6.15.1 GIS Screen
- 18.6.15.2 Event Log Screen
- 18.6.15.3 Video Management Screen
- 18.6.15.4 Hot screen
- 18.6.16 Software Overview:
- 18.6.16.1 Software should be flexible, dynamic, distributed, reactive, real-time, scalable and shall have following characteristics:-
- Should be deployed on an IP based network.
 - Automated Policies and workflows.
 - Provide a single customized dashboard interface for control and monitoring.
- 18.6.17 Surveillance Integration Application Module:
- 18.6.17.1 It shall be able to display surveillance feeds in real time to the CCC software for any predefined set of cameras by the operator.
- 18.6.17.2 Software should cater for real time monitoring of surveillance cameras, display of surveillance feeds, archiving surveillance feeds, analysis of surveillance feeds and retrieval of feeds at any given time.
- 18.6.17.3 Software should integrate and support display of live feed and alerts from different VMS/FRS vendors from various contract packages (API/SDK will be provided by the purchaser).
- 18.6.17.4 The CCC software should have the capability of connecting to the total number of cameras installed at stations.
- 18.6.18 Video Management Software (VMS) Module:
- 18.6.18.1 The system should be able to get alerts from the AI enabled Video Analytics as per clause no. 18.4.
- 18.6.18.2 VMS shall offer centralized management of all devices, servers and Users. VMS should manage, store, deliver and support encoding, distributing, managing and archiving.
- 18.6.18.3 CCC software should allow recipients of the video to bring and play back the expected video without installing separate software on their Computer. In-built VMS should provide support video feeds to client workstations.
- 18.6.19 GIS Module:
- 18.6.19.1 Software should integrate with 3rd party leading solution enterprise GIS modules which shall give a multilayer visualization of Area of Interest with comprehensive view of deployment and surveillance devices.
- 18.6.19.2 It should also display the live movement status of various trains (With Video Recording units) across the Indian Railway Network based on their GPS coordinates.
- 18.6.20 Event handling Module:

System should be capable of handling various events with a timeline view, integration with video/surveillance feed. Event handlers shall be capable to provide detailed overview of incidents to various concurrent users at a time.

- 18.6.21 Data visualization module:
System should have functionality of simultaneously displaying on at least four screens including GIS, VMS, Hot Screen and Event Logging Screen.
- 18.6.22 System requirements:
- 18.6.22.1 System should not take more than 5 minutes of time in initialization. Software should be robust to handle large data when exposed to multiple devices in parallel without being frozen.
- 18.6.22.2 Software should have a standard railway symbol library for depicting infrastructure, train movements and geographical terrain.
- 18.6.22.3 Front end should be able to technically integrate all sensor inputs to provide centralized control, situational awareness & event response coordination through one comprehensive user interface.
- 18.6.22.4 The C&C software shall be able to seamlessly interface with following systems which can be deployed:
- Cameras
 - AI enabled Analytical Alerts
 - VMS (Different makes as and when required)
 - Tetra/DMR based communication devices
- 18.6.22.5 Software should be based on a robust established GIS platform perpetual license with vector Layer, maps and Satellite imagery (Minimum 10m resolution, HD)
- 18.6.22.6 Software Platforms shall be efficient to produce a bird eye/fly through View of incident with analytics.
- 18.6.22.7 The information from various systems & sensors shall be presented in an intuitive multi-layered interactive GIS map System.
- 18.6.22.8 The software should have capability to incorporate the full open API/SDK of platform of any third party system and interface. It should interface various devices deployed seamlessly. Users should be able to save data in GIS format with date and time stamping.
- 18.6.22.9 The Central Control should be maintained in “monitoring” status when an alarm is received, the system monitor should indicate “alarm” status and the affected zones should be immediately shown via the nearest PTZ/ fixed camera. The control system must generate alerts with video/image clearly.
- 18.6.22.10 System should be capable of sending alerts to the DMR / Tetra
- 18.6.22.11 The C&C system shall support a minimum of 128bit Encryption for all communications between the Server & Client
- 18.6.22.12 The C&C system should have scalability in terms of adding new sensors/devices and through this Data/Alert on various screens.
- 18.6.22.13 The C&C system shall include the ability to redirect events (Common Operating Picture) handling to first responder/RPF based on manual buttons as well as using automated procedures for escalation using time delays, alarm priority, zones, or other criteria yet to be determined.
- 18.6.22.14 It shall be possible to change the workflows and process guidance without upgrading the software or restarting the solution.

- 18.6.22.15 The administrative access to the system shall be role based and allow administrators to add supported systems and/or devices, modify, customize or create configurations of user GUI, setting levels of user permissions and pre-emption rules for control of system functions and capabilities.
- 18.6.22.16 The system should be capable of interfacing with wireless (UHF/VHF) based IP Communication Network like DMR, Tetra etc.
- 18.6.22.17 The C&C platform shall be a field-proven product in India and that has past experience of integration of all the desired sub-systems with ready protocol support.
- 18.6.22.18 It shall be able to generate historical reports, event data & activity log and convert these reports into “pdf” or “html” formats.
- 18.6.23 Security Verification Certification: The Command Control Centre Software shall have security features which can be deployed meeting the security assurance requirements as per Relevant clauses / paras to be applicable for security, vulnerabilities, etc. Such clauses / paras shall be mutually decided by Purchaser and STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization for testing and issuing the certificate / clearance.

19.0 Face Recognition Software:

- 19.1 Face Recognition System shall work on real time and offline mode.
- 19.2 The system shall capture face images from live CCTV video feed and generate alerts, if blacklist match is found. FRS alerts should be pushed to the Video Management System/ NVR. (Seamlessly integrated with Video Management System /NVR).
- 19.3 The system shall have the best suited technology employed for 1: N (one to many) matching application when they enter the field of view of CCTV Cameras. It should have a 1:1 (one to one) verification feature for Access control systems at some locations as required by Indian Railways.
- 19.4 The system shall have the provision to take multiple samples of same face belonging to same person.
- 19.5 The system shall work on partial occlusion of face, glasses, scarfs, changes of facial expression etc.
- 19.6 The system shall be able work on moderate face rotation either horizontal or vertical. It should support a yaw angle of -40 to +40 degrees, a pitch angle of -30 to +30 degrees and a roll angle of -20 to +20 degrees.
- 19.7 The system shall be able for matching suspect faces from pre-recorded video feeds obtained for CCTV deployed various identified locations.
- 19.8 The system shall be able to add photographs obtained from law enforcement agencies to the criminals“ repositories along with option details for sex, age, etc. for future searches.
- 19.9 The system shall support diverse graphic & video formats as well as live Cameras.
- 19.10 The identification of faces should be contactless, at a distance and on the move and in the crowded area.
- 19.11 The system shall have in-built tool with capability to build partial faces and enhancement of quality of image before enrolment.
- 19.12 The system shall be able to utilize any of the file formats like JPEG, PNG, BMP, TIFF etc.

format for enrolment for matching.

- 19.13** The system shall be able to check if new enrolled face is already enrolled in the data base before registering the new enrolled face in the system.
- 19.14** The system shall have option to automatically enroll face images from CCTV Cameras.
- 19.15** The system shall have capacity to create different categories of people with option to customize the matching threshold for different categories.
- 19.16** The system shall be able to work on full HD or Ultra HD Cameras.
- 19.17** The system shall be able to be implemented on IT hardware like Server or Workstation (which should be able to work 24x7, 365 days).
- 19.18** The system shall be able to use latest CPU and GPU based processing for multiple Camera streams in a single Server/ Workstation (which should be able to work 24x7, 365 days).
- 19.19** If FRS is deployed at stations as per Schematic Diagram-1 and Schematic Diagram-2, the system shall support minimum 4 nos. of Camera streams on Server intended for Face Recognition Software as per Clause No. 10.1.
- 19.20** The system shall be able to work on windows / Linux operating system.
- 19.21** The system shall employ database system like MS SQL or Oracle or Postgre SQL or MongoDB or any other data base system.
- 19.22** Three schematics are provided in the specification, purchaser may decide which scheme is to be implemented and accordingly FRS system with supported database system is to be provided.
- 19.23** The system shall have the capability to have face image data base up to 10,00,000 (or as specified by the purchaser) for 1 : N matching. The system should be scalable to upgrade for higher data size as and when required with additional license for data base.
- 19.24** The system shall be able to work on cameras which are included in this specification.
- 19.25**
- a) The Face Recognition Algorithm should have participated and have been established in the Face Recognition Algorithm Evaluation conducted by NIST (National Institute of Standards and Technology, U.S. Department of Commerce) The NIST benchmark/ latest performance FRVT test results of current calendar year with respect to the opening date of tender or last 1 preceding year, the performance efficiency of the algorithm shall be within the top 25 ranked algorithms of the FRVT (1:N) test results with FNIR (N=1.6M, T=0, Rank=1).
 - b) The FRS system shall be enterprise grade highly scalable providing most accurate results for the most demanding real time and post event off line mode.
 - c) The system shall work on partial occlusion of face, glasses scarf changes of facial expression etc. The FRS system should also overcome challenges such as crowded environment, poor lighting, moving subjects, angle and distance.
- 19.26** Face Recognition Software deployed at Cloud as per Schematic Diagram -3, shall be seamlessly integrated with Video Surveillance System for Cluster of Stations aggregated to RPG/GRP Thana.
- 19.27** The image Database Server shall support redundancy with N:1 redundancy configuration.
- 19.28** Security Verification Certification: The Face Recognition Software shall have security features which can be deployed meeting the security assurance requirements as per Relevant clauses / paras to be applicable for security, vulnerabilities, etc. Such clauses /

paras shall be mutually decided by Purchaser and STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empanelled Information Security Auditing Organization for testing and issuing the certificate / clearance.

20.0

Software License:

20.1

OEM/Vendor shall offer required number of licenses for Video Management, Video Recording, Artificial Intelligence (AI) enabled Video Analytics and Face Recognition Software for all the Cameras, NVRs, Servers, PC workstations, Clients etc. supplied as per site requirement or as specified by the purchaser.

20.2

The Licenses shall be of one-time type. Licenses related compliance shall be ensured by purchaser depending upon the requirement.

20.3

All software license(s) should be provided as Paper License in favor of purchaser / user.

21.0

TEST REQUIREMENTS:

21.1

Conditions of Tests:

21.1.1

Unless otherwise specified all tests shall be carried out at ambient atmospheric conditions.

21.1.2

Inspection and testing shall be carried out to the effect that all requirements of this specification are complied with.

21.2

Type Test:

21.2.1

Camera and Software: One complete system consisting of all type of Cameras and Software and other required devices & equipments such as Network Video Recorder (if any) etc. shall be subjected to following tests as applicable:

- i) Visual inspection and Performance test (Clause no. 22.1)
- ii) Endurance test (Clause no. 22.2.1)
- iii) Environmental/Climatic Tests
- iv) Verification of necessary Regulatory approvals/certifications
- v) Compliance of clause 3.10, 3.11, 3.12, 3.13

21.2.2

Only one complete system shall be tested for this purpose. The system shall successfully pass all the type tests for proving conformity with this specification. If any one of the equipment fails in any of the type tests, the purchaser or his nominee at his discretion, may call for another equipment and subject it to all tests or the test(s) in which failure occurred.

21.2.3

Any other tests shall be carried out as considered necessary by the inspecting authority.

21.3

Acceptance Test:

21.3.1

The following shall constitute the acceptance tests which shall be carried out by the inspecting authority for the purpose of acceptance on randomly selected of items offered from the lot as per sampling plan (given below) offered for inspection by the supplier:

- (i) Visual inspection and Performance Test (Clause No. 22.1)
- (ii) Endurance Test (Clause No. 22.2.2)
- (iii) Compliance of clause 3.10, 3.11, 3.12, 3.13

Sampling Plan:

Quantity offered(Lot Size)			Sample size
2	to	8	2
9	to	15	3

16	to	25	5
26	to	50	8
51	to	90	13
91	to	150	20
151	to	280	32
281	to	500	50
501	to	1200	80
1201	to	3200	125
3201	to	10000	200
10001	to	35000	315
35001	to	150000	500
150001	to	500000	800
500001	to	over	1250

For various types of cables as per clause no. 17.0, Acceptance test shall be carried out on randomly selected 10% of items offered from the lot.

21.3.2 Face Recognition Software: The Face Recognition Software shall be tested for its performance as per clause no. 19.0 along with required no. of Cameras, Server/Workstation and other required devices & equipments.

21.3.3 Any other tests shall be carried out as considered necessary by the inspecting authority.

21.4 List of items on which Type Test and Acceptance Test is applicable:

S. No.	Items	Clause No.
i.	Full HD Fixed Box Type IP Colour Camera with Varifocal Lens and Housing & Mount	5.1 & 5.3
ii.	4K UHD Fixed Box Type IP Colour Camera, Varifocal Lens, Housing and Mount	5.2 & 5.3
iii.	Full HD Bullet type IP Colour Camera	5.4
iv.	4K UHD Bullet type IP Colour Camera	5.5
v.	Full HD Fixed Dome Type IP Colour Camera	6.0
vi.	Full HD PTZ (Pan,Tilt,Zoom) IP Colour Camera	7.0
vii.	Digital Keyboard	8.0
viii.	Network Video Recorder (NVR)	10.2
ix.	Copper to Fiber Media Convertor	16.0

21.5 List of items on which only Acceptance Test is applicable:

S. No.	Items	Clause No.
i.	Large Format Display Monitor	9.0
ii.	Server Hardware	10.1
iii.	PC Work Station	11.0
iv.	External Storage Device	12.0
v.	Core Switch	13.0

vi.	(I). Aggregation Switch (II). Field Switch (24Port) a. PoE b. Non-PoE (III) Field Switch a. 8 port b. 4 port Note: Compliance of Temperature and Humidity in the relevant clauses of Switches shall be verified from documents such as Data sheets/ Test Certificates etc.	14.0
vii.	Wireless Transmitter/Receiver Unit	15.0
viii.	Software Requirement	18.0
ix.	Face Recognition Software	19.0

21.6 Routine Test /Factory Acceptance Test (FAT):

21.6.1 Routine test /Factory Acceptance test (FAT) shall be conducted by Original Equipment manufacturer (OEM) on every equipment and the test results shall be submitted to the inspection authority before inspection.

21.6.2 Firm shall submit the details such as make, model & version of every equipment including Software to inspection authority before inspection.

22.0 TEST PROCEDURE:

The test procedure shall be based on the system design. The methodologies to be adopted for various tests shall be decided taking into account the system design/configuration.

22.1 Visual Inspection and Performance Test:

22.1.1 Each equipment of the system shall be visually inspected to ensure compliance with the requirement of relevant clauses no. 5, 6, 7, 8, 9, 10, 11, 12, 13,14,15,16 & 24 of the specification.

22.1.2 The visual inspection shall broadly include:

- i) Constructional details
- ii) Dimensional check
- iii) General workmanship
- iv) Configuration

22.1.3 Performance of each equipment/system shall be tested to ensure compliance with the requirement of relevant clauses no. 5, 6, 7, 8, 9, 10, 11,12,13,14, 15, 16, 18 and 19 of the specification.

22.2 Endurance Test:

22.2.1 During Type Test, Endurance test shall be conducted on complete system for continuous operation which shall be 72 hrs at ambient room temperature without giving any deterioration of equipment performance.

22.2.2 During Acceptance Test, Endurance test shall be conducted on complete system for continuous operation which shall be 48 hrs at ambient room temperature without giving any deterioration of equipment performance.

23.0 QUALITY ASSURANCE:

23.1 All materials & workmanship shall be of good quality.

23.2 Since the quality of the equipment bears a direct relationship to the manufacturing process and the environment under which it is manufactured, the manufacturer shall ensure Quality

Assurance Program of adequate standard.

24.0

MARKING & PACKING:

24.1

The following information shall be clearly marked at a suitable place on each equipment:

- i) Make and Model/Part No. of Equipment
- ii) Serial number of equipment

24.2

The equipment and its sub-assemblies shall be packed in suitable packing so that it can withstand bumps and jerks encountered during transportation.

25.0

INFORMATION TO BE SUPPLIED BY THE PURCHASER:

The purchaser shall clearly indicate details/requirement of items for IP based Video Surveillance System as per site requirement which shall mainly consist of following items: -

S. No.	Description	Clause No.	Quantity
i.	Video Surveillance System as per Schematic Diagram-1 or Schematic Diagram-2 or Schematic Diagram-3	2.6	As specified by the purchaser
ii.	Minimum number of days for which the recording is to be stored.	2.8 (e)	As specified by the purchaser
iii.	POC parameters to be defined and included along with other policy / Govt. Orders / Letters.	3.9 & 3.10	To be included / defined / ensured by the purchaser
iv.	Full HD Fixed Box Type IP Colour Camera with Varifocal Lens and Housing & Mount	5.1 & 5.3	As specified by the purchaser
v.	4K UHD Fixed Box Type IP Colour Camera (Type A / Type B) with Varifocal Lens and Housing & Mount	5.2 & 5.3 (2.12)	As specified by the purchaser
vi.	Full HD Bullet type IP Colour Camera	5.4	As specified by the purchaser
vii.	4K UHD Bullet type IP Colour Camera (Type A / Type B)	5.5 (2.12)	As specified by the purchaser
viii.	Full HD Fixed Dome Type IP Colour Camera	6.0	As specified by the purchaser
ix.	Full HD PTZ (Pan,Tilt,Zoom) IP Colour Camera	7.0	As specified by the purchaser
x.	Digital Keyboard	8.0	As specified by the purchaser
xi.	Large Format Display Monitor	9.0	As specified by the purchaser
xii.	Server / Workstation Hardware and Redundant Servers / Workstation	10.1	As specified by the purchaser

xiii.	32/64/128 Channel Network Video Recorder (NVR) and Redundant NVRs (No. of channels required to be defined)	10.2	No. of channels: As specified by the purchaser with required storage capacity
xiv.	PC Workstation	11.0	As specified by the purchaser
xv.	External Storage Device	12.0	As specified by the purchaser with required storage capacity
xvi.	Core Switch (as required)	13.0	As specified by the purchaser
xvii.	(I). Aggregation Switch (II). Layer 2 Switch (24Port) a. with PoE b. Non-PoE (III) Field Switch a. 8 port b. 4 port	14.0	As specified by the purchaser
xviii.	Wireless Transmitter/Receiver Unit if required	15.0	As specified by the purchaser
xix.	Copper to Fiber Media Convertor	16.0	As specified by the purchaser
xx.	Cables	17.0	As specified by the purchaser
xxi.	Video Management Software & Graphical User Interface Client Software	18.1 & 18.2	As specified by the purchaser
xxii.	Video Recording Software	18.3	As specified by the purchaser
xxiii.	Artificial Intelligence (AI) enabled Video Analytics Software	18.4	As specified by the purchaser depending on no. of Cameras and no. of analytics
xxiv.	Command Control Centre Software	18.6	As specified by the purchaser
xxv.	Face Recognition Software:	19.23	As specified by the purchaser
	Face image data base		
	N:1 redundancy configuration for image Database Server redundancy	19.27	As specified by the purchaser Note: N shall be 1 in case of only mirroring required & N shall be more than 1 in case failover system

xxvi.	Software License	20.0	As specified by the purchaser OR As quoted by the Vendor
xxvii.	Panic Button/Buttons	2.14	As specified by the purchaser
xxviii.	Security Verification Certification	5.1 (xxxvii), 5.2 (xxxvi), 5.4 (xxxix), 5.5 (xxxix), 6.0 (xxxviii), 7.0 (xliv), 18.1.32, 18.2.30, 18.3.17, 18.4.14, 18.5 (iv), 18.6.23, 19.28	As specified by the purchaser. (Relevant clauses / paras to be applicable for security, vulnerabilities, etc. shall be mutually decided by Purchaser and STQC)
xxix.	Any other item(s) required for Video Surveillance System.	--	As specified by the purchaser

Note:

- i. Video data and Alarms shall be stored for at least 30 days or as specified by the purchaser.
- ii. Detailed warranty clause as required shall be specified by the purchaser.
- iii. Any maintenance requirement shall also be specified by the purchaser.

26.0 TRAINING:

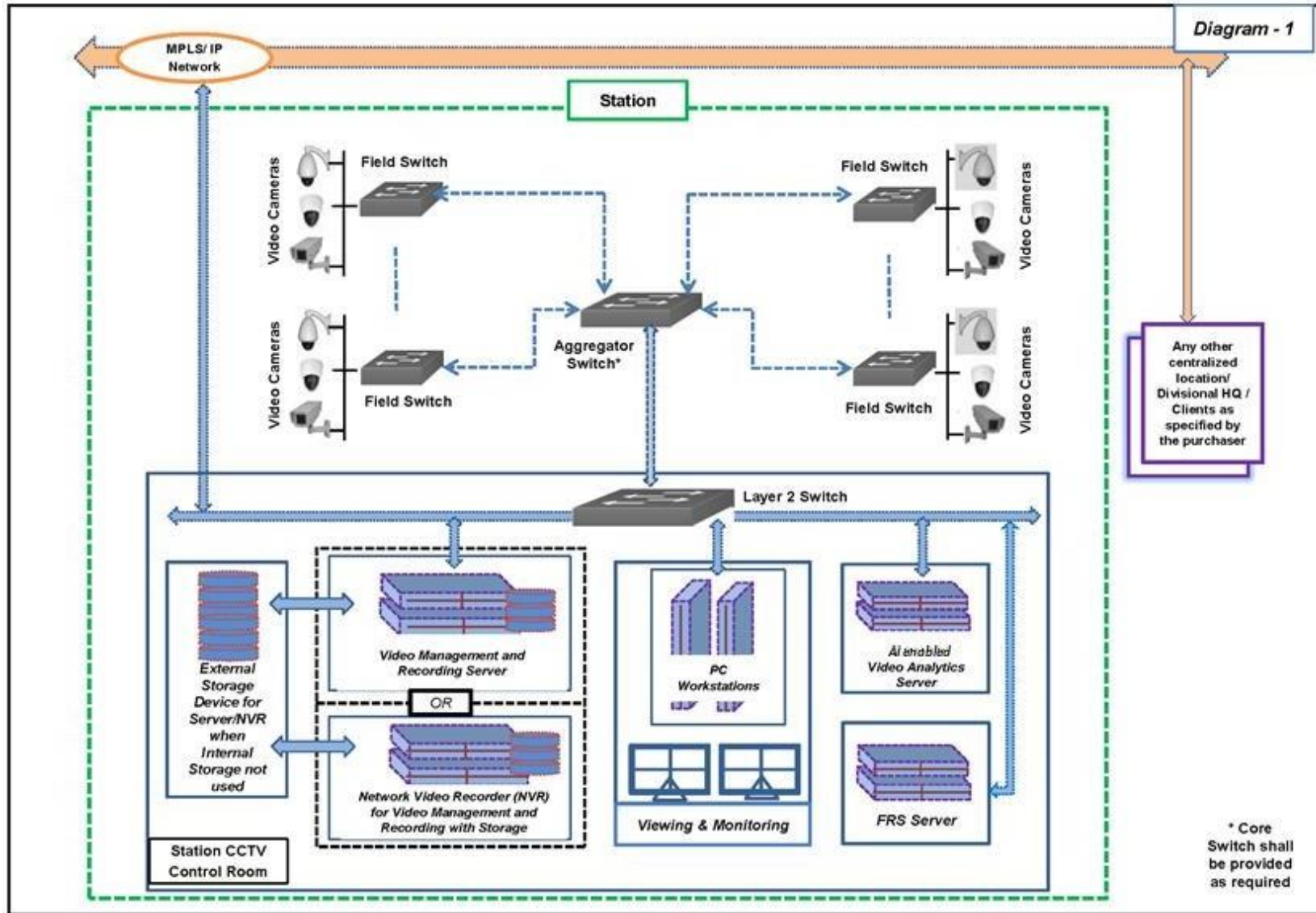
26.1 Onsite training or as specified by the purchaser shall be provided to the Railway staff which shall include complete assembly of the system through the use of various modules, integration of hardware with software and complete operation of the system. Sets of training manual in two hard copies and two Soft copies containing details of technical specifications, installation and commissioning, troubleshooting & maintenance schedule etc. or as specified by the purchaser shall be supplied along with the equipment.

27.0 DOCUMENTATION:

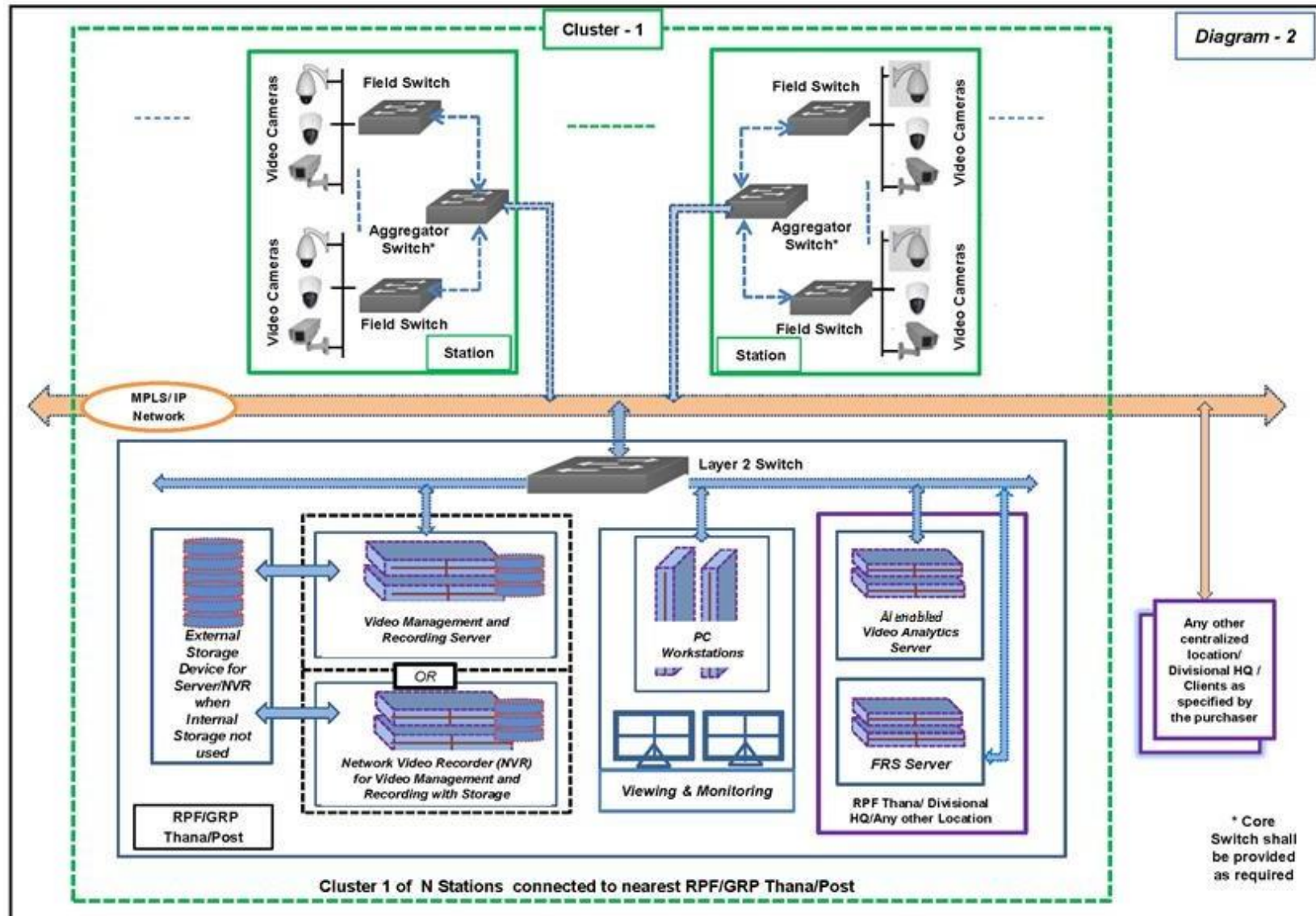
The following documents or as specified by the purchaser shall be supplied along with the system:

- i) Schematic Diagram
- ii) Installation and maintenance manual
- iii) Operating and troubleshooting manual
- iv) System commissioning report consisting of complete network diagram of Video Surveillance system, Cable route plan, Control/Equipment room layout diagram and Station layout diagram.

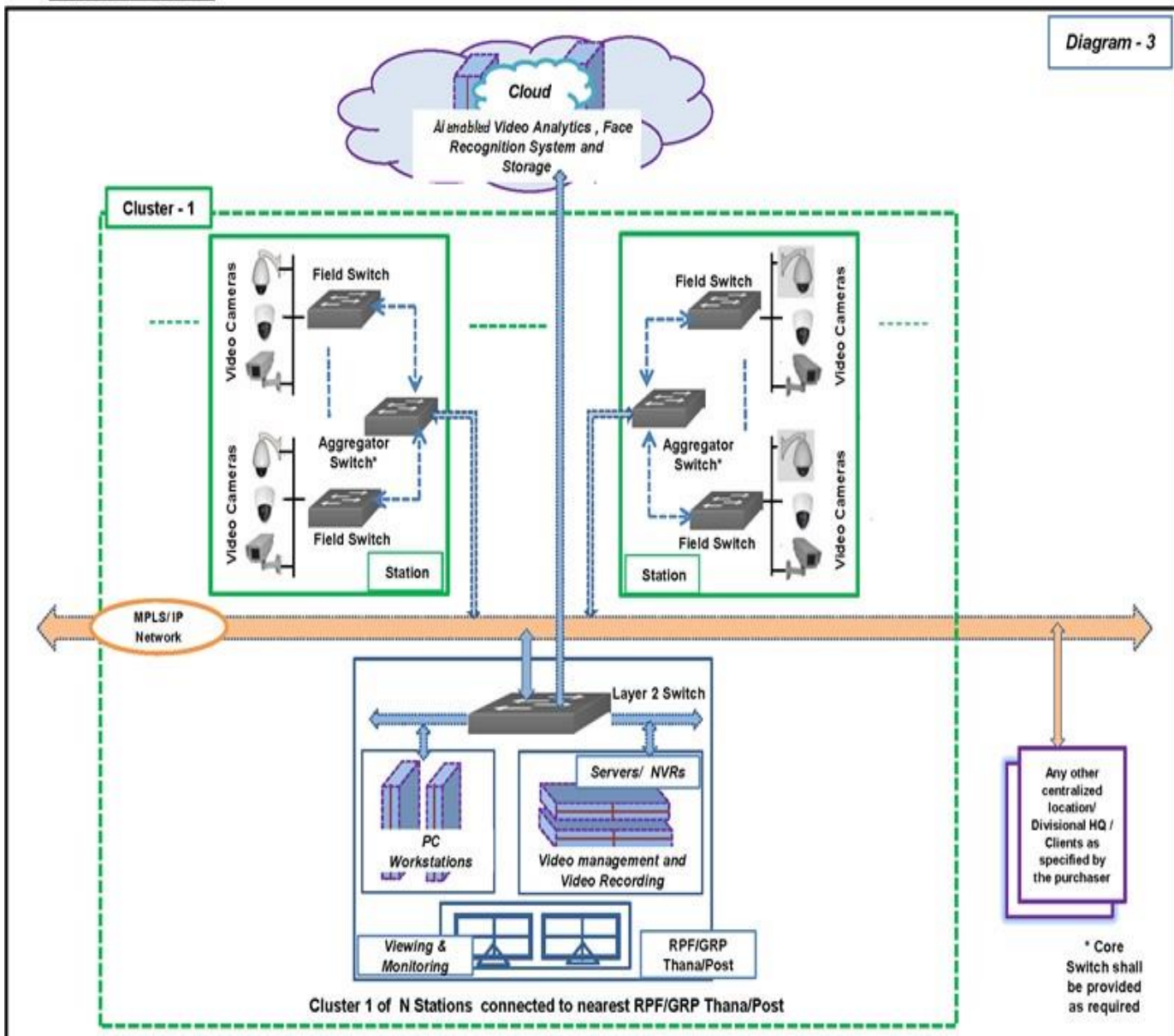
28.0 Schematic Diagram – 1 : Tentative Schematic Diagram of Video Surveillance System for Stations



29.0 Schematic Diagram – 2 : Tentative Schematic Diagram of Video Surveillance System for Cluster of Stations



30.0 Schematic Diagram – 3 : Tentative Schematic Diagram of Video Surveillance System of Cloud Based Architecture for Cluster of Stations



**Amendment No. 1 to
Specification No. RDSO/SPN/TC/65/2021, Ver.6.0 of
IP Video Surveillance System**

- *The existing clause no. 3.9 of General Requirements Including Cyber Security shall be substituted as given below:*

Clause No. 3.9:

To ensure security of VSS (Camera & Software) from vulnerabilities & breaches and discourage false undertaking from OEMs, security auditing and testing of equipment including source code of camera and software shall be carried out from STQC (Ministry of Electronics & Information Technology) only.

In order to ensure security of network and other IT equipment of VSS system, before bulk supply and installation, purchaser should ensure that security auditing and testing at the time of POC (Proof of Concept) as well as at the time of completion of project are conducted or as specified by the purchaser.

In case any security breach is found in the system at any stage including at POC level, immediate strict penal action is to be initiated by the purchaser.

- *The existing clause no. 5.1 (xxxvii) of **Full HD Fixed Box Type IP Colour Camera** shall be substituted as given below:*

Clause No. 5.1 (xxxvii):

xxxvii.	Security Verification Certification	:	The Full HD Fixed Box Type IP Colour Camera shall have security features which can be deployed meeting all the parameters applicable to cameras with relevant and equivalent safeguards as per Level-2 of "Appendix C of OWASP: Internet of Things Verification Requirements" as per OWASP Application Security Verification Standard version 4.0. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) only.
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- *The existing clause no. 5.2 (xxxvi) of **4K UHD Fixed Box Type IP Colour Camera** shall be substituted as given below:*

Clause No. 5.2 (xxxvi):

xxxvi.	Security Verification	:	The 4K UHD Fixed Box Type IP Colour Camera shall have security features which can be deployed meeting all the
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	Certification	parameters applicable to cameras with relevant and equivalent safeguards as per Level-2 of "Appendix C of OWASP: Internet of Things Verification Requirements" as per OWASP Application Security Verification Standard version 4.0. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) only.
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- The existing clause no. 5.4 (xxxix) of **Full HD Bullet type IP Colour Camera** shall be substituted as given below:

Clause No. 5.4 (xxxix):

xxxix.	Security Verification Certification	: The Full HD Bullet Type IP Colour Camera shall have security features which can be deployed meeting all the parameters applicable to cameras with relevant and equivalent safeguards as per Level-2 of "Appendix C of OWASP: Internet of Things Verification Requirements" as per OWASP Application Security Verification Standard version 4.0. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) only.
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- The existing clause no. 5.5 (xxxix) of **4K UHD Bullet type IP Colour Camera** shall be substituted as given below:

Clause No. 5.5 (xxxix):

xxxix.	Security Verification Certification	: The 4K UHD Bullet Type IP Colour Camera shall have security features which can be deployed meeting all the parameters applicable to cameras with relevant and equivalent safeguards as per Level-2 of "Appendix C of OWASP: Internet of Things Verification Requirements" as per OWASP Application Security Verification Standard version 4.0. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) only.
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- The existing clause no. 6.0 (xxxviii) of **Full HD Fixed Dome Type IP Colour Camera** shall be substituted as given below:

Clause No. 6.0 (xxxviii):

xxxviii	Security Verification Certification	:	The Full HD Fixed Dome Type IP Colour Camera shall have security features which can be deployed meeting all the parameters applicable to cameras with relevant and equivalent safeguards as per Level-2 of "Appendix C of OWASP: Internet of Things Verification Requirements" as per OWASP Application Security Verification Standard version 4.0. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) only.
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- The existing clause no. 7.0 (xliv) of **Full HD PTZ (Pan, Tilt, Zoom) IP Colour Camera** shall be substituted as given below:

Clause No. 7.0 (xliv):

xliv.	Security Verification Certification	:	The Full HD PTZ (Pan,Tilt,Zoom) IP Colour Camera shall have security features which can be deployed meeting all the parameters applicable to cameras with relevant and equivalent safeguards as per Level-2 of "Appendix C of OWASP: Internet of Things Verification Requirements" as per OWASP Application Security Verification Standard version 4.0. Note: The Regulatory Approvals / Certifications are to be provided from STQC (Ministry of Electronics & Information Technology) only.
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- The existing clause no. 18.1.32 of **Video Management Software** shall be substituted as given below:

Clause No. 18.1.32:

Security Verification Certification: The Video Management Software shall have security features which can be deployed meeting all the parameters applicable to software for security, vulnerabilities, etc. with relevant and equivalent safeguards as per the latest OWASP Top 10 from STQC (Ministry of Electronics & Information Technology) only for testing and issuing the certificate / clearance.

- The existing clause no. 18.2.30 of **Graphic User Interface Client Software Features** shall be substituted as given below:

Clause No. 18.2.30:

Security Verification Certification: The Video Management Software shall have security features which can be deployed meeting all the parameters applicable to software for security, vulnerabilities, etc. with relevant and equivalent safeguards as per the latest OWASP Top 10 from STQC (Ministry of Electronics & Information Technology) only for testing and issuing the certificate / clearance.

- The existing clause no. 18.3.17 of **Video Recording Software** shall be substituted as given below:

Clause No. 18.3.17:

Security Verification Certification: The Video Recording Software shall have security features which can be deployed meeting all the parameters applicable to software for security, vulnerabilities, etc. with relevant and equivalent safeguards as per the latest OWASP Top 10 from STQC (Ministry of Electronics & Information Technology) only for testing and issuing the certificate / clearance.

- *The existing clause no. 18.4.14 of **Artificial Intelligence (AI) enabled Video Analytics Software** shall be substituted as given below:*

Clause No. 18.4.14:

Security Verification Certification: The Artificial Intelligence (AI) enabled Video Analytics Software shall have security features which can be deployed meeting all the parameters applicable to software for security, vulnerabilities, etc. with relevant and equivalent safeguards as per the latest OWASP Top 10 from STQC (Ministry of Electronics & Information Technology) only for testing and issuing the certificate / clearance.

- *The existing clause no. 18.5 (iv) of **Remote Viewing on Web and Mobile App** shall be substituted as given below:*

Clause No. 18.5 (iv):

Security Verification Certification: The Remote Viewing on Web and Mobile App shall have security features which can be deployed meeting all the parameters applicable to software for security, vulnerabilities, etc. with relevant and equivalent safeguards as per the latest OWASP Top 10 from STQC (Ministry of Electronics & Information Technology) only for testing and issuing the certificate / clearance.

- *The existing clause no. 18.6.23 of **Functional Requirement of Command Control Centre (CCC) Software** shall be substituted as given below:*

Clause No. 18.6.23:

Security Verification Certification: The Command Control Centre Software shall have security features which can be deployed meeting all the parameters applicable to software for security, vulnerabilities, etc. with relevant and equivalent safeguards as per the latest OWASP Top 10 from STQC (Ministry of Electronics & Information Technology) only for testing and issuing the certificate / clearance.

- *The existing clause no. 19.28 of **Face Recognition Software** shall be substituted as given below:*

Clause No. 19.28:

Security Verification Certification: The Face Recognition Software shall have security features which can be deployed meeting all the parameters applicable to software for security, vulnerabilities, etc. with relevant and equivalent safeguards along with “SAFE TO HOST CERTIFICATE” as per the latest OWASP Top 10 from STQC (Ministry of Electronics & Information Technology) only for testing and issuing the certificate / clearance.

- *The existing clause no. **25.0 (xxviii)** of **INFORMATION TO BE SUPPLIED BY THE PURCHASER** - DELETED.*

Technical Specification of 01 KVA ONLINE UPS

Sl. No	Parameter	General Tech. Spec.
1	Rating in KVA of Online UPS (KVA)	1.0
2	Technology	IGBT-PWM with inbuilt isolation Transformer
3	Type of battery	SMF-VRLAconfirmingtoJISC-8702 Pt 1,2&3
4	Backup time (Minutes)	120
	Minimum VAH (VAH)	3200 (The UPS shall be supplied with maintenance free batteries to provide a back-up of at least 120 Minutes at full load of 1 KVA)
5	Movable trolley for Batteries & UPS	Wall mountable Rack
	Input (Volt)	Single phase sine wave (160-280V), 50Hz
6	Rated Output (Volt)	Single phase sine wave 230v AC ,50Hz
7	Degree of protection	IP-20 or latest
8	Total harmonic distortion (%)	<2%Maximum @100% linear load
9	Installation and commissioning instructions	Yes
10	Warranty for the battery from the date of delivery	3 year
11	20% Overload limit for Minimum 10 Minutes	Yes
12	Overall efficiency (%)	>/=90% at nominal i/p at 0.8 pf
13	Load Power factor	>0.65
14	Variation in AVR output in AC mode (%) AVR (Voltage regulation) output voltage in AC Mode	230Volts +/-9%,50 +/-3Hz
15	Variation in output voltage in battery mode (%) (UPS output voltage in battery mode)	230 Volts+/-10%
16	Variation on output frequency in battery mode (Hz)	</= ±0.5
17	Protection against (over discharge) discharge per cell	10.5
18	Protection for outside input voltage range: If Input voltage goes outside the range 160 to 280 Volts, the system shall switch over to battery mode	Yes
19	Protection against short circuit of UPS	Yes
20	Protection for overvoltage and overload	Yes
21	Warranty	03 years onsite OEM

Technical Specification of 05 KVA ONLINE UPS

Sl. No	Parameter	General Tech. Spec.
1	Rating in KVA of Online UPS (KVA)	5.0
2	Technology	IGBT-PWM with inbuilt isolation Transformer
3	Input (Volt)	Single phase sine wave (160-280V), 50Hz
4	Rated Output (Volt)	Single phase sine wave 230v AC ,50Hz
5	Type of battery	SMF-VRLAconfirmingtoJISC-8702 (Pt.I,II&III)
6	Backup time (Minutes)	120
7	Minimum VAH (VAH)	16000. (The UPS shall be supplied with maintenance free batteries to provide a back-up of at least 120 Minutes at full load of 5 KVA)
8	Movable trolley for Batteries	Without trolley but with Rack
9	Installation and commissioning instructions	Yes
10	Cabling 5 meters for input and out put	with
11	Degree of protection	IP-21
12	Warranty for the battery from the date of delivery	3 years
13	Total harmonic distortion(%)	<2%Maximum @100% linear load
14	Overall efficiency (%)	>/=92% at nominal i/p at 0.8 pf
15	Load Power factor	>0.65
16	20% Overload limit for Minimum 10 minutes	Yes
17	Protection against (over discharge) discharge per cell	10.5
18	Protection for outside input voltage range: If Input voltage goes outside the range 160 to 280 Volts, the system shall switch over to battery mode	Yes
19	Protection of Over voltage, Short Circuit & over load at UPS output terminal	Yes
20	Digital Metering in UPS for AC Input Voltage, Output AC Voltage, Current, Frequency, Battery Voltage and Current	Yes
21	Indicators for mains presence, Battery charging and discharging, Output Over Load, Low Battery Voltage	Yes
22	Warranty	03 years onsite OEM

Technical Specification of 19" 9U Rack

- Size of Rack Enclosure: 19" & 9U
 - Dimensions: Rack Enclosure-550x600/Steel/Wall mount Rack
 - Basic Frame : Steel
 - Construction: Welded / CKD
 - Top & Bottom Cover :Welded to Frame with Cable entry exit cut outs
 - Front Door : Toughened Glass Door
 - Secure Locks: Available
 - 19" Mounting Angle: Formed Steel
 - Support cable entry from top or bottom : Yes
 - Vertical & Horizontal managers: Yes
 - Std. Equipment Mounting :DIN Std. 10mm Sq. Slots
 - Standard Finish :Powder coated
 - Static Load: 30Kg Minimum
 - Number of Fan for Heat dissipation (no's): 1 No.
 - Number of fan trays : 1 No.
 - 230V Distribution Panel: 1No. with 6 Sockets
- The above configuration is minimum specification.

Technical Specification of Single Mode (SM) 6 core armoured Fibre:

Characteristic	Min. Required Specification	
GENERAL:	The fiber type is a Matched Cladding Single Mode	
	Fiber dual coated with acrylate coating.	
	The fiber is optimized for operation at 1310 nm and at 1550 nm	
	Should fulfil the requirements of:	
	<ul style="list-style-type: none"> • IEC 793-2: 1992, Category B1.1 	
	<ul style="list-style-type: none"> • EN188101 	
	<ul style="list-style-type: none"> • ITU-T Recommendation G.652 	
	Testing methods are in accordance with the following standards:	
	<ul style="list-style-type: none"> • ITU-TG.650 	
	<ul style="list-style-type: none"> • IEC793-1 	
	EN 188000	
GEOMETRICAL PROPERTIES:	Nominal mode field diameter	9.0 μm
	Mode field diameter tolerance	$\pm 10\%$

	Cladding diameter	125 μm
	Diameter of outer coating	245 μm (without colouring layer)
MATERIALS	CORE	Germanium doped core with no phosphorus i.e. reduced tendency for hydrogen degradation.
	COATING	V-curable dual layer acrylate coating, which ensures
		excellent micro bending and
		abrasion resistance.
	Stripping force after conditioning at 23 ± 5 °C at 40 - 60 %	
	RH for 24 h.	
	Min.	1.0 N
	Max.	3.5 N
	Stripping force after ageing in water at 70 ± 5 °C for 168 h.	
	Min.	1.0 N
	Max.	3.5 N
OPTICAL PROPERTIES	Attenuation (of cable with fibers):	
	At 1310 nm	≤ 0.40 dB/km
	In the range 1285-1330 nm	≤ 0.43 dB/km
	At 1550 nm	≤ 0.25 dB/km
	Dispersion:	
	Zero dispersion wavelength	1310 nm
	Tolerance of zero dispersion	
	Wavelength	-10/+12 nm
	Max.	0.092 ps/(nm ² km)
	Chromatic dispersion coefficient:	
	In 1285 nm - 1330 nm interval:	

	Max.	3.5ps/km nm
	In 1270 nm - 1340 nm interval	
	Max.	6 ps/kmnm
	At 1550 nm	
	Max.	18 ps/km nm
	Polarisation Mode Dispersion (PMD):	
	Max.	0.5 ps/km
	In homogeneity of OTDR trace for any two 1000 meter fiber lengths	
	Max.	0.1 dB/km
	Proof test level	1%

OFC Patch Cords:

The Patch cords should be 5-meter length, conforming to TEC NO: TEC/GR/TX OFJ-01/05/NOV-09 or latest with all amendments. However, the Patch cords should have the following:

S. N	Parameter	Value
A	Operating Temperature	-40°C to +85°C
B	Insertion Loss:	
1	Insertion Loss of complete patch cord including adapter when tested from each direction in all conditions of operations	≤ 0.3 dB
2	Insertion Loss of Adaptors	≤0.1 dB
C	Return Loss for each connector of patch cord:	
1	Type-I FC-PC	≥ 50 dB
2	Type-II SC-PC	≥ 50 dB
3	Type-III SC-APC	≥ 65 dB
4	Type-IV LC	≥ 50 dB
5	E2K/APC	≥ 60 dB
D	The length and type of connector of each Patch Cord	As per SOR.
E	The connectors must be make of reputed OEMs 3M, Huber-Shuner, R&M, TE Connectivity/Raychem any other CACT approved Manufacturer/s having a valid approval against Specification number	

	TEC/GR/TX/OFJ-01-NOV.09 for the tendered connected type.	
F	Connector Body	
1	FC-PC	Ni plated brass body (Ni plating shall be as per BIS Standards)
2	SC-PC & SC-APC	Engineering thermoplastic (Glass filled PBT:Polybutylene Terephthalate)
3	LC	PEI (Polyetherimide)/ PPS (Polyphenylene Sulphide)
G	Colour of connector body	
1	FC-PC connector	Ni plated Brass
2	SC-PC connector	Blue
3	SC-APC connector	Green
4	LC connector	Blue
H	Radius of curvature	
1	FC-PC	10 to 25 mm
2	SC-PC	10 to 25 mm
3	SC-APC	5 to 12 mm
4	LC	10 to 25 mm

FDMS and Accessories (12 Fibre)

The FDMS should be confirming to RDSO specification No.RDSO/SPN/TC/37/2020 revision 4 or latest. However, the FDMS should have the following:

- a. It should be mountable in standard 19" rack and of slider type.
- b. There should be an arrangement of termination of 12 Nos. of fibers (as per SOR).
- c. It should be supplied with 12 Nos. of pigtails of respective type of connector of minimum 3-meter length.
- d. Colour coded pigtails shall be provided for easy identification.
- e. The FMS should be supplied with arrangement of required Nos. of adapters (as per SOR).
- f. The adaptors shall be fixed in such a way that these shall be easily accessible protecting the eye from direct exposure to laser.
- g. There should be no trays or as per site requirement for the provision of termination of the fibers & Sufficient space for routing of the fibers in the trays.
- h. Trays shall be numbered bottom to top (tray no. 1 is lowermost).
- i. Pigtails shall follow tray numbering.
- j. Pigtails shall be labelled through colour coding/ferruling.
- k. Adaptors shall be numbered Bottom to Top or Left to Right in ascending order.
- m. All adaptors shall be provided with dust protection caps.
- n. Important Do's and Don'ts about the operation of the FMS shall be clearly indicated at a convenient place on the FMS.
- o. Insertion Loss: ≤ 0.3 dB or less
- p. Return Loss: ≤ 45 dB or less
- q. The FMS shall be manufactured as per latest state of art technology.
- r. The FMS shall be protected against the entry of dust and insects, rodents etc.

- s. Body should be of MS steel; powder coating painting shall be provided with rust resistance paint.
- t. Marking: The marking on the system shall be indelible and following minimum information shall be provided by way of engraving or Laser printing method:
 - i. "ECoR" should be written on each FDMS to be visible from front.
 - ii. Manufacturer's name & date/ year of production.
 - iii. Model No./Batch No./ Serial No.
 - iv. Capacity i.e. No. of cables and the fibers.
 - v. Identification details/ cables/ Fiber/ labelling facility.
- u. Preferred type of connector is SC/APC for all connectors.

Technical Specifications of Media converter: - As per RDSO specification no. RDSO/SPN/TC/103/2013, Revision 2.0 (with latest revision/ amendments).

Security certificate: -

To ensure security of VSS (Camera & Software) from vulnerabilities & breaches and discourage false undertaking from OEMs, security auditing and testing of equipment including source code of camera and software shall be carried out from STQC (Ministry of Electronics & Information Technology) only. The Regulatory Approvals / Certifications are to be provided by bidder from STQC (Ministry of Electronics & Information Technology) only. In case any security breach is found in the system at any stage including at POC level, immediate strict penal action is to be initiated by the purchaser. It should also comply to the latest Gazette Notification and advisory on CCTV cameras and software issued by Railway Board vide letter no.2024/TeleDev/Security in CCTV system (3454081) dated-18.03.2024. The document proof of STQC certification is to be submitted along with the bid.

CHAPTER-9

EAST COAST RAILWAY PROJECT (S&T) ORGANISATION

SCHEDULE WISE/ITEM WISE INSTRUCTIONS/NOTES:-

EAST COAST RAILWAY PROJECT UNIT (S&T) ORGANISATION
SCHEDULE WISE/ITEM WISE INSTRUCTIONS/NOTES
SCHEDULE WISE RATES OF THE TENDER

Name of the work: Name of the work: Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway.

[138 no of 'E' Class Stations:-(PDT, KPL, ALM, KUK, NML, GVI, SGDM, DSI, ULM, PUN, GTLM, GRBL, GPI, KMX, DNV, SNM, GMDA, KNRT, JMPT, LDX, KTGA, BLMK, SKPI, LLGM, RUL, SGRM, LKMR, BGUA, KKGM, DMRT, MVW, SUP, BDVR, SLPM, TXD, CMDP, KVLS, SMLG, GPJ, DPC, PFU, BHJA, MKRD, PBV, SXV, MVF, JRT, MVG, CTS, DIR, KDPA, CJS, KPRR, AGB, AGZ, NKX, KMEZ, TPQ, BDXX, DMK, SZY, KMSD, KKL, KWGN, DPF, GIZ, DWZ, KMLR, BHNS, BCHL, KRDL of **Waltair division**). (BDBA, BGPL,BTV,BRAG,BRTG,BAV,BSTP,BUDR,BRST,BDPK,BYY,CBT,CLDR,DEG,GNGD,GAM, GHNH,GADH,GTA, GBK, GJTA,HDS,HND,HMA,JNP,JKPR,JEN,JPI,JRZ,KPXR, KASR, KDRP, KIS, KNPR,KED,KRIH, KUU,MLT,MCS,MMS,MZZ,MRDL, MWQ,NQR,NANR,NYG,NRG, NGMP, NKW, PRNR, RQP, RCTC, RHMA, RJGR, RBA, RTN, SSPR, SGDP, SQQ, STBJ, SLZ,SKND,SUDV,SLRD, TGRL, TAP, TMKA of **KUR Division**) & **11 No. of 'D' Class stations** CPP, KBM, KTV,NWP, PVP, PVPT, PDU, SPRD, TKRI, TIU in WAT division, & TLHD in KUR Division over East Coast Railway.]

SN	SCHEDULE DESCRIPTION		AMOUNT
1	Sch-A	Supply	6,74,97,593.76
2	Sch-B	Supply, Installation, Testing & Commissioning	14,35,28,829.87
3	Sch-C	Execution	1,63,54,843.82
	Total		22,73,81,267.45

Rates are inclusive of:

- I. All taxes including GST & any other applicable taxes & duties, etc.
- II. Supply of sundry materials like ferrules, eyelets (Make: Dowell's), bus bars, bunching materials, solders, insulating tapes, sleeves, M.S flat, M.S angle, nuts & bolts, washers, screws, sand, stone chips, grease, lubricating oil, paints, jute, waste cotton, lead wool etc. and any other petty consumables.
- III. Painting and lettering works as per Railway standard and guidelines.
- IV. Transportation of materials from the store of SSE/Tele/Project/Bhubaneswar to work site or as per instruction of Dy.CSTE/Tele & NW/BBS.
- V. Supply of all types of wires, sealed wires, co-axial cables, switches, cable connectors and wiring materials as required and as advised by the Railway. All materials supplied with

execution, Wires, cables, other wiring materials like terminals, fuses, bus bars, Tag Blocks etc. and all types of Insulation materials wherever required shall be procured from RDSO approved sources. Only where no supplier is indicated in the list of RDSO, the material shall be allowed to be procured from any of the supplier enlisted in RDSO Development list of RDSO approved supplier with proper approval of approving authority. Proof to this effect and test report shall have to be submitted if so desired by the Representative of Dy.CSTE/Tele & NW/BBS wherever applicable. Arrangements shall be made by the Contractor for inspection, any kind of testing of the material used during course of execution if so desired by representative of Dy.CSTE/Tele & NW/BBS.

- VI. All materials to be supplied at the Bhubaneswar store of SSE/Tele/Project/Bhubaneswar or as per instruction of Dy.CSTE/Tele & NW/BBS.

EAST COAST RAILWAY					
Tender Schedule					
Name of the work: Name of the work: Provision of Video Surveillance System at D & E Category stations (149 stations) in WAT & KUR Divisions over East Coast Railway.					
[138 no of 'E' Class Stations:- (PDT, KPL, ALM, KUK, NML, GVI, SGDM, DSI, ULM, PUN, GTLM, GRBL, GPI, KMX, DNV, SNM, GMDA, KNRT, JMPT, LDX, KTGA, BLMK, SKPI, LLGM, RUL, SGRM, LKMR, BGUA, KKGM, DMRT, MVW, SUP, BDVR, SLPM, TXD, CMDP, KVLS, SMLG, GPJ, DPC, PFU, BHJA, MKRD, PBV, SXV, MVF, JRT, MVG, CTS, DIR, KDPA, CJS, KPRR, AGB, AGZ, NKX, KMEZ, TPQ, BDXX, DMK, SZY, KMSD, KKL, KWGN, DPF, GIZ, DWZ, KMLR, BHNS, BCHL, KRDL of Waltair division) (BDBA, BGPL,BTV,BRAG,BRTG,BAV,BSTP,BUDR,BRST,BDPK,BYY,CBT,CLDR,DEG,GNGD, GAM, GHNH,GADH,GTA, GBK, GJTA,HDS,HND,HMA,JNP,JKPR,JEN,JPI,JRZ,KPXR, KASR, KDRP, KIS, KNPR,KED,KRIH, KUU,MLT,MCS,MMS,MZZ,MRDL, MWQ,NQR,NANR,NYG,NRG, NGMP, NKW, PRNR, RQP, RCTC, RHMA, RJGR, RBA, RTN, SSPR, SGDP, SQQ, STBJ, SLZ,SKND,SUDV,SLRD, TGRL, TAP, TMKA of KUR Division) & 11 No. of 'D' Class stations CPP, KBM, KTV,NWP, PVP, PVPT, PDU, SPRD, TKRI, TIU in WAT division, & TLHD in KUR Division over East Coast Railway.					
	1. The rates are inclusive of GST, any other taxes, transportation charges from stores of SSE/Tele/Proj/BBS to work site and supply of sundry materials.				
	2. Telecom materials shall be procured from RDSO approved sources where available.				
	3. All material for the work shall be issued from the stores of SSE/Tele/Proj/BBS. The contractor shall transport all the materials to the work site at his own cost and after execution of work shall return in good condition all balance materials including materials released from site to store of SSE/Tele/Proj/BBS.				
Schedule-A (Supply)					
Sl.No	Description	unit	Qty	Rate	Amount
1	Supply of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	149	44757.52	6668870.48
2	Supply of full HD Bullet Type IP Colour camera as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	1341	13911.93	18655898.13
3	Supply of STP CAT 6 cable compliant with latest EIA/TIA-568-B.2-1 with latest amendment. Make D link, Digisol, Molex or	Mtr.	37250	34.83	1297417.50

	similar. Inspection by RITES.				
4	Supply of 6 core armoured single mode OFC cable as Make Finolex, Sterlite, D Link per Specification attached. Inspection by RITES.	Mtr.	186354	28.00	5217912.00
5	Supply of 3 core 2.5 sq mm, multi strand copper conductor, PVC insulated armoured power cable ,confirming to IS: 1554 Part-I. Inspection by RITES.	Mtr.	127890	80.86	10341185.40
6	Supply of Single Mode OFC Patch Cord (length-5m) (LC-SC/SC-SC/LC-LC/FC-LC) as per site requirement Make: Santron, Syrotech, RSPRO, projexon or similar. Inspection by RITES.	Nos.	3080	981.00	3021480.00
7	Supply of Permanently lubricated two-layer type HDPE duct, outer dia 40 mm, inner dia 33 mm with three end plugs and two couplers for every Km length of pipe in length of 500 m confirming to RDSO Spec. No. RDSO/SPN/TC/45/2013. Rev.2.0 Amendment 2.0 or latest. Inspection by RITES. Note: The HDPE Duct should be pre inserted with 4 mm nylon rope, inside the HDPE Duct.	Mtr.	7450	138.51	1031899.50
8	Supply of PVC Flexible pipe of 35mm (This includes all materials, clamps etc. required for laying, fixing and clamping).Inspection by RITES.	Mtrs	8700	24.00	208800.00
9	Supply of PVC conduit pipe (minimum 35 mm dia./1.55 mm thick, 3-meter-long and ISI brand) with flexible pipes fixing/laying materials and all other accessories as per requirement. Inspection by RITES.	Mtr.	596106	32.00	19075392.00

10	Supply of computer table, chair and Transportation to the site. Computer Table (1200 x 600x750): 1 No. with block board & Sunmica top and Chair cushioned 2 Nos (Godrej make or similar) with all accessories and fixing materials to the Consignee store, and Transportation to the site. Note: One set includes one table and two chairs. Inspection by authorized representative of Railway.	set.	25	18434.53	460863.25
11	Supply of double walled corrugated pipe 6 mtr in length, 120 mm outer dia and 103 mm inner dia, with one suitable coupler conforming to RDSO Specification No. RDSO/SPN/204/2011 Version 1.1 Amdt 1 or latest for underground cable protection. Colour-Orange. Note: If required at site only, the DWC pipe shall be supplied split in two halves. Inspection by RDSO.	Nos.	50	4303.00	215150.00
12	Supply of GI pipe 50 mm dia 3.65 mm thickness conforming to is:1239 (each pipe length in 6 meter with one end coupling, medium). inspection by RITES.	Mtr.	1490	332.48	495395.20
13	Supply of RJ-45 patch cord of CAT 6 STP (0.5 meter length). Inspection by authorized representative of Railway.	Nos.	1490	99.96	148940.40
14	Supply of Media Convertor as per RDSO specification no RDSO/SPN/TC/103/2013 revision 2.0 or latest. Inspection by RDSO.	Pair	174	3783.85	658389.90
Schedule-A Total:					67497593.76

Schedule-B (Supply, Installation, testing & commissioning)					
Sl. no	Description	unit	Qty	Rate	Amount
1	Supply, Installation, testing & commissioning of field Layer-2 Switch (minimum 8+2 port manageable) with 8 nos. 10/100/1000 Mbps Ethernet port, PoE and 2 nos. 1000 BaseX SM SFP port complete with all accessories etc. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest, Clause 14.0(iii). Inspection by RDSO	Nos.	596	17246.00	10278616.00
2	Supply, Installation, testing & commissioning of rack mountable 24 port manageable Layer -2 aggregate switch with 24 x GE SFP port and 4x 10GE SFP+ ports as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest Clause 14.0(i). All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RDSO.	Nos.	149	98618.44	14694147.56
3	Supply, Installation, testing & commissioning of rack mountable 24 port manageable Layer -2 switch with 4 nos. 1000 Base X SM SFP ports and 24 nos. GE port. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest Clause 14.0(ii). All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RDSO.	Nos.	25	36100.00	902500.00

4	Supply, Installation, testing & commissioning of full HD large format display monitor (55"or higher) with HDMI & DVI Ports complete with all accessories and HDMI cables, remote controller as per RDSO SPN No. RDSO/SPN/TC/65/2021, Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos	50	57724.41	2886220.50
5	Supply, Installation, testing & commissioning of PC Workstation for Viewing cameras in multi-screen mode, Monitoring and System management and 4K UHD LED Monitor of 24 inch size along with 2 HDMI PORT in graphic card including all required licensed software's for VSS(like OS, MS Office, Anti-virus with 03 years subscription), multifunction device for documentation, accommodate PC workstation & monitor with all accessories, spike buster (minimum 5 nos. 6A points with fuse), 500VA UPS, Mounting Rack and other required materials as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest Clause No. 11.0. Inspection by RDSO	Nos.	25	223945.65	5598641.25
6	Supply, Installation, testing & commissioning of Single mode 1G SFP module compatible to Layer-2, Agregate & field switch Make: Syrotech, Cisco, Black Magic. Inspection by RDSO.	Nos.	1838	1491.15	2740733.70

7	Supply, Installation, testing & commissioning of 12 port Fully loaded LIU rack mountable, LIU should be provided for terminating the optical fibre cables. It shall provide minimum bending radius and splice trays shall function as a splice cover for Pigtail Splicing. Cable glands shall be provided for secure anchoring of incoming cables. Rubber grommets shall be provided at the cable entry point for tight sealing. The splice tray should be made of ABS materials. LIU should be of reputed make. Make: D-Link/3M/ Digilink/ Molex/ Dax or similar. Inspection by RITES.	Nos.	919	5908.97	5430343.43
8	Supply, Installation, Testing & Commissioning of 1 KVA Online UPS with isolation transformer suitable for single phase AC input and single phase AC output, RACK mounted type, 120 minutes' battery back-up as per Specification attached Make: NUMERIC/APC/ MICROTEK or similar. This also includes supply of one battery rack and one set (for input and output) compatible MCBs complete with cover & fixing materials. Make: Havells/Anchor or similar. All the accessories required for this installation is to be supplied by contractor within the same cost. Inspection by RITES.	Nos.	745	36900.00	27490500.00
9	Supply, Installation, Testing & Commissioning of 5KVA online UPS with 120 minutes' backup make: APC/Emerson/APLAB or similar as per Specification attached. Inspection by	Nos.	25	164500.00	4112500.00

	UTES.				
10	Supply, Installation, Testing & Commissioning of software (per camera basis) for video management and video recording with license as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	1490	4916.27	7325242.30
11	Supply, Installation, Testing & Commissioning of software (per camera basis) for artificial intelligence (AI) enabled video analytic as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	1341	8653.56	11604423.96
12	Supply, Installation, Testing & Commissioning of Face Recognition software (per camera basis) as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	298	40267.32	11999661.36
13	Supply, Installation, Testing & Commissioning of Graphical User Interface based Client software (per workstation basis) for work station as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	2498.67	62466.75
14	Supply, Installation, Testing & Commissioning of VSS server Hardware for video management & video recording as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	297411.42	7435285.50

15	Supply, Installation, Testing & Commissioning of VSS server Hardware for artificial intelligence (AI) enabled video analytics as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	298215.04	7455376.00
16	Supply, Installation, Testing & Commissioning of VSS server Hardware for Face Recognition complete as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	302528.53	7563213.25
17	Supply, Installation, testing and commissioning of External Storage Device (Hardware & Software) for 30 days recording at station/RPF/GRP Thana/Post along with all accessories required for installation purposes (Lot = Tera Byte, capacity of storage in TB). It should be compatible with item No.14 as per clause no.2.8 and 12.0 of RDSO spec. No: RDSO/SPN/TC/ 65/2021 Version 6.0 with amendment-1 or latest. (Each RPF post 60TB). Inspection by RDSO.	Lot	1500	4398.00	6597000.00
18	Supply, Installation, Testing & Commissioning of panic switch (ik10 and ip 66 rated) with mushroom cap push button in Red color, DPDT contacts 2 Amps 24 VDC, Stainless steel face plate with GI junction box of suitable size and flasher cum strobe of min.100dB as per RDSO spec. No: RDSO/SPN/TC/ 65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	149	3387.04	504668.96

19	Supply, Installation, Testing & Commissioning of Digital key board (joystick) compatible with PTZ cameras as per RDSO spec. No: RDSO/SPN/TC/65/2021 Rev 6.0 with amendment-1 or latest. Inspection by RDSO.	Nos.	25	15475.00	386875.00
20	Supply, Installation, Testing & Commissioning of 19" 9U Rack with all accessories like Electrical fitting, Fan tray, STP Patch Panel, cable manager, spike buster for housing IP storage unit as per specification attached. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RITES.	Nos.	745	8046.50	5994642.50
21	Supply, Installation, Testing & Commissioning of 19" 42U Rack with all accessories like Electrical fitting, Fan tray, STP Patch Panel, cable manager, spike buster for housing IP storage unit. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost. Inspection by RITES.	Nos.	25	27327.20	683180.00
22	Supply and installation of Electrical board with 3 nos of 6A/16A Socket, 3 nos of 16A Switch, MCB and indicator for providing at Railway stations if required. Inspection by authorized representative of Railway.	Nos	174	882.00	153468.00
23	Supply, Installation, Testing & commissioning of Maintenance Free and permanent Earth as per RDSO spenc.No. RDSO/SPN/197 version 1.0 and Technical specification as per chapter 8. Inspection	Nos.	25	64518.89	1612972.25

	by RITES.				
24	Supply and installation of RJ 45 connector, D-link make or better. Inspection by authorized representative of Railway.	Nos.	2980	5.42	16151.60
Schedule-B Total:					143528829.87

Schedule-C (Execution)					
Sl. no	Description	unit	Qty	Rate	Amount
1	Installation, Testing & Commissioning of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera with ceiling mounting kit. as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost.	Nos.	149	711.58	106025.42
2	Installation, Testing & Commissioning of Full HD Bullet Type IP Colour camera along with Mounting kit, as per RDSO spec. No: RDSO/SPN/TC/65/2021 Version 6.0 with amendment-1 or latest. All the accessories and fixing materials required for this installation are to be supplied by contractor within the same cost.	Nos.	1341	211.44	283541.04
3	Splicing/Dropping/Termination of each fibre/pigtail in the LIU/IO Box/Terminal Joints through fusion splicing of termination of OFC cables. The fibres terminated shall be tested and the test report (Hard copy and soft copy) shall be submitted to the site Engineer for	Core	5520	45.00	248400.00

	records. Each fibre shall be properly marked with necessary ferrules/tags.				
4	Fixing of PVC conduit pipe of ISI brand, medium type, minimum of 25mm dia/ 1.55mm thick (3 mtrs. Long) along with PVC bends, couplers and all fixing and clamping materials required for the work has to be provided by the contractor within the same cost.	Mtr.	596106	1.00	596106.00
5	Laying of OFC/Power cable/CAT6 Cable on wall/ roof/ FOB/ platform structure/ underground through (i) HDPE pipe/PVC conduit/GI pipe/PVC Tray /casing capping with proper clamping arrangement of HDPE/PVC Conduit/Cable or (ii) through underground DWC pipe and cutting of masonry wall to the depth of 0.75 m at the entry of room as per instruction of Railway site in charge and repairing masonry wall cement plastering after cable laying, All fixing, clamping, patching, jointing etc. material like couplers, connectors, OFC patch chords, Power cable Joint Box, masonry materials etc. are to be supplied by contractor.	Mtr.	351494	4.00	1405976.00
6	Cutting of trench across on platform for a depth of 10 cms and width of 10cm with marble cutting machine and fill in the trench after laying the cables and restoring the surface with plaster/original tiles etc to the normal condition (as the case may be).	Mtr	45000	116.00	5220000.00
7	Transportation and Laying of permanently lubricated HDPE pipe in trench/open space, fixing and clamping	Mtr.	7450	5.00	37250.00

	of HDPE pipe on wall or structure and sealing of the duct after laying with proper fixing material. All the accessories like couplers, end caps/plugs to be provided by the contractor within the same cost and its protective work as per direction of site engineer.				
8	Design of complete system including system architecture, type and number of Servers, storage capacity, display/monitors, and No. Of cameras, network architecture for centralized control room, equipment room architecture at all stations for recording, Power supply, local work stations, display etc. The design of system should also cater for viewing any camera data/live stream/ recording stream from remote place through Railnet on web based platform with user ID and password protection etc	Lot	149	1913.00	285037.00
9	Excavation of trenches of depth 1.0 M and width 0.3 Meter detailed below including clearing of roots and trees etc. for all types of soil. This work also includes covering of cables laid in trench and backfilling, ramming, consolidation of soil as well as disposal of extra soil after cable is laid as specified in Guidelines on Signalling Cable laying given by RDSO and any latest circular issued by CSTE/ECOR/BBS. Note: Before refilling of the trenches, the cable laid are to be tested and recorded for its insulation value and after satisfaction of site Engineer the refilling process should start and after monsoon the route is to	Km	10	92853.00	928530.00

	be attended for backfilling the rain cuts, wash out of soils where ever found.				
10	Excavation of trenches including clearing of roots of trees etc., in rocky area up to a depth to be indicated by Railway Engineer at site as per the site condition [Minimum 0.6 meter] and width 0.3 Mts. at the bottom. This includes concreting & plastering as per the instructions of site Engineer and complete back filling by digging earth from a lead of 30 Mtr. In case 0.8 meter depth or higher is achieved no concreting is required, otherwise concreting up to 100 mm thickness should be done. All materials required for the above works shall be supplied by the Contractor.	Mtr	2600	266.00	691600.00
11	Excavation of trenches in all kinds of soils including soft rocky area and clearing of track etc. to a depth of 1.0 M and width of 0.3 M for track crossing /pucca road/ level crossing gate/platform /station circulating area or any other place as advised by site Engineer including transportation and laying of DWC/RCC/Split RCC/G.I. pipes with or without coupler. This includes repairing of track/pucca road/level crossing gate/platform/station circulating area surface to original position by ramming and concreting wherever required soon after the work is over. DWC/RCC/GI pipes shall be supplied by the Railway. DWC pipes wherever required shall be supplied in 6 Mtr. length and shall be cut to size as per requirement. All other materials including cement are to be	Mtr	750	350.00	262500.00

	supplied by the contractor.				
12	Cutting of masonry floor/walls at station building/ signal goomty/ Gate lodge at a depth of 0.5 mtr. to 1.0 mtr at places to be indicated by site Engineer for entering of cables inside the building. Only G.I pipes supplied by Railway and all materials as clamps, bolts & nuts as instructed by site Engineer supplied by tenderer. This includes repairing of masonry floors/walls after the cables are taken inside. Cement, Sand required for the work shall be supplied by the renderer and also transportation of G.I Pipe from Store by the tenderer.	Nos.	174	6385.00	1110990.00
13	Trenching and fixing of G.I. pipes of different sizes/DWC pipes in hard rocky area up to a depth of 0.3 M to 0.6 M or at places as per instruction of site Engineer and concreting [1 : 3 : 6] up to height of 100 mm above the pipes. G.I. pipes with the socket/ DWC pipes shall be supplied by the Railway. All other materials required for the works shall be supplied by the contractor. Note: [1] in case of girder bridges, G.I. pipes shall be suitably clamped by the contractor as advised by the site Engineer. Clamps shall be supplied by the contractor. [2] The work including excavation of trenches in hard rock area up to a depth of 0.3 M to 0.6 M and back filling, ramming after completion of work where ever required. [3] In case of concrete bridges clearing of ballast for laying of pipes and re arranging the Railway ballast after completion of work shall be	Mtr	1490	557.00	829930.00

	done by the contractor.				
14	Supply and erection of 15 feet GI pipe of 4" dia, IS No: 1239 (Part1) 1990. Having iron base plate 10mm thick 30cm x 30cm welded at the bottom of pipe with 4 supports of iron bars of sizes 10mm dia. The 3 feet pipe shall be buried in the ground and 12 feet pipe shall be above the ground. The work includes digging of pit on platform, laying of cable in between poles in suitable underground GI pipes, erection of pole and filling the pit with 1:3:4 cement, concrete and sand. Final plastering should be done on the surface. The iron bracket on the top of the pole shall be provided to fix the CCTV camera and junction box. The work includes supply of all the material required in this item. Inspection done by RITES.	Nos.	298	14593.82	4348958.36
Schedule-C Total:					16354843.82

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