

# Haryana Rail Infrastructure Development Corporation Limited

(Joint Venture of Govt. of Haryana and Ministry of Railways)

Tender No: HRIDC/FS/DPR/313/2022/C3

Dated: 05.08.2022

## CORRIGENDUM-3

**Name of work:** Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various projects in Haryana Rail Infrastructure Development Corporation Limited (HRIDC)

**Reference:** Notice no. HRIDC/FS/DPR/313/2022 dated 02.07.2022, Corrigendum-1 dt 12.07.22 & Corrigendum-2 dt 30.07.2022.

The above referred Tender notice for the above subject work was published on 02.07.2022. The following corrigendum is issued herewith:

**“The revised RFP with changes marked in red is enclosed as Annexure-I. This revised RFP will supersede the old RFP.”**

Further information can be obtained through correspondences at the address below during office hours i.e. 09:30 to 18:00 hours:

**Deputy General Manager (Projects)**

Haryana Rail Infrastructure Development Corporation Limited,

SCO 17-18-19, 3rd Floor, Sector-17A,

Chandigarh - 160017, India

Tel: 0172-2715644

E-mail: [hridc2017@gmail.com](mailto:hridc2017@gmail.com)

Website: [www.hridc.co.in](http://www.hridc.co.in)

**DA: Enclosed (Revised RFP)**

**DGM/P  
HRIDC**

# **ANNEXURE-I: REVISED RFP**



## **TENDER DOCUMENT**

(Online e-tender)

Tender No: HRIDC/FS/DPR/313/2022

**Name of Work: Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various projects in Haryana Rail Infrastructure Development Corporation Limited.**

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Corporate Office: SCO 17-19, 3rd Floor, Sector 17A, Chandigarh.

Website: [www.hridc.co.in](http://www.hridc.co.in)

<https://etendershry.nic.in>

**TABLE OF CONTENTS**

SN	Description	Page No.	
		From	To
1	Top Sheet	3	3
2	Tender Notice and Instructions to Tenderer/s	4	30
3	Tender Data Sheet	31	33
4	Tender Form (First & Second Sheet)	34	35
5	Qualification and Evaluation Criteria	36	41
6	Terms of Reference & Scope of Work	42	88
7	Special Condition of Contract	89	92
8	Tendering Forms	93	114
9	Packet-II - Financial Bid (BoQ)	115	135

**Tender Document  
(TOP SHEET)**

**A. Brief Details of Tender:**

<b>Description</b>	<b>Particulars of tender</b>
Mode of Tender	Online E-tender
Tender Notice No.	Tender No: HRIDC/FS/DPR/313/2022
Full name of work	Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various projects in Haryana Rail Infrastructure Development Corporation Limited
Approx. cost	₹ 9,51,58,998/- <b>(Including GST)</b>
Earnest money amount/Bid Security	₹ 6,25,800/-
Tender document cost	₹ 29,500/- (Including GST)
E- service fees	₹ 1000 + 18% GST
Completion period	36 Months
Availability of tender document on e-procurement portal of Haryana Govt.	Tender documents will be available on e-procurement portal Haryana Government i.e. <a href="https://etenders.hry.nic.in">https://etenders.hry.nic.in</a> From 14.07.2022 at 17:00 Hrs to <b>19.08.2022</b> upto 15:00 hrs.
Last date & Time to upload the tender Documents/offer by Tenderers	<b>19.08.2022 upto 15:00 Hrs</b>
Date & Time of Opening of Tender	<b>19.08.2022 upto 15:30 Hrs</b>

**Note: Only one single percentage above/below/at par against each schedule for the tender shall be quoted by the tenderer in the financial schedule and any tenderer quoting rates other than percentage shall be summarily rejected**

**1. NOTICE FOR INVITATION OF TENDER (NIT)**

Tender No. HRIDC/FS/DPR/313/2022

1.1. Haryana Rail Infrastructure Development Corporation Limited (HRIDC), a joint venture Company of Ministry of Railways and Government of Haryana, having its office at SCO 17-18-19, 3rd Floor, Sector-17A, Chandigarh, India, invites Online Open e-Tender for the following works on prescribed electronic forms. Submission of manual tender is not permitted.

1.2. **Name of Work:** Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various projects in Haryana Rail Infrastructure Development Corporation Limited.

**Details of NIT:**

a)	Estimated Cost of Work	₹ 9,51,58,998/- (Including GST)
b)	Earnest Money Deposit (EMD) / Bid security and E- Service fees.	Amount of EMD: ₹ 6,25,800/- Amount of e- service fees ₹ 1000/- + GST (Non-refundable) Note: The online payment of EMD, e-Service fees and Tender document cost are essential. No other mode of payments is acceptable.
c)	Cost of Tender Document	₹ 29,500/- (Including GST) (Non-refundable).
d)	Completion period	36 Months
e)	Availability of tender Document	From 14.07.2022 at 17:00 hrs. on e-procurement portal of Haryana Govt.
f)	Date and time of submission of Online e-Tender on the e procurement portal of Haryana Govt.	Tender submission start date: 12.08.2022 at 15:00 Hrs Tender submission end date: 19.08.2022 at 15:00 Hrs
g)	Date & Time of opening of e-Tender	19.08.2022 at 15:30 Hrs
h)	E-tender portal for Uploading of tender Documents, Corrigendum/ Addendum, Award of Work etc.	<a href="https://etenders.hry.nic.in">https://etenders.hry.nic.in</a>

1.3. Deleted.

1.4. Tenderer/s are advised to note the eligibility and minimum qualifying criteria specified in the “Instruction to tenderer/s” stipulated in the Tender document.

1.5. Availability of Tender documents: The tender documents and Addendum/Corrigendum (if any) will be available free of cost for downloading on e-procurement portal of Haryana Govt. as mentioned in clause 1.2 of NIT (Details of NIT). However, it will be the responsibility of the tenderer/s to download complete tender documents and to check and see issuance of addendum / corrigendum (if any). **The addendum / corrigendum, if any, shall be made available only on the e- procurement portal of Haryana Govt.**

- 1.6. **E-tenders must be accompanied with EMD/Bid Security, cost of tender document & e-service fees of requisite amount online mode as stipulated in clause 1.2 of NIT and specified in the Tender document. Any tenders received without EMD, cost of tender document & eservice fees shall be summarily rejected**
- 1.7. For MSEs / Startup business, e-tenders must be accompanied with the details as stipulated in the tender document. Such tenderer/s shall also upload the scanned copies of these details in their online tender before the last date and time mentioned therein.
- 1.8. **Last Date of Receipt and opening of Tenders:** Tender submissions shall be done online on e-procurement portal of Haryana Govt. as mentioned in clause 1.2 of NIT. Tenderer/s to take note of uploading the mandatory scanned documents towards EMD and other documents as stated in the tender document. Submission of tender shall be closed automatically after the last date and time on e-procurement portal of Haryana Govt. after which no tender document can be uploaded.
- 1.9. **General Instructions on e-tendering.**
  - 1.9.1. Tender shall be valid for a period of **90 days** from date of opening of tender including Addenda/ Corrigendum issued if any and shall be accompanied with a EMD of the requisite amount.
  - 1.9.2. HRIDC reserves the right to accept or reject any or all tenders any time without assigning any reasons. No tenderer/s shall have any cause of action or claim against the HRIDC for rejection of tender/s.
  - 1.9.3. Tenderer/s are advised to keep in touch with e-procurement portal of Haryana Govt. for any updates.
  - 1.9.4. The payment for EMD, Tender Document Fees and e-Service Fee shall be made by eligible tenderer/s online directly through net banking or payment Gateway, please refer to 'Online Payment Guideline' available at the Single e-Procurement portal of GoH (Govt. of Haryana) and also mentioned under the Tender Document.
  - 1.9.5. Intending tenderer/s will be mandatorily required to online sign-up (create user account) on the website <https://etenders.hry.nic.in> to be eligible to participate in the e-Tender. He/ She will be required to make online payment of above-mentioned EMD, tender document cost and e-service fees. The intended tender, who fails to pay EMD & other fees under the stipulated time frame, shall not be allowed to submit his / her tenders for the respective event/ Tenders.
  - 1.9.6. The interested tenderer/s must remit the funds to the beneficiary account number specified under the online generated challan. The intended tenderer/s Agency thereafter will be able to **successfully verify their payment online and submit their tender on or before the expiry date & time of the respective events/Tenders at <https://etenders.hry.nic.in>**
  - 1.9.7. The interested tenderer/s shall have to pay mandatorily e-Service fee, tender document cost (under document fee– Non-refundable) as given in clause 1.2 of NIT online by using the service of secure electronic gateway.

**1.9.8.** The interested tenderer/s are requested to go through below Instructions Regarding Electronic e-Tendering System’.

**1. Registration of Tenderers on e-tendering Portal:**

- a. Tenderers are required to enroll on the above-mentioned e-Procurement portal by clicking on the link “Online Tenderer Enrollment” on the Portal which is free of charge.
- b. As part of the enrolment process, the Tenderers will be required to choose a unique username and assign a password for their accounts.
- c. Tenderers are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-procurement Portal.

**2. Obtaining a Digital Certificate:**

- a. The Tenders submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the Tenderer Tender online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.
- b. A Digital Certificate is issued upon receipt of mandatory identity (i.e. Applicant’s PAN Card) and Address proofs and verification form duly attested by the Bank Manager/ Postmaster/ Gazetted Officer. Only upon the receipt of the required documents, a digital certificate can be issued. For more details please visit the website– <https://etenders.hry.nic.in..>
- c. The Tenderers may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from.
- d. The Tenderer must ensure that he/she comply by the online available important guidelines at the portal <https://etenders.hry.nic.in> for Digital Signature Certificate (DSC) including the e-Token carrying DSCs.

For any queries related to e-tendering process (registration, online e-bid submission/withdrawal, uploading of documents), Tenderer may contact the below representative of NIC:

**Ms. Manju Aggarwal**

**Technical Director,**

**Scientist-E, NIC.**

**Panchkula.**

**E - mail:** [a.manju@nic.in](mailto:a.manju@nic.in)

**Help Desk:** 0172 – 584257, 94170-69017.

- e. Tender for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt and sign the data during the stage of

bid preparation. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised to keep a backup of the certificate and also keep the copies at safe place under proper security (for its use in case of emergencies).

- f. In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate/power of attorney /lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.
- g. In case of any change in the authorization, it shall be the responsibility of management/ partners of the firm to inform the certifying authority about the change and to obtain the digital signatures -7- of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.
- h. The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

**3. Opening of an Electronic Payment Account:**

For purchasing the tender documents online, Tenderers are required to pay the tender documents fee online using the electronic payment gateway service through their Debit Cards & Internet Banking accounts. For online payments guidelines, please refer to the Home page under tab “Guidelines for hassle free Bid Submission” of the e-procurement Portal of Government of Haryana, <https://etenders.hry.nic.in>.

**4. Pre-requisites for online Tendering:**

In order to operate on the electronic tender management system, a user’s machine is required to be set up. A help file on system setup/Pre-requisite can be obtained from National Informatics Center or downloaded from the home page of the website - <https://etenders.hry.nic.in> the link for downloading required java applet & DC setup are also available on the Home page of the e-tendering Portal.

**5. Online Viewing of Detailed Notice Inviting Tenders:**

The Tenderers can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the single portal e-tendering system on the Home Page at <https://etenders.hry.nic.in>

**6. Download of Tender Documents:**

The tender documents can be downloaded free of cost from the e-tendering portal



<https://etenders.hry.nic.in>

**7. Key Dates:**

The Tenderers are strictly advised to follow dates and times as indicated in the online Notice Inviting Tenders. The date and time shall be binding on all Tenderers. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

**8. Online Payment of Tender Document Fee, eService fee & Tender Preparation & Submission (Technical & Commercial/ Financial Bid):**

- a. **Online Payment of Tender Document Fee + e-Service fee:** The online payment for Tender document fee and e-Service Fee shall be made using the secure electronic payment gateway by Tenderers online directly through Debit Cards & Internet Banking accounts. The secure electronic payments gateway is an online interface between Contractors and Debit card/ online payment authorization networks.
- b. **Preparation & Submission of online Applications/Tenders:**
  - i) Detailed Tender documents may be downloaded from e-tendering website (<https://etenders.hry.nic.in>) from **14.7.2022 at 17:00 Hrs to 19.08.2022 upto 15:00 Hrs** and tender mandatorily be submitted online following the instructions appearing on the screen.
  - ii) Scan copy of Documents to be submitted/uploaded for Technical& Commercial bid under online Technical Envelope: The required documents as indicated in this tender document shall be prepared and scanned in different file formats (in PDF /JPEG/MS WORD format such that file size is not exceed more than 10 MB) and uploaded during the on-line submission of PQQ or Technical Envelope.

**9. Only Electronic Form (Refer Tender document).**

Financial or Price Bid shall be submitted mandatorily online under Commercial Envelope and original not to be submitted manually.

**NOTE:-**

- A. Tenderers participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal <https://etenders.hry.nic.in>
- B. For help manual please refer to the 'Home Page' of the e-tendering website at <https://etenders.hry.nic.in>, and click on the available link 'How to...?' to download the file.

In the first instance, the online payment details of tender document fee + e Service & PQQ/Technical Envelope shall be opened. Henceforth financial bid quoted against each of the item by the shortlisted Tenderer/ Agency wherever required shall be opened online in the presence of such Tenderers/ agency who either themselves or through their representatives choose to be present. The Tenderer can submit online their bids as per the dates mentioned in the schedule/Key Dates above.

**Certificate of Familiarization**

- A. I/We hereby solemnly declare that I/We have visited the site/place of work and have familiarized myself/ourselves of the working conditions there in all respects and in particular, the following:
- a. Topography of the Area.
  - b. Soil conditions at the site of work.
  - c. Sources & availability of Construction material.
  - d. Borrow areas of earth.
  - e. Rates for construction materials.
  - f. Availability of local labour, both skilled and unskilled and the prevailing labour rates.
  - g. Availability of water & electricity.
  - h. The existing roads and access to the site of work.
  - i. Availability of space for putting labour camps. Officers, stores, godown, sheds engineering yards etc.
  - j. Climatic condition and availability of working days.
  - k. Prevailing all taxes, VAT, duties etc.
- B. I/We have kept myself/ourselves fully informed of the provisions of this bid document comprising Instructions to the Bidders, General Conditions of the Contract, Special Conditions of Contracts and Special Technical Specifications/ Conditions of contract apart from information conveyed to me/us through various other provisions in this bid document.
- C. I/We have quoted my / our rates as ‘Percentage above / below / at par ‘and quoted against blank items by rates in figure and words, with total cost as per Schedule of Items Rates and Quantities (BOQ) in FINANCIAL BID taking into account all the factors given above.

**(Signature of Bidder/s)**

Date: \_\_\_\_\_

Place: \_\_\_\_\_

**CHECK LIST FOR LIST OF DOCUMENTS** duly page numbered, signed, stamped by authorized signatory of the firm with the tender and submit at the address specified in the “Notice Inviting Tender” not later than the prescribed date and time for bid submission:

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

1. Forwarding letter of the Bidder.
2. Form of Bid.
3. Details of similar works completed in last 7 years.
4. Annual Turnover for the last three years with supporting documents.
5. Programme for deployment of key personnel.
6. Programme for deployment of tools and hardware proposed to be procured/hired on the project.
7. Attested copies of the constitution of its firm such as Partnership deed (in case of partnership company), Memorandum of Articles of Association, etc..
8. Sales Tax/Works Contract Tax Registration Certificate, Service Tax -Registration Certificate (as applicable).
9. ISO 9001-2008 certificate, if any.
10. Banker's Solvency Certificate.
11. Schedule of start and completion of work in the form of Bar Chart.
12. Methodology for execution of works.
13. Programme for Quality assurance during execution of work
14. Month wise Cash flow requirements.
15. Proof of transaction towards payment of Earnest Money through NEFT or RTGS and copy of Earnest Money Deposit of requisite amount in the prescribed form.
16. Original Power of Attorney duly attested by Notary Public of the in favour of the person signing the tender documents or photocopy duly attested by Notary Public or a Resolution of Board of Directors authorizing the person to deal with tenders/this tender case.
17. Banker's Details (Name of the Bank and Branch), along with bidders own bank details (Account no., Name of Account holder, NEFT/RTGS details)
18. Any other details sought in RFP.

## **2. INSTRUCTIONS TO TENDERER/S (ITT)**

### **2.1. Scope of Tenders**

**2.1.1.** In connection with the Invitation for tenders indicated in the Tender Data Sheet (TDS), Employer, hereinafter referred to as the 'HRIDC', issues these tender Documents for execution of work as specified in tender Requirements. The name, identification, number of contract(s) are provided in the Tender Data Sheet and NIT.

**2.1.2.** Throughout these Tender Documents:

- a) the term "in writing" means communicated in written form and delivered against receipt;
- b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and
- c) "day" means a calendar day.
- d) "week" means a period of seven days.

### **2.1.3. Source of funds**

**2.1.4.** The required funds have been sourced by HRIDC, unless otherwise specified in the TDS.

### **2.2. Corrupt Practices**

**2.2.1.** The HRIDC requires that tenderer/s, suppliers, and contractors/ **consultant** observe the highest standard of ethics during the execution of such contracts. In pursuance of this policy, the HRIDC:

- a) defines, for the purposes of this provision, the terms set forth below as follows:
  - i. "Corrupt practice" means offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any tenderer/s in the tender process or the execution of a contract;
  - ii. "Fraudulent practice" means a misrepresentation or omission of facts in order to influence a Hiring process or the execution of a contract;
  - iii. "Collusive practice" means a scheme or arrangement between two or more tenderer/s, with or without the knowledge of the HRIDC, designed to influence the action of any tenderer/s in a tender process or the execution of a contract;
  - iv. "Coercive practice" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a tender process, or affect the execution of a contract;
- a. has the right to reject the tender for award if it determines that the tenderer/s recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract; and

- b. will sanction a tenderer/s or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in HRIDC's activities, if it at any time determines that the tenderer has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing a contract of the HRIDC.
- c. In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof, that the tenderer has made material misrepresentation or has given any materially incorrect or false information, the tenderer may be:
- v. Disqualified and banned for further business dealings for a period of 05 years with the HRIDC forthwith if not yet appointed as the tenderer either by issue of Letter of Acceptance or entering into of the Agreement. In such event, HRIDC shall forfeit the Security Deposit, without prejudice to any other right or remedy that may be available to the HRIDC.
- vi. And if the tenderer/s has already been issued the Letter of Acceptance or has entered into the Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this contract agreement, be banned for further business dealings with the HRIDC for a period of five years, by a communication in writing by the HRIDC to the contractor/s/ **consultant**, without the HRIDC being liable in any manner whatsoever, as the case may be. Further the Contract may be terminated and the decision of HRIDC in this regard shall be final and binding on the contractor/s. In case the contract is terminated, HRIDC shall forfeit and appropriate the Performance Security/ Guarantee payable to the HRIDC, without prejudice to any other right or remedy that may be available to the HRIDC.

### 2.3. **Eligible Tenderer/s/ Legal Entity**

**2.3.1. Constitution of firm:** 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.

The tenderer(s) must necessarily upload the legal documents at the time of tendering on or before closing of uploading of tender pertaining to the constitution of their Concern as applicable, along with the tender, as enumerated below. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of their Concern. The tenderer(s) shall give full details of the constitution of the Firm/JV/Company/Society etc. in "Annexure-D" to "General Tender Conditions and Instructions to Tenderers" of Tender Document and must submit the following documents, without fail

- A. Sole Proprietorship Firm:** Following documents shall be submitted by the tenderer on or before closing of uploading of tender. (i) A copy of notarized Affidavit certifying the Sole Proprietorship of the firm. (Standard Affidavit as per Annexure O-1 (ii) All other documents in terms of eligibility criteria. (iii) All details of firm must be provided in **Annexure-D**.
- B. Partnership Firm:** If the tender is uploaded on behalf of a “Partnership firm/concern”, The Partnership Firm should be registered with Registrar of firms before the date of opening of tender. The tenderer must submit following documents along with the offer:
- i) Notary certified copy of the Partnership Deed
  - ii) A copy of notarized/registered Power of Attorney (**Annexure O-2**).
  - iii) Document(s) in support of Registration of firm with Registrar of firms viz. Registration certificate/ Form- A & Form-B/ Form C (as applicable) etc. issued by Registrar of firms.
  - iv) An undertaking by all the partners of the Partnership Firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India or any other Ministry / Department of Govt. of Haryana 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 HUF 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 (April 2022).
  - v) All other documents in terms of eligibility criteria.

**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 the 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 prior to date of tender opening as per the Indian Partnership Act.
3. Separate identity/ name should be given to the partnership firm. The partnership firm should have PAN/ TAN number in its own name and PAN/ TAN number in the name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.
4. Once the tender has been submitted, the constitution of the firm shall not normally be allowed to be modified / altered / terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior permission should be taken from HRIDC and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of HRIDC and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after opening 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 the Tender-Securing declaration shall be executed.

5. If any Partner/s withdraws from the firm after opening of the tender and before the award of the contract, the offer shall be rejected and the Tender Securing declaration shall be executed. If any new partner joins the firm after opening of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the tenderer fails to inform HRIDC beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 62 of General Conditions of Contract.
6. 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.
7. The tender form shall be submitted only in the name of partnership firm. The Tender-Securing Declaration shall be submitted by or as mentioned in tender document. The Tender-Securing Declaration submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.
8. One or more of the partners of the firm or any other person (s) shall be designated as the authorized person (s) on behalf of the firm, who will be authorized by all the partners to act on behalf of the firm through a “Power of Attorney”, specially authorizing him / them to submit & sign the tender, sign the agreement, receive payment, witness measurements, sign measurement books, make correspondences, compromise / settle / relinquish any claim (s) preferred by the firm, sign “No Claim Certificate”, refer all or any dispute to arbitration and to take similar such action in respect of the said tender / contract. Such “Power of Attorney” shall be notarized / registered and submitted along with the tender.
9. 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.
10. 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.
11. In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing of contract agreement.
  - a. Joint and several liabilities: The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the HRIDC 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 HRIDC during the course of execution of the contract or due to non-execution of the contract or part thereof.

- b. 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 HRIDC 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 HRIDC during the course of execution of the contract or due to non-execution of the contract or part thereof.
- c. Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.
- d. No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the HRIDC.

12. Evaluation of eligibility of a partnership firm: Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfilment of the eligibility criteria.

**C. Joint Venture (JV): *Joint Venture (JV) is not permitted for subject Tender.***

**D. Company registered under Companies Act-2013:** 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 closing of uploading of tender.

- i) Copy of the MOA (Memorandum of Association)/AOA (Articles of Association) of the Company;
- ii) A copy of Certificate of Incorporation.
- iii) A copy of notarized/registered Power of Attorney (Standard Performa as per **Annexure O-3** by the Company (backed by the resolution of Board of Directors) (Standard Performa as per **Annexure O-4** in favour of the individual signing the tender on behalf of the Company and create liability against the company.
- iv) An undertaking that the Company is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India or any other Ministry / Department of Govt. of Haryana 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 IR General Conditions of Contract (April 2022).
- v) All other documents in terms of eligibility criteria.
- vi) All details of firm must be provided in **Annexure-D**.



**E. Registered Society & Registered Trust:**

If the tender is submitted on behalf of a Society, the tenderer must upload these documents on or before closing of uploading of tender

- i) A Notarized copy of the Certificate of Registration.
- ii) A Notarized copy of Deed of Formation.
- iii) An undertaking that Registered Society/ Registered Trust is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India or any other Ministry / Department of Govt. of Haryana 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 IR General Conditions of Contract (April 2022).
- iv) All other documents in terms of eligibility criteria.
- v) All details of firm must be provided in Annexure-D.

**F. LLP (Limited Liability Partnership):** If the tender is submitted on behalf of LLP registered under LLP Act-2008, the Tenderer shall submit along with the tender-

- i) Notarized copy of the LLP Agreement;
- ii) A Copy of Certificate of Incorporation; and
- iii) A copy of notarized/registered 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 Performa as per **Annexure O-5**).
- iv) An undertaking that the LLP is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India or any other Ministry / Department of Govt. of Haryana 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 (April 2022).
- v) All other documents in terms of eligibility criteria.
- vi) All details of firm must be provided in **Annexure-D**.

**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.
- ii) An undertaking that the HUF is not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India or any other Ministry / Department of Govt. of Haryana 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 HUF 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 (April 2022).

- iii) All other documents in terms of eligibility criteria.
- iv) All details of firm must be provided in **Annexure-D**.

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 suo moto cognizance of any document available in public domain (i.e., on internet etc.) or in HRIDC's record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted. No change in the constitution of the firm/ JV/ sole/ Partnership firm/ Company/ LLP/Society shall be permitted after opening of the tender except where necessitated due to the operation of succession law.

**Note: If all the requisite documents pertaining to the constitution of the firm/JV/sole/partnership firm/company/LLP/Society etc., as specified in clause 2.4.1 above, are not submitted, offer will be considered as incomplete and shall be summarily rejected.**

### **2.3.2. Notes:-**

- i) 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.
- ii) The HRIDC will not be bound by any change in the composition of the firm made subsequent to the submission of tender. HRIDC may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.
- iii) The HRIDC will not be bound by any change in the composition of the firm made subsequent to the submission of tender. HRIDC may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.
- iv) If the tenderer expires after the submission of his tender or after the acceptance of his tender, HRIDC shall deem such tender/contract as cancelled, if a partner of firm expires after the submission of their tender, HRIDC shall deem such tender as cancelled unless the firm retain its character.
- v) If the Contractor's firm is dissolved on account of death, retirement of any partners or for any reason what-so-ever before fully completing the whole work or any part of it, undertaken by the principal agreement the surviving partners shall remain jointly/severally and personally liable to complete the whole work to the satisfaction of HRIDC due to such dissolution. The amount of such compensation shall be decided by Haryana Rail Infrastructure Development Corporation and decision in the matter shall be final and binding on the Contractor.
- vi) The cancellation of any documents such as power of attorney, partnership deed etc., shall forth be communicated to HRIDC in writing, failing which HRIDC shall have no responsibility or liability for any action taken on the strength of the said documents.

- vii) Any extra amount of work to be actually carried out shall not form the basis of any dispute regarding the rates to be paid and shall not give rise to claim for compensation on account of any increase or decrease either in the quantity of in the contract value.

**2.3.3.** The tenderer/s or any of its constituents shall not have conflict of interest. All tenderer/s found to have a conflict of interest shall be disqualified. A tenderer/s shall be considered to be in a conflict of interest with one or more parties in this tendering process, if, including but not limited to:

- a) they have controlling shareholders in common; or
- b) they receive or have received any direct or indirect subsidy from any of them; or
- c) they have the same legal representative for purposes of this tender; or
- d) they have a business relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the tender of another tenderer/s, or
- e) a tenderer/s cannot participate as a single entity or as a partner in more than one tender for a package in this tendering process. Participation by a tenderer/s in more than one tender will result in the disqualification of all tender/s in which the partner is involved. Also, a tenderer/s cannot be a sub- contractor to another tenderer/s.

**2.3.4. The tenderer/s shall be disqualified if:**

- a) In the last five years there has been a written directive by Ministry of Railways or any of its attached/ subordinate offices or HRIDC or any state rail JV promoted by Ministry of Railways or Haryana State Govt or any of its attached/ subordinate offices, blacklisting the tenderer/s against providing such professional services as mentioned in the tender.
- b) In the last two years the tenderer/s has failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the tenderer/s, or the tenderer/s has been expelled from any project or contract or have had any contract terminated for breach on part of the tenderer/s as evidenced by any court decree or arbitral award against the tenderer/s to such effect.
- c) The tenderer/s or any of its constituents has suffered bankruptcy/ insolvency or it is in the process of winding-up or there is a case of insolvency pending before any Court on the deadline of submission of tenders or thereafter till finalization of tenderer/s.
- d) deleted
- e) The tenderer/s or its constituent(s) has been declared by Ministry of Railways or any of its attached/ subordinate offices or HRIDC or any state rail JV promoted by Ministry of Railways

in India to be a poor performer and the period of poor performance is still in force on the deadline for submission of tenders.

**2.3.5. The tenderer/s shall submit an affidavit stating that they are not liable to be disqualified as per this sub clause (using Form PS-2, given in Section: Tender Forms) along with the tender submission. Failure to furnish this information or documentation may result in the rejection of the tender.**

## **2.4. Sections of Tender Document**

**2.4.1.** The tender Document consists of Sections indicated below and should be read in conjunction with any Addenda/Corrigenda issued in accordance with ITT clause 2.4.

- Instructions to Tenderer/s (ITT)
- Tender Data Sheet (TDS)
- Evaluation and Qualification Criteria (EQC)
- Tender Forms (TF)
- Form PS-2
- General Conditions of Contract (GCC)
- Special Conditions of Contract (SCC)
- Contract Forms (CF)
- Scope of Work
- Reference Documents (If any)
- Financial Bid

**2.4.2.** The Notice for Invitation of tender issued by the HRIDC shall be part of the Tender Document.

**2.4.3.** The HRIDC is not responsible for the completeness of the tender Document and their Addenda/Corrigenda, if they were not obtained directly from the source stated by the HRIDC in the clause 1.2 of NIT (Notice for Invitation for tender).

**2.4.4.** The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the tender.

## **2.5. Clarification of tender Document:**

**2.5.1.** No clarifications are desirable being the document is self-explanatory.

## **2.6. Amendment of Tender Document**

**2.6.1.** At any time prior to the deadline for submission of tender, the HRIDC may amend the tender document by issuing addenda/corrigendum.

**2.6.2.** Any corrigendum/addendum issued shall be part of the tender document and shall be made available only on the e-procurement portal of Haryana Govt. as mentioned in clause 1.2 of NIT.

**2.6.3.** To give prospective tenderer/s reasonable time in which to take an addendum into account in preparing their tender, the HRIDC may, at its discretion, extend the deadline for the submission of tender.

**2.7. Cost of Tendering**

**2.7.1.** The tenderer/s shall bear all costs associated with the preparation and submission of its tender, and the HRIDC shall not be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

**2.8. Language of Tender**

**2.8.1.** The tender, as well as all correspondence and documents relating to the tender exchanged by the tenderer/s and the HRIDC, shall be written in English. Supporting documents and printed literature that are part of the tender may be in another language provided they are accompanied by an accurate and authenticated translation of the relevant passages in English in which case, for the purposes of interpretation of the tender, such translation shall govern. In case the documents are in foreign language or Indian Language other than English, a translation of the same by an authorized translator shall be submitted.

**2.9. Documents comprising the Tender:**

**2.9.1.** The Tenderer/s shall submit their online e-tender on e-procurement portal of Haryana Govt. as mentioned in clause 1.2 of NIT.

**2.9.2.** Tenderer/s has to submit online EMD, tender cost, e- service fees in the proper format as provided on e-procurement portal or upload the relevant details for MSEs/Startup business along with the tender prior to closing of tender submissions. Seeking exemptions no EMD shall be submitted in physical form to the authority.

**2.9.3.** The tenders shall be opened online at the latest date and time specified in clause 1.2 of NIT. The Tender shall be evaluated by the HRIDC in accordance with the stipulated Evaluation and Qualification criteria. No amendments or changes to the tender would be permitted after the opening. If tender do not conform to the specified requirements, the HRIDC has the right to reject such tender and the contract shall be awarded to the other tenderer/s in accordance with the criteria for evaluation.

**2.9.4.** Deleted.

**2.9.5. The tender shall contain the following:**

- a) Rates in accordance with ITT 2.12.
- b) The online EMD shall be submitted as mentioned under clause 1.2 of NIT, in accordance with ITT Clause 2.16.
- c) Written confirmation authorizing the signatory of the tender to commit the tender, in accordance with ITT Clause 2.17.2.

- d) Documentary evidence in accordance with ITT Clause 2.14 establishing the tenderer/s qualifications to perform the contract; and
- e) Any other document required in the TDS.
- f) Form –UT -Undertaking regarding the downloaded tender document.

**2.9.6.** The financial Schedule is provided in the online e-procurement portal of Haryana Govt. and Only one single percentage above/below/at par against each schedule for the tender shall be quoted by the tenderer and any tenderer quoting rates other than percentage shall be summarily rejected. **The rates/ percentage shall not be offered/ quoted elsewhere in the tender document uploaded on portal.** These prices should include all costs associated with the contract. The tenderer shall complete the offer in accordance with the instructions given in the tender. Alternative technical solution will not be permitted

**2.10. Tender Documents and Financial offer**

**2.10.1.** The tenderer/s using the appropriate formats available on e- procurement portal must be completed without any alterations; no substitutes shall be accepted. All blank spaces shall be filled up with the desired information. Alternative tender and time for completion will not be permitted.

**2.11. Rates and Discounts**

**2.11.1.** The prices quoted by the tenderer/s in the financial schedule shall confirm to the requirements specified below: -

**2.11.2.** In the financial schedule, quantity, unit and rates against each item have been indicated. Only one single percentage above/below/at par against each schedule in the tender shall be quoted by the tenderer and any tenderer quoting rates other than percentage shall be summarily rejected. The tenderer/s quoting any Special conditions other than discounts will not be considered and conditional offer is liable to be rejected.

**2.11.3.** Rates and Cost quoted by the tenderer/s shall be inclusive of all duties, taxes, GST, royalties etc. complete and no any other charges/taxes shall be admissible/ paid to contractor except mentioned in the tender schedule. Contractor has to submit GST invoice along with each monthly payments/Bill and also responsible for deposit and filing Goods and Services Tax (GST) returns in time with GST Department. HRIDC will not be responsible for any penalty, claims imposed/ raised by concerned State Govt. and Central Govt. On the request of HRIDC, contractor has to provide documentary evidence towards payment of GST. The Final bill/single bill payment shall be released on the undertaking of the contractor/s that GST returns have been filled with the concerned department for earlier released payment by HRIDC. GST returns for final payment will also be submitted in time by contractor/s. Contractor/s shall be responsible for payment of GST as per rules and regulations.

**2.12. Documents Comprising the tender:**

**2.12.1.** The tenderer/s shall furnish a binding document for deployment of required vehicles/

equipment and Drivers/ personnel etc. as stipulated Schedule.

**2.12.2.** Tenderer/s should note that for non-submission of the required documents, the HRIDC has the right to reject his offer.

**2.13. Documents Establishing the Qualifications of Tender**

**2.13.1.** To establish its qualifications to perform the Contract in accordance with Section: Evaluation and Qualification Criteria and two packet system, the tenderer/s shall submit Technical and financial details / information as requested in the corresponding information sheets included in Section: Tender Forms.

**2.13.2.** Domestic tenderer/s, individually applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility as described in ITT 2.30.1(TDS)

**2.14. Period of Validity of Tender/offer**

**2.14.1.** The tender shall remain valid for a period identified in Para 1.9.1 of NIT. A tender valid for a shorter period may be rejected by the HRIDC as non-responsive.

**2.14.2.** In exceptional circumstances, the HRIDC may request tenderer/s to extend the period of validity of their offer. The request and the responses shall be made in writing. Online EMD shall be treated as extended also. Tenderer/s may refuse the request without forfeiting its EMD. Tenderer/s granting the extension shall not be permitted to modify their offer

**2.15. Earnest Money Deposit(EMD) /Bid security**

**2.15.1.** Unless otherwise specified in the tender, the tender shall furnish online EMD as stipulated in clause 1.2 of NIT.

**2.15.2.** The EMD, tender document cost and e- service fees shall be submitted online through net banking or payment gateway only.

**2.15.3.** Any tender not accompanied with mandatory fees i.e., EMD, tender document cost and e-service fees as required in accordance with tender, the HRIDC has the right to reject such tender.

**2.15.4.** The EMD of unsuccessful tenderer/s shall be returned back after award of work and furnishing of the performance guarantee by successful tenderer/s. However, EMD of those tenderer/s, who have not been technically and financially qualified and validity of their offer has not been extended shall be returned after expiry of validity period.

**2.15.5.** The Earnest Money Deposited by the successful tenderer/s along with his tender will be retained by HRIDC as a part of security deposit for the due and faithful fulfillment of the contract by the contractor. EMD shall be adjusted towards SD at the last to complete the full value of SD.

**2.15.6.**The EMD shall be forfeited:

- a) if the tenderer/s withdraws his offer during the validity period.
- b) if a tenderer/s misrepresents or omits the facts in order to influence the tendering process;
- c) if the successful tenderer/s fails to:
  - i. sign the Contract in accordance with ITT 2.36;
  - ii. furnish a performance Guarantee in accordance with ITT 2.34;
  - iii. accept the correction of its Tender Price pursuant to ITT 2.28.2; or
  - iv. furnish a domestic preference security if so required.
- d) if the affidavit submitted by the tenderer/s or its constituents in pursuance to ITT clause 2.4.3 or any of the declarations submitted by the tenderer has been found to be false at any stage during the process of tender evaluation.
- e) In case the tenderer who has been exempted for submission of EMD being Micro & Small Enterprise/ Startup Business, and;
  - i. withdraws his tender during the period of offer validity; or
  - ii. becomes the successful tenderer, but fails to commence the work (for whatsoever reasons) as per terms & conditions of tender; or
  - iii. refuses or neglects to execute the contract; or
  - iv. fails to furnish the required Performance Guarantee within the specified time, Then such tenderer/s and his partners shall be debarred from participating in future tenders for a period of 05 year from the date of discharge of tender / date of cancellation of LOA / annulment of award of contract as the case may be. Thereafter, on expiry of period of debarment, the tenderer/s and his partners may be permitted to participate in the tendering process only on submission of required tender Cost /EMD

**2.15.7.**Further the HRIDC may advise the authority responsible for issuing the exemption certificate to take suitable actions against the tenderer/s such as cancellation of enlistment certificate etc.

**2.16. Format and signing of tender**

**2.16.1.**The tenderer/s shall submit their tender online on e-procurement portal of Govt. of Haryana as mentioned in clause 1.2 of NIT.

**2.16.2.**The tender shall be submitted online and tenderer/s shall upload his tender on e-procurement portal of Haryana Govt. as mentioned in clause 1.2 of NIT using class-III digital signature of the authorized signatory having notarized Power of Attorney (POA).

**2.17. Uploading of tenders**

**2.17.1.**Tenderer/s shall upload their tender online on e- procurement portal of Haryana Govt. within the stipulated date and time as mentioned in clause 1.2 of NIT (Notice for Invitation of Tender). The tenderer/s shall ensure that they had received receipt/ acknowledgement of their tender submission which is generated by the system itself on successful submission of tender



online

**2.17.2.**EMD/Relevant details of MSEs / Startup business shall also be scanned and uploaded as mentioned under clause 1.2 of NIT within the deadline provided in clause 1.2 of NIT. It shall be the responsibility of the tenderer/s to ensure uploading of required documents for submission of tender successfully.

**2.17.3.**The HRIDC may, at his discretion, extend the deadline for submission of tender by issuing a corrigendum/addendum, in which case all rights and obligations of the HRIDC and the tenderer/s previously subject to the original deadline will thereafter be subject to the deadline as extended.

**2.17.4.**Tender sent telegraphically or through other means of transmission except as mentioned in clause 2.17.1 of ITT shall be treated as invalid and shall stand rejected.

## **2.18. Deadline for Submission of tender**

**2.18.1.**It shall be the responsibility of the tenderer/s to ensure that his tender is submitted online on e-procurement portal of Govt. of Haryana as mentioned in clause 1.2 of NIT before the deadline of tender submission. HRIDC will not be responsible for any delay, internet connection failure or any error in uploading of tender. The tenderer/s are advised to upload their documents well before the due date and time of submission of tender to avoid any problem and last- minute rush.

**2.18.2.**The HRIDC may, at its discretion, extend the deadline for the submission of tender by amending the tender Document in accordance with ITT 2.4, in which case all rights and obligations of the HRIDC and tenderer/s previously subject to the deadline shall thereafter be subject to the deadline as extended.

## **2.19. Late tenders**

**2.19.1.**Submission of tender shall be closed on e-procurement portal of Haryana Govt. at the date & time of submission prescribed in clause 1.2 of NIT after which no tender can be uploaded. However, HRIDC shall not consider any tender submitted after the deadline.

### **2.19.2. Withdrawal, Substitution, and Modification of tenders**

**2.19.3.**A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization.

**2.19.4.**Tenderer/s requested to be withdrawn in accordance with ITT 2.20.2 shall not be allowed to be resubmitted.

**2.19.5.**No tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of tender and the expiration of the period of offer validity or any extension thereof, if any.

## **2.20. Opening of Tender**

**The proposed online e-tender is invited as a Two packet, hence only technical offer shall be opened on the date & time of opening of tenders and financial bid shall be opened at later stage.**

**2.20.1.**The HRIDC shall conduct the electronic opening of tender on e-procurement portal of Haryana Govt. as per the schedule date and time. The opening of the tender and subsequent details can be viewed by the tenderer/s by logging on the e-procurement portal of Govt. of Haryana.

**2.20.2.**Opening of tender shall be online and the following read out and recorded:

- a. the name of the Tenderer;
  - b. the submission of a tender EMD/ Relevant details of MSEs/ Startup business, if required; and
  - c. any other details as the HRIDC may consider appropriate.
- Only e-tender received on the online e-procurement portal shall be considered for evaluation.

**2.20.3.**The HRIDC shall conduct the electronic opening of tenders. The opening of the financial offers and subsequent details can be viewed by the tenderer/s by logging on the e-procurement portal /bidding portal of Haryana Govt at appropriate time.

**2.20.4.**The Financial bids shall be opened and the following read out and recorded:

- a. the name of the tenderer/s
- b. the Tender cost/Price(s).
- c. any other details as the HRIDC may consider appropriate.

**2.20.5.**The HRIDC shall prepare a record of the opening of financial offers that shall include, as a minimum: the name of the tenderer/s and the offered cost. The tenderer/s representatives who are present shall be requested to sign the record available with the HRIDC. The omission of a tenderer/s signature on the record shall not in validate the contents and effect of the record.

## **2.21. Confidentiality**

**2.21.1.**Information relating to the examination, evaluation & comparison, pre-qualification of offers and recommendation of contract award, shall not be disclosed to tenderer/s or any other persons not officially concerned with such process until the contract is awarded.

**2.21.2.**Any attempt by a tenderer/s to influence the HRIDC in the examination, evaluation and comparison of the tenders or decisions of contract award shall result in the rejection of its tender.

**2.21.3.**Notwithstanding ITT Sub-Clause 2.22.2, from the time of opening the tender to the time of contract award, if any tenderer/s wishes to contact the HRIDC on any matter related to the

tendering process, it should do so in writing.

## **2.22. Clarification of Tenders**

**2.22.1.** To assist in the examination, evaluation and comparison of the tenders, the HRIDC may, at its discretion, ask any tenderer/s for a clarification of its offer. Any clarification submitted by a tenderer/s that is not in response to a request by the HRIDC shall not be considered. A pre bid meeting shall be held. The HRIDC's request for clarification and the response shall be in writing and delivered to concerned tenderer/s through e-Procurement portal. The due date and time to response these queries will also be communicated. No change in the prices or substance of the tenders shall be sought, offered, or permitted, except to confirm the correction of errors discovered by the HRIDC in the evaluation of the tender, in accordance with ITT Clause 2.28.

**2.22.2.** The tenderer/s shall respond to the queries on e-procurement portal. If a tenderer/s request for clarification, their tender shall be evaluated as per the available information in the submitted online e-tender.

## **2.23. Deviations, Reservations, and Omissions**

**2.23.1.** During the evaluation of tenders, the following definitions apply:

- (a) "Deviation" is a departure from the requirements specified in the tender document;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the tender Document.

## **2.24. Determination of Responsiveness**

**2.24.1.** The HRIDC's determination of a tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 2.10.

**2.24.2.** A substantially responsive tender is one that meets the requirements of the tender Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

- (a) if accepted, would:
  - i. affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
  - ii. limit in any substantial way, inconsistent with the tender document, the HRIDC's rights or the tenderer/s obligations under the proposed Contract; or
- (b) if rectified, would unfairly affect the competitive position of other tenderer/s presenting substantially responsive tenders.

**2.24.3.** The HRIDC shall examine the technical aspects of the offer submitted in accordance with

ITT 2.13, tender, in particular, to confirm that all requirements of HRIDC have been met without any material deviation or reservation.

**2.24.4.**The evaluation of the tenders shall be done in accordance with the Evaluation and Qualification Criteria described in Section: Evaluation and Qualification Criteria.

**2.24.5.**If a tender is not substantially responsive to the requirements of the tender document, it shall be rejected by the HRIDC and shall not subsequently be made responsive by correction of the material deviation, reservation, or omission.

**2.25. Nonconformities, Errors, and Omissions**

**2.25.1.**Provided that a tender is substantially responsive, the HRIDC may waive any non-conformities in the tender that do not constitute a material deviation, reservation or omission.

**2.25.2.**Provided that a tender is substantially responsive, the HRIDC may request the tenderer/s to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the tender related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the tender. Failing which tenders shall be evaluated based on the information available in the submitted tenders.

**2.26. Qualification of the Tenderer/s**

**2.26.1.**The HRIDC shall determine to its satisfaction during the evaluation of tenders whether tenderer/s are qualified to perform the Contract satisfactorily.

**2.26.2.**The determination shall be based upon an examination of the documentary evidence of the tender's qualifications submitted by the tenderer/s, pursuant to ITT Clause 2.14, to clarifications in accordance with ITT Clause 2.23 and the qualification criteria indicated in Section: Evaluation and Qualification Criteria. Factors not included in Section: Evaluation and Qualification Criteria shall not be used in the evaluation of the tenderer/ qualification.

**2.27. Correction of Arithmetical Errors and Omissions in tender and Evaluation of Tender Cost**

**2.27.1.**Provided that the tender is substantially responsive, the HRIDC shall correct arithmetical errors and omissions in the tender and then arrive at the Evaluated tender cost. The only single percentage rates have to be quoted by the tenderer/s against each schedule, and total tender cost shall be worked out on the above/below/at par the NIT value.

**2.27.2.**If the tenderer/s, who has submitted the lowest evaluated tender, does not accept the correction of errors and omissions as per above provisions, its tender shall be disqualified and its EMD shall be forfeited.

**2.28. Conversion to Single Currency**

**2.28.1.**For evaluation and comparison purposes the currencies of the tender shall be Indian Rupees.

## **2.29. Purchase Preference**

**2.29.1.** Unless otherwise specified in the TDS the Purchase Preference shall not apply.

## **2.30. Evaluation of tenders**

**2.30.1.** The HRIDC shall evaluate each offer of the tenderer/s who provide all request documents as stipulated in the RFP. No other evaluation criteria or methodologies shall be permitted.

**2.30.2.** To evaluate the offer of a tenderer/s, the HRIDC shall consider the following:

(a) Price adjustment for correction of arithmetic errors and omissions in the tender in accordance with tender document.

**2.30.3.** The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in tender evaluation.

**2.30.4.** HRIDC reserve Right to Accept any tender, and to Reject any or all tenders.

**2.30.5.** The HRIDC reserves the right to accept or reject any tender, and to annul the tendering process and reject all tenders at any time prior to contract award, without thereby incurring any liability to tenderer/s. In case of annulment, EMD shall be promptly returned to the tenderer/s.

## **2.31. Award Criteria**

**2.31.1.** Negotiations with the tenderer/s being considered for the award of work. The lowest tender found successful in accordance with the Section: Evaluation and Qualification criteria, shall be invited for negotiation, if any.

**2.31.2.** The HRIDC shall award the Contract to the tenderer/s whose tender is substantially responsive, provided further that the tenderer/s is determined to be qualified to perform the Contract satisfactorily and whose offer has been determined to be the eligible offer in accordance with the criteria stipulated in section: Evaluation and Qualification Criteria.

**2.31.3.** The HRIDC has the right to review the bid of lowest eligible tenderer at any time prior to award of contract. And in case of any discrepancy or shortcoming HRIDC shall proceed to the next eligible tenderer/s in the ranking to make a similar reassessment of that tenderer/s capabilities to perform satisfactorily.

## **2.32. Notification of Award**

**2.32.1.** Prior to the expiration of the period of tender validity or extended period, if any, the HRIDC shall notify the successful tenderer/s, in writing, that the tender has been accepted. Such notification (hereinafter and in the Conditions of Contract called the “Letter of Acceptance”) shall specify the sum that the HRIDC will pay to the contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract called

“the Contract Price”) and the requirement for the contractor to remedy any defects therein as prescribed by the Contract.

**2.32.2.** Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

**2.33. Performance Guarantee**

**2.33.1.** The successful contractor shall furnish the performance Guarantee @ 3% of awarded contract value within 21 days from the date of issue of Acceptance letter. Extension of time for submission of PG beyond 21 (Twenty-one) days and upto 60 days from the date of issue of LOA may be given by the competent authority who is competent to sign the contract agreement. However, a penal interest of 12% per annum for the delay beyond 21 (Twenty-one) days, i.e., from 22<sup>nd</sup> day after the date of issue of LOA. Further, if the 60<sup>th</sup> day happens to be declared holiday in the concerned office, submission of PG can be accepted on the next working day.

In all other cases, if the Contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit EMD and other dues payable to the contractor against that particular contract, subject to maximum of PG amount. In case a tenderer has not submitted EMD on the strength of their registration as a Startup recognized by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry, DIPP shall be informed to this effect. The failed Contractor shall be debarred from participating in re-tender for that work.

The contract agreement shall be signed after submission and acceptance of PG. Payment of executed works shall be paid after execution of contract agreement. The PG shall be initially valid for entire completion period plus 60 days beyond that. In case of time extensions, the contractor shall get the validity of PG extended to cover extended period plus 60 days beyond that. The PG shall be released after physical completion of work based on completion certificate and submission of No Claim Certificate by the contractor/s. The Performance Guarantee Form is included in Section: Contract Forms.

**2.33.2.** Failure of the successful contractor/s to submit the above-mentioned Performance Guarantee and additional Performance Guarantee, if any, or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the awarded work and forfeiture of the EMD and other dues available with banning of business for 02 years with HRIDC and other department as per extent rule.

**2.33.3.** When the contract is rescinded, performance guarantee shall be encashed/ forfeited. The balance work shall be got done independently without risk & cost of the failed contractor/s. The failed contractor shall be debarred to participate in the tender for completion of balance work.

**2.33.4.** Deleted.

**2.35 Security Deposit:**

**2.35.1** The security deposit shall be @5% of total awarded Contract value. The SD shall be

recovered from contractor/s on account bills @ 6% of Gross value of on account bill. EMD shall be adjusted at the last to complete the full value of SD. Security deposit shall be released after expiry of maintenance period and passing of Final Bill/Payment with No Claim Certificate.

**2.35.2** Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions, the Security Deposit already with HRIDC under the contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 62 (1) of these conditions, the Security Deposit shall not be forfeited.

No interest shall be payable upon the Bid Security and Security Deposit or amounts payable to the Contractor under the Contract.

### **2.36 Signing of Contract**

**2.36.1** Promptly after the receipt of performance Guarantee, the HRIDC shall send the Contract Agreement to the contractor/s.

**2.36.2** Within twenty-eight days of receipt of the contract agreement the successful contractor/s shall sign, date and return it to the HRIDC.

### **2.37 Jurisdiction of Courts**

**2.37.1** The tendering process shall be governed by and construed in accordance with the laws of India and the Courts as indicated in Tender Data Sheet shall have exclusive jurisdiction over all the disputes/issues arising under, pursuant to and/ or in connection with the tendering process.

**2.37.2** In case of any legal dispute, jurisdiction of courts in Chandigarh only shall be applicable.

### 3 TENDER DATA SHEET (TDS)

This section consists of provisions that are specific to each tenderer/s, procurement and supplement the information or requirements included in Section: Instructions to tenderer/s (ITT). The TDS is numbered with the same numbers as the corresponding ITT clauses.

ITT 2.1.1	The number of the Invitation for tender is: Contract: HRIDC/FS/DPR/313/2022
ITT 2.1.1	The Employer is: <b>Haryana Rail Infrastructure Development Corporation Ltd</b>
ITT 2.1.1	The name of the work is: Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various projects in Haryana Rail Infrastructure Development Corporation Limited.
ITT 2.4.1	Foreign tenderers are not permitted.
ITT 2.9.1	The language of the tender is: English
ITT 2.17.2	(a) deleted
ITT 2.29.1	The Price/ Rates shall be quoted by the tenderer/s entirely in Indian Rupees (INR) and the payment shall be released in INR only. No payment shall be released in foreign currency.  All other provisions stipulated in the tender documents in this regard shall be deemed to be modified accordingly.
ITT 2.14.2	No domestic preference shall be applicable except for registered firms and Make in India and Startup India as identified in Clause 2.30.1 below.
ITT 2.30.1	Add following to ITT 2.30.1:  (i) (A) Purchase Preference Policy for Micro and Small Enterprises (MSEs) Registered Firms: - Purchase Preference to Micro and Small Enterprises (MSEs) as admissible under Government existing policy on the date of acceptance of tender shall be applicable to Micro and Small Enterprises (MSEs) registered with any statutory bodies specified by Ministry of Micro, Small & 1 Medium Enterprises having Udyog Aadhaar Memoranda shall also be given all benefits under Public Procurement Policy Order 2012.  (ii) The tenderer/s shall submit photocopy of current and valid MSEs registration certificate inclusive of all the pages showing the category of entrepreneur – whether the registered firm is owned by General or SC/ST entrepreneurs, monetary limit of their registration for the items tendered to avail the benefits under the policy. The SMEs shall also submit a copy of “Entrepreneur’s Memorandum (Part – II)” of the concerned District Centre where the unit is established. The SMEs must also indicate the terminal validity date of their registration.



<p>(iii) Such MSE registered firms shall be exempted from payment of tender document cost and payment of EMD.</p> <p>Definition of MSEs owned by SC/ST is as given below: In case of proprietary MSE, proprietor(s) shall be SC/ST.</p> <p>(b) In case of partnership MSE, the SC/ST partners shall be holding at least 51% shares in the unit.</p> <p>(c) In case of Private Limited Companies, at least 51% share shall be held by SC/ST promoters.</p> <p>(v) All tenderer/s registered under Micro and Small Enterprises (MSEs) shall have to satisfy the eligibility criteria at par with other tenderer/s. There shall not be any relaxation in eligibility criteria/tendering process or other tender requirement and L1 price.</p> <p>(vi) If lowest valid tenderer/s is non-MSE firm, then in such a case purchase preference facility shall not be applicable in the tender as quantity cannot be split. The total quantity shall be offered to the lowest valid tenderer/s irrespective of their registration status and the benefit to MSEs shall be limited to exemption from cost of tender document and EMD only.</p> <p>(vii) The above facilities shall not be applicable for the items for which they are not registered. The above facility shall be applicable for single entity only.</p> <p>(B) Public Procurement (Preference to Make in India) Purchase preference policy for Make in India: -</p> <p>(i) Definitions: For the purposes of this Order: 'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all custom duties) as a proportion of the total value, in percent. 'Local supplier' means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed under this Order or by the competent Ministries/Departments in pursuance of this order.</p> <p>(ii) Purchase Preference shall be given to local suppliers in the manner specified hereunder:</p> <p>a) Among all qualified tenders, the lowest tender will be termed as L1. If L1 is from a local supplier, the contract will be awarded to L1.</p> <p>b) If L1 is not from a local supplier, the lowest tenderer among the local suppliers, will be invited to match the L1 price subject to local</p>
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**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

	<p>supplier's quoted price falling within +20% (the margin of purchase preference), and the contract shall be awarded to such local supplier subject to matching the L1 price.</p> <p>c) In case such lowest eligible local supplier fails to match the L1 price, the local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the local suppliers within +20% (the margin of purchase preference) matches the L1 price, then the contract may be awarded to the L1 consultant. The above facility shall be applicable for single entity only.</p> <p>(C) STARTUP INDIA -</p> <p>1. All Startups (Whether Micro &amp; Small Enterprises or otherwise) are exempted from Tender document cost and EMD.</p> <p>Definition of Startup: Startup means an entity recognized as Startup by Department of Industrial Policy and Promotions (DIPP), Ministry of Commerce and Industries, Govt. of India.</p> <p>The above facility shall be applicable for single entity only.</p>
ITT 2.36	<p>Add following to ITT 2.36:</p> <p>In case, the successful tenderer/s considers that they will not be able to sign, date and return the contract agreement to the HRIDC, the successful tenderer/s, shall inform possible date to return to the HRIDC not later than 7 (seven) days prior to the time limit of 28 days. The modified time limit shall be subject to agreement by both the contracting parties.</p>
ITT 2.37	<p>The Courts at Chandigarh shall have exclusive jurisdiction over all the disputes/issues arising under, pursuant to and/ or in connection with the tendering process.</p>

**TENDER FORM (First Sheet)**

Tender No. HRIDC/FS/DPR/313/2022

Name of Work: Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various projects in Haryana Rail Infrastructure Development Corporation Limited.

To

The President of India

Acting through the **General Manager (Projects),**

**HRIDC, Gurugram-122003**

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 **90 days** from the date fixed for closing of the tender and in default thereof, I/We will be liable for forfeiture of my/our "Bid Security". I/We offer to do the work for **HRIDC**, at the rates quoted in the attached bill(s) of quantities and hereby bind myself/ourselves to complete the work in all respects within **36 (Thirty six) 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 (**2022 edition**), 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-2010**) with all correction slips up-to-date for the present contract.

3. A Bid Security of ₹ \_\_\_\_\_ has already been deposited online. 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 upto ..... (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 Witnesses:

- (1) \_\_\_\_\_
- (2) \_\_\_\_\_

\_\_\_\_\_  
Signature of Tenderer(s)

Date \_\_\_\_\_

Address of the Tenderer(s)\_\_\_\_\_

**TENDER FORM (Second Sheet)**

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

- (a) Tender Forms – First Sheet and Second Sheet
- (b) Special Conditions/Specifications (enclosed)
- (c) Bill(s) of quantities (enclosed)
- (d) **Indian Railway's** Standard General Conditions of Contract (**2022 edition**) and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected upto latest correction slips, copies of which can be seen in the office of **General Manager (Projects), HRIDC, Gurugram** or obtained from the office of the Chief Engineer, **Northern** Railway on payment of prescribed charges.
- (e) **Indian Railway** Standard Schedule of Rates (SSOR-2010) as amended / corrected upto latest correction slips, copies of which can be seen in the office of **General Manager (Projects), HRIDC, Gurugram** or obtained from the office of the Chief Engineer, **Northern** Railway on payment of prescribed charges.
- (f) All general and detailed drawings pertaining to this work which will be issued by the Engineer or his representatives (from time to time) with all changes and modifications.

**2. Drawings for the Work:** The Drawing for the work can be seen in the office of the **General Manager (Projects), HRIDC, Gurugram** at any time during the office hours. The drawings are only for the guidance of Tenderer(s). Detailed working drawings (if required) based generally on the drawing mentioned above, will be given by the Engineer or his representative from time to time.

**3.** The Tenderer(s) shall quote his / their rates as a percentage above or below the **Indian Railway** Standard Schedule of Rates (SSOR-2010) of **Northern Railway** as applicable to **New Delhi** Division except where he/they are required to quote item rates and must tender for all the items shown in the Bill(s) of Quantities attached. The quantities shown in the attached Bill(s) of Quantities are given as a guide and are approximate only and are subject to variation according to the needs of the **HRIDC**. The **HRIDC** does not guarantee work under each item of the Bill(s) of Quantities. The tenderer(s) shall quote rates / rebates only at specified place in Tender Form supplied by **HRIDC**. 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.

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

**5.** The works are required to be completed within a period of **36 (Thirty six) months** from the date of issue of acceptance letter.

**Criteria for Evaluation of tenders**

**A. Essential Qualifying Criteria**

1. The contractor should possess the experience of having Successfully completed **or substantially completed** similar works during the last 7 years (as on 31.07.2022), which should be any one of the following
  - i. One similar completed work of amount not less than **₹ 5.71 Cr.**  
OR
  - ii. Two similar works of amount not less than **₹ 3.81 Cr** each.  
OR
  - iii. Three similar works of amount not less than **₹ 2.86 Cr** each.
2. 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, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

**Note:**

**Similar Nature of Work:**

- a) Works are considered similar if the work consists of

**“Preparation of Detailed Project Report including Selection of alignment using Mx Rail and AutoCAD Civil 3D software or Final Location Survey (FLS) and getting approval of Railways/DFCC/RVNL or a Govt PSU in connection with Construction of New BG Electrified line”.**

- b) *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.*

- c) The Contractor should have positive net worth. This will be judged from the audited Balance Sheet of the last two financial years i.e. 2020-21 & 2021-22.
- d) The contractor should submit performance certificates, in reference to S.No.1 above from clients (Govt. /Semi Govt./Public Sector/ Public listed company) for having successfully completed similar works in the last 7 years (as on 31.07.2022).
- e) A wholly owned subsidiary company, registered/ incorporated in India cannot utilize the financial and technical credentials of their parent/holding company.

## **B. Short-listing of Applicants**

The contractors should pass in all items of “Essential Qualifying Criteria”. In case of the bidder not meeting the Essential qualifying criteria, no further evaluation of the bid will be carried out and the bidder will be disqualified. **Tenderers should submit details along with supporting documents in Format 1&2**

- i. **deleted**
- ii. The tenderers will have to show the availability of **adequately** trained manpower and relevant machinery as per the Tables QCF1 and QCF2 (To be filled by Tenderer in Format **3 &4**).
- iii. Tenderer(s) may please note that their offers will be evaluated as per the credentials/documents attached by the tenderer(s) along with the Tender. Of the Applicants ranked as aforesaid, not more than five shall be pre-qualified and short-listed for financial evaluation in the second stage. However, if the number of such pre-qualified Applicants is less than two, HRIDC may, in its sole discretion, pre-qualify the Applicant(s) whose Technical Score is less than 75 marks; provided that in such an event, the total number of pre-qualified and short-listed Applicants shall not exceed two.

## **C. Evaluation of Financial Proposal**

- i. Subject to the discretion of HRIDC **as mentioned in clause B. iii above**, the Financial Proposals of those Applicants whose Technical Proposals score less than 75 marks shall not be opened.
- ii. In the second stage, the financial evaluation will be carried out as per **this clause C and combined Final valuation as per Clause D below**. Each Financial Proposal will be as stamped and assigned a financial score (SF).
- iii. For financial evaluation, the total cost indicated in the Financial Proposal (Quoted Price in BOQ) will be taken inclusive of Service Tax etc.
- iv. HRIDC will determine whether the Financial Proposals are complete, unqualified and unconditional. The cost indicated in the Financial Proposal shall be deemed as final and reflecting the total cost of services. Omissions, if any, in costing any item shall not entitle the firm to be compensated and the liability to fulfill its obligations as per the TOR within the total quoted price shall be that of the Consultant. The lowest financial proposal (FM) will be given a financial score (SF) of 100 marks. The financial scores of other proposals will be computed as follows:

- $SF = 100 \times FM/F$  where
- F = amount of Financial Proposal

**D. Combined and Final Evaluation**

- i. Proposals will finally be ranked according to their combined technical (ST) and financial (SF) scores as follows:
  - $S = ST \times Tw + SF \times Fw$   
here, Tw and Fw are weights as stamped and assigned to technical and financial Proposals that shall be 0.5 and 0.5 respectively.
- ii. Generally, the successful Applicant shall be the Applicant having the highest combined score.

**QCF1**

**9. REQUIREMENT OF SKILLED AND TRAINED MANPOWER INCLUDING ENGINEERS AND TECHNICAL STAFF**

SN	Personnel	Qualification	Minimum number required	Total Experience for each person (in years)	Maximum Marks (Total 65)
1	Team Leader	B.Tech.(Civil)	1	20 years (including 10 years in Indian Railways, its PSUs/ Metro Railways)	7
2	Track Expert	B.Tech ( Civil)	1	10 years in Indian Railways, its PSUs/Metro Railways	6
3	Traffic Expert	Graduate	1	10 years in Indian Railways, its PSUs/Metro Railways	6
4	Finance Expert	MBA (Finance)	1	10	6
5	Chief Survey Engineer	B.Tech.( Civil)	1	15	6
6	Survey Engineer	Diploma (Civil)	3	5	3 x 3 = 9
7	Alignment Expert	B.Tech (Civil)	1	10	3
8	Electrical Systems Expert	B.Tech (Eletrical)	1	15 (including 10 years in Indian Railways, its PSUs/ Metro Railways)	3
9	Signaling & Telecom Systems Expert	B.Tech ( Electronics and Communication)	1	15 (including 10 years in Indian Railways, its PSUs/ Metro Railways)	3
10	Patwaris	Retd. Revenue officials	1	20	3
11	Auto CAD Experts	Diploma (Civil)	2	5	2 x 2= 4
12	Architect cum Urban Planner	B Arch and PG in Urban Planning/ Urban Design	1	15 years. Shall have experience in Urban Planning assignments of similar magnitude and nature.	6
13	Real Estate Expert	Graduate in any dicipline	1	15 years. The person should have experience in dealing with Real Estate Markets in various sectors like Industrial, Commercial, Retail, Residential, Hospitality, Health, Institutional, Educational etc. in the NCR. He should have clear understanding of emerging trends in real estate market in last decade. He/she should have been successfully played the role of Expert/ Developer/ Broker/ Transaction Advisor/ valuer in similar areas. He should be able to	3



**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

				communicate with the larger diaspora of the influence zone for conducting surveys.	
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**Note:**

- i. Bidders must enclose Name, date of birth and complete testimonials of the experts proposed to be deployed on the project. Out of the total experience at least 25% experience must be directly in the relevant field related to similar works.
- ii. Marks shall be awarded as per the relevance of experience with each of the experts. Discretion of HRIDC in evaluating the experts cannot be challenged.
- iii. Proportionate marks may be awarded in case of experts falling short in relevant experience.
- iv. Persons with the approved CV against Part 1 of TOR will have to be mobilized to carry out the work upto completion of work.
- v. Some experts may continue till the execution of works start in the field and relevant records of control of alignment, utility survey, etc. have been handed over to the Contactors. The terms of their engagement can be negotiated in case required.
- vi. The experts at Sr No 12, 13 are for property development and Master Planning. These can be demobilized after completion of the assignment as per TOR PART-2.

Tender No: HRIDC/FS/DPR/313/2022

**QCF 2**

**10. MINIMUM REQUIREMENT OF TOOLS AND SOFTWARE (IN WORKING CONDITION)**

<b>SN</b>	<b>Description</b>	<b>Capacity</b>	<b>Nos. Required</b>	<b>Max Marks (Total 35)</b>
1	Total Station	1 sec accuracy	2	2 x 2=4
2	DGPS (WAAS enabled)		2	4 x 2=8
3	Rail Track Alignment Software		1	8
4	Satellite Image Processing Software (IREDAS Imaging, Arc Info etc.)		1	5
5	AutoCAD Civil 3D		1	5
6	Plotter (Office Equipment)		1	5

**Note:**

- i. There are 2 marks for each number for Item 1, 4 marks for each number for Item 2, 8 marks for items 3, 5 marks **each** for item 4, 5 & 6. (Total 35).
- ii. Bidders are expected to enclose ownership documents for the equipment (own or from hiring agency as indicated above) and software. HRIDC reserves the right to make judgment on proof of ownership/declaration of bidders.

Tender No: HRIDC/FS/DPR/313/2022

**TERMS OF REFERENCE (TOR)**

**1. GENERAL**

Haryana Rail Infrastructure Development Corporation Limited (HRIDC), intends to appoint the consultant for “Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various project in HRIDC.”

HRIDC will be the employer and firm will be executing agency for the works. The standards of output required from the appointed agency/firm are to be of the international level both in terms of quality and adherence to the agreed time schedule.

The broad scope of the present study has been divided in two parts as follows:

**PART-1 -Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various project in HRIDC.**

**PART-2 –Providing Consultancy for Preparation of DPR/ Road Map for Property Development along HORC and Master Plan for approx. 20 Ha of land at Manesar.**

**PART-1**

**2. OBJECTIVE AND PURPOSE OF STUDY**

The purpose of this study is to prepare Feasibility study and Detailed Project Report for various projects in Haryana Rail Infrastructure Development Corporation. The main objective of the consultancy service is to carryout Engineering survey, traffic survey, financial analysis and prepare detailed project report for various new projects including doubling of existing railway lines. The Detailed Project Report would inter-alia include General alignment fixing/ Layout decision, preparation of L-Section, X-section, ESP, Land calculations, Classification of land, Land cost calculations, Preparation of Land Plans, Soil exploration and cross drainage structures and grade separated structures, ESP of station, yard signal and telecom structure, quantities of various items, detailed cost estimates arrangement based on prevailing USSOR. The design of the alignment will be done using Civil-3D/Mx rail/Bentley software and plans, drawings will be plotted on AutoCAD. All the levels shall be furnished with respect to GTS benchmarks. GTS benchmark should be established at the location of bridges/stations and survey of India Benchmarks. The consultant should give detailed cost estimates including total land requirement though kept on ROW of existing Railway as far as possible as per latest instructions enforce.

**3. SCOPE OF SERVICES**

The scope of the services includes preparation of Inception Reports, Feasibility & DPRs of the new projects proposed as per mandate of HRIDC. In case of doubling as far as possible, the new line shall

Tender No: HRIDC/FS/DPR/313/2022

be within the existing right of way avoiding land acquisition, except for locations having inadequate width and where provisions of short bypasses, service roads, alignment corrections, improvement of intersections are considered necessary and practicable and cost effective. The consultant shall furnish land acquisition requirements and details thereof as per revenue records/maps for further processing of land acquisition. The Consultant shall study the possible locations and design of crossing station as per tentative report if available and discussion with HRIDC. Wayside amenities required on stations shall also be planned as Railway codes/Manuals/guidelines. The provision of service roads and fencing may be considered, wherever necessary to improve efficiency and safety. Engineering scale plan/SIP shall be prepared as approved by HRIDC. Wherever required, consultant will liaise with concerned authorities and arrange all clarifications. Approval of all drawings including P&P, ESP, SIP will be got done by the consultant from the client. All the activities shall be governed by relevant chapter/instructions of the engineering code and other IR references.

### **3.1. Feasibility Study**

#### **3.1.1. Inception Report**

The report shall cover the following major aspects:

- a) Project appreciation
- b) Detailed methodology to meet the requirements of the TOR finalized in consultation with the HRIDC officers; including scheduling of various sub activities to be carried out for completion of various stages of the work; stating out clearly their approach & methodology for project preparation after due inspection of the entire project stretch and collection/ collation of necessary information;
- c) Task Assignment and Manning Schedule;
- d) Work Programme;
- e) Performa for data collection
- f) Design standards and proposed cross-sections;
- g) Key plan and Linear Plan;
- h) Development plans being implemented and/or proposed for implementation in the near future by the local bodies and the possible impact of such development plans on the overall scheme for field work and design for the study;
- i) Quality Assurance Plan (QAP) finalized in consultation with HRIDC;

The most appropriate alignment options should be identified on the basis of site conditions, techno-economic considerations and google earth or similar platform-based desktop study. Desk study of alternative alignments on topo-sheet as per the purpose, area and scope of work defined in TOR in consultation with NR/HRIDC/ other stake holders - proposal of alignment on topo-sheet Google Earth, KMZ format. The Report should include the details regarding these aspects concerning the alignment as well as block cost estimates.

Tender No: HRIDC/FS/DPR/313/2022

**3.1.2. Review of Data and Documents**

The Consultants shall collect the available data and information relevant for the study. The data and documents of major interest shall include, but not be limited to, the following:

- a. Climate
- b. Project route inventory.
- c. sub-surface and geo-technical data for existing bridges
- d. Hydrological data, drawings and details of existing bridges
- e. Existing geological maps, catchment area maps, contour plans etc. for the project area.
- f. Condition of existing riverbank / protection works, if any.
- g. Details of sanctioned / on-going works on the stretch sanctioned by MoR/other agencies for Tie-in purposes
- h. Survey and evaluation of locally available construction materials;
- i. Type and location of existing utility services (e.g., Fiber Optical Cable, O/H and U/G Electric, Telephone line, Water mains, Sewer, Trees etc.).

**3.1.3. Reconnaissance Survey**

The scope of work is as below but not limited to:

- a. Exploring and to design alternate alignment routes.
- b. To conduct foot by foot survey with hand held GPS along the proposed alignments, duly checking various geographical features, site constraints such as existing area, existing roads, power lines etc. and to assess modification to the proposed alignment as per site conditions.
- c. To study the proposed serving stations, identification of locations for bridges, cross-drainage structures, level crossings / ROB / RUB and marking of high tension/low tension wire and any road crossing etc.
- d. In carrying out a Reconnaissance survey particular attention should be paid to ascertaining the waterway required, and the best sites for stations, crossings of streams, bridges and roads. The nature of foundation which would be required for large bridges should be investigated and recorded. Materials and labour available in the area covered by the survey should be taken note of.
- e. To collect GPS coordinates along the proposed /possible alignments and spot levels to establish X, Y, Z co-ordinates along alignment and taking coordinates of station yards, as may be required
- f. To prepare index plan and index section at 200 m interval based on contour level correlated with site observations.
- g. To prepare abstract cost estimates for Earth work, Bridges, Track, electrification & Signalling. Land and other miscellaneous Civil works like buildings and roads, protection works etc.
- h. While performing drone survey the necessary permissions will be provided by HRIDC.

### **3.2. TRAFFIC SURVEY AND ESTIMATES**

**Unless otherwise stated, relevant provision of Chapter III of IR code for Engineering Department shall be applicable**

- a) Origin-destination (OD) study of freight traffic based on alternative growth scenarios bringing out the OD matrix of freight movement connecting the originating points to consumption or production centers.
- b) Review of Existing Traffic Survey/ studies including study on passenger/goods traffic forecast.
- c) Estimate the freight & passenger traffic by way of diversion from the existing Indian Railway routes passing in & around Delhi /NCR and diversion to/from the proposed DFC route if any.
- d) Assessment of freight & passenger transport demand for 25 years from the year of starting of operation in 5 years intervals based on alternate growth scenarios.
- e) Identify new freight traffic expected to be generated due to future expansion in industrial/ production centers, agriculture activities, generation capacities, etc., in the Zone of influence (in radius of approx. 50 Km) for next twenty-five years.
- f) Study the traffic (Freight and Passenger) moving by other modes of transport and estimate the traffic likely to be induced to the proposed railway route and market share of Railways in this traffic on account of new policy initiatives taken by Railways to be determined through customer survey.
- g) The 'base year' traffic over which projections are to be made for the First Year of operation of the project will be 2021-22 as decided in consultation of HRIDC.

### **3.3. FINANCIAL APPRAISAL**

- a) Estimation of project revenue based on principles of Inter Railway Financial Adjustment being followed in Railways. O&M cost has to be calculated on "Fully Distributed Cost" (FDC) principle being followed in Railways and calculation of projects benefits in terms of revenue, capital investment and O&M cost. O&M cost also to be worked out under "fixed" and "variable" (FCVC) heads as followed in Railway. Detailed financial evaluation of the project to be done as acceptable to banks/lenders and also in format required by HRIDC/MoR.
- b) To examine the possibility of implementing the project through JV Model as per the recent Policy of MoR.
- c) Undertake complete appraisal for all economic, financial, social including environmental impact and other related issues.

Tender No: HRIDC/FS/DPR/313/2022

- d) Further to undertake detailed financial evaluation of the project as per the standard practices followed in the Indian Railway for such projects and as acceptable to banks/lenders in the format required by HRIDC/MoR.
- e) The consultant will carry out a financial feasibility study to establish the financial viability of the project. The consultant would specifically do the following:
  - 1. Undertake a detailed financial analysis, for different scenarios.
  - 2. Prepare detailed financial projections, involving estimation of overall project cost, detailed estimation of revenue and operations and maintenance costs and estimation of the resources to be mobilized.
  - 3. Study and evaluate alternate financial project structures for alternatives, if any
  - 4. Evaluate and recommend the preferred implementation structure based on project economics and identification of potential partners.
  - 5. Evaluate the Financial Internal Rate of Return, Economic Rate of Return, DSCR (Minimum and Average), PAT, PBT, Financial Structuring, balance Sheet, etc. for carrying out the Bankability there of
  - 6. Evaluate Sensitivity Analysis for up to increase in cost project by 0% to 50% and revenue/benefit by +/-20%
  - 7. Evaluate the costs & benefits of the project
  - 8. Examine various options for funding in terms of debt & equity and suggest an appropriate Debt Equity Ratio thereof in the financial model; PAT Balance sheet, etc.
  - 9. Sensitivity Analysis thereof (i) above.
  - 10. Evaluate Landed Cost of the Project
  - 11. Evaluate Economic Analysis: Economic Rate of Returns
  - 12. Risks and migration analysis
  - 13. SWOT analysis
- f) To prepare draft feasibility report (including Engineering, Traffic and Financial) and submit to HRIDC for approval.
- g) To make presentations, concept drawings etc., for discussions with Northern Railway and HRIDC whenever required during period of study.
- h) On receipt of approval from HRIDC, to submit the Final Feasibility Report

### **3.4. DETAILED PROJECT REPORT**

After approval of feasibility report from HRIDC/MoR, final location survey shall be carried out for the approved alignment and the yards.

- i. To check / review alignments finalized during feasibility study.
- ii. To carry out Final Location survey of the approved alignment and the yards and detailed design of the alignment & connectivity.
- iii. To fix the proposed alignment and the yards by Total Station Survey as per Indian Railway stipulation.

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

- iv. To take detailed longitudinal and transverse levels survey along the alignment and the yards.
- v. To fix bench marks at 500 m intervals along the line and in the yards to facilitate checks during construction work. Masonry pillars should be built at the tangent points of curves and along the Center line.
- vi. Center line pegging along with marking rail corridor for land acquisition on Mouza map, with details of land ownership (forest, revenue or private), khasra details, liaison and collection of signed documents from revenue and forest and other concerned departments, preparation of rehabilitation and resettlement plan, preparation of land acquisition documents as per the relevant Land Acquisition Acts.
- vii. The unit of measurement for the center line should be the chain of 20 meters. The center line finally located should be marked out by pegs at every 20 meters. At each 100 meters a large peg should be used; these 10 meters pegs should have their numbers branded or stamped on them in figures not less than 25mm high. The numbers branded on the pegs should indicate hundreds of meters; thus 57 would mean a distance of 5700 from the zero chainage.
- viii. To fix permanent reference points along alignment and the yards.
- ix. To survey water courses for computation of flood discharge including fixing exact location of bridges on the alignment for proper drainage.
- x. Investigation should be made of bunds, banded stream and irrigation works in the vicinity of the projected line which might affect the future safety of the line. In arriving at decision on the waterways the engineer should pay due regard to this work and consider the alternative of altering or diverting the bunds, irrigation streams etc., even it would mean incurring some expenditure on such alternations, if that would save a larger expenditure on the waterways.
- xi. In the case of passage through hills, the geological characteristics of the country should be investigated by engineer, particularly in respect of the probable stability of the line, and if the importance of the work requires it, the Railway administration should apply for the assistance of an officer of the Geological Survey of India.
- xii. To prepare Engineering Scale Plans and sections for the project (as per Indian Railway code), as may be required in the draft DPR.
  - a) Index map.
  - b) Index section and plan.
  - c) Detailed plans and sections.
  - d) RFO at desired locations.
- xiii. To prepare Detailed Project Report along with detailed estimates, drawings of Civil work as applicable, and covering various railway related requirements, GADs (not detailed designs), bill of quantities, rate analysis, signaling arrangements, and electrification of yards, station and other buildings.
- xiv. The traffic estimates study and financial appraisal report should be integrated and included in to above technical DPR and final DPR should be submitted.



Tender No: HRIDC/FS/DPR/313/2022

xv. To assist for obtaining approval of DPR by railway authorities.

**NOTE\*** DPR study will be undertaken only after specific approval of HRIDC on the basis of final feasibility report. HRIDC shall have the right to close the contract after feasibility study, and, the consultant will have no claim whatsoever on account of DPR study.

Tender No: HRIDC/FS/DPR/313/2022

**3.5. DEPARTMENT WISE SCOPE OF WORK:**

**3.5.1. Scope of Civil Engineering:**

3.5.1.1. Terms of Reference:

SN	Descriptions	Provisions
1.	Standard of Construction	Suitable for operation of 25T axle load or as per instructions of HRIDC
2.	Gauge	1676 mm BG
3.	Track structure	60 Kg / 90 UTS rails in main line, loop lines and sidings.
4.	Sleeper	60 kg PSC sleepers of latest design. (Latest wider sleeper to RDSO Drawings)
5.	Sleeper density	1660 sleepers per km in main line and 1540 sleepers per km in loop line.
6.	Ballast cushion	Main line - 350mm. Loop lines - 250 mm.
7.	Welding of rails	As far as possible, CWR/LWR to be provided.
8.	Points & Crossings	Curved switches and CMS crossing with fan shaped layout.
9.	Formation	1. Blanket of adequate depth to be provided depending on the sub-grade proposed. 2. Protective measures, as required ensuring safety in cutting must be incorporated.
10.	Maximum degree of curvature	2 Degrees.
11.	Ruling gradient	1 in 200 compensated.
12.	Gradient in yard	Consistent with the prevailing gradient in existing yards. However, gradient shall not be steeper than 1in 400 as per provision IRSOD
13.	Length of loop	Minimum 750-meter CSR.
14.	Track centers	5.3m minimum
15.	Maximum grade on approach to main river bridges	As flat as possible, consistent with site conditions and not steeper than 1in 200 compensated.
16.	Level crossing	ROB / RUBs should be provided Note: Consultant shall undertake studies for elimination of level crossing in the railway lines. They will incorporate the arrangement with least cost.
17.	Width of formation:	Embankment For Single Line, Top width 7.85 m. For Double Line, Top width 13.14 m.
18.	Speed	130/160 Kmph

### 3.5.1.2. Engineering Survey and Investigations

**Unless otherwise stated, relevant provision of Chapter II and IV of IR code for Engineering Department shall be applicable**

#### A. Engineering Survey and Alignment

- i. The Consultants should make an in-depth study of the available land width (ROW if available), topographic maps, satellite imageries and air photographs of the project area, geological maps, catchment area maps, contour plans, flood flow data and seismological data and other available relevant information collected by them concerning the existing or proposed alignment.
- ii. Consultant himself has to arrange the required maps and the information needed by him from the potential sources. Consultant should make efforts for minimizing land acquisition. Suitable Technology shall be used for timely and better survey accuracy for the continuation of tentative alignment and Topography Survey. While determining the alignment for the additional lines, Indian Railway engineering code Para 236 to be referred.
- iii. The detailed ground Engineering Survey may be taken up immediately after the study of maps and other data. The primary tasks to be accomplished during the Engineering surveys include;
  - a. Topographical features of the area; typical physical features along the existing alignment within and outside ROW i.e., land use pattern;
  - b. Studying the tentative alignment and propose alteration/modification as per requirement.
  - c. Inventory of major aspects including land width, terrain, pavement type, carriageway type, bridges and structures (type, size and location), intersections (type, crossroad category, location), Level crossing to be eliminated or retained urban areas (location, extent), geologically sensitive areas,
  - d. Type and extent of existing utility services along the alignment (within ROW).
  - e. Typical physical features in the alignment of existing lines.
  - f. Bridge locations are the same as per running line, level crossing/RUB shall be accordance to work being executed by Rly.
- iv. The data derived from the Engineering surveys are normally utilized for planning and programming the detailed surveys and investigations. All field studies should be taken up on the basis of information derived from the Engineering surveys.
- v. The data and information obtained from the Engineering surveys should be documented. The data analysis and the recommendations concerning alignment and the field studies should be marked on layout plan with alternative The data obtained from the Engineering surveys should form the core of the database which would be supplemented and augmented using the data obtained from detailed field studies and investigations.
- vi. The layout plan with alternative prepared on the Engineering surveys should also compiled in the tabular form indicating the major physical features for HRIDC's comments.

Tender No: HRIDC/FS/DPR/313/2022

**3.5.1.3. Topographic Survey, Index plan & Yard diagrams etc.**

- i. Conducting a preliminary survey for the entire sections at a interval of 500 meters of proposed center line, collection and incorporation of field details like existing streams, water courses, bridges (both railway and road), their types, bed levels, spans, HFLs, ROB / RUB / FOBs, irrigation canals/channels, their reduced levels, sections/ openings (having a bearing on proposed line), roads, HT/LT power lines, telephone/ other communication lines, Telephone Posts, level crossings, religious edifices and structures, electrical engineering details and Signaling details for preparation of detailed estimate and project report.
- ii. Conducting detailed Location Survey, preparation of Plans/sections, and marking the centre line of final alignment on the ground for BG line conforming to the standards of a Group A route for sanctioned speed of 160 KMPH of new BG Railway line aside parallel to existing section the design of the alignment will be done using MX Rail Bentley software and plans & drawings will be plotted on AutoCAD software.
- iii. Conducting a topographic survey for the stretches considered necessary by the Engineer, for a width on both sides of proposed center line up to Railway Boundary or beyond where land acquisition is complemented, collection and incorporation of field details like existing streams, water courses, bridges (both railway and road), their types, bed levels, spans, HFLs, ROB / RUB / FOBs, irrigation canals/channels, their reduced levels, sections/ openings (having a bearing on proposed new line), roads, HT/LT power lines, telephone/ other communication lines, Telephone Posts, level crossings, religious edifices and structures etc. in the project sheets. Topographic survey, for existing/proposed section & station yards for the following details:-
  1. Firm up the alignment.
  2. L-section, cross-section of the proposed line.
  3. Plans of existing/proposed station yards.
  4. GAD of structure includes Bridges.
  5. Relocation of utilities
  6. Land Acquisition requirement.

Necessary consultation with Authority/engineer shall be taken while finalization of L-section and cross-section, ESP, Soil & GAD's etc.

**3.5.1.4. Longitudinal and Cross-Sections**

While determining the alignment for additional lines the para 236 of IR Engineering code shall be compiled. The topographic surveys for longitudinal and cross-sections shall cover the following:

- i. Longitudinal section levels along final center line at every 25 m interval, at the locations of curve points, small streams, intersections and at the locations of change in elevation. A detailed plan/drawing as noted in documentation para 8.6.5(iv). (Scale line 5000 horizontal & 1 lines in 500 vertical)

Tender No: HRIDC/FS/DPR/313/2022

- ii. Cross sections at every 50 m interval in full extent of survey covering sufficient number of spot levels on existing carriageway and adjacent ground for profile correction course and earth work calculations. Cross sections shall be taken at closer interval at curves.
- iii. Longitudinal section for crossroads for length adequate for design and quantity estimation purposes.
- iv. Longitudinal and cross sections for major and minor streams incorporating such locations on running line or ongoing projects of railways, shall cover cross section of the channel at the site of proposed crossing and few cross sections at suitable distance both upstream and downstream, bed level up to top of banks and ground levels to a sufficient distance beyond the edges of channel, nature of existing surface soil in bed, banks & approaches, longitudinal section of channel showing site of bridge etc.

**3.5.1.5. (i) Geo-technical Investigations and Sub-Soil Exploration**

- i. These are to be carried out as per RDSO Guidelines and Specifications for Design of Formation for Heavy Axle Load for 25t axle load and as per instructions of the Client.
- ii. Bidder shall carry out geo-technical investigation along the alignment, at Major/Minor bridges and building sites as required and approved by HRIDC.
- iii. Drilling of 150 mm diameter boreholes through soil overburden material along alignment normally at 300m apart in case of uniform type of soil and closely spaced in critical zones and at each pier and abutment locations or as per the instructions of the Engineer.
- iv. Drilling of 'Nx' size boreholes as per IS: 6926 at each pier and abutment in rock up to a maximum depth of 5m at each location. The depth of drilling is tentative and may vary from borehole to borehole depending on the geological conditions. Observation during drilling to be recorded in a Performa as given in IS:5313 Appendix A.
- v. Conducting standard penetration tests in all types of soil deposits met within a bore hole, at intervals of 500m and every change of strata as per directions of Engineer. The starting depth of performing SPT shall be between 1.0 m and 2.0m depth below ground level in alternate boreholes.
- vi. Collection of undisturbed soil samples of 100mm dia and 450mm length in standard UD tubes at every change of strata and at regular intervals of 3.0m in each bore hole and as directed by the Engineer. Sampling shall conform to IS: 1892, 2132 & 8763.
- vii. Collection of disturbed samples in each bore hole at regular intervals to provide description of soil profile and its variation. Samples be collected in boreholes at 1.5m intervals starting from G.L. and at every change of strata.
  - i. Method of sampling shall conform to IS:2132 and classification of samples shall conform to IS:1498.

Tender No: HRIDC/FS/DPR/313/2022

- ii. Conducting various laboratory tests as per IS: 2720 from approved laboratory by using approved apparatus complying with the requirements and specifications or Indian standards or other approved standards for this class of work. Test of soil shall be limited to the extent its necessary for preliminary design and reasonable estimate of cross section/structures including bridges.
- viii. Geotechnical Investigations and Sub soil Exploration shall be carried out to determine the nature and properties of existing strata in bed, banks and approaches with trial pits and bore hole sections showing the levels, nature and properties of various strata to a sufficient depth below the level suitable for foundations, safe intensity of pressure on the foundation strata, proneness of site to artesian conditions, seismic disturbance and other engineering properties of soil etc.
- ix. The scheme for the boring's locations and the depth of boring shall be prepared by the Consultants and submitted to HRIDC for approval. These may be finalized in consultation with HRIDC.
- x. The sub-soil exploration and testing should be carried out through the Geotechnical Consultants empaneled by NABL. The soil testing reports shall be in the format prescribed in relevant railway's codes/guidelines.
- xi. For the embankment, bore holes at each major change in soil condition or at 2 km intervals whichever is less shall be carried out to a depth of at least 2 m below embankment base or to rock level and are to be fully logged. Appropriate tests to be carried out on samples collected from these bore holes to determine the suitability of various materials for use in widening of embankments or in parts of new embankment structure.

**3.5.1.5. (ii) Preparation of GAD of bridges and structures**

- i. The data collected and investigation results shall be analyzed to determine the following:
  - a. HFL-Highest flood level
  - b. LWL-Lowest water level
  - c. FSL-Full supply level
  - d. Erodibility of bed/scour level
  - e. Design discharge
  - f. Linear waterway and effective linear waterway
  - g. Likely foundation depth
  - h. Safe bearing capacity
  - i. Engineering properties of sub soil
  - j. Artesian conditions
  - k. Settlement characteristics
  - l. Vertical clearance
  - m. Free board

Tender No: HRIDC/FS/DPR/313/2022

- n. Severity of environment with reference to corrosion
  - o. Data pertaining to seismic and wind load as required as per railway standards.
  - p. Any other data desired by HRIDC.
- ii. The Consultant shall prepare General Arrangement Drawing (GAD) and Alignment Plan showing the salient features of the bridges and structures proposed to be constructed / reconstructed along the alignment covered under the study. These salient features such as alignment, overall length, span arrangement, cross section, deck level, founding level, type of bridge components (superstructure, substructure, foundations, bearings, expansion joint, return walls etc.) shall be finalized based upon hydraulic and geo-technical studies, cost effectiveness and ease of construction. The Consultants shall prepare GAD for necessary estimates.
  - iii. GAD for bridges/structures across Railway Road & irrigation/water way channels road shall be got approved by HRIDC, the Consultants shall prepare preliminary design as per railways codes/guidelines for all components of the bridges and structures for approval of railway.
  - iv. The existing structures may require to be extended/widened in part or fully as per the latest railway guidelines. The Consultant shall incorporate the same in GAD and working drawings for carrying out the above improvements.
  - v. In case land available is not adequate for embankment slope, suitable design for RCC retaining wall shall be furnished.
  - vi. Establishment of ground water table, if encountered.
  - vii. Analysis of field and laboratory test results and preparation of report, consultant shall recommend for given bearing capacity of the type of foundation. Bearing capacity and founding strata for major and minor bridges is also to be given. Visual soil investigation by way of examining the existing cuttings and banks materials and mentioning against each chainage type of soil.
  - viii. The data and information collected during survey/investigations should be presented in suitable format such as graphs, bar chart or in tabular or statement form.

#### **3.5.1.6. Details of utility Services and Other Physical Features**

- i. The Consultants shall collect details of all-important physical features along the alignment. These features affect the project Bids and should normally include buildings and structures, monuments, burial grounds, cremation grounds, places of worship, different types of roads, stream / river / canal, water mains, sewers, gas/oil pipes, crossings, trees, plantations, utility

Tender No: HRIDC/FS/DPR/313/2022

services such as electric HT/LT/EHT power lines, and telephone lines (O/H & U/G) and poles, optical fiber cables (OFC), Quad & Signaling cables etc. The survey would cover the entire right-of-way of the railway on the adequate allowance for possible shifting of the central lines at some of the intersection's locations.

- ii. The information collected during Engineering and field surveys shall be shown on a strip plan so that the proposed improvements can be appreciated and the extent of land acquisition with L.A schedule, utility removals of each type etc. assessed and suitable actions can be initiated. Separate strip plan for each of the services involved shall be prepared for submission to the concerned agency.

### **3.5.1.7. Preparation of Land Plans:**

- i. In course of deciding the final alignment if land acquisition is involved then the scheme for the same is to be prepared by the bidder. The scheme will contain the following:
- ii. The center line of proposed alignment and also the corridor of land acquisition shall be marked on the ground at each 100 M interval or as directed by Engineer.
- iii. Revenue village map of the entire area shall be collected by the Bidder.
- iv. The center line of proposed Railway alignment & also the corridor of land acquisition shall be marked on revenue village map.
- v. Record of Rights of all plots which are falling in the proposed land acquisition corridor shall be collected from Revenue department. Details of Govt & forest land should also be collected.
- vi. Plot wise area of land acquisition (Private/Govt /Forest) shall be calculated with detail of ownership.
- vii. Ratio of area of plot proposed to be acquired to the total plot shall also be calculated.
- viii. Details of buildings, water sources etc. coming in way of proposed alignment shall also be submitted separately.
- ix. Collection of all relevant details of government & forest lands separately to facilitate preparation of papers for their acquisition.
- x. The entire work shall be carried out as per the provisions of Indian Railways Code for the Engineering Department (Fourth Reprint, Year 2012 with up-to-date correction slips) in general and as per Chapter No II and IV. And relevant instructions that will be issued by Railway Board.



Tender No: HRIDC/FS/DPR/313/2022

**3.5.1.8. Documentation**

- i. HRIDC will assist the consultant in co-ordination with Railway regarding obtaining of existing details such as index, index section, Bridges details, state authorities, station drawings etc. of existing running line.
- ii. The bidder shall prepare and hand over all original field and techno books, neatly maintained and duly indexed.
- iii. The bidder shall provide electronic file in MS-EXCEL 7.0 or similar software of all field data. The Engineer will give the required format at site and the bidder shall provide direct unloaded field data of Drone/ LiDAR in specified format as per instructions of HRIDC pertaining to desired item.
- iv. The bidder shall submit to the client point all locations/points marking north, east and elevation of all the observations, direct unloaded field data in specified format. He will also plot and submit the topographical plan along the proposed BG line in accordance with the requirements of the Terms of Reference for approval. The staking of the center line of the proposed BG alignment shall be done only after approval to this Bid. On completion of the staking, detailed plan (scale-1: 5000) and L-section (scale-1: 5000 h or. &1:500 ver.) shall be prepared by the bidder
- v. The entire data and report shall be submitted in MS-EXCEL (Rel.7.0 or later) and MS- Word (Rel.7.0 or later) respectively, duly formatted.
- vi. A Weekly progress report in the enclosed Performa shall be sent by the team leader of each team by Fax/Email as per discretion of authority so as to reach HRIDC Office every Monday, positively.
- vii. The bidder shall furnish the documents as mentioned in Para under Scope of work.
- viii. Abstract of gradients, curves and bridges: The bidder shall furnish the details of gradients and curves to be provided on the final alignment for the proposed line. He shall also furnish an abstract of bridges duly indicating their chainage, bed levels etc. on the proposed line.
- ix. With regard to all matters connected with locating the final alignment - both technical and non-technical - the decision of HRIDC is final and binding on the bidder.
- x. Jungle clearance: The rates quoted by the bidder are inclusive of jungle clearance required, if any, for conducting the survey including fixing of pegs, pillars etc. and no separate payment shall be made.
- xi. Bridges and grade separator: The scope of work does include submission of discharge calculations in the case of all bridges across streams/rivers/channels, as required for preparation of GADs. However, all relevant site details in the case of all road crossings, such as type of road, angle of

Tender No: HRIDC/FS/DPR/313/2022

road crossing should be taken to prepare plan and section of road at least for 500m on each side of proposed crossing etc., required for deciding the type of grade separator RUB/ROB or Level crossing and incorporated in the plans.

- xii. Site Facilities: The consultants are advised to acquaint themselves well with the site conditions, availability of approach roads etc. before quoting their rates. The rates quoted by the bidder are deemed to include charges for any and all site facilities that are considered necessary for the execution of work. Land that can be made conveniently spared near two end stations will be made available by HRIDC after obtaining necessary permission from Railway free of charges for the use of the bidder for his field offices, stores, depots, workshops and temporary accommodation of his staff. The bidder shall visit the site, see the extent of land available and make a specific request in writing to HRIDC for pursuing the matter with the Railways. No assurance can be given regarding the vulnerability of such land to flooding or any other calamities. HRIDC undertakes no responsibility or liability in this regard and the bidder shall take necessary measures against such eventualities at his cost. On completion of work, the bidder shall remove all temporary structures at his own cost and hand over the vacant land to HRIDC / Railway, within one month. If HRIDC/ Railway is unable to spare sufficient land to meet the bidder's requirement, he shall make his own arrangements for the same, at his cost.
- xiii. Service Roads: The bidder will be permitted to make use of the existing service roads, if any, free of cost. New service roads required by the bidder in connection with the for carriage of men, materials or for any other purpose whatsoever will have to be constructed and maintained by the bidder at his cost. For the purpose of construction of service roads on Railway land, permission will be given to the bidder at HRIDC's discretion free of any charges.
- xiv. Land: Land other than Railway land is necessary to be entered upon for the purpose; such permission to enter into the land shall be arranged by the bidder at his cost. The bidder shall indemnify HRIDC against all claims for all damages whatsoever on this account. HRIDC, however, reserves the right to make use of such service roads without any charges.
- xv. Electric Power: The bidder shall make his own arrangements for obtaining the electric power required for operating his machinery, equipment, lighting etc. HRIDC will not undertake any responsibility in this regard.
- xvi. The work is required to be carried out in the vicinity of running Track and Bridges, and the bidder shall take all necessary measures required to ensure safety of both his men/equipment and railway assets/ running trains at all times and the rates quoted by him shall include the cost of all such

Tender No: HRIDC/FS/DPR/313/2022

measures. If at any time, HRIDC finds that the safety arrangements are inadequate, the bidder shall take immediate corrective measures at his cost. Any dereliction in the matter shall in no absolve the bidder of his sole responsibility to adopt safe working methods.

xvii. The bidder shall take adequate precautions for the safety of his staff when they have to work in close proximity to the running Railway lines and ensure safety of running traffic and his staff at all times. All expenditure for ensuring the above shall be borne by the bidder and the rates quoted by him shall include the same.

xviii. The bidder shall remain fully responsible for ensuring safety and in case of any accident, that is attributable to the consultant or any of his staff as determined by competent authority from HRIDC/ Railway, the bidder shall bear the cost of all damages to his equipment, men and also damages to HRIDC, Railways and its passengers.

xix. The bidder shall at all times be responsible for any damage or trespasses committed by his agent or his staff while carrying out the work. HRIDC will not be liable for any damage caused by the bidder, his agent or his staff to any property whether that of Railways or of an outsider during the execution or arising out of the work entrusted to him.

xx. Inflammable materials such as petrol, kerosene, diesel etc., shall be stored with necessary precautions to prevent fire accidents. The extant rules as prescribed by the Government / local authorities shall be observed by the bidder at all times during the execution of work.

xxi. Additional items: Any item of work which is not provided in the schedule of quantities and for which no rates exist shall be executed only with the prior permission of HRIDC and at the rates and terms and conditions to be mutually agreed upon and incorporated in a supplementary agreement.

### **3.5.2. Drawings**

- i. All drawings and design including preliminary Drawings, Working Drawings etc. shall be prepared and submitted by the Bidder in accordance with the existing rules and regulations or as directed by Engineer.
- ii. Documents produced by the Bidder shall be listed as part of the Progress Register.
- iii. Periodic Progress Reports will be provided by Bidder and where necessary, the Bidder will attend periodic progress meetings. The meeting will discuss the project status and any open or unresolved technical or contractual issues.

Tender No: HRIDC/FS/DPR/313/2022

**3.5.3. Delivery of Documents**

- i. After HRIDC has accepted the submission of the Originals, the Bidder shall deliver in electronic format on CDs, all Documents prepared by it to HRIDC as detailed in 8.11. The original documents, typed but not bound, shall have been proofread, reviewed, approved and certified, and be ready for reproduction. The Bidder shall furnish a complete set of CDs to HRIDC, prepared in accordance with requirements within 15 days of the submission of the original drawings.
- ii. Detailed and Final Drawings shall be submitted in 3 hard copies along with good quality (double matt film 75 micron) original tracing and two soft copies on CD.
- iii. Any other documents/drawings/soft copies desired by HRIDC concerning to items mentioned in the BoQ. The instructions of HRIDC in this regard shall be binding on the consultant without any further claim.

**3.5.4. Submission of Documents**

The Bidder shall deliver the drawings and documents as listed to HRIDC and packaged as directed by HRIDC.

**3.5.5. SPECIFICATIONS**

- 3.5.5.1. Available reports as per record for the new line and L-section and plan of existing line shall be procured by the bidder from Railway. Necessary assistance, if required may be extended by HRIDC in procurement of the same.
- 3.5.5.2. The Bidder shall study the feasibility of locating the tentative alignment on the ground within ROW. Wherever it is not possible to stake within ROW of new line, he shall make necessary field trials to arrive at a suitable alignment at all such locations and fix the same, duly taking the approvals from HRIDC for all such deviations. The rates quoted by the Bidder are inclusive of all such additional field work, preparation and submission of reports, plans and sections for such deviations and nothing extra shall be payable.
- 3.5.5.3. Survey Equipment to be used for the work and accuracy of measurements
  - i. The Bidder shall use drone/ mobile or drone-based LiDAR and auto levels.
  - ii. All levels shall be taken using auto-levels and connected to the nearest GTS benchmarks available in the area, the details of which shall be obtained from Survey of India offices.

Tender No: HRIDC/FS/DPR/313/2022

- iii. The consultant will be responsible for the quality of the survey work done. The correctness of the survey work is of paramount importance. If required by HRIDC, the bidder will get the survey work test checked in few stretches. In case discrepancies in the survey work are found during test check/ execution of construction works in the bore log data of the major bridges beyond  $\pm 30$  cm, then a penalty of Rs.10, 000 shall be imposed in each case of such inaccuracy. In case repetitive inaccuracies as mentioned above are found without any reason, the Client may initiate proceedings to declare the consultant as Poor Performer.

3.5.5.4. Conducting survey: for the stretches considered necessary by the Engineer, for a width upto 25m on one side of proposed center line and upto Centre line of existing line, including traversing along the routes (for the stretches considered necessary by the Engineer) duly observing the following:

- i. While carrying out this survey, use both horizontal and vertical angle measurements and target height to obtain x, y and z co-ordinates of terrain points.
- ii. During this process, all natural and man-made details shall be picked up along with their spot levels at a spacing of about 20m or less including Railway track, OHE masts/installations, signal posts/location boxes etc. as required to represent the ground topography truthfully, or as directed by the Engineer-in-charge.
- iii. Necessary jungle clearance for proper execution of the work, wherever required, shall have to be done by the Bidder at no extra cost.
- iv. Features such as ridges, cliffs, river banks etc. would be defined as an item (or string) each; similarly man-made features such as roads, Railway lines etc. with each item (or string) defining a visible feature such as a center-line, berm, top and toe of embankment etc. Due care must be taken to clearly identify one item (or string) from another in the item file. The aim is to collect the most useful information with the fewest points. This means planning items (or strings) along strategic features of the ground surface, where they exist.
- v. Wherever topography is suggestive of alternative alignment / alignments (near important bridges, thickly populated locations) the bidder will have to cover such alternative alignment / alignments in such stretches to enable the HRIDC to take decision on the basis of their relative merits. In arriving at decision on the waterway the bidder should pay due regard to these works and consider the alternative of altering or diverting the bunds, irrigation channels etc., even it would mean incurring some expenditure on such alterations, if that would save a large expenditure on the waterway.

Tender No: HRIDC/FS/DPR/313/2022

- vi. The bidder shall ensure that details in required MOSS format are furnished on pen drive, duly checked and verified and direct downloaded field data of Total Station in specified format supported with neat sketches (not to scale).
- vii. Plot the centerline of the proposed alignment along with all the existing features and obstructions, if any (scale: 1:1000). Also plot the longitudinal section to help HRIDC to confirm/modify decide the final formation level. Work out degrees of curves and details of gradients. The design of the alignment shall be done using Civil-3D, Mx Rail software in consultation with HRIDC.
- viii. On these plans and longitudinal sections, plotted on Auto-CAD Latest version, carry out the detailed exercise of planning of curves and gradients in line with the Terms of Reference (TOR).
- ix. During this exercise, due care shall be taken of various provisions of the Railway Engineering Code for the Engineering Department and other relevant provisions.
- x. Topographic survey of rivers/ nallahs en-route shall be carried out in terms of Para 224 to 228 of the Engineering Code.
- xi. There are no important bridges on this project but wherever applicable, topo-graphic survey of station sites en-route shall be carried out in terms of Para 231 to 233 of the Engineering Code.
- xii. There are new stations on this project or connectivity at existing Railway station, still wherever applicable, details regarding bunds, bunded streams and irrigation works in the vicinity of the line if existing should be collected since these might affect the future safety of the line. Information regarding this should be compiled and furnished by the Bidder.
- xiii. During the survey, careful notes with dates should be made on the ground, from personal enquiry and observations regarding any information likely to be useful in working out the details of the project.
- xiv. The bidder should also note down and supply the details of all electrical overhead crossings (low- & high-tension wires) and communication lines, other wired crossings along the stacked alignments of proposed route / routes. The details shall include the vertical clearance of the lowest wire from the ground level, distances of the supports on either side from the center of the proposed alignment as well as voltage of the transmission line.
- xv. The bidder shall also do detailed topographical survey to the scale of 1:1000 of existing/proposed stations, junction stations along the alignment of a strip of country each side of center line up to maximum center line of existing line or Rly. Land boundary, where land acquisition not contemplated and of rivers requiring a provision of water way of 110sq.m or upwards up to

Tender No: HRIDC/FS/DPR/313/2022

100m on each side of the center line. Particular care should be taken in determining the boundaries of village land in entering on the plans any other details required for the preparation of land plans.

- xvi. Wherever there is any doubt about any part of the survey, the relevant provisions of the Railway Engineering Code for the Engineering Department as modified from time to time shall generally govern.
- xvii. The data on nature of terrain viz., sandy, stony, vegetation etc., and type of ground shall also be recorded along with the chainages of change point.
- xviii. Station Yards: The bidder shall collect existing ESP from railway and also verify existing details of station yards in the sections proposed for new line like lengths of various lines, type of turn outs, sand humps, derailing switches, platforms, crossovers, their chainages, sizes and locations of various service buildings etc., by conducting a traverse and physical measurement at site and prepare existing yard plans based on this data.
- xix. Any other site details, hydraulic data of rivers and streams, road crossings for design of bridges/tunnels etc.
- xx. While fixing the alignment of Railway, instruction contained in Para 214 to 233 of Indian Railways code for Engineering Department, 1999 with up-to-date correction slips/modifications made should be followed by the bidder.
- xxi. Detailed study may be made for each curve and coordinates of tangent and curved track may be worked out every 20m and tabulated
- xxii. In case, stagnant or running water is met in the riverbed for a depth more than 1m (if at all there) a boat may be hired for leveling work. But the accuracy of work should not be sacrificed. No extra payment will be made on this account.
- xxiii. The bidder is required to assess the discharge and HFL for the streams of all Major Bridges using synthetic Hydrograph or any other method approved by HRIDC.
- xxiv. Necessary jungle clearance for proper execution of the work, wherever required, shall have to be done by the bidder at no extra cost.

Tender No: HRIDC/FS/DPR/313/2022

**3.6. SCOPE OF ELECTRICAL WORKS**

**3.6.1. Terms of Reference (Electrical and OHE)**

<b>SN</b>	<b>Descriptions</b>	<b>Provisions</b>
1.	System of electrification	Simple Polygonal type with 100 mm pre sag feed with single phase, 50 Hz, 25 KV AC System with High rise OHE
2.	Gauge	1676 mm BG
3.	Pantograph	1800mmm wide
4.	Wind zone	112.5 kg/m <sup>2</sup> or as per Geographical area
5.	Maximum half tension length	750 mtr.
6.	Tension in CW	1000 kgf
7.	Tension on catenary	1000 kgf
8.	Size of CW / catenary	107 sq.mm. / 65sq.mm.
9.	Type of CW	HDGCW
10.	Type of catenary	Cd-Cu stranded
11.	Type of masts	Galvanized / Fabricated
12.	Type of portal	Galvanized Fabricated
13.	Type of DA	Galvanized
14.	Normal setting distance	2.8 mtr on tangent track for individual mast and 3.0 mtr for portals
15.	Normal setting distance of multiple cantilevers supports	3.0 mtrs
16.	Normal setting distance in front of signals	Offset
16.	Electrical clearance	
	Normal long time	250 mm
	Normal short time	200 mm
	Reduced on long time	250 mm



Tender No: HRIDC/FS/DPR/313/2022

	Reduced short time	200 mm
17.	Type of OHE over ML turn outs	Overlap type
18.	Type of OHE over yard turn outs	Overlap / cross type
19.	Maximum fault current on 25 Kv side	8000A
20.	3 phase fault level	10000 MVA
21.	BIL	95 KV p / 250 KVp
22.	Normal voltage	25 KV AC
23.	Permissible variation	19KV -27.5 KV
24.	Type of Locomotive	Conventional/ regenerative

**3.6.2. General Electrical Works:**

- i. Survey of existing electrical power supply system of the railway in the project section and identification of augmentation/modification works to be carried out in connection with railway electrification of the section including augmentation of existing power connections and availing new power connections from the supply authority. Approval of HRIDC to be obtained for the system suggested by the Consultant.
- ii. Electrification of all service buildings, staff quarters, service roads etc. being constructed under the Project works.
- iii. Pumping arrangements and pumping station for water supply wherever required.
- iv. Survey of overhead/underground power line crossings and lines running parallel to the track with in 8m from center line of track in the project section using “Total Station” or similar equipment and preparation of report in specified format.
- v. The provision of following items should be particularly included as per actual requirement at site while preparation of bidding document for electrical general works.
- vi. Electrical main/sub distribution boards/CLS panel in ASM Rooms.
- vii. Battery charging and pre-cooling facilities, if required.

Tender No: HRIDC/FS/DPR/313/2022

- viii. Internal wiring/lighting works and power supply arrangements for service buildings/staff quarters/platforms/LC gates /streets/circulating area etc with Electrical energy/solar power
- ix. Street lighting.
- x. Emergency lighting arrangements from CLS transformer in station areas for booking office, Foot over Bridge (FOB), ASM room & Platform etc.
- xi. Yard lighting arrangements at TSS and OHE/PSI depots.
- xii. List of infringements if any in the section/yards with dismantling/ modification/ alteration/ augmentation etc.
- xiii. Area of service building in Sq. mtr for electrification purpose.
- xiv. Number of staff quarters type wise.
- xv. New Station building with sketch.
- xvi. Number of Manned LC gates if unavoidable.
- xvii. S&T structure in sq. mts.
- xviii. Length and width of open platform, circulating area, FOB for electrification purpose.
- xix. OH lines crossing to track with drawings to be submitted.
- xx. Number of LT overhead crossings up to 415V to be made under ground by U/G cables.
  - a. Number of 11 KV HT overhead track crossing lines to be made under ground.
  - b. Number of 22 KV HT overhead track crossing lines to be made under ground.
  - c. Number of 33 KV HT overhead track crossing lines to be made under ground.
  - d. 66 KV & above EHV OH line crossings, vertical clearances from lowest conductor/Guard wire to Proposed rail level & horizontal distance from any part of tower/ structure to center line of track to be measured as per para-8.7.6.3.L-section of the PRL for shifting/raising height/modification purpose as per IRSOD , liaison with
  - e. power supply company. Drawings are to be submitted.
- xxi. Pumps vertical/horizontal, ACs, Lifts/escalators any other requirement.

### **3.6.3. Railway Electrification Works**

- i. Reports of Soil investigation/SPT up to the depth of 3 meter, for the purpose of OHE foundation designs at every 5 Km distance or change of strata, based on Geotechnical investigation carried out for civil engineering work to be submitted.
- ii. Safe bearing capacity for various structures viz., service buildings, staff quarters, TSSs, SP/SSPs, OHE/PSI depots, Trip shed and overhead tanks etc.

Tender No: HRIDC/FS/DPR/313/2022

- iii. Design for provision of RE masts on bridge piers and its Foundation and Approval from HRIDC.
- iv. The BOQ should be prepared for each installation separately and then combined together for obtaining total quantities
- v. It shall include all items of work such as earthwork in excavation for foundations, backfilling, foundations, super structure, roofing of various types, water supply/ drainage arrangements, approach roads, overhead tanks, bore wells, pump houses including installation of pumps, sumps, retaining walls, slope protection works like pitching, P. Way works for tower wagon sidings, trip shed lines, cross tracks in TSS etc.
- vi. The requirement of drawings furnished above is only indicative and not exhaustive. Any additional drawings considered necessary for execution shall be prepared by the Consultant as per the directions of the Client.
- vii. The Bidder shall submit all the drawings and other deliverables (Geo-technical investigation reports etc.) in RTF, 1 soft copy on CD and 2 hard copies, the cost of which shall be deemed to be included in the quoted rates.
- viii. The drawings & designs submitted by the Consultant will become HRIDC's property and HRIDC will have the right to use them in other projects also. The Consultant is not permitted to use/issue/reproduce them in any form without the express approval of G- RIDE.
- ix. The Bidder shall use standard Railway/RDSO drawings in his design, baring the exceptions (with specific approval of HRIDC) Standard drawings, if required by HRIDC, will be arranged by the Consultant.
- x. The Consultant will make his own arrangement to procure any drawing/document from Railways/RDSO required for the assignment. The necessary reference letters etc. shall be provided by HRIDC.
- xi. The Consultant shall prepare all drawings under this contract in Auto CAD software,
  - xii. the version of which shall be advised by HRIDC
- xiii. TRD power supply diagram of nearby electrified Rail line, with the location of TSS, SP, SSP, OHE/PSI/SS/TW depot/Shed. OHE type -high rise or else.
- xiv. Required TSS/SP/SSP/PSI/SS/TW shed/depot for subject Rail line. Transmission line cast to be drawn up to TSS.

Tender No: HRIDC/FS/DPR/313/2022

**3.6.4. Drawings**

- 3.6.4.1. All drawings and design including preliminary Drawings, Working Drawings etc. shall be prepared in standard sizes and submitted by the Consultant in accordance with the requirements of Railway as per BOQ.
- 3.6.4.2. The Consultant shall use standard drawings of RDSO/CORE/Zonal Railway, Indian Railway Manuals, IS Specifications, Codes etc. for preparation of designs and drawings barring the exception, (with specific approval of HRIDC). In case of any conflict within these specifications, the decision of HRIDC shall be final and binding in the interpretation of the clause of the codes of practice and specifications. HRIDC reserves the right to make any changes in its specifications, if required.
- 3.6.4.3. Draft drawing for approval – Drawing till not approved by HRIDC and Railway (wherever required) shall be treated as draft drawings.
- 3.6.4.4. Information in respect of Survey of overhead/Underground power line crossings in the project section using “Total Station” or cable height meter/similar equipment and preparation of report is to be done in the following format including drawing for each crossing over the section.

SN	Voltage and type (Single or double ckt)	Owners name address and phone no.	Location (Railway Chainage)	Block Section /Station	Height of structures from ground level (m)		Horizontal clearance from centre of track to any part of tower/structure		Vertical height of lowest conductor to Rail level/Guard wire-mtrs		Status of compliance with latest Railway Regulations .IRSOD2004/ACS20,21	L section Height
					Le f t	Right	Existing	Proposed				

**3.6.5. General:**

- 3.6.5.1. Documents produced by the Consultant shall be listed as part of the Progress Register.
- 3.6.5.2. Consultant will provide periodic Progress Reports and where necessary, the Consultant will attend periodic progress meetings. The meeting will discuss the project status and any open or unresolved technical or contractual issues.
- 3.6.5.3. \*If the Consultant requires any additional data or site details for completing the works included in the scope of this tender, he shall obtain the same at his own cost. The rates quoted by the Bidder shall be deemed to include all such contingencies and no separate payment will be made. HRIDC will assist the Consultant by way of writing introductory letters to the concerned authorities.

Tender No: HRIDC/FS/DPR/313/2022

- 3.6.5.4. The rates quoted by the bidder are inclusive of jungle clearance required, if any, for conducting the foot-by-foot survey including fixing of pegs, pillars etc. and no separate payment shall be made.
- 3.6.5.5. Consultant shall make his own arrangements for obtaining connection for electrical power and water etc. if required at his own expense.

**3.6.6. Methodology of Work**

- 3.6.6.1. The work involves foot-by-foot survey of the section proposed for electrification for collection of site details, for mapping existing arrangements etc. and the rates quoted by the Consultant shall include all such field visit required for completing the works included in the scope.
- 3.6.6.2. The Consultant shall submit detailed design calculations for various facilities and obtain the approval of HRIDC or their proof Consultants and incorporate modifications suggested.
- 3.6.6.3. The pegging plans shall be prepared as per the latest RDSO's guidelines. The OHE shall be of conventional type and shall be designed for a maximum speed of 160 KMPH. Wind pressure for the design of structures shall be taken as per IS: 875.
- 3.6.6.4. The works proposed in the scope may involve site visit to get any relevant details, visit to various sites/offices, HRIDC office etc. The rates quoted by the Consultant shall be inclusive of all such incidental expenses and no separate payment shall be made on this account.

**3.6.7. Final Review**

When the designs & drawings and other details for inclusion in the Bidding Document for construction is substantially complete, the Consultant shall submit the same for a final review. The quality of this submission shall be such that the Bidding Document can be completed by incorporation of HRIDC's review comments.

**3.6.8. Submission of Final Design**

These documents shall comprise of Final submission of design & drawings duly complying with comments of Proof Checker & Railway/HRIDC.

**3.6.9. Submission of Originals**

The submission of originals shall be made to HRIDC. This will consist of all documents prepared by the Consultant.

**3.6.10. Delivery of Documents**

Tender No: HRIDC/FS/DPR/313/2022

After HRIDC has accepted the submission of the Originals, the Consultant shall deliver in electronic format on CDs, all Documents prepared by it, to HRIDC. The original documents, typed but not bound, shall have been proof read, reviewed, approved and certified, and be ready for reproduction.

The Consultant shall furnish a complete set of CDs to HRIDC, prepared in accordance with requirements within 15 days of the submission of the original drawings. Detailed and Final Drawings shall be submitted in RTF, two hard copies along with one soft copy on CD.

**3.6.11. Submission of Documents**

The Consultant shall deliver the drawings and documents as listed to HRIDC.

**3.6.12. Scope of Work for Pegging Plan**

**3.6.12.1. General**

Foot by foot survey of the project section needs to be carried out for preparation of OHE pegging plans. The detailed scope of work is broadly categorized as under:

- i. Collection of basic drawings, standards and specifications from Railway/ RDSO/ CORE in respect of electrification of the section.
- ii. Preparation of tracings of track survey plans in AutoCAD and submission of two prints to Client along with soft copy on CDs.
- iii. Preparation of OHE Pre-pegging plans utilizing the tracings and track survey plans.
- iv. Site marking/inspection of OHE Pre-pegging plans (jointly with client 's representative if required)
- v. Incorporation of corrections in the tracings and updating of CDs, if found necessary, to evolve pegging plans and submission of two prints thereof to the Client for comments/approval.
- vi. Finalizing the comments, incorporating changes if found necessary, in the tracings and soft copy to evolve final pegging plans, obtaining approval of Client and thereafter submission of RTF/prints and soft copy as per BOQ.
- vii. Preparation of wiring cum sectioning diagram followed by final pegging plans and submission of RTF two hard copies and one soft copy.

Tender No: HRIDC/FS/DPR/313/2022

- viii. The pegging plans shall also indicate details of removal of infringements such as
- ix. diversion of drains, pipes, signal wire, Electrical Lines/Equipment's rods or other installations, details of which shall be jointly finalized with the Client.

3.6.12.2. Assistance to be given by Client:

The drawings and data shall be collected by the Bidder

- i. Through actual site survey
- ii. From the Railway/CORE/RDSO at his own expense.

3.6.12.3. Methodology for pegging Plan:

- i. All measurements shall be made with steel tape. At curves, these measurements shall be made on the outer rail of the middle track, in case of odd number of tracks. In case of even number of tracks, the inner rail of the first outside track from the center of the formation will be taken as the reference rail.
- ii. The following information shall be collected while carrying out the field survey of the section, in respect of the tracks required to be wired and also all the tracks in their vicinity, to enable preparation of track survey plans and thereafter OHE pre- pegging/pegging plans.
  - a. Track centre distance at every 30M in case of double and multiple tracks, in stations and yards, commencing from the kilometer post.
  - b. Chainage of the existing gradient posts and details of the gradient indicated thereof e.g. 1:100 (R) and 1:200 (F) etc.
  - c. Chainage of the existing curve pillars and the particulars as furnished thereof in respect of the curvatures e.g., degree of curvature, radius of curvature, length of curve, deflection angle, chainage of transition, turning points, super elevation etc., will be measured if available at site.
  - d. Versine in every 30M chord on all curves for each individual track throughout the section.
  - e. Cross section of the formation at a regular interval of 200M, commencing at the kilometer posts, to indicate the ground profile. The ground profile will cover a distance of about 4/5M from the center line of the track and will be measured with a tape, string and survey rod. The profile of the proposed double line shall also be plotted on the cross section as per the details made available in the Plan & L sections
  - f. Type and bearing capacity of soil:

Tender No: HRIDC/FS/DPR/313/2022

- g. Reports of Soil investigation/SPT up to the depth of 3 meter, for the purpose of OHE foundation designs at every 5 Km distance or change of strata based on Geotechnical investigation carried out for civil engineering work to be submitted.
- h. The chainage of the edges, the width, number and class of the level crossing, dimensions relating to the position of gate lodge and the level crossing barrier with reference to the track.
- i. The chainage of the center line of all the existing trolley refuges.
- j. The number of bridge/culvert, the chainages of both the abutments, centre line with/shape of the piers. Wherever structures are to be located on a bridge or inside a tunnel, the Consultant shall provide sufficient details. In case of structures located on piers, and inside tunnel, dimensions of space available, a cross section giving details of bridge member and in case of suspension from top or vertical members of bridge/tunnel, the cross section at the suspension/fixing points shall be shown, giving all relevant details with dimensions. The design of supporting arrangement and obtaining approval from Railways is also part of the contract.
- k. The chainage of the both the edges, width and clear headroom available for each of the wired tracks under the over line structures e.g., Road Over Bridge (ROB), Foot Over Bridge (FOB), Fly Over Bridge, Through Girder Bridges (TGB) etc. In respect of overhead electrical high tension (above 11kV) crossings, chainage and clear head room shall be shown. In case of LT/P&T crossings only center line chainage need to be provided.
- l. All the underground obstructions, which may infringe with the casting of OHE foundations like watering arrangements, underground cables and pipes, shall be shown on the pegging plans. The details may be ascertained from the local Railway staff/ office.
- m. The chainage of the actual toe of the switch, the nose and the fouling mark for every turn out.
- n. The chainage of the center line of the diamond crossing, the number of slips and chainage of the actual toes of the switches.
- o. The chainage, number and position of existing signals, with reference to adjacent track
- p. The distance of extreme edges of a group of point rods requiring adjustments / special arrangements for locating OHE structures over/near them, from the center of the adjacent track/s at regular interval of 25M throughout the length of the run of point rods.
- q. Position details/chainage of signal location boxes.
- r. Chainage/Position details with reference to adjacent tracks in respect of all the building structures e.g., station building, cabins, cable huts, goods and parcel sheds, tea and other vendor stalls, ROB's on platforms etc.



Tender No: HRIDC/FS/DPR/313/2022

- s. Chainage of the edges of platforms ends and ends of ramps, height of the platforms and width in respect of island platform chainage of extreme edges of platform sheds is also to be mentioned.
- t. The distance of the near and far edges of pucca drains (requiring adjustment/special arrangements for location of the OHE structures near/over them) a regular interval of 25M throughout the length of the run of drain from the center of adjacent track/s.
- u. Position/Chainage of edges of sub-ways and their outlets on platforms.
- v. Relevant details of any other existing feature/s and obstruction/s, which will affect location of OHE, structure over/near the same i.e., 10M on either side of the track.

### **3.6.13. Track Survey Plans:**

The following standards/conventions shall be observed for preparation of track survey plan tracings in ink on paper.

- i. Standard width of the tracing shall be 297 mm or multiple thereof.
- ii. A scale of 1:1000 for open section and 1:500 for station/yard shall be adopted. The station/open section shall commence at the Km post immediately in advance of the first turnout from the main line and shall end at the Km post immediately after the last turn out from the main line.
- iii. An arrow at the end of the plan will be provided to indicate the direction and name of the adjacent/extreme station in the section.
- iv. Track shall be designated as UP/DN UP Loop / DN. Loop etc., according to the standard convention.
- v. Normally the plotting shall begin at the Km post and end at the Km post. The length covered will not be more than 3Km in one plan. Only one single plan shall be prepared to cover the entire length of station section from Km post at one end to the Km post at the other end. However, in case of very big yards, convenient subdivision shall be made and key plan showing the subdivision shall be prepared based on the relevant wiring plan.

### **3.6.14. Pre-Pegging plans:**

- i. For structures in the vicinity of signals, setting distance shall be as per RDSO standards.
- ii. The setting distance of OHE structure on tangent track shall be 2.8M at normal locations and 3.0M for portal locations and masts carrying more than one OHE. On curved tracks, the minimum setting distance, is obtained by adding curve allowance and 150mm slewing allowance.

Tender No: HRIDC/FS/DPR/313/2022

- iii. The plan shall also indicate the location of Auxiliary Transformers proposed at manned level crossing gates and at stations.
- iv. On each plan the length of track in RKM and track electrified/to be electrified with conventional OHE in TKM covered in the plan shall be indicated.

**3.6.15. Pegging Plans:**

The plan after incorporating the observations, corrections made during site inspection will be thoroughly scrutinized to eliminate all design/field survey errors/omissions and then only will be accepted as pegging plans and submitted to Client for scrutiny, comments and approval. The pegging should contain all existing arrangement of OHE of all electrified lines including yards.

**3.6.16. Final Pegging plan:**

The consultant shall submit RTF, two hard copies and one softcopy on CDs containing the details of approved tracing.

**3.6.17. Wiring cum Sectioning Diagram:**

The sectioning diagram should be retraced/updated based on existing sectioning arrangement and final pegging plan and submit RTF, two hard copies and one soft copy on CDs to the Client.

Tender No: HRIDC/FS/DPR/313/2022

**3.7. SCOPE OF SIGNALLING AND TELECOMMUNICATION**

**3.7.1. Terms of Reference (Signal and Telecommunication)**

<b>SN</b>	<b>Descriptions</b>	<b>Provisions</b>
1.	System of Train Working	
2.	Standard of Interlocking	
3.	Type of signaling	
4.	Distant	
5.	Type of Interlocking	
6.	Type of Operation	
7.	Signal Lighting	
8.	Point Operation	
9.	Power Supply	
10.	Last Vehicle Verification	
11.	Track Circuiting	
12.	Logging of events	
13.	Calling On signals	
14.	Shunting	
15.	Type of DA	
16.	Earthing	
17.	Communication system	
18.	Emergency communication	

This involves design and drawing of (Existing Stations which need alteration of S&T):

- i. Footprint and database of the existing signal and telecommunication system
- ii. Signal infringement plans
- iii. Telecom infringement plan

Tender No: HRIDC/FS/DPR/313/2022

- iv. Signaling Interlocking plans of stations, LC gates etc. based upon proposed ESPs/Conceptual Plan and showing Additions & Alterations on existing SIPs.
- v. Bill of quantities.

**3.7.2. Preparation of footprint of signaling and telecommunication system at existing station includes:**

- i. This involves collection of Signal Interlocking Plan and Station working Rules of the station to assess the existing signaling system at the station which includes existing gradient and restriction in the train working at the station. Similarly, SIP of Midsection interlocked LC along with its controlling station is also required.
- ii. If any Interlocked or Non-Interlocked Level Crossing gates and Gumties are there; at the station, similar details should also be prepared and submitted.
- iii. The telecom room (OFC Hut) at the station and its location visa vis existing structure at the station should be clearly mentioned to assess infringement if any.
- iv. Details of signaling assets to be submitted in the format mentioned in annexure Sig A 1.
- v. The details of assets include date of installation/commissioning of signaling and telecom assets at the station / interlocked LC gate. These will give an idea of the residual life of the equipment installed at the station / LC gate and their usability in doubling work. The data should be collected from authentic sources.

**3.7.3. Signal and Telecom Infringement Plans includes:**

- i. Telecom Cables laid in the existing station & Block section includes Optic Fibre Cable and 6 quad cables from station to station. Emergency sockets are provided at every one kilometer in the section and at LC gates and ends of major bridges derived from 6 quad cable. Telecom cable is also laid from to all SP, FP and SSP from the nearest stations. EC sockets derived from 6 quad cables are provided at all these electrical installations.
- ii. Signaling cables laid from distant-to-distant signal on either side of stations and interlocked level crossing gates.
- iii. These underground buried cables are to be identified in the block section by cable route locator and the yard. These cables are to be marked to the scale on A3 size sheet in AutoCAD. The plan should indicate the centre line of the existing track, centre line of the proposed track, inner and outer toe line of the proposed track. OFC, 6 quad cable and the signaling cables and power cable,

Tender No: HRIDC/FS/DPR/313/2022

if any, to be marked separately with different legends. There may be multiple routes of signaling cables. All the routes possible should be marked separately. The signaling location boxes and telecom junction boxes to be marked clearly on the plan.

- iv. All the signaling and telecom assets should be marked on the plan in such a way that infringement of these assets is clearly identified.
- v. The plan should be made on A3 size sheet depicting infringement in 500metres.
- vi. Shifting of OFC and 6 quad cable falling in infringement zone should be planned for shifting while preparing the BOQ.
- vii. The LC gate buildings including Gate hut, relay room / power room falling should be shown on the plan to assess the infringement of structures, if any.

**3.7.4. Signaling Interlocking plans of stations, LC gates includes:**

- i. Preparation of Tentative Signaling interlocking Plan (SIP) of the stations and Independent Interlocked LC gates in the section.
- ii. Tentative SIP should be prepared in the format prevailing over railway.
- iii. Initially one paper print should be submitted for approval of HRIDC. On approval by HRIDC, three paper prints to be submitted for approval of the Division and the Railways. On approval from the Railways, Final print should be submitted on tracing paper of approved quality along with soft copy (Auto Cad). The quality of the paper should be got approved before taking the final print.

**3.7.5. Approved tentative SIP as per approved ESP for new stations is only to be submitted to HRIDC.**

**3.7.6. Scope of work involving preparation of BOQ includes:**

- i. Framing of BOQ including preparation of technical specifications and quantity of material and execution for the work. Technical specifications have to be in conformity with the latest practice of RDSO / Zonal Railway and as per the guidelines of Railway Board.
- ii. The preparation of BOQ and detailed estimate shall be carried out after detailed site survey and close co-ordination with the Railways station wise and total for sections to suite 25KV AC.

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

- iii. Schematic sketches of the signaling arrangements at stations shall be made for determining station wise BOQ should be supplied along with the Priced BOQ. These should be made on A3 size sheet.
- iv. The BOQ shall be prepared as per SOR of Railway, the BOQ shall be thoroughly checked to ensure accuracy before submission to **HRIDC**.
- v. The BOQ will cover all items of MACLS, Electronic Interlocking / PI / RRI, DC Track Circuits / axle counters, LED signals, Networked Data-logger, RTU, IPS with LMLA/ VRLA batteries and Block Proving by Axle counter, along with UFSBI and HASSDAC and all types of cables,6 Quad Cable Soft & STM and their other equipment's. It will cover complete execution of a station for signal & telecommunication with earth work and infringement removal of signal & telecom if any.
- vi. All the approved documents and plans have to be given to HRIDC in one soft copy i.e., on CDs and 3 Nos. of Hard copies.
- vii. Soft copies of all Plans / Drawings / Documents to be supplied i.e on CDs.

**3.7.7. ANNEXURE: Signal A – 1**

**SIGNALLING & TELECOMMUNICATION INFORMATIONS SHEET**

SN	INFORMATIONS	DETAILS
1.	Name of Station along with Standard of Interlocking, Class of Station	
2.	Age of signaling installation (year of commissioning of present Cabin/PI/RRI)	
3.	Present Operation of Signaling like by Central Panel / End Panel, PI / RRI, or lever etc.	
4.	Type of signal (MACLS, MAUQ, LQ etc.	
5.	Type of signal Lamps- LED/TRIPLE POLE /other	
6.	Operation of points –MECHANICAL /MOTOR	
7.	Type of point motor- Make, Type, AC immunized date of overhauling.	

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

8.	Details of GF(Ground Frame) like –No of Lever, EPD, EPL etc	
9.	Type of Axle counter –Analog/Digital, Single section /Multi Section, No of detection points, make ,version , Age.	
10.	Type of indoor relays-MM or MC, interlocked relays. Type of relays used for external circuits- AC immunized etc.	
12.	Type of Operating Panel (Combined Operating cum indication panel or separate with special features if any).	
13.	Other Indoor details like type of flasher relay, Interlocked relays, Latch relays, Type of Fuses, special features/ Equipment etc.	
14.	Operation of points (By point Group / Power Consultant unit from station or from site etc.)	
15.	Crank handles interlocking – KLCR, HKT, Voltage of operation, location – station / site.	
16.	Power supply arrangement –IPS/Discreet (in case of IPS –Make , Type, Capacity of SMR, inverter, converter, Battery Capacity , age of battery, condition of equipment) ( In case of Discreet-Capacity of charges , make age and condition), details of solar supply if any.	
17.	Block working-Type of Block, Block Filter, bell unit, earthling etc.	
18.	Details of Track circuits (i.e type of Track Relay, QSPAI relay, Choke, Charger, etc.).	
19.	Type of Data logger-Capacity, Make, Condition, Networked, CMU ETC.	
20.	Telecom facilities like number of control phone, BSNL phone, Gate phone etc.	
21.	Telecom Installation at the station: Quad / RE cable	
22.	OFC : No. of fibres in the OFC, Fibre wise utilization of OFC, STM equipment details with their make and installation date, utilization of channels, details of the mux installed at the station with their date of installation, utilization of channels, power plant installation details with details of capacity of the batteries and their date of installation.	
23.	Existing cable route Plan of Signaling & Telecom Cables for Station Yards and Block Section.	
24.	Any special features of the station.	
	NOTE: Above information sheet to be prepared for each station/Interlocked LC gate/IBH independently. Above items are only indicative, any special signaling and telecom arrangement at the station should be brought in this sheet.	

Tender No: HRIDC/FS/DPR/313/2022

**3.7.8. ANNEXURE Signal A – 2**

**SIGNALLING & TELECOMMUNICATION INFORMATIONS SHEET  
(For Interlocked LCs of Station yards and Mid-Section)**

SN	INFORMATIONS	DETAILS
1.	Gate No.	
	Km of the Gate	
	Section (Between the stations and controlling station )	
2.	Age of signaling installation (year of commissioning)	
3.	Type of Barrier (Leaf / MLB / POLB)	
4.	Type of signal (MACLS, MAUQ, LQ etc.)	
5.	Type of signal Lamps- LED/TRIPLE POLE /other	
6.	Operation of gate – MECHANICAL /MOTOR	
7.	Housing (Porta cabin / brick mortar structure)	
8.	Details of GF (Ground Frame) like – No. of Lever, etc. if any	
9.	Methodology of approach warning, if any	
10.	Type of indoor relays - MM or MC, interlocked relays. Type of relays used for external circuits- AC immunized etc.	
12.	Type of Panel (Combined Operating cum indication panel or separate with special features, if any).	
13.	Other Indoor details of Equipment etc.	
14.	Detection of closing through magnets provided or not	
15.	Gate control interlocking – KLCR, HKT, Voltage of operation, location – station/site.	
16.	Power supply arrangement –IPS/Discreet (in case of IPS –Make, Type, Capacity of SMR, inverter, converter, Battery Capacity , age of battery, condition of equipment) ( In case of Discreet-Capacity of charges , make age and condition).Date of installation and manufacturing of IPS, All power equipment’s & battery.	
17.	Gate building infringing with alignment or not	
18.	Barrier infringing with alignment or not	
19.	Type of Data logger - Capacity, Make, Condition of RTU, Modem, Networked, CMU, etc. Date of installation	
20.	Telecom facilities like gate phone / EC socket etc	
21.	Mode of communication i.e. quad cable / wireless etc.	
22.	Availability of power supply AT / Local (Duration for which local supply is available in general), Details of solar supply if any	
23.	Any special features of the gate.	
	NOTE: Above information sheet to be prepared for each station / Interlocked LC gate / IBH independently. Above items are only indicative, any special signaling and telecom arrangement at the station should be brought in this sheet.	



Tender No: HRIDC/FS/DPR/313/2022

### **3.7.9. Equipment**

The Bidder shall deploy, as per the mutually agreed programmed, the minimum number of equipment for execution of the work as mentioned hereunder:

SN	Equipment Type and Characteristics	Min. Required	Number
1	Total Station	2 Sets	
2	GPS Instrument like Dual Frequency RTK or similar	1 Set	
3	MX ROAD/RAIL or similar software for preparation of plans & calculation of quantities	1 Nos.	
4	Cable Route Tracer/ Locator	1 No.	

Note: The equipment specified above may also be owned by sub-Consultants or arranged on lease or on hire which should include a provision to the effect that the equipment will remain at site or be vested in the Client for the period of execution of related activities.

Note: The equipment specified above may also be owned by sub-Consultants or arranged on lease or on hire which should include a provision to the effect that the equipment will remain at site or be vested in the Client for the period of execution of related activities.

### **3.8. Detailed Estimate of Quantities and Project costs**

- i. The Consultants shall prepare detailed estimates for quantities and project cost for the entire project. The estimation of quantities shall be based on detailed design/GADs of various components of the projects. The estimation of quantities and costs would have to be worked out separately for different departments as defined in this TOR.
- ii. The Consultants shall generally take all items existing in schedule of rates of Indian Railway, detailed analysis for computing the unit rates for the different items of works. The unit rate analysis shall duly consider the various inputs and their basic rates, suggested location of plants and respective lead distances for mechanized construction. The unit rate for each item of works shall be worked out in terms of manpower, machinery and materials.
- iii. The project cost estimates so prepared for projects are to be checked against rates for similar on-going works in India under Railway/Railway PSUs rail sector projects.

### **3.9. Detailed Project Report**

Consultant shall compile all details of the survey and drawings and prepare a detailed Project report (DPR) this will be according to the **Chapter V of the IR Code for Engineering Department Fourth Reprint, 2012** duly taking details of items from Railway/HRIDC which is not in the scope of consultant.

### **3.10. Project Team and Project Office of the Consultant**

Tender No: HRIDC/FS/DPR/313/2022

- i. The Consultants shall be required to form a multi-disciplinary team for this assignment. The consultants Team shall be manned by adequate number of experts with relevant experience in the execution of similar detailed design assignments.
- ii. The consultant will be required to deploy the following staff at HRIDC office (**with relevant qualifications and Experience as specified in QCF1**) apart from maintaining a project team at the consultant's office for assisting HRIDC officials in comment compliance for approval of reports and liaison with railways/ other depts.
  - a Project Coordinator – 1 Nos.
  - b Engineer – Civil – 1 Nos.
  - c Engineer – S&T – 1 Nos.
  - d Engineer – Electrical – 1 Nos.
  - e CAD Engineer – 1 Nos.

**And any other staff required for successful completion of work**

### **3.11. Reports to be submitted by the Consultant to HRIDC**

Various reports to be submitted by consultant is listed below:

- Inception Report
- Desktop Study Report
- Feasibility Report
- Draft DPR
- Final DPR

Wherever draft report and final report is mentioned it implies that final report has to be submitted incorporating attending to deficiencies/advices/instruction/comment of authority competent to approve, by correction, re-working and repetition of the work.

## **4. DELIVERABLES**

The following reports will be delivered covering the milestones activities as shown in SCC Clause 10:

### **Volume I: Inception Report**

### **Volume – II Feasibility Report (Draft followed by Final):**

This report will include all the information collected based on the studies under clause 3.1 as mentioned above including the alignment shown on topo - sheet, geographical features and site constraints along the alignment, traffic estimates report, financial appraisal report, conceptual plan and drawings, locations of proposed track features like take-off points, stations, bridges, level crossings, ROB/RUB, RFO, cross-drainage structures, power line crossings, index plans and abstract cost estimate of the project.

### **Volume – III Detailed Project Report:**

This report will cover all the above said parts in brief including Executive Summary that will include

Tender No: HRIDC/FS/DPR/313/2022

the project background, social analysis of the project, details of surveys and investigations carried out, final location survey report along with coordinates of centre line, alignment design details, L-section and plan and the proposed land boundary, analysis and interpretation of survey and investigation data, designs, detailed cost estimate, traffic survey report, availability of labour & material land acquisition required and its ownership (whether private, forest or revenue) approx. assessment of affected and other features like sanctuary/wild life that may need environmental clearance along the alignment, economic analyses and conclusions brief accounts of the findings of the study and recommendations. This part will also include maps, alignment shown on the topo-sheet, charts and diagrams based on topographic survey showing locations and details of track features like GADs of stations, yards, bridges, ROBs/RUBs, RFO, level crossings, cross drainage works, their conceptual plan along with junction arrangement and signalling features, Power supply arrangements and preliminary OHE design. The report will also include and integrate the traffic estimate report and financial appraisal report as finalized during the feasibility study, duly reviewed.

**Volume –IV: Part 1 Detailed Design of Alignment Report:**

This part will consist of details of bridges, ROBs / RUBs, RFO, curves, gradients, yard plans, Index plans, embankment / cutting slope etc. supported by computer printout of calculations wherever applicable. This part will also include details of quantities and bill of quantities for execution.

**Volume – IV: Part 2 Rate analysis and cost estimate:**

This part will present the analysis of rates for all items of works. The details of unit rate of materials at source, carriage charges, any other applicable charges, labour rates, and machine charges as considered in arriving at unit rates will be included in this volume. This part will also include detailed estimate indicating the cost of each item of work.

**Volume – IV : Part 3 Drawings:**

This part will have all drawings forming part of the Detailed Project Report.

**Volume – V: Village wise land Acquisition data (Govt. land, Forest land and Private land):**

This part may be submitted in multiple volumes but not more than 10 (or about 20-30 km in each volume covering 10-15 villages).

The basic data obtained from the field studies and investigations and input data used for the preliminary design shall be submitted as an Appendix.

All the above said reports will be submitted in four copies each.

The CDs containing all basic as well as the processed data from all field studies and investigations, reports, appendices, annexures, documents and drawings shall be submitted to Employer at the time of submission of Final report.

Tender No: HRIDC/FS/DPR/313/2022

## **PART-2**

### **Providing Consultancy for Preparation of DPR/ Road Map for Property Development along HORC and Master Plan for approx. 20 Ha of land at Manesar.**

5. HRIDC intends to appoint a consultant for a) Development of DPR/ Road Map for Property Development along Haryana Orbital Rail Corridor (HORC) and b) Master Planning of 20 Ha land around Manesar Railway Station.

DPR of HORC envisaged a revenue of ₹ 795 Crs from Property Development to fund the project by capturing a part of land value that is being created due to construction of HORC. The purpose is to tap the Value Capture Finance potential to generate surplus revenue to fund the HORC project.

On these lines, a piece of about 20 Ha land near Manesar Station is available which will be developed to ensure proper ambience conforming to land use and zonal regulation and also to generate some surplus revenue for the project.

#### **5.1. Terms of reference**

The DPR/ Road Map for Property Development is to explore the potential of Property Development along HORC. In the DPR of HORC a revenue of ₹ 795 Crs is envisaged from Property Development. The study is to assess the potential of Property Development along HORC and to assess the revenue which can be accrued from this development. This development may be in the form of Transit Oriented Development (TOD) or Property Development on nearby lands. The work includes market demand analysis, assessment of land parcels available with HRIDC, identification of potential land from Property Development perspective available with Government agencies i.e. HUDA, HSIIDC etc, which can be transferred to HRIDC.

The scope of work also includes Master Planning of 20 Ha land in Manesar including review of the existing planning framework, land-use, built forms, infrastructure and socio-economic characteristics. The Master Plan shall focus on creating several saleable parcels having mixed use with increased access and visibility enabling a flexible and effective disposable strategy. The Master Planning shall be proposed ensuring the flexibility of land uses within the allocated area to enable it to respond to changing economic fabric of a growing city thereby adding value. The land use changes to be based on parameters of social acceptability, economic viability, environmental sustainability and financial feasibility.

#### **5.2. Objectives of the assignment**

##### **5.2.1. Property Development along HORC**

The major objective of the assignment is to prepare Road Map for Property Development along Haryana Orbital Rail Corridor i.e. around and above railway stations and on land falling in between railway stations. The same are detailed below:

- To explore, assess and establish potential of Property Development along HORC.
- Identifying the Land Parcels suitable from Property Development Perspective.

Tender No: HRIDC/FS/DPR/313/2022

- Assess market potential and risk factors  
Assess revenue and cashflow feasible from Property Development.

### **5.2.2. Master Plan for Land in Manesar**

**The objective is to develop a piece of 20 ha land in Manesar to generate the revenue by tapping the potential of real estate development**

- To review the existing plans/ drawings/ reports/ site data/ existing masterplan, existing land use, development control norms for carrying out the Master planning of the subject Area.
- To establish a product mix by demand assessment and comprehensive market study for maximum monetization of land along with social benefits that will form the basis of the development of master plan.
- To prepare a detailed Master Plan that will be based on best practices and principles of urban design showing land parcellation, land use, vehicular and pedestrian movement, landscaping etc.

### **5.3. Scope of services**

**Property Development along HORC** – The exercise will be carried out for each station and the land in between stations on either side of railway line. The drawing for the location and available land details may be obtained from HRIDCL office.

#### **5.3.1. Stage I -Review of available data, drawings and existing framework**

##### **PART-A – For Property Development**

- a) The consultant shall review available reports/ plans/ drawings/ data provided by HRIDC and verify the available data at site. Furthermore, this stage will concentrate on assessment of available data and information and accuracy of this data in terms of quality, quantity and adequacy for the work.
- b) The consultant shall identify the gaps (if any) in terms of information needed and the methods to overcome such deficiency. To overcome such deficiency the consultant shall approach respective authorities, HRIDC will facilitate by issuing letter to authorities concerned.
- c) The consultant shall undertake a review of existing Master Plan within an influence zone in terms of existing built forms, developments, existing land use, existing services, development control regulations, development policies to assess development potential. The influence zone will be 30 Km on either side of railway station which will be suitably modified in the interest of project based on development, available data and administrative boundaries.
- d) The consultant shall carry out a comprehensive assessment of the existing situation and identification of the general trends of socio-economic development in the influence zone.

Tender No: HRIDC/FS/DPR/313/2022

## **PART-B – For Master Planning of 20 Ha Land near to Manesar Station**

### **In addition to PART-A, for land Development near Manesar Station Consultant will collect data as follows:**

- a) The consultant shall conduct an analysis of existing climatic conditions and flora to take into account for Master Planning of the demarcated area. The consultant shall collect the data accordingly and study environmental and natural features like topography, winds, vegetation, water bodies, natural drainage, biodiversity, natural risk sites etc.
- b) The consultant will also collect information on any proposed developments projects in the vicinity that could have an impact on the proposed development of Master plan.
- c) Consultant will compile the data, analyse the same and present preliminary findings, data gaps and mitigation measures along-with methodology for approaching further stages.

### **5.3.2. Stage II - Market Demand Analysis and Case Studies**

#### **Part A**

**Market Demand Analysis-** A detailed Market Demand Analysis is to be carried out with regard to overview of current supply and demand requirements for real estate development along HORC alignment.

- a) The consultant shall undertake a macroeconomic review of the region to assess strengths and constraints of the subject area and analyze the investment climate with respect to existing resources and potential sectors that would influence the development of the project.
- b) While performing the market study the consultant shall inform the stake holders, commoners and people involved in the study about the upcoming modern stations at HORC especially at Manesar and project it as a unique selling point.
- c) The consultant shall conduct stake holder consultation with the existing and perspective individuals and organizations from various communities of both rural and urban spectrum like industrialists, traders, agriculturists, elected representatives, industrial associations etc.
- d) The consultant shall record and analyze the data collected.
- e) Based on the study the consultant shall make a realistic assessment of demand on key economic activities and employment opportunities to analyze future developments prospects, identify target sectors / markets to enhance the pace of economic development and ensure financial gains on the land.
- f) The proposed product mix as an outcome of the market study
- g) The consultant shall develop an estimate for the likely space demand for the identified sectors.
- h) The consultant shall propose 3 alternative scenarios.
- i) Consultant will make a presentation on the outcomes of Market Demand Analysis study.

#### **Part B**

**Case Studies and Benchmarking:** The Consultant would study corridor development of similar nature in India and abroad to determine the best practices. The study would cover the following but not limited to:

- a) Case studies of real estate developments and Master Planning around railway stations in India as well as abroad (Desk research - 4 Indian and 4 Foreign Total 8 case studies)

Tender No: HRIDC/FS/DPR/313/2022

- b) Carryout competitive benchmarking domestic/ international for such development
- c) Assess the success factors and Unique Selling Proposition of such projects including
  - i. Key promoter,
  - ii. role of stakeholders
  - iii. Project size and location Infrastructure/ facilities offered
  - iv. Target markets
  - v. Pricing trends
  - vi. Critical risk & success factors

**5.3.3. Stage III - Road Map of Property Development –**

The vision for the property's development is still emerging in addition to providing fund for development of rail it also adds to job creation potential, market demand, and highest economic and financial benefit. The consultant shall spell out clearly the following, but not limited to:

- a) Vision, Aims and Objectives.
- b) The consultant will take up extensive survey to examine availability of land (immediate, medium and long term) for Property Development by visiting various government offices and revenue departments.
- c) Assess the development potential of the land parcels with regard to Government guidelines, Master Plan, Development Control Regulation, Environmental considerations, other constraints etc.
- d) Carry out SWOT analysis and clearly mark advantages/disadvantages and potential risks.
- e) Based on above information, the consultant will Develop a financial feasibility model by taking into account the proposed development mix, broad costs for development, broad project structuring, and conducting a sensitivity analysis by taking into account various factors that could impact the development including pricing, income and cost assumptions.
- f) The Development of Road Map of Property Development with time line in sync with HORC project progress / planned time line.

**5.4. - Preparation of Master Plan for 20 Ha land at Manesar**

**5.4.1. Stage IV – Concept Plan and Vision for the development of the land**

Based on the results and outcomes of stage III the consultant shall prepare 3 options of Master Plan. The preparation of Master Plan will be preceded by the formulation of key design and development principles being adopted. It should be based on development of spatial strategy with clear focus on creating a healthy living environment with opportunities of economic development and growth. The proposal should focus on citizen's wellbeing and ensure a balance between built and unbuilt environment. The proposal should include best practices in urban planning like resilience, energy efficiency, inclusive, having green infrastructure, conservation of biodiversity, reduced carbon foot print etc. Consultant will:

- a) Develop the plan such that the proposal can attract maximum investment by identifying key commercially viable real estate/infrastructure projects.
- b) Formulate a development vision for planning the land stating vision statement, targets and strategies to achieve goals.
- c) Prepare the concept Master Plan including a report stating the development of a product mix to be used as a basis for the preparation of the final land use plan.
- d) Assessment of additional requirement of utility infrastructure such as power, water, solid waste management, sewage treatment etc.

Tender No: HRIDC/FS/DPR/313/2022

- e) The consultant shall integrate specific measures for the implementation of a sustainable development apart from those stipulated by government regulations. The Master Planning should take into account good practices but not limited to rain water harvesting, water reuse, integrated waste Management system, use of solar panels.
- f) The consultant shall plan the landscape strategy consisting of maintained parks and gardens, natural areas with native vegetation and flora, basic softscapes with use of blue infrastructure like water body, fountain etc., ground cover and shrubs. The consultant shall make use of natural topography and natural drainage of the site.
- g) The consultant shall aim to provide equitable access to transportation options including safe pedestrian, bicycle and transit routes.
- h) The conceptual deliverable will at minimum include the following but not limited to:
  - i. Proposed land uses
  - ii. Demarcation of plots for Property Development
  - iii. Vehicular and Pedestrian circulation
  - iv. Parking lots
  - v. Open spaces and parks
  - vi. Landscaping concepts
  - vii. Plots for various infrastructure components (service buildings) like power, water treatment, gas, sewerage treatment etc.
  - viii. Conceptual 3D sketches/ Aerial views/ pedestrian level views (minimum 3) depicting the theme and character of the subject Area
- i) The consultant shall give a presentation to HRIDC explaining the concept plans and in consultation with client the concept plan will be finalized and taken forward for downstream work of Master Plan.

#### **5.4.2. Stage V - Draft Master Plan and Draft Report**

- a) Based on the comments received from HRIDC on the concepts, the consultant shall prepare the draft Master Plan and report showing land parcellation, proposed land use, financial models showing land monetization scheme and environmental sustainability and all other elements listed in clause 5.4.1 (Stage IV)
- b) The consultant shall prepare 3D views, animation and model sufficient for actual visualization of the proposal. The consultant shall give a presentation to HRIDC explaining their proposal.

#### **5.4.3. Stage VI – Final Master Plan and Report**

After incorporating all the comments, corrections, feedback received from HRIDC and other stake holders, the consultant shall prepare and submit the final:

- a) Master Plan showing demarcation of plots, vehicular and pedestrian circulation plan, open spaces, parks, plots for service buildings
- b) Land parcellation plan
- c) Land use plan
- d) Land monetization plan
- e) Implementation Strategy including phasing and financial model for land monetization.
- f) Environmental Sustainability Plan
- g) Landscaping Plan



Tender No: HRIDC/FS/DPR/313/2022

- h) 3D views and Animation
- i) 3D model
- j) Final Presentation to HRIDC

**5.5. Deliverables, Timelines, and Payment schedule**

The consultant shall at every stage must provide drawings, a detailed report and presentation of tasks, processes, and findings along with the required final submissions as listed below:

Sl. no.	Document	Description	Time	Payment %age	Cumulative Payment %age
1.	Inception Report and Presentation	On completion of stage I	2 weeks from the award of contract	10%	10 %
2.	Market Demand Analysis Report and Presentation	On completion of stage II	6 weeks from award of contact	20%	30%
3.	Road Map of Property Development	On completion of stage III	10 weeks from award of contract	20%	50%
4.	Concept Planning and Vision for the development of the land	On completion of stage IV	12 weeks from award of contract	10%	60%
5.	Draft Master Plan, report and presentation	On completion of stage V	12 weeks from award of work	10%	70%
6.	Final Master plan and report and final Presentation	On completion of stage VI	16 weeks from award of work	30%	100%
				100 %	

**The above deliverable schedule shall be excluding time required for feedback on the report/ plan submitted by consultant. The items listed at 5.4.3 (h, i and j) i.e. 3D view, 3D Model, and final Presentation will be delivered and presented before HRIDC within 2 weeks of completion of other items of Stage VI.**

Note: All the submissions by the consultant must be made in hard and soft copies. Minimum 04 hard copies along-with editable soft copy (word, excel, ppt, AutoCAD, pdf) must be submitted in the format compatible to the software versions available in HRIDCL office.

**SPECIAL CONDITION OF CONTRACT**

**1. ORDER OF PRIORITY OF CONTRACT DOCUMENTS:**

Where there is any conflict between the various documents in the contract, the following order of priority shall be followed i.e., a document appearing earlier shall override the document appearing subsequently:

- a. Agreement
- b. Letter of Acceptance
- c. Notice Inviting Bid
- d. Instructions to the Bidders
- e. Appendix to Bid
- f. Form of Bid
- g. Special Conditions of the Contract
- h. General Conditions of Contract
- i. Terms of Reference (TOR)/ Technical Specifications
- j. Relevant codes and Standards
- k. Bill of Quantities (BOQ)

**2. MOBILISATION ADVANCE:**

**1.1 No mobilization advance shall be paid to consultant.** Consultant shall make his own arrangements at his cost for all materials required for execution, completion and maintenance of all items of work included in his scope of work to the complete satisfaction of the Engineer. Engineer shall not supply any materials nor shall assist for procurement of any materials required for execution, completion and maintenance of works.

**1.2 Advance Against Machinery and Equipment – Not payable**

**3. SUPPLY OF PLANT AND MACHINERY BY EMPLOYER/ENGINEER**

Consultant shall make his own arrangements at his cost for all Plant and Machinery required for execution, completion and maintenance of all items of work included in his scope of work to the complete satisfaction of the Engineer. Engineer shall neither supply any Plant and Machinery nor assist for procurement of any Plant and Machinery required for execution, completion and maintenance of works.

**4. LABORATORY AND TESING FACILITIES OF SAMPLES**

The laboratory tests on samples shall be done through national reputed agency approved by HRIDC.

The Consultant shall have to arrange for all field / lab tests at his own cost for carrying out all the tests required, as per Specifications or as stated elsewhere in the contract, including supply of laboratory equipment and also provision of adequate number of qualified personnel, erection, maintenance and running of laboratory including all consumable like chemicals and reagents.

Tender No: HRIDC/FS/DPR/313/2022

**5. SALES TAX ON WORKS CONTRACT /GST as applicable**

- i. The Consultant shall get registered with the concerned Sales Tax/GST Department of the relevant state(s) of the project and submit a copy of the same to the Employer/Engineer. He shall be responsible for filing sales tax returns and assessments, as necessary as per prevalent Laws, Rules and Regulations and shall also furnish necessary certificates to Employer/Engineer from time to time.
- ii. Employer/Engineer intends to register with the Sales Tax Department under the **Composition Scheme** and shall be responsible for depositing of Sales Tax on works contract leviable on this project. The Consultants need not consider Sales Tax liability on works Contract while quoting their rates. The Consultant may arrange necessary TDS exemption certificate from Sales tax/Commercial tax/Trade tax authorities for exemption from deduction of tax at source. Till the TDS exemption certificate is submitted by the Consultant, the Engineer will continue to deduct the Sales tax at source from the payments due to the Consultant and deposit the same with Sales Tax Department. If requested, the Employer/Engineer shall issue necessary certificate in this regard.
- iii. Wherever certain exemptions/benefits are available on custom duty, excise duty, service tax, Sales tax, works contract tax etc., the Consultant shall consider the same while quoting his rates. For instance, materials/ Plant and Machinery etc. used for execution of the projects financed by International organizations enjoy exemption from custom duty and/or excise duty on fulfilling the conditions as per Govt. notifications. Similarly, the Consultant shall ensure that whenever any benefits are available under Sales tax/Works contract tax, Service tax, these shall be considered while quoting the rates.

**6. PRICE ADJUSTMENT**

Price adjustment shall be applicable in this tender during the work period till completion of the works as per clause 46A of GCC. **PVC shall be payable under classification of work as any other works i.e. only 9A of 46A.6 of GCC 2022 edition amended up to date.**

**7. COMPLETION PERIOD**

The work is required to be completed within a period of **36 (Thirty six) months** the date of issue of letter of acceptance. The work shall be completed in phased manner.

The work has to be executed in co-ordination with other agencies working on or near the project.

In case of any delay in the completion period, the extension of the same shall be dealt as per the clause 17A and 17B of General Conditions of the contract.

**8. COMPLETION PERIOD, WORK PROGRAMME SUBMISSION AND COMMENCEMENT OF WORK AND DELAY & EXTENSION OF CONTRACT**

- a. The work is required to be completed within the period as mentioned 36 months from the date of issue of letter of acceptance.
- b. Within 7 (Seven) days of the issue of Letter of Award and before the work is commenced; the Consultant shall have to submit a detailed program for each major element of the work, using the modern networking techniques for Project monitoring, for approval of the Engineer. The construction program

Tender No: HRIDC/FS/DPR/313/2022

will show the general methods, arrangements, order and timing for all the significant activities in the works identifying the critical path for the work clearly.

- c. The agreement or the approval of the programme by the Engineer shall not relieve the Consultant of any of his responsibilities to complete the whole works by the prescribed time.
- d. The Consultant shall submit to the Engineer, for approval, an updated Program, whenever the Engineer may so direct, to take account of the actual progress of the Contract Works so as to achieve completion either before the due date for completion or by the due date for completion or as soon as practicable thereafter. The Engineer may further require the Consultant to indicate the means by which the programmed progress will be achieved. If the Consultant does not submit an updated Programme within a reasonable period as indicated by the Engineer, the Engineer may withhold the payment of next on account bill until the overdue Programme has been submitted.
- e. In case of any delay in the completion period, the extension of the same shall be dealt as per clause -17A and 17B of General conditions of contract (GCC).

**9. ACHIEVEMENT OF MILESTONE PROGRESS**

In order to ensure progress during execution of the work, the Consultant will be expected to achieve the following milestone targets for each study assigned ahead of dates mentioned against each. Failure to accomplish milestone targets within allocated time frame, save for reasons accepted as valid by the Engineer-in-charge, shall create and constitute ground for failure on the part of consultant for maintaining progress of the work as per agreed programme sufficient enough to recover liquidated damage @ ₹ 10,000/- per day after the due date of each mile stone, limited to amount as per GCC.

<b>Milestone</b>	<b>Description of milestone</b>	<b>Time frame to achieve Milestone</b>
Milestone 1	Fixing paper alignment, Study of alternate alignments and submission of Inception report for approval of HRIDC	D1 =D+2 weeks
Milestone 2	Reconnaissance Survey, assessment of terrain, drainage works, utilities, forest and private land, Traffic estimates, financial appraisal, Submission of draft feasibility report after incorporation of comments / remarks from HRIDC	D2 =D1+4 weeks
Milestone 3	Submission of Final Feasibility Report	D3 =D1 + 6 weeks
	Approval of Feasibility Report by HRIDC/MoR	D4
Milestone 4	Final location survey and center line pegging along with topographic survey and alignment design report	D5 =D4+4 weeks
Milestone 5	Submission of draft DPR as per BOQ details to HRIDC and incorporation of comments/ remarks from HRIDC/ Railways	D6=D5+4 weeks
Milestone 6	Submission of ESPs, L-section, Drawings and land acquisition data to HRIDC and final DPR.	D7=D6+2 weeks

Note:

- 1. 'D' is the date of issue of work order by HRIDC to the Consultant.
- 2. Liquidity damage charges shall be recovered for delay on part of agency as per relevant para of GCC.

Tender No: HRIDC/FS/DPR/313/2022

## **10. CONTRACT AGREEMENT**

The Consultant shall enter into and execute the Contract agreement in the form of agreement within **28 days** from the date of issue of Letter of Acceptance. The stamp papers of the requisite value as per the prevailing laws shall be provided by the Consultant at his own cost. Original agreement shall be retained by the Employer/Engineer and a certified copy shall be made available to the Consultant.

### **11. Modification/ Variation in contract:**

Modification/ variation in contract shall be governed as per Indian Railway General Condition of Contract (2022 edition) amended upto date.

### **12. Vitiating in contract:**

**The vitiating in the** contract shall be dealt according to extent rule and vitiating amount, if any, shall be recoverable from the contractor.

#### **Part-I**

Instruction to Tenderer (Page 121 to Page 157 of previous RFP) is Deleted.

#### **Part-II**

Standard General Conditions of Contract (Page 158 to Page 226 of previous RFP) is Deleted. IR GCC(2022) is standard document available online on Indian railway website and can be referred accordingly.

Tender No: HRIDC/FS/DPR/313/2022

**TENDERING FORMS**

This Section contains the forms which are to be uploaded on e- procurement portal by the tenderer/s and constitute a part of his Tender.

**Letter of Offer (Form PS-1)**

Invitation for Tender No.:

Dated: XX.XX.2022

To

Deputy General Manager (Projects)

Haryana Rail Infrastructure Development Corporation Ltd,

SCO 17-18-19, 3rd Floor, Sector-17A, Chandigarh

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Tender Documents, including Addenda issued in accordance with Instructions to tenderer/s ITT 2.7;

(b) We offer to execute the Works in conformity with the Tender Documents;

(c) Our tender shall be valid for a period as defined in Para 1.9.1 of NIT from the date fixed for the tender submission deadline in accordance with the tender documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our tender is accepted, we commit to submit a performance Guarantee in accordance with the tender Documents;

(e) If our tender is accepted, we commit to deploy key personnel as proposed by us in our contract consistent with the requirements stipulated in HRIDC's Requirements;

(f) We understand that HRIDC requires that tenderer/s, must observe the highest standard of ethics during the execution of such contracts. We confirm and undertake that we including our constituents, any sub-consultants for any part of the contract directly or otherwise have not been / shall not be engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract in accordance with ITT 2.3; and We also understand that the HRIDC has the right to reject our tender at any stage if it determines that we have directly or otherwise, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract and will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in HRIDC's activities, if it at any time determines that the firm has, directly or otherwise, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing a contract of the HRIDC in accordance with ITT 2.3;

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

(g) We, including any sub-consultants for any part of the contract, do not have any conflict of interest in accordance with ITT 2.4.2;

(h) We are not participating as a tenderer/s, in more than one tender in this tendering process in accordance with ITT 2.4.2;

(i) We declare that we are not liable to be disqualified in Accordance with ITT 2.4.3, and we are enclosing the affidavit for the same as per the Performa given Tender No: HRIDC/FS/DPR/313/2022 in the tender document.

(j) We understand that this tender, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

(k) We have not made any deviations from the requirement of the tender document and we have also not made any tampering or changes in the tender documents on which the offer is being submitted and if any tampering or changes are detected at any stage, we understand the tender will invite rejection and forfeiture of EMD/the contract will be liable to be terminated along with forfeiture of performance Guarantee, even if LOA has been issued.

(l) We declare and confirm that in the submission of this tender, no agent, middleman or any intermediary has been, or will be engaged to provide any services or any other item of work related to the award and performance of this contract. We further confirm and declare that no agency commission or any payment which may be construed as an agency commission has been, or will be, paid and that the contract price does not include any such amount. We acknowledge the right of the HRIDC, if he finds to the contrary, to declare our contract to be non-compliant and if the contract has been awarded to declare the contract null and void.

Name:

In the capacity of:

Signed and Sealed:

Duly authorized to sign the tenders for  
and on behalf of:

Date:

**FORMAT FOR AFFIDAVIT TO BE SUBMITTED BY TENDERER ALONG WITH THE TENDER DOCUMENTS**

**(To be executed in presence of Notary public on non-judicial stamp paper of the value of ₹ 100/-. The stamp paper has to be in the name of the Tenderer) \***

I ..... (Name and designation)\*\* appointed as the attorney/ authorized signatory of the Tenderer (including its constituents), M/s. \_\_\_\_\_ having its office at.....(hereinafter called the Tenderer) for the purpose of the Tender documents for the work of ( Name of work )\*\* as per the Tender No. \_\_\_\_\_ of Haryana Rail Infrastructure Development Corporation (HRIDC), do hereby solemnly affirm and state on 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 the website <https://etenders.hry.nic.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 HRIDC 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 **or any other Ministry / Department of Govt. of Haryana** 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 affidavit submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the Bid Security besides banning of business for a period of upto five 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 affidavit submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of Bid Security/Security Deposit and Performance guarantee besides any other action provided in the contract including banning of business for a period of up to 5 (five) years.
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).



Tender No: HRIDC/FS/DPR/313/2022

**DEPONENT  
SEAL AND SIGNATURE  
OF THE TENDERER**

**VERIFICATION**

I/We above named Tenderer do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

**DEPONENT  
SEAL AND SIGNATURE  
OF THE TENDERER**

Place:

Dated:

Note:

1. Should affidavit be in more than one separate page, each page shall be signed by the authorized signatory.

**Constitution of Firm**

<b>S No.</b>	<b>Particulars</b>	<b>Response</b>
1	Constitution of the Firm (Tick as applicable)	Sole Proprietorship Firm/ Partnership Firm/ Company/ JV/ LLP/ Registered Society or Trust
2	Full name of the Sole Proprietorship Firm/ Partnership Firm/ Company/ JV/ LLP/ Registered Society or Trust (as the case may be)	
3	Year of formation/ incorporation	
4	PAN No.	
5	Registered Office Address	
6	Address on which correspondence regarding this tender should be done	
7	Names of the proprietor/ partners/ JV members etc	

**Undertaking:**

We have uploaded along with the tender, all the requisite documents pertaining to the constitution of the firm/ concern/company. etc, as specified in clause 2.4.1 of “General Tender Conditions & Instructions to tenderers”. I/We understand that in the absence of these documents, offer shall be considered incomplete and shall be summarily rejected.

**Date:**

**Signature of Tenderer/s with Seal**

**AFFIDAVIT BY SOLE PROPRIETORSHIP 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 proprietor of the 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  
.....

**DEPONENT**

**Verification:**

Verified at..... on this .....day 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**

(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 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')

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')

1. To sign and submit Tender and participate in the aforesaid bid of HRIDC 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 HRIDC 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 HRIDC.

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.

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

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
2. Name:
3. Address:

Executants Partners

(Name)(Signature)

1.....

2.....

3.....

Tender No: HRIDC/FS/DPR/313/2022

**ANNEXURE – O-3**

**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 HRIDC for the work namely “ \_\_\_\_\_”.

I.....(name and designation) the authorized 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 HRIDC 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 HRIDC for and on behalf of the company.
5. To sign, execute the contract with HRIDC for and on behalf of the company.

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 HRIDC.

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

Signature of Tenderer/s

HRIDC

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

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

**WITNESSES:**

1. Signature :  
Name :  
Address :

Executant 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.

Tender No: HRIDC/FS/DPR/313/2022

**ANNEXURE – O-4**

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



Tender No: HRIDC/FS/DPR/313/2022

**ANNEXURE – O-5**

**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 HRIDC 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 HRIDC 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 HRIDC 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 HRIDC.

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.

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

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

**WITNESSES:**

2. Signature  
Name :  
Address:

Signatures of authorized representative &  
Seal of LLP

Name of authorized representative  
(Executant):  
Designation:

3. 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.

Tender No: HRIDC/FS/DPR/313/2022

**ANNEXURE – O-6**

**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 HRIDC for the work namely “ \_\_\_\_\_ ”. Partners discussed the matter and after discussion following resolution was passed:

Whereas the Partners have been described about NIT No. \_\_\_\_\_ issued by HRIDC for the work namely “ \_\_\_\_\_ ”. Partners discussed the matter and after discussion following resolution was passed:

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)**

***Annexure-II***

Tender No: HRIDC/FS/DPR/313/2022

**FORMAT-1**

*(Ref. Sr. No. 3 of Check list for Documents)*

**DETAILS OF SIMILAR WORKS COMPLETED IN LAST SEVEN YEARS**

SN	Description of the Work	Name and address of the Employer	Contract No. and date	Date of award of work	Stipulated date of completion	Date of actual completion	Value of completed work (In Lacs of ₹)	Reasons for delays, if any	Penalty ,if any, imposed for delay	Any Remarks other relevant information
----	-------------------------	----------------------------------	-----------------------	-----------------------	-------------------------------	---------------------------	--	----------------------------	------------------------------------	--

- 1
- 2
- 3
- 4
- 5
- 6

Note:

1. Please attach copies of the certificates issued by the Client.
2. Only those works shall be considered for evaluation for which copies of the certificates issued by the client are attached.

Tender No: HRIDC/FS/DPR/313/2022

**FORMAT-2**  
(Ref. Sr. No. 4 of of *Check list for Documents*)

**ANNUAL CONTRACTUAL TURNOVERS FOR THE LAST THREE/FOUR FINANCIAL YEARS**

**NAME OF BIDDER:**

<b>Annual Contractual Turnover Data for the Previous 3/4 Years (Contractual Payment only)</b>			
<b>Year</b>	<b>Amount Currency</b>	<b>Exchange Rate</b>	<b>Indian National Rupees Equivalent</b>
<b>Average Annual Contractual Turnover for last 3 years</b>			

1. The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.
2. The information supplied shall be substantiated by data in the audited balance sheets and profit and loss accounts for the relevant years in respect of the bidder or all members constituting the bidder.
3. Contents of this form should be certified by a Chartered Accountant duly supported by Audited Balance Sheet duly certified by the Chartered Accountant.

**SEAL AND SIGNATURE OF THE BIDDER**

Certified that all figures and facts submitted in this form have been furnished after full consideration of all observations/notes in Auditor’s reports. \_\_\_\_\_

*(Signature of Chartered Accountant)*

**Name of CA:** \_\_\_\_\_

**Registration No:** \_\_\_\_\_

*(Seal)*

Tender No: HRIDC/FS/DPR/313/2022

**FORMAT-3 (QCF-1)**

(Ref. Sr. No. 5 of *of Check list for Documents* and QCF-1 of ITT)

**PROGRAMME FOR DEPLOYMENT OF MAN POWER ALONGWITH BIO-DATA OF KEY PERSONNELS.**

<b>SN</b>	<b>Name</b>	<b>Qualification</b>	<b>Designation</b>	<b>Total Experience (in years)</b>	<b>Programme for deployment</b>
1					
2					
3					

Tender No: HRIDC/FS/DPR/313/2022

**FORMAT-4(QCF-2)**

(Ref. Sr. No. 6 of *of Check list for Documents and QCF-2 of ITT*)

**PROGRAMME FOR DEPLOYMENT OF TOOLS AND HARDWARE PROPOSED TO BE PROCURED/HIRED ON THE PROJECT.**

SN	Description	Make	Model & Year of manufacture	Capacity	Condition	Nos. proposed to be deployed	Programme of Deployment	Remarks
1								
2								
3								
4								

Tender No: HRIDC/FS/DPR/313/2022

**PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)**

Name of the Bank: .....  
Managing Director,  
Haryana Rail Infrastructure Development Corporation Limited

Bank Guarantee Bond No.:

Date:

**PERFORMANCE GUARANTEE BOND**

In consideration of the Haryana Rail Infrastructure Development Corporation (hereinafter called "HRIDC") having agreed under the terms and conditions of agreement/Contract Acceptance letter No. .... dated..... 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, 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) Notwithstanding 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



**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

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 upto----- (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 ₹.....(₹.....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.

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

Signature of Banks Authorized

(Name) -----  
Designation with Code No.-----  
Full Address-----

Witness:

1. ....

2. ....

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

FORM OF AGREEMENT To be executed on requisite value of stamp Papers)

THIS AGREEMENT made on \_\_\_\_\_ day of \_\_\_\_\_ (Month/year) between Haryana Rail Infrastructure Development Corporation Limited, HRIDC, SCO No. 17-18-19, Sec-17A, Chandigarh acting through (Managing Director, hereinafter called “the Employer/Engineer”) of the one part and \_\_\_\_\_ (name and address of the Consultant) (hereinafter called “the Consultant”) of the other part.

WHEREAS the Employer is desirous that certain works should be executed by the Consultant viz. **Contract No.** \_\_\_\_\_ (hereinafter called “the Works”, and has accepted a Bid by the Consultant for the execution and completion of such Works and the remedying of any defects therein.

**NOW THIS AGREEMENT WITNESSETH as follows:**

- In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
- The following documents shall be deemed to form and be read and construed as part of this Agreement:
  - a. Letter of Acceptance of Bid
  - b. Notice Inviting Bid
  - c. Instructions to the Bidders
  - d. Bill of Quantities (BOQ)
  - e. Form of Bid
  - f. Special Conditions of the Contract
  - g. General Conditions of Contract
  - h. Terms of Reference (TOR) / Technical Specifications
  - i. Relevant codes and Standards
- In consideration of the payments to be made by the Employer to the Consultant as hereinafter execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
- The Employer hereby covenants to pay the Consultant in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement executed the day and year first before written.

Signature of Tenderer/s

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

(Name, Designation and address of the authorized signatory)

(Name, Designation and address of the authorized signatory)

Signed for and on behalf of the Consultant in the presence of:

Signed for and on behalf of the Employer in the presence of:

Witness:

Witness:

1.

1.

2.

2.

Name and address of the witnesses to be indicated.

**BILL OF QUANTITIES**

<b>Name of Work - Providing Consultancy Services for Feasibility Study and Preparation of Detailed Project Report (DPR) for various projects in Haryana Rail Infrastructure Development Corporation Limited.</b>						
<b>PART-I</b>						
<b>Schedule-I (Inception Report &amp; Feasibility Study)</b>						
<b>SN</b>	<b>Activity</b>	<b>Details of work</b>	<b>Unit</b>	<b>Qty.</b>	<b>Rate (₹)</b>	<b>Amount (₹)</b>
1.	Desk Study of alternatives	Desk study of alternative alignments on topo-sheet as per the purpose, area and scope of work defined in TOR in consultation with Railways/HRIDC, proposal of alignment on topo-sheet Google Earth, KMZ format	Km	650	2610/-	16,96,500
2.	Reconnaissance Survey and Abstract Cost Estimates Detailed Feasibility Report	g) To conduct foot by foot reconnaissance survey with hand held GPS along the proposed alignment, duly collecting various information and to suggest modification to the proposed alignment as per site condition, preparation of L- section, Alignment Report, List of bridges(waterways), ROBs, RUBs, , station locations, station equipment, staff colonies, yard layouts, junction arrangements, track structure, land requirement, rough classification of land, signalling arrangement, electric traction arrangements, utility shifting, cost estimates, alternative studies and comparison, integration of traffic survey and financial feasibility and submission of draft feasibility report as defined in TOR and then submitting final feasibility report	KM	650	13400	87,10,000

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

		in consultation with HRIDC. (70%) b. Getting approval of HRIDC/ MoR (30%)				
3	Traffic Estimates Study	a) Traffic study on project route including assessment of freight and passenger by diversion of existing traffic from the existing routes in and around Delhi and to/from proposed DFC routes, forecast of Transport demand for 25 years from the year of starting of operation in five years intervals based on alternative growth scenarios, assessment of new freight traffic expected to be generated due to further expansion in industrial/production centres, agriculture activities, generation capacities etc. in the zone of influence for next 25 years, study the traffic moving by other modes of transport and likely market share of railways etc as per TOR.(70%) b) Getting approval of HRIDC/ MoR (30%)	Each	10	4,50,000	45,00,000
4	Financial Appraisal	a) Financial viability analysis including the examination of the possibility of implementing the project through JV Model, complete appraisal for all economic, financial & social including environmental impact and other related issues, detailed financial evaluation of the project and carry out financial feasibility study to establish the financial viability of the project to cover the items as per TOR. (70%) b) Getting approval of HRIDC/ MoR (30%)	Each	10	5,00,000	50,00,000

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

5	Drone Videography of Alignment	Drone videography for proposed alignment. Drone will fly on the proposed alignment including the right of way and prepare a high resolution geotagged aerial video with all visible details and assets such as bridges, level crossings, stations etc.  <b>Deliverable:</b> - Submission of Geo tagged video 1920x1080 format (Full HD) resolution, low resolution geo-tagged video in 640x480 format for presentations, image/drawing files linked with video/image (fly mode) in 02 copies (external hard drive) to HRIDC	Km	650	1430	9,29,500	
						<b>Total</b>	<b>2,08,36,000</b>
						Add GST @ 18%	37,50,480
						<b>Total of Schedule-I</b>	<b>2,45,86,480/-</b>

Tender No: HRIDC/FS/DPR/313/2022

<b>Schedule-II (Detail Project Report)</b>						
<b>SN</b>	<b>Activity</b>	<b>Details of work</b>	<b>Unit</b>	<b>Qty.</b>	<b>Rate (₹)</b>	<b>Amount (₹)</b>
1.	Topographic survey and identification of bridges, road crossings, power line and other utilities. Including preparation of GADs (not detailed design)	a. Detailed field survey along the final selected designed alignment route, preparation of survey report including comparison with other routes as per the available details, establishing horizontal and vertical control points, marking of rail corridor, crossings, buildings, hydrological data collection, proposal for bridge openings, road crossings, RUBs and ROB, Rail Fly Over (RFO) and submission of draft report. (70%) b. Approval of the same by the HRIDC/MoR (30%)	KM	450	24,518	1,10,33,100
2.	Preparations of L-Section	a. Making detailed L- section and detailed plan i.e. project sheet by recording ground levels/features using automatic leveling instruments/plain tabling or other advanced survey instruments, along the center line of demarcated proposed alignment at 10 m intervals, as per site conditions, including ground levels across the center line of the alignment on either side at proposed top edge and toe of bank and bottom edge and top edge of cutting sections, and further upto 20m from the toe of bank or top edge of cutting. Note:(i) The ground levels are to be recorded with respect to mean sea level connected to GTS bench marks located in the vicinity of proposed alignment and to be procured from survey of India office. Also additional temporary bench mark to be fixed at an average 2000m interval or lesser CC mattams M-20 outside the	Km	450	1942.90	8,74,305

Tender No: HRIDC/FS/DPR/313/2022

		<p>profile of embankment or cutting, or on pucca structures viz plinth of buildings, coping of bridges etc as directed by Engineer in charge.</p> <p>(ii)The cross section to be recorded on either side of proposed alignment upto the distance required for calculating cross sectional area to assess earthwork quantity and will vary for plain terrain and hilly terrain.</p> <p>(iii)The cross section at each chainage of 10m are to be plotted on Auto CAD and submitted in hard copy(6 Nos) and soft copy and 1 copy on polyester based tracing paper(100 to150 microns) along with computation of cross sectional area.</p> <p>(iv)The levels recorded along the alignment are to be reduced with respect to MSL and submitted in tabular form in hardcopy (6 Nos) as well as in soft copy and one copy on polyester-based tracing paper (100 to150 micron). The detailed L Section to be prepared on scale 1 cm=50 Meters horizontal and 1 cm= 5Meters vertical in plain terrain or suitable scale in Ghat/ hilly terrain showing all the details of existing and proposed formation, bridges, road crossing, grade etc as per specified railway norms complete. Detailed plan corresponding to L section to be prepared on the same sheet, showing details of all existing ground features, proposed bridges, level crossing, curves, Land boundaries, TBM, TBM mattams etc complete as directed by Engineer in charge.</p>				
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**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

		<p>(v)The item also includes preparing plan of area upto 100m on either side all along the proposed alignment by plain tabling or other suitable system using advanced survey instruments i.e. project sheet having detailed L section and detailed plan.(vi)The project sheet is to be plotted on Auto CAD on scale 1 cm=50 m Horizontal and 1 cm=5m Vertical in plain terrain or suitable scale in Ghat/hilly terrain and to be submitted on hard copy (6Nos) along with soft copy and 2 copies of polyester based tracing paper (100 to150 micron) as directed by Engineer in charge. (70% Payment). b. After approval of HRIDC/ MoR (30% Payment)</p>				
3.	Final Location Survey and land verification	<p>a. Fixing of alignment by centre line pegging with RCC pillars (of size 15 cm x 15 cm x 450 cm with 4 nos of 8 mm dia steel &amp; 6 mm plain bar stirrups and M20 grade concrete) @100 m C/C in straight portion, tangent points and apex point of curve including traversing between existing control points and other obligatory points.</p> <p>b. Preparation of land plans using latest surveying technique as Total station/DGPS and Marking of land corridor for land acquisition, collection of revenue record and facilitate verification of village plots and preparation of land plans, identification of land, information on affected land</p>	Km	650	3000	19,50,000
			Km	650	10225	66,46,250

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

		<p>owners &amp; land schedule on ground etc. by State govt. officials. Assessment of type of land, its broad classification as private, govt., revenue forest or forest land for management decisions. Final location survey will be done as per IR code for the engineering department.</p> <p>c. Submission of land acquisition proposals for yards / dumping locations for ballast, blanket etc. along the finalized alignment etc. complete in requisite copies under section 20(A) &amp; 20(E) of Railways (Amendment) Act, 2008 as per format / requirement of revenue departments including necessary survey, preparation of area statement, collection of all necessary revenue records, information on affected land owners, land use pattern (such as agriculture, commercial, barren, forest etc) , details of assets and any such other information required for publication of notification under section 20(A) &amp; 20(E).</p> <p><b>Note:</b> Item a, b and c 70% payment shall be released on completion of respective items and submission of report. Balance 30% shall be released after approval from HRIDC/MoR.</p>	Hect.	811.40	5073.53	41,16,662.24
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**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

4.	Site Selection and Demarcation of Waterway for major bridges and important bridges	<p>Site selection and demarcation of required water way and configuration of spans for major bridge and important bridges including leveling for profile of stream bed, along the main stream on upstream and downstream side, computation of catchment area of the stream ,collection of hydrological data , hydrological calculations as per sub structure code/RDSO guidelines for deciding water way for bridges including computation of scour depth, construction of pucca CC mattams on approaches and preparation of GAD plan for bridges etc. complete .</p> <p>Note: 1) The item includes - River survey to be done as per provision of Engineering Code 8 Km on upstream side and 2 Km on downstream side from proposed centre line alignment intercepting the river or stream. Recording bed levels along the main stream of river and three typical sections of river as directed by Engineer in Charge.</p> <p>2) Plotting on AutoCAD the L-section of river bed and typical cross sections of river, plan of the river on upstream upto 8 Kms and on downstream upto 2 Kms from the alignment, computing the catchment area / water shed line of river, centroid of catchment area using Autodesk 3D civil software and Google Earth, submitting along the hydrological calculations in hard copy (6 nos.) as well as soft copy as per Railway code / RDSO guidelines and as directed by Engineer in Charge. 3) General note - Before submitting the detailed drawings for all the above items of the work, one draft</p>	Each	20	10384.47	2,07,689.40
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**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

		hard copy is required to be submitted for scrutiny and checking by the Railways for obtaining the approval of competent authority and making corrections / editing and finally submitting the required number of hard copies, final tracings and soft copies duly incorporating all necessary corrections etc. complete.				
5.	Preparations of ESPs of New Yards, Level crossing	Preparation and supplying of yard plans of various new stations showing proposed positions of track and related structures based on conceptual yard plans & ESP of level crossing (Interlocked/Non interlocked) showing all the details on Auto CAD. The rates are inclusive of original tracing with paper print of each yard.	Each	40	9025	3,61,000
6.	Preparation of Junction arrangements, ESPs	a. Preparation of all ESPs including junction ESPs based on Railways existing ESP as per approved DPR under detailed consultation with employer, concerned Railway. (70% payment) b. After approval of HRIDC/MoR (30% payment)	Each	15	29,152	4,37,280
7.	Preparation of Signal Interlocking Plans of Junction arrangements	a. Preparation and submission of SIP based on approved ESP (70% payment) b. After approval of HRIDC/MoR (30% payment)	Each	15	69,000	10,35,000
8.	Preparation of SIP	a. Preparation and submission of SIPs of New Yards (70% payment).  b. After approval of HRIDC/MoR (30% payment)	Each	30	10,000	3,00,000

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

9.	Preparation of Power supply scheme and OHE scheme	<p>a. Preparation and submission of power supply and OHE scheme of each project proposal with sufficient details (not detailed design) to the satisfaction of Client and Railway (70% payment)</p> <p>b. After approval of HRIDC/MoR (30% payment)</p>	Each	10	5,17,500	51,75,000
10.	Aerial Topographical Drone Survey	<p>(a) Conducting a Drone Videography UAV/Drone by capturing 4k resolution videography of the whole alignment and delivering the geotagged videos along with a player facility to upload &amp; link image/Drawings/other files etc and linkage to GIS Map like Google, Bhuvan etc with overlay/sync facility should be available &amp; ROW, alignment, structure, Chainage &amp; other important details can be incorporated in it. Also it should have the facility to compare two different times videos simultaneously.</p> <p>Deliverables Include: -</p> <ol style="list-style-type: none"> <li>1. Merged Seamless Geo-tagged Video of at least 1920X1080 format (full HD) resolution with all annotations.</li> <li>2. Video Metadata in CSV format - Time, GPS_Latitude, GPS_Longitude, Elevation, Camera Angles (Roll, Pitch, Yaw) for each video.</li> <li>3. KML file containing the all Structure, Annotation, Chainage.</li> </ol> <p>(b) Conducting Aerial Topographical Survey using DGPS based integrated Drone i.e PPK/ RTK based Drone to capture</p>	Km	200	18,475	36,95,000

Tender No: HRIDC/FS/DPR/313/2022

		<p>essential ground features and assets and delivering the topographical information for 100m width corridor (50 m each side from the center line) within an accuracy of 5cm.</p> <ol style="list-style-type: none"> <li>1 Transfer of GCP benchmarks or SOI benchmarks to the site will be done by the agency and no extra cost will be paid for it by the railways. However, procurement of the GCP benchmarks or SOI benchmarks will be provided by the Railways.</li> <li>2 GCP points establishment at every 2 km paint marked on the permanent structure and 1 hr DGPS observation of the same.</li> <li>3 TBM points establishment at every 500 m on paint marked on permanent structures and RTK survey of the same using the 2 km points as the base.</li> <li>4 Transfer of elevation from the benchmark to the whole alignment using the Digital auto level.</li> <li>5 Collection of High Resolution Aerial Imagery of minimum 3 cm GSD using survey grade DGPS integrated Drone i.e PPK/RTK based Drone having on board dual GNSS system and calibrated camera of 20 MP. UAV Aerial Photo Acquisition shall be done to cover the ROW. Suitable Overlapping: minimum 70 % forward and 50 % side overlap shall be maintained. Ensure Image Quality: Clear /sharp imagery with good light condition. Images must have XYZ co-ordinates and</li> </ol>				
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Tender No: HRIDC/FS/DPR/313/2022

		<p>rotational information, sensor size, focal length as meta data. This information must also be made available in a text file</p> <p>6 Aero triangulation Using the professional photogrammetry Software which supports Stereo Capability to measure control points with highest precision and rigorous bundle block adjustment for reliable mathematical calculation and final results. This operation includes measuring and transferring all tie, check, and control points appearing on all photographs manually; and performing a least squares block adjustment</p> <p>7 3D Topographical mapping - Plan data Capture - All topographical information including natural &amp; manmade features to be captured. All the topographical features including Rail, track Centerline, Platform, signal, Electrical mast, FOB, RUB, Station Building, Other buildings, Utilities, land use, Roads, wall, Hydro features to be captured, (Extensive Layer list in CAD) The output is to be delivered in DWG format</p> <p>8 Digital Terrain Model - Each Stereo Model is to be setup in the stereo photogrammetry software. The manual inspection and editing of the elevation points in stereo photogrammetry software to eliminate points captured over trees, buildings etc. ensuring that the DTM are totally at ground level. Various ground features will be also captured wherever</p>				
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Tender No: HRIDC/FS/DPR/313/2022

		<p>elevation changes with respect to existing ground to prepare the accurate DTM. The 3D break line will be captured on the Transportation features, Hydrography/Hydrological Features, ground level Structures, vertical drops etc for the creation of accurate DTM. The output shall be delivered in DWG format</p> <p>9 Digital Elevation Model (DEM) at 1 meter grid interval to be delivered in ASCII &amp; DWG format</p> <p>10 Contours at 50 CM interval for the corridor</p> <p>11 3 CM resolutions Orthophoto in tiff/ECW format (CAD Compatible) (Clear Detail with no smear/warp) with Horizontal accuracy of 5 CM RMSE). Seam line editing &amp; Photoshop correction should be used to ensure clear details while keeping high geometrical accuracies.</p> <p><b>Deliverables will include-</b></p> <p>1. Topographical base map in AutoCAD format of 1:500 scale having all the natural &amp; manmade features such as buildings, road, tracks, platforms, walls, yards, boundaries fences, signals, electrical mast, FOBs, LCs, RUB / ROBs, etc. in .DWG or .DXF format.</p> <p>2. Contours at an interval of 50 cm in DWG or DXF format.</p> <p>3. Digital Elevation Model of 1m resolution in ASCII format and DWG format.</p>				
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Tender No: HRIDC/FS/DPR/313/2022

		<p>4. 3 cm resolution (GSD) Orthophoto in ECW or TIFF format which can be opened in CAD.</p> <p>5. Hardcopy of Topographical maps in 3 sets.</p> <p>(c) Reality 3D models for YARDS, ROB, RUB etc. using Drones.</p> <p>Collection of High-Resolution Nadir &amp; Oblique (Forward, Backward, left side view, Right side view) Aerial Imagery of minimum 2 cm GSD using survey grade UAS/Drone having on board dual GNSS system and calibrated camera of 20 MP. Suitable Overlapping: minimum 70 % forward and 70 % side overlap shall be maintained. Ensure Image Quality: Clear /sharp imagery with good light condition. Images must have XYZ co-ordinates and rotational information, sensor size, focal length as meta data.</p> <p>Development of precise high resolution 3D reality model using photogrammetry technology of the whole alignment. The 3D model to be delivered in Obj/fbx Format. (70%)</p> <p>b) Item a, b and c 70% payment shall be released on completion of respective items and submission of report. Balance 30% shall be released after approval from HRIDC/MoR.</p>				
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**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

11..	Detailed estimate & Rate analysis.	c) Preparation of detailed estimate with rate analysis covering each item of land, earthwork, track, bridges and structures, drainage, roads and protection work, signaling electric traction, power supply, junction arrangements, general electrification, utility shifting, staff colonies, railway installations, offices, inspection and construction equipment (like tower wagons, RRVs) as per scale, complete job based on standard Schedules of rates where available or Last accepted rates of Railways/ RVNL/IRCON/ RITES /State Govt. CPWD etc. (70% payment) and Balance 30% shall be released after approval from HRIDC/MoR.	Each	10	3,02,000	30,20,000
12.	Preparation, compilation and submission of Detailed Project Report	a) Preparation, compilation and submission of Detailed Project Report including Executive summary, Alignment Design, BOQ, Rate Analysis, Final Location Survey Report, detailed Cost Estimate, Traffic Estimate and Financial Appraisal, Maps ESPs, SIPs OHE Scheme, Land Plans etc. as per TOR (75% payment) b) After Approval of the same by HRIDC/MoR (25% payment)	Each	10	1,50,000	15,00,000
<b>Total</b>						<b>4,03,51,286.64</b>
Add GST @18%						<b>72,63,231.59</b>
<b>Total of Schedule-II</b>						<b>4,76,14,518.23</b>

**Schedule-III (Soil Investigation)**

Exploratory drilling of Bore Holes					
1a	0m to 10m of dia. 150mm	Mtr	2000	2,500	50,00,000
1b	10m to 20m of dia. 150mm	Mtr	1500	2,600	39,00,000

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

1c	20m to 30m of dia. 150mm	Mtr	500	2,700	13,50,000
2	Taking out 100mm dia & 450mm long undisputed sample of soil from bore holes	Each	2000	200	4,00,000
3	Taking out 100mm dia & 450mm long disturbed sample of soil from bore holes	Each	2000	150	3,00,000
4	Conducting standard penetration test	Each	1000	200	2,00,000
5	Collecting of water sample at req. intervals	Each	1000	200	2,00,000
6	Conducting laboratory test on collected soil samples as per IS Code	Each	1000	200	2,00,000
6a	Moisture Content/Dry Density	Each	1000	200	2,00,000
6b	Atterberg Limit	Each	1000	200	2,00,000
6c	Specific Gravity	Each	1000	200	2,00,000
6d	Grain Size Analysis including hydrometer analysis	Each	1000	200	2,00,000
6e	Direct Shear test	Each	1000	200	2,00,000
6f	Consolidation test	Each	1000	200	2,00,000
6g	Unconfirmed consolidation test	Each	1000	200	2,00,000
6h	Plate load test 60cmX60cm	Each	1000	1,000	10,00,000
6i	Tri axial Test	Each	1000	200	2,00,000
Total					1,41,50,000
Add GST @18%					25,47,000
<b>Total of Schedule-III</b>					<b>1,66,97,000</b>

**PART-2**

**Providing Consultancy for Preparation of DPR/ Road Map for Property Development along HORC and Master Plan for approx. 20 Ha of land at Manesar.**

**SCHEDULE - IV (DPR/ Road Map for Property Development and Master Plan**

SN	Activity	Details of work	Unit	Qty.	Rate (₹)	Amount (₹)
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**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

1.	<b>Stage I - Review of available data, drawings and existing framework</b>	<p>The consultant will carry out</p> <p><b>PART A</b></p> <p>a. Review of Existing Data/ plans</p> <p>b. Identifying data gaps and mitigation measures to establish product mix.</p> <p>c. Review of Existing Plans, DCR, policies and proposals in influence area.</p> <p>d. Socio-economic analysis of the population in influence zone</p> <p><b>PART B</b></p> <p>a. Collection of requisite Data and analysis of existing climatic conditions.</p> <p>b. Collection of data on proposed developments in the vicinity.</p> <p>c. Presentation on Data and Methodology</p>	Complete Job	1	62,61,000	62,61,000
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Tender No: HRIDC/FS/DPR/313/2022

<p>2.</p>	<p><b>Stage II Market Demand Analysis and Case Studies</b></p>	<p><b>Part A</b></p> <p>Detailed Market Analysis wrt Real Estate Demand along HORC will be undertaken Consultant as follows:</p> <ol style="list-style-type: none"> <li>a. A macroeconomic review of the region</li> <li>b. Informing stake holders about HORC project &amp; Manesar stations</li> <li>c. Conducting stakeholders Consultations</li> <li>d. Recording and analysis of Data.</li> <li>e. Sector wise assessment of Market Demand.</li> <li>f. Preparing Product Mix</li> <li>g. Assessment of space demand for identified sectors</li> <li>h. Developing 3 options for spatial development.</li> <li>i. Presentation on findings of Market Study</li> </ol> <p><b><u>Part B</u></b></p> <ol style="list-style-type: none"> <li>a. To carry out case studies (No 8)</li> <li>b. Benchmarking for corridor development and Land Development</li> <li>c. To assess the success factors and USP</li> </ol>				
<p>3.</p>	<p><b>Stage III Road Map of Property Development</b></p>	<p>Road Map of Property Development should contain the following</p> <ol style="list-style-type: none"> <li>a. Vision, Aims and Objectives</li> <li>b. Assessment of Land availability</li> <li>c. Assessment of Land Potentials</li> <li>d. SWOT analysis</li> <li>e. Financial Feasibility Model</li> <li>f. Road Map for Property Development</li> </ol>				
<p>4.</p>	<p><b>Stage IV – Concept Plan and Vision for the developmen t of the land</b></p>	<p>Consultant will</p> <ol style="list-style-type: none"> <li>a. Develop Plan with a view to attract maximum investment</li> <li>b. Formulate vision for Master Planning</li> <li>c. Prepare Concept Master Plan</li> <li>d. Assess and allocate land for</li> </ol>				

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED**

Tender No: HRIDC/FS/DPR/313/2022

		<p>Utilities</p> <p>e. Prepare sustainable Plan</p> <p>f. Prepare Landscape Plan</p> <p>g. Ensure equitable judicious assess to all transport modes.</p> <p>h. Prepare plan will allocation of use to all land parcels</p> <p>i. Make a presentation before HRIDC</p>				
5.	<b>Stage V - Draft Master Plan and Draft Report</b>	<p>a. To prepare Draft Master plan</p> <p>b. To prepare 3D views, animation and 3D models</p>				
6	<b>Stage VI – Final Master Plan and Report</b>	<p>Consultant to Prepare the following</p> <p>a. Final Master Plan</p> <p>b. Land parcellation plan</p> <p>c. Land use plan</p> <p>d. Land monetization plan</p> <p>e. Implementation Strategy including phasing and financial model for land monetization.</p> <p>f. Environmental Sustainability Plan</p> <p>g. Landscaping plan</p> <p>h. 3D views and Animation</p> <p>i. 3D Model</p> <p>j. Final Presentation to HRIDC</p>				
<b>Total of Schedule-IV</b>						<b>₹ 62,61,000</b>

<b>S.No.</b>	<b>Activities</b>	<b>Amount (In ₹)</b>
1	Total Cost of Schedule-I (Inception Report & Feasibility Study)	<b>2,45,86,480.00</b>
2	Total Cost of Schedule-II (DPR)	<b>4,76,14,518.23</b>
3	Total Cost of Schedule-III (Soil Investigation)	<b>1,66,97,000.00</b>
4	Total Cost of Schedule-IV (DPR/ Road Map for Property Development and Master Plan)	<b>62,61,000.00</b>
	<b>Total</b>	<b><u>9,51,58,998.23</u></b> <b><u>Say 9.52 Cr</u></b>

Tender No: HRIDC/FS/DPR/313/2022

**Note:**

1. **DPR study will be undertaken only after specific approval of HRIDC on the basis of final feasibility report. HRIDC shall have the right to close the contract after feasibility study without any liability on either side and the consultant will have no claim whatsoever on this account.**
2. **Items and their quantity in above Schedule are indicative and will be executed through different work orders as in a zonal contract as per requirement of HRIDC from time to time during the currency of contract. The consultant will have no claim regarding men, material and all other items, whatsoever on this account.**
3. **Items of Schedule-III shall be executed as per specification for similar items in USSOR-2010.**
4. **Work may be executed as a single study (Feasibility/DPR) at a time or more than one study simultaneously at any point of time as per requirement of HRIDC within the overall completion period of contract. Firm has to mobilize adequate resources accordingly.**
5. **Deliverables, Timelines, and Payment for Schedule IV (PART-2) will be as per TOR clause no 5.5.**

Tender No: HRIDC/FS/DPR/313/2022

**OFFER SHEET**

**I/We offer and agree to execute the work as per specifications, rate, terms and conditions of this tender at the following rates.**

**Date of opening:- 19.08.2022 at 15.30 hrs.**

Validate		Print		Help		
Tender Inviting Authority: Haryana Rail Infrastructure Development Corporation Ltd						
Name of Work: Providing consultancy services for feasibility study and preparation of Detailed Project Report (DPR) for various projects in HRIDC						
Contract No: HRIDC/FS/DPR/313/2022						
Name of the Bidder/ Bidding Firm / Company :						
<b>PRICE SCHEDULE</b>						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )						
NUMBER #	TEXT #	NUMBER	TEXT	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Estimated Rate in Rs. P	Excess(+)/ Loss(-)	PERCENTAGE RATE (%) to be entered by the Bidder	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
1	Schedule-I: Inception Report & Feasibility Study	24,588,488.00	Select		-	INR Zero Only
2	Schedule-II: Detailed Project Report	47,814,518.23	Select		-	INR Zero Only
3	Schedule-III: Soil Investigation	16,607,000.00	Select		-	INR Zero Only
4	Schedule-IV: DPR/ Road Map for Property Development & Master Plan	6,261,000.00	Select		-	INR Zero Only
Total in Figures					-	INR Zero Only
Quoted Rate in Words		<b>INR Zero Only</b>				

**Note:-**

- 1) **The above image is for reference only. No rates should be quoted in this template.**
- 2) The quoted rates should be inclusive all duties, GST, royalties, cost of maintenance, major/minor repairs, cost of lubricants, fuel, drivers and other taxes etc. for a complete job.
- 3) The financial Schedule is provided in the online e-procurement portal of Haryana Govt.
- 4) Only one single percentage above/below/at par against each schedule for the tender shall be quoted by the tenderer in the financial schedule and any tenderer quoting rates other than percentage shall be summarily rejected.
- 5) ***The rates/ percentage shall not be quoted elsewhere in the tender document uploaded on portal except Financial Bid Packet.***

**Signature of Tenderer/(s)**

Address .....

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