



NORTHERN RAILWAY
CONSTRUCTION ORGANIZATION
TENDER DOCUMENT
For The Work

General Power Supply work for Electrification of Station Buildings, Service Buildings, Circulating Area including illumination of Station Building, Service Buildings in c/w Redevelopment/Soft Upgradation of Rajpura Station and any other site under the jurisdiction of Dy. Chief Electrical Engineer/Const./Moradabad.

Tender No. 17-Elect/C/T/GPS/UMB/66

Dy. Chief Electrical Engineer/Const., Northern Railway, Moradabad 244001

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Signature of Tenderer

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TENDER DOCUMENT

NORTHERN RAILWAY
(TOP SHEET)
(Version 23-04-2026)

(A) Details to be filled in by Railway:

Mode of Tender	E-Tender (One Packet)
Tender Notice No.	17-Elect/C/T/GPS/UMB/66
Full name of work	General Power Supply work for Electrification of Station Buildings, Service Buildings, Circulating Area including illumination of Station Building, Service Buildings in c/w Redevelopment/Soft Upgradation of Rajpura Station and any other site under the jurisdiction of Dy. Chief Electrical Engineer/Const./Moradabad.
Approx. cost	₹ 2,49,44,879.07
Completion period	12 (Twelve) Months
Bid security (Cash/BG) amount	₹ 4,98,900/-
Sale/availability of tender document on Rly. Website	Tender documents will be available on IREPS web site i.e. www.ireps.gov.in from 19.06.2026 to 10.07.2026 up to 15.00 hrs.
Last date/Time of upload of tenders	10.07.2026 up to 15.00 hours. Tender documents can be uploaded by the tenderer on IREPS web site w.e.f. 25.06.2026 to 10.07.2026
Date and time of opening of tender	10.07.2026 at 15.00 hours (immediately after close of uploading of tender (D2). In case of two packet system, Financial bids of the eligible tenderers would be opened subsequently on the date & time to be notified later on.
Postal Address for correspondence, Email id & Mobile No	O/o Dy. Chief Electrical Engineer, Northern Railway, Near DRM Office, Moradabad – 244001 (Uttar Pradesh) Email id: dyceecmb@gmail.com Mobile no.: 9779230309

(B) Details to be filled in by tenderer while uploading their offer:

1	Constitution of the firm/ Concern (Tick as applicable)	Sole Proprietorship/ Partnership Firm / Company/ JV/ Registered Society/Registered Trust/LLP/HUF etc.
2	Full name of Sole Proprietorship/ Partnership Firm /Company/ JV/ Registered Society/Registered Trust/LLP/HUF etc. (as the case may be)	
3	Year of formation/ incorporation	
4	PAN NO.	
5	GSTIN No.	
6	Registered Office Address	
7	Address on which correspondence regarding this tender should be done	
8	Names of the Proprietor/ Partners/ JV members etc	
9	Contact No and e-mail id of authorized person under whose digital signature key tender document will be signed/uploaded on behalf of the tendering firm	

Note:

- i) Special attention of tenderers is drawn to clause 2.4.1 of “General tender condition & instruction to tenderers”, tenderer must upload, the documents mentioned therein pertaining to constitution of firm/ concern.
- ii) Special attention of tenderers is drawn to **Clause 2.3 of “General tender condition & instruction to tenderers”** and **Annexure-M, & M (A), as the case may be**, they should upload the requisite documents pertaining to their technical & financial eligibility.

Signature of the tenderer

Name of signatory_____

(C) **Check List of documents to be uploaded by the tenderer(s) while submitting their offer.**

Tenderer must upload following documents along with their offer

1	Cost of tender document, (NIL in case of e tender mode)
2	<p>Requisite Bid Security,</p> <p>A. (ONLINE mode-CASH) (No Documentary Proof required)</p> <p>B. ONLINE MODE-BG (BG Scanned copy to be uploaded with Tender Documents)</p> <p>Note for B:- 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)</p>
3	All requisite documents/credentials mentioned in clause 2.3 of “ <i>General Tender Conditions and Instructions to tenderers</i> ” pertaining to his/their technical and financial eligibility. (As applicable)
4	All requisite documents mentioned in clause 2.4 of “ <i>General Tender Conditions and instruction to tenderers</i> ” pertaining to constitution of firm/concern. (As applicable).
5	Tenderers are compulsorily required to upload certificate as per Annexure – M (A) as the case may be, as stipulated in 2.2.6 of “General Tender Conditions and instruction to tenderers” without which the offer will be considered incomplete and will be rejected summarily (Ref: RB letter No. 2022/CE-I/CT/GCC Correspondence dated 14.05.2024)
6	<p>Applicable for tender value more than Rs 10 crore.</p> <p>Tenderer(s) are compulsorily required to upload detail statement of works being executed/in hand on prescribed format as per Annexure-H & 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) as per Annexure-N as stipulated in Clause No. 2.3.2(A)(xiv) of “Special Tender Condition and Instructions to Tenderer(s)” without which the offer will be considered as incomplete and will be rejected summarily.</p>
7	Tenderers are required to upload requisite details in prescribed Performa of Annexure C to G, I, J& L without which the offer is liable to be rejected.
Note	<p>i) After opening of tender, any document/credential pertaining to technical, financial eligibility and available Bid Capacity constitution of firm etc. shall neither be asked nor be entertained/considered under any circumstances and no claim or representation whatsoever from the tenderer in this regard shall be entertained. Scanned copy of the documents, uploaded by the tenderer shall be clear & readable. However, Railway reserves the right to ask for any clarification on the documents/credentials already submitted by the tenderer along with the offer.</p> <p>ii) Tenderer may have to produce the original Documents in physical form at short notice whenever asked by Railway at any stage of tender evaluation process or even after finalization of tender.</p> <p>iii) In E-tender, all submissions of documents are to be uploaded on web-site. There may be last minute hic-cups and delay in uploading the Documents and payment of Bid Security etc. Tenderer's/Prospective bidders are advised to upload their offer well in time. Railway will not be responsible for any delay/non submission of offer due to any reason whatsoever</p> <p>iv) Annexure Q undertaking Regarding Employment/ Partnership of Retired Railway Employees.</p> <p>v) In case of tender value more Rs. 10 crore, Tenderer may please note that offers received without requisite Annexure-H & N as mentioned above, will be considered as incomplete & invalid tender and for which contractor shall have no claim on Railway.</p>

(D) CHECK LIST DOCUMENT ATTACHED WITH THE OFFER
(For guidance to Tenderer)

S. No	Document/ Detail	Required in the form	Attached	
			Yes	No
Constitution of Firm documents (as required in terms of Clause 2.4 of the tender document)				
1	In case of Sole Proprietorship Concern	(Undertaking as per Annexure O-1) Undertaking may be given. If not given As per para 14(iii) of GCC-2022, 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.		
2	In case of a “Partnership Firm/Concern”	(i) A notarized copy of the Partnership Deed or a copy of the Partnership Deed registered with the Registrar.		
		(ii) A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm (Standard Performa as per Annexure O-2)		
		(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 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.		
3	In case of a “JV Firm”	(i) 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 (Standard Performa as per Annexure – K-I). 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.		
		(ii) Power of Attorney/authorization duly Notarized by all JV constituents, in favour of the individual under whose digital signature key the tender document shall be uploaded on behalf of JV for		

		signing the tender document on behalf of the JV (Standard Performa as per Annexure O-3)		
3 (a)	In case one or more of the members of the JV Firm 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, (Standard Performa as per Annexure O-4)		
		(iii) A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm. (Standard Performa as per Annexure O-5)		
		(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.		
3(b)	In case one or more of the members of the JV Firm is/are Proprietary Firm or HUF, following documents shall be submitted:	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. (Standard Affidavit as per Annexure O-6)		
3(c)	In case one or more members of 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, (Standard Performa as per Annexure O-7)		
		(ii) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company		
		(iii) 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 create liability against the company (Standard Performa as per Annexure O-8).		
3(d)	In case one or more members of JV is/are LLP firm, the following	(i) A copy of LLP Agreement		
		(ii) A copy of Certificate of Incorporation of LLP		

	documents shall be submitted/uploaded	<p>(iii) A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement (Standard proforma as per Annexure O-13)</p> <p>(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. (Standard proforma as per Annexure O-14)</p> <p>(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.</p>		
4	In case of a “Company”	<p>(i) Copies of the AOA/MOA (Article of Association / Memorandum of Association) of the Company</p> <p>(ii) A copy of certificate of incorporation.</p> <p>(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 (Standard Performa as per Annexure O-9, 10).</p>		
5	In case of a “Registered Society & Registered Trust”	<p>(i) A copy of Certificate of Registration</p> <p>(ii) A copy of Memorandum of Association of Society/Trust Deed</p> <p>(iii) A copy of Rules & Regulations of the Society</p> <p>(iv) A copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust. (Standard Performa as per Annexure-O-16)</p>		
6	In case of LLP	<p>(i) A copy of LLP Agreement,</p> <p>(ii) A copy of Certificate of Incorporation; and</p> <p>(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 (Standard proforma as per Annexure O-11 & O-12).</p> <p>(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.</p>		

		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.		
6 (A)	In case of HUF	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 (Standard proforma as per Annexure O-15).		
Other important documents				
7	<u>Technical Eligibility Criteria:-</u>	Completion/Performance Certificate in support of 30%/40%/60% (as the case may be) for similar nature of work as per clause 2.3.2.A(v) of tender document.		
8	<u>Financial Eligibility Criteria:-</u>	Average Annual Contractual turnover (V/N or V, whichever is less) received as per Annexure-I and as per clause 2.3.2 (A) (vi) of Tender Document.		
9	Annexure-C	Declaration form regarding site etc.		
10	Annexure-D	Declaration regarding constitution of firm		
11	Annexure-E	Plant and Machinery		
12	Annexure-F	Engineers/Personnel		
13	Annexure-G	Works executed during last 7 years ending last day of the month previous to the one in which tender is invited		
14	Annexure-H	Works in Hand - in support of Bid Capacity (Mandatorily for tender value more than Rs. 10 crore)		
15	Annexure-I	The tenderers shall submit requisite information as per Annexure-I, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.		
16	Annexure-J	Bank Detail/RTGS		
17	Annexure-L	Performa of Completion Certificate		
18	Annexure- N	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 on prescribed proforma as per Annexure N duly verified by Chartered Accountant. (Mandatorily for tender value more than Rs. 10 crore)		
19	Annexure M (A), as the case may be	Mandatory certificate to be submitted by tenderer along with the tender documents		

20	Annexure Q	Undertaking Regarding Employment/ Partnership of Retired Railway Employees		
21	Attested copy of Ballast Test Report	Mandatory to be submitted (Only for pure ballast supply tenders) as per Railway Board letter No. 2007/CE-II/MB/I dated 30.12.2019.		
22	Annexure – K-3 & K-4	If tender submitted on behalf of Partnership Firm, relevant Annexures K-3 and K-4 as Declaration to be submitted by the tenderer along with tender document.		
23	Electrical Contractor's License	Mandatory to be submitted		

E. **PRECAUTIONS TO BE TAKEN FOR PREPARING LEGAL DOCUMENTS**

(For guidance to Tenderer):

1. Non-Judicial stamp paper

- (i) Should have been purchased in the name of the Company/firm/executants
- (ii) Should be purchased from the Place/State where the document is being executed.
- (iii) Values of the non-judicial stamp paper (NJSP) should be as mentioned in Tender conditions, where value of NJSP is not mentioned in the tender conditions, value of NJSP should be as per the law of the state in which the document is being executed.
- (iv) Date of purchase of Non-Judicial stamp paper should be prior from the date of execution of document.

2. Signature on the document

- (i) The document should be signed on each page and also at the appropriate place meant for signature of executants/deponent.
- (ii) Signatory/executants should ensure that on the date of signing the document he/she has valid authority/attorney in his/her favour for signing.
- (iii) In affidavit declaration clause as well as verification clause both should be signed by deponent/executants.
- (iv) Where the document requires witnessing, it should be duly signed by witnesses along with their names and addresses.
- (v) On Power of Attorney, signatures of the Attorney holder should also be got done and attested by executants.

3. Format of the document

- (i) Where the format has been prescribed by the Railway, the document should be executed in that format.
- (ii) Date and place of execution should always be mentioned on the document.

4. Notarization of document

- (i) The document should be duly attested (signed and stamped) by notary public on each page.
- (ii) The seal of the notary public should contain his name, area of practice and Registration number.
- (iii) Notarial stamps of appropriate value wherever required should be affixed on the document

NORTHERN RAILWAY

(Construction Organization)

TENDER NOTICE

The **Chief Administrative Officer/Deputy Chief Electrical Engineer /Const./Northern Railway, Moradabad**, for and on behalf of the President of India invites open e-tender for the following work:

SN	Name of work	Approx. Cost / Bid Security	Similar nature of work / Period of completion	Cost of tender document (Nil in case of e tender)
1	General Power Supply work for Electrification of Station Buildings, Service Buildings, Circulating Area including illumination of Station Building, Service Buildings in c/w Redevelopment/Soft Upgradation of Rajpura Station and any other site under the jurisdiction of Dy. Chief Electrical Engineer/Const./Moradabad	₹ 249.45 lakh / ₹ 4,98,900/- only	Wiring/Rewiring in buildings with associated electrical works. OR Lighting arrangement in buildings, circulating area, yard, street etc. with associated electrical works. OR Wiring/Rewiring, Lighting arrangement in buildings with associated electrical works. / 12 (Twelve) months	-----

Critical Dates		
Code	Activity	Date
D0	Date of availability of tender document on www.ireps.gov.in .	19.06.2026
D1 = D0 + 6 days	Start of submission of offer on www.ireps.gov.in	25.06.2026
D2 = D0 + 21 days	<ul style="list-style-type: none"> End of Availability of Tender Documents at www.ireps.gov.in. Opening of tender/offer. 	10.07.2026
<i>The reference time for all the above activities is 15.00 hours.</i>		
NOTE: In case the intended date for opening of tenders is declared a holiday, the tenders will be opened on the next working day at the same time.		

Technical Eligibility Criteria:

- (a) The tenderer must have successfully completed or substantially completed any of the following (by any Government organizations) 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)(i) In case of tenders for 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)(i): Separate completed works of minimum required values shall also be considered for fulfilment of technical eligibility criteria for different components.

- (b) (ii) 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. Any work or set of works shall be considered to be a separate component, only when cost of the component is more than ₹ 2 crore each.

- (b)(iii) 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 2.3.3(a) (ii) of the Tender Document or through subcontractor fulfilling the requirements as per clause 2.3.3 of the Tender Document or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Chief Engineer in writing.

Among the components of composite tender stipulated for evaluation of technical eligibility, tenderer can execute one or more specified components by engaging sub-contractor. The component(s) of work as stipulated in the tender document have to be mandatorily executed by the tenderer and others component(s) as stipulated in the tender document can be executed by the tenderer himself or by engaging sub-contractor. The components which are permitted to be executed by sub-contractor will be further classified in the tender document into those which will be considered towards technical eligibility and the remaining which will not be considered towards technical eligibility. For the component(s) which are to be mandatorily executed by the tenderer, the technical eligibility shall be assessed as per clause 2.3.2 (A) (v) (b) (i) of the tender document. In case of tenderer is JV, the Technical eligibility for the component proposed to be executed by the tenderer shall be fulfilled as per clause 2.3.2 (A) (xii) and Annexure-K. The technical eligibility for such stipulated components of work for which engagement of sub-contractor is permitted shall be evaluated as per clause 2.3.3 (a) (ii) of the tender document whether it is executed by tenderer or sub-contractor.

Note:- Total value of the work to be assigned to sub-contractor (s) shall not be more than 40% of total contract value.

If the tenderer proposes to execute one or more of such specified components which are to be considered towards technical eligibility through sub-contractor, the tenderer is required to submit the following documents along with the tender in support of such sub-contractors:

- (i) The documents of sub-contractor regarding constitution of firm / company / Registered Trust / Registered Society / LLP / HUF, etc (as applicable) at the time of tendering as per requirement of Clause 2.4 (Constitution of Firm) of “*Special Tender conditions and instruction to tenderer(s)*”.
- (ii) A formal Agreement duly notarized, legally enforceable in the Court of Law, between tenderer and sub-contractor for the component (s) of work proposed to be executed by the sub-contractor.
- (iii) A certificate that Sub-Contractor(s) are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders/contract on the date of opening of bids either in their individual capacity or as a member of the JV in which they were/are members.
- (iv) Document in support of technical credential of sub-contractor as per Clause 2.3.3 (a) (ii).

The consideration of Technical eligibility in case of composite tenders is clarified in details through an illustrative example as below:-

Example – Composite tender of value Rs. 50.00 Cr having components as below:-

1. A - Rs. 23 Cr.
2. B - Rs. 15 Cr.
3. C - Rs. 5 Cr.
4. D - Rs. 4 Cr.
5. E - Rs. 3 Cr.

Say, following criteria is stipulated for technical eligibility in tender document:

Component A & B:- To be met by tenderer or its constituent member in case of JV as per clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii) at the time of evaluation of tender.

Component C & D:- To be met either by tenderer or its constituent member in case of JV or by sub-contractor. These components are to be considered for technical eligibility at the time of evaluation of tender.

Component E:- To be met either by tenderer or its constituent member in case of JV or by sub-contractor. For this component, technical eligibility will be adjudged after award of contract as per para 2.3.2 (A) (v) b (iii).

Then the technical evaluation in this example will be done as detailed below:

SN	Component Description	Value of Component	Technical Eligibility Criteria
1	A	23 Cr	30/40/60% of Rs. 23 Cr in 3/2/1 no(s) of works of similar completed in 7 years by tenderer or Lead Member of the JV in case of JV
2	B	15 Cr	30/40/60% of Rs. 15 Cr in 3/2/1 no(s) of works of similar completed in 7 years by tenderer or Lead Member of the JV in case of JV

3	C	5 Cr	35% of Rs 5 Cr single work of similar nature completed in last 5 years (ending last day of month previous to the one in which tender is invited through a works contract) by tenderer or its constituent member in case of JV or Sub-contractor.
4	D	4 Cr	35% of Rs 4 Cr single work of similar nature completed in last 5 years (ending last day of month previous to the one in which tender is invited through a works contract) by tenderer or its constituent member in case of JV or Sub-contractor.
5	E	3 Cr	For this component, work covered into this component shall either be executed by tenderer himself if he has a work experience as per para 2.3.3 (a) (ii) or through sub-contractor fulfilling the requirement as per clause 2.3.3 or jointly i.e. partly himself and remaining through sub-contractor, with prior approval of Chief Electrical Engineer in writing. For this component, technical Eligibility will not be considered in tender evaluation and the documents of sub-contractor need not be submitted along with tender. The contractor will engage an eligible sub-contractor after award of contract with the approval of Chief Electrical Engineer in writing.

- (b) (iv) 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 2.3.3, with prior approval of Chief Electrical Engineer in writing.

Note for Technical Eligibility Criteria:

Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organization, 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, 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.

Technical Eligibility for Components of work in case of composite work – as detailed in tender document.

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-I, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

BID CAPACITY: (Applicable for tenders costing more than Rs. 10 crore)

Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the updated estimated value. The available Bid Capacity will be calculated as detailed in tender document.

Validity of Offer:

- (i) 60 days for tenders of value up to Rs.10 cr. from the date of opening.
- (ii) 90 days for tenders of value more than Rs.10 cr from the date of opening.

Submission of Tender Documents & Opening-

The tenders may be uploaded up to date D2 along with scanned copy of all the requisite document (as per Annexure 1 & 2).

- Technical cum Commercial Bids will be opened on Date D2 immediately after close of uploading of tenders.
- Financial bids of the eligible tenderers would be opened subsequently on the date and time to be notified later on.
- Tenderer may have to produce the original Documents at short notice whenever asked by Railway at any stage of tender evaluation process or even after finalization of tender.
- In E-tender, all submissions of documents are to be uploaded on web-site. There may be last minute hic-cups and delay in uploading the Bid Security and Documents etc. Tenderer's/Prospective bidders are advised to upload their offer well in time. Railway will not be responsible for any delay/non submission of offer due to any reason whatsoever.

Note

1.0 Special attention is invited for the tenderers

- (a) Tender will be summarily rejected in case of non-submission of Annexure-M (A), as the case may be.
- (b) In case of tender value more than Rs.10 crore, tender will be summarily rejected in case of non-submission of Annexure-H & N (bid capacity evaluation).

2.0 Instructions regarding GST

- (i) Works contracts shall be treated as supply of services as per schedule-IIGST Act.
- (ii) GST Act and Rules issued from time to time by the Government/ concerned authorities shall be applicable.
- (iii) The successful Contractor/ suppliers/ service providers/ parties immediately after the award of tender shall register their firms under GSTIN (GST Identification Number) and submit 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

3.0 In case tender value up to Rs.10 crore (Single packet)

The tender uploaded by the tenderer(s) will consist of Single Packets/Files i.e. Packet-I/File-I having (a) Tender form (First sheet) (b) General Tender Conditions and Instructions to tenderer/s (c) Special Conditions relating to site data and specifications (d) Bill(s) of quantities. This Bid shall contain all the documents as listed Annexure-1 & Annexure-2 of Tender Notice.

4.0 Tenderer(s) shall upload two files/packets: File-I/Packet-I and File-II/Packet-II.

- (i) File-I/Packet -I shall contain Technical Cum Commercial bid and all necessary documents regarding constitution of the firm and other requisite documents/credentials as per Annexures 1 and 2.
- (ii) File-II/Packet-II shall contain the Financial Bid only

5.0 “JVs shall be considered in accordance with approved tender conditions.”

NOTE:

1. The bidders who desire to participate against e-tenders, are advised to electronically register themselves on website www.ireps.gov.in for which they would require to obtain Class III digital certificate (if already not obtained) issued by CCA under IT Act-2000.
2. All other terms and conditions in respect of above tender are given in the tender document.
3. Only e-tenders will be accepted and tenders submitted in any other form will be summarily rejected.

Dy. Chief Electrical Engineer/Const.
N.R., Moradabad

Tender Notice No.17-Elect/C/T/GPS/UMB/66

Dated 17.06.2026

Copy to (Through e- mail):-

1. The FA & CAO/Const., Northern Railway, K. Gate, Delhi
2. All SAG Officers under CAO/C & CAO/C-II, Northern Railway, K. Gate, Delhi
3. All Dy.CE's/Const, Dy.CEE/Const under CAO/Const, N.Rly.
4. Copy for Notice Board.

Scanned copy Of the Documents to be uploaded along with offer

SNo	Subject/Context	Required Documents/Form	Action if required documents not submitted along with the tender
1	Cost of Tender Document (in terms of Clause 2.1.2 (a) of tender document)	NIL (In case of e tender mode)	Summarily Rejected (In case of tender other than e-tender mode)
2	Bid Security (in terms of Clause 3.0 of tender document)	<p>A. ONLINE MODE-CASH (no documentary proof required)</p> <p>B. ONLINE MODE-BG (BG Scanned copy to be uploaded with Tender Documents)</p> <p>Note for B :-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)</p>	Summarily Rejected
3	Constitution of Firm documents (as required in terms of Clause 2.4 of the tender document)		As per Clause 2.4.1.1 of Special Tender conditions and Instruction to the tenderer,
a	In case of Sole Proprietorship Concern	<p>(Undertaking as per Annexure O-1)</p> <p>Undertaking may be given. If not given</p> <p>As per para 14(iii) of GCC- 2022, 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.</p>	<p>After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society / HUF etc. shall be neither asked nor considered, if submitted. Further, no suomoto 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.</p> <p>Note: If all the requisite documents pertaining to the constitution of the</p>
b	In case of a "Partnership Firm/Concern"	<p>(i) A notarized copy of the Partnership Deed or a copy of the Partnership Deed registered with the Registrar.</p> <p>(ii) A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm (Standard Performa as per Annexure O-2)</p> <p>(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 from participation in tenders / contracts as on the date of submission of bids, either in their</p>	

		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.	firm/JV/sole proprietorship/partnership firm/company/Society/LLP/HUF etc., as specified in clause 2.4.1 above, are not submitted, offer will be considered as incomplete and shall be summarily rejected.
c	In case of a “JV Firm”	(i) 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. (ii) Power of Attorney/authorization duly Notarized by all JV constituents, in favour of the individual under whose digital signature key the tender document shall be uploaded on behalf of JV for signing the tender document on behalf of the JV (Standard Performa as per Annexure O-3)	
(c) (i)	In case one or more of the members of the JV Firm 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 (Standard Performa as per Annexure O-4) (iii) A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm. (Standard Performa as per Annexure O-5) (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.	
(c) (ii)	In case one or more of the members of the JV Firm is/are Proprietary Firm or HUF, following documents shall be submitted:	(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. (Standard Affidavit as per Annexure O-6)	
C(iii)	In case one or more members of 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, (Standard Performa as per Annexure O-7) (ii) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company (iii) 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 create liability against the company (Standard Performa as per Annexure O-8)	
C(iv)	In case one or more members of JV is/are LLP firm, the following documents shall be submitted/uploaded	(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 (Standard proforma as per Annexure O-13) (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. (Standard proforma as per Annexure O-14) (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.	
7(D)	In case of a “Company”	<ul style="list-style-type: none"> (i) Copies of the AOA / MOA (Article of Association/ Memorandum 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 (Standard Performa as per Annexure O-9, 10). 	
(E)	In case of a Registered Society & Registered Trust	<ul style="list-style-type: none"> (i) A copy of 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. (Standard Performa as per Annexure-O-16) (iv) A copy of Rules & Regulations of the Society 	
F	In case of LLP	<ul style="list-style-type: none"> (i) A copy of LLP Agreement, (ii) A copy of Certificate of Incorporation; and (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 (Standard proforma as per Annexure O-11 & O-12). (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.	
G	In case of 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. (Standard proforma as per Annexure O-15).	

Scanned copy of Document required to be uploaded along with the offer

S No.	Detail of documents	Summarily/Liable to be rejected
1.	<u>Technical Eligibility Criteria:-</u> Completion/Performance Certificate in support of 30%/40%/60% similar nature of work as per clause 2.3.2.A(v) of tender document.	Liabile to be Rejected Note:- As per para 7(E) of GCC-2022 After opening of tender and in view to assist in the examination, evaluation & comparison and pre-qualification 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.
2.	<u>Financial Eligibility Criteria:-</u> Average Annual Contractual turnover received as per Annexure- I and as per clause 2.3.2 (A) (vi) of Tender Document.	
3.	Annexure-C (Declaration form regarding site etc.)	
4.	Annexure-D (Declaration regarding constitution of firm)	Liable to be rejected
5.	Annexure-E (Plant and Machinery)	Liable to be rejected
6.	Annexure-F (Engineers/Personnel)	Liable to be rejected
7.	Annexure-G (Work executed in last seven years)	Liable to be rejected
8.	Annexure-H (Work in Hand) in support of Bid Capacity) (Applicable for tender value more than Rs. 10 crore)	In terms of Clause 2.3.2 (A) (XIV) of tender document Summarily Rejected
9.	Annexure-I (Average Annual Contractual turnover) :	Liable to be rejected
10.	Annexure-J (Bank Detail/RTGS)	Liable to be rejected
11.	Annexure-L (Performa of Completion Certificate)	Liable to be rejected
12.	Annexure-M(A), certificate to be submitted by tenderer along with the tender documents	Summarily Rejected
13.	Annexure-N (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) in support of Bid Capacity (Applicable for tender value more than Rs. 10 crore)	In terms of Clause 2.3.2 (A) (XIV) of tender document Summarily Rejected
14.	Annexure-Q	Annexure-Q is to be submitted/uploaded at the time of tendering. If Annexure-Q is not submitted/uploaded at the time of tendering,

		then the same shall be submitted after issue of LOA and before signing of the Contract Agreement.
15.	Attested copy of Ballast Test Report, to be submitted, (Only for pure ballast supply tenders) . As per Railway Board letter No. 2007/CE-II/MB/I dated 30.12.2019.	Summarily Rejected
16	Annexure – K-3 & K-4	If tender submitted on behalf of Partnership Firm, relevant Annexures K-3 and K-4 as Declaration to be submitted by the tenderer along with tender document.
17	Electrical Contractor's License	Liable to be rejected

COVERING NOTE

FOR THE SPECIAL ATTENTION OF THE TENDERERS

1. The tenderers are requested to carefully peruse the Tender Documents, **and upload all requisite documents/credentials along with the offer. Scanned copy of the documents, uploaded by the tenderer shall be clear & readable. Documents submitted/uploaded previously or along with another tender currently under consideration SHALL NOT be considered while evaluating the present tender.**
1. The tenderer(s) shall visit the site of work and acquaint himself/themselves with the conditions of work viz. approach roads and accessibility, nature of soil/rock, availability of materials, electric power, water for work and drinking purposes, site for labour camps, stores, godowns, extent of lead/lift in work, availability of skilled and unskilled labour etc. that may be encountered in the course of execution of work. In short, he/they should familiarize himself/themselves fully with the conditions of the site and FURNISH A CERTIFICATE TO THIS EFFECT, in the Proforma appended as **Annexure-C**.
2. **FURTHER, OFFERED RATES SHOULD BE FILLED UP IN THE TENDER SCHEDULE at specified space. RATES OFFERED IN ANY OTHER PROFORMA/FORM WILL BE SUMMARILY REJECTED.**
3. **In case tender value up to Rs. 10 crore (Single packet)**
 - 4.1 The tender uploaded by the tenderer(s) will consist of Single Packets/Files i.e. Packet-I/File-I having (a) Tender form (First sheet) (b) General Tender Conditions and Instructions to tenderer/s (c) Special Conditions relating to site data and specifications (d) Bill(s) of Quantities. This Bid shall contain all the documents as listed Annexure-1 & Annexure-2 of Tender Notice. Tenderers are requested to ensure that all such documents and Annexures duly filled in are uploaded, complete in all respects with their Packet-I/File-I failing which his/their offer is likely to be rejected/summarily rejected, as applicable. Tender will be opened on Date D2, i.e. immediately after close of uploading of tenders
- 5.0 **In case tender value more than Rs. 10 crore (Two packet system),**
 - 5.1 The tender uploaded by the tenderer(s) will consist of TWO Packets/Files i.e. Packet-I/File-I and Packet-II/File-II.
 - 5.2 **Packet-I/File-I – Technical cum Commercial Bid** will be opened immediately after close of uploading of tender (D2) i.e. on **10.07.2026 at 15.00 hrs**. This Bid shall contain (a) Tender form (First sheet) (b) General Tender Conditions and Instructions to tenderer/s (c) Special Conditions relating to site data and specifications. This Bid shall contain all the documents as listed Annexure-1 & Annexure-2. Tenderers are requested to ensure that all such documents and Annexures duly filled in are uploaded, complete in all respects with their Packet-I/File-I failing which his/their offer is likely to be rejected/summarily rejected, as applicable.
 - 5.3 **Packet II/File II - FINANCIAL BID (SECOND PACKET)** of only those tenderer(s) will be opened whose Packet-I/File-I (Technical cum Commercial Bid) is found eligible as per Tender Conditions. The time, date and venue of opening of Packet-II/File-II (Financial Bids) shall be notified to the successful tenderer(s) after evaluation of Packet-I/File-I (Technical cum Commercial Bids). The same shall be opened on due date in the presence of tenderers/their representatives as may wish to attend the same.
- 6.0 To be opened at **15.00 hours on 10.07.2026 and** shall be uploaded along with the following documents:

- (i) Bid Security **ON LINE MODE**
- (ii) All other mandatory documents as listed in the document

- 7.0 Note:- Tenderer(s) to please note that after opening of tender, any document/credential pertaining to technical & financial eligibility, constitution of firm etc. shall neither be asked nor be entertained/ considered under any circumstances and no claim or representation whatsoever from the tenderer in this regard shall be entertained. Scanned copy of the documents, uploaded by the tenderer shall be clear & readable. However, Railway reserves the right to seek any clarification on the documents/credentials already submitted by the tenderer along with the offer.**
- 7.1 Tenderer should keep the validity of their offer for 60/90 days for the tender value up to Rs.10 cr/tender value more than Rs. 10 cr respectively. Any deviation from this will not be accepted under any circumstances.
- 8.0 **Tenderer may have to produce the original Documents in physical form at short notice whenever asked by Railway at any stage of tender evaluation process or even after finalization of tender.**
- 9.0 **In E-tender, all submissions of documents are to be uploaded on web-site. There may be last minute hic-cups and delay in uploading the Documents and payment of Bid Security etc. Tenderer's/Prospective bidders are advised to upload their offer well in time. Railway will not be responsible for any delay/non submission of offer due to any reason whatsoever.**
- 10.0 **Each page of the tender papers will be treated as signed/ accepted by the tenderer(s) or such person(s) on his/their behalf who is/are legally authorized to sign for him/them.**
- 11.0 The tenderer(s) may note that the Railway reserves its right to either accept or reject any Bid/s without assigning any reasons whatsoever and tenderer(s) shall have no claim(s) on this account.
- 12.0 Public Procurement (Preference to Make in India):- The tenderer shall comply with Public Procurement Policy order 2017 – Details of which is elaborated in Clause No. 2.3.4 of “*Special Tender Conditions and Instruction to tenderer(s)*”
- 13.0 Prospective tenderer(s) may contact **Deputy Chief Electrical Engineer/Const./, Northern Railway, Moradabad, (e-mail id dyceecmb@gmail.com & Mobile No. 9779230309) or Dy. Chief Engineer/Construction/T&C, Northern Railway, Kashmere Gate, Delhi (e-mail id -----& Mobile No. -----)** for obtaining further clarifications, if required **during working hours.**

NORTHERN RAILWAY
CONSTRUCTION ORGANIZATION
TENDER FORMS (FIRST SHEET)

Tender No. **17-Elect/C/T/GPS/UMB/66**

Name of Work: **General Power Supply work for Electrification of Station Buildings, Service Buildings, Circulating Area including illumination of Station Building, Service Buildings in c/w Redevelopment/Soft Upgradation of Rajpura Station and any other site under the jurisdiction of Dy. Chief Electrical Engineer/Const./Moradabad**

To
The President of India,
Acting through the
Chief Administrative Officer/Const.,
Northern Railway,
Kashmere Gate, 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 60/90 days (for the tender value up to Rs. 10 cr /tender value more than Rs.10 cr respectively) 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 Northern 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 **12 (Twelve) 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 **₹ 4,98,900/-** 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 the Tenderer(s)

Date: _____

Address of the Tenderer(s)

(Authority Ref:- Advance Correction Slip No.7 issued vide Railway Board letter No.2022/CE-I/CT/GCC-2022/Policy/Pt.I dated 25-09-2024)

NORTHERN RAILWAY
CONSTRUCTION ORGANIZATION
GENERAL TENDER CONDITIONS AND INSTRUCTION TO TENDERER(S)

1.0	<p><u>DETAILS OF WORKS:</u></p> <p>Tenders are invited for the work “AS ON TOP SHEET”</p>
2.0	<p><u>TENDER DOCUMENTS:</u></p> <p>A <u>In case of tender value up to Rs. 10 crore (Single Packet)</u></p> <p>The following document will form parts of tender /document having</p> <ul style="list-style-type: none"> ● Top sheet, ● Tender Notice, ● Addendum/Corrigendum, if any, ● Covering Note ● Tender form (First sheet) ● General Tender Conditions and Instructions to tenderer/s along with related Annexures, ● Special Conditions relating to site data and specifications along with related Annexures, ● Bill(s) of Quantities. ● This Bid shall contain all the documents as listed Annexure-1 & Annexure-2 of Tender Notice. ● Tenderers are requested to ensure that all such documents and Annexures duly filled in are uploaded, complete in all respects failing which his/their offer is likely to be rejected/summarily rejected, as applicable. <p>NOTE</p> <ul style="list-style-type: none"> ● 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. Chief Electrical Engineer/Const/NR/Moradabad or obtained from the office of the Chief Electrical Engineer, Construction, Northern Railway on payment of prescribed charges. ● 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 <p>B <u>In case of tender value more than Rs. 10 crore (Two packet)</u></p> <p>The following document will form part of tender /document:-</p> <p>Packet I – Technical cum commercial Bid</p> <ul style="list-style-type: none"> ● Top sheet, ● Tender Notice, ● Addendum/Corrigendum, if any, ● Covering Note. ● Tender form (first sheet), ● General Tender Conditions and Instructions to the Tenderers along with related Annexures, ● Special Conditions related to Site Data and Specifications along with related Annexures. ● Tenderers are requested to ensure that all such documents and Annexures duly filled in are uploaded, complete in all respects failing which his/their offer is likely to be rejected/summarily rejected, as applicable.

	<p>Note</p> <ul style="list-style-type: none"> 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. Chief Electrical Engineer/Const/NR/Moradabad or obtained from the office of the Chief Electrical Engineer, Construction, Northern Railway on payment of prescribed charges. 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 Packet 2 – Financial Bid It will contain the Bill(s) of Quantities. with provision for quoting of rates by tenderers.
C	<p><u>Electronic Reverse Auction (e-RA):-</u></p> <p>Electronic Reverse Auction (e-RA) is not applicable for all works tenders, but it can be adopted on case to case basis with the approval of PHODs level officer for tenders costing above Rs. 50 crore. If e-RA option is opted during the invitation of tender by the tender inviting authority, then the guidelines circulated by Railway Board's through following letters shall be incorporated and followed:-</p> <p>(i) RB Letter No.2017/Trans/01/Policy/Pt-S dated 28-03-2018</p> <p>(ii) RB Letter No.2018/CE-I/CT/18 dated 21-11-2024.</p>
D	<p>Pre Bid Conference: Intenders 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.</p>
2.1	<p><u>SUBMISSION OF TENDERS:</u></p>
2.1.1 (a)	<p>The offer is to be uploaded online up to 10.07.2026 by 15.00 hrs (D2) along with scanned copy of all the requisite document (as per Annexure 1 & 2 of tender notice).</p> <ul style="list-style-type: none"> Tenderer may have to submit the original Documents in physical form at short notice whenever asked by Railway at any stage of tender evaluation process or even after finalization of tender. In E-tender, all submissions of documents are to be uploaded on web-site. There may be last minute hic-cups and delay in uploading the Documents, Bid Security. Tenderer's/Prospective bidders are advised to upload their offer well in time. Railway will not be responsible for any delay/non submission of offer due to any reason whatsoever.
2.1.1 (b)	<p>Care in submission of tender</p>
(i)	<p>Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual RITES 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.</p>
(ii)	<p>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.</p>

	Tenderer's will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
(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.
(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.
(v)	<p>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:</p> <p>Wrong/incorrect invoices are 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;</p> <p>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.</p> <p>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.</p>
2.1.1 (c)	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.
2.1.1 (d)	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.
2.1.2	<p>Cost of Tender Documents</p> <p>The cost of tender document is Rs NIL./-. This will be applicable for tenders other than e tender mode. This should be paid separately and not included in the Bid Security of tender.</p>
2.1.3	In case the intended date for opening of tenders is declared a holiday, the tenders will be opened on the next working day at the same time
2.2	<u>COMPLETION OF TENDER DOCUMENTS :</u>
2.2.1	The tenderers shall quote the rates of one single % age "Above/Below/At par" on the total amount comprising basic value of entire Schedule of Chapters of USSOR-2021/DSR-2021 plus escalation and one single %age "Above / Below / At par" over entire schedule of Non schedule Items (Schedule B in the Bill(s) of quantities. Every possible fluctuation, in the rate of labour, material and general commodities, and other possibilities of each and every kind which may affect the rates, should be considered and kept in view before quoting the rates and no claim on this account shall

	be entertained by the Railway under any circumstances except the price escalation payable as per price variation clause, if any, provided separately in the tender documents."
2.2.2	<p>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.</p> <p>In case of tender other than e tender mode, <i>Multiple Rates-</i> in case tenderer/s quote selective rebate on any individual item(s) of a USSOR Chapter/DSR of Schedule-A/Individual NS item of Schedule-B, the same will be treated as multiple rate and <i>their offer will be summarily rejected.</i></p>
2.2.3	Each page of the tender papers will be treated as signed/ accepted by the tenderer(s) or such person(s) on his/their behalf who is/are legally authorized to sign for him/them and to enter into commitments on their behalf.
2.2.4	The rates, rebates and/or other financial terms, if any, quoted by tenderer in the relevant fields of the Financial Bid page will only be the ruling terms for deciding the inter-se ranking, and any such condition having financial repercussions, if quoted by them anywhere else including attached documents shall not be considered for deciding inter-se ranking
2.2.5	Additional conditions or stipulations, if any, must be made by the tenderer/s in a covering letter with the tender. The Railway reserves the right not to consider conditional tenders and reject the same without assigning any reason. Only those additional conditions which are explicitly accepted by the Railway shall form part of the contract.
2.2.6.	<p><u>Submission of Annexure-M and Annexure M (A), as the case may be:-</u></p> <p>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-M. Facility for Annexure-M has already been incorporated in IREPS module. In addition to Annexure-M, in case of other than Company/Proprietary firm, Annexure –M (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 Annexure – M (A) 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.</p> <p>(Ref: RB Letter No. 2022/CE-I/CT/GCC Correspondence dated 14-05-2024)</p>
2.2.7	<p>(a) 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.</p> <p>b) 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.</p> <p>(c) 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</p>

	<p>contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of up to two years.</p> <p>(d) Clarification of Bids: To assist in the examination, evaluation & comparison and pre-qualification 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.</p> <p>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.</p>
2.2.8	Tenderer may have to submit the original Documents in physical form at short notice whenever asked by Railway at any stage of tender evaluation process or even after finalization of tender.
2.2.9	In E-tender, all submissions of documents are to be uploaded on web-site. There may be last minute hic-cups and delay in uploading the Documents and payment of Bid Security. Tenderer's/Prospective bidders are advised to upload their offer well in time. Railway will not be responsible for any delay/non submission of offer due to any reason whatsoever
2.2.10	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.
2.2.11	The works are required to be completed within a period of 12 (Twelve) months from the date of issue of acceptance letter.
2.2.12	<p>Employment/Partnership etc. of Retired Railway Employees:</p> <p>a) Should a tenderer</p> <p>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</p> <p>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</p> <p>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</p> <p style="text-align: center;">AND</p> <p>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</p> <p style="text-align: center;">THEN</p> <p>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.</p>

	<p>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.</p> <p>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.</p> <p>Note 1:- If information as required as per 2.2.12 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. The undertaking shall be submitted as per Annexure-Q.</p> <p>Note 2:</p> <p>(i) This Annexure-Q is to be given by each member of JV.</p> <p>(ii) Annexure-Q is to be submitted/uploaded at the time of tendering. If Annexure-Q is not submitted/uploaded at the time of tendering, then the same shall be submitted after issue of LOA and before signing of the Contract Agreement.</p>
2.2.13	Instructions for bidders from a country which shares a land border with India
	<p>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.</p> <p>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 joint venture 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.</p> <p>III “Bidder from a country which shares a land border with India” for the purpose of this Order means:-</p> <p>a) An entity incorporated, established or registered in such a country; or</p> <p>b) A subsidiary of an entity incorporated, established or registered in such a country; or</p> <p>c) An entity substantially controlled through entities incorporated, established or registered in such a country; or</p> <p>d) An entity whose beneficial owner is situated in such a country; or</p> <p>e) An Indian (or other) agent of such an entity; or</p> <p>f) A natural person who is a citizen of such a country; or</p> <p>g) A joint venture where any member of the joint venture falls under any of the above.</p> <p>IV The beneficial owner for the purpose of (III) above will be as under:</p>

	<p>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(s), has a controlling ownership interest or who exercises control through other means.</p> <p>Explanation-</p> <p>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;</p> <p>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;</p> <p>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;</p> <p>3. In case or an unincorporated association or body of individual, 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;</p> <p>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 management official;</p> <p>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.</p> <p>V An agent is a person employed to do any act for another, or to represent another in dealings with third person.</p> <p>VI 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</p> <p>VII 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.</p> <p>(Railway Board letter No. 2020/CE-I/CT/2/GCC/Correspondence, dated 11.08.2020)</p> <p>(Note:- Declaration to be given by tenderer as incorporated in Annexure-M)</p>
2.3	<u>CREDENTIALS TO BE UPLOADED/SUBMITTED ALONG WITH TENDER DOCUMENTS: (ELIGIBILITY CRITERIA)</u>
2.3.1	Tenderer(s) should upload documents and certificates to show that he/they has/have satisfactorily carried out works of the type involved in the construction of the work being tendered for. He/they should also produce proof of the satisfaction of the Railway of his/their technical ability and financial stability to undertake the work of the magnitude tendered for.

2.3.2	The tenderer(s) shall upload with his/their tender a list of serviceable machinery, tools and plants, equipment's and vehicles he/they has/have in hand for executing the work & those, he/they intends/intend to purchase.
2.3.2 (A)	The tenderer(s) must upload along with his/their tenders:-
(i)	Statement showing similar works executed by him/them
(ii)	Certificates of successful completion of his/their work
(iii)	The tenderers shall submit requisite information as per Annexure-I, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.
(iv)	A list of their Engineering Organization and equipment's, construction Tools and Plants available with them.
(v)	Technical Eligibility Criteria
(v)	<p>(a) The tenderer must have successfully completed or substantially completed any of the following (From Govt. Organization) during last 07 (seven) years, ending last day of the month previous to the one in which tender is invited.</p> <p>Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or</p> <p>Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or</p> <p>One similar work each costing not less than the amount equal to 60% of advertised value of the tender.</p> <p>(b) (i) In case of tenders for 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.</p> <p>Three similar works each costing not less than the amount equal to 30% of advertised value of each component of tender, or</p> <p>Two similar works each costing not less than the amount equal to 40% of advertised value of each component of tender, or</p> <p>One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender.</p> <p><u>Note for (b)(i):</u> Separate completed works of minimum required values shall also be considered for fulfilment of technical eligibility criteria for different components.</p> <p>(b)(ii) 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. Any work or set of works shall be considered to be a separate component, only when cost of the component is more than Rs 2 crore each.</p>

(b)(iii) 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 2.3.3(a) (ii) of the Tender Document or through subcontractor fulfilling the requirements as per clause 2.3.3 of the Tender Document or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Chief Engineer in writing.

Among the components of composite tender stipulated for evaluation of technical eligibility, tenderer can execute one or more specified components by engaging sub-contractor. The component(s) of work as stipulated in the tender document have to be mandatorily executed by the tenderer and others component(s) as stipulated in the tender document can be executed by the tenderer himself or by engaging sub-contractor. The components which are permitted to be executed by sub-contractor will be further classified in the tender document into those which will be considered towards technical eligibility and the remaining which will not be considered towards technical eligibility. For the component(s) which are to be mandatorily executed by the tenderer, the technical eligibility shall be assessed as per clause 2.3.2 (A) (v) (b) (i) of the tender document. In case of tenderer is JV, the Technical eligibility for the component proposed to be executed by the tenderer shall be fulfilled as per clause 2.3.2 (A) (xii) and Annexure-K. The technical eligibility for such stipulated components of work for which engagement of sub-contractor is permitted shall be evaluated as per clause 2.3.3 (a) (ii) of the tender document whether it is executed by tenderer or sub-contractor.

Note:- Total value of the work to be assigned to sub-contractor (s) shall not be more than 40% of total contract value.

If the tenderer proposes to execute one or more of such specified components which are to be considered towards technical eligibility through sub-contractor, the tenderer is required to submit the following documents along with the tender in support of such sub-contractors:

- (i) The documents of sub-contractor regarding constitution of firm / company / Registered Trust / Registered Society / LLP / HUF, etc (as applicable) at the time of tendering as per requirement of Clause 2.4 (Constitution of Firm) of “*Special Tender conditions and instruction to tenderer(s)*”.
- (i) A formal Agreement duly notarized, legally enforceable in the Court of Law, between tenderer and sub-contractor for the component (s) of work proposed to be executed by the sub-contractor.
- (ii) A certificate that Sub-Contractor(s) are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders/contract on the date of opening of bids either in their individual capacity or as a member of the JV in which they were/are members.
- (iii) Document in support of technical credential of sub-contractor as per Clause 2.3.3 (a) (ii).

The consideration of Technical eligibility in case of composite tenders is clarified in details through an illustrative example as below:-

Example – Composite tender of value Rs. 50.00 Cr having components as below:-

- | | | |
|------|---|------------|
| 1. A | - | Rs. 23 Cr. |
| 2. B | - | Rs. 15 Cr. |
| 3. C | - | Rs. 5 Cr. |
| 4. D | - | Rs. 4 Cr. |
| 5. E | - | Rs. 3 Cr. |

Say, following criteria is stipulated for technical eligibility in tender document:

Component A & B:- To be met by tenderer or its constituent member in case of JV as per clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii) at the time of evaluation of tender.

Component C & D:- To be met either by tenderer or its constituent member in case of JV or by sub-contractor. These components are to be considered for technical eligibility at the time of evaluation of tender.

Component E:- To be met either by tenderer or its constituent member in case of JV or by sub-contractor. For this component, technical eligibility will be adjudged after award of contract as per para 2.3.2 (A) (v) b (iii).

Then the technical evaluation in this **example** will be done as detailed below:

SN	Component Description	Value of Component	Technical Eligibility Criteria
1	A	23 Cr	30/40/60% of Rs. 23 Cr in 3/2/1 no(s) of works of similar completed in 7 years by tenderer Or Lead Member of the JV in case of JV.
2	B	15 Cr	30/40/60% of Rs. 15 Cr in 3/2/1 no(s) of works of similar completed in 7 years by tenderer Or Lead Member of the JV in case of JV.
3	C	5 Cr	35% of Rs 5 Cr single work of similar nature completed in last 5 years (ending last day of month previous to the one in which tender is invited through a works contract) by tenderer or its constituent member in case of JV or Sub-contractor.
4	D	4 Cr	35% of Rs 4 Cr single work of similar nature completed in last 5 years (ending last day of month previous to the one in which tender is invited through a works contract) by tenderer or its constituent member in case of JV or Sub-contractor.
5	E	3 Cr	For this component, work covered into this component shall either be executed by tenderer himself if he has a work experience as per para 2.3.3 (a) (ii) or through sub-contractor fulfilling the requirement as per clause 2.3.3 or jointly i.e. partly himself and remaining through sub-contractor, with prior approval of Chief Electrical Engineer in writing. For this component, technical Eligibility will not be considered in tender evaluation and the documents of sub-contractor need not be submitted along with tender. The contractor will engage an eligible sub-contractor after award of contract with the approval of Chief Electrical Engineer in writing.

(b) (iv) 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 2.3.3, with prior approval of Chief Engineer in writing.

Note for Technical Eligibility Criteria:

Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organization, work experience certificate issued by Public listed company having average annual turn over of Rs500 crore

	<p>and above in last 3 financial years excluding the 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.</p> <p>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.</p>																											
(c)	<u>Similar Nature of Work and Components of work in case of composite work:</u>																											
	"-----"																											
(c)(i)	Similar Nature of Work (in case of Single similar nature of work):																											
	<p>"Wiring/Rewiring in buildings with associated electrical works. OR Lighting arrangement in buildings, circulating area, yard, street etc. with associated electrical works. OR Wiring/Rewiring, Lighting arrangement in buildings with associated electrical works"</p>																											
(c)(ii)	Components of work in case of composite work.																											
	<table border="1"> <thead> <tr> <th>Type of component</th><th>Value of Component (Rs.)</th><th>Technical Eligibility</th><th>Similar Nature of work</th></tr> </thead> <tbody> <tr> <td>(A).....</td><td>Rs.....Cr .</td><td>By tenderer or its constituent member in case of JV as per clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii). Technical eligibility for this component will be considered for tender evaluation.</td><td>.....</td></tr> <tr> <td>(B).....</td><td>Rs.....Cr .</td><td>By tenderer or its constituent member in case of JV as per clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii). Technical eligibility for this component will be considered for tender evaluation.</td><td>.....</td></tr> <tr> <td>(C).....</td><td>Rs.....Cr .</td><td>Either by tenderer or its constituent member in case of JV or by Sub-contractor as per clause 2.3.2 (A) (v) (b) (iii). Technical eligibility for this component will be considered for tender evaluation.</td><td>.....</td></tr> <tr> <td>(D)</td><td>Rs..... Cr</td><td>Either by tenderer or its constituent member in case of JV or by Sub-contractor as per clause 2.3.2 (A) (v) (b) (iii). Technical eligibility for this component will be considered for tender evaluation.</td><td>.....</td></tr> <tr> <td>(E).....</td><td>Rs.....Cr .</td><td>For this component, work covered into this component shall either be executed by tenderer himself if he has a work experience as per para 2.3.3 (a) (ii) or through sub-contractor fulfilling the requirement as per clause 2.3.3 or jointly i.e. partly himself and remaining through sub-contractor, with prior approval of Chief Electrical</td><td>.....</td></tr> </tbody> </table>	Type of component	Value of Component (Rs.)	Technical Eligibility	Similar Nature of work	(A).....	Rs.....Cr .	By tenderer or its constituent member in case of JV as per clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii). Technical eligibility for this component will be considered for tender evaluation.	(B).....	Rs.....Cr .	By tenderer or its constituent member in case of JV as per clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii). Technical eligibility for this component will be considered for tender evaluation.	(C).....	Rs.....Cr .	Either by tenderer or its constituent member in case of JV or by Sub-contractor as per clause 2.3.2 (A) (v) (b) (iii). Technical eligibility for this component will be considered for tender evaluation.	(D)	Rs..... Cr	Either by tenderer or its constituent member in case of JV or by Sub-contractor as per clause 2.3.2 (A) (v) (b) (iii). Technical eligibility for this component will be considered for tender evaluation.	(E).....	Rs.....Cr .	For this component, work covered into this component shall either be executed by tenderer himself if he has a work experience as per para 2.3.3 (a) (ii) or through sub-contractor fulfilling the requirement as per clause 2.3.3 or jointly i.e. partly himself and remaining through sub-contractor, with prior approval of Chief Electrical			
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(E).....	Rs.....Cr .	For this component, work covered into this component shall either be executed by tenderer himself if he has a work experience as per para 2.3.3 (a) (ii) or through sub-contractor fulfilling the requirement as per clause 2.3.3 or jointly i.e. partly himself and remaining through sub-contractor, with prior approval of Chief Electrical																									

			Engineer in writing. For this component, technical Eligibility will not be considered in tender evaluation and the documents of sub contractor need not be submitted along with tender. The contractor will engage an eligible sub contractor after award of contract with the approval of Chief Electrical Engineer in writing.	
	<p>Note:</p> <p>In case tenderer (either for himself or his sub-contractor) cites a single completed work towards fulfilling technical eligibility for more than one component as such work may fulfil criteria of ‘similar nature of work’ for more than one component. In such a case, technical eligibility for each component shall be arrived at by applying specified % for that component to the combined advertised value of all such components whose technical eligibility is proposed to be fulfilled by such work (instead of advertised value of only that component).</p> <p>Example:</p> <p>Value of component B: Rs. 20 Cr</p> <p>Value of component C: Rs. 5 Cr</p> <p>Then minimum value of a single completed work involving similar nature works for both component B and component C, required to qualify the technical eligibility criteria shall be as under:</p> <p>(i) 30%/40%/60% of Rs. 25 Cr (=20 Cr + 5 Cr) for Component B</p> <p>(ii) 35% of Rs. 25 Cr (=20 Cr + 5 Cr) for component C</p>			
(d)	The following will be applicable in evaluating the eligibility:			
(i)	Similar nature of work physically completed within the qualifying period i.e., the last Seven years ending last day of month previous to the one in which tender is invited (even though the work might have commenced before the qualifying period) should only be considered in evaluating the eligibility criteria under clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii).			
(ii)	<p>In the case of composite works involving combination of different works, even separate completed works of required value should be considered while evaluating the eligibility criteria.</p> <p>For example, in a tender for bridge work where similar nature of work has been defined as bridge work with pile foundation and PSC superstructure, a tenderer, who had completed bridge work with pile foundation of value at least equal to 30%/40%/60% (as the case may be)of tender value and also has completed one bridge work with PSC superstructure of value at least equal to 30%/40%/60% (as the case may be)of the tender value, should be considered as having fulfilled the eligibility criterion of having completed single similar nature of work under clause 2.3.2 (A) (v) (b) (i) and 2.3.2 (A) (xii).</p>			
2.3.2 (A) (vi)	<u>Financial Eligibility Criteria:</u>			
	The tenderer must have minimum average annual contractual turnover of V/N or ‘V’ whichever is less, where			

	<p>V= Advertised value of the tender in crores of Rupees</p> <p>N= Number of years prescribed for completion of work for which bids have been invited.</p> <p>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.</p> <p>The tenderers shall submit requisite information as per Annexure-I, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.</p>
(vii)	<p>For judging the technical eligibility, only those works which had been executed for any Government Organization shall be considered and the tenderer(s) will submit the certificate to this effect from the Officer concerned duly signed under the official seal. <u>It should be noted that credentials for the judging technical eligibility works executed for Private Individual/ Private Organization shall not be considered.</u></p> <p>However for judging technical eligibility, in addition to credentials issued by any Government Organization, credentials issued by Public listed company having average annual turnover of Rs500 crore and above in last 3 financial years excluding the 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.</p> <p>In case tenderer submits credentials issued by public listed company, the tenderer shall also submit along with 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 shall be enclosed in support of above.</p> <p>Completion Certificate/Experience Certificate issued by Competent Authority in favour of tenderer duly stating Name & Final cost of the Work, Date of Completion etc. as per Annexure –L must be uploaded along with the offer.</p>
(viii)	<p>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 / financial eligibility criteria in the tender under consideration.</p> <p>NOTE:- Railway may at its discretion invite the tenderer for online verification of Form 26AS, whenever considered necessary.</p>
(ix)	<p>If a tenderer(s) has completed a work of similar nature where cement and steel was issued by the Department free of cost, tenderer(s) must upload the completion certificate indicating cost of these materials and total cost of the work (including cost of cement/steel) shall be considered to decide eligibility or otherwise.</p>
(x)	<p>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.</p>
(xi)	<p>Tenderer(s) has to satisfy the eligibility criteria for technical capability and competence as well as for financial capacity and organizational resources.</p>

(xii)	If the tenderer(s) is a JV, each partner of JV should have good credentials and the JV should meet the technical and financial eligibility criteria as per the guide lines given in Annexure K & K-1.
(xiii)	If the tenderer(s) is a Partnership Firm, the conditions and the technical & financial eligibility criteria will be applicable as per guidelines given in Annexure K-2.
(xiv)	<u>Bid Capacity</u> : Applicable for tenders value more than Rs 10 Crore.
	<p>For tenders having advertised value more than Rs 10 crore wherein eligibility criteria include bid capacity also, the tenderer will be qualified only if its available bid capacity is equal to or more than the total bid value of the present tender. The available bid capacity shall be calculated as under:</p> <p>Available Bid capacity= $[A \times N \times 2] - 0.33 \times N \times B$</p> <p>Where</p> <p>A= 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), taking into account the completed as well as works in progress.</p> <p>N= Number of years prescribed for completion of work for which bids has been invited.</p> <p>B = Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma Annexure-H 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 tender.</p> <p>Note:</p> <p>(a) The tenderer(s) shall furnish the details of :-</p> <ol style="list-style-type: none"> (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 on prescribed proforma as per Annexure N duly verified by Chartered Accountant. (ii) Existing commitments and balance amount of ongoing works with tenderer as per the prescribed Performa in Annexure-H 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 tender for calculating B. In case of no works in hand, a Nil statement should be furnished. This statement should be submitted duly verified by Chartered Accountant. <p>(b) In case if a bidder is JV, the tenderer(s) must furnish the details of</p> <ol style="list-style-type: none"> (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 up to the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished. This statement should be submitted duly verified by Chartered Accountant.

	<p>(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.</p> <p>(d) The arithmetic sum of individual "bid capacity" of all the members shall be taken as JV's "bid capacity".</p> <p>(e) In case, the tenderer's failed to submit the above statement along with offer, their/his offer shall be considered as incomplete and will be rejected summarily.</p> <p>(f) The available bid capacity of tender shall be assessed based on the details submitted by the tenderer. In case the available Bid capacity is lesser than estimated cost of work put to tender, his offer shall not be considered even if has been found eligible in other eligibility criteria/tender requirement.</p>
(xv)	No Technical and Financial credentials are required for tenders having advertised value up to Rs 50 lakh.
(xvi)	<p>Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under:</p> <p>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.</p>
(xvii)	<p>[Explanation for clause 2.3 - Eligibility Criteria:</p> <ol style="list-style-type: none"> 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 fulfillment 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 fulfillment 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 Technical Eligibility Criteria - Clause 2.3.2(A)(v), the same shall be considered for the purpose of fulfillment of credentials.

6. **In case a work is considered similar in nature for fulfillment 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 propriety 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 0.3×0.2 * 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 new 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 7 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 successor.
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.]
16. In case of change in partners of a partnership firm, the share of partners in credentials of a partnership firm shall be considered as per share of partners on the Actual date of completion of the work. In case name and share of partners is not mentioned in the completion certificate, share

	<p>of partners in the credentials shall be considered as per share of partners on the Actual date of completion of the work, as derived from the partnership deed(s).</p>
	<p>Note:-</p> <p>A. In respect of GCC-2022, Clause-10, Explanation Note No. 7, following is clarified:-</p> <ol style="list-style-type: none"> In case of any change in the partners of firm during last 07 (seven) years, ending last day of the month previous to the one in which tender is invited, the share of credentials for the purpose of Technical Eligibility will be considered as per the share of partners as on the date of completion of work. In case of any change in partners of firm during last 03 (three) financial years and current financial year up to the date of inviting of the tender, the share of credentials of any partners will be considered in the proportion of partners on the date of receipt of contractual payments. <p>B. In case of new partnership firm, following is clarified in respect of clarification of credentials of individual partners from previous partnership firm(s) or previous dissolved partnership firm(s) or previous split partnership firm(s):-</p> <ol style="list-style-type: none"> For the purpose of Technical Eligibility, the credentials of individual partners from the previous dissolved / split previous partnership firm (s) shall be considered in proportion as on the date of completion of work. For the purpose of Financial Eligibility, the proportion of individual partners from the previous dissolved / splitted previous Partnership firm (s) shall be considered in the proportion as on the date of receipt of contractual payments. <p>In such cases, following documents are required to be submitted along with bid:-</p> <ol style="list-style-type: none"> Copy of previous Partnership Deed(s). Copy of previous Dissolution Deed(s) of previous partnership deed(s). Proof of surrender of PAN No(s) (in case of dissolution of partnership firm). <p>➤ Relevant Annexures K-3 & K-4 are to be submitted by the tenderer along with the bid.</p>
2.3.3	<p>Assignment or Subletting of Contract: The Contractor shall not assign or sublet the contractor any part thereof or allow any person to become interested therein in 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 these Conditions 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.</p> <p>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:</p> <ol style="list-style-type: none"> (i) The contractor shall not sub-contract the works comprising more than 40% (forty percent) of the Contract Price and shall carry out works for at least 60% (sixty percent) of the total Contract Price directly under its own supervision and through its own personnel. The Parties expressly agree that for the purposes of computing the value of sub-contracts under this Clause 3.2.1, the Contract Price shall exclude any sub-contract for the procurement of goods and equipment like [rail, sleepers and track fittings, signaling and telecommunication & Power Supply equipment]. The Parties agree that all obligations and liabilities under this Agreement for the entire Railway Project shall at all time remain with the Contractor. {The Parties agree

that the works equal to at least 30% (thirty per cent) of the Contract Price shall be discharged solely by the Lead Member}§

Procurement of material, hire of equipment or engagement of labour by prime contractor or procuring entity will not mean sub-contracting.

§ May be deleted if the Contractor is not a Consortium/Joint Venture.

(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/Organization 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 authorized 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 of business 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 arrangement, Contractor shall discontinue such arrangement, if he intends to do so at his own or on the instructions 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

	<p>issue work experience certificate to the subcontractor also for the portion of work subcontracted and successfully completed by the sub-contractor.</p> <p><i>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></p> <p>(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.</p> <p>(j) Further, in case Engineer is of the view that subcontractor's performance is not satisfactory, he may instruct the Contractor to remove the subcontract or 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 Contract or whatsoever on this account shall be entertained by the Railway and this shall be deemed as 'excepted matter' (matter not arbitrable).</p> <p>(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.</p>
2.3.4	Public Procurement (Preference to Make in India):- (Authority:- As per Railway Board letter No. 2015/RS(G)/779/5, dated 01.02.2018, No. 2017/Trans/01/Policy/Pt-S, dated 28.03.2018, Railway Board letter no. 2020/RS(G)/779/2, dated 12.06.2020 and Ministry of Commerce and Industry letter no. P-45021/2/2017-B.E.-II, dated 15.06.2017)
2.3.4.1	This tender complies with Public Procurement Policy order 2017 dated 15.06.17 and (Revision), dated 04.06.2020.
2.3.4.2	<p>Following provisions will be applicable for item to be procured under Public Procurement (preference to Make in India) order 2017 dated 15.06.2017 and 04.06.2020.</p> <p>A) Local content: the minimum local content shall be 50% or as indicated in the tender enquiry.</p> <p>B) Margin of purchase preference: The margin or purchase preference is 20%.</p> <p>C) Fee for complaint: Fee for filling a complaint under the order shall be Rs. 10,000/- per case. The complaint shall be filed in the office of the CAO/C/NR. The fee shall be deposited with the office of the FA&CAO/C/NR, K.Gate, Delhi.</p> <p>D) Class-I local supplier: Means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50% as defined under this order.</p> <p>E) Class-II local supplier: Means a supplier or service provider, whose goods, services or works offered for procurement has local content more than 20% but less than 50% as defined under this order.</p>

2.3.4.3	<p><u>Verification local content:</u></p> <p>A) The ‘Class-I local supplier’ / ‘Class-II local supplier’ at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for ‘Class-I local supplier’ / ‘Class-II local supplier’, as the case may be. They shall also give details of the location (s) at which the local value addition is made.</p> <p>B) In case of procurement for a value in excess of Rs. 10 Crores, the ‘Class-I local supplier’ / ‘Class-II 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 form a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.</p> <p>C) False declarations will be in breach of the code of integrity under Rule 175 (1) (i) (h) of the 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 Finance Rules along with such other actions as may be permissible under law.</p> <p>D) 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.</p> <p>E) Debarment of bidders: 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 websites(s) so that ongoing procurements are not disrupted.</p>
2.3.4.4	<p><u>Requirement of Purchase preference:</u></p> <p>b) 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 suppliers’ in all procurements under taken by procuring entities in the manner specified hereunder:</p> <p>b) In the procurements of goods or works which are not covered by para 3(b) above and which are divisible in nature, the ‘Class-I local supplier’ shall get purchase preference over ‘Class-II local supplier’ as well as ‘Non-Local supplier’ as per following procedure:-</p> <p>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.</p> <p>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 suppliers’ 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.</p> <p>c) In procurements of goods or works, which are covered by para 3(b) 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 supplier’ shall get purchase preference over ‘Class-II local Supplier’ as well as ‘Non-local supplier’, as per following procedure:</p>

	<p>i) Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.</p> <p>ii) If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local suppliers', 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.</p> <p>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 suppliers' within the margin of purchase preference matches the L1 price, then the contract may be awarded to the L1 bidder.</p> <p>d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.</p>
2.3.4.5	<p>Electrical Contractor License (Applicable) – The contractor shall submit a valid Class 'A' Electrical contractor's Licence as applicable from the concerned statutory authority before signing of Contract Agreement. OR</p> <p>In case of subletting of Contract, The contractor shall make a formal Agreement with suitable sub-contractor, for executing Electrical Portion of Work with sub-contractor, holding a valid Class 'A' Electrical Contractor's licence as applicable. The contractor shall submit a formal agreement duly notarized, legally enforceable in the Court of Law, between main contractor and sub-contractor for the Electrical component of work proposed to be executed by the sub-contractor prior to signing of the contract agreement.</p> <p>Note:- In case the contractor is a partnership firm, the Electrical contractor License shall be either in the name of partnership firm or in the name of any of the constituent partners of such partnership firm. In case the contractor is a JV, the electrical contractor's License shall be either in the name of the JV or in the name of any constituent partners of such JV. In case one of the constituents of JV firm is a partnership firm, the Electrical contractor Licence shall be either in the name of partnership firm or in the name of any of the constituent partners of such partnership firm.</p> <p>Quality of work and material</p> <p>a. Material: All materials used in work shall be procured from likely sources as per Section-1 of chapter-4 of tender document.</p> <p>b. Erection – All erection work shall be carried out as per established engineering practice. It should be maintenance friendly, environmental friendly and should not endanger safety of public/operator.</p> <p>Electric & water Supply from Railway system</p> <p>a) 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 system at or near the site of works on specified terms & conditions and such charges as shall be determined by the Railways and payable by the contractor provided the cost of arranging necessary connection to the Railway's Electric supply systems, and laying of underground cable/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. However, for testing and commissioning of electrical installations, electricity shall be made available free of cost, if available at site.</p> <p>b) The Railways may supply to the contractor part or whole of the quantity of 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 & conditions and at such charges as shall be determined by the Railways and payable by the contractor, provided that the contractor shall arrange, at his own expense, to effect the connections and lay additional pipe lines and accessories on the site and that the contractor shall not be entitled to any compensation for interruption or failure of the water supply system.</p> <p>Tools & Plants The contractor shall arrange at his own cost all Tools & Plants etc. necessary for erection, testing, and commissioning of equipment to ensure compliance with specifications.</p>

Work by other Agencies -(a) Any other works undertaken at the same time by Purchaser or Railway direct or through some other agency at same time or section where contractor is carrying out his work will not entitle contractor to prefer any claim regarding any delays or hindrances he may have to face on this account, but Purchaser shall grant a reasonable extension of time to contractor. Contractor shall comply with any instruction, which may be given to him by Purchaser in order to permit simultaneous execution of his own works and those undertaken by other contractors or Railway without being entitled on this account for any extra charge.

(b) Contractor shall not be entitled to any extra payment due to hindrance resulting from normal railway operations, such as delay on account of adequate number of and duration of shutdown etc. not being granted.

(c) If purchaser is unable to supply materials to contractor as specified in contract, in time, contractor shall not be entitled to any extra payment on account of such delay in supply. However, such delays in supply will be a reasonable ground for extension of completion date/s for work.

Infringement of patents a) Contractor is forbidden to use any patents or registered drawings, process or pattern in fulfilling his contract without previous consent in writing of owner of such patent, drawing, pattern or trade mark, except where these are specified by Purchaser himself. Royalties where payable for use of such patented processes, registered drawings or patterns shall be borne exclusively by Contractor, who shall advise Purchaser of any proprietary right that may exist on such processed drawings or patterns, which he may use of his own accord.

b) In case of patent taken out by Contractor of drawings or patterns registered by him, or of those patents, drawings, or patents for which he holds a license, signing of Contract automatically gives Purchaser right to repair by himself purchased articles covered by patent or by any person or body chosen by him and to obtain from any sources he desires component parts required by him in carrying out repair work. In event of infringement of any patent rights due to above action of Purchaser, he shall be entitled to claim damages from contractor on grounds of any loss of any nature which he may suffer e.g. in case of attachment because of counterfeiting.

c) Indemnification by contractor – In event of any claim or demand being made or action being brought against Purchaser for infringement of later patent in respect of any equipment, machine, plant, work or thing used or supplied by Contractor under this contract or in respect of any methods of using or working by Purchaser of such equipment machine, plant work or thing, contractor shall indemnify purchaser and keep him indemnified and harmless against all claims, costs, charges and expenses arising from or incurred by reason of such claim provided that Purchaser shall notify contractor immediately any claim is made and that contractor shall be at liberty, if he so desires with assistance of Purchaser if required but at Contractor's expense, to conduct all negotiations for settlement of same or any litigation that may arise there from and provided that no such equipment, machine, plant work or thing, shall be used by Purchaser for any purpose or in any manner other than that for which they have been supplied by Contractor and specified under this contract.

Inspection & Testing Contractor will ensure that equipment used have been type tested. Routine and Acceptance Tests shall be conducted by firm in presence of purchaser's representative/Inspecting Officer. Contractor shall furnish three copies of manufacturer's routine and type tests certificates.

Provisional Acceptance

a) Immediately on completion of work contractor shall test installation to ensure that installation is as per specifications. Along with test results. Contractor shall inform purchaser in writing that installation is complete and ready for commissioning.

b) The test as stipulated in specification shall be jointly conducted, results if found satisfactory, installation shall be commissioned.

c) Provisional acceptance shall not be withheld for rectification of minor defects.

Availability of breakdown/maintenance staff During period of guarantee Contractor shall keep available an experienced engineer and necessary equipment to attend any defective installations resulting from defective erection and/or defects in equipment supplied by Contractor. This engineer shall not attend to rectification or defects, which arises out of normal routine maintenance work. Contractor shall bear cost of all modifications, additions or substitutions that may be considered necessary due to faulty materials, design or workmanship for satisfactory working of equipment. Final decision shall rest with the Competent Authority i.e. CEE/Const/N. Rly/TKJ which will be binding on the contractor.

Inspection & Testing- Contractor will ensure that equipment used have been type tested. Routine and Acceptance Tests shall be conducted by firm in presence of purchaser's representative/Inspecting Officer. Contractor shall furnish three copies of manufacturer's routine and type tests certificates.

	<p>Failure to attend the defects All defects and deficiencies advised to contractor shall be attended to by him promptly. If contractor fails to respond and arrange repair/rectification within reasonable time, purchaser shall be free to get repairs done through departmental labour or through any other sources at contractor's expenses without prejudice to other remedies available under contract.</p> <p>Penalty: The execution of the work shall not affect the normal functioning of the SCADA system and in case of failure of the system for longer periods resulting in detention to train services, the Railway reserves the right to impose penalty on such situations, based on repercussions on the issue. The Railways decision in this regard shall be final and binding on the contractor.</p> <p>Maintenance Manuals On successful completion of work, contractor shall hand over four copies of detailed drawings and maintenance manuals of each equipment duly bound in booklets. Two copies shall be given in form of CD (Compact disc) to purchaser prior to release of final payment to contractor.</p> <p>Final Acceptance-Final acceptance of entire installation shall be from date of expiry of the guarantee period and after contractor's obligation has been fully met under contract.</p>
2.4	<u>CONSTITUTION OF THE FIRM:</u>
2.4.1	<p>(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.</p> <p>(ii) Following documents shall be submitted by the tenderer:</p>
(A)	<u>Sole Proprietorship firm:</u>
	<p>(Undertaking as per Annexure O-1)</p> <p>Undertaking may be given. If not given</p> <p>As per para 14(iii) of GCC-2022 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.</p>
(B)	<u>Partnership Firm:</u>
	<p><u>For All Type of Works Tenders.</u></p> <p>The tenderer shall clearly specify that the tender is submitted on behalf of a partnership firm.</p> <p>The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.</p> <p>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 as per the Indian Partnership Act, prior to submission of tender.</p> <p>The following documents shall be submitted by the partnership firm, with the tender:</p> <p>1. A Notarised copy of the Partnership Deed or a copy of the Partnership Deed registered with the Registrar.</p>

	<p>2. A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm (Standard Performa as per Annexure O-2).</p> <p>3. 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.</p>
(C)	<u>Joint Venture (JV):</u>
	If the tender is uploaded on behalf of a JV, the tenderer must upload the following
(1)	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 (Standard proforma as per Annexure K-1). 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.
(2)	Notarised Power of Attorney/authorization duly executed by all JV constituents, in favour of the individual signing the tender document on behalf of the JV; and (Standard Performa as per Annexure O-3)
(3)	In addition, following documents must be upload/submit by the JV firms along with the tender:-
(i)	In case one or more of the members of the JV firms is /are partnership firm(s), following documents shall be uploaded/submitted.
(a)	A notarized copy of the Partnership Deed or a copy of the Partnership Deed registered with the Registrar.
(b)	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, (Standard Performa as per Annexure O-4)
(c)	A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm. (Standard Performa as per Annexure O-5)
(d)	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.
(ii)	<p>In case one or more members of JV is/are Proprietary Firm or HUF, the following documents shall be uploaded/submitted:</p> <p>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. (Standard Affidavit as per Annexure O-6)</p>

(iii)	In case one or more members of JV is/are Companies, the following documents shall be submitted/uploaded:
	(i) A copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement, (Standard Performa as per Annexure O-7)
	(ii) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company
	(iii) 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 create liability against the company (Standard Performa as per Annexure O-8).
(iv)	<p>In case one or more members of JV is/are LLP firm, the following documents shall be submitted/uploaded :</p> <p>(i) A copy of LLP Agreement</p> <p>(ii) A copy of Certificate of Incorporation of LLP</p> <p>(iii) A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement (Standard proforma as per Annexure O-13)</p> <p>(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. (Standard proforma as per Annexure O-14)</p> <p>(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.</p>
(D)	<u>Company:</u>
	<p>If the tender is uploaded on behalf of a Company registered under Companies Act-2013, the tenderer must submit/upload along with the tender the following documents on or before close of uploading of tender & before opening of tender (D2):</p> <p>(1) Copies of the MOA /AOA (Memorandum of Association /Article of Association) of the Company;</p> <p>(2) A copy of certificate of incorporation.</p> <p>(3) 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 (Standard Performa as per Annexure O-9, 10).</p>
(E)	Registered Society & Registered Trust:
	<p>The tenderer must upload following,</p> <p>(i) A copy of Certificate of Registration</p> <p>(ii) A copy of Memorandum of Association of Society/Trust Deed</p>

	<p>(iii) A copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust. (Standard Performa as per Annexure O-16)</p> <p>(iv) A copy of Rules & Regulations of the Society</p>
F	<p>LLP (Limited Liability Partnership) Firm: If the tender is submitted on behalf of a LLP Firm registered under LLP Act-2008, the tenderer shall upload along with the tender-</p> <p>(i) A copy of LLP Agreement,</p> <p>(ii) A copy of Certificate of Incorporation; and</p> <p>(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 (Standard proforma as per Annexure O-11 & 12).</p> <p>(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.</p>
G	<p><u>In Case of HUF:</u></p> <p>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 (Standard proforma as per Annexure O-15).</p>
2.4.1.1	<p>(1) 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.</p> <p>(2) 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.</p> <p>(3) 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.</p> <p>(4) 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 sign the tender, 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.</p> <p>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.</p>

	<p>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.</p> <p>Note:</p> <ol style="list-style-type: none"> If all the requisite documents pertaining to the constitution of the firm/JV/sole proprietorship/partnership firm/company/ Registered Trust/Registered Society/ LLP/HUF etc., as specified in Clause 2.4.1 above, are not submitted, offer will be considered as incomplete and shall be summarily rejected. Standard Proforma/Affidavit O-1 to O-16 are given as per Constitution of Firm requirement in respective clause of Sole Proprietorship firm/Partnership firm/JV/Company Registered Trust/Registered Society/LLP/HUF for guidance purpose. 				
2.4.2	<p>The tenderer whether sole proprietor / a company or a partnership firm / joint venture (JV) / registered society / registered trust / HUF 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, sign the agreement, receive money, co-ordinate measurements through contractor's authorized engineer, witness measurements, sign measurement books, compromise, settle, relinquish any claim(s) preferred by the firm and sign "No Claim Certificate" and refer all or any disputes to arbitration. The above power of attorney shall be submitted even if such specific person is authorized for above purposes through partnership deed / Memorandum of Understanding / Article of Association or such other document, failing which tender is liable to be rejected.</p>				
2.5	<p><u>INCOME TAX DEDUCTION:</u></p>				
2.5.1	<p>As per Income Tax Act, Tax will be deducted for sums paid for carrying out the work under this contract. In case of supply contract for ballast, deduction of 2% (Two percent) Income tax will be made for the sums paid for labour portion only (i.e., loading, unloading, stacking, measurement and laying etc.). 1% labour cess shall be deducted from each RA bill to be deposited with concerned labour Commissioner/State Govt.</p>				
3.0	<p>Bid Security:</p>				
3.1	<p>(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:</p> <table border="1" data-bbox="411 1630 1485 1776"> <tr> <th>Value of the Work</th><th>Bid Security</th></tr> <tr> <td>For all works</td><td>2% of the estimated cost of the work</td></tr> </table> <p>Note:</p> <p>(i) The Bid Security shall be rounded off to the nearest ₹100. This Bid Security shall be applicable for all modes of tendering.</p>	Value of the Work	Bid Security	For all works	2% of the estimated cost of the work
Value of the Work	Bid Security				
For all works	2% of the estimated cost of the work				

	<p>(ii) Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Bid Security detailed above.</p> <p>(iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.</p> <p>(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.</p> <p>(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 fulfillment of the contract in terms of Clause 5.0 (Security Deposit) of tender document. 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.</p> <p>(2) The Bid Security shall be deposited either 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-A(1) and shall be valid for a period of 90days beyond the bid validity period.</p> <p>(3) In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:</p> <p>i. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.</p> <p>ii. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document before closing date of submission of bids (i.e. excluding the last date of submission of bids).</p> <p>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.</p> <p>iv. The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.</p> <p>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</p> <p>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.</p> <p>vii. The envelope shall be addressed to the officer and address as mentioned in the tender document.</p>
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	<p>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.</p>
3.1.1 (a)	Subject to exemptions provided under clause 3.1 above, the tender must be accompanied by a Bid Security as mentioned in tender documents, failing which the tender shall be summarily rejected.
3.1.1 (b)	The Tenderer(s) shall keep the offer open for a minimum period of 60 days (in case of two packet system of tendering 90days) 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 Northern 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.
3.1.1 (C)	<p>If his tender is accepted,</p> <p>(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 fulfillment of the contract in terms of Clause 5.0 (Security Deposit) of tender document.</p> <p>(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 fulfillment of the contract in terms of Clause 5.0 (Security Deposit) of tender document.</p> <p>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.</p>
3.1.1 (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.
4.0	<u>ACCEPTANCE OF TENDER</u>
4.1	<p>(i) IF THE TENDERER (S) DELIBERATELY GIVES WRONG INFORMATION/CREDENTIALS/DOCUMENTS IN HIS/THEIR TENDERS AND THEREBY CREATE(S) CIRCUMSTANCES FOR ACCEPTANCE OF HIS/THEIR TENDER, RAILWAY RESERVES THE RIGHT TO REJECT SUCH TENDER AT ANY STAGE, BESIDES, SHALL SUSPEND THE BUSINESS up to TWO YEARS”.</p>
	<p>(ii) If on verification of credentials, at the evaluation stage, it is found that the tenderer has submitted forged/fake documents in support of his offer, his Bid Security shall be forfeited besides suspending business with him/them up to two years.</p>
	<p>(iii) 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 character as 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.</p>

4.2	The authority for acceptance of the tenders rests with Chief Administrative Officer/Const/ Chief Electrical Engineer Const/ Dy. Chief Electrical Engineer/C /Asst. Executive Electrical Engineer/C as the case may be who does not undertake to assign reasons for declining to consider any particular tender or tenders. He also reserves the right to accept the tender in whole or in part or to divide the tender amongst more than one tenderer if deemed necessary.
4.3	The successful tenderer/s shall be required to execute an agreement with the President of India acting through the C.A.O./Const., CEE/C/Const./ Dy. C.E.E./Const./AXEN/E/C for carrying out of the work as per agreed conditions. The cost of stamp for the agreement will be borne by the Northern Railway.
4.3.1	The contractors' operations and proceedings in connection with the works shall at all times be conducted during the continuance of contract in accordance with the laws, ordinance, rules and regulations for the time being in force and the contractor shall further observe and comply with the bye-laws and regulations of the Govt. of India, State Govt. and of Municipal & other authorities having jurisdiction in connection with the works or site over operations such as these are carried out by the contractor/s and shall give all notice required by such bye-laws and regulations. The Hospital and medical regulations in force for the time being shall also be complied with by the contractor/s and his workmen.
4.3.2	The contractor shall be responsible for the observance of the rules and regulations under the mines act and mineral rules and Indian Metallurgical rules and regulations of State/Central Govt. concerned as amended from time to time.
4.3.3	Contractor shall at all times keep the railway administration indemnified against all penalties that may be imposed by the Govt. of India or State Govt. for infringements or any of the clauses of the mines act and rules made there under in respect of quarries from which the ballast for these works is procured.
4.4	The tenderer/s shall not increase his/their rate in case the Railway Administration negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and rates originally quoted will be binding on the tenderer/s.
4.5	The tenderer/s shall submit an analysis of rates if called upon to do so
4.6	Non-compliance with any of the conditions set forth herein is liable to result in the tender being rejected.
4.7	<u>Variation in quantity</u>
4.7.1.	(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.
4.7.1	(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.
4.7.1	(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 <ul style="list-style-type: none"> 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 up to 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;

	<p>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.</p> <p>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 contract value.</p> <p>d.(i) Quantities operated up to 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;</p> <p>d.(ii) Quantities operated in excess of 100% but up to 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;</p> <p>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.</p>
4.7.1	(iv) In case of earthwork items, 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.
4.7.1	(v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SSOR schedule(s) as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (NSOR) 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).
4.7.2	Valuation of Variations: The enlargements, extensions, diminution, reduction, alterations or additions referred to in Sub-Clause (4.7.1) 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 therefore shall be calculated in accordance with the accepted Bill(s) of Quantities. Any extra item(s)/quantities of work falling outside the purview of the provisions of Sub-Clause (4.7.1) above shall be paid for at the rates determined under Clause-39 of GCC.
5.0	<u>Security Deposit and Performance Guarantee on Acceptance of Tender</u>
5.1	<p>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.</p> <p>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</p>

	<p>amounts so retained (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.</p> <p>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.</p> <p>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.</p>
5.1.1	<p>Refund of Security Deposit: Security Deposit shall be returned to the Contractor along with or after the following:</p> <p>(a) Final Payment of the Contract as per clause 51.(1) of GCC-2022 and</p> <p>(b) Execution of Final Supplementary Agreement or Certification by Engineer that Railway has No Claim on Contractor, and</p> <p>(c) Maintenance certificate issued on expiry of the maintenance period as per clause 50.(1) of GCC, in case applicable</p> <p>Note :-</p> <p>The Competent Authority to issue above Maintenance Certificate shall normally be the authority who is competent to sign the contract. If this Competent Authority is of the rank lower than JA Grade, then a JA Grade Officer (concerned with the work) should issue the certificate.</p> <p>The certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the Contractor and that there is no due from the Contractor to Railways against the contract concerned.</p>
5.1.2	<p>Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions GCC-2022, 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) these conditions of GCC-2022, the Security Deposit shall not be forfeited.</p>
5.1.3	<p>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 5.2 of this clause will be payable with interest accrued thereon.</p>
5.2	<p><u>Performance Guarantee:</u></p> <p>The procedure for obtaining Performance Guarantee is outlined below:</p> <p>(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</p>

	<p>Railway, submission of PG can be accepted on the next working day.</p> <p>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 to the contractor against that particular contract, subject to maximum of PG amount. 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.</p> <p>The failed contractor shall be debarred from participating in re-tender for that work.</p> <p>(b) The successful bidder shall submit the Performance Guarantee (PG) amounting to 5% of the original contract value and Additional Performance Guarantee as per clause 5.2 (h) in any of the following forms.</p> <ul style="list-style-type: none"> (i) A deposit of cash; (ii) Irrevocable Bank Guarantee; (iii) Insurance Surety Bond as per Annexure-A(2). <p>Note:-</p> <p>In case of extension of Date of Completion, selected bidder needs to submit extended Insurance Security Bond/Fresh Insurance Security Bond/Fresh Performance Security, in any form as given above, before expiry of existing Insurance Surety Bond.</p> <ul style="list-style-type: none"> (iv) Government Securities including State Loan Bonds at 5% below the market value; (v) Pay Orders and Demand Drafts tendered by any Scheduled Commercial Bank of India; (vi) Guarantee Bonds executed or Deposits Receipts tendered by any Scheduled Commercial Bank of India; (vii) Deposit in the Post Office Saving Bank; (viii) Deposit in the National Savings Certificates; (ix) Twelve years National Defence Certificates; (x) Ten years Defence Deposits; (xi) National Defence Bonds and (xii) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of FA&CAO/C/NR, Kashmere Gate, Delhi (free from any encumbrance) may be accepted. <p>Note:- The instruments as listed above will also be acceptable for Guarantees in case of mobilization advance. All the instruments mentioned in (i) to (xii) above should be in favour of FA & CAO/C/NR/Kashmere Gate, Delhi</p> <p>(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 up to the stipulated date of completion plus 60 (Sixty) days beyond that. In case, the time for completion of work gets extended, the Contractor shall get the</p>
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	<p>validity of P.G. extended to cover such extended time for completion of work plus 60 (Sixty) days.</p> <p>(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.</p> <p>(e) The Performance Guarantee (PG) shall be released after the physical completion of the work based on the "Completion Certificate" issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily. The competent authority shall normally be the authority who is competent to sign this contract. If the competent authority is of the rank lower than JA Grade, then a JA Grade Officer (concerned with the work) should issue certificate. The security deposit shall, however, be released only after expiry of the maintenance period and after passing the final bill based on 'No claim certificate' from the contractor.</p> <p>(f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed.</p> <p>(g) The Engineer shall not make a Claim under the Performance Guarantee except for amount to which the President of India is entitled under the contract (notwithstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:</p> <p>(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.</p> <p>(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.</p> <p>(iii) The Contract being determined or rescinded under Clause 62 of these conditions.</p> <p>(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:</p> <table border="1"> <tr> <th>Bid quoted in % of advertised cost</th><th>Additional Performance Guarantee (%)</th></tr> <tr> <td>Below 0 - 5% (inclusive)</td><td>Nil</td></tr> <tr> <td>Below 5%</td><td>5%</td></tr> </table>	Bid quoted in % of advertised cost	Additional Performance Guarantee (%)	Below 0 - 5% (inclusive)	Nil	Below 5%	5%
Bid quoted in % of advertised cost	Additional Performance Guarantee (%)						
Below 0 - 5% (inclusive)	Nil						
Below 5%	5%						
5.3	<p>Whenever the Railways PSUs are awarded works contracts by Railways, on single tender basis, they are exempted from the requirements of submitting performance guarantee.</p> <p>However, in the event of failure of the Railway PSU to successfully execute the contract as per terms and conditions laid down in the agreement, a penalty equivalent to 5% of the original value of contract would be levied.</p> <p>If Railway PSUs are awarded contract through competitive bidding (open tender, special limited tender etc.) the normal rules regarding submission performance bank guarantee as applicable to other tenderer/s shall be applicable to these PSUs.</p>						
6.0	<u>CONDITIONS OF CONTRACT AND SPECIFICATIONS</u>						
6.1	<p>Except where specifically stated otherwise in the tender documents the work is to be carried out in accordance with (i) Indian Railways Standard General Conditions of Contract, April 2022 amended from time to time & up to date; (ii) Northern Railway Unified Standard Schedule of Rates (Works & Material)-2021 amended from time to time and up to date and (iii) Indian Railway Unified Standard Specifications (Material and Works)-2021 Volume-I and volume-II. Copies of all</p>						

	<p>these publications can be obtained from the office of CAO/C, Northern Railway, Kashmere Gate, Delhi on payment as under:-</p> <table><tr><td>(i)</td><td>Indian Railways Standard General Conditions of Contract, April 2022</td><td>Rs.100/-</td></tr><tr><td>(ii)</td><td>Northern Railway Unified Standard Schedule of rates (Works & Materials)-2021</td><td>Rs.1000/-</td></tr><tr><td>(iii)</td><td>Indian Railways Unified Standard Specifications (Material and Works)- 2021 volume-I & volume-II</td><td>Rs.1000/- (Each volume)</td></tr></table> <p>Demand for these publications from out station will be considered only if a sum of Rs.50/- towards postal charges is also sent with the cost of the books by money order.</p> <p>Note:- The above publications are available on www.indianrailway.gov.in.</p>	(i)	Indian Railways Standard General Conditions of Contract, April 2022	Rs.100/-	(ii)	Northern Railway Unified Standard Schedule of rates (Works & Materials)-2021	Rs.1000/-	(iii)	Indian Railways Unified Standard Specifications (Material and Works)- 2021 volume-I & volume-II	Rs.1000/- (Each volume)
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(iii)	Indian Railways Unified Standard Specifications (Material and Works)- 2021 volume-I & volume-II	Rs.1000/- (Each volume)								
6.2	<p>Order of Precedence of Documents: In a contract agreement in case of any difference, contradiction, discrepancy, with regard to Conditions of tender/contract, Specifications, Drawings, Bill of quantities etc., forming part of the tender/contract, the following shall be the order of precedence:</p> <ul style="list-style-type: none">i. Letter of Awardii. Bill(s) of Quantitiesiii. Special Conditions of Contractiv. Technical Specifications as given in tender documentsv. Drawingsvi. Indian Railways Standard General Conditions of Contract updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.vii. CPWD Specifications 2021 Vol I & II updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.viii. Indian Railways Unified Standard Specification (IRUSS-2021) updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.ix. Indian Railways Unified Standard Specifications (Works and Material) 2021 updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.x. IR Specifications/Guidelines updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.xi. Relevant B.I.S. Codes updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents									
7.0	<u>STUDY OF DRAWINGS AND LOCAL CONDITIONS</u>									
7.1	<p>The drawings for the works can be seen in the office of the Dy. Chief Electrical Engineer/Construction, Northern Railway, Moradabad or in the office of Chief Administrative Officer/Const, Northern Railway, Kashmere Gate, Delhi. It should be noted by tenderer/s that these drawings are meant for general guidance only and the Railway may suitably modify them during the execution of the work according to the circumstances without making the Railways liable for any claims on account of such changes.</p>									

7.2	The tenderer/s is/are advised to visit the site of work and investigate actual conditions regarding nature and conditions of soil, difficulties involved due to inadequate stacking space, due to built up area around the site, availability of materials water and labour probable sites for labour camps, stores, godowns, etc. They should also satisfy themselves as to the sources of supply and adequacy for their respective purpose of different materials referred in the specifications and indicated in the drawings. The extent of lead and lift involved in the execution of works and any difficulties involved in the execution of work should also be examined before formulating the rates for complete items of work described in the schedule.
7.3	<u>Fencing at work site</u> Contractor(s) while executing the work of gauge conversion/doubling, yard remodeling etc. shall provide suitable fencing/barricading to protect/segregate the existing Railway line from any damage and un-toward incident, as per the directions or plan approved by Engineer-in-charge. The payment of barricading/fencing shall be paid under the relevant N.S. item if required. No work will be started till the fencing/barricading is provided and clearance in writing is issued by the Engineer-in-charge.
7.3.1	Suitable gates/barriers should be installed across the new embankment, preferably adjoining the manned/unmanned level crossings. The entry for the vehicles should be regulated by an authorized representative of the Engineer-in-charge during the working hours.
7.4	<u>Safety Gear:</u> During execution of the work, contractors shall ensure that all safety precautions are taken by their men to protect themselves and site to prevent any untoward incident. In this regard contractor will ensure that adequate number of safety helmets, safety belts, safety jackets with reflective arm band, rope, ladders emergency light etc. are available at site before the work is actually started. The above list is only indicating and is not exhaustive and safety item will be arranged as per the requirement. Railway reserve the right to stop the work in the absence of proper safety gear and no claim shall be entertained in this regard. Decision of the Engineer-in-charge will be final and binding upon the contractor. The cost of all the safety gear is deemed to have been included in the rates quoted and nothing extra is payable under this contract.
8.0	<u>PERIOD OF COMPLETION</u>
8.1	The entire work is required to be completed in all respects within 12 (Twelve) months from the date of issue of Acceptance letter/ Telegram. Time is the essence of contract. The contractor/s will be required to maintain speedy and required progress to the satisfactions of the Engineer to ensure that the work will be completed in all respects within the stipulated period failing which action may be taken by the Railway Administration in terms of Clause 17 and/or Clause 62 of the Indian Railways Standard General Conditions of Contract, April 2022 amended from time to time & up to date.
8.2	The contractor/s shall arrange to execute the different items of works in close consultation with and as per directions of the Engineer so that other works being executed in the same area either departmentally or through another agency such as steel erection, P. Way earthwork in formation, etc. are also progressed concurrently. It may be noted, however, that any delay in the execution of departmental works, for whatsoever reason shall not be accepted as an excuse for non-performance of the contract.
8.3	The contractor/s will be required to give Dy. Chief Electrical Engineer a monthly progress report of the work done during the month on 4 th of the following month. He will also give to the Dy. Chief Electrical Engineer the programme of work to be done in coming month by 25 th of the preceding month. The programme will be subject to alteration or modifications at the direction of the CAO/Const /Chief Electrical Engineer/ Const./Dy. Chief Electrical Engineer/Const, who may discuss such modifications or alterations with the contractor as considered necessary. Approval of any programme shall not in any way relieve the contractor from any of his obligations to complete the whole of the work by the prescribed time or extended time, if any.
9.0	<u>Rates for Items of Works:</u>
	The rates, entered in the accepted Bill(s) of Quantities 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,

	<p>diminutions, reductions, alterations or additions as may be ordered in terms of Clause 42 of these conditions 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 center 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.</p> <p>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 and the Contractor thereupon properly pays such taxes/cess, the Contractor shall be reimbursed the amount so paid.</p> <p>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.</p>
9.1	<p>Demurrage and Wharfage Dues: Demurrage charges calculated in accordance with the scale in force for the time being on the Railway and incurred by the Contractor failing to load or unload any goods or materials within the time allowed by the Railway for loading as also wharfage charges, of materials not removed in time, as also charges due on consignments booked by or to him shall be paid by the Contractor, failing which such charges shall be debited to the Contractor's account in the hands of the Railway and shall be deducted from any sums which may become due to him in terms of the contracts.</p>
9.2 (1)	<p>Rates for Extra Item(s) of Works:</p>
(a)	<p>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).</p> <p>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).</p>
(b)	<p>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.</p>

	<p>The assessment of rates for extra item(s) shall be arrived at based on the prevailing market rates of labour, machinery & materials and by taking guidance from the following documents in order of priority:</p> <ul style="list-style-type: none"> i. Analysis of Rates for “Unified Standard Schedule of Rates of Indian Railways (USSOR)” ii. Analysis of Rates for “Delhi Schedule of Rates issued by CPWD (DSR)” iii. Market Analysis
9.2 (2)	<p>Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly here unto 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.</p>
9.3 (a)	<p>Final SUPPLEMENTARY AGREEMENT</p> <p>After the work is completed or otherwise concluded by the parties with mutual consent, and taken over by the Railway as per terms and conditions of the contract agreement, and there is unequivocal no claim on either side under the contract, other than as mentioned in item 4 of Annexure-B, the parties shall execute the final supplementary agreement as per Annexure-B.</p>
9.3 (b)	<p><u>Standard Agreement (for EBR-IF Funded Contracts only):-</u> For the works contracts which are funded through Indian Railway Finance Corporation (IRFCC), the Contractor after award of such contract shall has to execute and sign the Standard Agreement as per prescribed format as per Annexure-R.</p>
9.4	<p><u>Measures to be taken in construction and repairs on roads, embankments, etc.</u></p>
9.4.1	<p>All borrow pits dug for and in connection with the construction and repairs of buildings, roads, embankments, etc. shall be deep and connected with each other in the formation of a drain directed towards the lowest level and properly sloped for discharge into a river, stream, channel or drain and no person shall create any isolated borrow pit which is likely to cause accumulation of water which may breed mosquitoes.</p>
9.4.2	<p>Non fulfillment of the provision in 9.4.1 above shall be a breach of the contract and contractor/s shall be liable to pay by way of agreed liquidated damages to the Railway at the rates of Rs.100/- for each breach and in addition to that contractor further undertake to pay the amount incurred by the Railway in getting the said job/s done at the risk and cost of the contractor. Besides this, the contractor will also be held responsible for any laws for contravening them.</p>
10.0	<p><u>SETTING OUT WORKS</u></p>
10.1	<p>The contractor is to set out the whole of the work in consultation with the engineer or an official to be deputed by the Engineer and during the progress of works to amend on the requisition of the Engineer any errors, which may arise there in and provide efficient and sufficient staff and labour thereon. The contractor shall also alter or amend any errors in the dimension lines on levels to the satisfaction of the Engineer or his authorized representative without claiming any compensation for the same.</p>
10.2	<p>The contractor shall provide, fix and be responsible for maintenance of all stocks, templates, profiles, land marks, points, burjies, monuments, center line pillars, reference pillars, etc and shall take all necessary precautions to prevent their being removed altered or disturbed and will be responsible for the consequence of such removal, alterations or disturbance and for their efficient reinstatement.</p>

10.3	The contractor shall protect and support, as may be required or as directed by the Engineer, all building, fences, walls, towers, drains, road paths, waterways, foreshores banks, bridges, Railway ground and overhead electric lighting, the telegraphs/ telephones and crossing water service Main pipes and cables and wires and altogether matters and things of whatever kind not otherwise herein specified other than those specified or directed to be removed or altered which may be interfered with or which likely to be affected disturbed or endanger by the execution completion of maintenance of the works and shall support provided under this clause to such cases as directed by the Engineer. No payment shall be made by the Railway to the contractor for these works on account of delay for re-arrangement of road traffic or in the contractor having to carry out the short lengths and, in such places, as per conditions and circumstances may warrant. These will not form the basis of any claim and or dispute for compensation of any kind.
11.0	<u>DRAWINGS FOR WORKS:</u>
11.1	The Railway Administration reserves the right to modify the plans and drawings as referred to in the special data and specifications as also the estimate and specifications without assigning any reasons as and when considered necessary by the railway. The percentage rates for the schedule items and items rates for the non-schedule items quoted by the contractor as may be accepted by the railways will, however, hold good irrespective of any changes, modifications, alterations, additions, omissions in the locations of structures and detailed drawings, specifications and/or the manner of executing the work
11.2	It should be specifically noted that some of the detailed drawings may not have been finalized by the railway and will, therefore, be supplied to the contractor as and when they are finalized on demand. No compensation whatsoever on this account shall be payable by the Railway Administration.
11.3	No claim whatsoever will be entertained by the Railway on account of any delay or hold up of the work/s arising out of delay in approval of drawings, changes, modifications, alterations, additions, omission and the site layout plans or details drawings and design and or late supply of such material as are required to be arranged by the Railway or due to any other factor on Railway Accounts.
12.0	<u>SUPPLY OF MATERIALS BY THE RAILWAYS</u>
12.1	If at any time, material which the contractor/s should normally have to arrange himself/themselves, are supplied by the Railway either at the contractor's request or in order to prevent any avoidable delay in the execution of work due to the contractor's inability to make adequate timely arrangements for supply thereof or for any other reason, recovery will be made from the contractor's bill either at the market rate prevailing at the time of supply or at the book rate whichever is greater, plus fixed departmental charges viz. Freight at 5% (8.33% for items of Iron and G.I. pipe steel) incidental charges at 2% and added on total cost supervision charges at 12 ¹ / ₂ %. No carriage or incidental charges will be borne by the Railway. The contractor cannot, however, claim as a matter of right the issue of such material by the Railway which he/they is required to arrange himself/themselves in accordance with the terms and conditions of this contract.
12.1.1	In case, cement and/or steel is issued to the contractor/s free of cost or on cost to be recovered for use on the work, the supply thereof shall be made in stages limited to the quantity/ quantities computed by the Railway according to the prescribed specifications and approved drawings as per the agreement. The cement and/or steel issued in excess of the requirements as above shall be returned in perfectly good conditions by the contractor to the Railway immediately after completion or determination of the contract. If the contractor/s fail/s to return the said stores, then the cost of cement and/or steel issued in excess of the requirement computed by the Railway according to the specifications and approved drawing will be recovered from the contractor/s @ twice the prevailing procurement cost at the time of last issue viz. 2 X (purchase price + 5% freight only). This will be without prejudice to the right of the Railway to take action against the contractor/s under the conditions of the contract for not doing/completing the work according to the prescribed specifications and approved drawings. If it is discovered that the quantity of cement and or steel used is less than the quantity ascertained as herein before provided, the cost of the cement and/or steel not so used shall be recovered from the contractor/s on the basis of the above stipulated formula.

12.1.2	The contractor shall be responsible for the safe transport custody and storage of all Railway materials issued to him and he will be liable to make good the loss due to any cause whatsoever, that may be suffered by the Railway on this account. Special precautions should be taken in respect of cement while transporting cement, steps should be taken to safeguard against cement becoming damp or wet due to moisture or rain. The contractor will also be responsible for storing cement in damp proof conditions at site of work at his own cost in accordance with the standard specifications. The Engineer shall decide whether the cement stored in the godown is fit for the work and his decision shall be final and binding on the contractor/s.
12.2	The contractor should supply a schedule showing the requirements of explosives/materials required to be supplied to him by the Railway based on detailed plans. The materials will be arranged by the Railway according to this schedule unless otherwise modified by the Railway due to additions or alterations in the approved plans. No claim whatsoever will be entertained by the Railway on account of late supply of such materials as are required to be arranged by the Railway.
12.3	<u>SUPPLY OF CEMENT AND STEEL BY THE RAILWAYS</u>
12.3.1	Cement, Mild Steel/H.Y.S.D./Bars/RSJ/MS Plate, etc. to be supplied by the Railway to the extent as would become a part of the work involved in the tender schedule will be supplied by the Railway free of cost or on cost recovery basis as the case may be as per relevant clauses of special conditions relating to site data and specifications at construction store godown. The contractor will be required to lead the same to the site of work at his own cost subject to payment at the rate as quoted against relevant item of N.S. Items in the Schedule of Items, Rates & Quantities.
12.3.2	Cement and steel required for temporary works timbering, shuttering, centering, scaffolding, etc. will have to be arranged entirely by the contractor at his own cost.
12.3.3	The empty cement bags for the supply of cement by the Railway shall be property of the contractor and the cost of the same shall be recovered at the rate of Rupees Two per empty cement bag from the 'on account bill' of the contractor in case the cement is supplied in Jute bags. No recovery on account of empty cement bags shall be made from the contractor, in case the cement is supplied in H.D.P.E. bags. The Railway, however, reserves its right to take empty bags as are in good conditions and in that case no recovery will be made for bags so taken back. These rates will apply for bags deteriorated while in use and not found acceptable to the Railway so taken back from the contractor.
13.0	<u>SUPPLY OF MATERIALS BY THE CONTRACTOR/S</u>
13.1	Materials used in the work by the contractor shall conform to the Northern Railway Standard Specifications and the relevant I.S.I./I.R.S Specifications, and should be approved by the Engineer before utilizing them on works.
13.2	It should be clearly understood that the tendered rates include wastage and wash away due to rains, storms, floods or any other cause whatsoever.
13.3	No loading, unloading, lead, lift, stacking, octroi, sales tax, toll tax, royalty or any other charges will be paid for the materials, tools and plants and tools arranged and brought by the contractor to the site of work.
13.4	Stage payment for supply of steel by the contractor (For Original Contract Value above Rs15 Crores):
	<p>Stage payment limited to 75% of the rate of steel awarded in the contract (as a separate NS item/USSOR item for the purpose) shall be made to the contractor for steel physically brought by the contractor to the site (even before its actual use in the work) subject to following:-</p> <p>(a) The material shall be strictly in accordance with the contract specifications.</p> <p>(b) The material shall be delivered at site and properly stored under covered sheds at contractor's cost and protected against damage, deterioration, theft, fire etc. to the satisfaction of the engineer in charge. The contractor shall store the bulk material in the measurable stacks.</p>

	<p>(c) The quantities of materials shall be brought to the site only in such installments that would facilitate smooth progress of work and consumed in reasonable time. The decision of Engineer-in-charge regarding quantity of steel to be brought to the site shall be final and binding to the contractor.</p> <p>(d) Proper accountal in the material registers to be maintained in the prescribed format at the site for the receipt and use of the material on day-to-day basis.</p> <p>(e) Submission of indemnity bond with validity up to the completion/extended period in the prescribed format at the contractor's cost, vesting the ownership of such material with the railways.</p> <p>(f) Submission of insurance policy with a validity up to the completion/extended period at the contractor's cost, in favour of the railway against damage, deterioration, theft, fire etc.</p> <p>The balance payment shall be released only after material is actually consumed in the work. The price variation claim for steel would continue to be governed as per extant PV clause and with reference to delivery at site.</p>
14.0	<u>SERVICE ROADS</u>
14.1	The contractor/s shall make his/their arrangements for service roads, paths etc for carrying his/their tools and plants, labour and materials, etc. and will also allow the Railway use of such paths and service roads, etc for plying its own vehicles free of cost. The tenderer/s will be deemed to have included the cost of making any service roads, roads or paths, etc., that may be required by him/them for plying his/their vehicles for the carriage of his/their men and materials, tools, plants and machinery for successful completion of the work. Similarly, any other feeder road connecting any of the existing roads will be made by the contractor at his/their own cost including any compensation that may be required to be paid for the temporary occupation and or usage of Govt. and or private land and without in any way involving the Railway in any dispute for damage and/or compensation.
14.2	In case the Railway has its own paths, service roads, the contractor/s will be allowed to use of such paths or service roads free of cost. He/They shall, however, in no way involve the Railway in any claims or dispute of whatever kind due to the inaccessibility of such paths or service roads or due to their poor condition and or maintenance or their being to be blocked and/or closed.
14.3	The rates quoted by the contractor as per Schedule of Items, Rates and Quantities shall form the basis of ' <u>on account payment</u> ' or the various items under this contract.
14.4	In the course of execution of various items of work under schedule of Items, Rates and Quantities running bills payment for partly completed works will be made to the contractor. The quantum of such work for payment shall be decided by the Engineer-in-charge whose decision shall be final and binding on the contractor.
14.5	No 'on account payment' by the Railway shall protect the contractor/s against or prevent the Railway from recovering from the contractor/s any over payment made to him/them.
14.6	Final payment of the balance amount due, exclusive of the security deposit required in terms of Clause-5 of these special conditions, will be made after the completion of the entire work and on the certification of the Engineer that work has been completed in all respects and found satisfactory. The security deposit will be refunded after the date of completion according to Clause 5.1 of these conditions.
15.0	<u>EMERGENCY WORK</u>
15.1	In the event of any accident or failure occurring in or about the work of arising out for or in connection with the construction completion or maintenance of the work which in the opinion of the Engineer require immediate attention, the Railway may be with its own workmen or other agency execute or partly execute the necessary work or carry out repairs if the Engineer considers that the contractor is

	not in a position to do so in time and charge the cost thereof, as to be determined by the Chief Engineer/Construction to the contractor.
15.2	In terms of clause 32 of Indian Railways Standard General Conditions of Contract, April, 2022 amended from time to time & up to date;, the material and plants brought by the contractor on the site or land occupied by the contractor in connection with the works and intended to be used for execution thereof shall immediately, they are brought upon the sites of this said land be deemed to be the property of the Railway, vehicles, equipments, plant and machinery of the contractor can be drafted by the Railway Administration at their discretion in case of accidents, natural calamities involving human lives, breaches, stoppage of train operations or any contingencies which require such requisitioning as essential. The decision in this regard of the Engineer-in-charge or his superiors i.e. Sr. Engineer / Executive Engineer/Dy. Chief Engineer etc. shall be final and beyond the ambit of arbitration clause.
15.3	In terms of clause 2.3.2 (A) (iv), tenderer is required to submit the list of equipment, machinery, construction tools and plants available /deployed at site. The successful tenderer on receipt of acceptance letter and conveying their consent shall submit name, addresses, telephone numbers, Fax number/E Mail address of the persons to be contacted for requisitioning the above items as detailed in forgoing clause 15.2 and notify from time to time if any change in the list of equipments/machinery or the addresses/ individuals to the Engineer-in-charge in writing. The name and address, telephone numbers and the contractor officials name shall also be displayed at the site of work.
15.4	The manpower, consumable items and maintenance of the above tools and plants when requisitioned shall be the responsibility of the tenderer/contractor so that the equipments, machinery, tools and plants shall be available for effective utilization at the accident sites, natural calamities, breaches sites etc.
15.5	<p>The hire charges per annum shall be calculated at the following rates on the purchase cost of the plant as under:</p> <ul style="list-style-type: none"> (i) Depreciation charges at the following rates <ul style="list-style-type: none"> a) Light plant 16% per annum b) Heavy plant 10% per annum c) Special plant 6% per annum (ii) In additional 10% on the total of (i) above to meet contingencies (iii) 10% contractor profit on total cost as detailed (i) to (ii) (iv) The hire charges per day shall be arrived at dividing the annual hire charges of total of (i) to (iii) above by 365 which shall be the assumed number of working days in year for this purpose. These hire charges will be payable from the date the plant is handed over to the railway to date on which it is returned to the contractor by Railway. (v) The contractor man power charge shall be payable @ minimum wages as notified by the State Govt. /local bodies /labour Deptt. as the case may be for highly skilled, semi-skilled personnel drafted for operating the plant and machinery. (vi) The payment for the fuel cost shall be paid on the basis of the actual expenditure incurred by the contractor for purchase + 10% contractor's profit thereof which will be the payments towards his miscellaneous expenses too.
16.0	<u>NIGHT WORK</u>
16.1	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 without confirming any right on the contractor for claiming any extra payment for the same.
17.0	<u>DISPOSAL OF SURPLUS EXCAVATED MATERIALS</u>
17.1	The contractor shall at all time keep the site free from all surplus earth, surplus materials, and all rubbish which shall arise from the works and should dispose of the surplus excavated materials as ordered by the Engineer failing which it will be done at the cost of the contractor and cost will be deducted from his dues.

17.2	The contractor shall within 15 days of completion of entire works remove all unused and surplus materials tools and plants staging and refuge or other materials produced by his operations and shall leave the site in a clear and tidy conditions.
18.0	<u>SITE INSPECTION REGISTER</u>
18.1	A site inspection register will be maintained by the Engineer or his representative in which the contractor will be bound to sign day to day entries made by the Engineer or his representative. The contractor is required to take note of the instructions given to him through the site inspection register and should comply with the same within a reasonable time. The contractor will also arrange to receive all the letters etc. issued to him at the site of works.
18.2	The contractor shall, from time to time (before the surface of any portion or the site is interfered with or the work thereon begun) take such levels as the Engineer may direct in his presence or any person authorized by him in writing. Such levels approved and checked by him or such authorized persons shall be recorded in writing and signed by the contractor and shall form the basis of the measurements. Immediately before any portion of the work, below water level is started, the existing water levels are to be taken and recorded in a similar manner.
19.0	The contractor shall have to make and maintain at his own cost suitable approach road and path, etc for proper inspection of the various works. He shall also provide all facilities as required by the Engineer such as Ladder and other appliances for satisfactory inspection of the works and places where materials for the work are stored or prepared.
20.0	<u>OPENING UP OF WORK OR MATERIALS FOR INSPECTION OR TEST:</u>
	Should the Engineer, or any representative consider it necessary for the purpose of enabling inspection of tests analysis to be made to verify or ascertain the quality of any part of the works or of any materials, the contractor shall as and when required by the Engineer or his representatives open up the work or materials for inspection or test or analysis, pull down or cut into any part of the work to make such openings, into under or through any part of the works as may be directed and shall/provide all things facilities which in the opinion of the Engineer or his representative are necessary and essential for the purpose of inspection or test or analysis of the works or of any part thereof or the materials, or of workmanship and the contractor shall close up, cover, rebuild and made good the whole at his own cost, as and when directed by and to the satisfaction of Engineer provided always that of the work in the opinion of the Engineer is found to his satisfaction and in accordance with the contract. The excess expenditure in such examination, inspection or test shall, upon the certificate of the engineer, be borne by the Railways.
21.0	<u>GENERAL</u>
21.1	<u>PROVISION OF LIGHT SIGNALS ETC.</u>
	The contractor/s shall make such provision for lighting the works, materials and plant and provide all such marks and lights, signals and other appliances as may be necessary or as may be required by the Engineer or other responsible authorities during the execution completion and maintenance of the work and shall provide all labour, stores, etc. required for their efficient working and use at any time of day or night. He/They shall also provide all arrangement of every description of watching and maintenance required in connection with the foregoing and all other services for protection of any securing all dangerous places whether to the contractor's workmen or to other persons and or vehicular traffic until the work is certified by the engineer to have been completed and taken over in accordance with the contract.
21.2	The contractor/s will provide upon the works to the satisfaction of the Engineer and at such, places as he may nominate, proper and sufficient life saving, fire fighting and first aid appliances which shall at all times be available for use.
21.3	<u>LABOUR CAMPS</u>
	Land for setting up a workshop by the contractor or for his labour camp or for any other purpose, shall have to be arranged by the contractor at his own cost and under his own arrangements. The contractor, however, will be permitted to make use of the railway land to the extent that can be made available to him free of cost, by the railway in the vicinity of the site of works. The contractor/s shall

	at all times be responsible for any damage or trespass committed by his agent and workmen for carrying out the work.
21.4	The Railway Administration may recommend to the concerned authorities the issue of necessary transport permits for the work. The contractor shall, however, furnish full justification for the above facilities, to enable the Railway Administration to address the State Government or other authorities in this connection. The contractor shall also maintain regular log book of receipts and issue of the materials to work, if so, required by the Civil Authorities. No claim would, however, be entertained by the non-issue of any priority permits or owing to any interruption in supply.
21.5	No claim for idle labour and or idle machinery etc. on any account will be entertained. Similarly, no claim shall be entertained for business loss or any such loss.
22.0	Levy of Token Penalty
22.1	<p>Extension of Time with Liquidated Damages (LD) for delay due to Contractor (Clause 17-B of GCC):</p> <p>(i) With liquidated Damage (LD): 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 17 and 17-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) 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 week.</p> <p>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.</p> <p>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 these Conditions, whether or not actual damage is caused by such default.</p> <p>NOTE:</p> <p>In a contract, where extension(s) of time have been allowed once under clause 17B, further request(s) for extension of time under clause 17A can also be considered under exceptional circumstances. Such extension(s) of time under clause 17A shall be without any Liquidated damages, but the Liquidated damages already recovered during extension(s) of time granted previously under clause 17B shall not be waived. However, Price variation during such extension(s) shall be dealt as applicable for extension(s) of time under clause 17B.</p> <p>(iii) Bonus for Early Completion of Work (Clause 17-C of Bonus for Early Completion of Work (Clause 17-C of GCC): In case of open tenders having advertised value more than Rs.50 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 to 5% of original contract value. The completion date shall be reckoned as the date of issuance of completion certificate by engineer.</p>

23.0	<u>TAXES.</u>
23.1	The contract shall be governed by the Taxes applicable at the place of actual execution of work.
23.2	<p>Taxes on works contract, octroi, royalty, toll tax, local tax on materials as well as services and any other tax levied by Central Govt /State Govt. or local bodies shall be borne by the tenderer. No part of such taxes on contractor's labour/material or any other account will be paid by the Railways. Therefore, the contractor must ascertain the various taxes levied by the concerned Govt or local bodies at the place of execution of work and take into account for the same while quoting the rates. This should be kept in view before tendering.</p> <p>Note:</p> <p>(i) Works contracts shall be treated as supply of services as per Schedule –II GST Act.</p> <p>(ii) GST Act and Rules issued from time to time by the Government/ concerned authorities shall be applicable.</p> <p>(iii) The successful Contractor/ suppliers/ service providers/ parties immediately after the award of tender shall register their firms under GSTIN (GST Identification Number) and submit immediately after 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</p>
23.3	<p>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 GCC-2022 and the Contractor thereupon properly pays such taxes/cess, the contractor shall be reimbursed the amount so paid.</p> <p>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.</p>
23.4	Railways will deduct the taxes specified by the concerned Central Govt/State Govt/Local bodies if required to be deducted at source under the relevant laws as applicable on the date of making the payment. Railway will issue a certificate regarding tax so deducted. It will be responsibility of the contractor to make further correspondence with concerned Govt or local bodies to ensure full deposition of the tax or for claiming a refund, if due, as is done in case of income tax.
23.5	In case any tax is notified to be deducted at source from a specified date and certain payments have already been made in the period that lapsed between the date of applicability of tax and the actual date of implementation of the same, tax required to be deducted at source for this period will be recovered from the subsequent payment.
23.6	<p>Implementation of The Building and Other Construction Workers (RECS) Act, 1996 and The Building and Other Construction Workers Welfare Cess Act, 1996 in Railway Contracts:</p> <p>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 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.</p>
23.7	Contractor is to abide by the provisions of various labour laws in terms of clause 54, 55, 55-A and 55-B of Indian Railways 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:

	<p>(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.</p> <p>(b) Contractor once approved by any Engineer, can create password with login ID (PAN No.) for subsequent use of portal for all Letter of Acceptances issued in his favour.</p> <p>(c) The contractor once registered on the portal, shall provide details of his Letter of Acceptances (LOA) / 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.</p> <p>(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.</p> <p>(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.</p> <p>(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."</p>								
24.0	<p>All payments in respect of the contract during the currency of the contract shall be made through National electronic Fund transfer (NEFT) or Real Time Gross Saving (RTGS). The successful tenderer on award of contract must submit RTGS/NEFT Mandate Form complete in all respects as detailed at annexure-J of the tender document. However, if the facility of RTGS/NEFT is not available at a particular location, the payment shall be made by Cheque. In such case the successful tenderer on award of contract will have to furnish contractor's Bank Account Number and Name of the Bank against which all payments in respect of the contract during the currency of contract shall be made.</p>								
25.0	<p>Damage to the Railway Property:</p> <p>Contractor(s) executing the works adjacent to the existing Railway track for e.g. doubling, gauge conversion, yard remodeling etc. will take all care for avoiding any damage to the underground/OH services such as S&T cables, electric cables/wires, pipelines/sewer lines etc. They must ensure that the work is started after obtaining clearance in writing from the Engineer-in-charge regarding the route for signaling/Electrical cables/water supply/ sewer lines etc. However, if any damage occurs during execution, he will immediately report the same to the Engineer-in-charge and stop the work further till clearance for restarting the work is given by the Engineer-in-charge. It may be further noted that if it is proved that damage is occurred due to the negligence on the part of the contractor, the cost of the damage will be recovered from him/them. The decision of Engineer-in-charge will be final and binding upon the contractor(s)</p> <p>Penalty to be imposed for damages to cable shall be as under :</p> <table border="1"> <tr> <th>Cable damaged</th><th>Penalty per location (Rs.)</th></tr> <tr> <td>Only Quad cable or signaling cable</td><td>1.0 Lakh</td></tr> <tr> <td>Only OFC</td><td>1.25 Lakh</td></tr> <tr> <td>Both OFC & Quad</td><td>1.5 Lakh</td></tr> </table> <p>(As per CCE letter No. 247-Sig/OFC Cut/Rail-Tel/Pt.II dated 08-01-2020.)</p>	Cable damaged	Penalty per location (Rs.)	Only Quad cable or signaling cable	1.0 Lakh	Only OFC	1.25 Lakh	Both OFC & Quad	1.5 Lakh
Cable damaged	Penalty per location (Rs.)								
Only Quad cable or signaling cable	1.0 Lakh								
Only OFC	1.25 Lakh								
Both OFC & Quad	1.5 Lakh								

26.0 (A)	Master copy of the tender document will be available in the office of After award of work, an agreement will be drawn up. The agreement shall be prepared based on the master copy available in the office of and not based on the tender documents submitted by the tenderer. In case of any discrepancy between the tender documents and the master copy, later shall prevail and will be binding on the tenderers. No claim on this account will be entertained.
26.0 (B)	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. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender. The Contract Agreement shall be entered into by Railway only after submission of valid Performance Guarantee by the Contractor. 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.
27.0	<p>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- U), if the Engineer is of the opinion that :-</p> <ul style="list-style-type: none"> (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; <p>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- U-1). 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.</p>
28.0	<p>Maintenance Period :</p> <p>The contractor will have to maintain the work for a period of 12 (Twelve) months from the date of completion of work as certified by Engineer-in-charge of the work.</p>
29.0	Price Variation Clause:-
29.1	<p>Applicability: Price Variation Clause (PVC) shall be applicable only in tender having advertised value above Rs. 2 Crores. 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) :</p> <ul style="list-style-type: none"> 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).																																																																																																																																																								
29.2	Base Month: The Base Month for 'Price Variation Clause' shall be taken as the one month prior to closing of tender, unless otherwise stated elsewhere. The quarter for applicability of PVC shall commence from the month following the Base month. The Price Variation shall be based on the average Price Index of the quarter under consideration.																																																																																																																																																								
29.3	Validity: Rates accepted by Railway Administration shall hold good till completion of work and no additional individual claim shall be admissible except: <ul style="list-style-type: none"> (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, (b) Payment/recovery for overall market situation as per Price Variation Clause given hereunder. 																																																																																																																																																								
29.4	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.																																																																																																																																																								
29.5	No price variation shall be admissible for fixed components.																																																																																																																																																								
29.6	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 <table border="1" data-bbox="300 981 1501 1760"> <thead> <tr> <th>S N</th><th colspan="2">Classification Components</th><th>1A, 2 & 3A</th><th>4A</th><th>5A</th><th>6A</th><th>7</th><th>8A</th><th>9A</th><th>1B, 3B, 4B, 5B, 6B 8B & 9B</th><th>1C, 3C, 4C, 5C, 6C, 8C & 9C</th><th>3D, 4D, 5D, 6D, 8D & 9D</th><th>3E, 4E, 5E, 6E, 8E & 9E</th></tr> </thead> <tbody> <tr> <td>1</td><td>Fixed</td><td>*</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td></tr> <tr> <td>2</td><td>Labour</td><td>L_c</td><td>20</td><td>25</td><td>30</td><td>20</td><td>50</td><td>20</td><td>20</td><td>0</td><td>0</td><td>10</td><td>25</td></tr> <tr> <td>3</td><td>Steel</td><td>S_c</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>85</td><td>0</td><td>50</td><td>0</td></tr> <tr> <td>4</td><td>Cement</td><td>C_c</td><td>0</td><td>0</td><td>15</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>85</td><td>0</td><td>0</td></tr> <tr> <td>5</td><td>Plant Machinery & Spares</td><td>PM_c</td><td>30</td><td>15</td><td>5</td><td>20</td><td>15</td><td>20</td><td>30</td><td>0</td><td>0</td><td>10</td><td>30</td></tr> <tr> <td>6</td><td>Fuel & Lubricants</td><td>F_c</td><td>25</td><td>15</td><td>5</td><td>15</td><td>15</td><td>20</td><td>15</td><td>0</td><td>0</td><td>10</td><td>20</td></tr> <tr> <td>7</td><td>Other materials</td><td>M_c</td><td>10</td><td>15</td><td>30</td><td>30</td><td>5</td><td>25</td><td>20</td><td>0</td><td>0</td><td>5</td><td>10</td></tr> <tr> <td>8</td><td>Detonators & Explosive</td><td>E_c</td><td>0</td><td>15</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr> <td colspan="3">Total</td><td>100</td><td>100</td><td>100</td><td>100</td><td>100</td><td>100</td><td>100</td><td>100</td><td>100</td><td>100</td><td>100</td></tr> </tbody> </table> <p>* It shall not be considered for any price variation.</p> <p>The classification mentioned in the table above represents following type of item(s) in the work(s) –</p> <p>1 Earthwork in Formation</p> <p>1A All Item(s) excluding 1B or/and 1C</p> <p>1B Item(s) for supply of Steel</p>													S N	Classification Components		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	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
S N	Classification Components		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																																																																																																																																												
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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																																																																																																																																												

	<p>1C Item(s) for supply of Cement</p> <p>2 Ballast Supply Works</p> <p>3 Tunnelling Works (Without Explosives)</p> <p>3A All Item(s) excluding 3B or/and 3C or/and 3D or/and 3E</p> <p>3B Item(s) for supply of Steel</p> <p>3C Item(s) for supply of Cement or/and Grout</p> <p>3D Item(s) for Fabrication & Erection of Structures including supply of Steel</p> <p>3E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.</p> <p>4 Tunnelling Works (With explosives)</p> <p>4A All Item(s) excluding 4B or/and 4C or/and 4D or/and 4E</p> <p>4B Item(s) for supply of Steel</p> <p>4C Item(s) for supply of Cement or/and Grout</p> <p>4D Item(s) for Fabrication & Erection of Structures including supply of Steel</p> <p>4E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.</p> <p>5 Building Works</p> <p>5A All Item(s) excluding 5B or/and 5C or/and 5D or/and 5E</p> <p>5B Item(s) for supply of Steel</p> <p>5C Item(s) for supply of Cement</p> <p>5D Item(s) for Fabrication & Erection of Structures including supply of Steel</p> <p>5E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.</p> <p>6 Bridges & Protection work</p> <p>6A All Item(s) excluding 6B or/and 6C or/and 6D or/and 6E</p> <p>6B Item(s) for supply of Steel</p> <p>6C Item(s) for supply of Cement</p> <p>6D Item(s) for Fabrication, Assembly, Erection& Launching of Girders including supply of Steel</p> <p>6E Item(s) for Fabrication, Assembly, Erection & Launching of Girders excluding supply of Steel</p> <p>7 Permanent Way linking</p> <p>8 Platform, Passenger Amenities</p> <p>8A All Item(s) excluding 8B or/and 8C or/and 8D or/and 8E</p> <p>8B Item(s) for supply of Steel item/fittings</p> <p>8C Item(s) for supply of Cement Item</p> <p>8D Item(s) for Fabrication & Erection of Structures including supply of Steel</p> <p>8E Item(s) for Fabrication & Erection of Structures excluding supply of Steel</p> <p>9 Any Other Works not covered in Classification 1 to 8</p> <p>9A All Item(s) excluding 9B or/and 9C or/and 9D or/and 9E</p> <p>9B Item(s) for supply of Steel</p> <p>9C Item(s) for supply of Cement or/and Grout</p> <p>9D Item(s) for Fabrication & Erection of Structures including supply of Steel</p> <p>9E Item(s) for Fabrication & Erection of Structures excluding supply of Steel</p>
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	<p>NOTE : -----</p> <p>----- will be applicable for the contract.</p>
29.7	<p>Formulae: The Amount of variation in prices in various components (labour, material etc.) shall be worked out by the following formulae:</p> <p>(i) $L = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (L_Q - L_B) \times L_C}{L_B \times 100}$</p> <p>(ii) $M = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (M_Q - M_B) \times M_C}{M_B \times 100}$</p> <p>(iii) $F = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (F_Q - F_B) \times F_C}{F_B \times 100}$</p> <p>(iv) $E = \frac{(W \times (E_Q - E_B) \times E_C)}{E_B \times 100}$</p> <p>(v) $PM = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (PM_Q - PM_B) \times PM_C}{PM_B \times 100}$</p> <p>(vi) $S = \frac{(W \text{ or } W_S \text{ or } W_{SF}) \times (S_Q - S_B) \times S_C}{S_B \times 100}$</p> <p>(vii) $C = \frac{(W \text{ or } W_C) \times (C_Q - C_B) \times C_C}{C_B \times 100}$</p> <p>(II) For Railway Electrification Works:</p> <p>(viii) $T = [0.4136 \times (C_Q - C_B) / C_B] \times 85$</p> <p>(ix) $R = [0.94 \times (R_T - R_O) / R_O + 0.06 \times (Z_T - Z_O) / Z_O] \times 85$</p> <p>(x) $N = [(P_T - P_O) / P_O] \times 85$</p> <p>(xi) $I = [(I_T - I_O) / I_O] \times 85$</p> <p>(xii) $G = [(M_Q - M_B) / M_B] \times 85$</p> <p>(xiii) $Er = [(L_Q - L_B) / L_B] \times 85$</p> <p><i>Where,</i></p> <p>L Amount of price variation in Labour</p> <p>M Amount of price variation in Materials</p> <p>F Amount of price variation in Fuel</p> <p>E Amount of price variation in Explosives</p> <p>PM Amount of price variation in Plant, Machinery and Spares</p> <p>S Amount of price variation in Steel Supply Item</p> <p>C Amount of price variation in Cement Supply Item</p> <p>T Percentage variation payable on the gross value of bill of Concreting (Bill(s) of Quantities for concrete items)</p> <p>R Percentage variation payable on the gross value of bill of Ferrous Items (Bill(s) of Quantities for ferrous items)</p> <p>N Percentage variation payable on the gross value of bill of Non-Ferrous Items (Bill(s) of Quantities for non-ferrous items)</p> <p>I Percentage variation payable on the gross value of bill of Insulator (Bill(s) of Quantities for Insulator items)</p> <p>G Percentage variation payable on the gross value of bill of General Works (Bill(s) of Quantities for General items)</p>

	<p>Er Percentage variation payable on the gross value of erection (Bill(s) of Quantities for Erection Item)</p> <p>L_C % of Labour Component in the item(s)</p> <p>M_C % of Material Component in the item(s)</p> <p>F_C % of Fuel Component in the item(s)</p> <p>E_C % of Explosive Component in the item(s)</p> <p>PM_C % of Plant, Machinery and Spares Component in the item(s)</p> <p>S_C % of Steel Supply item Component in the item(s)</p> <p>C_C % of Cement Supply item Component in the item(s)</p> <p>W Gross value of work done by Contractor as per on-account bill(s) excluding the Gross value of work under W_S or/and W_C or/and W_{SF} or/and W_F or/and W_{SFL} or/and W_{FL} and cost of materials supplied by Railway either free or at fixed rate,</p>
	<p>W_S Gross value of work done by Contractor for item(s) of supply of steel.</p> <p>W_C Gross value of work done by Contractor for item(s) of supply of cement and /or supply of grout material.</p> <p>W_{SF} Gross value of work done by Contractor for item(s) of Fabrication & Erection of Structures including supply of Steel.</p> <p>W_F Gross value of work done by Contractor for Fabrication & Erection of Structures excluding supply of Steel.</p> <p>W_{SFL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders including supply of Steel.</p> <p>W_{FL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders excluding supply of Steel.</p> <p>L_B Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the base period</p> <p>L_Q Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration</p> <p>M_B Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the base period</p> <p>M_Q Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration</p> <p>F_B The average of official prices of Diesel available on the official website of ‘Petroleum Planning and Analysis cell’ under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the base period</p> <p>F_Q The average of official prices of Diesel available on the official website of ‘Petroleum Planning and Analysis cell’ under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the 3 months of the quarter under consideration</p> <p>E_B Index number of Monthly Whole Sale Price Index for the category ‘Explosive’ of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the base period.</p>

	<p>E_Q Index number of Monthly Whole Sale Price Index for the category ‘Explosive’ of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the average price index of 3 months of the quarter under consideration.</p> <p>PM_B Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for ‘Manufacture of machinery for mining, quarrying and construction’– published in RBI (Reserve Bank of India) Bulletin, for the base period.</p> <p>PM_Q Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for ‘Manufacture of machinery for mining, quarrying and construction’– published in RBI (Reserve Bank of India) Bulletin, for the average price index of 3 months of</p>
	<p>the quarter under consideration.</p> <p>S_B The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the base period.</p> <p>S_Q The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the 3 months of the quarter under consideration.</p> <p>C_B Index No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the base period</p> <p>C_Q No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the average price index of the 3 months of the quarter under consideration</p> <p>R_T IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is two months prior to date of inspection of material.</p> <p>R_O IEEMA price index for Steel Blooms (size 150mmx150mm)for the month which is one month prior to date of opening of tender.</p> <p>P_T IEEMA price index for Copper wire rods for the month which is two months prior to date of inspection of material.</p> <p>P_O IEEMA price index for Copper wire rods for the month which is one month prior to date of opening of tender.</p> <p>Z_T IEEMA price index for Zinc for the month which is two months prior to date of inspection of material</p> <p>Z_O IEEMA price index for Zinc for the month which is one month prior to date of opening of tender</p> <p>I_T RBI wholesale price index for the sub-group “Insulators” for the month which is two months prior to date of inspection of material</p> <p>I_O RBI wholesale price index for the sub-group “Insulators” for the month which is one month prior to date of opening of tender</p>
	<p>(III) <u>SIGNALING & TELECOMMUNICATION WORKS:</u></p> <p>(a) The following expressions and meanings are assigned to the value of the work done for signalling and telecommunication works:</p> <p>SIGWK = Value of signalling works for a stage payment of the item signalling works;</p> <p>INVSIG = Value of inventory for signalling works for a stage payment of the item inventory for signalling works;</p>

	<p>INTGTESTSIG = Value of integrated testing and commission for signalling works of the Railway Project;</p> <p>COMWK= Value of telecommunication works for a stage payment of the item telecommunication works;</p> <p>INVCOM = Value of inventory for telecommunication works for a stage payment of the item inventory for telecommunication works; and</p> <p>INTGTESTCOM = Value of integrated testing and commission for telecommunication works of the Railway Project.</p>
(b)	<p>Price adjustment for changes in cost of signalling works and telecommunication works shall be paid in accordance with the following formula:</p> <p>(i) $VSIGWK = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o + \text{S30C} \times (\text{P30C}_i - \text{P30C}_o) / \text{P30C}_o + \text{S24C} \times (\text{P24C}_i - \text{P24C}_o) / \text{P24C}_o + \text{S19C} \times (\text{P19C}_i - \text{P19C}_o) / \text{P19C}_o + \text{S12C} \times (\text{P12C}_i - \text{P12C}_o) / \text{P12C}_o + \text{S9C} \times (\text{P9C}_i - \text{P9C}_o) / \text{P9C}_o + \text{S6C} \times (\text{P6C}_i - \text{P6C}_o) / \text{P6C}_o + \text{S4C} \times (\text{P4C}_i - \text{P4C}_o) / \text{P4C}_o + \text{S2C} \times (\text{P2C}_i - \text{P2C}_o) / \text{P2C}_o + \text{S12C2.5} \times (\text{P12C2.5}_i - \text{P12C2.5}_o) / \text{P12C2.5}_o + \text{S2C2.5} \times (\text{P2C2.5}_i - \text{P2C2.5}_o) / \text{P2C2.5}_o + \text{S2C25} \times (\text{P2C25}_i - \text{P2C25}_o) / \text{P2C25}_o + \text{QC} \times (\text{PQC}_i - \text{PQC}_o) / \text{PQC}_o];$</p> <p>(ii) $VINVSIG = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$</p> <p>(iii) $VINTGTESTSIG = 0.85 \text{ INTGTESTSIG} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$</p> <p>(iv) $VCOMWK = 0.85 \text{ COMWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o + \text{S30C} \times (\text{P30C}_i - \text{P30C}_o) / \text{P30C}_o + \text{S24C} \times (\text{P24C}_i - \text{P24C}_o) / \text{P24C}_o + \text{S19C} \times (\text{P19C}_i - \text{P19C}_o) / \text{P19C}_o + \text{S12C} \times (\text{P12C}_i - \text{P12C}_o) / \text{P12C}_o + \text{S9C} \times (\text{P9C}_i - \text{P9C}_o) / \text{P9C}_o + \text{S6C} \times (\text{P6C}_i - \text{P6C}_o) / \text{P6C}_o + \text{S4C} \times (\text{P4C}_i - \text{P4C}_o) / \text{P4C}_o + \text{S2C} \times (\text{P2C}_i - \text{P2C}_o) / \text{P2C}_o + \text{S12C2.5} \times (\text{P12C2.5}_i - \text{P12C2.5}_o) / \text{P12C2.5}_o + \text{S2C2.5} \times (\text{P2C2.5}_i - \text{P2C2.5}_o) / \text{P2C2.5}_o + \text{S2C25} \times (\text{P2C25}_i - \text{P2C25}_o) / \text{P2C25}_o + \text{QC} \times (\text{PQC}_i - \text{PQC}_o) / \text{PQC}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o];$</p> <p>(v) $VINVCOM = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$ and</p> <p>(vi) $VINTGTESTCOM = 0.85 \text{ INTGTESTCOM} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o].$</p> <p>Where</p> <p>$VSIGWK$ = Increase or decrease in the cost of signalling works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);</p> <p>$VINVSIG$ = Increase or decrease in the cost of inventory for signalling during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);</p> <p>$VINTGTESTSIG$ = Increase or decrease in the cost of integrated testing and commissioning of signalling works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);</p>

	<p>VCOMWK = Increase or decrease in the cost of communication works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);</p> <p>VINVCOM = Increase or decrease in the cost of inventory for telecommunications works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);</p> <p>VINTGTESTCOM = Increase or decrease in the cost of integrated testing and commissioning of telecommunication works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);</p> <p>PCEQP, PELEX, PIC, PLB, POFC, and POTH are the percentages of communication equipment, electronics, PVC insulated cables, labour, optical fibre cables, and other materials respectively;</p> <p>CEQPo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for communication equipment for the month of the Base Month;</p> <p>CEQPi = The WPI for communication equipment for the average price index of the 3 months of the quarter under consideration;</p> <p>ELEXo = The WPI for electronics for the month of the Base Month;</p> <p>ELEXi = The WPI for electronics for the average price index of the 3 months of the quarter under consideration;</p> <p>P30Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 30C x 1.5 sq mm signalling cable</p> <p>P30Co = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>S30C = Percentage of size 30C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>P24Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 24C x 1.5 sq mm signalling cable</p> <p>P24Co = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>S24C = Percentage of size 24C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>P19Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 19C x 1.5 sq mm signalling cable</p> <p>P19Co = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>S19C = Percentage of size 19C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>P12Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 1.5 sq mm signalling cable</p> <p>P12Co = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>S12C = Percentage of size 12C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>P9Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 9C x 1.5 sq mm signalling cable</p>
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	<p>$P9C_o$ = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>$S9C$ = Percentage of size 9C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>$P6C_i$ = Price payable per Km as adjusted in accordance with price variation Clause for size 6C x 1.5 sq mm signalling cable</p> <p>$P6C_o$ = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>$S6C$ = Percentage of size 6C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>$P4C_i$ = Price payable per Km as adjusted in accordance with price variation Clause for size 4C x 1.5 sq mm signalling cable</p> <p>$P4C_o$ = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>$S4C$ = Percentage of size 4C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>$P2C_i$ = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 1.5 sq mm signalling cable</p> <p>$P2C_o$ = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>$S2C$ = Percentage of size 2C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>$P12C2.5_i$ = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 2.5 sq mm signalling cable</p> <p>$P12C2.5_o$ = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>$S12C2.5$ = Percentage of size 12C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>$P2C2.5_i$ = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 2.5 sq mm signalling cable</p> <p>$P2C2.5_o$ = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>$S2C2.5$ = Percentage of size 2C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>$P2C25_i$ = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 25 sq mm signalling cable</p> <p>$P2C25_o$ = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>$S2C25$ = Percentage of size 2C x 25 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.</p> <p>PQC_i = Price payable per Km as adjusted in accordance with price variation Clause for size 0.9mm dia, 6 Quad cable.</p> <p>PQC_o = Price per Km of cable as per purchase order/ Contract agreement.</p> <p>QC = Percentage of size 0.9mm dia, 6 Quad cable shall govern the price.</p>
	<p>LBo = The consumer price index for industrial workers – All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called “CPI”) for the month of the Base Month;</p>

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration;

OFCo = The WPI for fibre cables for the month of the Base Month;

OFCi = The WPI for fibre cables for the average price index of the 3 months of the quarter under consideration;

OTHo = The WPI for all commodities for the month of the Base Month; and

OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration.

- (c) The following percentages shall govern the price adjustment of the Contract Price for signalling and telecommunication works:

Works Component	Signalling			Telecommunication	
	Signal ling Works	Signal ling inventory	Integr ated testing and Comm issioni ng	Teleco mmun ica tion Works	Teleco mm inventory
Electronics (PELEX)	***%	***%	—	***%	***%
Communication Equipment (PCEQP)	—	—	—	***%	***%
Optical Fibre Cable (POFC)	***%	—	—	***%	—
30C x 1.5 sq mm signalling cable(S30C)	***%	—	—	***%	—
24C x 1.5 sq mm signalling cable (S24C)	***%	—	—	***%	—
19Cx 1.5 sq mm signalling cable (S19C)	***%	—	—	***%	—
12C x 1.5 sq mm signalling cable (S12C)	***%	—	—	***%	—
9C x 1.5 sq mm signalling cable (S9C)	***%	—	—	***%	—
6C x 1.5 sq mm signalling cable (S6C)	***%	—	—	***%	—
4C x 1.5 sq mm signalling cable (S4C)	***%	—	—	***%	—
2C x 1.5 sq mm signalling cable (S2C)	***%	—	—	***%	—
12C x 2.5 sq mm signalling cable (S12C2.5)	***%	—	—	***%	—

	2C x 2.5 sq mm signalling cable (S2C2.5)	***%	—	—	***%	—	—
	2C x 25 sq mm signalling cable (S2C25)	***%	—	—	***%	—	—
	0.9 mm dia, 6Quad cable (QC)	***%	—	—	***%	—	—
	Labour (PLB)	***%	—	***%	***%	***%	***%
	Other materials	***%	***%	***%	***%	***%	***%
	Total	100%	100%	100%	100%	100%	100%
<p align="center"><i>(Note- the percentages may be finalized by tendering authority depending on BOQ)</i></p> <p><u>FORMULAE FOR SIGNALING & TELECOM CABLE</u></p> <p>The price payable for signalling cables is variable as per Price Variation Formula given below:</p> <p>For Signalling Copper Cables:</p> $P_i = P_o + CuF (Cu - C_{uo}) + CCF_{cu}(CC - C_{Co}) + FeF (Fe - Fe_o)$ <p>For Telecom Copper Cables For Jelly Filled, 0.9 mm dia, 6 quad cable</p> $P_i = P_o + CuF (Cu - C_{uo}) + AlF_{cu}(Al - A_{lo}) + CCF_{cu} (CC - C_{Co}) + FeF (Fe - Fe_o)$ <p>For Aluminium Power Cables:</p> $P_i = P_o + AlF (Al - A_{lo}) + CCFAI(CC - C_{Co}) + FeF (Fe - Fe_o)$ <p>Where,</p> <p>P_i= Price payable per KM as adjusted in accordance with Price variation clause.</p> <p>P_o= Price per KM of cable as per Purchase order.</p> <p>CuF= Variation factor for Copper</p> <p>C_{uo}= Price of copper Rod in Rs. Per MT</p> <p>$CCFCu$= Variation factor for PVC Compound for Copper Signalling& Telecom cable</p> <p>C_{Co}= Price of PVC Compound in Rs. Per MT</p> <p>AlF= Variation factor for Aluminium</p> <p>A_{lo}= Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.</p> <p>$CCFAI$ = Variation factor for PVC Compound for Aluminium power cable</p> <p>FeF= Variation factor for Steel</p> <p>Fe_o= Price of Steel for Armour (Flat strip 4 mm. x 0.8mm/ Round 1.4mm dia) in Rs. Per MT</p>							
	<p>(Prices per MT for C_{uo}, C_{Co}, Fe_o, A_{lo} as applicable on the 1st working day of the month, one month prior to the deadline for submission of bids. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the deadline for submission of bids.)</p> <p>C_u= Price of Copper Rod in Rs. Per MT.</p> <p>C_c= Price of PVC Compound in Rs. Per MT.</p>						

	<p>Fe= Price of Steel for Armouring (Flat strip 4mm x 0.8 mm/ Round 1.4mm dia) in Rs. Per MT.</p> <p>Al = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.</p> <p>(Prices per MT for Cu, CC, Fe, Al as prevailing on 1st working day of the calendar month covering the date One month prior to the date of inspection call letter will be applicable for the calculation of updated price. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the date of inspection.)</p> <p>The value of variation factors for copper, steel and PVC Compound are different for different sizes of signalling cables. Accordingly, the PVC formula for some of the types of signalling cable is as given under:-</p> <p>Underground Railway Signalling Cable unscreened and armoured copper conductor</p> <p>(i) Size 30 C x 1.5 sq.mm.</p> $P30C_i = P30C_o + 0.391(Cu - C_{uo}) + 0.557(CC - CC_o) + 0.425(Fe - Fe_o)$ <p>For armouring, price of steel flat strip of size 4mmx0.8mm is to be taken into consideration.</p> <p>(ii) Size 24C x 1.5 sq.mm</p> $P24C_i = P24C_o + 0.313(Cu - C_{uo}) + 0.481(CC - CC_o) + 0.398(Fe - Fe_o)$ <p>For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.</p> <p>(iii) Size 19C x 1.5 sq.mm</p> $P19C_i = P19C_o + 0.248(Cu - C_{uo}) + 0.395(CC - CC_o) + 0.343(Fe - Fe_o)$ <p>For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.</p> <p>(iv) Size 12C x 1.5 sq.mm</p> $P12C_i = P12C_o + 0.157(Cu - C_{uo}) + 0.277(CC - CC_o) + 0.289(Fe - Fe_o)$ <p>For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.</p> <p>(v) Size 9C x 1.5 sq.mm</p> $P9C_i = P9C_o + 0.117(Cu - C_{uo}) + 0.241(CC - CC_o) + 0.383(Fe - Fe_o)$ <p>For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.</p> <p>(vi) Size 6Cx 1.5 sq.mm</p>
	<p>$P6C_i = P6C_o + 0.078(Cu - C_{uo}) + 0.199(CC - CC_o) + 0.329(Fe - Fe_o)$</p> <p>For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.</p> <p>(vii) Size 4Cx1.5 sq.mm</p> $P4C_i = P4C_o + 0.052(Cu - C_{uo}) + 0.152(CC - CC_o) + 0.277(Fe - Fe_o)$ <p>For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.</p> <p>(viii) Size 2C x 4 sq.mm(multistrand)</p> $P2C_i = P2C_o + 0.073(Cu - C_{uo}) + 0.156(CC - CC_o) + 0.3(Fe - Fe_o)$ <p>For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.</p>

	<p>(ix) Size 12C x 2.5 sq.mm</p> <p>$P12C2.5_i = P12C2.5_o + 0.282 (Cu-Cu_o) + 0.371 (CC-CC_o) + 0.342 (Fe-Fe_o)$</p> <p>For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.</p> <p>(x) Size 2C x 2.5 sq.mm</p> <p>$P2C2.5_i = P2C2.5_o + 0.047 (Cu-Cu_o) + 0.139 (CC-CC_o) + 0.277 (Fe-Fe_o)$</p> <p>For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.</p> <p>(xi) Size 2C x 25 sq.mm PVC insulated, armoured, Aluminium power cable</p> <p>$P2C25_i = P2C25_o + 0.146 (Al-Al_o) + 0.303 (CC-CC_o) + 0.306 (Fe-Fe_o)$</p> <p>For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.</p> <p>(xii) For Jelly filled, 0.9mm dia, 6 quad cable</p> <p>$PQC_i = PQC_o + 0.135 (Al-Al_o) + 0.139 (Cu-Cu_o) + 0.515 (CC-Cc_o) + 0.693 (Fe-Fe_o)$.</p> <p>For PVC Compound Grade CW-22, is to be taken into consideration.</p>															
29.8	The demands for escalation of cost shall be allowed on the basis of provisional indices as mentioned above in Clause 46A.7. Any adjustment needed to be done based on the finally published indices shall be made as and when they become available.															
29.9(1)	<p>Relevant categories of steel for the purpose of operating Price Variation formula as mentioned in this Clause shall be as under:</p> <table><tr><th>SL</th><th>Classification</th><th>Rates to be used for calculating S_Q or S_B</th></tr><tr><td>1.</td><td>Reinforcement bars and other rounds</td><td>Average of per tonne rates of 10mm dia TMT & 25mm dia TMT; confirming IS1786; Fe 500</td></tr><tr><td>2.</td><td>All types and sizes of angles, channels and joists</td><td>Average of per tonne rates of ‘Angle 75x75x6mm, Mild Steel Plate 10mm thickness and Channel 150x75mm; confirming IS2062, E250 Gr “A”</td></tr><tr><td>3.</td><td>All types and sizes of plates</td><td>Average of per tonne rates of ‘MS Plates 10mm thickness and 25mm thickness; confirming IS2062, E250 Gr “A”</td></tr><tr><td>4.</td><td>Any other section of steel not covered in the above categories</td><td>Average of price for the 3 categories covered under SL 1, 2 & 3 in this table.</td></tr></table>	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.
SL	Classification	Rates to be used for calculating S_Q or S_B														
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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.														
29.9(2)	<p>Relevant city for referring “JPC (Joint Plant Committee)” rates of steel items (S_Q /S_B) in different Zonal Railways shall be as under :</p> <table><tr><th>SL</th><th>City</th><th>Railway</th></tr><tr><td>1.</td><td>Delhi</td><td>Northern, North Central, North Eastern, North Western</td></tr><tr><td>2.</td><td>Kolkata</td><td>Eastern, East Central, East Coast, Northeast Frontier, South Eastern, Southeast Central</td></tr><tr><td>3.</td><td>Mumbai</td><td>Central, Western, West Central</td></tr><tr><td>4.</td><td>Chennai</td><td>Southern, South Central & South Western</td></tr></table>	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
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														
29.10	<p>Price Variation during Extended Period of Contract</p> <p>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 17A of the Standard General Conditions of Contract. However, where extension of time has been granted due to Contractor’s failure under Clause 17B of the Standard General Conditions of Contract, price adjustment shall be done as follows:</p> <p>a. In case the indices increase above the indices applicable to the last month of original completion period or the extended period under Clause 17A, the price adjustment for the period of extension granted under Clause 17B shall be limited to the amount payable as per the Indices</p>															

	<p>applicable to the last month of the original completion period or the extended period under Clause 17A of the Standard General Conditions of Contract; as the case may be.</p> <p>b. In case the indices fall below the indices applicable to the last month of original/ extended period of completion under Clause 17A, as the case may be; then the lower indices shall be adopted for the price adjustment for the period of extension under Clause 17B of the Standard General Conditions of Contract.</p>
30.0	<p>Mobilization Advance: [Applicable for advertised tender value exceeding Rs. 50 crores]</p>
30.1	<p>The tender / contractor may be granted a recoverable interest bearing mobilization advance up to 10% of the contract value. The rate of interest will be applicable as circulated by Railway Board & shall be effective on the date of approval of payment of Mobilization Advance by the Competent Authority.</p>
30.2(a)	<p>Mobilization Advance –</p> <p>This shall be limited to 10% of the Contract value and shall be paid in 2 stages :</p> <p>Stage 1– 5% of Contract Value on signing of the contract agreement.</p> <p>Stage 2 – 5% on mobilization of site-establishment, setting up offices, bringing in equipment and actual commencement of work.</p> <p>The stage 1 of advance shall be payable immediately after signing of contract agreement.</p> <p>The stage 2 of advance shall be payable at the time of mobilization, only after submission of an utilization certificate by the contractor that the Stage 1 advance has been properly utilized in the contract.</p> <p>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).</p>
30.2(b)	<p>Advance Against Machinery and Equipment –</p> <p>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.</p>
	<p>The advances under sub clause (a) and (b) above, are subject to the following conditions -</p> <p>(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 installments on each "on account bill" will be on pro-rata basis.</p> <p>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 affected) 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.</p>

	<p>(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 utilization of Mobilization advance.</p> <p>(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.</p> <p>(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.</p>
31.0	System of Measurement of work by Contractors in works Contract (Contractor's e-MB is mandatory for all contracts costing more than Rs.5 crore).
31.01	Measurement of work by contractors shall be allowed only in works contracts costing more than Rs.5 crores.
31.02	Measurement recorded by the contractor shall be test checked by Railway within 45 days of submission of measurements.
31.03	<p>(a) While processing 75% provisional payment bill, concerned executives shall ensure that supply items given by contractor are commensurate with requirement for execution of works.</p> <p>(b) The word Deputy CEE or its equivalent shall mean equivalent Branch Officer of the division/RE organization. XEN/AXEN shall mean their equivalent counterparts in Division/RE organization</p> <p>(Authority:- Railway Board letter No.2017/CE-I/CT/9 dated 31-05-2023)</p>
31.04	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:
31.1	Railway shall arrange contractor's measurement book (CMB), each having sheet No.1A to 4A (Form E 1313), followed by 100 machine number pages (Form E 1313, sheet No.5A). 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.
31.2	CMBs shall be printed in such a way so as to keep a clear margin of 50mm on the left side of page. Further, the left side shall have pinhole tear line at a distance of 15mm 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 35mm clear margin to re-bind measurement books later on.
	Movement and upkeep of Contractor's Measurement Book:
31.3	Dy. Chief Electrical Engineer in Charge of contract (Dy CEE/C) shall hand over required No. of CMBs to Assistant/Executive Electrical Engineer-in-charge of contract (AEN/XEN) after taking receipt of the same on sheet No.2A (Form E.1313) for further issuance to contractor time to time as per progress of work.
31.4	CMB shall be registered with unique No. in the Register of Measurement Books (Form E.1314) maintained in the office of Dy CEE/C. Separate accountal of CMBs for each agreement shall be maintained in the office of Dy CEE/C and AXEN/XEN.

31.5	In case of change of 'contractor's authorized engineer', fresh approval shall be taken from Dy CEE/C before recording of measurement.
31.6	While issuing the CMB to contractor, AXEN/XEN shall take out sheet No.2A to 4A from the CMB, take receipt of CMB from contractor on sheet No.3A (Form E 1313), and keep the same in safe custody.
31.7	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:
31.8	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 initialed. No page shall be damaged/destroyed. No page shall be kept blank in between the measurement.
31.9	The Contractor shall communicate the date of measurement to AXEN/XEN 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.
31.10	In on-account contract certificate, measurement shall be recorded for the items and quantities to be paid in the concerned on-account contract certificate.
31.11	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.
31.12	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.
31.13	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 AXEN/XEN along with bill, duly signing the measurements. The contractor shall keep a photocopy of the measurements with him for future reference.
31.14	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 AXEN/XEN.
31.15	The contractor shall submit required copies of invoice and on account contract certificate/final contract certificate (similar to form E.1337 and Form E.1338) to the AXEN/XEN duly marking them – original or duplicate copy. Original shall be used for release of payment whereas duplicate copies shall be used for record purpose in different offices.
31.16	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.
31.17	AXEN/XEN 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 AXEN/XEN.
	Release of Provisional Payment
31.18	<p>Senior Section Engineer/'Junior Engineer with 5 years' experience (SSE/JE) and AXEN/XEN shall sign and record a certificate on the original provisional 'on account contract certificate' as under:</p> <p>“Certified that the payment being made is less than the amount due for the quantities of works executed by the contractor”.</p> <p>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 & AXEN/XEN, to ensure that no excess payment is being made. At this stage no test check of measurements by railway is required.</p>

31.19	AXEN/XEN shall keep a copy of contractor's invoice and provisional on account contract certificate in his office, and submit original invoice and original provisional on account contract certificate along with required number of duplicate copies, and used sheets of CMB to the Dy CEE/C unit for passing the bill and release of payment.																													
31.20	The provisional on account contract certificate shall be passed by Dy CEE/C and payment shall be released by associate finance based on above certification of SSE/JE and AXEN/XEN. After release of payment, blank sheet of CMB (if any) shall be crossed by Dy CEE/C before sending the measurement sheets back to AXEN/XEN for carrying out required test checks. At this stage measurements shall not be crossed.																													
31.21	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																													
31.22	Necessary test checks shall be carried out by the SSE/JE and AXEN/XEN for the works done before full payment of on-account contract certificate/final contract certificate. SSE/JE and AXEN/XEN 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 and plants to facilitate test check by railway officials.																													
31.23	<div>The stipulated test checks for AEN/XEN and SSE/JE Level is tabulated as under:</div> <table><tr><th rowspan="2">S. No.</th><th rowspan="2">Description of Works</th><th colspan="2">Test Check in term of % of value by</th></tr><tr><th>SSE/JE</th><th>Jr Scale/ Sr Scale</th></tr><tr><td>(a)</td><td>Measurement of Ballast, pitching stone, Earthwork and hidden items</td><td>100%</td><td>100%</td></tr><tr><td>(b)</td><td>Measurement of all other items</td><td>100%</td><td>20%</td></tr><tr><td>(c)</td><td>Initial and Final levels along centre line for earthwork in embankment and cutting</td><td>100%</td><td>100%</td></tr><tr><td>(d)</td><td>Intermittent levels along centre line for earthwork in embankment and cutting</td><td>100%</td><td>20%</td></tr><tr><td>(e)</td><td>Initial, intermittent and final levels except centre line for earthwork in embankment and cutting</td><td>100%</td><td>20%</td></tr></table> <div>Note: The check regarding levels of earthwork invariably shall be carried out in cross sections having heavy cross slopes.</div>				S. No.	Description of Works	Test Check in term of % of value by		SSE/JE	Jr Scale/ Sr Scale	(a)	Measurement of Ballast, pitching stone, Earthwork 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 earthwork in embankment and cutting	100%	20%
S. No.	Description of Works	Test Check in term of % of value by																												
		SSE/JE	Jr Scale/ Sr Scale																											
(a)	Measurement of Ballast, pitching stone, Earthwork 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 earthwork in embankment and cutting	100%	20%																											
31.24	Contractor's recorded measurement sheets shall be checked for any corrections/over writing during test check. All the corrections/over writing shall be initialed by SSE/JE.																													
31.25	The discrepancy noted (if any) during test check of recorded measurement shall be communicated by AXEN/XEN to the contractor.																													
31.26	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 AXEN/XEN.																													
	Full payment of On Account Contract Certificate/Final Contract Certificate																													
31.27	AEN/XEN shall submit original copy of invoice and on account contract certificate of remaining amount/Final Contract Certificate, along with required number of duplicate copies and used sheets of CMB (all used/blank CMBs in case of final contract certificate), duly signed by SSE/JE and AXEN/XEN to the Dy CEE/C for passing the bill and release of payment.																													
31.28	Once the payment is released, Dy CEE/C shall return back the used sheets of CMB to AXEN/XEN for safe custody, duly crossing of measurements by finance officer.																													
31.29	Once all used sheets of a particular CMB is received back by AXEN/XEN from Dy CEE/C, the AXEN/XEN shall re-bind all 100 pages of CMB along with sheet No.1A to 4A for submission of CMB to Dy CEE/C office. Dy CEE/C office shall record the receipt of same in sheet No.2A of CMB and Register of Measurement Books (Form E1314).																													

31.30	The final contract certificate shall be passed by Dy CEE/C only after receipt of all CMBs (used/blank) from AXEN/XEN.		
31.31	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.		
31.32	Procedure order for Measurement, Test Check limit, Material passing & Payments etc. is applicable for contracts wherein PMS/PSSA contracts are in place. (There will be contractor's MB for all contracts irrespective of the cost of the agreement, if required. Provisions have already been made on IREPS for the same) (Authority:- Railway Board letters No. 2016/CE-I/CT/14/Measurement dated 02-08-2024 & 28-03-2025.)		
A	Measurement: Measurement shall be done by Contractor.		
B	Material Passing:		
	Department	By PMS/PSSA	By Railway Officials
	S&T	1) 100% of billed material value by Site Engineer 2) 10% of billed material value by Resident Engineer (RE). Materials means manufactured materials like Relays, MSDAC, UPS, AC-DC converts etc. While framing the contract conditions the materials to be tested shall be clearly mentioned in the document.	PMS/PSSA offered material nominated Railway Engineers for test checked through RFIs 1) 10% of billed material value by SSE/SE/JE 2) 5% of billed material value by JS/SS level officer
	Electrical	1) 100% of billed material value by Site Engineer 2) 10% of billed material value by Resident Engineer (RE) Materials means manufactured materials like Steel fasteners or hardware material used in OHE, Insulators, any OHE fitting for mechanical strengths, transformer oil, LT cables, wiring, light fitting, Air conditioners etc. While framing the contract conditions the materials to be tested shall be clearly mentioned in the document.	PMS/PSSA offered material nominated Railway Engineers for test checked through RFIs 1) 10% of billed material value by SSE/SE/JE 2) 5% of billed material value by JS/SS level officer
	Civil	1) 100% of billed material value by Site Engineer 2) 5% of billed material value by Resident Engineer (RE). Materials means manufactured materials like Rails, sleepers, crossings, switches etc. While framing the contract conditions the materials to be tested shall be clearly mentioned in the document.	PMS/PSSA offered material nominated Railway Engineers for test checked through RFIs 1) 10% of billed material value by SSE/SE/JE 2) 5% of billed material value by JS/SS level officer
C	Test Checks by PMS/PSSA: <ul style="list-style-type: none">Contractor's Bill would be raised on IRWCMS by agency on Contractor's MB module, same would be provided to PMS/PSSA in physical form by Zonal Railways.In case of physical MB or PMS/PSSA not having access to "IRWCMS", Contractor shall give one set of measurements and on account bill to PMS/PSSA for scrutiny.On receipt of bill along with measurement book with necessary documents, PMS/PSSA team will technically check the same with drawings, specifications, test certificates, quantities etc. as per the contract agreement. PMS/PSSA team will carry out the mandated checks as given in table		

	<p>below. In addition to checks given in table below. random test checks by Chief Resident Engineer/ Team Leader/ Chief Project Manager of PMS/PSSA may/shall also be done.</p> <ul style="list-style-type: none">• PMS/PSSA shall ensure the Video recording of all hidden measurements. PMS/PSSA shall also require to maintain various record/document related to quality and quantity of work as per the codes & manual and tender document. All record/document & video recording shall be preserved till final bill.• The 75% of the bill amount shall be released after certification by PMS/PSSA, pending checks/ Audits by Railways.• PMS/PSSA shall certify the bill and forward to Authority for passing as per the contract agreement. Departmental test checks, if any, shall be completed by departmental officials before passing the remaining 25% of bill component of an interim bill.• The certified bills (75%/25%) shall be forwarded by PMS/PSSA under signature of Team Leader/Project manager/CRE or as given in the contract agreement.• The measurement in respect of supply items shall be supported by copy of original inspection certificate marked "FOR PAYMENT", invoice of the supplier and certificate of RE stating that the goods having been received at site.																														
D	<p>Test Checks by Railway Officials:</p> <ul style="list-style-type: none">• PMS/PSSA after certification of the bill shall forward it to Authority for passing as per the contract agreement. On receipt of bill and other necessary documents, Railway official will carry out the mandated checks as given in table below• In addition to above, Monthly audit shall be carried out by JS/SS grade officers & JA/SG grade officers each as independent inspecting official and not as a team. The quality audit report shall cover the hidden items wherever possible. The audit shall be through checking at least one/two RFIs approved by PMS/PSSA.• In general Railway official while test checking shall check that 'the system in place' is working properly for quality work. <table><tr><th>S.No</th><th>Item</th><th>PMS/PSSA</th><th>SSE/SE/JE**</th><th>AXEn/XEn</th></tr><tr><td>1</td><td>Measurement of Ballast, pitching stone, Earth work and hidden items</td><td>100</td><td>100</td><td>20</td></tr><tr><td>2</td><td>Measurement of all other items</td><td>100</td><td>20</td><td>20* (on alternate bill)</td></tr><tr><td>3</td><td>Initial and Final levels along centre line for earthwork in embankment and cutting</td><td>100</td><td>100</td><td>20</td></tr><tr><td>4</td><td>Intermittent levels along centre line for earth work in embankment and cutting</td><td>100</td><td>20</td><td>5</td></tr><tr><td>5</td><td>Initial, intermittent and final levels except centre line for earth work in embankment and cutting</td><td>100</td><td>20</td><td>5</td></tr></table> <p>*20% test check for ADEN for item no 2 (Measurements of all other items) on alternate bill</p> <p>#CAO(C)/PHOD may as per the availability of manpower, further increase the Railway official's above test check to extent deemed fit by them.</p> <p>**The concerned in-charge who may be SSE/SE/JE to whom the particular site/section is attached, will test check.</p>	S.No	Item	PMS/PSSA	SSE/SE/JE**	AXEn/XEn	1	Measurement of Ballast, pitching stone, Earth work and hidden items	100	100	20	2	Measurement of all other items	100	20	20* (on alternate bill)	3	Initial and Final levels along centre line for earthwork in embankment and cutting	100	100	20	4	Intermittent levels along centre line for earth work in embankment and cutting	100	20	5	5	Initial, intermittent and final levels except centre line for earth work in embankment and cutting	100	20	5
S.No	Item	PMS/PSSA	SSE/SE/JE**	AXEn/XEn																											
1	Measurement of Ballast, pitching stone, Earth work and hidden items	100	100	20																											
2	Measurement of all other items	100	20	20* (on alternate bill)																											
3	Initial and Final levels along centre line for earthwork in embankment and cutting	100	100	20																											
4	Intermittent levels along centre line for earth work in embankment and cutting	100	20	5																											
5	Initial, intermittent and final levels except centre line for earth work in embankment and cutting	100	20	5																											

Railway
CMB No.
CONTRACTOR'S MEASUREMENT BOOK

Department.....
Division/Construction 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/Const. 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.

Date..... Signature.....
Designation.....

Railway
CMB No.

CONTRACTOR'S MEASUREMENT BOOK

Name of work.....
Agreement No.....
Name of Agency.....
Issued to
(Contractor's name)

..... on.....
(station) (date)

Certified that this Measurement Book contains 100 machine numbered pages fromto..... (both pages inclusive) which have been counted by me and are correct. No sheet is torn.

I understand that the measurement book is very important document and hence I shall ensure its proper upkeep and safe custody.

Received by
(Signature of contractor)

.....
(Name) (Station) (Date)

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.N	On Account Bill No.	Page No. From..... To.....	No. of pages	Date of receipt in AEN/XEN office	Sign & Designation of Railway Official
1					
2					
3					
4					
5					

CONTRACTOR'S MEASUREMENT BOOK

Name of work.....

Agreement No.....

Name of Agency.....

INDEX OF M.B.

[illegible]

Railway

CMB No.

Division/Construction 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

32.0	‘Letter of Credit’ as Mode of Payment in Works Tenders or Service Tenders (Applicable for works or Service tenders having value Rs.10 lakh and above)
32.1	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.
32.2	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.
32.3	The option so exercised, shall be an integral part of the bidder’s offer.
32.4	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.
32.5	<p>In case tenderer opts for payment through LC, following shall be the procedure to deal release of payment through LC:</p> <p>(a) The LC shall be a sight LC.</p> <p>(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.</p> <p>(c) SBI, New Delhi, Main Branch will be the nodal branch for issue of LCs 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% (or as revised from time to time) 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.</p> <p>(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.</p> <p>(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.</p> <p>(f) The LC terms and conditions shall inter-alia provide that Railways will issue a Document of Authorization (format enclosed as Annexure P-2) after passing the bill for completed work, to enable contractor to claim the authorized amount from their bank.</p> <p>(g) The acceptable, agreed upon document for payments to be released under the LC shall be the Document of Authorization.</p> <p>(h) The Document of Authorization shall be issued by Railway Accounts Office against each bill passed by Railways.</p> <p>(i) On issuance of Document of Authorization, a copy of Document of Authorization shall be posted on IREPS for download by the contractor. A digitally signed copy of Document of Authorization shall also be sent by Railway Accounts Office to Railway’s bank (Local SBI Branch).</p> <p>(j) The contractor shall take print out of the Document of Authorization available on IREPS and present his claim to his bank (advising Bank) for necessary payments as per LC terms</p>

	<p>and conditions. The claim shall comprise of copy of Document of Authorization, Bill of Exchange and Bill.</p> <p>(k) The payment against LC shall be subject to verification from Railway's Bank (Local SBI Branch).</p> <p>(l) The contractor's bank (advising bank) shall submit the documents to the Railway's Bank (Local SBI Branch).</p> <p>(m) The railway's bank (issuing bank) shall, after verifying the claim so received w.r.t. the digitally signed Document of Authorization received from Railway Accounts Office, release the payment to contractor's bank (advising bank) for crediting the same to contractor's account.</p> <p>(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.</p> <p>(o) The LC shall be closed after the release of final payment including PVC amount, If any, to the contractor.</p> <p>(p) The release of performance guarantee or security deposit shall be dealt directly by railway with the contractor i.e. not through LC.</p>
32.6	For opening of LC, executive department shall make a request letter to concerned Accounts Department on a format, placed as Annexure-P-1.

Request letter from Executive branch to Accounts Office for opening of LC

Office of..... Railway

No. _____

Dated _____

The PFA/Sr.DFM/Dy.FA

HQ/Division/Workshop/ Cost.

Sub: Opening of LC

Ref: Supply Order/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/Supplier
- (ii) Vender 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)

LCDA No. (18 DIGIT IPAS GENERATED NO.)

Dated: _____

DOCUMENT OF AUTHORIZATION

Reference : (i) Works Contract/supply Contract No. _____ Dated _____

(ii) Inland Letter of Credit No. _____ Dated _____

This document is issued against contract No. (FROM IREPS) ----- Dated-----for supply/work of. (DESCRIPTION OF GOODS/WORKS FROM IREPS) -----

The beneficiary of the aforementioned Letter of Credit M/s. (NAME AND VENDOR CODE). (Vender Code. as per IRPES.) is entitled to receive payment aggregating INR---\$\$\$----- (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) _____ dated _____ FROM 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:

S.No.	Invoice No.	Invoice Date	Invoice Amount (INR)	LCDA No.	LCDA date	Amount paid (INR)
Total Paid						

THE PAYMENT: -INR _____ \$\$\$ _____

LC BALANCE AFTER THIS PAYMENT: _____ -

(Signature of authorized Railway authority)

Name
Designation
Official Seal

33	Penalty for Bursting of Traffic/Power Block
33.1	For Traffic and/or Power Blocks of more than 3 hours duration, which are required for the execution of work, the Contractor shall submit a scheme for execution of work with details of machines to be deployed, manpower, block requirement, shifting of infringements, protection work etc to the Engineer well in time for approval. The proposed scheme should be prepared with sufficient resources so that block requirement is minimized. In case Engineer is not satisfied with the proposed scheme, the contractor has to modify the same as advised by the Engineer and the decision of Engineer in this regard shall be final and binding upon the contractor.
33.2	For Traffic and/or Power Blocks upto 3 hours duration, which are availed on day-to-day basis as per requirement of the work, the Contractor shall be required to deploy sufficient manpower and machinery to complete the work within sanctioned block duration and procedure detailed in para 33.1 above will not be necessary.
33.3	The work has to be carried out in an optimum duration of block so as to cause minimum interruption to traffic. Traffic blocks duration (for Engineering/TRD/S&T works) for the work shall be decided by the Engineer in consultation with the contractor and divisional traffic department.
33.4	Contractor will abide by indicated booked/sanctioned block time and will arrange sufficient manpower, machines and materials including stand by requirements for completion of work in time.
33.5	All machines like cranes, excavators like Poclains, JCBs etc deployed for block should be in good fettle and working condition and should not be more than 5 years old. Contractor shall also arrange additional standby machines to deal with exigencies in case of any untoward incident/break down. Additional machine operators/mechanic should also be deployed by the contractor if block duration is more than 8 hours.
33.6	Usually blocks are taken for Engg., TRD & S&T works. Above term “ Block ” should be read as sum time of all three blocks (Engg., TRD & S&T). Such blocks may be only Traffic Block or only Power Block or Traffic cum Power Block .
34	Conditions for Imposition of Penalty:-
34.1	<p>In case of block bursting, concerned Engineer [Deputy Chief Engineer (Construction)/Deputy Chief Electrical Engineer (Construction) / Deputy Chief Signal & Telecommunication Engineer (Construction)] will levy the penalty as per clause 35, if he is of the view that the bursting of the block was wholly or partly due to contractor’s default in arranging adequate and suitable manpower and machinery or failure of machinery provided by the contractor etc. In case of block bursting due to multiple reasons including contractor’s default (e.g. delay/obstruction by Railway or other contractor or natural causes such as heavy rains, earth slippage etc), time duration of bursting due to contractor’s default will be assessed by the Engineer and penalty for that duration shall be imposed.</p> <p>However, in case of Category-I blocks as defined in para 35.1, normally no penalty shall be imposed for occasional block bursting upto 15 minutes. However, if it is observed that contractor is habitual of block bursting repeatedly, the Engineer at its discretion may impose suitable token penalty even for block bursting of less than 15 minutes.</p>
34.2	In case if contractor is not satisfied with imposition of penalty, he can submit his representation to Chief Engineer, who will consider Contractor’s representation and convey his decision which shall be final and binding upon the contractor.
35	Blocks shall be categorized depending upon duration of block as given below:-
35.1	<p>Category – I : Blocks up to 3 hours duration</p> <p>Category – II : Blocks more than 3 hours and up to 24 hours duration</p> <p>Category – III : Blocks more than 24 hours and up to 1 week duration</p> <p>Category – IV : Blocks more than 1 week and up to 1 month duration</p> <p>Category – V : Blocks more than 1 month duration</p>

35.2	Penalty as per block category shall be levied in case of block bursting as given below:-								
35.2.1	Category-I Block <table border="1"> <thead> <tr> <th>Duration of Block Bursting</th><th>Penalty</th></tr> </thead> <tbody> <tr> <td>Up to 15 minutes</td><td>Normally Nil, but a penalty of value to be decided by Engineer may be imposed if the Contractor is bursting the blocks habitually and repeatedly.</td></tr> <tr> <td>More than 15 minutes and up to 30 minutes</td><td>Rs. 2,000/-</td></tr> <tr> <td>More than 30 minutes</td><td>Rs. 2,000 plus Rs.3,000 for each subsequent 15 minutes or part thereof</td></tr> </tbody> </table>	Duration of Block Bursting	Penalty	Up to 15 minutes	Normally Nil, but a penalty of value to be decided by Engineer may be imposed if the Contractor is bursting the blocks habitually and repeatedly.	More than 15 minutes and up to 30 minutes	Rs. 2,000/-	More than 30 minutes	Rs. 2,000 plus Rs.3,000 for each subsequent 15 minutes or part thereof
Duration of Block Bursting	Penalty								
Up to 15 minutes	Normally Nil, but a penalty of value to be decided by Engineer may be imposed if the Contractor is bursting the blocks habitually and repeatedly.								
More than 15 minutes and up to 30 minutes	Rs. 2,000/-								
More than 30 minutes	Rs. 2,000 plus Rs.3,000 for each subsequent 15 minutes or part thereof								
35.2.2	Category-II Block <table border="1"> <thead> <tr> <th>Duration of Block Bursting</th><th>Penalty</th></tr> </thead> <tbody> <tr> <td>Up to 30 minutes</td><td>Rs. 10,000/-</td></tr> <tr> <td>More than 30 minutes and up to 1 hour</td><td>Rs. 30,000/-</td></tr> <tr> <td>More than 1 hour</td><td>Rs. 30,000 plus Rs.50,000 for each subsequent half an hour or part thereof</td></tr> </tbody> </table>	Duration of Block Bursting	Penalty	Up to 30 minutes	Rs. 10,000/-	More than 30 minutes and up to 1 hour	Rs. 30,000/-	More than 1 hour	Rs. 30,000 plus Rs.50,000 for each subsequent half an hour or part thereof
Duration of Block Bursting	Penalty								
Up to 30 minutes	Rs. 10,000/-								
More than 30 minutes and up to 1 hour	Rs. 30,000/-								
More than 1 hour	Rs. 30,000 plus Rs.50,000 for each subsequent half an hour or part thereof								
35.2.3	Category-III block <table border="1"> <thead> <tr> <th>Duration of Block Bursting</th><th>Penalty</th></tr> </thead> <tbody> <tr> <td>Up to 6 hours</td><td>Rs. 50,000/-</td></tr> <tr> <td>More than 6 hours</td><td>Rs. 50,000 plus Rs. 75,000 for each subsequent 6 hours or part thereof</td></tr> </tbody> </table>	Duration of Block Bursting	Penalty	Up to 6 hours	Rs. 50,000/-	More than 6 hours	Rs. 50,000 plus Rs. 75,000 for each subsequent 6 hours or part thereof		
Duration of Block Bursting	Penalty								
Up to 6 hours	Rs. 50,000/-								
More than 6 hours	Rs. 50,000 plus Rs. 75,000 for each subsequent 6 hours or part thereof								
35.2.4	Category-IV block <table border="1"> <thead> <tr> <th>Duration of Block Bursting</th><th>Penalty</th></tr> </thead> <tbody> <tr> <td>Up to 1 day</td><td>Rs. 1,50,000/-</td></tr> <tr> <td>More than 1 day</td><td>Rs.1,50,000 plus Rs.2,00,000 for each subsequent day or part thereof</td></tr> </tbody> </table>	Duration of Block Bursting	Penalty	Up to 1 day	Rs. 1,50,000/-	More than 1 day	Rs.1,50,000 plus Rs.2,00,000 for each subsequent day or part thereof		
Duration of Block Bursting	Penalty								
Up to 1 day	Rs. 1,50,000/-								
More than 1 day	Rs.1,50,000 plus Rs.2,00,000 for each subsequent day or part thereof								
35.2.5	Category-V block <table border="1"> <thead> <tr> <th>Duration of Block Bursting</th><th>Penalty</th></tr> </thead> <tbody> <tr> <td>Up to 1 day</td><td>Rs. 50,000/-</td></tr> <tr> <td>More than 1 day</td><td>Rs. 50,000/- plus Rs. 1,00,000 for each subsequent day or part thereof</td></tr> </tbody> </table>	Duration of Block Bursting	Penalty	Up to 1 day	Rs. 50,000/-	More than 1 day	Rs. 50,000/- plus Rs. 1,00,000 for each subsequent day or part thereof		
Duration of Block Bursting	Penalty								
Up to 1 day	Rs. 50,000/-								
More than 1 day	Rs. 50,000/- plus Rs. 1,00,000 for each subsequent day or part thereof								
35.3	Duration of block bursting to be considered in clause 35.2 above shall be the duration for which the block exceeded/bursted on account of contractor's default as per assessment of the Engineer.								
35.4	Penalty for non availing of Blocks and Premature Cancellation of Blocks: In case of a sanctioned block could not be availed on account of contractor's failure to deploy adequate manpower and machinery at site or sanctioned block had to be prematurely cancelled due to machinery breakdown or any other reason on account of contractor, the Engineer shall impose suitable token penalty which shall be not less than Rs. 1 lakh per such occasion for sanctioned blocks of more than 4 hrs duration.								
35.5	Total penalty calculated in terms of clause 35.2 & 35.4 above shall be subject to an upper limit of 5% of the contract value.								
36	EXECUTION OF WORKS								
36.1	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.
36.2	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
36.3	<p>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 organization (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.</p> <p>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:</p> <p>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.</p> <p>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.</p>

36.4	<p>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.</p> <p>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.</p>
37	Challenge to Arbitration Award
	<p>In case arbitration award is challenged by a party in the Court of Law, 75% of award amount, pending adjudication by Court of Law, shall be made by party to other party. In case payment is to be made by Railway to Contractor, the terms & conditions as incorporated in the Ministry of Railways letter No. 2016/CE(I)/CT/ARB/3(NITI Aayog)/Pt. dated 08th Mar,2017 as amended from time to time, shall be followed. In case Contractor has to pay to the Railway, then 75% of the award amount shall be deducted by the Railway from the Contractor's bills, Performance Guarantee/ Security Deposit or any other dues of Contractor with the Government of India.</p>
38.0	<p>In case of any legal dispute, Jurisdiction of Courts in Delhi/New Delhi/----- area only shall be applicable.</p> <p style="text-align: right;">Dy. Chief Electrical Engineer/C, Northern Railway, Moradabad</p> <p style="text-align: right;">,</p> <p>Signature of the Tenderer/s</p> <p>Address _____</p>

Name of the Bank: -----

President of India,
Acting through FA & CAO, Construction,
Northern Railway, Kashmere Gate, Delhi

Bank Guarantee Bond No.:**Date:-----****PERFORMANCE GUARANTEE BOND**

In consideration of the President of India acting through----- (Designation & address of Contract Signing Authority), Northern Railway,, Delhi (hereinafter called “The Government”) having agreed under the terms and conditions of agreement/Contract Acceptance letter No.-----dt..... made between..... (Designation & address of contract signing Authority) and (here in after called “the said contractor(s)” for the work..... (here in after called “the said agreement”) having agreed for submission of a irrevocable Bank Guarantee Bond for Rs..... (Rs.....only)) as a performance security Guarantee Bond from the contractor (s) for compliance of his obligations in accordance with the terms & conditions in the said agreement.

1. We.....(indicate the name of the Bank) hereinafter referred to as the Bank, undertake to pay to the Government an amount not exceeding Rs..... (Rs.....only) on demand by the Government.
2. We..... (indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Government through the FA & CAO/Const, Northern Railway, Kashmere Gate, Delhi-110006, stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the Government by reason of any breach by the said contractor of any of the terms of conditions contained in the said agreement or by reason of the contractor 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..... (Rupees.....Only).
- 3.(a) We (indicate the name of Bank) further undertake to pay to the Government any money so demanded notwithstanding any dispute or dispute raised by the contractor(s) in any suite or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.
(b) The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We,..... (indicate the name of bank) to 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 by (Designation & Address of contact signing authority) on behalf of the Government, certify that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.
- 5.(a) Not withstanding anything to the contrary contained herein the liability of the bank under this guarantee will remain in force and effect until such time as this guarantee is discharged in writing by the Government or until (date of validity/ extended validity) whichever is earlier and no claim shall be valid under this guarantee unless notice in writing thereof is given by the Government within validity/ extended period of validity of guarantee from the date aforesaid.

- (b) Provided always that we..... (indicate the name of the Bank) unconditionally undertakes to renew this guarantee on to extend the period of guarantee form year to year before the expiry of the period or the extended period of the guarantee, as the case may be on being called upon to do so by the Government. If the guarantee is not renewed or the period extended on demand, we (indicate the name of the Bank) shall pay the Government the full amount of guarantee on demand and without demur.
6. We, (indicate the name of Bank) further agree with the Government that the Government shall have the fullest liberty without our consent and without effecting in any manner out of obligations hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to the powers exercisable by the Government against the said contractor (s) and to forbear or enforce any of the terms and conditions of 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 bearance act or omission on the part of the Government or any indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties for the said reservation would relive us from the liability.
7. This guarantee will not be discharged by any change in the constitution of the Bank or the Contractor(s).
8. We.....(indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.
9. This guarantee shall be valid up to---- (date of Completion plus 60 days). Unless extended on demand by Government. Notwithstanding anything to the contrary contained hereinbefore, our liability under this guarantee is restricted to Rs..... (Rs.....only) unless a demand under this guarantee is made on us in writing on or before..... we shall be discharged from our liabilities under this guarantee thereafter.
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	YES

Dated: the day of for
(indicate the name of bank)

Signature of Banks Authorized official
(Name)-----

Designation with Code No.-----

Full Address-----

Full Address-----

Witness

1.....

2.....

(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,

..... Railway,

Beneficiary: 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 authorized 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 successors 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	YES

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.

Insurance Surety Bond for Performance Security

Name of the issuer of surety bond:

President of India,
Acting through.....,
.....
Railway.

Date:.....

Surety Bond No:.....
Amount of Bond:.....

Issue Date:.....
Expiry Date:.....

WHEREAS, In consideration of the President of India acting through..... (Designation & address of contract signing authority), Railway, (hereinafter called "The Railway") having accepted the bid of M/S XXXXX hereinafter called the contractor, for the work of XXX" under invitation for bids No XXXX Dated XXXXX, Vide Letter of Acceptance No.....

AND

WHEREAS, the contractor is required to furnish Performance Security for the sum of ₹. XXXX (Rupees XXXX Only), in the form of Surety Bond, being a condition precedent to the signing of the contract agreement.

SB No:

Date:

WHEREAS, We _____, (Name of insurance company) hereinafter called the Surety, acting through [Designation(s) of the authorised person of the Surety], have, at the request of the M/s. XXXX contractor, agreed to give Bond for Performance Security/ Additional Performance Security as hereinafter contained:

1. KNOW ALL MEN by these present that I/We, the undersigned [*Insert name(s) of authorized representatives of the Surety*], being fully authorized to sign and incur obligations for and on behalf of the Surety, confirm that the Surety, hereby, unconditionally and irrevocably Bond to pay the Railway the full amount in the sum of XXXX (Rupees XXXX Only) as above stated.

2. The Surety 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 Surety shall be final, conclusive and binding, absolute and unequivocal notwithstanding any disputes raised/pending before any Court, Tribunal, arbitration or any authority or any threatened litigation by the Bidder or Bank.
3. On payment of any amount less than aforementioned full amount, as per demand of the Railway, the Bond shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Railway.
4. The Surety shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the contractor and without the Railway being required to show grounds or give reasons for its demand or the amount demanded.
5. The Surety Bond shall be unconditional and irrevocable.
6. The Bond hereinbefore shall not be affected by any change in the constitution of the Surety or in the constitution of the Contractor.
7. The Surety agrees that no change, addition, modifications to the terms of the Contract Agreement or to any documents, which have been or may be made between the Railway and the Contractor, will in any way release us from the liability under this Bond; and the Surety, hereby, waives any requirement for notice of any such change, addition or modification to the Surety.
8. This Bond is valid and effective from the date of its issue, which is *[insert date of issue]*. The Bond and our obligations under it will expire on *XXXX (Expiry Date)*. All demands for payment under the Bond must be received by us on or before that date.
9. The Surety agrees that the Railways right to demand payment of aforementioned full amount in one instance or demand payments in parts totaling up to the aforementioned full amount in several instances will be valid until either the aforementioned full amount is paid to the Railway or the Bond is released by Railway before the Expiry date.
10. The Surety agrees that its obligation to pay any amount demanded by the Railway before the expiry of this Bond will continue until the amount demanded has been paid in full.
11. The expressions Surety and Railway hereinbefore used shall include their respective successors, administrators and assigns.
12. The Surety hereby undertakes not to revoke the Bond during its currency, except with the previous consent in writing of the Railway. This Bond is subject to the Uniform Rules for Demand Bonds, ICC Publication No. 758.
13. We, the Surety Insurer, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, tribunal, arbitrator or any other authority.
14. The Bond shall be in addition to and without prejudice to any other Security Bond (s) of the contractor in favour of the Railway available with the Railway. The Surety, under this Bond, shall be deemed as Principal Debtor of the Railway.

Notwithstanding anything to the contrary contained in these presents,

- a. Our liability under this Surety Bond shall not exceed **XXXX (Rupees XXXXX Only)**.
- b. This Surety Bond shall be valid up to *XXXX (being the date of expiry)*;
- c. Unless the bank is served a written claim or demand on or before XXXX [date of expiry] all rights under this Bond shall be forfeited and the Surety shall be relieved and discharged from all liabilities under this Bond irrespective of whether or not the original Surety Bond is returned to the Surety.

Dated the day of 2025

15. The Insurance Surety Bond shall be verified by sending mail to [customer.care@sbigeneral.in].

Place.....

Bank's Seal and authorized signature(s)

[Name in Block letters].....

[Designation with Code No.].....

[P/Attorney] No.

Witness

1.

2.

[Note: All italicized texts are for guidance on how to prepare this Insurance Surety Bond and shall be deleted from the final document.]

FINAL SUPPLEMENTARY AGREEMENT

1. Articles of agreement made this day _____ in the year Two thousand and Five between the President of India, acting through the _____ Northern Railway Administration having his office at _____ herein after called the Railway of the one part and _____ of the second part.

2. Whereas the party hereto of the other part executed an agreement with the party hereto of the first part being agreement Number _____ dated _____ for the performance _____ herein after called the 'Principal Agreement'.

3. And whereas it was agree by and between the parties hereto that the works would be completed by the party hereto of the second part on _____ date last extended' and whereas the party hereto of the second part has executed the work to the entire satisfaction of the party hereto of the first part.

4. And whereas the party hereto of the first part already made payment to the party hereto of the second part diverse sums from time to time aggregating to ₹ _____ including the Final Bill bearing voucher No. _____ dated _____ of value _____ duly adjusted as per price variation clause, if applicable (the receipt of which is hereby acknowledged by the party hereto of the second part in full and final settlement of all his /its claims under the principal agreement.

And whereas the party hereto of the second part have received sum of ₹ _____ through the Final Bill bearing voucher No. _____ dated _____ duly adjusted as per price variation clause (PVC), if applicable (the receipt of which is hereby acknowledged by the party thereto of the second part) from the party hereto of the first part in full and final settlement of all his/its disputed claims under principal agreement.

Now, it is hereby agreed by and between the parties in the consideration of sums already paid by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement excluding the security deposit, the party hereto of the second part have no further dues of claims against the party hereto of the first part under the said Principal Agreement. It is further agreed by and between the parties that the party hereto of the second part has accepted the said sums mentioned above in full and final satisfaction of all its dues and claims under the said Principal Agreement.

(Applicable in case Final Supplementary Agreement is signed after release of Final Payment)

Or

And whereas the party hereto of the first part already made payment to the party hereto of the second part diverse sums from time to time aggregating to ₹ _____ through various On Account Bills (the receipt of which is hereby acknowledged by the party hereto of the second part).

And whereas the party hereto of the second part have received sum of ₹ _____ through various On Account Bills (the receipt of which is hereby acknowledged by the party thereto of the second part) from the party hereto of the first part and party hereto of the second part have accepted final measurements recorded on Page No..... to Page No.... of Measurement Book No.....and corresponding Final Bill duly adjusted as per price variation clause (PVC), if applicable, for full and final settlement of all his/its disputed claims under principal agreement.

Now, it is hereby agreed by and between the parties in the consideration of sums already paid through various On Account Bills and sums to be paid through Final Bill duly adjusted as per price variation clause (PVC), if applicable, based on accepted final measurements including the security deposit by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement, the party hereto of the second part have

no further dues of claims against the party hereto of the first part under the said Principal Agreement.

(Applicable in case Final Supplementary Agreement is signed before release of Final Payment)

5. It is further agreed and understood by and between the parties that the arbitration clause contained in the said principal agreement shall cease to have any effect and/or shall be deemed to be non-existent for all purposes.

Signature of the contractor/s

for and on behalf of the President of India

Witness

1

2.

ADDRESS: _____

PROFORMA**D E C L A R A T I O N**

I/We hereby solemnly declare that I/We visited the site of the work (as on top sheet) personally and have made myself/ourselves fully conversant of the conditions therein and particular the following:-

1. Topography of area.
2. Soil strata at site of work.
3. Sources and availability of construction materials.
4. Rates for construction of material, water, electricity including all local taxes, royalties, octrois etc.
5. Availability of local labour (both skilled and unskilled) and relevant labour rates and labour laws.
6. The existing roads and approaches to the site of work and requirements for further service roads/approaches to be constructed by me/us
7. The availability and rates of private land etc. that shall be required by me/us for various purposes.
8. Climatic conditions and availability of working days.

I/We have quoted my/our rates for various items in the schedule of items, quantities and rates taking into account all the above factors also.

Signatures of the Tenderer/s

Constitution of Firm

1	Constitution of the firm/ concern. (Tick as applicable)	Sole Proprietorship/ Partnership Firm / Company/ JV/ Registered Society/Registered Trust/LLP/HUF etc
2	Full name of the Sole Proprietorship/ Partnership Firm / Company/ JV/ Registered Society/Registered Trust/LLP/HUF etc	
3	Year of formation/ incorporation	
4	(a) PAN No.	
	(b) GST No	
5	Registered Office Address	
6	Address on which correspondence regarding this tender should be done	
7	E- mail id and Contact No of authorized person under whose digital signature key tender document will be signed/uploaded on behalf of the tendering firm	
8	Names of the proprietor/ partners/ JV members etc	

Signature of Tenderer

Details of Plant and Machinery already available with the firm.

S. No.	Particulars of equipment	No. of Unit.	Kind & make	Capa	Date by which the plant would be available for use on this work	Age & condition
1	2	3	4		6	7

Signature of the Tenderer/s

ANNEXURE –F

List of engineers/personnel already available/ proposed to be employed for deployment on this work:

SN.	Name & Designation	Qualification	Professional experience	Organization with whom working	Date by which personnel will be available for this work.
1	2	3	4	5	6

Signatures of Tenderer/s

ANNEXURE 'G'

Statement of works executed/completed or substantially completed by the tenderer/s during last seven years ending last day of month previous to the one in which tender is invited

- (A) Statement of works executed/completed or substantially completed for Govt. Organizations during last 7 years ending last day of the month previous to the one in which tender is invited**

S.No.	Name and place of work	Authority/agency for which work was carried out	Date of award and agreement No. & date
1	2	3	4

Date of completion (Original/actual)	Agreemental cost/completion cost	Principal/ Technical features of the work in brief	S.No. at which relevant certificate / documents are attached
5	6	7	8

- (B) Status of works executed/completed or substantially completed for Public listed companies by the tenderer/s during last 7 years ending last day of the month previous to the one in which tender is invited.**

S. No.	Name and place of work	Name of the Public listed company	Date of award of work and agreement No. & date
1	2	3	4
Date of completion (Original/actual)	Agreemental cost/completion cost	Principal/ Technical features of the work in brief	S.No. at which work copy of experience certificate, work order, bill of quantities, bill wise details duly certified by Chartered Accountant is attached *
5	6	7	8

*** It is certified that:**

1. The above Public listed company/companies mentioned in (B) above is/are (a) Having average annual turnover of Rs.500 crore and above in last three financial years excluding the current financial years;
- (b) Listed on National Stock Exchange or Bombay Stock Exchange and (c) Incorporated/registered at least 5 years prior to the date of opening of the tender.
2. Copies of the work experience certificate, work orders, bill of quantities, bill wise details of payment received, TDS certificates of all payments received, copy of final bill/last bill paid by the company duly certified are attached.
3. Attached information have been duly certified by Chartered Accountants.
4. I/We understand that in case above details at (B) are not furnished at the time of tendering the work experience certificate shall not be considered for adjudging the Technical Eligibility the tenderer in any case.

Note: Annexure-G to be signed by tenderer/s and Chartered Accountant, if the credentials from Public listed companies (as in case of B above) are being attached for consideration. There is no need of signature of Chartered Accountant, if credentials of any Government Organization are being attached for consideration and in such case only tenderer/s is required to sign on this Annexure -G.

Certified that above details are correct

Signature of the tenderers

Signature of Chartered Accountant with
seal

Statement of existing commitments and balance amount of ongoing works with tenderer of all works in progress and also the works which are awarded to tenderer but yet not started up to the date of invitation of tender.

S No.	Name and place of work	Authority/agency/ client for whom the work is being carried out	Date of award & agreement No. & Date	Date of completion (Original/ext ended)
1	2	3	4	5

Agreemental cost of work /likely cost (up to latest corrigendum)	Payment taken till date.	Total Balance amount of the work to be executed
6	7	8

***The above statement should include all on going works with the tenderer / constituents of tendering JV in its individual capacity as well as their portion of work in JV / Consortium.**

Signature of Chartered Accountant

Signature of the tenderer / Constituent Member of tendering JV

Annexure –I

Reference -Para 2.3.2 (A) (vi) & 15.2 of Annexure-K (Guidelines for participation of Joint Venture (JV) Firms)

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.
4. Exchange rate will be governed by para 10.5 of GCC-2022.

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)

FORMS

FORM NO.E-5

Appendix-VIII

**Real Time Gross Saving (RTGS)/National Electronic Fund Transfer(NEFT)
Model Mandate Form**

(Investor/customer's option to receive payments through RTGS/NEFT)

1. Investor/customer's name

2. Particular's of Bank Account:

A) Name of the Bank:

B) Name of the Branch.

Address

Telephone No.

C) RTGS/NEFT IFS Code.

D) Type of the account (S.B. Current or Cash Credit)
With code (10/11/13).

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 blank cancelled cheque or a photocopy of a cheque or front page of your
savings bank pass book 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 Investor/ Customer

Date

Certified that the particulars furnished above are correct as per our records.

Bank's Stamp

**GUIDELINES FOR PARTICIPATION OF JOINT VENTURE (JV) FIRMS
(THE JV firms are allowed to participate only in the tenders of value more than
Rs.10 crores).**

1. Separate identity/name shall be given to the Joint Venture firm.
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%.
3. A member of JV firm shall not be permitted to participate either in individual capacity or as a member of another JV firm **in the same tender.**
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.
- 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.
6. A copy of Memorandum of Understanding (MOU) duly executed by the JV members on a stamp paper, shall be submitted by the JV firm along with the tender. The complete details of the members of the JV firm, their share and responsibility in the JV firm etc. particularly with reference to financial, technical and other obligations shall be furnished in the MOU. (The MOU Format for this purpose is enclosed as Annexure K1).
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.
8. Approval for change of constitution of JV firm shall be at the sole discretion of the Employer (Railways). The constitution of the JV firm shall not normally be allowed to be modified after submission of the tender bid by the JV firm, 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 Firm. Failure to observe this requirement would render the offer invalid.
9. Similarly, after the contract is awarded, the constitution of JV firm shall not normally be allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and in any case the 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.

<p>10. On award of contract to a JV firm, a single Performance Guarantee shall be submitted by the JV Firm as per tender conditions. All the Guarantee like performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc shall be accepted only in the name of the JV Firm and no splitting of guarantees amongst the members of the JV Firm shall be permitted.</p> <p>11. On issue of LOA (Letter of Acceptance), the JV entity to whom the work has been awarded, with the same share holding 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' (<u>in case JV entity is to be registered as Company</u>) or before the Registrar/Sub-Registrar under the 'The Indian Partnership Act, 1932' (<u>in case JV entity is to be registered as Partnership Firm</u>) or under 'The LLP Act 2008' (<u>in case JV entity is to be registered as LLP</u>). 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 document, shall have, inter-alia, following Clauses:</p> <p>11.1 Joint And Several Liability: Members of the entity to which the contract is awarded, shall be jointly and severally liable to the Employer (Railways) for execution of the project in accordance with General and Special Conditions of the 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.</p> <p>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.</p> <p>11.3 Governing Laws: The Registered Entity shall in all respect be governed by and interpreted in accordance with Indian Laws.</p> <p>12. Authorized Member: Joint Venture Members in the JV MoU shall authorize Lead members 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.</p> <p>13. 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.</p> <p>14. Documents to be enclosed by the JV firm along with the tender:</p> <p>14.1 In case one or more of the members of the JV firm is/are partnership firm(s), following documents shall be submitted:</p> <ul style="list-style-type: none"> (i) A notarized copy of 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

	<p>(iii) A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm.</p> <p>(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.</p> <p>Note: Authorization given in POA only will be considered irrespective of any authorization that may have given in Partnership Deed. In case of non-submission of POA or invalid POA, offer is liable to be rejected.</p> <p>14.2 In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed:</p> <p>(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.</p> <p>14.3 In case one or more members is/are limited companies, the following documents shall be submitted :</p> <p>(a) A copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement,</p> <p>(b) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company</p> <p>(c) A copy of Certificate of Incorporation</p> <p>(d) 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 create liability against the company</p> <p>14.4 In case one or more member(s) of JV firm is/are LLP firm(s) following document shall be submitted:</p> <p>(i) A copy of LLP Agreement</p> <p>(ii) A copy of Certificate of Incorporation of LLP</p> <p>(iii) A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement (Standard proforma as per Annexure O-13)</p> <p>(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</p>
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and/or sign the MOU/ JV agreement on behalf of the LLP and create liability against the LLP. (Standard proforma as per Annexure O-14)

- (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.

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.

14.6 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.

15. Credentials & Qualifying criteria

Technical, financial eligibility and Bid capacity of the JV shall be adjudged based on satisfactory fulfillment of the following criteria:

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 2.3.2A(v) 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 2.3.2A(v) 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 2.3.2A(v) 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 2.3.2A(v) 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 2.3.2A(v) 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 Clause15.1:

- (b) 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.
- (c) 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

15.2 Financial eligibility criteria:

The JV shall satisfy the requirement of "Financial Eligibility" mentioned at para 2.3.2A(vi) above. The "financial capacity" of the lead partner of JV shall not be less than 51% of the financial eligibility criteria mentioned at para 2.3.2A(vi) 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 firm shall be reckoned only to the extent of the concerned member's share in that JV firm for the purpose of satisfying compliance of the above mentioned financial eligibility criteria in tender under consideration.

16.0 Bid Capacity

The JV shall satisfy the requirement of "Bid Capacity" requirement mentioned at para 2.3.2(A)(xiv) above. The arithmetic sum of individual "Bid capacity" of all the members shall be taken as JV's "Bid capacity" to satisfy this requirement

FORMAT FOR JOINT VENTURE MEMORANDUM OF UNDERSTANDING/ AGREEMENT.

THIS JOINT VENTURE MEMORANDUM OF UNDERSTANDING (MOU) AGREEMENT
EXECUTED AT on thisday of

..... 202 between M/s Registered office at
.....as the first party M/s Registered office at..... as the
second party M/s Registered office at..... as the Third party (The
expression and words of the first and second and third party shall mean and include their heirs
successors, assigns, nominees execution, administrators and legal representatives respectively.)

WHEREAS all the parties are engaged mainly in the business of execution of Civil Engineering
and General Contracts for various Government Departments and organizations.

WHEREAS the parties herein above mentioned are desirous of entering into a Joint Venture for
carrying on Engineering and/or contract works in connection with
..... and other works mentioned in Tender Notice
No..... dated of Northern Railway or any other work or works, as
mutually decided between the parties to this Joint Venture.

WHEREAS all the parties are desirous of recording the terms and conditions of this Joint Venture
to avoid future disputes.

NOW THIS MOU/AGREEMENT WITNESSETH AS UNDER:

1. That in and under this Joint Venture agreement the work will be done jointly by the First
party and Second party in the name and style of M/s
.....(Joint Venture of M/s M/s.....
..... and M/s)
2. That all the parties shall be legally liable, severally and or jointly responsible for the
satisfactory/successful execution/completion of the work in all respects and in accordance
with terms and conditions of the contract.
3. That the role of each constituent of the said Joint Venture in details shall be as
under:
The first party shall be responsible for
The second party shall be responsible for
The third party shall be responsible for
4. The share of profit and loss of each constituent of the said Joint Venture shall be as under :
 2. Lead partner share = ----% (At least 51%)
 3. 2nd Joint Venture Partner share = -----%
 4. 3rd Joint Venture partner share = -----%
 5. 4th Joint Venture partner share = -----%] in case of
 6. 5th Joint Venture partner share = -----%] composite tender

5. That all the parties of this Joint Venture shall depute their experienced staff as committed commensurating with their role and responsibility and as required for the successful completion of the works in close consultation with each other.
6. That the investment required for the works under this Joint Venture shall be brought in by the parties as agreed to between them from time to time.
7. That all the Bank Guarantee shall be furnished jointly by the parties in the name of Joint Venture.
8. That the party number to this Joint Venture shall be the prime (lead) contractor and will be responsible for timely completion of work and to co-ordinate with the Railways to receive payments and also to make all correspondence on behalf of this Joint Venture.
9. That all the above noted parties i.e. not to make any change in the agreement without prior written consent of the Railway.

NOW, the parties have joined hands to form this Joint Venture on thisDay of two thousandwith reference to and in confirmation of their discussions and understanding brought on record on

IN WITNESS THEREOF, all /both the above named parties have set their respective hands onthe day and year First above mentioned in the presence of the following witness:

WITNESSES:

1. First party.
2. Second party

Guidelines for submitting tenders by Partnership Firms and their Eligibility Criteria

1. The Partnership Firms participating in the tender should be legally valid under the provisions of Indian Partnership Act.
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 as per the Indian Partnership Act, prior to submission of tender.
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 the any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.
- 4.1. Once the tender has been submitted, the constitution of firm shall not normally be allowed to be modified/alterd/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 reconstitution 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.
- 4.2 If any partner/s withdraw from the firm after submission of the tender and before the award of the tender, 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 this 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 contract conditions, liable for determination of contract under Clause 62 of the Standard General Condition of Contract.
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.
6. The tender form shall be submitted only in the name of partnership firm. The Bid Security shall be submitted by partnership firm. The Bid Security submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.
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
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.

9. In case, 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 contract liable for determination of contract under clause 62 of 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 and that of the Railway.

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

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

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

(iii) Tenderer shall upload document(s) in support of registration of firm with registrar of firms which includes Certificate of registration and Register of firm (Form No. may vary from State to State) (as applicable) etc. issued by Registrar of firms. Tenderer shall also upload Notary certified of Partnership Deed.

(iii) An undertaking by all the partners of the partnership firm that they are not black listed or debarred by Railways or any other Ministry/Department of the Govt of India/any State Govt from participation in tenders/contract 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. Concealment/wrong information in regard to above shall make the bid ineligible or the contract shall be determined under clause 62 of Standard General Conditions of Contract.

11.0 Evaluation of eligibility of a partnership firm:

Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfillment of the eligibility criteria laid down in Clause 2.3.2A(v) &(vi) of eligibility criteria by the partnership firm.

DECLARATION BY AN EXISTING PARTNERSHIP FIRM
(Fill the relevant para (1.1, 1.2 & 1.3) and strike off the para which is not relevant under Partnership Firm)

1.0 I.....S/o Shri, the authorized signatory of partnership firm M/s.....do hereby solemnly affirm and declare as under:

1.1 That, we are an existing Partnership Firm in the name and style of M/s -----, since -----(MM/YY), having GST Registration no. -----, PAN/TAN No.----- . There has been no change in the Partner(s) of our firm during last 07 (Seven) years ending last day of the month previous to the one in which tender is invited.

OR

1.2 That, we are an existing Partnership Firm in the name and style of M/s -----, since -----(MM/YY), having GST Registration no. -----, PAN/TAN No.----- . Following of our partner(s) has/have quit the Partnership firm during last 07 (Seven) years ending last day of the month previous to the one in which tender is invited with details as under:

S.No.	Name of quitting Partner(s)	Share of Partner(s) who has/have quitted	Date of quitting (MM/YY)

AND / OR

1.3 That, we are an existing Partnership Firm in the name and style of M/s -----, since -----(MM/YY), having GST Registration no. -----, PAN/TAN No.----- . Following partner(s) has/have joined our Partnership Firm during last 07 (Seven) years ending last day of the month previous to the one in which tender is invited with details as under:

S.No.	Name of joining Partner(s)	Share of joining Partner(s)	
		In the present firm	In the previous firm from where he/they has/have quit and joined the present firm

1.4 In case of Para 1.2 and 1.3, following documents as applicable are required to be submitted along with bid:-

- (d) Copy of previous Partnership Deed(s).
- (e) Copy of Dissolution Deed(s) of previous partnership deed(s).
- (f) Proof of surrender of PAN No(s) (in case of dissolution of previous partnership firm).

Declaration by the Tenderer:-

I hereby declare that the information given above are true. If any of the above information is found to be wrong at any time, my tender will be liable to be rejected.

**Name and Signature of tenderer
along with Seal**

DECLARATION BY NEWLY FORMED PARTNERSHIP FIRM

I.....S/o Shri, the authorized signatory of partnership firm M/s.....do hereby solemnly affirm and declare as under:

- (g) That, we are the newly formed partnership firm in the name and style of M/s.....Registered with Registrar of firm vide Registration No....., dated
- (h) In this newly formed Partnership Firm, we areno. of partners. The details of the previous proprietary firm or previous dissolved partnership firm or previous splitted partnership firm(s) wherein any of the partners of the present firm was a proprietor / partner and proposed to use credentials obtained in such previous propriety firm (s) / partnership firm(s) is as under:-

S.N.	Name of person in the newly formed partnership firm	Details of Previous proprietary/ Partnership Firm	Share in newly formed partnership firm	Share in previous partnership firm	Remarks
1.					
2.					
3.					

- (i) That, following relevant documents are Annexed with bid:-
(j) Copy of previous Partnership Deed(s).
(k) Copy of previous Dissolution/splitting Deed(s) of previous partnership deed(s).
(l) Proof of surrender of PAN No(s) (in case of dissolution of partnership firm).

Declaration by the Tenderer:-

I hereby declare that the information given above are true. If any of the above information is found to be wrong at any time, my tender will liable to be rejected.

Name and Signature of tenderer
along with Seal

NORTHERN RAILWAY
(Standard Format)
COMPLETION CERTIFICATE

The work of “----- (Full name of the work) -----” has been Completed or substantially completed * with following details:-

1	Name & complete address of the contractor.	
2	Nature of entity (sole prop/ partnership firm/ company / JV)	
3	In case of Sole proprietorship, the name of sole proprietor	
(a)		
(b)	In case of partnership firm/JV, the names & shares of various partners/ members.	
4	Date of Acceptance/LOA	
5	Agreement No. & date	
6 i)	Original Agreement Cost	
ii)	Final Agreement Cost	
7	Total payment made along with financial year-wise break-up	
8	Original date of completion (DOC)	
9	(a)Actual date of completion (b)Whether extension to DOC given with penalty or without penalty	
10	Brief description of nature & scope of work	
11	Performance of contractor (Satisfactory/unsatisfactory)	

It is certified that the above work has been completed successfully in accordance with provisions of contract.

* 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.

(-----)
Name & Signature
Issuing authority with seal

Date of issue of certificate:-----

Case File No.:-----

FORMAT FOR CERTIFICATE TO BE 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 Northern 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 purpose. Details as appropriate, are to be filled in suitably by tenderer.**

Reference –Clause 2.2.6 of Tender Document

(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:

CERTIFICATE OF ANNUAL CONTRACTUAL TURNOVER FROM CHARTERED ACCOUNTANT.**For evaluation of Bid Capacity**

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)

Details of Annual contractual turnover received by the tenderer / constituent of tendering JV in any one of the previous three financial years or the current financial year (up to date of inviting tender)

Name of the Tenderer / constituent of tendering JV: _____

Annual Contractual Turnover Data for the Previous 3/4 Years (Contractual Payment only)			
Year	Amount Currency	Exchange Rate	Indian National Rupees Equivalent
Maximum Annual Contractual Turnover for last 3 years or current financial year			

1. The annual contractual turnover shall be calculated as in any one of the previous three financial year or current financial year (up to the date of inviting tender). 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.
4. Exchange rate will be governed by para 10.5 of GCC-2022/Clause No.2.3.2(A)(xvi) of tender document

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)

UNDERTAKING BY SOLE PROPRIETORSHIP FIRM

I.....S/o Shri aged about years
R/o.....do hereby solemnly
affirm and declare as under:

1. That I am running a business in the name and style of M/S..... which is a sole proprietorship firm and which has got GST registration No.....
2. That I am the sole proprietor of the said firm M/S
3. That the Head office of the above-named firm is situated at.....
4. That I/ my Firm is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which he was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

Signature of tenderer

POWER-OF-ATTORNEY FOR SIGNING OF BID ON BEHALF OF PARTNERSHIP FIRM

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of partners of the firm)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS WE

- (1)..... S/oShri..... R/o.....
(2)..... S/oShri..... R/o.....
(3)..... S/o Shri..... R/o.....
(4)..... S/o Shri..... R/o.....

all are the partners of a partnership firm namely M/S.....
(Name of firm) hereinafter referred to as 'firm', which is registered at Registration No.....by
Registrar of Firms..... The firm is having its head office
at..... (hereinafter to be
referred as the 'Firm').

AND WHEREAS we all the above named partners have on.....(date) given our consent
on behalf of firm to participate in the tender No. issued by
Northern Railway for the work namely
“ .. ”

We the above named partners of above named firm do hereby irrevocably constitute, nominate, appoint
and authorize Mr./ Ms. S/o Shri (address) &
Mr./ Ms. S/o Shri (address) as our true and
lawful attorney (hereinafter referred to as “Attorney”) of the firm to jointly or severally exercise all or
any of the following powers for and on behalf of M/S
..... (name of firm) in connection with aforesaid bid:

1. To sign and submit Tender and participate in the aforesaid bid of the Northern Railway on behalf of the firm.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc. on behalf of firm.
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the firm in connection with completion of aforesaid tender work and to enter into liability against the firm.
4. To sign, execute the contract with Northern Railway for and on behalf of the firm.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

We on behalf of firm undertake that it shall not cancel or amend this power of Attorney without obtaining previous written consent of Northern Railway.

We on behalf of firm hereby agree that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the firm and we hereby undertake to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

That we/our Firm is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender / contracts as on the date of opening of bids, either in their individual capacity or in any firm in which they were / are partners. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

Specimen signatures of the Attorney are appended below.

IN WITNESS WHEREOF this deed has been signed and sealed by us the under named, on this..... day of..... 20.... , in presence of:

WITNESSES:

1. Signature Name: Address:	Executants Partners (Name) 1..... 2. 3. 4. (Signature)
2. Signature Name: Address:	

Specimen Signatures of Attorney Holder(s) in token of acceptance:

(1) Name..... Signature.....

(2) Name..... Signature.....

Executed and Signed before me on this.....day of At(place).

(seal and signature of Notary Public)

Notes:

1. In this format space has been provided for entering details of four partners& two attorney holders however if the number vary details may accordingly be entered.
2. The document should be notarized at its place of execution (Place of signing the document).
3. Each page of the document should be signed by executants.
4. The power of attorney should be **Notarized/ Registered**.

POWER-OF-ATTORNEY ON BEHALF OF THE JOINT VENTURE

(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of the members of Joint Venture)

KNOW ALL MEN BY THESE PRESENTS THAT WE THE PARTIES whose details are given here under:

1.(name of constituent)(address) as the first party.
2.(name of constituent).....(address) as the second party.

Have entered into a Joint Venture agreement for the purpose of securing the work advertised by Northern Railway vide NIT No.....details of works are as under:
“.....”

The aforesaid Joint Venture shall be known by the name “.....” (Hereinafter called the Joint Venture which Expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns.

We the above said parties, through this power of Attorney do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. _____S/o Shri _____(address) who is presently holding the position of inthe firm/ company as our true and lawful attorney (hereinafter referred to as “Attorney”) of the Joint Venture **under whose digital signature key the tender document shall be uploaded on behalf of JV.** to jointly or severally exercise all or any of the following powers for and on behalf of “..... (name of JV) in connection with aforesaid bid:

1. To sign and submit Tender and participate in the aforesaid bid of the Northern Railway on behalf of the Joint Venture.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc. on behalf of Joint Venture
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the Joint Venture in connection with completion of aforesaid tender work and to enter into liability against the Joint Venture.
4. To sign, execute the contract with Northern Railway for and on behalf of the Joint Venture.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above on behalf of Joint Venture.

The Joint Venture agrees and undertakes that in the event of any change in the constitution of the Joint Venture the rights and obligations of the Joint Venture shall continue to be in full force without any effect thereof.

We all the members of Joint Venture undertake that we shall not cancel or amend this Power of Attorney unilaterally and without prior written consent of Northern Railway.

AND the Joint Venture hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the Joint Venture and the Company hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

IN WITNESS WHEREOF the members constituting the Joint Venture as aforesaid have executed these present, on this..... day of..... 20.... , under the common seal(s)/seals of their companies and/or firms(s), in presence of:

WITNESSES:

- | | |
|--------------|--|
| 1. Signature | Signature of authorized signatories & their Seals: |
| Name: | 1. First Party (signature) |
| Address: | Name: |
| | Seal |
| 2. Signature | 2. Second Party (signature) |
| Name: | Name: |
| Address: | Seal |

Specimen Signatures of Attorney Holder in token of acceptance:

Name.....Signature.....

Executed and Signed before me on this.....day of At
.....(place).

(seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two constituents of the JV however if the number vary the details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document)..

3. Each page of the document should be signed by executants.

**CONSENT OF PARTNERS OF PARTNERSHIP FIRM FOR SIGNING JOINT VENTURE
(to be executed on non-judicial stamp paper as per tender conditions-Non Judicial stamp
paper should be purchased in the name of partners of the firm)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS WE :

(1)..... S/o Shri..... R/o.....
(2)..... S/oShri..... R/o.....
(3)..... S/oShri..... R/o.....
(4)..... S/o Shri..... R/o.....

all are the partners of a partnership firm namely M/S(Name of firm) hereinafter referred to as 'firm', which is registered at Registration No.....by Registrar of Firms..... The firm is having its head office at.....

AND WHEREAS it has come to our knowledge that NIT No. has been issued by Northern Railway for the work namely “.....”

We all the above named partners on behalf of the above named firm hereby give our consent to participate in the above tender in Joint Venture.

Further we all the above named partners on behalf of the above named firm hereby give our consent to enter in to Joint Venture agreement, with M/S & M/S (name of other constituent(s) of joint venture) and to participate in tender as Joint Venture aforesaid.

That we/our Firm is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which he was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

Date:

Place:

Executants Partners

(Name) (Signature)

1.....
2.
3.
4.

(seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of four partners and two JV constituents however if the number vary details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document)..

3. Each page of the document should be signed by executants.

**POWER-OF-ATTORNEY FOR SIGNING JOINT VENTURE AGREEMENT ON BEHALF
OF PARTNERSHIP FIRM**

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of partners of the firm)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS WE

(1)..... S/o Shri..... R/o.....
 (2)..... S/o Shri..... R/o.....
 (3)..... S/o Shri..... R/o.....
 (4)..... S/o Shri..... R/o.....

All are the partners of a partnership firm namely M/s.Name of firm) hereinafter referred to as 'firm', which is registered at Registration No.....by Registrar of Firms..... The firm is having its head office at..... (hereinafter to be referred as the 'Firm').

AND WHEREAS we all the above named partners have on.....(date) given our consent on behalf of firm to participate in the tender No. issued by Northern Railway for the work namely "....." in Joint Venture with M/S.....& M/S.....

We the above named partners of above named firm do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. S/o Shri (address) & Mr./ Ms. S/o Shri (address) as our true and lawful attorney (hereinafter referred to as "Attorney") of the firm to jointly or severally exercise all or any of the following powers for and on behalf of M/S (name of firm) in connection with aforesaid bid:

1. To enter into and execute and sign JOINT VENTURE agreement, on behalf of our firm with M/S.....& M/S.....
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc. in connection with aforesaid bid.
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the firm in connection with completion of aforesaid tender work and to enter into liability against the firm.
4. To sign, execute the contract with Northern Railway for and on behalf of the firm.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above and to enter into liability against the firm.
6. That we/our Firm is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which he was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

We on behalf of firm undertake that it shall not cancel or amend this power of Attorney without obtaining previous written consent of Northern Railway.

We on behalf of firm hereby agree that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the firm and we hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

Specimen signatures of the Attorney are appended below.

IN WITNESS WHEREOF this deed has been signed and sealed by us the under named, on this..... day of..... 20.... , in presence of:

WITNESSES:

1. Signature	Executants Partners	
Name:	(Name)	(Signature)
Address:		
	1.....	
	2.	
	3.	
	4.	

1. Signature
Name:
Address:

Specimen Signatures of Attorney Holder(s) in token of acceptance:

(1) Name.....Signature.....
(2) Name.....Signature.....

Executed and Signed before me on this.....day of At
.....(place).

(seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of four partners, two constituents of JV and two attorney holders, however if the number vary the details may accordingly be entered.

2. The document should be notarized at its place of execution.

3. Each page of the document should be signed by executants.

AFFIDAVIT BY SOLE PROPRIETORSHIP FIRM WHEN PARTICIPATING IN JOINT VENTURE

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of proprietor of the firm)**

I.....S/o Shri.....aged aboutyears
R/o.....do hereby solemnly affirm and declare as under:

1. That I am running a business in the name and style of M/s..... which is a sole proprietorship firm and which has got GST registration No.....
2. That I am the sole proprietor of the said firm M/S
3. That the Head office of the above named firm is situated at.....
4. That I through my above named firm shall participate in the tender No. issued by Northern Railway for the work namely “
_____” in Joint Venture and for the purpose shall enter into and execute joint venture agreement with M/S _____ & M/S _____ (name of other constituent(s) of joint venture).
5. That we/our Firm is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which he was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

DEPONENT

Verification:

Verified at..... on thisday of..... that the contents of my above affidavit are true and correct to the best of my knowledge and belief and nothing material has been concealed there from.

DEPONENT

(seal and signature of Notary Public)

- Notes: 1. In this format space has been provided for entering details of two constituents of the JV however if the number vary details may accordingly be entered.
2. The document should be notarized at its place of execution (Place of signing the document)..
3. Each page of the document should be signed by executants.

Board's Resolution of company for entering into Joint Venture (To be printed on Company's letter head)

EXTRACT OF THE RESOLUTION PASSED AT THE MEETING OF THE BOARD OF DIRECTORS OF (Company Name) _____
(CIN _____) (hereinafter referred to as company) HELD ON (Date) _____
AT (Address) _____

Whereas the Board has been described about NIT No. _____
issued by Northern Railway for the work namely “ _____ ”.

Board discussed the matter and after discussion following resolution was passed:

RESOLVED THAT the company (company name) shall participate in the above tender in Joint Venture and for the purpose the company shall enter into and execute joint venture agreement, with M/S _____ & M/S _____ (name of other constituent(s) of joint venture).

Resolved further that the Board authorizes, Mr./ Ms. _____ & Mr./ Ms. _____ (name and designation) of the company, to jointly or severally, sign joint venture agreement, and to sign such other documents and to do any other act and complete requisite formalities on behalf of the company in connection with completion of aforesaid tender work and to enter into liability against the company.

Resolved further that Board authorizes Mr./Ms. _____ (name and designation) of the company to execute Power of Attorney in terms of this resolution in favour of Mr./Ms. _____ & Mr./Ms. _____ the person(s) above named.

The acts done and documents executed by such above named authorized person(s) shall be binding on the company.

For the Organization,

(Seal of company & Signature of authorized person)

Name: _____

Designation: _____

Place:

Dated:

Executed and Signed before me on this.....day ofAt(place).

(seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two constituents of the JV and two authorized persons however if the number vary details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document).

3. Each page of the document should be signed by authorized signatory(s).

4. Any person / director should not be authorized to execute Power of Attorney in his own favour.

**POWER-OF-ATTORNEY BY A COMPANY (incorporated under companies Act) for
entering into JOINT VENTURE AGREEMENT.**

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of the company)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS M/S
..... (name of company & CIN number) is a
Company registered under the Companies Act, 2013, and having its registered office
at..... (Hereinafter called the 'Company').

AND WHEREAS by its resolution No..... passed in the meeting held
on..... of the Board of directors of the company the company (company name) has
decided to participate in the tender No. _____ issued by Northern
Railway for the work namely
“ _____ ”

in Joint Venture and for the purpose the company shall enter into and execute joint venture agreement
with M/S _____ & M/S _____ (name of other
constituent(s) of joint venture) AND THAT M/S _____ (name of the lead
member of joint venture) shall act as the lead member of above mentioned joint venture.

I.....(name and designation) the authorised
representative of M/S (name
of company) duly authorized in this behalf by aforesaid resolution do hereby irrevocably constitute,
nominate, appoint and authorize Mr./ Ms.
_____ (designation) _____ (address) & Mr./ Ms. Mr./ Ms.
_____ (designation) _____ (address) who is/are presently
holding the above mentioned position in the company as our true and lawful attorney (hereinafter
referred to as “Attorney”) of the company to jointly or severally exercise all or any of the following
powers for and on behalf of M/S
..... (Name of company & CIN number) in
connection with aforesaid bid:

1. To enter into and execute and sign JOINT VENTURE agreement, draft of which has been approved by the company, on behalf of the company with above named constituents for participating in the aforesaid bid of the Northern Railway on behalf of the company.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc.
3. To do any other act and complete requisite formalities on behalf of the company in connection with completion of aforesaid tender work and to enter into liability against the company.
4. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.
5. That we/our (Name of the company) is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which the company was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

The company agrees and undertakes that in the event of any change in the constitution of the company the rights and obligations of the company shall continue to be in full force without any effect thereof.

The company undertakes that it shall not cancel or amend this power of Attorney without obtaining previous written consent of Northern Railway.

AND the Company hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the Company and the Company hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

IN WITNESS WHEREOF this deed has been signed and sealed by Shri.....(name and designation), on this..... day of..... 20... , in presence of:

WITNESSES:

1. Signature
Name:
Address:

Executants' Signature & Seal of company:

Name:
Designation:

2. Signature
Name:
Address:

Specimen Signatures of Attorney Holder in token of acceptance:

(1) Name Signature.....

(2) Name Signature.....

Executed and Signed before me on this.....day of At(place).

(Seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two constituents of the JV and two authorized persons/attorney holders however if the number vary the details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document)..

3. Each page of the document should be signed by executants.

4. Executant and Power of Attorney holder should not be the same person.

POWER-OF-ATTORNEY FOR SIGNING OF BID (when Tenderer is company incorporated under companies Act)

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of the company)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS M/s
..... (name of company & CIN number) is a
Company registered under the Companies Act, 2013, and having its registered office
at..... (hereinafter called the 'Company').

AND WHEREAS by its resolution No..... passed in the meeting held
on..... of the Board of directors of the company the company (company name) have
decided to participate in the tender No. _____ issued by Northern
Railway for the work namely
“ _____ ”

I.....(name and designation) the authorised
representative of M/S (name
of company) duly authorized in this behalf by aforesaid resolution do hereby irrevocably constitute,
nominate, appoint and authorize Mr./ Ms.
_____ (designation) _____ (address) & Mr./ Ms. Mr./ Ms.
_____ (designation) _____ (address) who is/are presently
holding the above mentioned position in the company as our true and lawful attorney (hereinafter
referred to as “Attorney”) of the company to jointly or severally exercise all or any of the following
powers for and on behalf of M/S
..... (name of company & CIN number) in connection
with aforesaid bid:

1. To sign and submit Tender and participate in the aforesaid bid of the Northern Railway on behalf of the company.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc.
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the company in connection with completion of aforesaid tender work and to enter into liability against the company.
4. To sign, execute the contract with Northern Railway for and on behalf of the company.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

The company agrees and undertakes that in the event of any change in the constitution of the company the rights and obligations of the company shall continue to be in full force without any effect thereof.

The company undertakes that it shall not cancel or amend this power of Attorney without obtaining previous written consent of Northern Railway.

AND the Company hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by

the Company and the Company hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

That our Company is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which the Company was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

IN WITNESS WHEREOF this deed has been signed and sealed by Shri.....(name and designation), on this..... day of..... 20...., in presence of:

WITNESSES:

1. Signature
Name:
Address:

Executants' Signature & Seal of company:
Name:
Designation:

2. Signature
Name:
Address:

Specimen Signatures of Attorney Holder(s) in token of acceptance:

(1) Name Signature.....

(2) Name..... Signature.....

Executed and Signed before me on this.....day of At(place).

(seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two authorized persons/attorney holders however if the number vary details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document)..

3. Each page of the document should be signed by executants.

4. Executant and Power of Attorney holder should not be the same person.

Board's Resolution of company incorporated under companies Act for submitting Tender by company (To be printed on company's letter head)

EXTRACT OF THE RESOLUTION PASSED AT THE MEETING OF THE BOARD OF DIRECTORS OF (Company Name) (CIN) (hereinafter referred to as company) HELD ON (Date) AT (Address)

Whereas the Board has been described about NIT No. issued by Northern Railway for the work namely " ". Board discussed the matter and after discussion following resolution was passed:

RESOLVED THAT the company (company name) shall participate in the above tender.

Resolved further that the Board authorizes, Mr./ Ms. & Mr./ Ms. (name and designation) of the company, to jointly or severally sign and submit all the necessary papers, letters, forms, quotes, bids etc, negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the company in connection with completion of aforesaid tender work and to enter into liability against the company.

Resolved further that Board authorizes Mr./Ms. (name and designation) of the company to execute Power of Attorney in terms of this resolution in favour of Mr./Ms. & Mr./Ms. the person(s) above named.

The acts done and documents executed by such above named authorized person(s) shall be binding on the company.

For the Organization,

(Seal of company & Signature of authorized person)

Name: _____

Designation: _____

Place:

Dated:

Executed and Signed before me on this.....day of At(place).

(Seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two authorized persons however if the number vary details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document)..

3. Each page of the document should be signed by authorized signatory(s).

4. Any person / director should not be authorized to execute Power of Attorney in his own favour.

POWER-OF-ATTORNEY FOR SIGNING OF BID (when Tenderer is LLP Firm incorporated under LLP Act)

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of the LLP Firm)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS M/S
..... (name of LLP & LLPIN number) is a LLP Firm
registered under the LLP Act, 2008, and having its registered office
at..... (hereinafter called the 'LLP').

AND WHEREAS by its resolution No..... passed in the meeting held
on..... of the Partners of the LLP the LLP..... (LLP name) have decided
to participate in the tender No. _____ issued by Northern
Railway for the work namely “ _____ ”

I.....name and designation) the authorized
representative of M/S (name
of LLP) duly authorized in this behalf by aforesaid resolution do hereby irrevocably constitute,
nominate, appoint and authorize Mr./Ms.
_____(designation)_____(address)_____ & Mr./ Ms./Mr./Ms.
_____(designation)_____(address)_____ who is/are presently holding
the above mentioned position in the LLP as our true and lawful attorney (hereinafter referred to as
“Attorney”) of the LLP to jointly or severally exercise all or any of the following powers for and on
behalf of M/S (name of LLP
& LLPIN number) in connection with aforesaid bid:

1. To sign and submit Tender and participate in the aforesaid bid of the Northern Railway on behalf of the LLP.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc.
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the LLP in connection with completion of aforesaid tender work and to enter into liability against the LLP.
4. To sign, execute the contract with Northern Railway for and on behalf of the LLP.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

The LLP agrees and undertakes that in the event of any change in the constitution of the LLP, the rights and obligations of the LLP shall continue to be in full force without any effect thereof.

The LLP undertakes that it shall not cancel or amend this power of Attorney without obtaining previous written consent of Northern Railway.

AND the LLP hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the LLP and the LLP hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

That our LLP is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of JV in which the LLP was / is a member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

IN WITNESS WHEREOF this deed has been signed and sealed by Shri.....(name and designation), on this..... day of..... 20...., in presence of:

WITNESSES:

- | | |
|-----------------------------------|--|
| 1. Signature
Name:
Address: | Signatures of authorized representative & Seal of LLP:

Name of authorized representative (Executant):
Designation: |
| 2. Signature
Name:
Address: | |

Specimen Signatures of Attorney Holder(s) in token of acceptance:

- (1) Name Signature.....
- (2) Name).....Signature.....

Executed and Signed before me on this.....day of At(place).

(seal and signature of Notary Public)

- Notes: 1. In this format space has been provided for entering details of two authorized persons/attorney holders however if the number vary details may accordingly be entered.
2. The document should be notarized at its place of execution (Place of signing the document)..
3. Each page of the document should be signed by executants.

Partner's Resolution of LLP Firm incorporated under LLP Act for submitting Tender by LLP firm (To be printed on Firm's letter head)

EXTRACT OF THE RESOLUTION PASSED AT THE MEETING OF THE PARTNERS OF _____ (LLP Name) having LLPIN _____ of 20..... (hereinafter referred to as LLP) HELD ON (Date) _____ AT (Address) _____

Whereas the Board has been described about NIT No. _____ issued by Northern Railway for the work namely " _____".

Partners discussed the matter and after discussion following resolution was passed:

RESOLVED THAT the LLP (LLP name) shall participate in the above tender.

Resolved further that the LLP/Partners authorize(s), Mr./ Ms. _____ & Mr./ Ms. _____ (name and designation) of the LLP, to jointly or severally sign and submit all the necessary papers, letters, forms, quotes, bids etc., negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the LLP in connection with completion of aforesaid tender work and to enter into liability against the LLP.

Resolved further that LLP/Partners authorize(s) Mr./Ms. _____ (name and designation) of the LLP to execute Power of Attorney in terms of this resolution in favour of Mr./Ms. _____ & Mr./Ms. _____ the person(s) above named.

The acts done and documents executed by such above named authorized person(s) shall be binding on the LLP.

For the Organization,

(Seal of LLP & Signature of authorized person)

Name of authorized person: _____

Designation: _____

Place:

Dated:

Executed and Signed before me on this.....day of At(place).

(Seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two authorized persons however if the number vary details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document)..

3. Each page of the document should be signed by authorized signatory(s).

Partner's Resolution of LLP Firm for entering into Joint Venture (To be printed on LLP Firm's letter head)

EXTRACT OF THE RESOLUTION PASSED AT THE MEETING OF THE PARTNERS OF _____ (LLP Name) having LLPIN _____ of 20.....)(hereinafter referred to as LLP) HELD ON (Date) _____ AT (Address) _____

Whereas the Partners have been described about NIT No. _____ issued by Northern Railway for the work namely "_____".

Partners discussed the matter and after discussion following resolution was passed:

RESOLVED THAT the LLP..... (LLP name) shall participate in the above tender in Joint Venture and for the purpose the LLP shall enter into and execute joint venture agreement, with M/s _____ & M/s _____ (name of other constituent(s) of joint venture).

Resolved further that the LLP/Partners authorize(s), Mr./ Ms. _____ & Mr./ Ms. _____ (name and designation) of the LLP, to jointly or severally, sign joint venture agreement, and to sign such other documents and to do any other act and complete requisite formalities on behalf of the LLP in connection with completion of aforesaid tender work and to enter into liability against the LLP.

Resolved further that _____ LLP/Partners authorize(s) Mr./Ms. _____ (name and designation) of the LLP to execute Power of Attorney in terms of this resolution in favour of Mr./Ms. _____ & Mr./Ms. _____ the person(s) above named.

The acts done and documents executed by such above named authorized person(s) shall be binding on the LLP.

For the Organization,

(Seal of LLP & Signature of authorized person)

Name of authorized person: _____

Designation: _____

Place:

Dated:

Executed and Signed before me on this.....day of At(place).

(seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two constituents of the JV and two authorized persons however if the number vary details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document)..

3. Each page of the document should be signed by authorized signatory(s).

**POWER of ATTORNEY BY A LLP Firm (incorporated under LLP Act) for entering into
JOINT VENTURE AGREEMENT.**

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-Non
Judicial stamp paper should be purchased in the name of the LLP)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS M/S
..... (name of LLP & LLPIN number) is a LLP
registered under the LLP Act, 2008, and having its registered office at..... (Hereinafter
called the 'LLP').

AND WHEREAS by its resolution No..... passed in the meeting held
on..... of the Partners of the LLP, the LLP..... (LLP name) has
decided to participate in the tender No. issued by Northern
Railway for the work namely “

in Joint Venture and for the purpose the LLP shall enter into and execute joint venture agreement with
M/S & M/S (name of other
constituent(s) of joint venture) AND THAT M/S (name of the lead
member of joint venture) shall act as the lead member of above mentioned joint venture.

I.....(name and designation) the authorised
representative of M/S (name
of LLP) duly authorized in this behalf by aforesaid resolution do hereby irrevocably constitute,
nominate, appoint and authorize Mr./ Ms.
..... (designation) (address) & Mr./ Ms. Mr./ Ms.
..... (designation) (address) who is/are presently
holding the above mentioned position in the LLP as our true and lawful attorney (hereinafter referred
to as “Attorney”) of the LLP to jointly or severally exercise all or any of the following powers for and
on behalf of M/S (Name of
LLP & LLPIN number) in connection with aforesaid bid:

1. To enter into and execute and sign JOINT VENTURE agreement, draft of which has been approved by the LLP, on behalf of the LLP with above named constituents for participating in the aforesaid bid of the Northern Railway on behalf of the LLP.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc.
3. To do any other act and complete requisite formalities on behalf of the LLP in connection with completion of aforesaid tender work and to enter into liability against the LLP.
4. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.
5. That we/our Firm is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which he was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

The LLP agrees and undertakes that in the event of any change in the constitution of the LLP, the rights and obligations of the LLP shall continue to be in full force without any effect thereof.

The LLP undertakes that it shall not cancel or amend this power of Attorney without obtaining previous written consent of Northern Railway.

AND the LLP hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the LLP and the LLP hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

IN WITNESS WHEREOF this deed has been signed and sealed by Shri.....(name and designation), on this..... day of..... 20... , in presence of:

WITNESSES:

1. Signature
Name:
Address:

Signatures of authorized representative & Seal of LLP:

Name of authorized representative:
Designation:
2. Signature
Name:
Address:

Specimen Signatures of Attorney Holder in token of acceptance:

- (1)NameSignature.....
- (2)NameSignature.....

Executed and Signed before me on this.....day of At(place).

(Seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two constituents of the JV and two authorized persons/attorney holders however if the number vary the details may accordingly be entered.

2. The document should be notarized at its place of execution (Place of signing the document).

3. Each page of the document should be signed by executants.

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AFFIDAVIT BY HUF

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of HUF**

I.....S/o Shriaged aboutyears
R/o.....and as Karta of my
Hindu Undivided Family (HUF) affirm on oath and declare as under:-

1. That I am Karta of our HUF which is known as -----(HUF)
2. That as on today, name of coparceners (including name of Karta) of our above said HUF, their father name and their addresses are as under:-

S.No	Name of Coparceners	Name of Father	Address
1.			
2.			
3.			
4.			
5.			

3. That the above said HUF is in existing since----- (Date of incorporation of HUF).
4. That I, in the position of KARTA of Hindu Undivided Family (HUF) am submitting the tender on behalf of HUF and declare that the acts done and documents executed by me shall be binding on the HUF, M/s-----
5. That I/HUF Firm is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which he was / is a partner/member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

DEPONENT

Verification:

Verified at.....on thisday of.....that the contents of my above affidavit are true and correct to the best of my knowledge and belief and nothing material has been concealed therefrom.

DEPONENT

Karta of HUF-M/s-----

(seal and signature of Notary Public)

Notes: 1. The document should be notarized at its place of execution (Place of signing the document).

2. Each page of the document should be signed by executants.

POWER-OF-ATTORNEY FOR SIGNING OF BID (when Tenderer is Registered Society or Registered Trust Registered under Society Registration Act, 1860 or The Indian Trust Act, 1882)

**(to be executed non judicial stamp paper of appropriate value as per law of state concerned-
Non Judicial stamp paper should be purchased in the name of the Registered Society or Registered Trust)**

KNOW ALL MEN BY THESE PRESENTS: WHEREAS M/S
..... (name of Registered Society or Registered Trust
& Registered Society having Registration number) is a Registered Society or Registered Trust and
having its registered office at.....
(hereinafter called the 'Registered Society or Registered Trust').

AND WHEREAS by its resolution No..... passed in the meeting held
on..... of the Partners of the Registered Society or Registered Trust
have decided to participate in the tender No. _____ issued by
Northern Railway for the work namely
“ _____ ”

I.....name and designation) the authorized
representative of M/S (name
of Registered Society or Registered Trust) duly authorized in this behalf by aforesaid resolution do
hereby irrevocably constitute, nominate, appoint and authorize Mr./Ms.
_____ (designation) _____ (address) & Mr./ Ms./Mr./Ms.
_____ (designation) _____ (address) who is/are presently holding
the above mentioned position in the Registered Society or Registered Trust as our true and lawful
attorney (hereinafter referred to as “Attorney”) of the Registered Society or Registered Trust to jointly
or severally exercise all or any of the following powers for and on behalf of M/S
..... (name of Registered Society or Registered Trust
having registration number..... in connection with aforesaid bid:

6. To sign and submit Tender and participate in the aforesaid bid of the Northern Railway on behalf of the Registered Society /Registered Trust.
7. To sign and submit all the necessary papers, letters, forms, quotes, bids etc.
8. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the Registered Society /Registered Trust in connection with completion of aforesaid tender work and to enter into liability against the Registered Society /Registered Trust.
9. To sign, execute the contract with Northern Railway for and on behalf of the Registered Society / Registered Trust.
10. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

The Registered Society /Registered Trust agrees and undertakes that in the event of any change in the constitution of the Registered Society / Registered Trust, the rights and obligations of the Registered Society / Registered Trust shall continue to be in full force without any effect thereof.

The Registered Society / Registered Trust undertakes that it shall not cancel or amend this power of Attorney without obtaining previous written consent of Northern Railway.

AND the Registered Society / Registered Trust hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the Registered Society / Registered Trust and the Registered Society / Registered Trust hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

That our Registered Society / Registered Trust is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of JV in which the Registered Society / Registered Trust was / is a member. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.

IN WITNESS WHEREOF this deed has been signed and sealed by Shri.....(name and designation), on this..... day of..... 20.... , in presence of:

WITNESSES:

1. Signature
Name:
Address:

Signatures of authorized representative & Seal of
Registered Society / Registered Trust:

Name of authorized representative(Executant):
Designation:
2. Signature
Name:
Address:

Specimen Signatures of Attorney Holder(s) in token of acceptance:

- (1) Name Signature.....
- (2) Name).....Signature.....

Executed and Signed before me on this.....day of At(place).

(seal and signature of Notary Public)

- Notes: 1. In this format space has been provided for entering details of two authorized persons/attorney holders however if the number vary details may accordingly be entered.
2. The document should be notarized at its place of execution (Place of signing the document)..
3. Each page of the document should be signed by executants.

DECLARATION/UNDERTAKING

I/We(Name and Designation of tenderer/Authorized Person of tender) do hereby declare as under :

1. That I/We are an individual/ Partnership firm/Company/ Society/JV and :
 - (a) That I/We are not a retired Engineer of the gazetted rank or any other gazetted officer working before 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,
 - (b) That I/We being partnership firm / company / joint venture (JV) / registered society / registered trust etc have none of our partners a retired Engineer or retired gazetted officer as aforesaid.
 - (c) That I/We being an incorporated company have not any such retired Engineer or retired officer as one of directors.
 - (d) That I/We do not have in our employment any retired Engineer or retired gazetted officer retired from government service (at least 1 year prior to the date of submission of the tender)
 - (d) That I/We being an individual contractors, do not have a Member (s) of family or in the case of partnership firm/ company / joint venture (jv) / registered society / registered trust etc. have one or more of partner(s) /shareholder(s) or member(s) of family of the partner(s) /shareholder(s) employed in gazetted capacity in the Engineering or any other department of the railway.

OR

- 2 (a) That I am a Retired Engineer of the Gazetted rank participated in the tender in individual capacity as (Name of the firm) with following details :

Name	Date of retirement	Post held, Place and Railway unit from which retired	Details of permission taken if such retired Engineer or Gazetted Officer had not retired from Govt. Office at least 1 year prior to the date of submission of tender

- 2 (b) That I/We are a Partnership firm/Company/Society/JV and have following retired Railway Gazetted Officer as our Partner(s)/ Director(s)/Employee :

S. No.	Name	Position in tendering entity i.e. Partner/Director Employee	Date of Retirement, Post held, Place and Railway unit from which retired	Details of permission taken if such Retired Engineer or Gazetted Officer had not retired from Govt. Office at least 1 year prior to the date of submission of tender

- 2 (c) That I/We are an Individual/Partnership firm/Company/Registered Society/Trust/JV and have following partner(s) /Share Holder(s) not having share of more than 1% or member(s)

of family of the individual tenders/ partner(s) /Share Holder(s) employed in Gazetted capacity in the Indian Railways:

S. No.	Name of the gazetted railway Officer who is/are partner(s) /Share Holder(s) or member(s) of family of Share Holder(s) of tenderer	Post held and Place of Posting	Railway / Unit	Details of Share holding or Relationship with individual/ share holder of the tenderer

Note :

- (i) **Strike Off (1) or (2) as applicable.**
- (ii) **In case (1) is applicable and any of the 2(a), (b) or (c) is not applicable NIL may be filled.**
- (iii) **This Annexure-Q is to be given by each member of JV**

Place:-

(Signatures of Authorized signatory)

Name of the tendering firm

Dated:

STANDARD AGREEMENT
(For EBR-IF Funded Contracts Only)

Articles of agreement made on this day -----in the year Two Thousand and Twenty between the President of India, acting through the -----<Zonal Railway> Administration having its office at -----hereinafter called the 'Railway' of the first part and < -----Name of Contractor-----> hereinafter called the 'Contractor' of the second part having its office at -----with GSTIN----- <GSTIN of billing unit>.

First part and second part collectively hereinafter called the 'Parties'.

Whereas the party hereto of the second part executed an agreement with the party hereto of the first part being agreement no. -----dated-----with contract cost of Rs.-----for performance of -----hereinafter called the 'Principal Agreement'.

It is agreed by and between the parties that Contractor shall continue to be held responsible for all obligations, risk and liabilities, whatsoever, arising out of or in connection with the Principal Agreement and this Agreement, whether during the progress of the work or after its completion.

It is further agreed and understood by and between the parties that Railway shall be the owner of assets, if any, arising out of execution of works as defined in the Principal Agreement, except the land whose ownership shall continue with Railway. Accordingly, the invoices shall be issued by capturing GSTIN of contractor (as the supplier). Also, the contractor shall submit the invoice, issued in the name of Railway for processing payment by Railway to Contractor subject to applicable TDS under the Income Tax, GST or any other applicable laws.

It is further agreed by and between the parties that Contractor shall be responsible to comply with Income Tax and GST laws in relation to filing of returns.

It is further agreed and understood by and between the parties that, except for the amended obligations as mentioned above, the terms of the Principal Agreement for all kind of contractual/performance and legal obligations shall remain in full force and effect.

All the communication in relation to the Principal agreement and said Agreement, would only be between party hereto of first part and Second part.

For and on behalf of the President of India

Witness of the Signature

1. -----
 2. -----
- Address: -----

Signature of contractor

<Name of authorised signatory>

Witness of the Signature

1. -----
 2. -----
- Address: -----

**PROFORMA OF 14 DAYS NOTICE FOR OFFLOADING OF PART OF
CONTRACT WORK**

NORTHERN RAILWAY

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

In spite of repeated instructions to you by the subordinate offices as well as by this office through various letters of even no. _____, dated _____; you have failed to show adequate progress of work so as to complete the contract within the original / extended date of completion of contract and part(s) of contract work are yet to be started/ still lagging behind the agreed program of work, listed as under:

(Details of part(s) of work which is delayed and can be executed independently, to be mentioned).

2. Your attention is invited to this office/Chief Electrical Engineer's office letter no. _____, dated _____ in reference to your representation, dated _____.

3. As you have failed to abide by the instructions issued to commence the work /to show adequate progress of work, you are hereby given 14 days' notice in accordance with Clause 40A of the Standard General Conditions of Contract to deploy adequate resources i.e. *(the details of resource requirement, to be mentioned)* and commence / to make good the progress for part(s) of works detailed above, failing which action as provided in Clause 40A of the Standard General Conditions of Contract shall be commenced after expiry of 14 days' notice period viz. to offload few/ all part(s) of work mentioned above to any of the existing or new contractor without your participation and at your Risk & Cost, not exceeding the value of Performance Guarantee of this contract, which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

NOTICE FOR PART OF CONTRACT WORK OFFLOADED

NORTHERN RAILWAY

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Fourteen days' notice under Clause 40A of the Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no/inadequate action to deploy adequate resources to commence the part(s) of work/show adequate progress of the part(s) of work, mentioned therein.

As you have failed to abide by the instructions issued to commence the part(s) of work/show adequate progress of the part(s) of work even at the lapse of 14 days' notice period under Clause 40A of the Standard General Conditions of Contract, few part(s) of the work under the contract have been offloaded and being executed by other mode(s) at the cost detailed below:

Or,

1. Please refer your request letter no..... dated, wherein it was requested under clause 40 A of the Standard General Conditions of Contract to offload part(s) of works at your risk & cost. The details of part(s) of the work under the contract which have been offloaded and being executed by other mode(s) at the cost detailed below:

(List of Part(s) of work offloaded, Details of mode of execution of such offloaded work along with approximate cost thereof to be mentioned)

2. The final measurement of work(s) already executed for above part(s) of work recorded as per clause 45 (A) or/and 45 (B) of the Standard General Conditions of Contract is enclosed herewith.

3. The Bill(s) of Quantities for Part(s) of work offloaded is enclosed herewith.

4. The additional cost in execution of offloaded work through mode(s) mentioned in para (1) above is determined as Rs. _____, over & above the cost of execution under this contract (including the

PVC amount payable as per contract, as on the date of issue of this notice). This additional cost shall be recovered from your next on account bill(s) or any other dues payable to you under contract.

5. The Contract value gets reduced to Rs.....:

6. You are requested to continue with the balance work in the contract subsequent to offloading of above part(s) of work.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

CHAPTER IV
TECHNICAL SPECIFICATIONS,
EXPLANATORY NOTES,
SPECIAL DATA
&
DRAWINGS

1.	Technical Specifications	Section –I
2	Explanatory Notes.	Section –II
3	Special Data, Drawings	Section –III
4	Alternative Proposal of the Tenderer (Deviations)	Section –IV
5	Tenderer's Scheme of Work and Time Schedule	Section –V

CHAPTER 4
Section – I
TECHNICAL SPECIFICATIONS

SN	Brief Description of Item	Ref. and No. of Specifications	Likely Sources (M/s)
1.	Silicon Rectifier Battery Charging Set 200 Amps.	4540/1968 (Latest Version)	R.E., New Delhi, Delta Electricals, Thane, Intec Electronics New Delhi, Pantronics, Bombay, R.S. Industries, Madras, Design & Prototype, Madras, Vimal Transformer Corporation, Moradabad, Universal Instruments, Bangalore, Lamda Electronics, Madras,
2.	ISI marked PVC insulated FRLS copper conductor cable working voltage up to and including 1100 Volts	IS:694/1990	NICCO, Grandlay, Finolex, CCI, ICC, Asian Cables, Gloster, Universal Cables, Galaxy. Ltd., Delton Cables Ltd., KEI Industries Ltd., Havells, SCI Wires & Cables
3.	Piano type Switch & Flush type Sockets, Rotary step regulator	IS:3854/88 & 1293/1988	Anchor, SSK, North-west (Wipro), Crabtree, Legrand, Schneider.
4.	Ceiling Rose/Batten Holder/Music Chime Bell.	IS:371/79	Anchor, SSK, North-west (Wipro), Crabtree, Legrand, Schneider.
5.	SFU/FSU/SDFU for all rating & equipments with suitable HRC/Rewire able fuses/Fuse Bases/COS.	IS:13947/Pt.I to III/1993 as applicable	Standard, L&T, Siemens, C & S, GEC (AREAVA T&D), Schneider, Havells, GE India Industrial, ABB Ltd.
6.	MCB & Pre-fabricated Distribution Board	IS: 12640-1/2000 IS:8828/ IEC: 60898-1/2002	Standard, Legrand, Schneider, Havells, L&T Indo Asian, C & S, Legrand, ABB
7.	Ferrules/Lugs	Relevant IS	GJ Metal Works, Dowell's Usha Martin, KSE Electricals Pvt. Ltd. Universal Machines.
8.	Clustered LED indication light	Relevant IS	C& S, L&T, Siemens, ESS bee
9.	MCCB	IS:13947/PtII/1993 IEC 60947-2	Schneider, Havells, L & T, C& S, Indo Asian, Fusegear, Siemens, GE India, JSL Industries Ltd., Legrand, ABB Ltd, Standard, Bhartia Cutler
10.	G I Pipe	IS 1239/Pt.I/1990	Tata, Jindal, BST
11.	White Hylum Sheet/ Phenolic laminated sheet	IS: 2036/1979	Bakelite Hylem, Formica, Super Hylem, Anchor.
12.	MS / PVC Conduit Pipe	IS: 9537 (Pt.I & II)/1981	AKG, BEC, Kalinga, Setia, M.K, NIC, Star gold.
13.	LT C.T.P.T	IS: 2705/Pt-I. to Pt- IV/1992 as applicable	AE, Siemens, Indotech, ICC

14.	Electronic Energy Meter	IS 13779 (Latest Version)	AE, L&T, HPL, Havells
15.	Measuring Instrument	IS: 1248	Havells, AE, L&T, National Instrument, Kolkata/ Chennai, MECO Instruments, Secure Meters Ltd., Indo Tech, HPL
16.	Poly Carbonate/Industrial Type exhaust fan	Relevant IS	Crompton, Khaitan, Usha, Bajaj
17.	Selector Switch	Relevant IS	Kay Cee, L& T Salzar
18.	High Mast & Hot dip Galvanized Octagonal Pole	As per Relevant IS and Explanatory Note	Phillips India Ltd, Crompton Greaves Ltd, Bajaj Electricals Ltd, GE India, Utkarsh India Limited.
19.	HDPE pipe	As per Relevant IS and Explanatory Note	Duraline, Rex Polyextrusion Ltd, Hydroflow well, Himalyan,
20.	Heat shrinkable straight through Jointing Kit up to 1.1 KV	Relevant IS	Yamuna Gases & Chemical Ltd., Mahindra Engg. & Chemical Product, Raychem RPG Ltd. Hari Consolidated, 3M.
21.	1 x 18 W LED Luminaire	LED as per CEE/NR/Specification	OSRAM, Philips, Bajaj, Crompton Greaves, C&S, Havells
22.	18 W LED rod	LED as per CEE/NR/Specification	OSRAM, Philips, Bajaj, Crompton Greaves, C&S, Havells
23.	LED Bulb	As per CEE/NR/Specification	OSRAM, Philips, Bajaj, Crompton Greaves, C&S, Havells
24.	Time Switch (Timer)	As per Explanatory Note	GIC, Legrand, Havells, Noida, GE India, JSL Industries, Indo Asian Fuse gear, L&T
25.	120 W & 150 W LED fitting	LED as per CEE/NR/Specification	OSRAM, Philips, Bajaj, Crompton Greaves, C&S, Havells
26.	Industrial type Socket & Plug	IEC 309-1 & 2	BCH, Schneider, Legrand, C&S, L&T Hager, GERAND
27.	(40-45) W & 70W LED street light luminaire	LED as per CEE/NR/Specification	OSRAM, Philips, Bajaj, Crompton Greaves, C&S, Havells
28.	Air Circulator Fans	6039/1972 (Latest Version)	Usha, Khaitan, Almonard, Crompton Greaves, Action Air
29.	Contactors	Relevant IS	C&S, L&T, Siemens, Schneider
30.	Transformer up to 11 kV	IS 2026/Pt.I to IV/1977 (Latest Version)	Crompton Greaves, Kirloskar, Bharat Bijlee, BHEL, Mirzapur Electrical Industries, ABB, Blue Star, Kanohar, Indotech, SKIPPER
31.	GI Clamp	Relevant IS	As per Approved Make
32.	MS Tubular Pole	Relevant IS	As per Approved Make
33.	MS Channel	Relevant IS	As per Approved Make

34.	GO Switch 11 kV 200 Amp	Relevant IS	As per Approved Make
35.	11 kV HT VCB	IS 13118 & IS 3427 (Latest Version)	Schneider Electric India Ltd., ABB, Jyoti Ltd., Kirloskar Electrical Company Ltd, Bienco Lawrie Ltd., CGL, L&T, BHEL, ALIND, GE India
36.	Protection Relays	IS 3842 (Latest Version)	L&T, Seimens Ltd., ABB, Schneider, Easun Rey Rolle, ASHIDA
37.	Automatic Capacitor Bank & Control Panel	IS 8623/Pt. I & II/1983 (Latest Version) & IS 13925/Pt. I & II/1998 (Latest Version)	L&T, Seimens, ABB, C&S
38.	ACB	IS 13947/Pt. I to Pt. III as applicable	Schneider, Seimens, L&T, Control & Switchgear, ABB Ltd., HPL, Beico Lawrie Ltd.
39.	Trivector Meter	IS 13779 (Latest Version)	National Instruments Chennai, L&T, Havell's, Noida, EMCO Mumbai, Secure Meter Toshniwal, Indotech
40.	Diesel Engine	As per Relevant IS and explanatory note	Cummins, Kirloskar, Perkins, Ashok Leyland, Greaves, BHEL
41.	Alternator	As per Relevant IS and explanatory note	Kirloskar, NGEF, KEL, Crompton, Jyoti, Stamford
42.	18-22 W Pit Lights	LED as per CEE/NR/Specification and explanatory note	OSRAM, Philips, Bajaj, Crompton Greaves, C&S, Havells
43.	1200/1400 mm sweep Ceiling Fan	As per Relevant IS, explanatory note and CEE Spec no. CEE/NR/123-Elect/PS/2018	Crompton, Bajaj, Orient, Usha Khaitan, Polar, Havells
44.	1200 sweep BLCD Ceiling Fan	As per Relevant IS, explanatory note	Crompton, Bajaj, Havells, Orient, Usha, Khaitan, Luminous
45.	Solar PV Module	As per Relevant IS and Explanatory Notes	As per MNRE Approved Sources
46.	RCCB	As per Relevant IS and Explanatory Notes	Schneider, Havells, L & T, C& S, Indo Asian, Fusegear, Siemens, GE India, JSL Industries Ltd., Legrand, ABB Ltd, Standard, Bhartia Cutler

Note:

1. RDSO's specifications are priced document and can be purchased from RDSO.
2. Specifications of CEE/N.Rly. & CEE/C/TKJ are part of tender document.
3. Items which are not covered above shall be ISI marked.
4. Items which are not covered above (1, 2 & 3) shall be got approved from Dy. Chief Elect. Engineer/Const., Northern Railway, Moradabad.

APPENDIX-A
SCHEDULE OF TECHNICAL DATA

1. Make & type of Rectifier.
2. Metal used in the rectifier.
3. Input voltage phase & frequency of AC supply.
4. Input current (line current) in Amperes.
5. Wave characteristic and percentage Ripple.
6. Output DC voltage range,
7. Max. output current (DC)
8. Overload rating particulars.
9. Type of transformer connection on the primary and secondary side.
10. Transformer ratio and voltage particulars.
11. Impedance voltage percentage limits of the transformer.
12. Type of winding of the transformer primary & secondary.
13. Conductor material used for following:-
 - a) In transformer.
 - b) In ballast choke.
 - c) In bus bar and connections.
14. Method of cooling of the transformers.
15. Temperature rise limit above 45°C.
 - i) Transformer.
 - ii) Rectifier assembly.
16. Current taken by transformer at no load and fully load at the primary and secondary at the corresponding period.
17. Insulation material of the various equipment and the class of insulation adopted.
18. Standards to which silicon rectifier is manufactured.
19. Technical data of silicon diodes.
20. No. of silicon diodes in each rectifier stack.
21. No. of stacks making up the complete equipment.
22. Material of cooling adopted for the rectifier stack.
23. Protection provided for:-
 - a) Rectifier diodes.
 - b) AC input.
 - c) DC output.
 - d) Indicating instruments.
 - e) Pilot lamp.
 - f) MCCB.
24. Particulars of current. Regulation control number of steps and voltage variation per step at rated current.
25. Ranges of regulations in volts.
 - a) In rectifier.
 - b) In transformer.
26. Overall dimension of the equipment.
27. Housing details.
28. Weight of equipment.
29. Terminal of equipment
30. Is the equipment capable of operating in parallel operation.

CHAPTER – 4

EXPLANATORY NOTES TO SCHEDULE OF PRICES FOR ELECTRICAL GENERAL SERVICES WORKS

GENERAL

These explanatory notes are for guidance of field staff. Each work has its own particular requirements. Engineer in-charge will be responsible for successful execution of work as per technical specifications.

- I. All electrical works should comply with Indian Electricity Act 2003 and Indian Electricity Rules 1956.
- II. All electrical installations works shall conform to relevant Indian Standard Code of Practice and carried out as per relevant safety Code of Practices, Guide for Safety Procedures in Electrical Work as per I.S. 5216/Pt.I & II/1982 shall be observed.
- III. All components used in installation shall be of appropriate ratings of voltage, current and frequency.
- IV. All minor items viz. hardware items, foundation bolts, termination lugs, gland for electrical connections etc. as required and necessary for proper working of the equipment shall be deemed to have been included in tender, whether such items are **specifically mentioned in tender documents** or **not**.
- V. Work shall be carried out under the supervision of Railway Engineer.
- VI. Tenderer must inspect site thoroughly before quoting rates, later on no claim shall be accepted.
- VII. Cost of HT/LT Cable consumed during testing shall be borne by Works Contractor.

SOR ITEMS GROUP-A.

- Item No. 1** Laying of conduit shall be in conformity with IS 732/1989 (Latest version), IS 4648/1968, (Latest Version). Fittings for rigid steel conduit for electrical wiring shall conform to IS 2667/1988(latest version), and accessories shall conform to IS 3837/1976(latest version)
- Item No.5** Lamp holder shall conform to IS 1258/1987 (Latest version) & ceiling rose shall conform to IS 371/1979 (Latest version) lamp holder and ceiling rose shall be provided in conformity with IS 732/1989 (Latest version), IS 4648/1968 (Latest Version).
- Item no.10**– Fabrication of distribution box shall confirm to IS: 8623/Pt I & Pt III/1993) with degree of protection IP 53 and shall be installed in conformity with IS: 732/1989 and IS: 4648/1968.
- Item No.20** This item shall be in conformity to IS: 3043/1987(latest version). Excavation shall be done complying with Code of Safety as per IS:3764/1992
- Item No.–23** Laying shall be in conformity to IS:1255/1983 (latest version) excavation shall be done complying with Code of Safety as per IS:3764/1992.
- Item No.30a.** - This item shall be in conformity to IS 5613/Pt.I Sec. 1 & 2/1985 (Latest Version). GI pipe shall conform to IS 1239/Pt.I/1990 and fittings shall conform to IS 1239/Pt.II/1992.
- Item No.33** This item shall be in conformity to IS 5613/Pt.I sec. 1 & 2/1985 (Latest Version). GI wire shall conform to relevant IS.

NON-SOR ITEMS GROUP-B

- ITEM NO. NS-1** Dismantling and making of shackle point on existing Rail pole/ tubular pole structure of existing 11/33 KV ACSR conductor and GI earth and guard wire including loading, leading and unloading of dismantled material from site to the scrap store Of Railways at JUDW
(Note: Dismantling will be done in the presence of site supervisor with proper safety arrangement).

ITEM NO. NS-2 (a & b) **HOT DIP GALVANIZED OCTAGONAL POLE**

1. Design

The Octagonal Poles shall be designed to withstand the maximum wind speed of 169 KM/ Hr. The top loading i.e. area and the weight of fixtures are to be considered to calculate maximum deflection of the pole and the same shall meet the requirement of BS: 5649 Part VI 1982 and the Octagonal Poles shall be in single section. There shall not be any circumferential weld joint.

2. Pole Shaft

The pole shaft shall have octagonal cross section and shall be continuously tapered with single longitudinal welding. There shall not be any circumferential welding. The welding of pole shaft shall be done by Submerged Arc Welding (SAW) process. All octagonal pole shafts shall be provided with the rigid flange plate of suitable thickness with provision for fixing 4 Nos. foundation bolts of size not less than 16 mm dia 450 mm long or as recommended by the manufacturer. The Octagonal Poles shall be bolted at foundation. This base plate shall be fillet welded to the pole shaft at two locations i.e. from inside and outside. The welding shall be done as per qualified MMAW process.

3. Door Opening

The octagonal Poles shall have door of approximate 500 mm length at the elevation of 500 mm from the Base Plate. The door shall be vandal resistance and shall be weather proof to ensure safety of inside connections. The door shall be flush with the exterior surface and shall have suitable locking arrangement. There shall also be suitable arrangement for the purpose of earthing. The pole shall be adequately strengthened at the location of the door to compensate for the loss in section. Smart pack junction box with one No. single pole 6 A. MCB for single arm 5 M pole & 2 Nos. single pole 6 A MCB. and two terminals for double arm 5 M pole and Junction box with 1 No. single pole 10 A. MCB & 4 terminals for single arm 9 M pole & 2 Nos. single pole 10 A MCB & 4 terminals double arm 9 M pole.

4. Top Mountings

The galvanized mounting single/double arm 300 mm long bracket as required shall be supplied along with the Octagonal Poles for installation of 45 Watts LED street light luminaries at 5 M pole and 90 Watts LED street light luminaire at 9 M pole as per drawing approved by Railway.

5. Manufacturing

The manufacturing unit shall be ISO 9001:2000 & ISO 14001 certified to ensure consistent quality & environmental protection.

6. Material

- i. Octagonal Poles - Conforming to grade S355JO
- ii. Base Plate - FC 410 conforming to IS 226/IS 2062
- iii. Foundation Bolts - 5.8 Gr. As per IS 1367
- iv. Galvanization - The poles shall be hot dip galvanized as per IS

ITEM No. NS-3

18-20 W LED Tube LIGHT LUMIAIRE

The luminaire shall be as per CEE/NR/121-Elect/PS/2019 (Rev.-4) Dated: 04.11.2019 or latest and Eligibility criteria CEE/NR/PS/EC/LED/1(Rev-'04') and of make as per approved list and LED shall be used in these luminaries as per CEE/NR/Spec no 121 with 5 years warranty from the date of commissioning. The fitting shall be connected to 2 x 2.5 sq mm twin core PVC insulated copper conductor cable from fitting terminal to ceiling rose/connector within the quoted rate. The fixing arrangement of luminaire is to be got approved from Railway including supply of fixing material.

ITEM No NS-4

FRESH AIR FAN

Price shall cover Supply, fixing, testing & commissioning of industrial type **Fresh air Fan size: 380 mm, 220V AC, 50 Hz.** ISI marked to be approved by Dy.CEE/C/MB complete in all respect as per technical specification / Site requirement.

ITEM No NS-5

FRESH AIR FAN

Price shall cover Supply, fixing, testing & commissioning of polycarbonate type **Fresh Air Fan size 12"/300 mm sweep 230 Volt AC 50 Hz** ISI marked to be approved by Dy.CEE/C/MB complete in all respect as per tech. specification/site requirement.

ITEM No NS-6

FEEDER PILLAR

Price shall cover Design, Fabrication, Supply, Fixing and commissioning of **Feeder Pillar (Size- 0.4 m.x0.4 m.x0.5 m.)** made of Angle Iron size - 40x40x6 mm. covered from all sides with MS Sheet 20 SWG including door with hinge, locking arrangement, nut & bolts, Aluminum Bus Bar (Size- 35x5x400 mm.), Bakelite Gutka, cable glands, Earthing points, Cement, sand, interconnections etc. and painting with two coats of enamel gray paint over a coat of red oxide primer for antirust complete in all respect & as per site requirement.

ITEM NO. NS-7

TPN DB

Supply, fixing, testing and commissioning of TPN distribution board 4 way complete with TPN MCCB 63/100 Amps. (FP) adjustable type 01 no. (35 KA) and MCB SP 6-32 Amps. 18 Nos. (10 KA) complete in all respect as per site requirement/IE rule & technical specification.

ITEM NO. NS-8

8-WAY DB

Price shall cover Design, manufacture, supply, installation, fixing, testing & commissioning of 8 way MCB Distribution board, dust & vermin proof, 3phase, 4wire, 415V AC supply system. The switch board shall be complete with inter connections, instrument connections with copper conductor cable as per IS:13032, phosphatised & painted with epoxy polyester based powder paint, three phase double door, sheet steel enclosure detachable gland plates flush/surface mounting for MCB's fitted with bus bars, earth bars & neutral link etc. of suitable capacity comprising of the following i.e. Double door 8 way distribution board-01No, 40 A MCB DP (10KA) 01 No. 240/415V 50Hz, 06 Nos. 6/32A MCB SP (10KA) 240/415V 50Hz (IP55) complete in all respect as per site requirement/IE Rule & technical specification.

ITEM NO. NS-9 (a) to (e)

VARIOUS SIZES FRLS PVC INSULATED COPPER CONDUCTOR WIRING CABLES

Fire Retardant Low Smoke (FRLS) PVC insulated multi stranded unsheathed copper conductor wiring cable for working voltage up to & including 1100 Volts, ISI marked conforming to IS 694/1990 (Latest Version). Wiring of installations shall be in conformity with IS 732/1989 (Latest Version), IS 4648/1968 (Latest Version).

ITEM No. NS-10

GI STRIP 25X5 MM

This item shall be in conformity to IS 3043/1987 (Latest Version). Excavation shall be done complying with Code of Safety as per IS 3764/1992.

ITEM No. NS-11

INSTALLATION OF 2.0 TON SPLIT AC

This item shall be in conformity relevant IS. Price covers installation, testing and commissioning of 2 Ton Split AC along with necessary accessories and transportation. AC shall be supplied from the store of SSE/C/C/UMB, SSE/E/C/MB, SSE/E/C/JUC store and will be transported at site/s by the contractor within the quoted rates.

ITEM No. NS-12

5 KVA VOLTAGE STABILIZER

Price shall cover Supply, installation and commissioning of light, wall mounted, copper wounded voltage stabilizer conforming to IS: 8448 suitable with torroidal case transformer having capacity 5 kVA , input voltage 130-300 V and output voltage 220-240 V, MCB 32 A, time delay relay (2-4 mins) with soft touch type instant and start switch, under voltage and over voltage cut off with indicators, Digital voltmeter and ammeter with soft type selector switch for measuring input and output voltage, indicator for power ON and timer ON, IS:8448 Latest version with RDSO/ISO/BIS equivalent certification.

ITEM No. NS-13 (a) to (f)

MODULAR SWITCHES AND SOCKETS

Supply of modular, snap type switch/ Bell push/flush type socket outlet & installation on the recessed modular box, connection, testing & commissioning as per approved make, Tech. Specifications and relevant IS.

ITEM No. NS-14 (a) to (e)

MODULAR BOXES WITH SCREWLESS PLATE

Price shall cover supply and fixing conforming to relevant IS. Supply and fixing of modular plate suitable for required modular switches as required as per approved make, Tech. Specifications and relevant IS and as per site requirement. (Deco white/ Tresa Glossy white).

ITEM NO. NS-15

SUPPLY AND LAYING OF HDPE PIPE 160 MM DIA

SUPPLY & LAYING OF HDPE PIPE THROUGH TRENCHLESS METHOD.

1. The HDPE pipe shall conform to IS 4984/1995. The HDPE pipe shall be supplied by the contractor as per IS 4984/1995 (Latest Version) and this specification given here is only for laying of HDPE pipes by "No Dig" also called as TRENCHLESS /Horizontal directional drilling method using Trench less Technology.
2. The work involves supply and laying of HDPE pipes of 140 mm inner dia and 160 mm outer dia through Trenchless digging with HDD machines to a depth of not less than 1000mm from ground

level The trench should be taken up under Railway track or as required at site for avoiding any damage to existing underground utilities for Laying of HDPE pipes.

Horizontal Boring and Inserting HDPE Pipe under railway track crossing in all type of soil i.e. Hard/Sandy/Rocky etc at prescribed depth, including all civil works. Supply of all tools, other required equipments and consumable labour etc.

1. Tenderer shall be surveyed to identify and prevent damage to Telephone/Signal Cables and other underground services. The contractor will be responsible for all damages to the underground utilities and the compensation claimed by the service provider should be paid by the contractor failing which the same will be adjusted against any amounts due to the contractor including running/ final bills of this work.
2. The location of HDD machine (entry and exit points of bore) marking shall be given by the site Engineer. The contractor has to remove the interlocking blocks, foot path stones and/or the foot path dividers (iron railings) in order to keep the HDD machine at the entry and exit points pits have to be taken to a depth of at least 2.0 mtr or as required. As per the marking of the site engineer, the boring shall be done. After the bore reaches the exit point on the remote pit, If the site engineer is satisfied with the depth, the pipes are inserted and the bore is pulled back. The pipes are supplied in the length and they should be laid parallel on the ground. The pipes should be properly formed so that there is no coiling tendency for the pipes.
3. One number of pipe to be laid in one bore and the location will be advised by the site Engineer. At one location two pipes will be laid within two metre or as advised by the site Engineer as required. The pipes shall be brought above surface in the entry pit and end plugs are fixed tightly in the exit pit, the excess pipe is cut and the end plugs are tightly fixed. In case duct laying is completed on the other side, these pipes shall be connected to the existing ducts through couplers. After the boring work is completed, the pit shall be closed properly.
4. The Contractor shall be responsible for all necessary arrangements to remove or pump out water from trench. The Contractor should survey the soil conditions encountered in the section and make his own assessment about dewatering arrangements that may be necessary. No extra payment shall be admissible for this.
5. Wherever the soil is hard due to dry weather conditions, if watering is to be done for wetting the soil to make it loose, the same shall be done by the contractor. No extra payment shall be admissible for this.
6. Preparatory to aligning the pipe for jointing, each length of the pipe shall be thoroughly cleaned to remove all sand, dust or any other debris that may clog, disturb or damage the HT cable when it is pulled at a later stage. The ends of each pipe and inside of each HDPE Socket shall be thoroughly cleaned of any dirt or other foreign materials.
7. Safety precautions when excavating or working in excavations close to electric cables. The Engineer-in-charge of the work should get full information from Electricity undertaking regarding any electric cables, which are known or suspected to exist near the proposed excavation and unless this is done, excavation should not be carried out in the section concerned. The electricity undertaking should be asked to send a representative and work should be preceded with close consultation with them.
8. Care should be taken to see that apparatuses, tools or other excavating implements or excavated materials are not left in a dangerous or insecure position
9. The price covers laying of cable in HDPE pipe of this item.

Note:- It is advised to the tenderer that site must be inspected thoroughly before quoting the rates, Later on no claim shall be accepted.

ITEM NO. NS-16**1X32 AMP DP**

Supply and erection of sheet enclosure made out of 16 SWG MS sheet hylem sheet, locking arrangement consisting of 1x32 DP MCB power coated paint and other connected accessories etc as per relevant IS.

ITEM NO. NS-17, NS 18, NS 19**16 METER HEIGHT MAST WITH TIMER CONTROL PANEL AND FENCING**

(a) Supply of **16 meter height mast** lighting system complete with raising lowering arrangement and suitable Lantern Carriage for 9x150 watt LED. Light luminaries and control gear including accessories like lighting conductor, aviation neon light, integral drum winch compensating disc head frame, power tool, manual tool, double frame with foundation bolts etc. including casting of RCC foundation as recommended by railway and as per explanatory note including erection, testing and commissioning.

(b) Design, manufacture supply, installation, testing & commissioning of double door timer control panel suitable to operate 3 phase 4 wire 415 Volt AC supply system for automatic switching OFF & ON of all luminaries as per technical specification with following accessories -

MCB (TPN) 63 A 10 KA-01 No**Timer with CM 40 contactor chargeable cells/battery-1 No -Toggle switch-1 No.**

(c) Fabrication, supply and erection of Fencing around the high mast in square shape size 2MX2M and height 1.5 M from ground level fabricated from MS angle size 40x40x6 mm, MS flat size 40x6 mm AND WIRE MESH MADE OF 8 SWG wire and 1M wide hinged type lockable door as per drawing approved by Railway including grouting, CC platform around the high mast above 0.30 M above ground level and painting etc. and as per technical specification.

HIGH MAST (16 METERS)-**1. STRUCTURE**

The high mast shall be continuous tapered 18/20 sided polygonal cross section and shall be based on proven three wire rope system with double drum winch. The details of High Mast as below: -

S. No.	Description	16 M High Mast
I	Height of high mast	16 M after assemble.
II	Section	2
III	Thickness of bottom section	4 mm
IV	Thickness of middle section	-
V	Thickness of top section	3 mm
VI	Diameter of bottom & top section (Approx.)	460 & 150 mm or as per company standard design.
VII	Length of individual section (Approx.) or as per company standard design	
	(a) Base Section	10.98 M
	(b) Middle section	-
	(c) Top section	5.52 M
VIII	Method of operation	Manual & Electrical (Integral power tool)

IX	Lantern Carriage	Suitable for 9 luminaries
X	Max. wind speed	As per IS 875 Pt-III/1987
XI	Factor of safety for wind load.	As per IS 875 Pt-III/1987
XII	Factor of safety for other load.	As per IS 875 Pt-III/1987
XIII	Foundation	As recommended by manufacturer.

2. CONSTRUCTION

Mast section shall be in 2 sections without CIRCUMFERENTIAL WELD in mast sections. The mast shall be fabricated from special steel plates confirming to BS EN 10025. The steel grade for accessories shall be BS EN 10025. All holding bolts shall be hot dip galvanized to BS EN ISO 1461/1999.

The individual sections shall be joined together by slip stress fit method at site. The minimum overlap distance shall be 1.5 times the diameter at penetration.

For environmental protection of mast the entire fabricated mast shall be hot dip galvanized having a minimum uniform thickness of 85 microns for base sections and 65 microns for top sections.

3. DOOR OPENING

An adequate door opening should be provided at the base of mast so as to permit clear access to equipment like winch, cables, gear box, plug and socket etc. and also to facilitate easy removal of the winch. The door opening shall be complete with close fitting Vandal resistant weather proof door with suitable locking arrangement. Necessary reinforcement shall be done to maintain the strength of the mast due to this opening. The earthing terminals comprising beadle bracket shall be provided inside the mast.

4. DYNAMIC LOADING FOR THE MAST

The mast structure shall be suitable to sustain an assumed maximum reaction arising from wind speed as specified in IS 875. The design life shall be minimum 25 years. Mast be suitable to withstand minimum wind pressure at the wind speed as per IS 875 (Part 3)-1987. The design should be suitable for a gust time of 3 seconds. Tenderers are supposed to submit the structural calculation for suitability verification of design as per BS 5649:Part 7.

5. LANTERN CARRIAGE

A lantern carriage shall be provided for fixing and holding the flood lights fittings and control gearboxes. The lantern carriage shall be of special design and shall have minimum thickness of 4 mm. The round tube section should act as a conduit for wires with holes fully protected. The Lantern Carriage shall be so designed and fabricated to hold the required number of Flood Light fittings and the control gear boxes and also to have a perfect self-balance. The luminaire fixing arms should be welded with the Lantern Carriage. The inner lining of carriage shall be provided with protective NYLON PADDED GUIDE RING so that no damage is caused to the surface of mast during raising and lowering operation of carriage. The entire luminaire carriage shall be Hot dip galvanized.

6. RAISING AND LOWERING MECHANISM

The raising and lowering mechanism for the Lantern Carriage shall be incorporating following equipments and specifications.

6.1 WINCH

Winch should essentially be DOUBLE DRUM type only. The Winching System with drive unit shall remain permanently inside the Mast. The winch shall be of robust design and completely self-sustaining type without the need of brake shoe, springs or clutches.

The capacity of winch and operating speed shall be marked on each winch along with specification of lubricant to be used. Minimum of 6 turns of wire rope should be on grooved drum when the mobile luminaire ring is fully lowered to rest on luminaire supporting arms. The winch should be entirely self-sustaining under all normal circumstances and it is not dependent on the break or restraining device so that uncontrolled or dangerous run away speeds will not occur in the event of total failure of this device. Test certificate for slip test on winch carried out by the manufacturer shall be submitted. The double drum winch should be such that the individual drums could be operated for fine adjustment of the lantern carriage. All winch-mounting bolts shall be stainless steel. Test certificate in support of safe working limit shall be provided.

6.2 HEAD FRAME

The head frame shall include 6 Nos. pulley system to accommodate 3 stainless steel hoisting wire ropes at any one time and separate pulleys. The pulleys shall be of non-corrodible material and shall run on self-lubricating bearings with stainless steel axles. The head frame shall be made in three compartments placed 120 degree apart for most optimum balancing of lantern carriage. Head frame shall have top canopy in tripped shape to protect the mast from entry of water/solid particles etc. from the top.

6.3 WIRE ROPES

Mast shall have 3 suspension wire rope, system with load balancing and two winching wire ropes so that the load is equally distributed on all three suspension wire ropes. There should be no continuous load on winching wires and winch once the lantern carriage is positioned at the top. The mast shall be fitted with flexible stranded steel hoisting wire ropes of 7/19 construction, 6 mm dia with minimum breaking capacity of 2350 Kgs/wire. The combined lifting capacity of hoisting wire rope shall have a minimum factor of safety not less than 5 times the safe working load of winch. No joints shall be allowed in any length of the wires.

7.0 ELECTRICAL CABLE PLUG & SOCKET & JUNCTION BOX.

- 7.1 Trailing Cable shall be of 1100 V grade, electrolytic grade copper conductor 8 core flexible cable of minimum 2.5 sq. mm size, EPR coated, PCP sheathed. The connections from the top junction box to individual luminaries should be made by using 1100 V grade copper conductor 3 core 1.5 sq. mm flexible cables.
- 7.2 A metal clad, multi-pin plug & socket shall be provided at the base compartment while the cast aluminium junction box provided on the lantern carriage shall be equipped with a receptacle for the purpose of maintenance and testing of luminaries in lowered position.
- 7.3 Weather proof cast aluminium junction box shall be provided on the lantern carriage with requisite numbers of stud type terminals from which the interconnecting cable shall be taken out, duly provided with lugs, for connection on respective luminaries/control gear mounted on lantern carriage.

8.0 WINCH DRIVING POWER TOOL

- 8.1 The winch drive unit shall be a squirrel cage, reversible induction motor. It shall be complete with all associated accessories to facilitate raising and lowering operation of the mast. In addition, the motor shall have the following characteristics.
- 415 V 3 phase 50 Hz
 - Class B insulation
 - Weather resistant
 - IP 55 protection

- Control cable approximate 6M
- 8.2 For safety reasons and final precision docking of lantern carriage to the head frame, the drive motor must have a provision to operate manually by using external crank device without removing the drive motor from the winch unit.
- 9.0 **LIGHTENING CONDUCTOR**
One member of single spike lightening conductor manufactured from heavy duty steel tube and galvanized termination shall be provided for each mast. The spike should be of 25 mm dia 1200 mm long fitted on the head frame of the mast.
- 10.0 **AVIATION OBSTRUCTION LIGHTS**
A set of Twin Dome aviation Obstruction Neon Lights of reliable design and approved make shall be provided on top of each mast.
- 11.0 **EARTHING TERMINAL**
Three number earthing terminals using 12 mm dia stainless steel bolts shall be provided at a convenient location on the base of the mast, one exclusively for the lightening conductor and two for the earthing the mast.
- 12.0 **APPLICABLE STANDARDS**
The following shall be the applicable standards for High Masts and accessories:
- a) IS 875 (Part III) 1987 (Code and practices for design loads for structures)
 - b) BSEN 10025 (Grades of MS plates)
 - c) BS 5135 (Welding)
 - d) BSEN ISO 1461:1999 (Galvanizing)
 - e) TR No. 7/1996 of ILE (Specifications of Masts and foundations)

Note. The accessories of high mast should be of same make as that of high mast.

Note. The original manufacturer certificate for high mast & accessories should be provided at time of inspection.

ITEM NO. NS-20

150 WATT LED BASED FLOOD LIGHT FITTING

Supply of 150 watt LED based Flood light fitting with all accessories including testing, commissioning and earthing including connections with 2x2.5 sq.mm PVC insulated multi-stranded ISI marked copper conductor cable from Junction Box to fitting within the quoted rate as per CEE/NR specification no.121-Elect./PS/2019, dated 04.11.2019 or latest and eligibility criteria no. CEE/NR/121-Elect./PS/2019 with 5 years warranty from the date of commissioning.

ITEM NO. NS-21

1200 MM SWEEP BLDC CEILING FAN

Price shall cover Supply, erection, fixing, testing & commissioning of BLDC Ceiling Fan of sweep 1200 mm, Air delivery range from 210 cubic metre per minute to 220 cubic metre per minute and input power consumption range from 26 W to 35 W (Star Rating- 5 Star, Service Value - 6 & above cubic metre per minute per watt) with remote/fan regulator as per requirement for speed control of fan suitable for operation on 1 Ph, 50 Hz, 240 V power supply system (conform to all the performance requirements laid down in IS 374:2019 including all amendments, as applicable).

ITEM NO. NS-22**LED LIGHT LUMINARIES 595 X 595 MM**

Price shall cover Supply, fixing, testing & commissioning of LED light luminaries 595 X 595 mm size, Tile type, having system wattage 36-45 Watt, CRCA body powder coated, high efficiency milky white PMMA diffuser with no bright spot visible, complete with all mounting arrangement accessories conforming to CEE/NR specification no. CEE/NR/121- Elect/PS/2018 (REV-3), dt. 28.06.2018 & PCEE/NR/121-Elect/PS/2019 (REV.-'4'), dt. 04.11.2019 (Attached) or latest.

ITEM NO. NS-23**RCCB 2P 25 A 30 mA**

Price shall cover Supply and fixing of RCCB 2P 25 A 30 mA with metal enclosure. RCCB and metal enclosure should be of same make of reputed manufacturer and as per relevant IS and technical specification. Technical specifications shall be approved by Dy.CEE/C/MB.

ITEM NO. NS-24**10-15 Watts LED Downlighter**

Price shall cover Supply, fixing, testing & commissioning of 10-15 Watts LED downlighter fitting Square/Round (Recess/Surface) complete conforming to Specification. No. CEE/NR/ 121-Elect./ PS/ 2018 Rev.-3 & Pr.CEE / NR/121-Elect./ PS/ 2019 Rev.-4 or latest complete with all accessories, connections, testing, commissioning & earthing required.

ITEM NO. NS-25**Decorative LED Mirror Light Fitting 10-12 Watt**

Price shall cover Supply, fixing, testing & commissioning of Decorative LED Mirror Light Fitting 10-12 Watt conforming to Specification. No. CEE/NR/ 121-Elect./ PS/ 2018 Rev.-3 & Pr.CEE / NR/121-Elect./ PS/ 2019 Rev.-4 or latest complete with all accessories, connections, testing, commissioning & earthing required and as per explanatory note.

ITEM NO. NS-26**PRE-COOLING CUM BATTERY CHARGING BOX**

415 Volts AC Pre-cooling cum 110 V DC Battery Charging Box shall be fabricated with MS Sheet 10 SWG thick and MS Angle of size 40x40x5mm. The box shall be out door type, floor mounted, weather, dust & vermin proof with degree of protection IP54. It shall be divided into two compartments of equal size which shall have independently hinged doors for both the compartments lockable and double earthing terminal. Proper canopy shall be provided on the top to prevent rain water entering inside the box. Separate detachable plate 10 SWG thick MS sheet for both compartments shall be provided 100 mm dia hole with grommet for incoming and outgoing cable. Incoming & Outgoing cable shall be connected with the bus bar from bottom side. The box shall be painted with grey colour over two coats of red oxide primer after anti corrosion treatment.

- (a) 1st compartment shall be suitable for accommodating one No. 125 Amps. 4 pole MCCB fixed type thermal magnetic release 35 KA breaking capacity and conforming to IS 13947/Part-2 & IEC 60947/2, one 125 A. 5 pin (3P+N+E) 415 V. Panel mounted socket with spring locked cover & one 125 A. 5 pin (3P+N+E) 415V. Plug conforming to IEC 309/1 & 2, one No. 16 A. 3 pin (2P+E) 250 V. Panel mounted socket with spring locked cover & one 16 A. 3 pin (2P+E) 250 V. Plug conforming to IEC 309/1 & 2 and 16 A SP MCB 200 Amps. Aluminum Bus bars for Phases & Neutral should be fixed on fiber sheet with PVC sleeve colour coded. Index of protection of socket & plug should not be less than 67.

2nd compartment shall be suitable for accommodating one No. 32 Amps. DC series MCB DP suitable for 130 V. DC supply, one No. panel mounted 32 Amps. 3 Pin (2P+E) socket with spring locked cover & one No. 32 A. 3 Pin (2P+E) plug conforming to IEC 309-1 & 2 and 200 Amps. Aluminum bus bars for two positive & one negative should be fixed on fiber sheet with PVC sleeve colour coded.

- (b) MCCB & MCB should be operated without opening the front cover. Interconnection with suitable size PVC insulated copper conductor cable conforming to IS 694/1990 from bus bar to MCCB/MCB to socket. 3 core & 4 core PVC insulated and PVC sheathed copper conductor flexible cable up to 1100 Volts shall be confirmed to IS 694 with plugs. Proper visible indication plate fluorescent screen printed on the front of both compartments shall be provided for 415 Volts AC pre-cooling box and 110 V. DC battery charging box as approved by Railway.
- (c) The box shall be grouted in ground with cement, mortar mixture (1:2:4) with muffing as per Railway Drawing.

ITEM NO. NS-27 (a) & (b)

Hot dip galvanized cable tray

Price shall cover Supply, fixing, testing & commissioning of 2 mm thick hot dip galvanized cable tray of mentioned sizes with all accessories such as corner, bend tie rods, including horizontal and vertical bends, reducers, T's, cross members and other accessories duly galvanized and supporting/mounting with pillar/angle structure etc as per site requirement and to the satisfaction of railway authority.

ITEM NO. NS-28

25 A MCB, starter

Price shall cover Supply, fixing, testing & commissioning of surface mounted/flush type power unit complete with 4 modular plate, 25 A MCB, starter, plug & socket for AC. Make Legrand, Havells, Crabtree, Wipro, Cona, anchor or equivalent as per relevant IS, technical specification & IE rules. Technical specifications shall be approved by Dy.CEE/C/MB.

ITEM NO. NS-29 (a) & (b)

Copper Pipes with insulation

Price shall cover Supply, fixing, testing & commissioning of copper Pipes with insulation mentioned sizes with all accessories as per requirement and as per direction of Railways.

ITEM No. NS-30

FABRICATED DOUBLE DOOR L.T. DISTRIBUTION BOARD(OUTDOOR TYPE).

1.0 Scope of work. Medium voltage floor mounted LT distribution board cubical type shall be suitable for three phase four wire 415 V 50 Hz AC solidly earthed neutral, electric supply system complete with accessories, inter connections, GI earth and other accessories though not mentioned here but necessary to complete supply in all respects. Distribution board shall be cubical type metal clad, wall mounted, dust and vermin proof of uniform height and multitier construction so as to occupy minimum area.

2.0 Details of construction feature

2.1 Switch board shall be manufactured with CRCA sheet of 14 Gauge and MS base channel of size 75x40x7.3 mm Switch board shall consist of a totally shrouded bus bar chamber with screwed covers (screws should remain with covers when covers are removed for maintenance) and have ventilation jali duly protected from vermin. Bus bar and droppers should be suitably mounted on DMC insulators. Bus bars and droppers should be of high conductivity electrolytic copper suitable for electrical purpose and liberally designed of uniform cross section having a rating of bus bars as per mentioned in schedule of rate & quantities of GROUP B (Basis of bus bar cross section will be maximum of 1000 A./sq. In.). Bus bars shall be suitably insulated with heat

shrinkable sleeves/epoxy coating to withstand the test voltage of 2.5 kV and have colour coding for identification of phases and neutral.

- 2.2 Switchboards shall be dead front, front operated, dust, vermin proof, extendible, top/bottom cable entry, compartmentalized made of CRCA sheet steel of thickness 2.0 mm non-load bearing, load bearing members & rigid supports for components and with lockable hinged doors. Joints of any kind in sheet metal shall be seam welded and all welding slag ground off and welding pits wiped smooth with plumber metal. All holes in metalwork shall be protected by substantial grommets or bushes to protect wiring passing through them. Maximum overall height of panels and maximum/minimum height of operating handles from floor level shall be as per standard norms.
- 2.3 Enclosure shall comply with IS: 13947 Part-I 1993. All adjoining units, doors and covers shall be fully Neoprene gasketed unless specified/approved otherwise and equipped with integral lock. Enclosure protection shall be not less than IP 43.
- 2.4 Switchboard shall be designed for Incoming and Outgoing LV feeders as per provisions of IS: 8623 (Part I)–1993, IS: 13947:1993 and IEC Pub 947-5-1 to latest version. Generous space shall be provided for vertical rising cables, their bending and termination.
- 2.5 Separate cable compartments running height of the Switch Board in case of front access Boards provided for incoming and outgoing cables.
- 2.6 Cable compartments of adequate size for easy termination of all incoming and outgoing cables entering from bottom.
- 2.7 All wiring for meters and other associated equipments shall be with FRLS, PVC insulated, stranded copper conductor wires. Minimum size of copper conductor control wires for switchboards shall be 1.5 sq. mm.

3.0 The distribution board shall consist of

(a) Incoming 125 A. MCCB 4 Pole.

Moulded Case Circuit Breaker 125 A with CTR 125/5 A, 4 Pole, 35 kA Breaking Capacity shall have thermo-magnetic type release with both adjustable protection for over load and short circuit and conforming to IS 13947/Pt.II/1993 & IEC: 60947-2. Rated short circuit breaking capacity ($I_{cs} = I_{cu}$) should not be less than 35 kA rms at 415 V 50 Hz AC. MCCBs shall have spreader links and barriers as standard feature of manufacturer. Digital V meter, Digital A meter and clustered LED indication light on Incoming Panel.

(b) Outgoing 63A & 40 A MCCB 4 Pole

Moulded Case Circuit Breaker 4 Pole 35 kA breaking capacity shall have adjustable thermal setting (70% to 100%) or 80 to 100% & fixed magnetic setting and conforming to IS 13947/Pt.II/1993 & IEC: 60947-2. MCCBs shall have spreader link and barriers as standard feature of manufacturer.

Note:

- (i) Above MCCB cover and case shall be made of high strength heat resisting and flame retardant thermosetting insulating material. Operating handle shall be quick make/break, trip-free type having suitable ON, OFF and TRIPPED indicators and a common handle for simultaneous operation of all phases. Suitable arc extinguishing device shall be provided for each contact.

Tripping unit shall be connected by a common trip bar such that tripping of any one pole causes three poles to open simultaneously. Contact tips shall be made of suitable arc resistant alloy. Terminals shall be with adequate clearances.

- (a) MCCBs shall be provided with following interlocking devices with the compartment door.
- (b) Door interlock to prevent door being opened when the breaker is in ON position (extendable rotary handle to be invariable provided).
- (ii) Interlock to prevent the breaker being switch ON with the door open.
- (iii) MCCBs shall have trip free mechanism such that tripping command always overrides the closing command. MCCBs shall have disconnection capability to ensure that handle does not return to off position in case of contacts getting welded. Compartment doors shall clearly indicate the state of MCCB i.e. ON/OFF/TRIP MCCBs shall be provided with test function (push button or equivalent) to check the correct functionality of the MCCBs of incoming.
- (iv) Each MCCB shall have a facility for padlocking in the off position.
- (v) MCCBs shall have shrouded terminals.
- (vi) MCCBs shall not have any load line biasing.
- (vii) All releases shall be tamper proof.
- (viii) The mechanical operations of MCCBs shall be > 15000 operations.

(c) Outgoing 32 A MCBs

DP MCB 10 kA Breaking Capacity “C” series and conforming to IS:8828/1996 & IEC: 60898/2002.

STANDARD SPECIFICATION

Equipment shall conform to latest addition of IS Specification including:

- a) IS: 8623/Pt.I to Pt.II/1993 - Marking & arrangement of (Latest Version switch-gear bus bars, connections & auxiliary wiring.
- b) IS: 1897/1983 - Copper bus bars.
- c) IS:13947/Pt.II/1993 & IEC 60947-2. - Moulded Case Circuit Breaker
- d) IS 8828/1996 - Miniature Circuit Breaker
- e) IS: 9224/Pt.I & II/1979 - HRC fuses.
- f) IS:2705/Pt.I to IV/1992 - Current Transformer as applicable
- g) IS 13947 : Part 1 : 1993 - Specification for Low-voltage Switchgear and Control gear – Part 1 : General Rules

Measuring instruments shall have accuracy Class I.

SHEET STEEL TREATMENT AND POWDER COATING.

- (a) Sheet Steel materials used in construction of these units should have undergone a rigorous rust proofing process comprising alkaline degreasing, descaling in dilute sulfuric acid and a recognized phosphating process. Steel work shall then receive two dip-coats of oxide filler/

primer before final painting. Castings shall be scrupulously cleaned and fettled before receiving a similar oxide primer coat. Manufacturer is required to have seven tank treatment facility for this.

- (b) All sheet steel shall after metal treatment powder coated with two coats of shade 692 or as approved to IS 5 on outside and white on inside. Each coat of paint shall be properly stoved and paint thickness shall not be less than 80 microns. Panel manufacturer should have in-house power coating facility.

DANGER NOTICE PLATES

Danger Notice plates shall be fixed on front of distribution board conforming to IS: 2551/63.

PACKING & TRANSPORTATION.

Complete distribution board should be packed in such a way that there should not be any scratches on board during transportation.

TESTING & INSPECTION

- (i) Original test certificates of all equipments/instruments shall be submitted along with supply of panel board after Inspecting Officer passes LT panel board.
- (ii) Certificate for all routine and type tests for circuit breakers in accordance with IS:13118-1991 shall be furnished.
- (iii) All panels shall be meggered phase to phase and phase to neutral using a 1000/500V Megger with all outgoing feeders in closed position. Megger value should not be less than 2.5 MΩ between phases and 1.5 MΩ between phases and neutral.

NOTE-.

Manufacturer shall have following:

- a) ISO 9001 certification.
- b) Testing facilities as per relevant IS in his works and
- a) Powder coating arrangement in his works.

ITEM No. NS-31

FABRICATED DOUBLE DOOR L.T. DISTRIBUTION BOARD.

1 SCOPE OF WORK

Medium voltage switch board cubicle type shall be suitable for three Phase, four wire, 415 V. 50 Hz AC solidly earthed neutral, electric supply system complete with accessories, Interconnections, continuous GI earth strip, bus bar chamber with copper bus bar, all instruments, meters, switchgears etc. in position duly wired up with copper conductor cable with colour coding, code numbering etc. and other accessories though not mentioned here but necessary to complete supply in all respects. The work of foundation of bricks also includes for installation of switch board as per instruction of site Engineer.

2. SCHEDULE OF REQUIREMENT

As per Schedule of Rate and Quantities of GROUP "B".

3. PARTICULARS OF ELECTRIC SUPPLY SYSTEM

Three phase, four wire 415 V 50 Hz AC solidly earthed neutral system.

4. TYPE OF SWITCH BOARD

Switchboard shall be cubicle type metal clad free standing, floor mounted, dust and vermin proof, of uniform height and of multi-tier construction so as to occupy minimum floor area. Switchboard shall be extendable on both sides.

5.0 DETAILS OF CONSTRUCTIONAL FEATURE OF SWITCH BOARD

5.1 Switch board shall be manufactured with CRCA sheet of 14 Gauge and MS base channel of size 75x40x7.3 mm Switch board shall consist of a totally shrouded bus bar chamber with screwed covers (screws should remain with covers when covers are removed for maintenance) and have ventilation jali duly protected from vermin. Bus bar and droppers should be suitably mounted on DMC insulators. Bus bars and droppers should be of high conductivity electrolytic copper suitable for electrical purpose and liberally designed of uniform cross section having a rating of bus bars as per mentioned in schedule of rate & quantities of GROUP B (Basis of bus bar cross section will be maximum of 1000 A./sq. In.). Bus bars shall be suitably insulated with heat shrinkable sleeves/epoxy coating to withstand the test voltage of 2.5 kV and have colour coding for identification of phases and neutral

5.2 Bus Bar shall be provided in bus bar chambers throughout its entire length. Suitable rubber gaskets shall be provided between all openings and joints to make panel dust and vermin proof, absolutely.

5.3 Each incoming and outgoing panel shall be provided with glands in detachable plate and lugs and having entry from bottom. Each incoming and outgoing feeder of up to 100 Amp will be connected with suitable size copper bus bar from main bus bars

5.4 Height of panel shall not be more than 2300 mm and operating height shall be between 250 to 1900 mm. Continuous GI earth bus bar shall be run of size not less than 50x6mm.

Switchboards shall be dead front, front operated, dust, vermin proof, extensible, bottom cable entry, compartmentalized made of CRCA sheet steel of thickness 2.0 mm non-load bearing, load bearing members & rigid supports for components and with lockable hinged doors. Joints of any kind in sheet metal shall be seam welded and all welding slag ground off and welding pits wiped smooth with plumber metal. All holes in metalwork shall be protected by substantial grommets or bushes to protect wiring passing through them. Maximum overall height of panels and maximum/minimum height of operating handles from floor level shall be as per standard norms.

Each Circuit Breaker shall be housed in a separate compartment enclosed on all sides. Circuit Breaker cradle shall be designed and constructed to permit smooth withdrawal and insertion. Movement shall be free of jerks, easy to operate and positive.

Enclosure shall comply with IS: 13947 Part-I 1993. All adjoining units, doors and covers shall be fully Neoprene gasketed unless specified/approved otherwise and equipped with integral lock. Enclosure protection shall be not less than IP 43.

5.8 Switchboard shall be designed for Incoming and Outgoing LV feeders as per provisions of IS: 8623 (Part I)–1993, IS 13947:1993 and IEC Pub 947-5-1 to latest version. Generous space shall be provided for vertical rising cables, their bending and termination.

Separate cable compartments running height of the Switch Board in case of front access Boards provided for incoming and outgoing cables. Cable compartments of adequate size for easy termination of all incoming and outgoing cables entering from bottom

All wiring for meters and other associated equipments shall be with FRLS, PVC insulated, stranded copper conductor wires. Minimum size of copper conductor control wires for switch-boards shall be 1.5 mm² and Control wiring connection shall be done with WAGO connectors only.

6. Switchboard shall comprise of:

A. INCOMING 400 A MCCB 4 POLE PANEL

Each panel shall consist of:

Moulded Case Circuit Breaker 400 A with CTR 400/5 A, four Pole, 35 kA Breaking Capacity shall have thermo-magnetic type release with both adjustable protections for over load and short circuit and conforming to IS: 13947/Pt.II/1993. Rated short circuit breaking capacity ($I_{cs} = I_{cu}$) should not be less than 35 kA rms at 415 V 50 Hz AC. MCCBs shall have spreader links and barriers as standard feature of manufacturer.

Digital V meter, Digital Ammeter and clustered LED indication light on Incoming Panel.

B. OUTGOING 250 A MCCB 4POLE PANEL

Moulded Case Circuit Breaker 250 A with CTR 250/5 A, four Pole, 35 kA Breaking Capacity shall have thermo-magnetic type release with both adjustable protections for over load and short circuit and conforming to IS: 13947/Pt.II/1993. Rated short circuit breaking capacity ($I_{cs} = I_{cu}$) should not be less than 35 kA rms at 415 V 50 Hz AC. MCCBs shall have spreader links and barriers as standard feature of manufacturer

C. OUTGOING 125 A MCCB 4POLE PANEL

Moulded Case Circuit Breaker 125 A with CTR 150 /5 A 4 Pole 35kA breaking capacity shall have adjustable thermal setting (70% to 100%) or 80 to 100% & fixed magnetic setting and conforming to IS 13947/Pt.II/1993 & IEC: 60947-2. MCCBs shall have spreader link and barriers as standard feature of manufacturer.

D. Outgoing 63A MCCB 4 Pole

Moulded Case Circuit Breaker 63 A with CTR 60/5 A 4 Pole 35kA breaking capacity shall have adjustable thermal setting (70% to 100%) or 80 to 100% & fixed magnetic setting and conforming to IS 13947/Pt.II/1993 & IEC: 60947-2. MCCBs shall have spreader link and barriers as standard feature of manufacturer.

Note:

- (i) MCCB cover and case shall be made of high strength heat resisting and flame retardant thermosetting insulating material. Operating handle shall be quick make/break, trip-free type having suitable ON, OFF and TRIPPED indicators and a common handle for simultaneous operation of all phases. Suitable arc extinguishing device shall be provided for each contact. Tripping unit shall be connected by a common trip bar such that tripping of any one pole causes three poles to open simultaneously. Contact tips shall be made of suitable arc resistant alloy. Terminals shall be with adequate clearances. MCCBs shall be provided with following interlocking devices with the compartment door
 - (a). Door interlock to prevent door being opened when the breaker is in ON position (extendable rotary handle to be invariable provided)
 - (b). Interlock to prevent the breaker being switch ON with the door open
 - (c) Each MCCB shall have a facility for padlocking in the off position.
- (ii.) MCCBs shall have trip free mechanism such that tripping command always overrides the closing command. MCCBs shall have disconnection capability to ensure that handle does not return to off position in case of contacts getting welded. Compartment doors shall clearly indicate the state of MCCB i.e. ON/OFF/TRIP MCCBs shall be provided with test function (push button or equivalent) to check the correct functionality of the MCCBs.
- iii. MCCBs shall have shrouded terminals.

- iv. MCCBs shall not have any load line biasing.
- v. All releases shall be tamper proof.
- vi. The mechanical operations of MCCBs shall be > 15000 operations.

E. Digital ammeter CT operated to be provided on each outgoing panels conforming to relevant IS having class I accuracy.

F. Incoming and outgoing feeder name shall be displayed on Panel

6. STANDARD SPECIFICATION

Equipment shall conform to latest of IS Specification including:

- (a) IS: 1897/1983 Version) - Copper bus bars.
- (b) IS:8623/Pt.I to Pt.II/1993 - Marking & arrangement of switch gear bus bars, connections & auxiliary wiring
- (c) IS 13947/Pt.II/1993 & IEC 60947-2. - MCCB
- (d) IS:13703/1993 - HRC fuses.
- (e) IS:2705/Pt.I to IV/1992 as applicable - Current Transformer
- (f) IS 13947 : Part 1 : 1993 - Specification for Low-voltage Switchgear and Control gear - Part 1 : General Rules

7. SHEET STEEL TREATMENT AND POWDER COATING.

- (a) Sheet Steel materials used in construction of these units should have undergone a rigorous rust proofing process comprising alkaline degreasing, descaling in dilute sulfuric acid and a recognized phosphating process. Steel work shall then receive two dip-coats of oxide filler/primer before final painting. Castings shall be scrupulously cleaned and fettled before receiving a similar oxide primer coat. Manufacturer is required to have seven tank treatment facilities for this.
- (b) All sheet steel shall after metal treatment powder coated with two coats of shade 692 or as approved to IS 5 on outside and white on inside. Each coat of paint shall be properly stove and paint thickness shall not be less than 80 microns.

8. TECHNICAL PARTICULAR

Tenderer shall submit full description literature and technical particulars of equipment offered. All equipment/instruments should have test certificate of the recognized/NTH to confirm to relevant IS: Specification.

9. DRAWINGS

General arrangement and wiring drawings shall be got approved by successful tenderer before manufacturing switchboard from railways. Design calculation busbar layout shall be got approved in advance from Railways.

10. DANGER NOTICE PLATES

Danger Notice plates shall be fixed on front and back panels conforming to IS: 2551/63.

11. PACKING & TRANSPORTATION.

Complete LT Panel should be packed in such a way that there should not be any scratches on Panel during transportation.

12. TESTING & INSPECTION

- (i) Original test certificates of all equipments/instruments shall be submitted along with the supply of panel board after Inspecting Officer passes LT panel board.
- (ii) Certificate for all routine and type tests for circuit breakers in accordance with the IS:13118-1991 shall be furnished.
- (iii) All panels shall be meggered phase to phase and phase to neutral using a 1000/500V Megger with all outgoing feeders in closed position. Megger value should not be less than 2.5 MΩ between phases and 1.5 MΩ between phases and neutral.

NOTE-

Manufacturer shall have following follower at his work:

- (a) ISO 9001 certification
- (b) Testing facilities as per relevant IS and
- (c) Powder coating arrangement

ITEM No. NS-32

LT PTTA with IP-65 protection

Price shall cover Design, manufacturing, supply, install, testing, erection and commissioning of LT PTTA with IP-65 protection with canopy Junction box with 250-320 Amps MCCB, 4-Pole 36 kA & rotary operated mechanism, FP spreader with Aluminium bus bar as per relevant IS and technical specification. Technical specifications shall be approved by Dy.CEE/C/MB.

ITEM No. NS-33

Dismantling, Shifting and Re-installation of 19 KWp Solar Power Plant

Price shall cover Dismantling, Shifting and Re-installation of 19 KWp Solar Power Plant along with BOS and transportation and I&C Charges as per relevant IS and technical specification.

ITEM No. NS-34

60 watt designer ceiling fan

Price shall cover 60 watt designer ceiling fan without regulator 1200-1400 mm of approved make, white colour, length of down rod min. 600 mm as per relevant IS and technical specification.

ITEM No. NS-35

Excavation of cable trench

Price shall cover Excavation of cable trench by cutting/breaking station platform concrete/pucca floor digging 400 mm deep and then refilling after laying of cable as per IS 1255:1983 and technical specification enclosed on a cushion of sand 100 mm below and providing protective bricks as per drawing and soil and ramming, leveling and repairing and finishing the said portion of platform with 1:2:4 cement concrete mixture 100 mm deep from top. i) Trench width 300 mm wide for laying up to 3 cables with 9 protective bricks per meter.

ITEM No. NS-36**Boring & laying of power cables by trenchless method through HDPE pipe**

Price shall cover Boring & laying of power cables by trenchless method through HDPE pipe along with supply and insertion of HDPE pipe of PE 80 PN 8 grade of 90 mm dia with min. 6.7 mm and max. 7.6 mm wall thickness as per IS:4984-95 in the bore for the laying of power cables under the track of road. HDPE pipe is to be supplied by the contractor. The power cables will be supplied by railway.

ITEM No. NS-37**103 mm inner dia Double walled Corrugated pipe**

Price shall cover Supply and erection of 103 mm inner dia Double walled Corrugated pipe under the railway track/road as per IS:16205 (Latest), technical specifications and as per site requirement.

ITEM No. NS-38**HDPE 50 mm dia wall thickness 3 mm PN-6**

Price shall cover Supply and laying of HDPE pipe conforming to IS 4984:1995, 50 mm dia wall thickness 3 mm PN-6 under the road/air. The work involves laying of HDPE pipe.

ITEM NO. NS-39**RCBO 2P 06A 30mA with metal enclosure**

Price shall cover Supply, installation, testing and commissioning of RCBO 2P 06A 30mA with metal enclosure as per relevant IS and technical specification. Technical specifications shall be approved by Dy.CEE/C/MB.

ITEM No. NS-40**70 Watt LED Street Light Fitting**

Price shall cover Supply, fixing, testing & commissioning of LED street light fitting complete with driver (70 watts) conforming to Specification. No. CEE/NR/ 121-Elect./ PS/ 2018 Rev.-3 & Pr.CEE / NR/121-Elect./ PS/ 2019 (Rev.-4) or latest complete with all accessories, connections, testing, commissioning & earthing required and as per explanatory note.

ITEM No. NS-41**Removing and dismantling of existing High mast**

Price shall cover Removing and dismantling of existing High mast from station area and Shifting, installation, testing, commissioning of the same high mast to new location at Station area as per requirement and as per direction of Railways.

ITEM NO. NS-42**4 pole RCBO 16 Amp, 30 mA with Earth leakage**

Price shall cover Supply, installation, testing and commissioning of 4 pole RCBO 16 Amp, 30 mA with Earth leakage, overload and short circuit protection as per relevant IS and technical specification. Technical specifications shall be approved by Dy.CEE/C/MB.

ITEM NO. NS-43**6 mtr height double arm decorative GI pole**

Price shall cover Supply installation, testing & Commissioning of Decorative Pole 6 mtr height along with foundation in Three sections, with bottom section of 1 mtr having dia of 140 mm with cast iron embellishment, top Section of 5 Mtr having dia of 76 mm, made from GI, primed and PU painted factory finish, with sheet thickness of 3.5 mm (+/-5%) with base plate of 250 mm. x 250 mm. x 15mm, flush door at the bottom with proper strengthening to the cut out of the door paneling having junction /looping box with Heavy duty 3 phase connector with 2 nos. 6-32 Amp SP MCB, including supply & fixing 2 nos. 500 mm long brackets made out of 40 mm dia pipe, i/c excavation the soil of suitable

size & making RCC foundation of size not less than 600 mm X 600 mm X 1200 mm (D), 6 mm. thick plastering & painting on RCC foundation with foundation bolts of size not less than 20 mm dia, 450 mm long, i/c installation of pole on this RCC foundation complete with alignment, earthing etc as reqd. Wiring up to the light fixtures from the junction box using 3-core x 2.5 sq. mm. flexible ISI marked FRLS copper wires with Anchor Nut Bolts including 2 nos 80 W teardrop LED fitting made of Spun aluminum Housing with sturdy bracket with Power LED are mounted directly on extruded alum. Heat Sinks. A UV stabilized PC/PMMA diffuser is provided for Glare Free Lighting with high Visual complete as required. With Decorative /Ornamental Double Arm Bracket made of cast iron, Steel tube, joints Embellishment primer & Painted with polyurethane Silver/Black colour and lacquer coating matching of above pole finish. Completed as reqd. Pole should be of reputed make Bajaj, Havells and Philips or equivalent as per relevant IS and technical specification. Drawings and technical specifications shall be approved by Dy.CEE/C/MB.

ITEM No. NS-44

LED illuminated sign / direction boards in half elliptical shape

Price shall cover Design, manufacture, display, installation of wall / hanging / floor mounting type LED illuminated sign / direction boards in half elliptical shape. The display sheet shall be of unbreakable 040 translucent polycarbonate sheet of 2 mm thickness. The text / graphics matter visibility shall not be less than 160 deg. The approved colour text and graphics shall be printed / router cut on monomeric calendered vinyl of 70 um thickness and shall be firmly pasted on display sheets. The mounting arrangement shall be hanging, wall mounting, ceiling mounting, pole mounting or floor mounting and as per site requirement. The signage shall have the integral mounting arrangements with sturdy structural frame and ACP cladding on the back side of the signage to avoid rusting and entry of dust. The LED board shall have uniform illumination with 4-8 W / sq. ft and with brightness more than ambient light. Suitable size end cap of 1.5 mm thick SS 304 should be provided.

ITEM No. NS-45

Erection and installation of wall / hanging / floor mounting type LED illuminated sign / direction board

Price shall cover Erection and installation of wall / hanging / floor mounting type LED illuminated sign / direction boards in half elliptical shape. The display sheet shall be of unbreakable 040 translucent polycarbonate sheet of 2 mm thickness. The text / graphics matter visibility shall not be less than 160 deg. The approved colour text and graphics shall be printed / router cut on monomeric calendered vinyl of 70 um thickness and shall be firmly pasted on display sheets. The mounting arrangement shall be hanging, wall mounting, ceiling mounting, pole mounting or floor mounting and as per site requirement. The signage shall have the integral mounting arrangements with sturdy structural frame and ACP cladding on the back side of the signage to avoid rusting and entry of dust. The LED board shall have uniform illumination with 4-8 W / sq. ft and with brightness more than ambient light. Suitable size end cap of 1.5 mm thick SS 304 should be provided.

ITEM No. NS-46

20 passenger elevator (Lift) machine

Price shall cover Design, manufacture, supply, erection, testing & commissioning of 20 passenger elevator (Lift) machine roomless (G+1) complete in all respects to travel from platform to FOB as per RDSO spec. No. RDSO/2013/EM/SPEC/0016 (Rev. 2) - 2025 or latest. Warranty period of lift is required as: 30 months from the date of delivery or 24 months from the date of commissioning, whichever shall be sooner.

ITEM NO. NS-47**LED RGB/RGBW flood lighting luminaire for facade lighting (90 Watt)**

Price includes Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW flood lighting luminaire for facade lighting with Die cast aluminium housing, powder-coated finish, of 90 (watt) wattage. Luminaire shall be capable of producing dynamic color changing light for with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100-270 V AC, 50 Hz with power factor > 0.9. Fixture shall be suitable to operate at an ambient temperature range of - 10°C to +50°C and shall be IP 66 or greater and IK 06 rated. Lifetime shall be at least L70:50000 burning hours at 50°C. Luminaire shall be conforming to BIS (IS 10322) and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.

ITEM NO. NS-48**LED RGB/RGBW flood lighting luminaire for facade lighting (45 Watt)**

Price shall cover Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW flood lighting luminaire for facade lighting with Diecast aluminium housing, powder-coated finish, of 45 (watt) wattage. Luminaire shall be capable of producing dynamic color changing light for with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100-270 V AC, 50 Hz with power factor > 0.9. Fixture shall be suitable to operate at an ambient temperature range of - 10°C to +50°C and shall be IP 66 or greater and IK 06 rated. Lifetime shall be at least L70:50000 burning hours at 50°C. Luminaire shall be conforming to BIS (IS 10322) and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.

ITEM NO. NS-49**LED RGB/RGBW Linear Wall Washer luminaire for Facade lighting with aluminium extruded housing, of 40-45 Watt**

Price shall cover Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW Linear Wall Washer luminaire for Facade lighting with aluminium extruded housing, of 40-45 Watt wattage. Luminaire shall be capable of producing dynamic color changing light with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100 to 270 V AC, 50 Hz, power factor > 0.9. Fixture shall be suitable to operate at ambient temperature range of -10°C to +50°C and shall be IP 65 and IK06 rated. Lifetime should be at least L70:50000 burning hours at 50°C. Luminaire shall be conforming to BIS and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.

ITEM NO. NS-50**LED RGB/RGBW Linear Wall Washer luminaire for Facade lighting with aluminium extruded housing, of 24-25 Watt**

Price shall cover Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW Linear Wall Washer luminaire for Facade lighting with aluminium extruded housing, of 24-25 Watt wattage. Luminaire shall be capable of producing dynamic color changing light with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating

at line voltage without any separate power supply from 100 to 270 V AC, 50 Hz, power factor > 0.9. Fixture shall be suitable to operate at ambient temperature range of -10°C to +50°C and shall be IP 65 and IK06 rated. Lifetime should be at least L70:50000 burning hours at 50°C. Luminaire shall be conforming to BIS and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.

ITEM NO. NS-51

RGB/ DMX Controller System

Price shall cover Design, Supply, installation, testing, commissioning & Programming of RGB/ DMX Controller System with following features : Standalone interfaces, Input Connector, Mini USB-including mini USB Cable, Output Connector, XLR3/XLR5, DMX Output- 512 & 1024 Channels, PC DMX In triggering capability, Master/Slave connection capability, DMX speed - 1 to 45 Hz, MaB/Vk, internal clock and internal calendar enabled] inbuilt internal memory, data display system, system compatibility with Windows/MAC/LINUX with 32/ 64 bit CPU technology to be installed in IP 65 Waterproof Junction Box with necessary connection. Warranty: 5 Years

ITEM NO. NS-52

22 AWG DMX cable

Price shall cover Supply, installation, testing and commissioning of 22 AWG DMX cable compatible with RGB lights & DMX controller and as per relevant IS, technical specifications and as per direction of Railways. DMX signal cable shall be used for digital communication networks. Copper lugs, glands of proper size shall be used for connections & fixing.

ITEM NO. NS-53

DMX splitter 1 in 8 out booster

Price shall cover Design, supply, installation, testing and commissioning of DMX Splitter of specification: DMX splitter 1 in 8 out booster, input voltage range 100- 240V, DC 12-24 V as per requirement, included 24 V DC plug-in power adaptor of maximum power consumption 4.5 W.

ITEM NO. NS-54

18 SWG CRCA sheet steel enclosure

Price shall cover Design, supply, installation, testing & commissioning of Junction Box with following features: 18 SWG CRCA sheet steel enclosure. Complete with cable gland arrangement with Panel lock for fixing doors. Complete with 1 no. 16 A SP MCB & Surge protecting device of capacity 10 KV.

ITEM NO. NS-55

Poly carbonate junction box of size 125x125x125 mm

Price shall cover Supply, fitting, fixing, testing and commissioning of poly carbonate junction box of size 125x125x125 mm with stud type terminal, the enclosure shall be conforms to IP 67 and Mechanical impacts are IK 10 suitable for terminating 4Cx16 Sq mm XLPE insulated armoured copper cable. The work to be executed as per direction of engineer in charge at site.

ITEM NO. NS-56

Poly carbonate junction box of size 175x250x100 mm

Price shall cover Supply, fitting, fixing, testing and commissioning of poly carbonate junction box of size 175x250x100mm with stud type terminal, the enclosure shall be conforms to IP 67 and Mechanical impacts are IK 10 suitable for terminating 4Cx16 Sq mm XLPE insulated armoured copper cable. The work to be executed as per direction of engineer in charge at site.

ITEM NO. NS-57 (a) & (b)

Fire Retardant Low Smoke (FRLS) PVC insulated multi stranded unsheathed copper conductor wiring cable for working voltage up to & including 1100 Volts, ISI marked conforming to IS 694/1990 (Latest Version). Wiring of installations shall be in conformity with IS 732/1989 (Latest Version), IS 4648/1968 (Latest Version).

ITEM No. NS-58**CLS PANEL 10 KVA, 63 AMPS**

Price shall cover Supply, Erection testing and commissioning of automatic colour lighting signalling control and distribution panel as per RDSO drg. No. ETI/PSI/35-04 & specification no. TI/SPC/PSI/GLS/023 from Core/RDSO approved sources.

ITEM No. NS-59**RAIN PROOF MS BOX WITH 63 AMP MCCB**

Price shall cover Supply and fixing of rain proof MS box of suitable size of housing MCCB 63 Amp, 3 Pole with hinged and lockable door on AT mast with suitable MS clamp should be painted and powdered coated. The MS box made up of 14 SWG MS sheet and shall housing the required MCCB and 2 core 70 Sq.mm XLPE cable adequately.

-----CEE/NR SPECIFICATION FOR LED LIGHTS-----

As under

Northern Railway

Technical Specification for LED based Luminaries (Input Voltage single phase 230 Volt AC, 50 Hz) For General Services application.

Spec No. CEE/NR/121-Elect/PS/2019 (Rev.-4) Dated: 04.11.2019

Issued by

**Office of the Pr. Chief Electrical Engineer Baroda House, Northern
Railway New Delhi**

10
7-11-19

NORTHERN RAILWAY



Hd. Qrs. Office
Baroda House,
New Delhi.

Dt. 04.11.2019

No: 181/Elect./P/PCEE Spec/117

Chief Electrical Engineer,
Construction, Tilak Bridge
New Delhi

Sr. Divl. Elect. Engineer/G,
Northern Railway,
NDLS, FZR, LKO, MB & UMB

Dy. Chief Elect. Engineer/W,
Northern Railway,
AMV, CB/LKO & JUDW

Chief Electrical Engineer,
USBRL Project,
Jammu Tawi

Dy. Chief Elect. Engineer/CR,
Northern Railway,
IRCA Bldg.,
New Delhi

Workshop Asst. Elect. Engr.,
Northern Railway,
Amritsar

Sub: Revision-4 in Technical Specification for LED luminaries for General Service applications.

Ref.: This office letter of even no. dated 28.06.2018, technical specification no. PCEE/NR/121-Elect/PS/2019 (Rev.'3') dated 28.06.2018

In continuation to earlier technical specification of subject item referred above, copy of PCEE/NR technical specification no. PCEE/NR/121-Elect/PS/2019 (Rev.'4') dated 04.11.2019 for LED based luminaries for General Services application is enclosed herewith for information & necessary action.

This issues with the approval of Competent Authority i.e. PCEE/NR.

DA: As above.

(MUKESH CHANDRA)

Dy.CEE/PS

For Pr. Chief Electrical Engineer

NORTHERN RAILWAY

TECHNICAL SPECIFICATION FOR LED BASED LUMINARIES (INPUT VOLTAGE SINGLE PHASE 230 VOLT AC, 50Hz) FOR GENERAL SERVICES APPLICATIONS

Spec No. PCEE/NR/121-Elect/PS/2019 (Rev.-'4') Dated: 04 .11.2019

ISSUED BY

OFFICE OF THE Pr. CHIEF ELECTRICAL ENGINEER
BARODA HOUSE, NORTHERN RAILWAY
NEW DELHI

SN	Date	Clause No.	Revision	Reason
1.	October '2019'	12.0	-do-	To implement the public procurement Order-2017, Railway Board letter no. 2015/RS(G)/779/5 dated 16.03.2018 preference to 'Make in India'
2.	-do-	13.0	-do-	Requirement of pit light rated voltage 110 volt AC
3.	-do-	7.0	Revision-'4'	Inclusion the technical details for Signages for A1 & A category Railway Station

Approved by:


CEGE/NR

Dy. CEE/PS 	SSE/PS 
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TECHNICAL SPECIFICATION FOR LED BASED LUMINARIES

Revision.-'4' of the above specification on 3 pages has been issued and shall be followed as given below:

S. No	Clause No.	Subject	Details of Items in existing specification	Revised with Revision.-'4'			
1.	12.0	Implementation of the public procurement Order-'2017'	Not included, added as 12.0	To implement the public procurement Order-2017 vide Railway Board letter no. 2015/RS(G)/779/5 dated 16.03.2018 preference to 'Make in India'			
2.	13.0	Technical Parameters for Pit light	Not included, added as 13.0	The technical parameters are as under			
				S N	Description	Specification for 18W	Specification for 22W (Bulkhead)
				1.	Rated Voltage	110V AC	110V AC
				2.	Front Cover	Toughened glass diffuser as per Para 4.3 of the specification	Toughened glass diffuser as per Para 4.3 of the specification
				3.	LED Test	LM79 & LM80 certified LED as per Para 3.1.7 & 3.1.8	LM79 & LM80 certified LED as per Para 3.1.7 & 3.1.8
				4.	Control Gear/LED Driver	External constant current driver as per Para 3.3 of the specification (max. placement distance 1 mtr)	External constant current driver as per Para 3.3 of the specification
				5.	Internal Wiring	Teflon insulated, Copper conductor	Teflon insulated, Copper conductor
				6.	Hardware	MS zinc plated & passivated	MS zinc plated & passivated
				7.	Ingress Protection	IP66	IP66
				8.	Impact Test	IK10	IK10
				9.	Lumen maintenance	50,000hrs. & L70	50,000hrs. & L70
				10.	Operating Temperature	-10°C to 50°C	-10°C to 50°C

Dy. CEE/PS

04/11/19

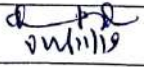

SSE/PS

04/11/19

				11	Main Housing & Frame	Aluminum casting with powder coating as per Para 4.7 of the specification	Aluminum casting with powder coating as per Para 4.7 of the specification
				12	Wattage	18 watt +/- 10%	22 watt +/- 10%
				13	Power factor	>0.90 as per Para 3.1.9 of the specification	>0.90 as per Para 3.1.9 of the specification
				14	Lumen Output	2340 lm	1760 lm (If bulkhead type)
				15	CCT	5500K-6500K	5500K-6500K
				16	CRI	>70	>70
				17	Protection	System covers the open & short circuit protection, reverse polarity protection & surge protection as per Para 3.3.8 of the specification	System covers the open & short circuit protection, reverse polarity protection & surge protection as per Para 3.3.8 of the specification
				18	Other applicable standard	IS: 10322 (Pt.-5/sec.-1)-1985/IEC 60598 or latest	IS: 10322 (Pt.-5/sec.-1)-1985/IEC 60598 or latest
3.	7.0	Technical details for Signages for A1 & A category Railway Station	Not included, and added as 7.9	Type- A, B, C, D & other accessories as per following details:-			

Para 7.9, Type- 'A'

Entry gate & Exit gate, Lane Marking Gantry, Parking entry, Parking Exit, Freight entry, Freight Exit, Way Finding Sign External (6panelsx6 directories) Panels, Way Finding Sign External, Building Titles, On Staircase east gate sign, double sided sign shall be of size: 30"x 5', 60"x2.5', 20"x5', 72"x10", 18"x2', 16"x1.5' etc. Dimension may vary as per site requirement conforming to following technical details:-

Dy. CEE/PS		SSE/PS	
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Made of Laser cut aluminum panel of 1mm thick aluminum sheet with painted face having 3mm letter fascia to be laser cut out from opel perplex sheet of 4mm thickness to use as per signage size: 20 w, 40 w, 60 w, 100 w, 150w constant current mode power supply, universal AC input/Full range.

(a) Signage Support Gantry Structure: Made up of 50mmX50mmX2mm pipes sections for fixing sign board both front and back.

(b) Anchor Plates: To use plates from existing gantry structure RCC Base (M40/50 concrete) of size 900x1800x1800mm each pole.

Type- 'B'

Way finding signage external shall be of Size 36"x8" (4x2Panels,1x1Panels,2x1 panels), way finding Signage Internal (4x1) Panels shall be of Size - 36"x8", dimension may vary as per site requirement conforming to following specifications:-

Signage Panel Sides front and back Illuminated, 1mm aluminum sheet with laser cut graphics, painted to required colour to use as per signage size: 20 w, 40 w, 60 w, 100 w, 150w, constant current mode power supply universal AC input/full range.

Type- 'C'

Establishment Titles, Amenities Signs, Platform Number, Gate Entry/Exit shall be of Size : 3'x1',2'x1.5',5'x1.5' etc, dimension may vary as per site requirement conforming to following specifications:-

Signage Panel, sides - front and back Illuminated, 1mm aluminium sheet with laser cut graphics, painted to required colour to use as per sign size: 20 w, 40 w, 60 w, 100 w, 150w, constant current mode power supply universal AC input/Full range.

Type- 'D'

Layouts sign shall be of size 8'x4' Feet dimension may vary as per site requirement conforming to following specification:-

Signage Panel, Sides - front and back Illuminated, 1mm aluminum sheet with laser cut graphics, painted to required colour to use as per signage size: 20 w, 40 w, 60 w, 100 w, 150w, constant current mode power supply universal AC input/Full range.

7.10 OTHER ACCESSORIES

- (i) **Fixing:** To wall with anchor bolts of 50mmX6mm Size, fixed with HILTI HS V M-12 expansion fastener.
- (ii) **Fixing Hanging Type:** Telescopic pipes of size - 25mmX25mmX10'4' fixed to sign with size bolt of 25mmX6mm size and SS 304 plate of size 75mmX150mmX 3mm with a stiffening bar support and fixed to roof with fastners of size - 75mmX8mm through a 150mmX150mm, SS 304 plate of 4mm thickness.
- (iii) **Fixing Projecting Type:** Two pipes of thickness 50mmX50mmX300mm with SS 304 plate of size - 4"x8"x3mm for anchoring to wall with fasteners of size - 75mmX8mm.
- (iv) **Support Structure:** Support structure of stainless steel grade-304, two square pipe of size- 75mmX75mmX1mm of length 10' fixed with use of SS:304 anchor plates of size - 200mmX2mmX4mm fixed to RCC base with anchor fasteners, RCC Base: size - 24"x18"x18".

Dy. CEE/PS

[Signature]
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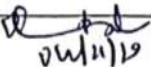
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- (v) **Pole Mounting, Type-I:** Single MS pole mounting with 200mm dia x 5mm x 6m with MS plate base of size 720mmx720mmx20mm with 3mx25mm dia anchor rods (8 each plate) grouted in ground with 1mx1mx1.5m. RCC - M40/50 Conforming to IS: 1239- 2004 or latest HFW pipe of class A.
- (vi) **Pole Mounting, Type-II:** Single MS pole mounting with 300mm/dia x 5mmx 6m with MS plate base of size 920mmx920mmx20mm, with 3mx25mm dia anchor rods (8 each plate) grouted in ground with 1.5mx1.5mx2m. RCC-M40/50 Conforming to IS: 1239-2004 or latest HFW pipe of class A.
- (vii) **Fixtures:** Signage structure made of 40mm round pipes in scissor pattern Conforming to IS: 1239: 2004 HFW pipe of class A.

Note:- (i) The RDSO document regarding 'Functional Requirement Specification' for LED based luminaries for Pit lighting shall be followed.

- (ii) The above changes shall be effective in the specification and remaining spec will be same as per CEE/NR specification no. CEE/NR/121-Elect/PS/2018 (Rev.-'3') dated 28.06.2018.

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NORTHERN RAILWAY

**TECHNICAL SPECIFICATION FOR LED BASED LUMINARIES (INPUT
VOLTAGE SINGLE PHASE 230 VOLT AC, 50Hz) FOR GENERAL
SERVICES APPLICATIONS**

Spec No. CEE/NR/121-Elect/PS/2018 (Rev.-'3') Dated: 28.06.2018

ISSUED BY

**OFFICE OF THE CHIEF ELECTRICAL ENGINEER
BARODA HOUSE, NORTHERN RAILWAY
NEW DELHI**

Valid Till 30.06.2019

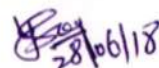
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TECHNICAL SPECIFICATION FOR LED BASED LUMINARIES (INPUT VOLTAGE SINGLE PHASE 230 VOLT AC, 50Hz) FOR GENERAL SERVICES APPLICATIONS AND LED BASED SIGNAGES.

1.0 SCOPE:

This specification defines the requirement of Design, Manufacture, Supply, Testing & Inspection of LED based luminaries/fixtures for various applications such as Street Lights, Office Buildings, Platform Lighting and LED based signages etc. for General services over Northern Railway for indoor & outdoor applications.

2.0 REFERENCE STANDARDS:

The following documents given below are for reference to the manufacturer for design, manufacture, performance, safety, environmental, biological & other type test requirements. In the event of conflict between the documents referenced herein and the contents of this specification, the contents of this specification shall prevail.

IS/IEC:

SN	Specification no.	Description
1.	IEC: 61347-2-13/EN: 61347-2-13/ IS:15885 (Part-2/Sec.-13)-2012	LED Driver Safety Requirements- Lamp control gear; particular requirements for DC or AC supplied electronic control gear for LED modules.
2.	IEC:62384/IS:16104-2012	LED Driver Performance Requirements-DC OR AC supplied electronic control gear for LED modules performance requirements
3.	IS:14700 (Part-4/Section-2)	Standard Testing of LED Driver
4.	CISPR-15/IS:6573, IEC:61547	EMI/EMC tests for LED Driver
5.	IEC: 62031/ IS: 16103 (Part- 1 & 2)- 2012	LED Modules for general lighting- Safety Requirements and Performance Requirements.
6.	IS: 16101-2012	General Lighting-LED/LED module – Terms and Definitions
7.	IS: 16102 (Part-I &II)-2012 & IEC/PAS 62612	Self Ballasted LED Lamps for General lighting Services (Safety Requirements & Performance Requirements).
8.	IS: 16104-2012	Electronic Control Gear for LED modules – Performance Requirements

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9.	LM-80/IS:16105-2012	Approved Method for Measuring Lumen Maintenance of LED Light Source
10.	LM-79/IS:16106-2012	Approved Method for Electrical and Photometric Measurements of Solid State LED Lighting Products.
11.	L-70 (IEC-60081-1997)/IS:16107-Part-2	LED Life Expectancy
12.	IEC:62471/EN:62471/IS:16108-2012	LED Photo Biological Safety requirements.
13.	IEC: 60571/IS: 9000	Luminaries- Environmental Requirements
14.	IEC: 60068-2-38	Environmental Testing/ Humidity Cycle Test
15.	IEC:60332-1/IS: 11000	Luminaries-Fire Retardant Test
16.	IEC:60081-1997 (Annexure-B,C &D)/ANSI_NEMA_ANSLG C78.377-2008	Ra (Colour Rendering Index) Measurement Test
17.	IEC:60529	Luminaries- Ingress Protection Test.
18.	IEC: 60598-2-1/ 60598-1	Fixed General Purpose Luminaries/ Luminaries-General Requirement & Tests
19.	IEC: 61000-3-2	EMC (Electro Magnetic Compatibility)- Limits for Harmonic Current Emission
20.	IS: 513	Specification of Cold Rolled Low Carbon Steel Sheets and Strips
21.	IS: 4905	Method of Random Sampling
22.	IS: 10322 (Part-5/Sec.-1)-2012 & Part-1	Requirements of fixed general purpose LED Luminaries
23.	IEC: 61373	Electric shock Testing

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3.0 COMMON TECHNICAL PARAMETERS FOR ALL TYPES OF LED LUMINARIES:

3.1 GENERAL TECHNICAL REQUIREMENTS:-

- 3.1.1 The suitable connector make-Tyco/Wago/Molex/Phoenix shall be provided for LED connection between driver output and LED for high power LED luminaries and for low power LED fittings connection with confermer coating.
- 3.1.2 The material of grommet shall be of Silicon rubber and PG gland of make-Rotex/Intraflux/Roster/Jigo/Phoenix should be provided.
- 3.1.3 LED of make Nichia/Osram/Samsung/Lumileds/Cree/Seoul.
- 3.1.4 MOV (Metal Oxide Variaster) of make-Epcos/Littlefuse/ Samwha/ Bourns/ Vishay to be provided.
- 3.1.5 The illumination of luminaries will be uniform without dark bands or abrupt variations and smoothing to the eyes.
- 3.1.6 The luminaries works on single phase three core wires system (Phase, Neutral & Earth). Length of 50CM 'ISI' marked three core wire shall be provided with LED luminaries & LED tube light fittings.
- 3.1.7 LM 79 Test report in respect of LED luminaries of manufacturer shall be provided along with supply of material.
- 3.1.8 LM 80 Test report of the LED chip of LED manufacturer shall be provided along with supply of material.
- 3.1.9 Power Factor of luminary shall be ≥ 0.90 at full load.
- 3.1.10 The nominal voltage of luminary shall be 230 Volt AC $\pm 5\%$, 50Hz.
- 3.1.11 The input operating voltage of luminary shall be 140V- 270 Volt AC.
- 3.1.12 The working temperature of luminary shall be -10°C to 50°C
- 3.1.13 The insulation resistance between Earth & current carrying part shorted together shall not be less than 100 M ohm at 60% RH with 500 V megger & after HV test.
- 3.1.14 The complete unit cubicle together with its mounting arrangement shall be subjected to shock testing as per latest IEC 61373.
- 3.1.15 The firm shall provide the technical details as per Annexure-'A' attached.
- 3.1.16 The tolerance limit of technical parameters wherever not given shall be applicable as per relevant IS/IEC.

3.2 LED/ LED LIGHT SOURCE

S.N.	Description	Specification
3.2.1	LED make	NICHIA/OSRAM/SAMSUNG/LUMILEDS/CREE/SEOUL
3.2.2	LED type	<p>(a) For Street Lights, High Mast Lights, Low Bay/Medium Bay/High Bay - High Power LED (Ceramic/EMC package) ($\geq 1\text{watt}$)</p> <p>(b) For LED Bulbs, LED tube light fittings & LED Signages -Low Power LED ($\leq 1\text{ watt}$)</p>
3.2.3	Lumen Output	<p>≥ 140 Lumens/ Watt – For High Power LED</p> <p>≥ 110 Lumens/ Watt – For Low Power LED</p>

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3.2.4	LED Life Expectancy	≥ 50,000 burning hours (To be supported by LM 80 Report & TM21 Report of manufacturer of LED chip)
3.2.5	Beam Angle of LED	120°
3.2.6	Range of Color Temperature	5500-6500K
3.2.7	Color Rendering Index	≥70 – For street lights & high mast fittings ≥80 – For LED Bulbs & LED tube light fittings
3.2.8	LED Wattage	LED should not be operated more than 90% of rated capacity in luminary

3.3 LED DRIVER

3.3.1	Driver type	Constant current driver with short circuit & open circuit protection The LED driver shall be required compulsory registration as per IS: 15885 (Part-2/sec.-13)- 2012 from 'BIS' in favour of tenderer or other authorized manufacturer.
3.3.2	THD (Current)	<10%
3.3.3	Driver Efficiency	Up to 100 watt : >85% (Minimum) Above 100 watt : >90% (Minimum)
3.3.4	Driver components	Industrial Grade or above. Driver current should be less than rated current of component used to meet the rated life.
3.3.5	PCB	PCB shall be FR4 grade minimum 0.8-1.0 mm thick or more to be fixed with high thermal conductive paste or tape on the extruded Aluminum heat sink for Street Light & High Mast Light. For LED Bulbs & LED tube light the same may be provided, if required
3.3.6	Driver Cut in & Cut off Voltage	The driver should be designed at cut in voltage 120 volt AC & cut off voltage at 300 volt AC
3.3.7	Junction Temperature	Switching Device such as Transistors & MOSFETs etc. shall not exceed 85 deg. C (allowing thermal margin of 25 deg. C)

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3.3.8	Surge Protection	<p>(1) <u>Internal Voltage Surge Protection</u> : To protect the luminaire from switching surges, the driver of all luminaries should have internal surge protection of MOV of ≥ 2.5 KV (Metal Oxide Varister) of Make-Epcos/Littelfuse/Samwha/Bourns/Vishay(on board).</p> <p>(2) <u>External (SPD) Surge Protection Device (For Street Light fittings, High Mast Lights, Low Bay/Medium Bay/High Bay)</u>: External Surge protection of minimum 10 KV to be separately installed with the each fixture. (As per ANSI C 136.2- 2014). However, MOV make will be same as per Para 3.3.8 (1)</p>
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4.0 TECHNICAL PARAMETERS FOR LED STREET LIGHT/HIGH MAST LIGHT:
General Technical Requirements of Luminaries Para 3.1, Specification of LED & LED Driver Para 3.2 & 3.3 will remain applicable

4.1	System Lumen efficacy of the complete Luminary	≥ 110 lm/Watt (+/- 5%)
4.2	Finishing	Anodized/Powder coated
4.3	Lamp Cover	Distortion free, clear, heat resistance Toughened Glass of thickness 4.0mm of material make-Mico/Bricker/Asahi/Saint gobain/Borosil/Laopala
4.4	Secondary optics	Polycarbonate Lens make-Ledlink/Ledil/kathod/Optica/Bicom
4.5	Mounting	Suitable for existing pole/ Universal with dedicated mounting Kits/Bracket Mounting of adjustable type.
4.6	Ingress protection	IP-66
4.7	Construction of Housing	Single Housing, Side entry, High Pressure aluminum die cast/extruded aluminum, grey color corrosion resistant polyester powder coating with separate optical and control gear compartments. The housing shall be high conductivity (LM6/ADC12/LM24) with integral heat sink & heat proof silicon rubber.
4.8	Gasket between housing & cover	Silicon Gasket

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4.9	Impact Resistance	IK-07
4.10	Type of Power Supply	SMPS
4.11	Over Voltage Protection	Unit shall withstand 300 Volt AC for One Minute and cut off. It will automatically 'ON' when voltage comes in operating voltage range.
4.12	Reverse Polarity	Shall be operated with Reverse Voltage for Three Minutes at Maximum Value of Voltage Range
4.13	High Voltage Test	Shall be Tested at 1500 Volt AC for One Minute between Supply Terminals & Body of the Unit.
4.14	Fixing of Cover Frame	The cover to be fixed to the housing by means of stainless steel screws.

5.0 TECHNICAL PARAMETERS FOR LED TUBE LIGHT (LAMP) & TUBE LIGHT FITTING:

General Technical Requirements of Luminaries Para 3.1, Specification of LED & LED Driver Para 3.2 & 3.3 will remain applicable

(a) LED TUBE LIGHT (Lamp)

5.1	Type of Tube Light	T8, Indoor Type
5.2	Length	1200mm/600mm (+/- 2%)
5.3	System Lumen Efficacy	100 lm/W (+/- 5%)
5.4	LED tube light lamp construction	The LED tube light (lamp) shall be with inbuilt control driver and designed in such a way that driver should fitted in the LED tube light (lamp) or LED driver shall be fixed to the lamp in such a way that the driver end cap shall be detachable/replaceable and they provide access to the driver which may be replaced if defective.
5.5	Ingress Protection	IP20

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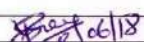
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5.6	Lamp Cover/Diffuser	The diffuser of polycarbonate sheet shall be milky to ensure uniformity of light and Polycarbonate material shall be fire retardant conforming to UL94-VO grade made from "Lexan SP 24-492x" (not less than 0.8-1.0mm thick) of GE plastic/Bayer/Mitsubishi/Sabic/ LG/Makvolon/Samsung make.
5.7	Wattage of LED used in Package	≤1 watt
5.8	High Surge Protection	As per Para 3.3.8 item no. (1)
5.9	LED Tube Light Heat Sink	Fabricated Aluminum for heat sink shall be with proper thermal management
5.10	End Cap (Both ends)	Fixed to the tube rod on both ends in such a way that these shall be detachable/replaceable

(b) BATTEN/ FITTING WITH LED TUBE LIGHT (LAMP)

5.11	Type of Fitting	Suitable for T8 tube light
5.12	Details of Fixture	Suitable for Single /Double Tube Light (lamp)
5.13	Type of Diffuser	Milky
5.14	Mounting Arrangement	The fixture shall be provided with suitable mounting arrangement for wall mounting as well as for platform mounting on steel structure complete with SS mounting clamps
5.15	Tube Holder	The fixture shall be fitted with Bi-Pin G13 holder suitable for T8 tube light (lamp)
5.16	Batten (Box Type)	The batten should be high pressure Die-Cast/ extruded aluminum with ADC12 alloy or CRCA sheet (0.6mm thick) power coated to white colour
5.17	Tube light (lamp)	Specification of Tube light (lamp) will remain applicable as per para 5.0 (a)

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6.0 TECHNICAL PARAMETERS FOR LED BULBS:

General Technical Requirements of Luminaries Para 3.1, Specification of LED & LED Driver Para 3.2 & 3.3 will remain applicable

6.1	Type of Bulbs	LED Bulb up to 23 Watt
6.2	Type of Base	B 22
6.3	System Lumen Efficacy of the Bulb	100 lm/W (+/- 5%)
6.4	High Surge Protection	As per Para 3.3.8 (1)
6.5	Beam Angle of Luminary	270°
6.6	Construction of Housing	Injection molded plastic housing with Aluminum insert minimum thickness 1.0 mm
6.7	Lamp Cover/Diffuser	Polycarbonate milky diffuser shall be fire retardant conforming to UL94-VO grade made from "Lexan SP 24-492x" (not less than 0.8-1.0mm thick) of GE plastic/Sabic/LG/Makvolon/Bayer/Mitsubishi/Covestro make.
6.8	LED Life	≥25,000 burning hours
6.9	Ingress Protection	IP20
6.10	Wattage of LED used in Package	≤1 watt

7.0 TECHNICAL PARAMETERS FOR LED SIGNAGE BOARDS:

General Technical Requirements of Luminaries Para 3.1, Specification of LED & LED Driver Para 3.2 & 3.3 will remain applicable

7.1	Type of Signage	(a) Backlit Signage (b) 3D Character Backlit Signage
7.2	Backlit signage for utility services (a)	SMD (Surface Mounted Device) LED Glow Sign Board etc.
7.3	3D Character Backlit Signage (b)	SMD LED Glow Sign Railway Station Name Boards etc.

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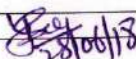
7.4	Color Scheme (a)	Sizes may be referred for the purpose of uniformity and standardization over Northern Railway for Part-I as per Booklet "Signage for Rail users" by Chief Traffic Manager, Delhi, Northern Railway for guidance only. However boards shall be sleek type having thickness equal to or less than 75 mm or 3 inch
7.5	Color Scheme (b)	As per CTM booklet "Signage for Rail uses" for Part-II for guidance only and Size may be decided by Consignee/ Purchaser as per site requirement for station name boards etc. However boards shall be sleek type having thickness equal to or less than 75 mm or 3 inch.
7.6	Luminous Intensity	Backlit Signage: Minimum 990 mcd (milli candela) 3D Character Backlit Signage: Minimum 3000 mcd (milli candela)
7.7	Signage Board	Backlit Signage: Sleek type energy efficient SMD LED based glow sign boards made of MS steel square tube of size 25mm x 25mm x14 gauge for frame and with 24 mm Aluminum, extrusion male- female clip on fixture to catch and release the sheet 3D Character Backlit Signage: The background of board shall be made of 3mm thick ACP (Aluminum composite panel) of prescribed color by consignee. The enclosure shall be fabricated from MS steel square tube of size 25 x 25 mm of 14 gauge.
7.8	Language	All matter shall be written in Hindi, English or other Regional Language in 3 D shape as per purchaser consignee requirement

8.0 GUARANTEE:

The complete luminaire/LED Bulb shall have replacement guarantee for satisfactory performance and manufacturing defects for a period of 60 months from the date of commissioning or 72 months from the date of supply whichever is earlier.

9.0 IDENTIFICATION:

The firm shall embossed/engraved firm name, month & year of manufacture, guarantee period, serial number, rated input voltage & wattage inside & outside the fittings and also screen print on LED Panel and LED Driver, the firm name & year of manufacturing.

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10.0 INSPECTION:

The Inspection shall be done by M/s RITES at manufacturers works. In case of works tender, respective Branch Officer will decide/deviate for consignee inspection with proper justification. The manufacturer should have full facility for carrying out acceptance tests as per IS/IEC specification shall be made available by the manufacturer to inspecting authority at manufacturers cost. The inspection of material shall be carried out as per Railway Board letter no. 2000/RS(G)/379/2 dated 10.09.2013 for minimum value of Stores or latest instruction issued from Railway Board.

11.0 TESTS:

The LED, LED driver and luminaries shall be tested with the applicable IS/IEC reference standards given in Para 2.0 of this specification.

11.1 TYPES OF TESTS:**11.1.1 Type Tests:**

Inspecting Agency M/s RITES will verify the documents available with the firm for type tests mentioned in Para 11.1.4 carried out from Govt. Laboratory/National/International Accredited Laboratory to ensure the confirmation with the requirement of specification for the luminaries. For signages, Type Tests mentioned in Para 11.1.4 are not applicable. However, for signages following checks are applicable to Para 7.4, 7.5, 7.6 & 7.7.

11.1.2 Acceptance Tests:

These tests shall be carried out by an Inspecting Agency at the manufacturer works on sample taken from a lot for the purpose of acceptance of material.

11.1.3 Routine Tests:

These tests shall be performed by the manufacturer on each item and the records shall be shown to the Inspecting Agency during the inspection of lot offered for acceptance tests.

11.1.4 TESTS SCHEME:

SN	Description of test	Reference Para of the specification	Type Test	Acceptance Test	Routine Test
1.	Visual and Dimension Check	As per requirements	-	Y	Y
2.	Checking of documents i.e. Bills/Invoice for purchase of LED	Para 3.2.1	-	Y	Y

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3.	Checking of documents of purchase of Connector, Grommet, PG gland, LED Driver & LED Driver Components, MOV	Para 3.1.1 for Connector Para 3.1.2 for Grommet & PG Gland Para 3.3.1 & 3.3.4 for LED Driver & LED Driver Components Para 3.1.4 for MOV	-	Y	Y
4.	Checking of documents of Lamp Cover, Secondary Optics, Diffuser,	Para 4.3 for Lamp Cover Para 4.4 for Secondary Optics Para 5.6 & 6.7 for Diffusers	-	Y	Y
5.	Operating Voltage	Para 3.1.10	-	Y	Y
6.	Input Voltage Range of Luminary	Para 3.1.11	-	Y	-
7.	Over Voltage Protection	Para 4.11	Y	Y	-
8.	HV Test	Para 4.13	-	Y	-
9.	Power Factor	Para 3.1.9 As per IS: 16102 (Part 2)- 2012 Para 15	Y	Y	-
10.	Harmonics (THD)	Para 3.3.2 As per IS: 16102 (Part 2)- 2012 Para 15	Y	--	-
11.	Type of power Supply (SMPS)	Para 4.10	-	Y	Y
12.	High Power LED ≥ 1 watt	Para 3.2.2 (a)	Y*	-	Y
13.	Low Power LED < 1 watt	Para 3.2.2 (b), Para 5.7 & Para 6.10	Y*	-	Y
14.	Beam Angle - LED	Para 3.2.5 (Covered under LM80)	Y*	-	-
15.	LED Life Test (L-70 & TM-21)	Para 3.2.4 & Para 6.8	Y*	-	-
16.	All Tests as per LM-79	Para 3.1.7	Y	-	-
17.	All Tests as per LM-80	Para 3.1.8	Y*	-	-
18.	LED Driver Cut in & Cut off Voltage	Para 3.3.6	Y	-	-
19.	LED Driver Efficiency	Para 3.3.3	Y	-	-
20.	LED Driver Certificate from BIS	Para 3.3.1	Y*	-	-

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21.	High Surge Protection (Street Lights)	Para 3.3.8 (1 & 2)	Y	-	-
22.	Surge Protection (LED Bulbs & LED Tube Lights)	Para 3.3.8 (1), Para 6.4 and Para 5.8	Y	-	-
23.	System Lumen Efficacy	Para 4.1, Para 5.3 & Para 6.3	Y	Y	-
24.	3 Core wire of 50 CM length	Para 3.1.6 (IS: 694)	-	Y	Y
25.	Beam Angle of Luminaries	Para 6.5	Y	-	-
26.	Checking of Tube Light Length & Batten	Para 5.2 & Para 5.17	-	Y	-
27.	Type of Base for LED Bulb	Para 6.2 (As per IS: 16102 (Part 1-2012) Para 6.1)	-	Y	-
28.	Finishing of Luminaries	Para 4.2	-	Y	Y
29.	Mounting of Luminary	Para 4.5 & Para 4.14	Y	Y	-
30.	Construction of Housing of Luminary	Para 4.7 & Para 6.6	Y	Y	-
31.	Gasket of Luminary	Para 4.8	-	Y	Y
32.	Impact Resistance of Luminary	Para 4.9	Y	-	-
33.	Checking of PCB	Para 3.3.5	Y	-	-
34.	Lux Measurement	IS: 16106- 2012, Para 11.0	-	Y	Y
35.	Fire Retardant Test	UL94-VO	Y	-	-
36.	Reverse Polarity	Para 4.12	-	Y	Y
37.	Protection Against Electric Shock	Para 3.1.14 IEC: 61373	-	Y	Y
38.	Junction Temperature	Para 3.3.7	Y	-	-
39.	Working Temperature	Para 3.1.12 IS: 16105- 2012, Para 4	Y	-	-
40.	Wattage Measurement Test	Para 3.2.8 & Para 6.1	-	Y	-
41.	Insulation Resistance Test	Para 3.1.13	-	Y	-

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42.	Ra (Color Rendering Index) measurement test	Para 3.2.7 (cover under LM80)	Y*	-	-
43.	CCT (Correlated Colour Temperature)	Para 3.2.6 (Covered under LM80)	Y*	-	-
44.	Test for IP Protection	Para 4.6, Para 5.5 & Para 6.9	Y	--	-
45.	Identification	Para 9.0	-	Y	Y
46.	Luminous Intensity Test For Signages	Para 7.6	-	Y	-
47.	Signages Board	Para 7.4,7.5 & 7.7	-	Y	-

Y - Lab Test Report Documents

Y*- Document to be submitted from OEM

Note: The references for preparation of this specification have been drawn from the RCF specification no. RCF/EL/PS/LED/001, RCF/EL/PS/LED/002 and RDSO specification no. RDSO/PE/Spec./TL/0091-2016 (REV. "1") dated 05.07.2016 for LED luminaries for coaches, relevant information from divisions/HQ of Northern Railway and technical specification of the tender documents for LED luminaries of CPWD & EESL as well as the known developments on LED based lights technology. However, the specification will be reviewed after validation of 30th June '2019' and thereafter to include the developments on LED based technology, if any.

Validity: 30.06.2019

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ANNEXURE-'A'

SN	Description Para as Per specification	Technical Requirement as per specification no. CEE/NR/121-Elect/PS/2018 (Rev.-'3') dated XX.06.2018	Technical Parameter offered by the Firm
Common Technical Parameters For All Types of LED Luminaries			
1.	LED make	NICHIA/OSRAM/SAMSUNG/LUMILEDS/CREE/SEOUL	
2.	Lumen Output	≥140 Lumens/ Watt – For High Power LED ≥110 Lumens/ Watt – For Low Power LED	
3.	Range of Color Temperature	5500-6500K	
4.	Color Rendering Index	≥70 – For street lights & high mast fittings ≥80 – For LED Bulbs & LED tube light fittings	
5.	Driver type	Constant current driver with short circuit & open circuit protection The LED driver shall be required compulsory registration as per IS: 15885 (Part-2/sec.-13)- 2012	
6.	THD (Current)	<10%	
7.	Working Temperature	-10°C to 50°C	
(A) For Street Light/High Mast Light			
(i)	System Lumen efficacy of the complete Luminary	≥110 lm/Watt (+/- 5%)	
(ii)	Ingress protection	IP-66	
(iii)	Surge Protection	1. Internal Voltage Surge Protection : MOV of ≥2.5 KV (Metal Oxide Varistor) of Make-Epcos/Littelfuse/Samwha/ Bourns/ Vishay (on board). 2. External (SPD) Surge Protection Device (For Street Light fittings, High Mast Lights, Low Bay/Medium Bay/High Bay): External Surge protection of minimum 10 KV to be separately installed with the each fixture.	
(iv)	Over Voltage Protection	Unit shall withstand 300 Volt AC for One Minute and cut off. It will automatically 'ON' when voltage comes in operating voltage range	
(v)	Wattage of LED used	≥1 watt	
(B) For Tube Light Fitting/Lamp			
(i)	System Lumen efficacy of the complete Luminary	≥100 lm/Watt (+/- 5%)	
(ii)	Ingress protection	IP-20	
(iii)	Surge Protection	MOV of ≥2.5 KV (Metal Oxide Varistor) of Make-Epcos/ Littelfuse/ Samwha/Bourns/Vishay (on board)	

Dy. CEE/PS

SSE/PS

(iv)	Wattage of LED used	≤1 watt	
(iv)	LED tube light lamp construction	The LED tube light (lamp) shall be with inbuilt control driver and designed in such a way that driver should fitted in the LED tube light (lamp) or LED driver shall be fixed to the lamp in such a way that the driver end cap shall be detachable/replaceable and they provide access to the driver which may be replaced, if defective	
(C) For LED Bulb (Lamp)			
(i)	Wattage of Bulb	Wattage as per description	
(ii)	Type of Base	B 22	
(iii)	System Lumen Efficacy of the Bulb	100 lm/W (+/- 5%)	
(iv)	High Surge Protection	MOV of ≥2.5KV (Metal Oxide Varister) of Make-Epcos/Littlefuse/Samwha/Bourns/Vishay (on board)	
(v)	Beam Angle of Luminary	270°	
(v)	Ingress protection	IP-20	
(vi)	Wattage of LED used	≤1 watt	

Dy. CEE/PS

SSE/PS

CHAPTER V
SCHEDULE OF PRICES

	Performa for quoting rates and	Summary of Prices
1	Schedule of Quantities of Items and Rates (SOR ITEM)	Schedule -A
2.	Schedule of quantities of items and rates (Non Schedule items)	Schedule-B

PROFORMA FOR QUOTING RATES

SUMMARY OF PRICE

SCHEDULE GROUP – A (SOR ITEMS)

(All figures in Rupees)

S. No.	Description	Total cost as per updated rates/quantities indicated against all SOR items	%age rate above/ below/ at par (in figures and in words) (to be quoted by tenderer)
1.	All items of SOR given in Schedule Group –A	₹ 27,22,854.07 ₹ Twenty Seven Lakhs Twenty Two Thousand Eight Hundred and Fifty Four and Paisa Seven only	

SCHEDULE GROUP – B (Non-SOR ITEMS)

(All figures in Rupees)

S. No.	Description	Total cost as per updated rates/quantities indicated against all SOR items	Item wise rates (in figures and in words) (to be quoted by tenderer)
1.	All items of Non-SOR given in Schedule Group – B	₹ 2,22,22,025/- ₹ Two Crore Twenty Two Lakhs Twenty Two Thousand and Twenty Five only	

GROSS TOTAL: ₹ 2,49,44,879.07

Note:

1. In case tender documents have been downloaded from internet, Clause no. 2.1.2(a) of Chapter-1, Tender Form (Second Sheet) **Instructions to tenderers and conditions of tender** should be gone through carefully before tendering.
2. Tenderer/s will quote only one percentage rate above/below/at par against rates in Proforma for **Schedule items Group-A** given above for the purpose and tenderer/s will quote item wise rates for **Group B** failing which his/their offer will be treated as incomplete and shall be summarily rejected.

TENDER FORM (THIRD SHEET)**GROUP -A****No. 17-Elect./C/T/GPS /UMB/66**

Name of Work: General Power Supply work for Electrification of Station Buildings, Service Buildings, Circulating Area including illumination of Station Building, Service Buildings in c/w Redevelopment/Soft Upgradation of Rajpura Station and any other site under the jurisdiction of Dy. Chief Electrical Engineer/Const./Moradabad.

This schedule shall be read in conjunction with its explanatory notes for detailed description for various items included therein: Rates given below against different items of work are standard schedule of rates. Rates at which payments are to be made shall be arrived at by loading these rates uniformly with percentage quoted by tenderer in Summary of Prices.

**SCHEDULE OF RATES AND QUANTITIES
(FOR SOR ITEMS)**

SN	SOR Item No.	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
					In Figures	In Words	
1	2	3	4	5	6	7	8
1	1	Supply and recessing / fixing of MS / PVC conduit pipe with accessories, junction box etc. including making Chase, plastering /clamping etc as. Per technical specification.					
		PVC conduit pipe conforming to IS - 9537 part III/1983 (Latest Version)					
	(i)	25 mm medium/heavy	Mtrs.	4500	31/-	Thirty One Only	Rs. 1,39,500/-

Signature of Tenderer

DY.CEE/C/MB

AEE/C/UMB

SSE/E/C/UMB

2	5	Supply of Batten/Angle Holder/Ceiling rose & installation on the Junction Box of laid conduit including connections, Testing & commissioning as per Tech. Specification.					
i	a)	Bakelite batten/Angle Holder	No	10	10/-	Ten only	Rs. 100/-
ii	b)	Bakelite ceiling rose 3 plate	No	700	11/-	Eleven only	Rs. 7,700/-
3	10	Fabrication of weather proof distribution board as per drawing approved by Railway with 2mm thick CRCA sheet, duly painted, suitable for operation on single phase 230 Volts AC supply system complete with 6 No./4 No.-32 Amps. Porcelain Kit-kat Fuse, Neutral link, earthing, inter connections, supply, recessing, testing & commissioning as per tech. Specification Approx. size 400x250x135mm. b) Comprising with 4 nos. 32 Amps. Porcelain kit-kat fuse & neutral link.	Nos.	20	375/-	Three Hundred and seventy five only	Rs. 7,500/-
4	20	Earthing with 40 mm dia GI pipe class 'B', 3 meter long earth electrode as per IS:3043 (Latest Version) to achieve earth resistances less than 5 ohms including construction of masonry enclosures with hinged cover plate of cast iron with locking arrangement (approx. size 400mmx400mm) on top, provision of earth plate, connections from earth electrode to switch gear/pole as per drawing.	Job	70	883/-	Eight hundred eighty three only	Rs. 61,810/-
5	23	Laying, underground/road/Railway track, recessing in platform /wall along with Rly. Track/in laid RCC/GI pipe as required 1.1 KV grade LT XLPE insulated armoured, aluminium conductor cable including making chase & plastering after laying of cable/digging of cable trench, sand cushioning, protective covering with second class bricks, provision of cable route marker as per Tech. Specfn. including					

		end terminations with Alu. Crimping socket/lugs, testing and commissioning of following sizes :- Note: Cable will be supplied from the store of SSE/E/C/UMB, SSE/E/C/MB, SSE/E/C/JUC store and will be transported at site/s by the contractor within the quoted rates.					
i	a)	Up to 25 sq mm.	Meter	7000	30/-	Thirty only	Rs. 2,10,000/-
ii	b)	Above 25 sq mm to 120 sq mm	Meter	7500	31/-	Thirty one only	Rs. 2,32,500/-
iii	c)	Above 120 sq. mm.	Meter	5000	31/-	Thirty one only	Rs. 1,55,000/-
6	30(a)	Supply and laying of GI pipe class B ISI marked under road/clamping with erected pole or wall as per technical specifications given in explanatory notes and drawing as approved by Rlys for passing cable of following sizes: -					
	i)	50 mm dia	Meter	600	126/-	One hundred twenty six only	Rs. 75,600/-
	ii)	100 mm dia	Meter	300	291/-	Two hundred ninety one only	Rs. 87,300/-
7	33	Supply and recessing/ fixing on surface 6 SWG, GI wire for loop earthing as required as per technical specification.	Meter	1400	5/-	Five only	Rs. 7,000/-
						Total	Rs. 9,84,010.00
Average Loading 176.71% of SOR Cost as per average of accepted Tender copy placed at S. No _____							Rs. 17,38,844.07
Total							Rs. 27,22,854.07

TENDER FORM (THIRD SHEET)**GROUP -B****No. 17-Elect./C/T/GPS/UMB/66**

Name of Work: General Power Supply work for Electrification of Station Buildings, Service Buildings, Circulating Area including illumination of Station Building, Service Buildings in c/w Redevelopment/Soft Upgradation of Rajpura Station and any other site under the jurisdiction of Dy. Chief Electrical Engineer/Const./Moradabad.

This schedule shall be read in conjunction with its explanatory notes for detailed description for various items included therein: Rates given below against different items of work are standard schedule of rates. Rates at which payments are to be made shall be arrived at by loading these rates uniformly with percentage quoted by tenderer in Summary of Prices.

**SCHEDULE OF RATES AND QUANTITIES
(FOR NON-SOR ITEMS)**

N S Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	
1	2	3	4	5	6	7
NS 1	One Job consists of dismantling of one Rail pole / Tubular pole by digging / cutting from the ground level (min 450 MM) including removing of overhead conductor, bracket, insulators, earth wire, guard wire etc. and transport the same from site to the store of SSE(E)/C/UMB or any other designated site as given by SSE/E/C/UMB. Note:- (dismantling will be done in the presence of site supervisor with proper safety arrangement.)	No.	20	1,397/-	One thousand three hundred and ninety seven only	Rs. 27,940/-

Signature of Tenderer

DY.CEE/C/MB

AEE/C/UMB

SSE/E/C/UMB

NS2	Supply and erection of 5 m high hot dip galvanized octagonal pole with top 70 mm around face bottom 130 mm around face made of 3 mm thick base plate size 200x200x12 mm complete with appropriate sleeve at the top of the pole for mounting single arm bracket 300 mm long suitable for 45-50 watt LED street light fitting including casting, muffing with cement concrete foundation(1:2:4) painting, earthing and foundation GI Nut bolt of suitable length with washer and smart pack, junction box with single pole MCB & terminal and as per explanatory note.					
a)	Single arm	Nos.	35	11,243/-	Eleven thousand two hundred and forty three only	Rs. 3,93,505/-
b)	Double arm	Nos.	10	12,695/-	Twelve thousand six hundred and ninety five only	Rs. 1,26,950/-
NS 3	Supply & fixing of complete 18-20 Watt LED tube light fitting 1200 mm integrated with aluminium Extrusion base with LED & driver, decorative pin type caps & copper contacts with diffuser made of transparent polycarbonate with tube light, operating voltage single phase 230 Volt AC, 50Hz conforming to CEE/NR specification no. PCEE/NR/121-Elect/PS/2019 (REV.-'4'), dt:04.11.2019 (Attached) or latest	Nos.	500	693/-	Six hundred and ninety three only	Rs. 3,46,500/-
NS 4	Supply, erection, fixing, testing & commissioning of industrial type fresh air Fan size 380 mm sweep 230 Volt AC 50 Hz ISI marked approved make complete in all respect as per tech. specification/site requirement.	Nos.	15	3,821/-	Three thousand eight hundred and twenty one only	Rs. 57,315/-

NS 5	Supply, erection, fixing, testing & commissioning of polycarbonate type fresh air Fan size 12"/300 mm sweep 230 Volt AC 50 Hz ISI marked approved make complete in all respect as per tech. specification/site requirement.	Nos.	10	2,181/-	Two thousand one hundred and eighty one only	Rs. 21,810/-
NS 6	Design, fabrication, supply, testing, commissioning of Feeder pillar (size-0.4mx0.4mx0.5m) made of angle iron size-40x40x6 mm covered from all sides with MS sheet 20 SWG Including door with hinge, locking arrangement, nut & bolts, Aluminium bus bar (size-35x05x400 mm), Bakelite gutka, cable glands, Earthing points, cement, sand, interconnections etc. and painting with two coats of enamel gray paint over a coat of red oxide primer for antirust complete in all respect & as per site requirement.	Nos.	15	5,427/-	Five thousand four hundred and twenty seven only	Rs 81,405/-
NS 7	Supply, fixing, testing and commissioning of TPN distribution board 4 way complete with TPN MCCB 63/100 Amps. (FP) adjustable type 01 no. (35 KA) and MCB SP 6-32 Amps. 18 nos. (6 nos. on each phase) (10 KA) complete in all respect as per site requirement/IE rule & technical specification.	Nos.	32	11,082/-	Eleven thousand and eighty two only	Rs. 3,54,624/-
NS 8	Design & manufacture, supply, installation, fixing, testing & commissioning of 8 way MCB distribution board, dust & vermin proof, 3 phase, 4 wire 415 Volt, AC supply system. The switch board shall be complete with inter connections, instrument connections with copper conductor cable as per IS 13032, phosphatised & painted with epoxy polyester based powder paints. Three phase double door sheet steel enclosure detachable gland plates, flush/surface mounting for MCB's fitted with busbars, earth bars & neutral links etc. of suitable capacity, comprising of following i.e double door 8 way distribution board 1 no.1x40 A. MCB DP 10 KA, 240/415 V., 50 Hz & 6x6-32 A. MCB SP 10 KA, 240/415 V, 50 Hz complete in all respect as per site requirement/IE rule & tech. specification	Nos.	25	3,642/-	Three thousand six hundred and forty two only	Rs. 91,050/-

NS 9	Supply and drawing of the following Sizes FRLS PVC insulated multi-stranded copper conductor single core flexible cable conforming to IS 694 (latest version) in laid (recessed/Surface) MS/PVC/HDG Conduit pipe for wiring of point wiring/circuit wining/Sub main/Main as required & as per explanatory note including drawing, connection testing and commissioning					
a)	1.5 sq. mm.	Mtr	8000	19/-	Nineteen only	Rs. 1,52,000/-
b)	2.5 sq. mm.	Mtr	12000	34/-	Thirty four only	Rs. 4,08,000/-
c)	4 sq. mm.	Mtr	12500	47/-	Forty seven only	Rs. 5,87,500/-
d)	6 sq. mm.	Mtr	6000	67/-	Sixty seven only	Rs. 4,02,000/-
e)	10 sq. mm.	Mtr	2000	90/-	Ninety only	Rs. 1,80,000/-
NS 10	Supply and laying of GI Strip of size 25x5 mm (galvanized) conforming to relevant IS below 300 mm deep in ground/recessing in floor as required and as per explanatory note including connection with earth electrode to equipment.	Mtrs.	450	98/-	Ninety eight only	Rs. 44,100/-
NS 11	Installation, testing and commissioning of 2.0 Split AC as per explanatory note. Note: AC shall be supplied from the store of SSE/E/C/UMB, SSE/E/C/MB, SSE/E/C/JUC store and will be transported at site/s by the contractor within the quoted rates.	Nos.	20	2,139/-	Two thousand one hundred and thirty nine only	Rs. 42,780/-
NS 12	Supply, installation and commissioning of light, wall mounted voltage stabilizer conforming to IS: 8448 suitable with torroidal case transformer having capacity 5 kVA , input voltage 130-300 V and output voltage 220-240 V, MCB 32 A, time delay relay (2-4 mins) with soft touch type	Nos.	25	7,398/-	Seven thousand three hundred and ninety eight only	Rs. 1,84,950/-

	instant and start switch, under voltage and over voltage cut off with indicators, Digital voltmeter and ammeter with soft type selector switch for measuring input and output voltage, indicator for power ON and timer ON, IS:8448 Latest version with RDSO/ISO/BIS equivalent certification.					
NS 13	Supply, Installation, testing and commissioning of following Modular accessories as per explanatory note.					
(a)	Snap switches 6/10 A single pole	No	850	133/-	One hundred and thirty three only	Rs. 1,13,050/-
(b)	Snap switches 16 A single pole	No	150	174/-	One hundred and seventy four only	Rs. 26,100/-
(c)	10 A Sockets with safety shutter	No	300	165/-	One hundred and sixty five only	Rs. 49,500/-
(d)	Power sockets with safety shutter 16 A	No	150	281/-	Two hundred and eighty one only	Rs. 42,150/-
(e)	Fan step regulator 230 V	No.	60	380/-	Three hundred and eighty only	Rs. 22,800/-
(f)	Blank plate single	No	120	55/-	Fifty five only	Rs. 6,600/-
NS 14	Supply and fixing of the following sizes of modular screwless plate with mounting steel frame of approved make on already fixed above modular boxes and as per explanatory note					
a)	3 Module	Nos.	50	263/-	Two hundred and sixty three only	Rs. 13,150/-

b)	4 Module	Nos.	150	193/-	One hundred and ninety three only	Rs. 28,950/-
c)	6 Module	Nos.	50	291/-	Two hundred and ninety one only	Rs. 14,550/-
d)	8 Module	Nos.	50	383/-	Three hundred and eighty three only	Rs. 19,150/-
e)	12 Module	Nos.	70	479/-	Four hundred and seventy nine only	Rs. 33,530/-
NS 15	Supply and laying of HDPE pipe with outer dia 160 mm and inner dia 140 mm as per relevant IS and explanatory note.	Mtr	1000	1,591/-	One thousand five hundred and ninety one only	Rs. 15,91,000/-
NS 16	Supply and erection of sheet enclosure made out of 16 SWG MS sheet hylem sheet, locking arrangement consisting of 1x32 DP MCB power coated paint and other connected accessories etc.	Nos.	25	1,713/-	One thousand seven hundred and thirteen only	Rs. 42,825/-
NS 17	Supply of 16 meter height mast lighting system complete with raising lowering arrangement and suitable Lantern Carriage for 9x150 Watt LED Light luminaries and control gear including accessories like lighting conductor, aviation neon light, integral drum winch compensating disc head frame, power tool, manual tool, double frame with foundation bolts etc. including casting of RCC foundation as recommended by manufacturer and as per explanatory note including erection, testing and commissioning.	Nos.	2	3,19,430/-	Three lakhs nineteen thousand four hundred only	Rs. 6,38,860/-
NS 18	Design, manufacture supply, installation, testing & commissioning of double door timer control panel suitable to operate 3 phase 4 wire 415 Volt AC supply system for automatic switching OFF & ON of all luminaries as per	Nos.	2	23,563/-	Twenty three thousand five hundred and sixty three only	Rs. 47,126/-

	technical specification with following accessories: -MCB (TPN) 63 A, B/C 10 KA-01 No -Timer with CM 40 contactor chargeable cells/battery-1 No., -Toggle switch-1 No.					
NS 19	Fabrication, supply and erection of Fencing around the high mast in square shape size 2MX2M and height 1.5 M from ground level fabricated from MS angle size 40x40x6 mm, MS flat size 40x6 mm AND WIRE MESH MADE OF 8 SWG wire and 1M wide hinged type lockable door as per drawing approved by Railway including grouting, CC platform around the high mast above 0.30 M above ground level and painting etc. and as per technical specification.	Nos.	2	7,513/-	Seven thousand five hundred and thirteen only	Rs. 15,026/-
NS 20	Supply of 150 Watt LED based Flood light fitting with all accessories including testing, commissioning and earthing including connections with 2x2.5 sq.mm PVC insulated multi-stranded ISI marked copper conductor cable from Junction Box to fitting as per PCEE/NR/121-Elect/PS/2019 (REV.-'4'), dt:04.11.2019 (Attached) or latest and as per explanatory note.	Nos.	24	19,954/-	Nineteen thousand nine hundred and fifty four only	Rs. 4,78,896/-
NS 21	Supply, erection, fixing, testing & commissioning of BLDC Ceiling Fan of sweep 1200 mm, Air delivery range from 210 cubic metre per minute to 220 cubic metre per minute and input power consumption range from 26 W to 35 W (Star Rating- 5 Star, Service Value - 6 & above cubic metre per minute per watt) with remote/fan regulator as per requirement for speed control of fan suitable for operation on 1 Ph, 50 Hz, 240 V power supply system (conform to all the performance requirements laid down in IS 374:2019 including all amendments, as applicable). If required at site, Down rod up to 600 mm during installation/commissioning shall be provided by the contractor within the quoted rates.	Nos.	50	3,030/-	Three thousand and thirty only	Rs. 1,51,500/-

NS 22	Supply, fixing, testing & commissioning of LED light luminaries 595 X 595 mm size, Tile type, having system wattage 36-45 Watt, CRCA body powder coated, high efficiency milky white PMMA diffuser with no bright spot visible, complete with all mounting arrangement accessories conforming to CEE/NR specification no. CEE/NR/121- Elect/PS/2018 (REV-3), dt. 28.06.2018 & PCEE/NR/121-Elect/PS/2019 (REV.-'4'), dt: 04.11.2019 (Attached) or latest.	Nos.	80	4,832/-	Four thousand eight hundred and thirty two only	Rs. 3,86,560/-
NS 23	Supply and fixing of RCCB 2P 25 A 30 mA with metal enclosure. RCCB and metal enclosure should be of same make of reputed manufacturer and as per specification.	Nos.	5	2,538/-	Two thousand five hundred and thirty eight only	Rs. 12,690/-
NS 24	Supply, testing and fixing of 10-15 Watts LED downlighter fitting Square/Round (Recess/Surface) complete conforming to Specification. No. CEE/NR/ 121-Elect./ PS/ 2018 Rev.-3 & Pr.CEE / NR/121-Elect./ PS/ 2019 Rev.-4 or latest complete with all accessories, connections, testing, commissioning & earthing required and as per explanatory note.	Nos.	120	798/-	Seven hundred and ninety eight only	Rs. 95,760/-
NS 25	Supply, testing and fixing of Decorative LED Mirror Light Fitting 10-12 Watt conforming to Specification. No. CEE/NR/ 121-Elect./ PS/ 2018 Rev.-3 & Pr.CEE / NR/121-Elect./ PS/ 2019 Rev.-4 or latest complete with all accessories, connections, testing, commissioning & earthing required and as per explanatory note.	Nos.	40	798/-	Seven hundred and ninety eight only	Rs. 31,920/-
NS 26	Design, Manufacture, supply, Installation, fixing, testing & commissioning of Outdoor type 415 V. AC. Precooling cum 110 Volt DC Battery Charging Box shall be fabricated with MS Sheet 3 mm thick & MS angle of size 40x40x5 mm. The Box shall be out door type, floor mounted, weather, dust & vermin proof with degree of protection IP54. It shall be divided into two compartments lockable	Nos.	7	25,618/-	Twenty five thousand six hundred and eighteen only	Rs. 1,79,326/-

	and double Earthing terminal, Separate detachable plate 3 mm thick MS Sheet for both compartments shall be provided 100 mm dia hole for I/C &O/G cables. The box shall be painted with powder coating of approved colour thickness not less than 40 microns. (a) Ist compartment shall be suitable for accommodating 01No.125 A.4 Pole MCCB fixed type of 35 KA breaking capacity & conforming to IS 13947/Part II & IEC 60947/2, 01 No. 125 A. 5 pin (3P+N+E) 415 V Panel mounted Socket with spring locked cover, 01 No. 125 A. 5 pin (3P+N+E) 415 V Plug confirming to IEC 309/1 & 2, 01 No. 16 Amps, 3 pin (2P+E) 250 V. Panel mounted Socket with spring locked cover, 01 No. 16 Amps, 3 pin (2P+E) 250 V. Plug confirming to IEC 309/1 & 2 and 200 Amps Al. Bus Bars for Phase & Neutral. (b) 2nd compartment shall be suitable for accommodating 01 No.32 Amps. DC series MCB DP suitable for 130 V. DC Supply, 01 No. Panel mounted 32 A. 3 pin (2P+E) Socket with spring locked cover, 01 No. 32 A. 3 pin (2P+E) Plug confirming to IEC 309/1 & 2 and 200 A Al. Bus Bars for two Positive & one Negative should be fixed on fiber sheet with PVC sleeve colour coded. The box shall be grouted in ground with cement, mortar mixture (1:2:4) with muffing complete in all respect.					
NS 27	Design, manufacturing, supply, fixing & commissioning of 2 mm thick hot dip galvanized cable tray of under mentioned sizes with all accessories such as corner, bend tie rods etc as per site requirement and to the satisfaction of railway authority					
a)	50x300x50 mm	Mtrs	800	1,063/-	One thousand and sixty three only	Rs. 8,50,400/-
b)	50x150x50 mm	Mtrs	1200	933/-	Nine hundred and thirty three only	Rs. 11,19,600/-

NS 28	Supply, fixing, testing and commissioning of surface mounted/flush type power unit complete with 4 modular plate, 25 A MCB, starter, plug & socket for AC. Make Legrand, Havells, Crabtree, Wipro, Cona, anchor or equivalent as per IS & IE rules.	Nos	20	655/-	Six hundred and fifty five only	Rs. 13,100/-
NS 29	Supply and erection of copper Pipes with insulation of following size outer dia:					
a)	1/2 inch	Mtrs	200	530/-	Five hundred and thirty only	Rs. 1,06,000/-
b)	1/4 inch	Mtrs	200	395/-	Three hundred and ninety five only	Rs. 79,000/-
NS 30	Design, Manufacture Supply, erection, testing & Commissioning of outdoor feeder pillar type 13 panel LT Distribution system suitable for 3 phase 4 wire 415 V AC supply system comprising: i) I/C MCCB 4P 125 A with 35 KA B/C -1No. ii) Out going MCCB 4P 63 A with 35 KA B/C -8Nos. iii) Out going MCCB 40 A 4P with 35 KA B/C- 4Nos. iv) Out going MCB 32 A DP with 10 kA B/C- 6 Nos. The Panel shall be complete with 150 Amps. Copper bus bars for Phases and 75 Amp. for Neutral, 3 phase 4 wire 415 Volt as per drawing approved by Railways and explanatory note, voltmeter on incoming panel, digital amperes meter with selector switch and electronic energy meter on each O/G panels and as per explanatory note. Rectangular RCC platform up to height of 30 cm from ground level shall be provided for installation wherein the provision of incoming and outgoing cables shall also be provided through flexible HDPE/DWC pipes of sufficient diameters.	Nos.	2	2,03,041/-	Two lakh three thousand and forty one only	Rs. 4,06,082/-

NS 31	Design, Manufacture, supply, erection, testing & commissioning of LT switch board suitable for 3 Phase, 4 wire 415 Volts, AC supply system comprising with: (I) Incoming 400 Amp 4 P 35 KA B/C MCCB = 1 NO (ii) Outgoing 250 Amp 4 P 35 KA B/C MCCB = 3 NOS (iii) Outgoing 125 Amp 4 P 35 KA B/C MCCB = 3 NOS (ii) Outgoing 63 Amp 4 P 35 KA B/C MCCB = 3 NOS The panel shall be complete with 400 Amp Copper Bus Bars for Phases and 200 Amp for Neutral 3 phase 4 wire 415 volt, voltmeter on incoming panel, digital amperes meter with selector switch and electronic energy meter on each O/G panels and as per explanatory Note. Rectangular RCC platform up to height of 30 cm from ground level shall be provided for installation wherein the provision of incoming and outgoing cables shall also be provided through flexible HDPE/DWC pipes of sufficient diameters.	Nos.	1	3,00,690/-	Three lakhs six hundred and ninety only	Rs. 3,00,690/-
NS 32	LT PTTA with IP-65 protection with canopy Junction box - Design, manufacturing, supply, install, testing, erection and commissioning of junction box with 250-320 Amps MCCB, 4-Pole 36 kA & rotary operated mechanism, FP spreader with Aluminium bus bar. As per specification	Nos.	1	45,167/-	Forty five thousand one hundred and sixty seven only	Rs. 45,167/-
NS 33	Dismantling, Shifting and Re-installation of 19 KWp Solar Power Plant along with BOS and transportation. ii) I&C Charges	KWp	100	5,985/-	Five thousand nine hundred and eighty five only	Rs. 5,98,500/-
NS 34	Supply, Fixing, testing & commissioning of 60 watt designer ceiling fan without regulator 1200-1400 mm white colour length of down rod min. 600 mm.	Nos	30	6,720/-	Six thousand seven hundred and twenty only	Rs. 2,01,600/-
NS 35	Excavation of cable trench by cutting/breaking station platform concrete/pucca floor digging 400 mm deep and then refilling after laying of cable as per IS 1255:1983 and technical specification enclosed on a cushion of sand 100 mm below and providing protective bricks as per drawing	Mtrs	600	380/-	Three hundred and eighty only	Rs. 2,28,000/-

	and soil and ramming, leveling and repairing and finishing the said portion of platform with 1:2:4 cement concrete mixture 100 mm deep from top. i) Trench width 300 mm wide for laying up to 3 cables with 9 protective bricks per meter.					
NS 36	Boring & laying of power cables by trenchless method through HDPE pipe along with supply and insertion of HDPE pipe of PE 80 PN 8 grade of 90 mm dia with min. 6.7 mm and max. 7.6 mm wall thickness as per IS:4984-95 in the bore for the laying of power cables under the track of road. HDPE pipe is to be supplied by the contractor. The power cables will be supplied by railway.	Mtrs	500	1,229/-	One thousand two hundred and twenty nine only	Rs. 6,14,500/-
NS 37	Supply and erection of 103 mm inner dia Double walled Corrugated pipe under the railway track/road as per site required.	Mtrs	500	378/-	Three hundred and seventy eight only	Rs. 1,89,000/-
NS 38	Supply and laying of HDPE pipe conforming to IS 4984:1995 50 mm dia wall thickness 3 mm PN-6 under the road/air. The work involves laying of HDPE pipe.	Mtrs	1500	102/-	One hundred and two only	Rs. 1,53,000/-
NS 39	Supply and fixing of RCBO 2P 06A 30mA with metal enclosure. RCCB and metal enclosure should be of same make of reputed manufacturer and as per tech. spec.	Nos	45	3,246/-	Three thousand two hundred and forty six only	Rs. 1,46,070/-
NS 40	Supply, erection, testing and commissioning of LED street light fitting complete with driver (70 watts) confirming to CEE/NR/121-Elect/PS/2019(Rev-04) dt 04/11/2019 or latest specification and site requirement. in details. Guarantee-05 years from date of commissioning.	Nos.	80	12,504/-	Twelve thousand five hundred and four only	Rs. 10,00,320/-
NS 41	Removing and dismantling of existing High mast from station area and shifting, installation, testing, commissioning of the same high mast to new location at Station area.	Nos.	2	53,133/-	Fifty three thousand one hundred and thirty three only	Rs. 1,06,266/-

NS 42	Supply, fixing, testing and commissioning of 4 pole RCBO 16 Amp, 30 mA with Earth leakage, overload and short circuit protection as per spec	Nos.	4	3,481/-	Three thousand four hundred and eighty one only	Rs. 13,924/-
NS 43	Supply, erection testing and commissioning of 6 mtr height double arm decorative GI pole with cast aluminium arms including 2 nos. 80 W teardrop LED fitting along with foundation as per manufacturer's design complete of reputed make Bajaj, Havells and Philips or equivalent.	Nos.	23	44,415/-	Forty four thousand four hundred and fifteen only	Rs. 10,21,545/-
NS 44	Design, manufacture, display, installation of wall / hanging / floor mounting type LED illuminated sign / direction boards in half elliptical shape. The display sheet shall be of unbreakable 040 translucent polycarbonate sheet of 2 mm thickness. The text / graphics matter visibility shall not be less than 160 deg. The approved colour text and graphics shall be printed / router cut on monomeric calendered vinyl of 70 um thickness and shall be firmly pasted on display sheets. The mounting arrangement shall be hanging, wall mounting, ceiling mounting, pole mounting or floor mounting and as per site requirement. The signage shall have the integral mounting arrangements with sturdy structural frame and ACP cladding on the back side of the signage to avoid rusting and entry of dust. The LED board shall have uniform illumination with 4-8 W / sq. ft and with brightness more than ambient light. Suitable size end cap of 1.5 mm thick SS 304 should be provided.	Sq. foot	645	3,618/-	Three thousand six hundred and eighteen only	Rs. 23,33,610/-
NS 45	Erection and installation of wall / hanging / floor mounting type LED illuminated sign / direction boards in half elliptical shape. The display sheet shall be of unbreakable 040 translucent polycarbonate sheet of 2 mm thickness. The text / graphics matter visibility shall not be less than 160 deg. The approved colour text and graphics shall be printed / router cut on monomeric calendered vinyl of 70 um	Sq. foot	645	362/-	Three hundred and sixty two only	Rs. 2,33,490/-

	thickness and shall be firmly pasted on display sheets. The mounting arrangement shall be hanging, wall mounting, ceiling mounting, pole mounting or floor mounting and as per site requirement. The signage shall have the integral mounting arrangements with sturdy structural frame and ACP cladding on the back side of the signage to avoid rusting and entry of dust. The LED board shall have uniform illumination with 4-8 W / sq. ft and with brightness more than ambient light. Suitable size end cap of 1.5 mm thick SS 304 should be provided.					
NS 46	Design, manufacture, supply, erection, testing & commissioning of 20 passenger elevator (Lift) machine roomless (G+1) complete in all respects to travel from platform to FOB as per RDSO spec. No. RDSO/2013/EM/SPEC/0016 (Rev.1) - 2019 or latest. The detailed specification of lift has been attached as Annexure-A. Warranty period of lift is required as: 30 months from the date of delivery or 24 months from the date of commissioning, whichever shall be sooner	Job	1	19,02,419/-	Nineteen lakhs two thousand four hundred and nineteen only	Rs. 19,02,419/-
NS 47	Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW flood lighting luminaire for facade lighting with Die cast aluminium housing, powder-coated finish, of 90 (watt) wattage. Luminaire shall be capable of producing dynamic color changing light for with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100-270 V AC, 50 Hz with power factor > 0.9 . Fixture shall be suitable to operate at an ambient temperature range of - 10°C to +50°C and shall be IP 66 or greater and IK 06 rated. Lifetime shall be at least L70:50000 burning hours at 50°C. Luminaire shall be	Nos.	8	39,570/-	Thirty nine thousand five hundred and seventy only	Rs. 3,16,560/-

	conforming to BIS (IS 10322) and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.					
NS 48	Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW flood lighting luminaire for facade lighting with Diecast aluminium housing, powder-coated finish, of 45 (watt) wattage. Luminaire shall be capable of producing dynamic color changing light for with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100-270 V AC, 50 Hz with power factor > 0.9 . Fixture shall be suitable to operate at an ambient temperature range of - 10°C to +50°C and shall be IP 66 or greater and IK 06 rated. Lifetime shall be at least L70:50000 burning hours at 50°C. Luminaire shall be conforming to BIS (IS 10322) and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.	Nos.	20	37,240/-	Thirty seven thousand two hundred and forty only	Rs. 7,44,800/-
NS 49	Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW Linear Wall Washer luminaire for Facade lighting with aluminium extruded housing, of 40-45 (Watt) wattage. Luminaire shall be capable of producing dynamic color changing light with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100 to 270 V AC, 50 Hz, power factor > 0.9 . Fixture shall be suitable to operate at ambient	Nos.	40	17,398/-	Seventeen thousand three hundred and ninety eight only	Rs. 6,95,920/-

	temperature range of -10°C to +50°C and shall be IP 65 and IK06 rated. Lifetime should be at least L70:50000 burning hours at 50°C. Luminaire shall be conforming to BIS and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.					
NS 50	Design, Supply, Installation, Testing and Commissioning of LED RGB/RGBW Linear Wall Washer luminaire for Facade lighting with aluminium extruded housing, of 24-25 (Watt) wattage. Luminaire shall be capable of producing dynamic color changing light with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100 to 270 V AC, 50 Hz, power factor > 0.9. Fixture shall be suitable to operate at ambient temperature range of -10°C to +50°C and shall be IP 65 and IK06 rated. Lifetime should be at least L70:50000 burning hours at 50°C. Luminaire shall be conforming to BIS and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.	Nos.	20	10,655/-	Ten thousand six hundred and fifty five only	Rs. 2,13,100/-
NS 51	Design, Supply, installation, testing, commissioning & Programming of RGB/ DMX Controller System with following features : Standalone interfaces, Input Connector, Mini USB- including mini USB Cable, Output Connector, XLR3/XLR5, DMX Output- 512 & 1024 Channels, PC DMX In triggering capability, Master/Slave connection capability, DMX speed - 1 to 45 Hz, MaB/Vk, internal clock and internal calendar enabled] inbuilt internal memory, data display system, system compatibility with	Nos.	1	1,31,811/-	One lakh thirty one thousand eight hundred and eleven only	Rs. 1,31,811/-

	Windows/MAC/LINUX with 32/ 64 bit CPU technology to be installed in IP 65 Waterproof Junction Box with necessary connection. Warranty : 5 Years					
NS 52	Supply, installation, testing and commissioning of 22 AWG DMX cable compatible with RGB lights & DMX controller and as per specification attached. DMX signal cable shall be used for digital communication networks. Copper lugs, glands of proper size shall be used for connections & fixing.	Mtrs	500	126/-	One hundred and twenty six only	Rs. 63,000/-
NS 53	Design, supply, installation, testing and commissioning of DMX Splitter of specification: DMX splitter 1 in 8 out booster, input voltage range 100- 240V, DC 12-24 V as per requirement, included 24 V DC plug-in power adaptor of maximum power consumption 4.5 W.	Nos.	8	22,031/-	Twenty two thousand and thirty one only	Rs. 1,76,248/-
NS 54	Design, supply, installation, testing & commissioning of Junction Box with following features: 18 SWG CRCA sheet steel enclosure. Complete with cable gland arrangement with Panel lock for fixing doors. Complete with 1 no. 16 A SP MCB & Surge protecting device of capacity 10 KV	Nos.	1	32,208/-	Thirty two thousand two hundred and eight only	Rs. 32,208/-
NS 55	Supply, fitting, fixing, testing and commissioning of poly carbonate junction box of size 125x125x125 mm with stud type terminal, the enclosure shall be conforms to IP 67 and Mechanical impacts are IK 10 suitable for terminating 4Cx16 Sq mm XLPE insulated armoured copper cable. The work to be executed as per direction of engineer in charge at site	Nos.	200	1,451/-	One thousand four hundred and fifty one only	Rs. 2,90,200/-
NS 56	Supply, fitting, fixing, testing and commissioning of poly carbonate junction box of size 175x250x100mm with stud type terminal, the enclosure shall be conforms to IP 67 and Mechanical impacts are IK 10 suitable for terminating 4Cx16 Sq mm XLPE insulated armoured copper cable. The	Nos.	20	1,848/-	One thousand eight hundred and forty eight only	Rs. 36,960/-

	work to be executed as per direction of engineer in charge at site					
NS 57	Supply, laying, Testing & Commissioning of 3 core PVC flexible sheated wire 1100 V grade ISI marked. /The wire is to be laid in existing PVC cap piping as per site including making connections. This item includes the cost of labour and all petty material required to complete the job as per satisfaction of Site charge. As per technical specification and technical scope of work.					
a)	2.5 sq mm copper wire	Mtrs	1200	78/-	Seventy eight only	Rs. 93,600/-
b)	4 sq mm copper wire	Mtrs	1200	130/-	One hundred and thirty only	Rs. 1,56,000/-
NS 58	Supply, Erection testing and commissioning of automatic colour lighting signalling control and distribution panel as per RDSO drg. No.ETI/PSI/35-04 & specification no. TI/SPC/PSI/GLS/023 from Core/RDSO approved sources. (a) 10 KVA, 63 Amp	Nos.	1	58,243/-	Fifty eight thousand two hundred and forty three only	Rs. 58,423/-
NS 59	Supply and fixing of rain proof MS box of suitable size of housing MCCB with hinged and lockable door on AT mast with suitable MS clamp should be painted and powdered coated: MCCB 63 Amp, 3 Pole	Nos.	2	3,822/-	Three thousand eight hundred and twenty two only	Rs. 7,644/-
					Total	Rs. 2,22,22,025.00
					Total of SOR Items	Rs. 27,22,854.07
					Grand Total	Rs. 2,49,44,879.07

END OF TENDER DOCUMENT

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Signature of Tenderer

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