

NORTHERN RAILWAY



E-Tender No: NRDLI0MCNWMISC242026

NORTHERN RAILWAY

(MECHANICAL (C&W) DEPARTMENT)

E-TENDER DOCUMENT

(Single Packet System Bidding through E-Tendering on IREPS Portal)

Name of Work: - Setting up of Audio Visual Communication Infrastructure at different depots of Delhi Division.

OFFICE OF THE

SR. DIVISIONAL MECHANICAL ENGINEER /CO-ORDINATION

NORTHERN RAILWAY

DELHI

ADDRESS:

DIVISIONAL RAILWAY MANAGER, OFFICE N. RAILWAY,

STATE ENTRY ROAD,

DELHI

PIN- 110055

Note: This Tender document is based on Indian Railway Standard General Condition of Contract (GCC), April-2022 with latest corrigendum or correction slip.

NORTHERN RAILWAY**TOP SHEET**

Tender Notice No.	NRDLI0MCNWMISC242026
Full Name of work	Setting up of Audio Visual Communication Infrastructure at different depots of Delhi Division
Advertised Tender Value	₹ 1,42,91,180.22 (including GST @18%)
Completion Period	06 Months
Bid Security amount	₹ 2,85,800.00/-
Cost of Tender Form	Nil
Bidding System	Single Packet System through E-Tendering on IREPS Portal
Stipulated date of Commencement of work	Within 15 days from the date of issue of "Letter of Acceptance" or as per the instructions of Engineer-In charge.

Mandatory details to be filled in by tenderer while submitting their offer:

1	Constitution of the firm/ concern (Tick as applicable)	Sole Proprietorship/ Partnership Firm/ Company/ Society
2	Full name of Sole Proprietorship/ Partnership firm/ company/ Society (as the case may be)	
3	Year of formation/ incorporation	
4	PAN No.	
5	GST No.	
6	E-mail id	
7	Contact No.	
8	Registered Office Address	
9	Address on which correspondence regarding this tender should be done	
10	Name of the proprietor/ partners etc.	
11	Details of EMD submitted	

Note:

- Contractors are requested to make payments against this tender towards Bid Security as mentioned in instructions to tenderers (ITT).**
- Special attention of tenderers is drawn to "Instruction to tenderers," as per which the tenderer must submit along with tender, the documents mentioned therein pertaining to constitution of firm/ concern.
- Special attention of tenderers is drawn to "Special tender condition & instruction to tenderers," as per which they should submit the requisite documents along with tender pertaining to their technical & financial eligibility.
- Only those documents which are declared explicitly by the tenderer as "documents supporting the claim of qualifying the laid down eligibility criteria," will be considered for evaluating his/their tender.
- No manual offer is acceptable.
- No post tender correspondence for submission of additional documents shall be entertained after opening of tender.
- In case the tender opening day is a holiday, the tender opening would be conducted at the same time on the next working day.

NORTHERN RAILWAY**INSTRUCTIONS TO TENDERERS (ITT)****1. 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 all works	2% of the estimated cost of the work

Note:

- (i) The Bid Security shall be rounded off 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 'Start ups' shall be exempted from payment of Bid Security detailed above.
 - (iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.
- (1)(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.
- (1)(c)** If his tender is accepted, this Bid Security mentioned in sub para (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 either in cash through epayment 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-VIA** of GCC 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 before closing date for submission of bids (**i.e. excluding the last date of 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 top right-hand 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 Authority 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.

NORTHERN RAILWAY**2. 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.
- (a)(v) Contractor shall be liable to pay/refund the amount collected as GST to the Indian Railways along with interest and penalties, if any imposed by the authorities, in case GST input tax credit of Indian Railways is denied/rejected by the tax authorities due to reasons mentioned below but not limited to:
 - Wrong/incorrect invoices issued by Contractor.
 - No-filing of GST returns.
 - Non-payment of GST collected from Indian Railways to the authorities.
 - Any other non-compliance done by Contractor.
- (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.

General Indemnity: Contractor hereby agrees to indemnify and hold harmless the Indian Railways from and against any and all losses, including loss on account of Input Tax Credit and all losses incurred by the Indian Railways relating to or arising out of or in connection with any actual or threatened claim, legal action, proceedings, prosecution or inquiry by or against the Indian Railways arising out, directly or indirectly, of failure by the contractor to comply with the provisions of GST and related laws, or based upon or arising from any failure by the Contractor.

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Retention Money: Any payment liable to be paid by Indian Railways to contractor against the goods or services or both supplied by such contractor to Indian Railways shall be kept on hold in case supplier makes any non-compliance of any of the GST law provisions including non-reporting of invoices in GST returns. Such payment shall be released after proper verification of records and availability of ITC to Indian Railways as per provisions of GST Law.

- 2.1** 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 in GCC as **Annexure-V** (copy of the same is also enclosed herewith as **Annexure- V**). In addition to Annexure-V, in case of other than Company/Proprietary firm, **Annexure –V(A)** shall also be submitted by 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 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.

NORTHERN RAILWAY**TENDER FORM (First Sheet)****Tender No. NRDLI0MCNWMISC242026****Name of Work: Setting up of Audio Visual Communication Infrastructure at different depots of Delhi Division**

To

The President of India

Acting through the Sr. DME/Co-ordination/Delhi Division, Northern Railway

DRM Office, State Entry Road, New Delhi

1. 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 offer open for acceptance for a period of **60 days** from the date fixed for closing of the tender and in default thereof, I/We will be liable for forfeiture of my/our "Bid Security". I/We offer to do the work for _____ Railway, at the rates quoted in the attached bill(s) 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, Standard Schedule of Rates (SSOR) with all correction slips up to date for the present contract.
3. A Bid Security of **₹2,85,800.00/-** 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 Startup 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 with and 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 Tenderer(s)

Date _____

Address of the Tenderer(s)

NORTHERN RAILWAY**TENDER FORM (Second Sheet)****A. INSTRUCTIONS TO TENDERER/S AND CONDITIONS OF TENDERS****1. 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 (enclosed)
- (d) Standard General Conditions of Contract and Standard Specifications for Materials and Works of Indian Railway as amended/corrected up to latest Correction Slips, copies of which can be seen on Indian Railway web site: **www.indianrailways.gov.in**.

2. The Tenderer(s) shall quote his / their rates as a percentage above or below the Schedule of Rates of _____ Railway as applicable to _____ Division except where he/they are required to quote item rates and must tender for all the items shown in the Schedule of approximate quantities attached. The quantities shown in the attached Schedule 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 Schedule. 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. 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. The works are required to be completed within a period of 06 Months from the date of issue of acceptance letter.

5. Eligibility Criteria:

- A. Technical Eligibility Criteria:** The tenderer must have successfully completed or substantially completed any one of the following categories of work(s) 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 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 costing not less than the amount equal to 60% of advertised value of the tender.

Similar work will mean the bidder should have an experience in carrying out: -

“Any work involving supply, installation, testing and commissioning of audio video systems for conference/meeting rooms/halls.

OR

AMC of audio-video systems for conference/meeting rooms/halls”

(Authority: NR-HQ0MECH(CHG)/9/2022-O/o SSE/Chg/1/HQ/NR-Part(1) Dated : 04.05.2026)

Note for Item 5.A:

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

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current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered at least 5 years 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.

- B. **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-VIB (copy of the same is also enclosed herewith as Annexure-VII) of GCC, April 2022, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

6. Documents to be Submitted Along with Tender:

- (i) As per clause 14 of tender form (second sheet) (Annexure-I) of **Standard General Conditions of Contract GCC, April-2022.**
- (ii) **Power of Attorney** (As per clause 15 of tender form (second sheet) (Annexure-I) of Standard General Conditions of Contract GCC, April-2022)
- (iii) Declaration on a format annexed as **Annexure-VI** of this tender document regarding "Employment/Partnership etc. of Retired Railway Employees" (As per clause 16 of tender form (second sheet) (Annexure-I) of Standard General Conditions of Contract GCC, April-2022), **Non submission of above certificate by the bidder shall result in summarily rejection of his/their bid**

NORTHERN RAILWAY**GENERAL CONDITIONS OF CONTRACT**

1. Except where specifically stated otherwise in the tender documents, this work shall be governed by the Indian Railways Standard General Conditions of Contract GCC, April-2022 with latest corrigendum or correction slip.

Note:

- (i) In terms of Railway Board letter no.2002/CE-I/CT/37 dated 14/12/2012, "Joint Venture Firms" shall be applicable to the works tenders of value more than Rs.10 crore (Rupees Ten Crore Only).
- (ii) **Price Variation Clause:** Not Applicable
- (iii) **No Post tender correspondence for submission of additional documents shall be entertained after opening of the Technical & Commercial offers. Even suo-moto post tender letters of the tenders shall be treated as NULL & Void.**
- (iv) In terms of para no. 16(4) for **Performance Guarantee**, of Indian Railway Standard General Conditions of Contract (GCC), April-2022, and the successful bidder shall submit the Performance Guarantee (PG) amounting to **5% of the original contract value (including GST). and Additional Performance Guarantee as per clause no 16(4)(h)** or the latest guidelines/circulars/correctio slips etc.as applicable.
- (v) Additional Performance Guarantee as per clause no 16(4)(h) If a tender is accepted on the quoted rates of bidder which is below the advertised tender value, an additional performance security shall be submitted by the bidder as below:

S. No.	Bid quoted in % of advertised cost	Additional Performance Guarantee (%)
1	0% – 5% (inclusive)	Nil
2	Below 5%	5%

NORTHERN RAILWAY**Special terms and conditions of contract****Sub.: Setting up of Audio Visual Communication Infrastructure at different depots of Delhi Division.**

1. The work shall be carried out as per "Detailed scope of work" as specified in **Annexure-I**. The contractor shall use his own resources required for the job.
2. Entry Permit: The contractor shall submit the bio-data of all personnel proposed to be deployed for execution of the work, including Name, Father's Name, Address, Age, Employee Number, and passport-size photograph, duly attested by the contractor, to the concerned AME/SSE in-charge prior to commencement of work.

In case of any replacement of manpower during the currency of the contract, fresh particulars shall similarly be submitted. The contractor shall issue identity cards to all deployed personnel. Only those personnel whose particulars have been furnished to the Railway Administration and who are carrying valid identity cards shall be permitted entry into Railway premises.

3. The contractor shall provide the list of authorized staff and any vehicle used during course of work to concerned Sr.CDO/CDO/ADME/SSE in-charge, so that provision for entry inside the Railway premises can be made accordingly.
4. The cost of damage to the railway property if incurred during the execution of work will be borne by the contractor.
5. No employee of the contractor will smoke at the working area because of availability of flammable products nearby.
6. The contractor shall be liable for the safety of his workmen during the course of contract. It is made clear that no claim/compensation would be entertained for any type of accident/incident involving his labour. Any compensation, however, as incurred under law would be payable by the contractor.
7. The Railway Administration may provide space for storage of materials, tools, and equipment free of cost, subject to availability. However, Railway Administration shall not be responsible for any loss, theft, or damage to such materials/items.
8. If any compensation/penalty is to be paid by the Railway in compliance of the order/judgement passed by the court, consumer forum or any other law-enforcing agency on default of the contractor or his person/servant/employee due to complaint, the said amount shall be liable to be paid by the contractor and will be deducted from bill.
9. The contractor shall provide sufficient manpower for the work and also efficient and competent supervision to give necessary direction to Contractor's workmen and to see that they execute their work in sound and proper manner.
10. The contractor shall be liable/responsible for legal aspects involved due to any accident/death to his staff and all the expenses arisen shall be borne by the contractor.

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11. The contractor shall be liable to be penalized for any undesirable activities, endangering the image of railways.
12. The contractor shall also nominate a representative during the execution of the work for liaison at concerned Sr.CDO/CDO/ADME/SSE in-charge of the depot, whose mobile no. and Email ID shall also be provided to the Railway. This representative will certify the work with Railway representative.
13. The Railway Administration reserves the right to call the tenderers for negotiation if needed; the tenderers shall not increase the amount/rate already offered in the tender at the time of negotiation(s).
14. The contractor shall duly comply with the provision of the applicable labour laws i.e. Payment Wages Act 1923, Minimum wages Act, Workman Compensation Act and any other law, legal provisions/rules on labour/workman etc. with regard to staff employed by him.
15. In case of any failure in implementing the statutory rules and regulations by the contractor Railways shall be liberty to recover any such amounts as advised by the statutory bodies from the bills of the contractor.
16. This contract shall be deemed to have concluded in the State of Delhi where it has been signed, and all obligations hereunder shall be deemed to be located at the State of Delhi and the courts within the State of Delhi will have jurisdiction to the exclusion of all other courts.
17. The quantities indicated in the Schedule of Quantities are approximate and are liable to variation during execution of the contract. The Railway Administration reserves the right to increase, decrease, omit, or modify any item/quantity as per operational requirements and prevailing SOP/powers. No claim whatsoever shall lie against the Railway Administration on account of variation in quantities or contract value.
18. Extension of contract period (DOC) if required by the Railways as per operational requirement shall be done in accordance with the prevalent SOP (Schedule of Power) on works matter of Northern Railways.
19. The special conditions laid down herein are integral part of the contract conditions. In case of any contradiction between special terms & conditions of tender and general conditions, then the special terms & conditions shall prevail.
20. **Dispute resolution & Contract termination:**
 - a. In the event of any dispute or difference arising between the Railway Administration and the contractor in connection with the contract, the matter shall be governed by the Arbitration provisions contained in the "General Conditions of Contract for Works – Indian Railways"
 - b. The Railway shall have right to terminate the contract by Railway shall as mentioned in the "General Conditions of Contract for Works - Indian Railway".

NORTHERN RAILWAY**Payment terms:**

Subject to submission of successful completion certificate of supply, installation and commissioning of the subject work duly certified by Senior Divisional Mechanical Engineer, N.Rly, Delhi or his representative, the contractor shall be entitled to receive the value of the work against the work attended/completed during the month after necessary deduction or recovery, which the Railway Administration may be entitled to make under the contract or any other contract. The bill should be raised by the contractor on monthly basis and should be submitted latest by 7th of next month.

- a. Payment will be made only after verification & certification by Sr. CDO/ CDO of concerned depot.
- b. All bills in three copies shall be submitted to concerned Sr. CDO/ CDO office or depot decided by Sr. DME/Co-ordination/DLI.
- c. Payment will be made by Sr. DFM, Northern Railway, DRM Office, New Delhi.
- d. All payment in respect of the contract during the currency of the contract shall be made through online/ Electronic Clearing System (ECS) / Electronic Fund Transfer (EFT).
- e. The rates are inclusive of all charges and taxes i.e. all components, spares, transportation, Labour & other applicable charges including GST and no separate charges would be paid whatsoever.
- f. Contractor shall submit the documentary proof of GST (as applicable) duly deposited with the concerned department of Government. The contractor shall be responsible for depositing GST (as applicable) and all legal obligations related to GST.
- g. 2% income tax and surcharge (as applicable) on I. Tax shall be deducted from bill and necessary I.T deduction certificate will be issued by DFM/Northern Railway/New Delhi.
- h. No extra payment CST/ST, Octroi or other taxes will be made to the agency.
- i. No advance payment will be made by the administration.

NORTHERN RAILWAY**Penalty Clause:**

The Railways reserve the right to deduct the penalties for non-compliance of terms & conditions as stipulated in the tender on the part of the contractor as under.: -

- a) The contractor shall commence the work within 15 days from the date of issue of Letter of Acceptance (LOA). In case of failure to mobilize resources and commence the work within the stipulated period, a penalty of ₹1,000/- (Rupees One Thousand only) per day shall be levied for each day of delay until commencement of the work, subject to a maximum of 10% of the contract value.
- b) The contractor shall submit the compliance statement, Bid-Specific Manufacturer's Authorization Form (MAF), and finalized system design and layout within 15 days from the date of issue of the LOA. In case of failure to submit the required documents within the stipulated period, a penalty of ₹1,000/- (Rupees One Thousand only) shall be levied for each day of delay until submission and acceptance of the documents by the Railway
- c) After handing over of the work site by the Railway, the contractor shall complete the work within the stipulated completion period. In case of delay attributable to the contractor, a penalty of ₹2,000/- (Rupees Two Thousand only) per site per day shall be recovered for each day of delay beyond the prescribed completion period, until satisfactory completion of the work.
- d) If any work executed by the contractor is found to be of poor workmanship, not conforming to the specifications, instructions of the nominated representative of Sr.DME/Coordination, the contractor shall rectify the same at his own cost. In addition, a penalty of ₹1,000/- (Rupees One Thousand only) per instance/event of poor workmanship shall be imposed. Repeated instances may lead to suspension of work, recovery of rectification costs, or other contractual action as deemed fit by the Railway Administration.
- e) During the warranty period, the contractor shall attend all complaints within 24 hours of reporting by the Railway and rectify the defect within 48 hours. In the event of failure to attend the complaint within the stipulated time, a penalty of ₹1,000/- (Rupees One Thousand only) per complaint per day shall be levied for the period of delay until the complaint is attended and satisfactorily resolved
- f) The contractor shall maintain proper housekeeping and cleanliness at the work site. Failure to remove scrap/material/welding residue after completion of work shall attract a penalty of ₹200/- per occasion.
- g) Any damage caused to Railway property, or infrastructure due to negligence or improper workmanship shall be rectified/replaced by the contractor at his own cost, failing which recovery shall be made from contractor's dues.
- h) In case of repeated deficiencies in workmanship, safety compliance, or operational responsiveness, the Railway Administration reserves the right to issue warning notices, impose penalties, or terminate the contract as per extant rules.
- i) In the event of any compensation, penalty, damages, or liability being imposed upon the Railway Administration by any Court of Law, Consumer Forum, Statutory Authority, or law-enforcing agency on account of any act, omission, negligence, misconduct, or default on the part of the contractor or his representatives/employees, the same shall be borne entirely by the contractor and shall be recoverable from his bills or any other dues payable to him.
- j) In addition to the specific penalties stipulated above, the Tender Accepting Authority reserves the absolute right to impose suitable penalties for any breach, violation, or non-compliance of the terms and conditions of the tender/contract.

NORTHERN RAILWAY**Annexure-I****Detailed Scope of Work****Setting up of Audio Visual Communication Infrastructure at different depots of Delhi Division.****1. Aim:**

To establish a modern Audio Visual Communication Infrastructure at various depots of Delhi Division for facilitating effective communication, video conferencing, training programmes, technical discussions, review meetings, and dissemination of operational and safety-related instructions, thereby enhancing coordination, decision-making, and overall administrative efficiency.

Materials & workmanship to be supplied/work done by the contractor / firm shall be of high quality and standard make.

2. Pre-Installation Site Survey, System Design and Provision of Associated Infrastructure

The proposed work is to be executed at Wagon Care Centre, Tughlakabad (WCC/TKD), Coach Care Centre, Delhi New Delhi(CCC/NDLS(DLT)), Wagon Care Centre, Ghaziabad (WCC/GZB), Coach Care Centre, Anand Vihar Terminal (CCC/ANVT), Coach Care Centre, Delhi Junction (CCC/DLI), and Coach Care Centre, Delhi Sarai Rohilla (CCC/DEE).

The work under BOQ Item Nos. 11 to 14 comprises the supply, installation, and commissioning of 01 No. Conference Table (22 Seating + 01 Admin Seating), 01 No. High-Back Revolving Chair for the Admin Seat, 22 Nos. Mid-Back Revolving Chairs, and 20 Nos. Visitor Chairs at Coach Care Centre, Delhi Sarai Rohilla (CCC/DEE).

The contractor shall carry out a **detailed pre-installation site survey** at each of the above locations prior to execution of the work. The site survey, System Design and Provision of Associated Infrastructure shall include, but not be limited to, the following activities:

2.1 Assessment of existing room dimensions, and functional requirements.

2.2 Finalisation of optimal placement and layout of LED displays, cameras, conference microphones, speakers, AV racks and laptops for effective audio-visual performance.

3. Evaluation of power supply sockets availability, earthing, and provision of necessary power points.

3.1 The contractor shall design, supply and install an adequate number of power points and charging sockets as required for proper functioning of all AV equipment and user devices. All power points, charging sockets and associated wiring shall be provided in a safe and concealed manner, integrated with furniture/walls as applicable, to ensure neat appearance, operational convenience and compliance with electrical safety norms.

4. Assessment of acoustic conditions, ambient noise levels and reverberation, and identification of corrective measures, if required.

5. Evaluation of lighting conditions to ensure glare-free display visibility and optimal camera performance.

5.1 The contractor shall assess the existing lighting conditions of the conference rooms and shall design, supply, install and commission adequate lighting fixtures to achieve uniform and sufficient illumination suitable for audio-visual conferencing.

5.2 The scope shall include provision of roof-mounted/wall-mounted light fittings as required to improve overall luminance levels, ensure glare-free visibility of displays and provide proper facial illumination for camera capture.

5.3 Further, the contractor shall supply and install roller blinds (string-operated or remote-operated, as approved) on all windows, and curtains on doors, wherever applicable, to eliminate direct sunlight,

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reflections and glare on displays and cameras, thereby ensuring optimal video conferencing performance.

- 5.4 All lighting fixtures, blinds and curtains shall be of good quality, aesthetically integrated with the room interiors, and their provision shall be deemed to be **included in the scope of work**, with **no extra payment** admissible on this account.
6. Planning of audio, video, control and power cable routing, ensuring safety, aesthetics and ease of maintenance.
- 6.1 The contractor shall plan and execute routing of all audio, video, control and power cables in a manner that ensures electrical safety, neat appearance and ease of future maintenance. All cables shall be fully concealed within walls, ceilings, conduits, floor raceways or furniture, as applicable, and no loose or visible wiring shall be permitted. The completed installation shall maintain the overall aesthetics of the interior and shall be to the satisfaction of the Railway authorities.

The finalized system design and layout shall be submitted to the Railway authorities for approval prior to commencement of installation work (within 15 days from the date of issue of the LOA). Any modifications required due to site conditions shall be incorporated without extra cost to the Railway.

7. Execution Schedule and Completion Period:

- 7.1 The contractor shall submit, a compliance statement for all electronic equipment covered under Item Nos. 1 to 10, confirming that the equipment meets all the specified technical requirements. The compliance statement shall be certified by the respective Original Equipment Manufacturer (OEM) on its letterhead and shall be accompanied by a Bid-Specific Manufacturer's Authorization Form (MAF) within 15 days from the date of issue of the Letter of Acceptance (LOA). Supply and installation of the equipment shall start only after approval of the submitted documents by the Railway.
- 7.2 The Contractor shall commence the work within 15 (fifteen) days from the date of issue of the Letter of Acceptance (LoA).
- 7.3 The Administration may make available up to two locations/conference rooms simultaneously for execution of the work. The Contractor shall deploy adequate resources and manpower to ensure simultaneous execution at all such locations without any delay.
- 7.4 Upon handing over of a location/conference room by the Administration, the Contractor shall complete the entire work in all respects, including installation, testing, commissioning, and rectification of deficiencies, within 10 (ten) days, inclusive of all holidays, if any.
- 7.5 The work at each offered location/conference room shall be completed in all respects and made fully functional to the satisfaction of the Administration before it is taken over by the Administration.
- 7.6 The Contractor shall ensure that the execution of work causes minimum disruption to the normal functioning of the depot/office, and all safety and housekeeping requirements are complied with during the execution period.
- 7.7 Failure to adhere to the prescribed time schedule, specifications, quality requirements, or any other contractual obligations shall render the Contractor liable for action under the relevant penalty provisions of the contract, including imposition of penalties as stipulated therein

8. Supply of Equipment

- 8.1 Supply of all AV equipment as per technical specifications mentioned in **Annexure II**.

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- 8.2 The LED Display System shall comprise one 98-inch Interactive Flat Panel Display with integrated processor and “Look-at-Me” controller and one 55-inch Confidence Monitor/Presenter Display. Both units shall be fully compatible and capable of seamless integrated operation.
- 8.3 All items shall be **new, unused, latest models** from reputed OEMs.
- 8.4 The Railway shall have full power to reject any materials that the Railway may consider to be defective or inferior in quality / workman ship or otherwise not accordance with the specifications.
- 8.5 Quantity as mentioned in Schedule may increase or decrease as per extent rules.
- 8.6 All accessories like MCBs, power socket, nut-bolts, fasteners, installation material /fixtures, clamps, flexible pipe, connectors, couplers etc. required to execute this work will be supplied and installed by the firm to meet the end object of this work, no extra payment will be paid for this.

9. Warranty:

The contractor shall rectify defects that may arise in the executed work within a period of One year (Twelve Months) after certified completion of the work, such defects being due to bad workmanship or change in programming on the part of contractor. During the warranty of One Year the contractor shall replace all the defective components / cards/Equipment free of cost. Warrantee period shall start from the certified date of commissioning of the system.

NORTHERN RAILWAY**Annexure-II****Specifications**

- 1. LED Display (98") Interactive Flat Panel with Integrated Processor with Controller for look at Me**
Supply, Installation, Testing & Commissioning of 98" Brightness (cd/m²) 440, Contrast Ratio 5000:1, Dynamic Contrast Ratio 700,000:1, Response Time (Gray to gray, Typical, ms) 6.5, Display Resolution (H x V, pixels) 3840 x 2160, HDR (High Dynamic Range) Compatibility- Yes (HDR10, HLG, Dolby Vision), Aspect Ratio 16:9, Portrait/Tilt Compatibility Yes, Dimming Type Local Dimming, Display Device LCD, Panel Type- VA, Backlight Type Direct (Full Array LED), TRILUMINOS Display XR Triluminos Pro, Colour Gamut (DCI-P3) 95%, Picture Processor Cognitive Processor XR, Operation Time 24/7, Deep Black Non-Glare No, Haze (%) 2%, Viewing Angle (Right/Left) 178 (89 / 89) degree (CR >10), Viewing Angle (Up/Down) 178 (89 / 89) degree (CR >10), Speaker Position Down Firing + Side Back, Audio Power Output 10W + 10W + 10W + 10W, Pro Mode Yes, HDMI Auto Wake-Up Yes, HTML5 Platform Yes, Multicast/IPTV Yes, Operating System Android TV, On-board Storage (GB) 32GB, Wi-Fi Direct Yes, Wi-Fi Certified Yes, Wireless LAN Integrated, On Screen Clock Yes, Sleep Timer Yes, On/Off Timer Yes, Chromecast Built-In Yes, Apple AirPlay Yes, HDCP- HDCP2.3 (for HDMI1/2/3/4), Composite Video Input (s) Hybrid w/S-Center Speaker Input x1 (Side, Mini jack), HDMI Inputs Total 4 (4Side), Analog Audio Input (s) (Total) 1 (Side Analog Conversion), Digital Audio Output (s) 1 (Side), USB Ports 2 (Side), Ethernet Inputs 1 (Side), On-Mode Power Consumption 154 kWh/1000h, Power Consumption (in Standby) 0.5 W, Dynamic Backlight Control Yes, Power Saving Mode Yes etc all complete.

Along with the above-mentioned specifications, the bidder shall also supply, install, test and commission 55-inch Professional Confidence Monitor / Presenter Display for displaying speaker notes, presentation preview, agenda, timer, confidence feed, and presentation controls to the presenter during meetings, conferences, seminars, training sessions, and video conferencing events.

The Confidence Monitor shall be of 55-inch diagonal screen size or higher, having 4K UHD resolution (3840 × 2160) or higher, commercial-grade LED backlit IPS/VA panel, minimum brightness of 400 cd/m², contrast ratio of 4000:1 or better, 178° horizontal and vertical viewing angle, anti-glare screen, and shall be suitable for 24×7 continuous operation.

The display shall support HDR10 or higher, minimum three (03) HDMI inputs, one (01) DisplayPort input, USB multimedia playback, RJ-45 Ethernet connectivity, Wi-Fi connectivity, and RS-232/LAN-based remote monitoring and management. The display shall have integrated speakers, VESA-compliant mounting interface, and support both portrait and landscape orientations. The unit shall be fully compatible with Microsoft PowerPoint Presenter View and other Windows-based presentation and conferencing platforms for displaying speaker notes, timer, current slide, next-slide preview, and presentation controls independently of the audience display.

The display shall be supplied complete with heavy-duty wall mount, ceiling mount, floor stand, or custom mounting arrangement as approved by the Engineer-in-Charge, along with all necessary brackets, mounting hardware, power cords, HDMI/DisplayPort cables, adapters, connectors, accessories, and any other materials required for complete installation, integration, testing, and commissioning.

Make: -LG/Sony/Samsung/HP/Panasonic or equivalent.

2. Camera with Video System, Full HD

Supply, Installation, Testing, and Commissioning of Full HD 1080p @ 60fps PTZ Camera with minimum 12X Optical Zoom & FoV of minimum 68 deg, min 255 Presets. Camera should support

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Ethernet, HDMI, 3G-SDI, Audio In and can be controlled via RS232 / 422 In & Out & IP. Panning angle $-170^{\circ} \sim +170^{\circ}$, Tilting angle $-20^{\circ} \sim +90^{\circ}$. The tilting and panning speed of camera should be minimum 300° per second. Camera should support SRT Protocol, should be compatible with the conference system, the conference system. Should be CE, FCC, RoHS Certified. with HDMI extender kit should support selectable operation modes (Auto or forced Long Reach mode) and feature cross-compatible I/O boards compatible with HDBaseT. It must support all embedded audio formats, including PCM, Dolby Digital, and DTS high bitrate audio, with an extension distance of up to 170 meters using CAT7 S/FTP AWG23 cable at 1920x1080p60 resolution. It should be HDBaseT compatible, offer Ethernet extension at 100 Mbps, and include transparent EDID pass-through and bi-directional IR extension with CEC support. It must handle HDMI 4K signal formats (4K UHD @30Hz RGB 4:4:4 or @60Hz YUV 4:2:0) at up to 9 Gbps without video compression. It should be Bi-directional RS-232 and IR extension should be supported with status LEDs for Live, TPS link, signal, and HDCP detection. It should feature a twist-and-lock DC power connector, low power mode (standby), and the option for local or remote power sources with an external universal power adaptor, Mounting options should include rack, furniture, or truss installations. The extender must transmit DVI or HDMI 1.4 signals along with audio, Ethernet, RS-232, and IR over a single CAT5/6/7 cable. It should support HDMI 3D signal formats, deep color signals (24/30/36-bit RGB/YCbCr 4:4:4), and resolutions including 1920x1080@120Hz/4:4:4 and 4096x2160@30Hz/4:4:4 or 60Hz/4:2:0 up to 300 MHz pixel clock. Compliance with HDMI 1.4, HDCP 1.4, DVI 1.0, and HDCP 2.2 standards should be ensured, supporting 120 Hz 3D video signals and delivering uncompressed video up to 9 Gbps data rate with zero signal latency and zero frame delay. Cable Test Report must be submitted mandatorily.

Makes for PTZ Camera: Panasonic / Sony / AVer / Lumens / PTZOptics / BirdDog / Canon / Datavideo/ HP Poly or equivalent.

Makes for HDBaseT Extender: Lightware / Extron / Kramer / Crestron / Atlona / WyreStorm / AMX/ HP or equivalent.

3. Chairman Unit Microphone

Supply, installation, testing and commissioning of flush mounted chairman unit with network based with priority button, Crystal-clear sound due to a very high signal-to-noise ratio, Maximum speech intelligibility is guaranteed, Headphone socket with built-in volume control, A 48-bit digital audio signal is transported to each discussion unit for real-time monitoring from the loudspeaker, GSM immune, should have inbuilt DSP protocols like AGC, ANC, AFC and automix for plug and play functionality, should have touchable/button interface, should support hot swap functionality, should have ability to connect loop topology as per customer need so that if one unit fails- the chain before and after keeps live, Sensitivity: -46 dBV / Pa, Directivity: $0^{\circ} / 180^{\circ} > 20$ dB (1 kHz), Headphone load: 16 Ω , Input impedance: 2k Ω , signal to noise ratio: 70dB, Frequency response: 20 ~ 20000Hz, should have hot swap functionality etc all complete.

Makes: Bosch (DICENTIS) / Televic / Taiden / Shure / Brahler / BXB / Gonsin / Vissonic/HP or equivalent.

4. Delegate Unit Microphone

Supply, installation, testing and commissioning of flush mounted delegate unit with network based technology, Crystal-clear sound due to a very high signal-to-noise ratio, Maximum speech intelligibility is guaranteed, Headphone socket with built-in volume control,, A 48-bit digital audio signal is transported to each discussion unit for real-time monitoring from the loudspeaker, GSM

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immune, should have inbuilt DSP protocols like AGC, ANC, AFC and automix for plug and play functionality, should have touchable button interface, should support hot swap functionality, should have ability to connect loop topology as per customer need so that if one unit fails- the chain before and after keeps live, Sensitivity: -46 dBV / Pa, Directivity: 0 ° / 180 ° > 20 dB (1 kHz), Headphone load: 16Ω, Input impedance: 2kΩ, signal to noise ratio: 70dB, Frequency response: 20 ~ 20000Hz, should have hot swap functionality etc all complete.

Makes: Bosch (DICENTIS) / Televic / Shure / Brahler / Taiden / Vissonic / Gonsin / BXB/ HP or equivalent.

5. Audio Controller (For Audio Conferencing Mic)

Supply, installation, testing and commissioning of Central Conference Engine with recording capabilities shall have 4 or more Conference Ports shall have Integrated dynamics processor with programmable threshold ratio attack and release of noise gate AGC and limiter functions shall have USB port for expandable memory to record longer meetings (volumes up to 500 GB) shall have ON/OFF Power System etc 48KHZ audio processing inbuilt equalization feature. Feature to perform centralized equalization. Web Server with User-friendly Interface shall have 1 x Balanced XLR audio input 1 x Balanced XLR audio output 2 x Unbalanced audio inputs 2 x Unbalanced audio outputs. Should have 2 redundant Dante ports. Audio Routing Network Monitoring built-in Diagnostics application and camera control Loop cabling for redundancy in case of failure of unit. It shall have flexibility to attach wireless conference units as well if required in future. Supports interpretation with a default of 2 languages + floor (can be extended to 63 + floor) DANTE/AES67 network card for Audio over IP. should have capability to perform look at me function for cameras over IP and standard RS-232 protocols. Control Port Ethernet should be 19" Rack Mountable. should have provision for master slave connectivity for redundancy should have inbuilt zoning feature allowing to configure individual audio output zones. should be BIS certified, BIS certificate to be submitted by the bidder Certification: CE etc complete with standard accessories as required.

Makes: Bosch Televic / Shure / Brahler / Taiden / Gonsin / Vissonic / BXB/ ITC or equivalent.

6. Wall Mount Speaker – 60 watt

Supply, Installation, Testing & Commissioning of 2 - way Wall Mount Speaker, with High Fidelity Sound for Music, the Speaker System consists of woofer & Dome Tweeter, with Impedance of 8 ohm, LF Driver 5.25", Sensitivity : 87 dB, Frequency Response : 70Hz - 23KHz, Frequency Range :20Hz - 20KHz, Power RMS : 100W, Transformer Taps: 70/100V :60/30/15W, Conical Coverage 110 degree.

Makes: JBL Professional / TOA / Bose Professional / Sony/ Electro-Voice / QSC / Yamaha / Biamp (Apart) or equivalent.

7. Amplifier – 250 watt

Supply, Installation, Testing, and Commissioning of Mixing Amplifier-250W Built-in MP3 player and FM tuner and remote-control MP3 Player with USB, SD port and fluorescent screen to display the sound number. Four function buttons: previous, play/stop, next and mode 70V,100V and low impedance 4-16 ohms speaker output 5 zone and all zone speaker outputs Three Mic input by phone jack type AUX 1-3, Mic 1-3 volume controls and bass/treble tone control High temp, overload and short-circuit protection etc all complete.

8. Digital Signal Processor – 4x4 (Audio In/Out) USB built-in for VC, Built-in AEC

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Supply, installation, testing and Commissioning of Digital Signal Processor, shall offer advanced audio processing capabilities for various applications. The DSP shall provide enhanced control and management of audio signals. The DSP shall include a minimum of 8 Mic/Line inputs and 8 Line outputs, allowing for flexible audio routing and connectivity. Each microphone input shall support phantom power. The DSP shall feature a minimum of 8 or more AEC channels. This enables effective echo cancellation and improved audio quality, particularly in conferencing or telecommunication applications. To facilitate network audio integration, the DSP ensures seamless integration with networked audio systems and simplifies audio routing. The DSP will incorporate high-quality 24-bit A/D-D/A converters or better, ensuring accurate audio signal conversion. It shall operate at a sample rate of 48 kHz or better, RS-232 control, delivering high-fidelity audio reproduction. The input frequency response will be 20 Hz to 20 kHz or better, and the input dynamic range >94dB, providing excellent audio performance. It should have a USB port for USB based audio integration enabling 8x8 routing for USB audio through matrix, should be compatible with application-based video conferencing applications. The supply of the DSP will include all necessary components and accessories for installation and operation.

Makes: Audio-Technica / ITC / BXB / Taiden /HP/ Vissonic or equivalent.

9. Rack 17 U

Supply, installation, testing and commissioning of 17U RACK Surface Mounted with Wheels inside the Rack with 2x1 universal switcher should have, resolutions up to UHD/4K@60Hz 4:4:4 and handle signal types including DP Alt Mode, HDMI 2.0, HDMI 1.x, and DVI, with a maximum, data rate of 18 Gbps and a pixel clock of 600, MHz. It should have content protection for, HDCP 1.x and HDCP 2.2. Required input connectors include 1x HDMI type A with screw locking option and 1x USB-C type A with screw locking option, while the output connector should be 1x HDMI type A with screw locking option. The device should have video processing for signal parameter measurement, simultaneous pass-through, and de-embedding to the audio layer, supporting all HDMI 2.0 audio formats for pass-through and uncompressed LPCM (up to 8 channels, 192 kHz, 24 bits per sample) for de-embedding. Control interfaces should include 1x 100Base-T via RJ45 for secure control, 1x 100Base-T via RJ45 for utility AV, and 1x 100Base-T via RJ45 for configurable Ethernet. RS-232 control should be facilitated through a 3-pin Phoenix connector with a symbol rate between 9600 and 115200 baud, configurable parity (none, odd, or even), and 1 or 2 stop bits. USB connectors required are 1x USB Type C with up to 100W charging function and optional Ethernet access, 1x mini-USB Type B for LCD control, 1x USB Type A for service, 1x USB Type B for user application, and 2x USB Type A for peripherals. Additionally, the device should include a room occupancy sensor connector (3-pin Phoenix) and a GPIO connector (8-pin Phoenix). Powering should be supported by an external 160W power supply with a maximum power consumption of 150 W etc all complete.

Along with the above-mentioned product/specifications the bidder must Supply, installation, testing and commissioning of Cable Cubby with Sliding Cover having 2 x Universal Power Socket, 1 x USB Charger A, 1 x USB Charger C, 1 x HDMI, 1 X RJ 45, Rest 4 holes for Other Extra Cables if required. with HDMI extender kit should support selectable operation modes (Auto or forced Long Reach mode) and feature cross-compatible I/O boards compatible with HDBaseT. It must support all embedded audio formats, including PCM, Dolby Digital, and DTS high bitrate audio, with an extension distance of up to 170 meters using CAT7 S/FTP AWG23 cable at 1920x1080p60 resolution. It should be HDBaseT compatible, offer Ethernet extension at 100 Mbps, and include transparent EDID pass-through and bi-directional IR extension with CEC support. It must handle

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HDMI 4K signal formats (4K UHD @30Hz RGB 4:4:4 or @60Hz YUV 4:2:0) at up to 9 Gbps without video compression. It should be Bi-directional RS-232 and IR extension should be supported with status LEDs for Live, TPS link, signal, and HDCP detection. It should feature a twist-and-lock DC power connector, low power mode (standby), and the option for local or remote power sources with an external universal power adaptor, Mounting options should include rack, furniture, or truss installations. The extender must transmit DVI or HDMI 1.4 signals along with audio, Ethernet, RS-232, and IR over a single CAT5/6/7 cable. It should support HDMI 3D signal formats, deep color signals (24/30/36-bit RGB/YCbCr 4:4:4), and resolutions including 1920x1080@120Hz/4:4:4 and 4096x2160@30Hz/4:4:4 or 60Hz/4:2:0 up to 300 MHz pixel clock. Compliance with HDMI 1.4, HDCP 1.4, DVI 1.0, and HDCP 2.2 standards should be ensured, supporting 120 Hz 3D video signals and delivering uncompressed video up to 9 Gbps data rate with zero signal latency and zero frame delay etc all complete.

10. Laptop

Supply, Installation, Testing and Commissioning of Branded Laptop Computer complete with Genuine Windows 11 Professional (64-bit) or higher, Intel® Core™ i5 (13th Generation or higher) / Intel® Core™ Ultra 5 or equivalent latest-generation processor, minimum 14-inch Full HD (1920 × 1080) anti-glare IPS display, 16 GB DDR5 RAM or higher (expandable up to minimum 32 GB), 512 GB NVMe PCIe Gen 4 SSD or higher, integrated Intel graphics or better, integrated HD/FHD webcam (720p or higher) with privacy shutter, dual-array microphone, stereo speakers, Bluetooth 5.2 or higher, Wi-Fi 6/6E (IEEE 802.11ax) or higher, minimum three USB ports including at least one USB Type-C with Power Delivery and DisplayPort support, one HDMI port, and Gigabit Ethernet port or OEM-supplied USB Type-C to Ethernet adapter.

The laptop shall be supplied with Genuine Microsoft Office Home & Student 2021 or latest available perpetual version, charger, battery, power cord and all standard accessories. The battery shall provide a minimum backup of 4 hours under standard operating conditions.

The offered equipment shall be from a reputed OEM such as Dell, HP, Lenovo, or equivalent and shall be covered by a minimum 3-year comprehensive onsite OEM warranty. Complete installation, testing, configuration, software activation, commissioning, and user handover shall be included in the scope of supply.

Make-Dell/HP or equivalent.

11. Conference Table, For 22 Seating & 1 Admin Seating

Supplying and placing in position of 23-seater Conference Table with combination of CP: approx. (L)1200 mm × (D)600 mm × (H)750 mm (LHS + RHS); SP-1: (L)1350 mm × (D)600 mm × (H)750 mm – 10 Nos.; and SP-2: (L)750 mm × (D)600 mm × (H)750 mm – 1 No. The tabletop shall be made of 25 mm thick pre-laminated particle board finished with 2 mm thick PVC edge banding on all exposed edges for better protection and durability. The modesty panel shall be made of 18 mm thick pre-laminated particle board. The table shall be sturdy, stable, aesthetically finished and suitable for institutional/office use. The surface finish shall be smooth, scratch resistant and free from sharp edges or manufacturing defects. The product shall be supplied with minimum one year warranty against manufacturing defects.

12. Revolving Chair High Back

Supplying and placing in position of High Back Leatherette Chair in black colour with matte finish specification type: * high back 360°, degree revolving chair, * all over size(approx.) is: 590mm lx

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505mm dx 1280mm h, *the chair made of full leatherette in black colour. it will come in matte black finish in contemporary style. details: * arms: chrome finish arms with PU padding. * Use of ply: 12 mm thick hot pressed bwr plywood is grade - 303 for seat and back. * Seat: 40 \pm 2 mm thick polyurethane foam with density 32 \pm 3 kg per cu meter for best quality cushioning in seat, * back: 40 \pm 2 mm thick polyurethane foam with density 32 \pm 3 kg per cu meter for best quality cushioning in back. backrest support foam design based on symmetrical lumbar support * mechanism: knee tilt mechanism. * Only seat size is 505mm lx 505mm dx 610mm h & the back size is 590mm lx 710mm h seat maximum height is 610mm & minimum height is 510mm & back height from floor maximum height is 1280mm & minimum height is 1180mm * gas lift 100 mm telescopic hydraulic * base: 650 mm chrome base with smooth castors.

13. Revolving Chair Mid Back

Supplying and placing in position of Low Back Leatherette Chair in black colour with matte finish specification: type: * low back 360°, degree revolving chair, * all over size (approx.) is: 660mm L x 505mm D x 1105mm H, *the chair made of full leatherette in black colour. it will come in matte black finish in contemporary style. details: * arms: chrome finish arms with PU padding. * Use of ply: 12 mm thick hot pressed bwr plywood is grade - 303 for seat and back. * Seat: 40 \pm 2 mm thick polyurethane foam with density 32 \pm 3 kg per cu meter for best quality cushioning in seat, * back: 40 \pm 2 mm thick polyurethane foam with density 32 \pm 3 kg per cu meter for best quality cushioning in back. backrest support foam design based on symmetrical lumbar support * mechanism: knee tilt mechanism. * Only seat size is 525mm lx 525mm dx 610mm h & the back size is 660mm lx 570mm h seat maximum height is 610mm & minimum height is 510mm & back height from floor maximum height is 1105mm & minimum height is 1005mm * gas lift 100 mm telescopic hydraulic * base: 650 mm chrome base with smooth castors

14. Visitor Chairs

Supplying and placing in position of an Ergonomically Designed Office Visitor Chair with matte finish, suitable for executive cabins, conference rooms, and visitor seating applications. the overall dimensions (approx.) of the chair shall be 630mm width x 600mm depth x 1020mm height. the seat shall be made of 12 mm thick hot-pressed plywood with moulded polyurethane foam of density 40 \pm 2 kg/m³, upholstered with leatherette, and supplied in black colour. the bottom of the seat shall be covered with fabric. the size of seat shall be 490mm width x 480mm depth. the back should made up of 12 mm thick hot-pressed plywood with polyurethane foam of density 32 \pm 2 kg/m³, upholstered with leatherette and ergonomically shaped to provide proper lumbar support. size of back shall be 510mm width x 550 mm height. the chair shall be provided with fixed, non-adjustable polypropylene armrests, securely mounted below the seat. The chair shall be supported on a sturdy cantilever frame made of 25 mm diameter x 2 mm thick mild steel tubular section with chrome-plated finish and shall be capable of sustaining a minimum user weight of 120 kg under normal usage conditions.

Note: For all electronic equipment covered under Item Nos. 1 to 10, the successful bidder shall submit a detailed compliance statement confirming 100% compliance with all specified technical parameters, duly certified by the respective Original Equipment Manufacturer (OEM) on the OEM's letterhead, along with a Bid-Specific Manufacturer's Authorization Form (MAF), within 15 days from the date of issue of the Letter of Acceptance (LOA). Installation/supply of the equipment shall be undertaken only after acceptance of the submitted documents by the Railway.

NORTHERN RAILWAY**Annexure-III****Constitution of Firm:**

1	Constitution of the Firm/ concern. (Tick as applicable)	Sole Prop/Partnership Firm/ Company/ Society/ JV
2	Full name of firm/ company/Society	
3	Year of formation/ incorporation	
4	PAN No.	
5	GST No.	
6	E-mail id	
7	Contact No.	
8	Registered Office Address	
9	Address on which correspondence regarding this tender should be done.	
10	Names of the proprietor/partners etc.	

We have enclosed along with the tender, all the requisite documents pertaining to the constitution of the firm/ concern/ company etc., as specified in Instruction to tenderers. I/we understand that in the absence of these documents, our tender shall be treated as having been submitted by the individual who has signed the tender documents.

Signature of tenderer

NORTHERN RAILWAY**Annexure-IV****DEVIATION SCHEDULE**

Clause #	Comment	Deviation(s)
General Conditions:		
Special Conditions:		

Note:

1. When there is no deviation, the statement should be returned duly signed with an endorsement indicating 'No Deviations'. In case, Performa of deviations is not submitted or submitted as blank, it will be construed that the tenderer has not proposed any deviations from tender documents and will provide service as per tender document.
2. If the tenderer proposes deviations in tender documents, and / or any other terms and conditions of the tender, other than in this Annexure, it will have no effect.

NORTHERN RAILWAY**ANNEXURE-V**

Reference -Para 6.1 of ITT (GCC, April-2022)

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, 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 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 (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 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 up to 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 purposes. Details as appropriate are to be filled in suitably by tenderer.

NORTHERN RAILWAY**ANNEXURE-V(A)**

Reference -Para 6.1 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:

NORTHERN RAILWAY**Annexure-VI****FORMAT FOR STATEMENT/INFORMATION REGARDING "EMPLOYMENT/PARTNERSHIP ETC. OF RETIRED RAILWAY EMPLOYEES".**

Ref.: Clause 16 of second sheet of Tender Form Annexure-I of Indian Railways General Conditions of Contract, April 2022.

1. Whether such retired Engineer or retired Gazetted Officer is so associated with the Bidder (Yes or No):
_____.

2. If yes, then Full information as the date of retirement of such Engineer or Gazetted Officer, if any, shall be clearly stated in writing at the time of submitting the Bid:

1.	Name of the retired Engineer of the Gazetted rank or Gazetted Officer working before retirement	
2.	Name of post in the department working before retirement	
3.	Employment category in the Bidder Firm (as Proprietor or as partner or as Director or as employee etc.)	
4.	Date of retirement from the service (from Government)	
5.	Whether permission for taking such contract has been obtained by the Bidder or the Engineer or Officer, as the case may be from the President of India or any officer, duly authorized by her in this behalf.	
6.	Any other information in this regard (if any)	

3. Information of relative(s) employed in gazette capacity in any department of Indian Railway, if any:

Note:

If information required as per clause 16 of second sheet of Tender Form Annexure-I of Indian Railways General Conditions of Contract, April 2022, has not been furnished, the contract is liable to be dealt in accordance with provision of clause 62 of the Standard General Condition of contract.

NORTHERN RAILWAY**Annexure –VII**

Reference -Para 10.2 & 17.15.2 of Tender Form (Second Sheet) of Annexure I of ITT (GCC, April-2022)

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)

NORTHERN RAILWAY**Bill of Quantities/Schedule of Rates**

Name of work: Setting up of Audio Visual Communication Infrastructure at different depots of Delhi Division.

SN	Description	Qty per Station (a)	No. of Stations (b)	Unit (c)	Unit Rate (Rs.) (d)	Total Amount (Rs.) e=a×b×d
A	Setting up audio visual communication infrastructure comprising:					
1	LED Display (98") Interactive Flat Panel with Integrated Processor with Controller for look at Me	1	6	No.	₹ 8,78,914.00	₹ 52,73,484.00
2	Camera with Video System, Full HD	1	6	No.	₹ 2,99,851.00	₹ 17,99,106.00
3	Chairman Unit Microphone	1	6	No.	₹ 24,667.76	₹ 1,48,006.56
4	Delegate Unit Microphone	22	6	No.	₹ 23,157.68	₹ 30,56,813.76
5	Audio Controller (For Audio Conferencing Mic)	1	6	No.	₹ 1,57,248.27	₹ 9,43,489.62
6	Wall Mount Speaker – 60 watt	4	6	No.	₹ 13,332.00	₹ 3,19,968.00
7	Amplifier – 250 watt	1	6	No.	₹ 97,538.69	₹ 5,85,232.14
8	Digital Signal Processor – 4×4 (Audio In/Out) USB built-in for VC, Built-in AEC	1	6	No.	₹ 1,54,784.52	₹ 9,28,707.12
9	Rack 17 U	1	6	No.	₹ 26,602.67	₹ 1,59,616.02
10	Laptop	1	5	No.	₹ 84,989.00	₹ 4,24,945.00
11	Conference Table, For 22 Seating & 1 Admin Seating	1	1	No.	₹ 2,96,752.00	₹ 2,96,752.00
12	Revolving Chair High Back	1	1	No.	₹ 24,600.00	₹ 24,600.00
13	Revolving Chair Mid Back	22	1	No.	₹ 10,290.00	₹ 2,26,380.00
14	Visitor Chairs	20	1	No.	₹ 5,204.00	₹ 1,04,080.00
Total Amount (Inc GST)						₹ 1,42,91,180.22
In Words: One Crore Forty-Two Lakh Ninety-One Thousand One Hundred Eighty Rupees and Twenty-Two Paise Only						

NOTE:

- Offer to be quoted online (through IREPS portal) only.** No manual offers are acceptable.
- The quantities shown in above Schedule are approximate and are as a guide to give the tenderer(s) an idea of quantum of work involved. The Railway reserves the right to increase/decrease and/or delete or include any of the quantities given above and no extra rate will be allowed on this account.
- Before submitting tender, the tenderer will be deemed to have satisfied himself by actual inspection of work, 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.
- Cost of work of Railway (including GST), which shall be taken for comparison of rates. Anything other than the quoted % written in the Offer Form shall not be considered whatsoever.
- Tenderer/s shall quote single rate in % age above or below or at par over the total estimated rate/s of each individual item and total value are to be calculated on the basis of quoted % age above/below/at par the estimated rates as accepted by Railway.
- The offered rates shall be inclusive of all charges i.e. transportation, Labour & other applicable charges including GST (as applicable).

Sr. DME/Co-ordination
Northern Railway, Delhi Division

--End of tender document---