



TENDER DOCUMENT

FOR

Tender No: HORC/HRIDC/GGN/CGT/2023/GT/01

Name of Work: Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana

MAY: 2023

HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

Plot no.143, Railtel Tower, Sector-44. Gurugram, 122003

Website: www.HRIDC.co.in

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

TABLE OF CONTENTS

S.No.	Description	Page No.	
		From	To
1	Salient features of Tender	3	4
2	Notice Inviting Tender and Annexure-1	5	16
3	Tender Forms (First Sheet)	17	18
4	General Tender Conditions and Instructions to Tenderer's with Annexures (Annexure-A to Annexure-V)	19	119
5	Terms of Reference / Technical Specification	120	142
5.1	Special Conditions of Contract	121	124
5.2	Technical Specifications	125	142
6	Safety, Health and Environment (SHE): - Followed by the Contractor	143	172
7	Packet-II: Financial Tender	173	178

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED (HRIDC)**

**Tender Document
Top Sheet**

(A) Salient Features of Tender:

Mode of Tender	E-tender (Two Packet System)
Notice Inviting Tender No.	HORC/HRIDC/GGN/CGT/2023/GT/01 dated 11.05.2023
Full name of work	Name of Work: Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana
Approx. Cost	INR 134.74 Lacs (Incl. GST)
Completion period	110 days
Tender security amount	INR 2,17,500.00
Issue of Tender Notice	Issue of Notice Inviting Tender on HRIDC website (www.HRIDC.co.in) and in eProcurement portal of Govt. of Haryana (https://etenders.hry.nic.in) on 11.05.2023
Availability of tender document on e-Procurement portal of Haryana Govt.	Tender documents will be available on e-Procurement portal Government of Haryana i.e. https://etenders.hry.nic.in and HRIDC website i.e. www.HRIDC.co.in on 16.05.2023 at 1700 Hrs. IST to 06.06.2023 upto 1500 Hrs, IST.
Site visit and other related details	The prospective tenderers may contact the following for further details: Chief Project Manager/HRIDC (Email: horc.etendering@gmail.com)
Start date for submission of offer on the eProcurement portal of Haryana Govt. i.e. https://etenders.hry.nic.in	30.05.2023 at 1100 Hrs, IST
Last date/Time of uploading of tenders	06.06.2023 upto 1500 Hrs, IST

Date/Time of Opening of Tender	Technical Tenders will be opened on 06.06.2023 at 1530 Hrs, IST . Financial Tenders of the eligible tenderers would be opened subsequently on the date & time to be notified later on.
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(B) PRECAUTIONS TO BE TAKEN FOR PREPARING LEGAL DOCUMENTS (For guidance to Tenderer):

1. Non-Judicial Stamp Paper

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

2. Signature on the document

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

3. Format of the document

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

4. Notarization of document

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

5. Notarial stamps of appropriate value wherever required should be affixed on the document.

HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

Notice Inviting Tenders (NIT)
Procurement of Works
(e-Tendering Process Without Prequalification)

Tender No. HORC/HRIDC/GGN/CGT/2023/GT/01

Date: 11.05.2023

Country : India**Employer** : Haryana Orbital Rail Corporation Limited**Tender Inviting Authority:** Haryana Rail Infrastructure Development Corporation Limited
(HRIDC)**Project** : Haryana Orbital Rail Corridor Project**Contract Title:** Geo technical Investigation - For designing of foundations of Viaduct**Tender Document Issued on: 16.05.2023.**

1. Haryana Rail Infrastructure Development Corporation Limited (HRIDC), an implementing agency, for Haryana Orbital Rail Corridor (HORC) Project having its office at Plot No 143, 5th Floor, Railtel Tower, Sector-44, Gurugram, Haryana-122003, invites online Tenders through e-Tender portal of Govt. of Haryana from eligible Tenderers for the works of **Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana** fulfilling the qualification criteria as mentioned in the Tender Document. The completion period of work is **110 days**. Tenderers are advised to refer the Clauses on General Tender Conditions (Sub Clause 2.3.2 (A) to 2.3.2 (C)) given in Tender Document, to qualify for the participation in the Tender.
2. Tendering will be conducted through National Competitive Tendering (NCT) and is open to all eligible Tenderers.
3. Interested eligible Tenderers may obtain further information from the office of Chief Project Manager, HRIDC and inspect the Tender Document during office hours from 0930 to 1800 hours at the address given below:

Chief Project Manager,

Haryana Rail Infrastructure Development Corporation Limited, Plot No 143, 5th Floor,
Railtel Tower, Sector-44, Gurugram, Haryana-122003

Tel No: +91 9311478893

Email id: horc.etendering@gmail.com

4. The Tender Document in English will be available online on eProcurement portal of Govt. of

Haryana (<https://etenders.hry.nic.in>) from **16.05.2023 at 1700 hrs. IST** till **06.06.2023 at 1500 hrs. IST**. The start date of submission of Tender on eProcurement portal is **30.05.2023 at 11.00 hrs IST**. Tenderer is required to submit a non-refundable **E-Service fee of INR 1180 (INR One Thousand One Hundred and Eighty Only) including GST** and Cost of Tender Documents of **INR 15,000.00 (INR Fifteen Thousand Only) including GST** as indicated in the table at the end of this NIT. The method of payment of E-Service fee will be online in the eProcurement portal using the electronic payment gateway service. Tenderers will be required to register in the above website.

5. For submission of the Tender, the Tenderers are required to have Digital Signature Certificate (DSC) from one of the Certifying Authorities (CAs), authorized by Government of India for issuing DSC. Tenderer can see the list of licensed CAs from the link (www.cca.gov.in). Aspiring Tenderers who have not obtained the user ID and password for participating in eProcurement in this Project, may obtain the same from the website: <https://etenders.hry.nic.in>.
6. Tenders comprise two Parts, namely the Technical Tender and the Financial Tender, and both Tenders must be simultaneously submitted online on eProcurement portal (<https://etenders.hry.nic.in>) on or before **06.06.2023 at 1500 hrs. IST**. Tender validity shall be 90 days from the last date of submission of Tenders. Any Tender or modifications to Tender received outside eProcurement system will not be considered. The electronic tendering system would not allow any late submission of Tender. The Technical Tender will be opened online on **06.06.2023 at 1530 hrs. IST** and this could be viewed by the Tenderers online on eProcurement Portal. The Price Tender shall remain in encrypted form in the eProcurement system until the opening. If the office happens to be closed on the date of opening of the Tenders as specified, the Tenders will be opened on the next working day at the same time and venue.
7. Tenderers may have to submit the original documents in physical form at short notice whenever asked by HORC/HRIDC at any stage of tender evaluation process or even after finalization of tender.
8. All Tenders must be accompanied by a Tender Security of the amount **INR 2,17,500.00 (INR Two Lakhs Seventeen Thousand Five Hundred Only)**, to be paid online on eProcurement Portal in favour of Haryana Rail Infrastructure Development Corporation Limited using the electronic payment gateway service.
9. There will be **No Pre-Tender Meeting** for this Tender. Tenderers are advised to download the Tender Document and may request any clarification on Tender Documents. Last date for submission of Tender queries for any clarification to the Employer is **23.05.2023 by 1800 Hrs., IST** after which no queries will be acknowledged.
10. Other details can be seen in the Tender Document. The Employer shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt to notify the Tenderers of any updates, the Employer shall not be liable for any information not received by the Tenderer. It is the Tenderer's responsibility to verify the HRIDC website (<http://www.HRIDC.co.in>) and eProcurement portal of Govt. of Haryana (<https://etenders.hry.nic.in>) for the latest information related to this Tender and issue of any

addenda/Corrigenda.

11. Critical Dates

S. No.	Tender Schedule	Date
1.	Issue of Notice Inviting Tender on HRIDC Website (i.e. www.HRIDC.co.in) & on eProcurement portal of Government of Haryana (i.e. www.etenders.hry.nic.in).	11.05.2023, 1700 Hrs, IST
2.	Availability of tender documents on eProcurement portal of Government of Haryana (i.e. www.etenders.hry.nic.in) and HRIDC website (i.e. www.HRIDC.co.in)	16.05.2023, 1500 Hrs., IST
3.	Last date for Submission of Tender queries for any clarification to the Employer.	23.05.2023, 1800 Hrs, IST
4.	Uploading of Reply to Tender queries on e-Procurement portal of Government of Haryana (i.e. www.etenders.hry.nic.in) and HRIDC website (i.e. www.HRIDC.co.in).	25.05.2023
5.	Start of submission of offer on e-procurement portal i.e. https://etenders.hry.nic.in .	30.05.2023, 1100 Hrs., IST
6.	End of availability of Tender Documents at https://etenders.hry.nic.in	06.06.2023, 1500 Hrs., IST
7.	Opening of Technical Tender	06.06.2023, 1530 Hrs, IST
NOTE: In case the intended date for opening of tenders is declared a holiday, the Tenders will be opened on the next working day at the same time.		

TABLE

Package No.	Name of Work	Estimated Cost of Works	Tender Security	Cost of Tender Document	E-Service fee	Time for Completion
1	2		3	4	5	6
GT/01	Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana	INR 134.74 Lacs (Including GST)	INR 2,17,500.00	INR 15,000.00 (including GST)	INR 1180 (including GST)	110 days

--SD--

Chief Project Manager,
Haryana Rail Infrastructure
Development Corporation Limited
Plot No 143, 5th Floor, Railtel Tower,
Sector-44, Gurugram,
Haryana-122003

Annexure-1

Scanned copy of the Documents to be uploaded along with offer

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
1.	Cost of Tender Document (in terms of Clause 2.1.2 of “ General Tender Conditions and instructions to tenderer(s) ” of tender document)	ONLINE MODE (No documentary proof required)	
2.	Tender Security of INR 2,17,500.00 (in terms of Clause 3.0 of “ General Tender Conditions and instructions to tenderer(s) ” of tender document)	ONLINE MODE (Online Payment Receipt generated on eProcurement Portal)	
3.	E-Service Fee	ONLINE MODE (No documentary proof required)	
4.	Constitution of Firm documents (as required in terms of Clause 2.4 of the tender document)		
(A)	In case of Sole Proprietorship Firm	(i) A copy of notarized Affidavit certifying the Sole Proprietorship of the firm. (Standard Affidavit as per Annexure O –1) (ii) An undertaking that he/Sole Proprietorship Firm is not blacklisted or debarred by Railways/HRIDC 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	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
		<p>opening of Tenders, either in individual capacity or as a member of the partnership firm 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).</p> <p>(iii) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).</p>	
(B)	In case of HUF	<p>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.</p> <p>ii) An undertaking that the HUF is not blacklisted or debarred by Railways/HRIDC 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</p>	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
		<p>Tenders, either in individual capacity or as a member of the partnership firm in which HUF was / is a partner/member.</p> <p>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)</p> <p>iii) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).</p>	
(C)	In case of a “Partnership Firm/Concern”	<p>(i)Notary certified copy of the Partnership Deed.</p> <p>(ii)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.</p> <p>(iii)Power of Attorney (duly notarised/registered) in favour of the individual signing the tender documents, agreement and create liability against the Firm. (Standard Performance as per Annexure O-2)</p> <p>iv) An undertaking by all the partners of the Partnership Firm that they</p>	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
		<p>are not blacklisted or debarred by Railways/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm 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)</p> <p>v) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).</p>	
(D)	In case of a “ Firm”	NOT APPLICABLE as JV in not permitted in this Tender	
(E)	In case of a “Company” registered under Companies Act-2013	<p>(i) Copy of the MOA (Memorandum of Association)/AOA (Articles of Association) of the Company;</p> <p>(ii) A copy of Certificate of Incorporation</p>	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
		<p>(iii)A copy of notarized/registered Power of Attorney (Standard Performa as per Annexure O-9) by the Company (backed by the resolution of Board of Directors) (Standard Performa as per Annexure O-10) in favour of the individual signing the tender on behalf of the Company and create liability against the company.</p> <p>(iv)An undertaking that the Company is not blacklisted or debarred by Railways/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm 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).</p> <p>(v)All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender</p>	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
		Conditions and Instructions to Tenderer(s)	
(F)	In case of a “LLP (Limited Liability Partnership)”	<p>(i)Notarised copy of the LLP Agreement;</p> <p>(ii)A Copy of Certificate of Incorporation; and</p> <p>(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-11)</p> <p>(iv)An undertaking that the LLP is not blacklisted or debarred by Railways/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm 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).</p> <p>(v)All other documents in terms of explanatory notes</p>	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
		for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s)	
(G)	In case of a Registered Society/ Registered Trust	<p>(i) A notarised copy of the Certificate of Registration;</p> <p>(ii) Notarised copy of Deed of Formation; and</p> <p>(iii) A notarised/registered copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust.</p> <p>(iv) An undertaking that Registered Society/ Registered Trust is not blacklisted or debarred by Railways/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm 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).</p> <p>(v) All other documents in terms of explanatory notes</p>	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
		for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).	
5.	Technical Eligibility Criteria – Completion/Performance Certificate in support of (i) One similar work costing not less than INR 81.00 lacs Or (ii) Two similar works each costing not less than INR 54.00 lacs, (iii) Three similar works each costing not less than INR 41.00 lacs as per clause 2.3.2 (A) of General Tender Conditions and instructions to Tenderer(s).	Copy	
6.	Financial Eligibility Criteria – The Tenderer must have minimum average annual contractual turnover of at least INR 56 Lacs calculated as total certified payments received for contracts in progress and/or completed within the last three financial years (2019-20, 2020-21, 2021-22) divided by three.. as per Clause 2.3.2 (B) of General Tender Conditions and instructions to Tenderer(s).	Copy	
7.	Tender Form (First Sheet)	Copy	
8.	Annexure-C Declaration form regarding site etc.	Copy	
9.	Annexure-D Declaration regarding constitution of firm	Copy	
10.	Annexure-E (Plant and Machinery)	Copy	

S.No.	Document	Required in the form	Submitted along with the tender (Yes/No/NA)
11.	Annexure-F (Engineers/Personnel)	Copy	
12.	Annexure-G (Works executed during last seven years ending last day of the month previous to the one in which tender is opened)	Copy	
13.	Annexure-H Work in Hand - in support of Credentials.	Copy	
14.	Annexure-I (Detail of Contractual Payment received in previous three financial years and the current financial year)	Copy	
15.	Annexure-J (Bank Detail/RTGS)	Copy	
16.	Completion Certificate*	Copy	
17.	Annexure-M Mandatory Affidavit to be submitted by tenderer along with the tender documents	Copy	
18.	Annexure-Q - Mandatory undertaking Regarding Employment/ Partnership of Retired Government of India/ Haryana Employees.	Copy	

* Tenderer should make all efforts to submit the Completion certificate as per Annexure-L.

NA-Not Applicable

Signature of Tenderer(s)

Date.....

Address of the Tenderer(s)

(Complete postal address)

HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

LETTER OF TENDER

Tender No: HORC/HRIDC/GGN/CGT/2023/GT/01

Dated 11.05.2023

Name of work: Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana

To,

**Chief Project Manager,
Haryana Rail Infrastructure Development Corporation Limited (HRIDC),
Plot no.143, 5th floor,
Railtel Tower, Sector-44
Gurugram – 122003
Tel: +91 9311478893**

Dear Sir,

I/We, _____ have read the various conditions to tender attached hereto and agree to abide by the said conditions. I/We also agree to keep this tender open for acceptance for a period of **90 (Ninety) days** from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our “Tender Security”. I/We offer to do the work **Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana**, at the rates quoted in the attached schedule and hereby bind myself/ourselves to complete the work in all respects within **110 days**, 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 (April 2022)**, with all correction slips issued time to time and to carry out the work according to the Special Conditions of Contract, technical specifications, specifications of materials and Schedule of Rates as laid down by HORCL/HRIDC in the present contract.
3. Tender Security of requisite amount specified in Clause 3 of General tender Conditions and Instructions to Tenderer(s) of Tender Document has been deposited online. The Tender Security shall be 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 (7) days after receipt of notice issued by HORCL/HRIDC that such documents are ready; and
 - c) I/We do not commence the work within fifteen (15) days after receipt of orders to that effect.
4. Until a formal Contract 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)

(Complete postal address)

GENERAL TENDER CONDITIONS AND INSTRUCTIONS TO TENDERER(S)

GENERAL TENDER CONDITIONS AND INSTRUCTIONS TO TENDERER(S) SHALL BE READ IN CONJUNCTION WITH THE RAILWAY, STANDARD GENERAL CONDITIONS OF CONTRACT (APRIL 2022) WITH ADVANCE CORRECTION SLIPS ISSUED BY THE AUTHORISED SIGNATORY OF RAILWAY BOARD, AS ON THE NIT DATE OF TENDER, IN ADDITION TO THE CONDITIONS MENTIONED IN THIS TENDER DOCUMENT

Part -I Instruction to Tenderers (ITT)	
1.0	<u>NAME OF WORKS:</u>
	Tenders are invited for the work Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana
2.0	<p><u>TENDER DOCUMENTS:</u></p> <p>One set of complete tender documents contains the following:</p> <p>Technical Tender</p> <ul style="list-style-type: none"> (i) Top sheet, (ii) Notice Inviting Tender, (iii) Addendum/Corrigendum, if any, (iv) Tender form (first sheet), (v) General Tender Conditions and Instructions to Tenderer(s) along with related Annexures, (vi) Special Conditions related to Site Data and Specifications along with related Annexures. <p>The above documents must be uploaded along with all mandatory documents/credentials as directed in Annexure-1 of Notice Inviting Tender and Tender Conditions and Instructions to Tenderer(s).</p> <p>Financial Tender</p> <p>It consists of :</p> <ul style="list-style-type: none"> (i) Bill of Quantities (BOQ) containing Schedule of Items, Quantities and Unit Rates.

	<p>(ii) MS Excel Sheet with provision for quoting percentage rates online by tenderers. The Tenderer has to quote the percentage (%) Excess (+) or Less (-) over the total Estimated Cost of Schedule 'A' (which is shown as "Estimated Rate" against Schedule 'A' in BOQ of MS excel file uploaded on e procurement portal) with provision for quoting of rates in excel sheet (BOQ) online by tenderers. All rates given in BOQ are inclusive of GST and all other taxes</p>
2.1	<u>SUBMISSION OF TENDERS:</u>
2.1.1 (a)	<p>The offer is to be uploaded online from 30.05.2023 at 11:00 AM to 06.06.2023 upto 1500 Hrs, IST along with scanned copy of all the requisite documents (as per Annexure-1 of Notice Inviting Tender).</p> <ul style="list-style-type: none"> • Tenderer may have to submit the original documents in physical form at short notice whenever asked by HORCL/HRIDC at any stage of tender evaluation process or even after finalization of tender. • In e-tender, all submissions of documents are to be uploaded on the e-Procurement portal of Government of Haryana i.e. https://etenders.hry.nic.in. There may be last minute hic-cups and delay in uploading the Documents. Tenderer's/ Prospective Tenderers are advised to upload their offer well in time. HORCL/HRIDC will not be responsible for any delay/non submission of offer due to any reason whatsoever.
(b)	<p>"Packet-I/File-I" – Technical Tender will be opened on 06.06.2023 at 1530 Hrs, IST.</p> <p>The Technical Tender shall contain:</p> <ol style="list-style-type: none"> (a) Tender form (First sheet); (b) All requisite documents mentioned in "General Tender Conditions and Instructions to Tenderers" and Annexure-1 of Notice Inviting Tender; (c) Complete Tender document duly signed by competent authority at each page. <p>Tenderers are requested to ensure that all such documents and Annexures duly filled and signed by legally authorized signatory are uploaded, completed in all respects with their Packet-I/File-I.</p>

(c)	<p>Packet II/File II-FINANCIAL TENDER (SECOND PACKET) shall contain the Financial Tender only.</p> <p>Financial Tender shall contain the followings:</p> <p>(A) MS Excel Sheet after quoting percentage rate against Schedule ‘A’</p> <p>(B) Duly Signed Bill of Quantities for Schedule ‘A’. (Pdf File)</p> <p>Financial Tender will be uploaded along with File-I/Package-I on or before the tender submission end date and time.</p> <p>Financial Tender of only those tenderer(s) will be opened whose Packet-I/File-I (Technical Tender) is found technically eligible as per Tender Conditions. The time, date and venue of opening of Packet-II/File-II (Financial Tenders) shall be notified to the technically eligible tenderer(s) after evaluation of Packet-I/File-I (Technical Tenders). The same shall be opened on due date in the presence of tenderers/their representatives as may wish to attend the same.</p> <p>Further, offered rates should be filled up only in the BOQ (MS-Excel sheet) at specified space i.e. Financial Tender Sheet (Packet-II/File-II). Rates offered in any other Proforma/Form shall be rejected.</p>
(d)	<p>Care in submission of tender</p>
(i)	<p>Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all-inclusive to accord with the provisions in Clause-37 of the Standard General Conditions of Contract (April 2022) for the completion of works to the entire satisfaction of the Engineer-in-charge.</p>
(ii)	<p>Tenderers will examine the various provisions of The Central Goods and Services Tax Act, 2017(CGST)/Integrated Goods and Services Tax Act, 2017(IGST)/Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state’s State Goods and Services Tax Act (SGST) also, as notified by Central/State Govt& as amended from time to time and applicable taxes before Tendering. Tenderer’s will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.</p>
(iii)	<p>The successful tenderer who is liable to be registered under CGST /IGST/ UTGST/ SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to HORCL/HRIDC immediately after the award of contract, without which no payment shall be released to the Contractor. The Contractor shall be responsible for deposition of applicable GST to the concerned authority.</p>

(iv)	In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the HORCL/HRIDC shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.
(v)	When work is tendered for by a firm or company, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.
(vi)	The HORCL/HRIDC will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.
(vii)	The tenderers shall submit a copy of certificate stating that all their statements/documents submitted along with Tender are true and factual. Standard format of certificate to be submitted by the Tenderer is enclosed as Annexure-M . Non submission of above certificate by the Tenderer shall result in summarily rejection of his/their Tender. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.
2.1.2	<p>Cost of Tender Documents</p> <p>Tender Documents will be available on the e-Procurement portal https://etenders.hry.nic.in from 16.05.2023 at 1700 Hrs, IST to 06.06.2023 upto 1500 hrs, IST. The cost of Tender Document will have to be deposited ONLINE on eProcurement portal of Govt. of Haryana (https://etenders.hry.nic.in). The cost of tender document is Rs. 15,000/- (including GST @ 18%).</p>
2.1.3	<p>The Tender Document consisting of TWO Packets/Files i.e., Packet-I/File-I (TECHNICAL TENDER) and the Packet-II/File-II (FINANCIAL TENDER), shall be uploaded by 06.06.2023 upto 1500 Hrs, IST. The Packet-I/File-I (Technical Tender) will be opened after closing of uploading of tender i.e. 06.06.2023 at 1530 Hrs, IST. Technical details and commercial conditions read out in the presence of such tenderer(s) as is/are present if any. The time, date and venue of opening of Packet-II/File-II (Financial Tenders) shall be notified to successful tenderer(s) after evaluation of Packet-I/File-I (Technical Tenders). The offer shall be uploaded along with scanned copy of all the requisite document (as per Annexure-1 of Notice Inviting Tender and General Tender Conditions & Instructions to Tenderer(s)). In case the intended date for opening of tenders is declared a holiday, the tenders will be opened on the next working day at the same time.</p>

2.2	<u>COMPLETION OF TENDER DOCUMENTS:</u>
2.2.1	<p>The tenderer(s) shall quote his single percentage rate in financial Tender MS-Excel Sheet against Bill of Quantities (Packet-II, Financial Tender). Every possible fluctuation, in the rate of labour, material and general commodities, and other possibilities of each and every kind which may affect the rates, should be considered and kept in view before quoting the rates and no claim on this account shall be entertained by HORCL/HRIDC under any circumstances except the price escalation payable as per price variation clause, if any, provided separately in the tender documents.</p>
2.2.2	<p>The rate should be quoted in percentage only in Financial Tender MS Excel sheet. However, the quoted percentage rate against BOQ will automatically be converted into total quoted amount in figures and words in Financial Tender sheet.</p> <p>If a tenderer does not quote rate/rates in the format (MS-Excel Sheet) as specified in this tender document i.e. Financial Tender MS Excel sheet (Package II/File-II-Financial Tender), the offer will be treated incomplete and summarily rejected.</p>
2.2.3	<p>Tenderer(s) participating in this tender are deemed to have accepted all the conditions given in Tender document.</p>
2.2.4	<p>The rates, rebates and/or other financial terms, if any, quoted by tenderer in the relevant fields of the Financial Tender page will only be the ruling terms for deciding the inter-se ranking, and any such condition having financial repercussions, if quoted by them anywhere else including attached documents shall not be considered for deciding inter-se ranking.</p>
2.2.5	<p>HORCL/HRIDC reserves the right not to consider conditional tenders and reject the same without assigning any reason. Only those additional conditions which are explicitly accepted by HORCL/HRIDC shall form part of the contract.</p>
2.2.6	<p>An affidavit is required to be uploaded/submitted by all tenderers (as given in Annexure-M). Based on this affidavit, Tender Committee will deliberate and decide eligibility of tenderers for first packet.</p>
2.2.8	<p>Tenderer may have to submit the original Documents in physical form at short notice whenever asked by HORCL/HRIDC at any stage of tender evaluation process or even after finalization of tender.</p>

2.2.9	In E-tender, all submissions of documents are to be uploaded on the e-procurement portal https://etenders.hry.nic.in . There may be last minute hic-cups and delay in uploading the Documents. Tenderer's/Prospective Tenderers are advised to upload their offer well in time. HORCL/HRIDC will not be responsible for any delay/non submission of offer due to any reason whatsoever.
2.2.10	Tenders containing erasures and / or alterations of tender documents are liable to be rejected. Any correction made by tenderer(s) in his/their entries must be attested by him / them.
2.2.11	The works are required to be completed within a period of 110 days from the date of issue of acceptance letter.
2.2.12	<p>Employment/Partnership, etc. of Retired Government of India/ Government of Haryana Employees:</p> <p>(a) Should a Tenderer</p> <p>i) be a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, whether in the executive or administrative capacity or whether holding a pensionable post or not, in the Engineering or any other department of Government of India/ Government of Haryana and administered by the President of India/ Competent Authority for the time being, OR</p> <p>ii) being partnership firm/ company/ registered society/ registered trust etc have as one of its partners a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement in Government of India/ Government of Haryana, OR</p> <p>iii) being an incorporated company have any such retired Engineer of the gazetted rank or any other gazetted officer working before his retirement in Government of India/ Government of Haryana as one of its directors</p> <p style="text-align: center;">AND</p> <p>in case where such Engineer or officer had not retired from government service at least 1 year prior to the date of submission of the tender</p> <p style="text-align: center;">THEN</p> <p>the tenderer will give full information as to the date of retirement of such Engineer or gazetted officer from the said service and as to whether permission for taking such contract, or if the Contractor be a partnership firm or an incorporated company, to become a partner or director as the case may be, has been obtained by the tenderer or the Engineer or officer, as the case may be from the President of India/ Competent Authority duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender.</p>

	<p>(b) In case, upon successful award of contract, should a tenderer depute for execution of the works under or to deal matters related with this contract, any retired Engineer of gazette rank or retired gazetted officer working before his retirement in the Engineering or any other department of Government of India/ Government of Haryana and administered by the President of India/ Competent Authority for the time being, and now in his employment, then the tenderer will ensure that retired Engineer or retired gazetted officer had retired from government service at least 1 year prior to the date of his employment with tenderer and in case he had retired from service within a year then he possesses the requisite permission from the President of India/ Competent Authority or any officer, duly authorized by him in this behalf, to get associated with the tenderer.</p> <p>(c) Should a tenderer or Contractor being an individual, have member(s) of his family or in the case of partnership firm/ company / registered society / registered trust etc. one or more of his partner(s)/shareholder(s) or member(s) of the family of partner(s)/shareholder(s) having share of more than 1% in the tendering entity employed in gazetted capacity in the Engineering or any other department of Government of India/ Government of Haryana, then the tenderer at the time of submission of tender, will inform the authority inviting tenders the details of such persons.</p> <p><i>Note:</i> The undertaking for the above shall be submitted as per Annexure-Q. Tenders without the above information referred to or a statement to the effect that no such retired Engineer or retired gazetted officer is so associated with the Tenderer, as the case may be, shall be summarily rejected.</p>
2.3	<u>CREDENTIALS TO BE UPLOADED/SUBMITTED ALONG WITH TENDER DOCUMENTS:</u>
2.3.1	The tenderer(s) shall upload with his/their tender a list of serviceable machinery, tools and plants, equipment and vehicles he/they has/have in hand for executing the work & those, he/they intends/intend to purchase as per Annexure-E .
2.3.2	Eligibility Criteria
2.3.2 (A)	Technical Eligibility Criteria The Tenderer shall upload the documents to prove their technical eligibility as per following criteria:

The Tenderer must have successfully completed or Substantially Completed any of the following during **last 07**

(seven) years, ending last day of month previous to the one in which tender is invited:

(i) **One similar work** each costing not less than the amount equal to **INR 81.00 lacs.**

OR

(ii) **Two similar works** each costing not less than the amount equal to **INR 54.00 lacs,**

OR

(iii) **Three similar work** each costing not less than the amount equal to **INR 41.00 lacs.**

Where

‘Similar Works’ means ‘Carrying out Geotechnical Investigation in soil/rock for Railway/ Metro rail/RRTS/ Highway/ Irrigation Canal linear projects.

‘Substantially Completed’ means an ongoing work in which payment equal to or more than 80% of the original contract value.

The Tenderer shall submit the requisite information in **Annexure-G** along with the Completion Certificate issued by the Employer (owner of the work) as documentary proof clearly indicating the similarity of the work as per Sub-Clause 2.3.2 (A) above, actual completion cost, actual completion date. Tender submitted without this documentary proof shall not be evaluated. Tenderer should make all efforts to submit the Completion certificate as per **Annexure-L**.

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

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant

	<p><i>copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.</i></p> <p><i>Further, it may be kindly noted that the above work, if executed as part of any other single work, will also be considered eligible as similar work provided the value of that part of single work meets the minimum amount as mentioned in clause above.</i></p>
<p>2.3.2 (B)</p>	<p><u>Financial Eligibility Criteria:</u></p> <p>The Tenderer must have minimum average annual contractual turnover of at least INR 56 Lacs calculated as total certified payments received for contracts in progress and/or completed within the last three financial years (2019-20, 2020-21, 2021-22) divided by three.</p> <p>The tenderers shall submit the requisite information as per Annexure I.</p>
<p>2.3.2 (C)</p>	<p>Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under:</p> <p>The conversion rate of US Dollars into Rupees shall be the daily representative exchange rates published by the Reserve Bank of India for the relevant date. Where, relevant date shall be as on the last day of month previous to the one in which tender is invited. In case of any other currency, the same shall first be converted to US Dollars as on the last day of month previous to the one in which tender is invited, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date.</p>
	<p><i>Notes for clause 2.3.2 (A) to 2.3.2 (C)-</i></p> <ol style="list-style-type: none"> <i>1. In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfilment of credentials.</i> <i>2. If a work is physically completed and completion certificate to this extent is issued by the concerned organization but final bill is pending, such work shall be considered for fulfilment of credentials.</i> <i>3. If a part or a component of work is completed but the overall scope of contract is not completed, this work shall not be considered for fulfilment of technical credentials even if the cost of part completed work/component is more than required for fulfilment of credentials.</i>

4. In case a work is considered similar in nature for fulfilment of technical credentials, the overall cost of that work including PVC amount if any shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.
5. The value of final bill including PVC amount-if paid, or otherwise in case final bill is pending the contract cost in last approved variation statement plus PVC amount paid or cumulative amount paid up to last on-account bill including PVC amount and statutory deductions whichever is less, shall be considered as the completion cost of work.
6. In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of $0.3 \times 0.2 \times \text{value of the work done in the previous entity}$. For this purpose, the tenderer shall submit along with his Tender all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
7. In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm (e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the tenderer shall submit along with his Tender all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
8. In case of existing partnership firm if any other partner(s) joins the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his Tender all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.
9. Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.
10. In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.

	<p><i>11. If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.</i></p> <p><i>12. In a partnership firm “AB” of A&B partners, in case A also works as propriety firm “P” or partner in some other partnership firm “AX”, credentials of A in propriety firm “P” or in other partnership firm “AX” earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.</i></p> <p><i>13. In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm.</i></p> <p><i>14. In case company A is merged with company B, then company B would get the credentials of company A also.</i></p>
(D)	Tenderer should make all efforts to submit the Completion certificate as per Annexure-L .
(E)	The following will be applicable in evaluating the eligibility:
(a)	Similar nature of work physically completed within the qualifying period i.e., the last 07 (seven) years, ending last day of the month previous to the one in which tender is invited (even though the work might have commenced before the qualifying period) should only be considered in evaluating the eligibility criteria.
(b)	<p>The total value of similar nature of work completed during the qualifying period and not the payments received within qualifying period alone, should be considered. In case, the final bill of similar nature of work has not been passed and final measurements have not been recorded; the paid amount including statutory deductions is to be considered. If final measurements have been recorded and work has been completed with negative variation, then also the paid amount including statutory deductions is to be considered.</p> <p>However, if final measurements have been recorded and work has been completed with positive variation, but variation has not been sanctioned, original agreement value or last sanctioned agreement value whichever is lower should be considered for judging eligibility.</p>
(F)	Deleted

(G)	The overall financial soundness of the tenderer(s) will be evaluated based upon the volume of the work handled, Turn over, Balance Sheet etc. Tenderer(s) will accordingly furnish these particulars for the last 3 (three) years (i.e. Current year and Three Previous Financial Years) duly supported by latest audited results/Balance Sheets.
(H)	JV is not permitted in this Tender.
(I)	<u>Tender Capacity: Applicable for tenders (costing more than Rs 20 Crore)</u>
	Since the cost of this Tender is less than Rs.20 crores, hence Tender Capacity criteria is not applicable.
2.4	<u>CONSTITUTION OF THE FIRM:</u>
2.4.1	<p>The tenderer shall clearly specify whether the tender is submitted on his own (Sole Proprietary Firm) or on behalf of a Partnership Firm / Company / Registered Society / Registered Trust / HUF etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.</p> <p>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.</p> <p>The tenderer(s) shall give full details of the constitution of the Firm/ 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: -</p>
(A)	<u>Sole Proprietorship Firm:</u>
	<p>Following documents shall be submitted by the tenderer on or before closing of uploading of tender.</p> <p>(i) A copy of notarized Affidavit certifying the Sole Proprietorship of the firm. (Standard Affidavit as per Annexure O-1)</p>

	<p>(ii) An undertaking that he/Sole Proprietorship Firm is not blacklisted or debarred by Railway/HRIDCs 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 Tenders, either in individual capacity or as a member of the partnership firm 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).</p> <p>(iii) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).</p> <p>(iv) All details of firm must be provided in Annexure-D.</p>
(B)	<p><u>Partnership Firm:</u></p>
	<p>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:</p> <p>i) Notary certified copy of the Partnership Deed.</p> <p>ii) 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.</p> <p>iii) Power of Attorney (duly notarised/registered) in favour of the individual signing the tender documents, agreement and create liability against the Firm. (Standard Performa as per Annexure O-2).</p> <p>iv) An undertaking by all the partners of the Partnership Firm that they are not blacklisted or debarred by Railways/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm 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)</p> <p>v) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C)of General Tender Conditions and Instructions to Tenderer(s).</p> <p>vi) All details of Firm must be provided in Annexure D.</p> <p><u>Guidelines for submitting tenders by Partnership Firms and their Eligibility Criteria:</u></p>

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 HORCL/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 HORCL/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 Security shall be forfeited.
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 Security shall be forfeited. 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 HORCL/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 Security shall be submitted by or as mentioned in tender document. The Tender Security shall be paid online on eProcurement Portal in favour of Haryana Rail Infrastructure Development Corporation Limited using the electronic payment

gateway service.

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 HORCL/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 HORCL/HRIDC during the course of execution of the contract or due to non-execution of the contract or part thereof.
 - (b) Duration of the partnership deed and partnership firm agreement: The partnership deed/partnership firm agreement shall normally not be modified/alterd/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of HORCL/HRIDC, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the General Conditions of Contract.
 - (c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.
 - (d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and

	<p>that of the HORCL/HRIDC.</p> <p>12. Evaluation of eligibility of a partnership firm:</p> <p>Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfilment of the eligibility criteria laid down in Clause 2.3.2 (A) to 2.3.2 (C) above.</p>
(C)	<u>Joint Venture (JV): Not Applicable as JV is not permitted in this Tender</u>
(D)	<u>Company registered under Companies Act-2013:</u>
	<p>If the tender is uploaded on behalf of a Company registered under Companies Act-2013, the tenderer must submit/upload along with the tender the following documents on or before closing of uploading of tender :</p> <ul style="list-style-type: none"> (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-9) by the Company (backed by the resolution of Board of Directors) (Standard Performa as per Annexure O-10) 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/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm 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 explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s). (vi) All details of firm must be provided in Annexure-D.
(E)	<u>Registered Society & Registered Trust:</u>
	<p>If the tender is submitted on behalf of a Society, the tenderer must upload these documents on or before closing of uploading of tender,</p> <ul style="list-style-type: none"> (i) A Notarised copy of the Certificate of Registration; (ii) A Notarised copy of Deed of Formation; (iii) A Notarised/registered copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust. (iv) An undertaking that Registered Society/ Registered Trust is not blacklisted or debarred by Railways/HRIDC or any other Ministry / Department of Govt. of

	<p>India or any other Ministry / Department of Govt. of Haryana from participation in tender on the date of opening of Tenders, either in individual capacity or as a member of the partnership firm 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).</p> <p>(v) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).</p> <p>(vi) All details of firm must be provided in Annexure-D.</p>
(F)	<u>LLP (Limited Liability Partnership):</u>
	<p>If the tender is submitted on behalf of LLP registered under LLP Act-2008, the Tenderer shall submit along with the tender-</p> <p>(i) Notarised copy of the LLP Agreement;</p> <p>(ii) A Copy of Certificate of Incorporation; and</p> <p>(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-11)</p> <p>(iv) An undertaking that the LLP is not blacklisted or debarred by Railways/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm 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).</p> <p>(v) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).</p> <p>(vi) All details of firm must be provided in Annexure-B.</p>
(G)	In case of HUF
	<p>(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.</p> <p>(ii) An undertaking that the HUF is not blacklisted or debarred by Railways/HRIDC 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 Tenders, either in individual capacity or as a member of the partnership firm in which HUF was</p>

	<p>/ 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).</p> <p>(iii) All other documents in terms of explanatory notes for Clause 2.3.2 (A) to 2.3.2 (C) of General Tender Conditions and Instructions to Tenderer(s).</p> <p>(iv) All details of firm must be provided in Annexure-D.</p>
2.4.1.1	<p>After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society / HUF etc. shall be neither asked nor considered, if submitted. Further, no suo moto cognizance of any document available in public domain (i.e., on internet etc.) or in HORCL/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 <i>firm/ sole/ Partnership firm/ Company/ LLP/Society</i> shall be permitted after opening of the tender except where necessitated due to the operation of succession law.</p> <p>Note: If all the requisite documents pertaining to the constitution of the firm/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 liable to be rejected.</p>
2.4.2	<p>(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.</p> <p>(ii) A tender from Partnership firm etc. shall be considered only where permissible as per the tender conditions.</p> <p>(iii) The HORCL/HRIDC will not be bound by any change in the composition of the firm made subsequent to the submission of tender. HORCL/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.</p> <p>(iv) The tenderer whether sole proprietor / a company or a partnership firm / registered society / registered trust / HUF etc if they want to act through agent or individual partner(s), should submit along with the tender, a copy of power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person specifically authorizing him/them to submit the tender, sign the agreement, receive money, co-ordinate measurements through contractor's authorized engineer, witness measurements, sign measurement books, compromise, settle, relinquish any claim(s) preferred by the firm and sign "No Claim Certificate" and</p>

	<p>refer all or any disputes to arbitration. The above power of attorney shall be submitted even if such specific person is authorized for above purposes through partnership deed / Memorandum of Understanding/ Article of Association or such other document, failing which tender is liable to be rejected.</p>
2.4.3	<p>i. If the tenderer expires after the submission of his tender or after the acceptance of his tender, HORCL/HRIDC shall deem such tender/contract as cancelled, if a partner of firm expires after the submission of their tender, HORCL/HRIDC shall deem such tender as cancelled unless the firm retain its character.</p> <p>ii. 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 HORCL/HRIDC due to such dissolution. The amount of such compensation shall be decided by General Manager/Projects, Haryana Rail Infrastructure Development Corporation, 5th Floor, Railtel Tower, Plot No. 143, Sector 44, Gurugram, Haryana, 122003 and his decision in the matter shall be final and binding on the Contractor.</p> <p>iii. The cancellation of any documents such as power of attorney, partnership deed etc., shall forth be communicated to HORCL/HRIDC in writing, failing which HORCL/HRIDC shall have no responsibility or liability for any action taken on the strength of the said documents.</p> <p>iv. The value of contract and the quantities given in the attached schedule of items, rates and quantities are approximate and are given only as a guide. These are subject to variations/additions and omission. The quantum 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.</p>
2.5	<u>INCOME TAX DEDUCTION:</u>
2.5.1	Under Section 194-C of the Income Tax Act 1961, deduction of 2% plus surcharge as applicable on Income Tax will be made for sums paid for carrying out the work under this contract.
3.0	<u>Tender Security</u>
3.1	<p>The Tenderer shall furnish a Tender Security for an amount of INR 2,17,500/-.</p> <p>The amount for Tender Security will only be paid online by eligible Tenderers on e-procurement Portal in favour of Haryana Rail Infrastructure Development Corporation</p>

	<p>Limited using the electronic payment gateway service failing which the tender shall be summarily rejected.</p> <p>The Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security.</p> <p>The Tender Security of the successful Tenderer (i.e. Tenderer quoting lowest rate) shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security</p>
3.1.2	<p>The tenderer(s) shall keep the offer open for a period of 90 days from the date of opening of the tender in which period tenderer(s) cannot withdraw his/their offer subject to period being extended further, if required, by mutual agreement from time to time. It is understood that the Tender Documents have been sold/issued to the tenderer(s) and tenderer(s) is/are being permitted to in consideration of stipulation on his/their part that after submitting his/their offer, he/they will not resile from his/their offer or modify the terms and conditions thereof in a manner not acceptable to HORCL/HRIDC. Should the Tenderer(s) fail to observe/to comply with the foregoing stipulation or fail to undertake the contract after acceptance of his/their Tender, the Tender Security shall be forfeited and the Tenderer will be declared ineligible for a period of Two (02) years for participation in any Tender invited by HORCL/HRIDC.</p>
4.0	<u>ACCEPTANCE OF TENDER</u>
4.1	<p>If the tenderer(s) deliberately gives wrong Information/ credentials/ documents in his/their tenders and thereby create(s) circumstances for acceptance of his/their Tender, HORCL/HRIDC reserves the right to reject such tender at any stage, besides, shall suspend the business for up to 2 (two) years.</p>
4.2	<p>The authority for acceptance of the Tenders rests with Competent Authority of HRIDC who does not undertake to assign reasons for declining to consider any particular tender or tenders. He also reserves the right to accept the tender in whole or in part or to divide the tender amongst more than one tenderer if deemed necessary.</p>
4.3	<p>The successful tenderer/s shall be required to execute an agreement with the HORCL/HRIDC for carrying out of the work as per agreed conditions. The cost of stamp for the agreement will be borne by HORCL/HRIDC.</p>
4.3.1	<p>The Contractors operations and proceedings in connection with the works shall at all times be conducted during the continuance of contract in accordance with the laws, ordinance, rules and regulations for the time being in force and the Contractor shall</p>

	<p>further observe and comply with the bye-laws and regulations of the Govt. of India, State Govt. and of Municipal & other authorities having jurisdiction in connection with the works or site over operations such as these are carried out by the Contractor/s and shall give all notice required by such bye-laws and regulations. The Hospital and medical regulations in force for the time being shall also be complied with by the Contractor/s and his workmen.</p>
4.3.2	<p>The Contractor shall be responsible for the observance of the rules and regulations under the mines act and mineral rules and Indian Metallurgical rules and regulations of State/Central Govt. concerned as amended from time to time.</p>
4.3.3	<p>Contractor shall at all times keep the HORCL/HRIDC administration indemnified against all penalties that may be imposed by the Govt. of India or State Govt. for infringements or any of the clauses of the mines act and rules made there under in respect of quarries from which the ballast for these works is procured.</p>
4.4	<p>The tenderer/s shall not increase his/their rate in case the HORCL/HRIDC Administration negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and rates originally quoted will be binding on the tenderer/s.</p>
4.5	<p>The tenderer/s shall submit an analysis of rates if called upon to do so.</p>
4.6	<p>Non-compliance with any of the conditions set forth herein is liable to result in the tender being rejected.</p>
<p>Part-II : SPECIAL CONDITIONS OF CONTRACT</p>	
4.7	<p><u>Variation in quantity</u></p>
4.7.1	<p>Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of each individual item of the contract would be up to 25% of the quantity originally contracted.</p>
4.7.2	<p>The Contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever up to the limit of 25% variation in quantity of individual item of works.</p>
4.7.3	<p>In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates:</p>

4.7.3.1	Quantities operated in excess of 125% but up to 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
4.7.3.2	Quantities operated in excess of 140% but up to 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;
4.7.3.3	Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
4.7.3.4	DELETED
4.7.3.5	<p><u>Variation to quantities of Minor Value Item:</u> The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). <i>A minor value item for this purpose is defined as an item whose original agreement value is less than 1% of the total original agreement value.</i></p> <p>a) Quantities operated up to and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender;</p> <p>b) Quantities operated in excess of 100% but up to 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;</p> <p>c) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.</p>
4.7.4	DELETED
4.7.5	In case of foundation work, no variation limit shall apply, and the work shall be carried out by the Contractor on agreed rates irrespective of any variation.
4.7.6	The limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).
4.7.7	<u>Rates for Extra Items of Works:</u> Any item of work carried out by the Contractor on the instructions of the Engineer-in-charge which is not included in the Bill of Quantities at the rate agreed upon between the Engineer-in-charge and the Contractor before the execution of such items of work and the Contractors shall be bound to

	<p>notify the Engineer-in-charge at least seven days before the necessity arises for the execution of such items of works that the accepted Schedule of Rates does not include rate or rates for the extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer-in-charge and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the HORCL/HRIDC shall be entitled to execute the extra works by other means and the Contractor shall have no claim for loss or damage that may result from such procedure.</p> <p>The assessment of rates for extra items shall be arrived at based on the prevailing rates and by taking guidance from the following documents in order of priority:</p> <ul style="list-style-type: none"> (i) Analysis of Unified Schedule of Rates of Indian Railways (ii) Analysis of Delhi Schedule of Rates issued by CPWD (iii) Market Analysis
4.8	<p>Vitiation Clause</p> <p>In the event of vitiation occurring due to increase or decrease in quantities among the first, second and third lowest valid tenderers, the vitiation shall be to contractor's account. The total value of the work done shall be calculated at the rate offered by those tenderers and the amount payable shall be limited to the lowest aggregate value as worked out.</p> <p>Vitiation as above shall be worked out as a whole for Agreement including all variations in quantities.</p>
5.0	<p><u>Security Deposit and Performance Guarantee on Acceptance of Tender</u></p>
5.1	<p><u>Security Deposit:</u></p>
5.1.1	<p>The Security Deposit shall be 5% of the contract value. Security Deposit may be deposited by the Contractor before release of first on account bill in cash or Term Deposit Receipt issued from Scheduled Commercial Bank of India or may be recovered at the rate of 10% of the bill amount till the full Security Deposit is recovered. Provided also that in case of defaulting Contractor, HORCL/HRIDC may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.</p>

	<p>Further, in case of contracts having value equal to or more than ₹ 50 crore (Rs Fifty crore) the Security Deposit may be deposited as Bank Guarantee Bond also, issued by a scheduled bank after execution of contract documents, but before payment of 1st on account bill. Provided further that the validity of Bank Guarantee Bond shall be extended from time to time, depending upon extension of contract granted in terms of Clause 17 of the Standard General Conditions of Contract (April 2022).</p> <p>Note: After the work is physically completed as certified by competent authority, Security Deposit recovered from the running bills of a Contractor can be returned to him, if he so desires, in lieu of Term Deposit Receipt/irrevocable Bank Guarantee for equivalent amount from Scheduled Bank, to be submitted by him.</p>
5.1.2	<p><u>Refund of Security Deposit:</u> Security Deposit mentioned in sub-clause 5.1.1 above shall be returned to the Contractor along with or after, the following:</p> <ol style="list-style-type: none"> Final Payment of the Contract as per Clause 51(1) of the Standard General Conditions of Contract (April 2022), and Execution of Final Supplementary Agreement or Certification by Engineer-in-charge that HORCL/HRIDC has no claim on Contractor, and Maintenance Certificate issued (if applicable), on expiry of the maintenance period as per Clause 50(1) of the Standard General Conditions of Contract (April 2022). in case applicable.
5.1.3	<p><u>Forfeiture of Security Deposit:</u> Whenever the Contract is rescinded as a whole under clause 62 (1) of GCC (April 2022), the Security Deposit already with HORCL/HRIDC under the Contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 62 (1) of GCC (April 2022) including the advance correction slips as on date issued by the authorised signatory of Railway Board, the Security Deposit shall not be forfeited.</p>
5.1.4	<p>No interest shall be payable upon the Security Deposit and Performance Guarantee or amounts payable to the Contractor under the Contract.</p>
5.2	<p><u>Performance Guarantee:</u> .The successful Tenderer shall have to submit a Performance Guarantee (PG) within 21 (Twenty-one) days from the date of issue of letter of acceptance (LOA). Extension of time for submission of PG beyond 21 (Twenty-one) days and upto 60 days from the date of issue of LOA may be given by the authority who is competent to sign the contract agreement as per Annexure-S.</p>

In the event the Contractor fails to provide the Performance Guarantee within 21 days from the date of issue of the LOA, it may seek an extension of time for providing the performance security for a period not exceeding a further 14 days on payment of damages for such extended period in a sum calculated at the rate of 0.005% of the Accepted Contract Amount for each day until the Performance Guarantee is provided. The Contractor shall maintain the said Performance Guarantee at its own expense, so that it shall remain in full force and effect until the issue of Performance Certificate. In the event of a revision of the Contract Price, the value of the Performance Guarantee shall be increased proportionately by the Contractor, if required by the Employer. The cost of obtaining the Performance Guarantee shall be at the expense of the Contractor. The Contractor shall submit the Performance Guarantee in any of the following forms:

(a) Unconditional and irrevocable Bank Guarantee from the specified banks in the form appearing in **Annexure-A** as under:

(i) a scheduled bank (excluding co-operative banks) in India, or

(ii) a Foreign Bank having arrangement with a nationalized bank or scheduled banks (excluding co-operative banks) in India;

(b) Banker's Cheque or Demand Draft drawn on a scheduled bank (excluding co-operative banks) or nationalized bank in India.

The scheduled bank issuing the bank guarantee shall be on “Structure Financial Messaging System (SFMS)” platform. A separate advice of the bank guarantee shall invariably be sent by the issuing bank to Employer’s Bank through SFMS and only on the receipt of the same by the Employer’s Bank, the bank guarantee shall become operative and acceptable to the Employer. Further, the bank guarantees in original form along with a copy of “MT760COV (in case of bank guarantee message)/ MT767COV (in case of bank guarantee amendment message) Report” sent by the concerned issuing bank sealed in an envelope shall be submitted to the Employer.

The Issuing Bank shall send the SFMS to:

Beneficiary: Haryana Orbital Rail Corporation Limited

Bank Name:

IFSC Code:

Note: All the instruments mentioned in (a) & (b) above should be in favour of Haryana Orbital Rail Corporation Limited, Plot No 143, 5th Floor, Railtel Tower, Sector-44, Gurugram

In all other cases, if the Contractor fails to submit the requisite PG even after 35 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated, the Tenderer shall HORCL/HRIDC shall be entitled forfeit the Tender Security and the Tenderer will be declared ineligible for a period of two (02) years for participation in any Tender invited by HORCL/HRIDC and Tenderer shall forfeit all other dues payable against that contract. The failed Contractor shall be debarred from participating in re-tender for that work.

The successful Tenderer shall submit the **Performance Guarantee (PG)** in any of the following forms, **amounting to 05% of the accepted contract value:**

(c) (i) A Performance Guarantee shall be submitted by the successful Tenderer after the letter of acceptance has been issued, but before signing of the agreement. This PG shall be initially valid up to the stipulated date of completion plus 60 (Sixty) days beyond that. In case, the time of completion of work get extended, the Contractor shall get the validity of P G extended time for completion of work plus 60 (Sixty) days.

(ii) If Railway PSUs are awarded contracts through competitive Tendering (Open Tender, Special Limited Tender etc..) the normal rule regarding submission of Performance Guarantee as applicable to other tenderer/s. shall be applicable to these PSUs.

(d) The value of PG to be submitted by the Contractor will not change for variation upto 25% (either increase or decrease). In case during the course of execution, value of the contract increases by more than 25% of the original contract value, an additional Performance Guarantee amounting to 5% (Five percent) for the excess value over the original contract value shall be deposited by the Contractor. On the other hand, if the value of Contract decreases by more than 25% of the original contract value, Performance Guarantee amounting to 5% (Five percent) of the decrease in the contract value shall be returned to the Contractor. The PG amount in excess of required PG for decrease contract value, available with HRIDC, shall be returned to Contractor as per their request duly safeguarding the interest of HRIDC.

e) The Performance Guarantee (PG) shall be released after the Physical completion of the work based on the "Completion Certificate" issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily. The competent authority shall normally be the authority who is competent to sign this contract. The security deposit shall, however, be released only after passing the final bill based on 'No claim certificate' submitted from the Contractor.

(f) Whenever the contract is rescinded, the Security Deposit shall be forfeited and the Performance Guarantee shall be encashed and the balance work shall be got completed

	<p>without Risk and Cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work.</p> <p>(g)The Engineer-in-charge shall not make a claim under the Performance Guarantee except for amount to which HORCL is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:</p> <p>Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above in which event the Engineer-in-charge may claim the full amount of the Performance Guarantee.</p> <p>Failure by the Contractor to pay HORCL any amount due, either as agreed by the Contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-charge.</p> <p>The Contract being determined or rescinded under provision of the Clause 62 of GCC April 2022, the Performance Guarantee shall be forfeited in full and shall be absolutely at the disposal of HORCL.</p>
6.0	<u>CONDITIONS OF CONTRACT AND SPECIFICATIONS</u>
6.1	Except where specifically stated otherwise in the tender documents the work is to be carried out in accordance with Indian Railways Standard General Conditions of Contract, April 2022 with advance correction slips issued by the authorised signatory of Railway Board, as on the NIT date of tender.
6.2	The tender documents referred to in Clause 2.0 above will govern the works done under this contract in addition to documents referred to in clause 6.1 above. Where there is any conflict between General Tender Conditions and instructions to tenderer/s, Special conditions relating to site data and specifications on the other hand the latter shall prevail.
7.0	<u>STUDY OF DRAWINGS AND LOCAL CONDITIONS</u>
7.1	The Drawings of the works can be seen in the office of the Chief Project Manager, Haryana Rail Infrastructure Development Corporation, 5 th Floor, RailTel Tower, Plot No. 143, Sector 44, Gurugram, Haryana, 122003. It should be noted by tenderer/s that these drawings are meant for general guidance only and the HORCL/HRIDC may suitably modify them during the execution of the work according to the circumstances without making the HORCL/HRIDC liable for any claims on account of such changes.
7.2	The tenderer/s is/are advised to visit the site of work and investigate actual conditions regarding nature and conditions of soil, difficulties involved due to inadequate stacking space, due to build up area around the site, availability of materials water and labour

	<p>probable sites for labour camps, stores, godowns, etc. They should also satisfy themselves as to the sources of supply and adequacy for their respective purpose of different materials referred in the specifications and indicated in the drawings. The extent of lead and lift involved in the execution of works and any difficulties involved in the execution of work should also be examined before formulating the rates for complete items of work described in the schedule.</p>
7.3	<p><u>Barricading with safety tape at work site</u> Contractor(s) while executing the work near Railway line/Roads shall provide suitable barricading to protect/segregate the existing Railway line/Roads from any damage and un-toward incident at his own cost, as per the directions or plan approved by Engineer-in-charge. No work will be started till the barricading is provided and clearance in writing is issued by the Engineer-in-charge.</p>
7.4	<p><u>Safety Gear:</u> During execution of the work, Contractors shall ensure that all safety precautions are taken by their men to protect themselves and site to prevent any untoward incident. In this regard Contractor will ensure that adequate number of safety helmets, safety belts, safety jackets with reflective arm band, rope, ladders emergency light etc. are available at site before the work is actually started. The above list is only indicative and is not exhaustive and safety item will be arranged as per the requirement. HORCL/HRIDC reserve the right to stop the work in the absence of proper safety gear and no claim shall be entertained in this regard. Decision of the Engineer-in-charge will be final and binding upon the Contractor. The cost of all the safety gear is deemed to have been included in the rates quoted and nothing extra is payable under this contract.</p> <p><u>Note:</u> In addition to the above, the Contractor shall also be required to comply with all the requirements mentioned in the section ‘Safety, Health and Environment (SHE) Protocol to be followed by the Contractor’ of this tender document.</p>
8.0	<p><u>PERIOD OF COMPLETION</u></p>
8.1	<p>The entire work is required to be completed in all respects within 110 days from the date of issue of Acceptance letter. Time is the essence of contract. The Contractor/s will be required to maintain speedy and required progress to the satisfactions of the Engineer-in-charge to ensure that the work will be completed in all respects within the stipulated period failing which action may be taken by the HORCL/HRIDC Administration in terms of Clause 17 and/or Clause 62 of the Indian Railways Standard General Conditions of Contract, April 2022 with advance correction slips issued by the authorised signatory of Railway Board, as on the NIT date of tender.</p>

8.2	The Contractor/s shall arrange to execute the different items of works in close consultation with and as per directions of the Engineer-in-charge. It may be noted, however, that any delay in the execution of departmental works, for whatsoever reason shall not be accepted as an excuse for non-performance of the contract.
8.3	The Contractor/s will be required to give HORCL/HRIDC a monthly progress report of the work done during the month on 4 th of the following month. The Contractor will also prepare and submit the programme of work to be done in coming month by 25 th of the preceding month to HORCL/HRIDC. The programme will be subject to alteration or modifications at the direction of the HORCL/HRIDC, who may discuss such modifications or alterations with the Contractor as considered necessary. Approval of any programme shall not in any way relieve the Contractor from any of his obligations to complete the whole of the work by the prescribed time or extended time, if any.
9.0	<u>RATES FOR PAYMENT</u>
9.1	The rates given in the attached schedule of rates (Bill of Quantities) tendered by the Contractor and as accepted by HORCL/HRIDC will form the basis of payment for such items under this contract.
9.2	No material price variation or wages escalation on any account whatsoever the compensation for 'Force Majeure' etc. shall be payable under this contract except price escalation clause payable as per price escalation clause, if any, provided separately in the tender documents.
9.3	<p>The rates for any item of work not included in the Bill of Quantities and which the Contractor may be called upon to do by HORCL/HRIDC Administration shall be fixed by the supplementary written agreement between the Contractor and HORCL/HRIDC before the particular item or items of work is/are executed.</p> <p>In the event of such agreement not being entered into and executed HORCL/HRIDC may execute these works by making alternative arrangements. HORCL/HRIDC will not be responsible for any loss or damages on this account.</p>
9.3.1	The Contractor shall work in close co-operation with the Contractors, departmental staff working in the adjacent sections of HORCL/HRIDC & local authorities.
9.4	It should be specifically noted by the tenderers that no separate loading, unloading and leading charges for materials (which are supplied by the HORCL/HRIDC) if any shall

	be paid for by HORCL/HRIDC and the rates quoted by the tenderer/s shall be inclusive of all these charges.
9.5	DELETED
9.6	DELETED
9.7	Payment for the work done will be made to the Contractor only when the formal agreement has been executed between the parties.
9.8	The rates quoted by the Contractor as per Bill of Quantities (BOQ) shall form the basis of 'on account payment' or the various items under this contract.
9.9	In the course of execution of various items of work under BOQ running bills payment for partly completed works will be made to the Contractor. The quantum of such work for payment shall be decided by the Engineer-in-charge whose decision shall be final and binding on the Contractor.
9.10	No on account payment by HORCL/HRIDC shall protect the Contractor/s against or prevent HORCL/HRIDC from recovering from the Contractor/s any over payment made to him/them.
9.11	Final payment of the balance amount due, exclusive of the security deposit required in terms of Clause 5.1.1 of these special conditions, will be made after the completion of the entire work and on the certification of the Engineer-in-charge that work has been completed in all respects and found satisfactory. The security deposit will be refunded after the date of completion according to Clause 5.1.2 of these conditions.
9.12	<u>SUPPLEMENTARY AGREEMENT</u> After the work is completed and taken over by HORCL/HRIDC as per terms and conditions of the contract agreement or otherwise concluded by the parties with mutual consent and full and final payment is made by HORCL/HRIDC to the Contractor for work done under the contract the parties shall execute the supplementary agreement annexed here to as Annexure-B .
9.13	Measures to be taken during and after completion of Works
9.13.1	Any legal/administrative hindrance in getting access to site will be resolved by HORCL/HRIDC. Crop compensation, if any, required to be paid to farmers will be arranged and paid by HRIDC. However, any improvement to ground, road etc.

	<p>required for transportation of machinery etc. will be done by contractor at his cost and after demobilization of machinery after completion of work, ground/road will be reinstated to the original condition. After completion of drilling and measurement of borehole depths by engineer, contractor will reinstate the boreholes/approaches/site as specified in the technical specifications of contract.</p>
9.13.2	<p>Non fulfilment of the provision in 9.13.1 above shall be a breach of the contract and Contractor/s shall be liable to pay by way of agreed liquidated damages to HORCL/HRIDC at the rate of 150% of the amount incurred by HORCL/HRIDC in getting the said job/s done at the risk and cost of the Contractor. Besides this, the Contractor will also be held responsible for any laws for contravening them.</p>
10.0	<u>SETTING OUT WORKS</u>
10.1	<p>The Contractor is to set out the whole of the work in consultation with the engineer or an official to be deputed by the Engineer and during the progress of works to amend on the requisition of the Engineer any errors, which may arise there in and provide efficient and sufficient staff and labour thereon. The Contractor shall also alter or amend any errors in the dimension lines on levels to the satisfaction of the Engineer-in-charge or his authorized representative without claiming any compensation for the same.</p>
10.2	<p>The Contractor shall provide, fix and be responsible for maintenance of all stocks, templates, profiles, land marks, points, buries, monuments, centre line pillars, reference pillars, etc and shall take all necessary precautions to prevent their being removed altered or disturbed and will be responsible for the consequence of such removal, alterations or disturbance and for their efficient reinstatement.</p>
10.3	<p>The Contractor shall protect and support, as may be required or as directed by the Engineer, all building, fences, walls, towers, drains, road paths, waterways, foreshores banks, bridges, Railway/HORCL/HRIDC ground and overhead electric lighting, the telegraphs/ telephones and crossing water service Main pipes and cables and wires and altogether matters and things of whatever kind not otherwise herein specified other than those specified or directed to be removed or altered which may be interfered with or which likely to be affected disturbed or endanger by the execution completion of maintenance of the works and shall support provided under this clause to such cases as directed by the Engineer-in-charge. No payment shall be made by HORCL/HRIDC to the Contractor for these works on account of delay for re-arrangement of road traffic or in the Contractor having to carry out the short lengths and, in such places, as per conditions and circumstances may warrant. These will not form the basis of any claim and or dispute for compensation of any kind.</p>

10.4	The Contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The Contractor shall execute the work true to alignment, grade, levels and dimensions as shown in the drawing and as directed by the Engineer's representative and check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall co-operate with the Engineer's representative for checking of all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error appear or arise in any part of the work, the Contractor, on being required so to do by the Engineer's representative shall, at his own cost rectify such errors, to the satisfaction of the Engineer's representative.
11.0	<u>DRAWINGS FOR WORKS:</u>
11.1	The HORCL/HRIDC Administration reserves the right to modify the plans and drawings as referred to in the special data and specifications as also the estimate and specifications without assigning any reasons as and when considered necessary by HORCL/HRIDC. The percentage rates quoted by the Contractor as may be accepted by HORCL/HRIDC will, however, hold good irrespective of any changes, modifications, alterations, additions, omissions in the locations of structures and detailed drawings, specifications and/or the manner of executing the work.
11.2	It should be specifically noted that some of the detailed drawings may not have been finalized by HORCL/HRIDC and will, therefore, be supplied to the Contractor as and when they are finalized on demand. No compensation whatsoever on this account shall be payable by the HORCL/HRIDC Administration.
11.3	No claim whatsoever will be entertained by the HORCL/HRIDC on account of any delay or holdup of the work/s arising out of delay in approval of drawings, changes, modifications, alterations, additions, omission and the site layout plans or details drawings and design and or late supply of such material as are required to be arranged by HORCL/HRIDC or due to any other factor on HORCL/HRIDC Accounts.
12.0	<u>SUPPLY OF MATERIALS BY THE HORCL/HRIDC – NOT APPLICABLE</u>
13.0	<u>SUPPLY OF MATERIALS BY THE CONTRACTOR/S - NOT APPLICABLE</u>
14.0	<u>SERVICE ROADS</u>
	14.1 The Contractor/s shall make his/their arrangements for service roads, paths etc for carrying his/their tools and plants, labour and materials, etc. and will also allow HORCL/HRIDC use of such paths and service roads, etc for plying its own

	<p>vehicles free of cost. The tenderer/s will be deemed to have included the cost of making any service roads, roads or paths, etc., that may be required by him/them for plying his/their vehicles for the carriage of his/their men and materials, tools, plants and machinery for successful completion of the work. Similarly, any other feeder road connecting any of the existing roads will be made by the Contractor at his/their own cost including any compensation that may be required to be paid for the temporary occupation and or usage of Govt. and or private land and without in any way involving HORCL/HRIDC in any dispute for damage and/or compensation.</p> <p>14.2 In case HORCL/HRIDC has its own paths, service roads, the Contractor/s will be allowed to use of such paths or service roads free of cost. He/They shall, however, in no way involve HORCL/HRIDC in any claims or dispute of whatever kind due to the inaccessibility of such paths or service roads or due to their poor condition and or maintenance or their being to be blocked and/or closed.</p> <p>14.3 The rates quoted by the Contractor as per BoQ shall form the basis of 'on account payment' or the various items under this contract.</p> <p>14.4 In the course of execution of various items of work under schedule of Items, Rates and Quantities (BoQ) running bills payment for partly completed works will be made to the Contractor. The quantum of such work for payment shall be decided by the Engineer-in-charge whose decision shall be final and binding on the Contractor.</p> <p>14.5 No 'on account payment' by HORCL/HRIDC shall protect the Contractor/s against or prevent HORCL/HRIDC from recovering from the Contractor/s any over payment made to him/them.</p> <p>14.6 Final payment of the balance amount due, exclusive of the security deposit required in terms of Clause 5.1.1 of these special conditions, will be made after the completion of the entire work and on the certification of the Engineer-in-charge that work has been completed in all respects and found satisfactory. The security deposit will be refunded after the date of completion according to Clause 5.1.2 of these conditions.</p>
<p>15.0</p>	<p><u>EMERGENCY WORK</u></p>
	<p>15.1 In the event of any accident or failure occurring in or about the work of arising out for or in connection with the construction completion or maintenance of the work which in the opinion of the Engineer require immediate attention, HORCL/HRIDC may be with its own workmen or other agency execute or partly</p>

	<p>execute the necessary work or carry out repairs if the Engineer-in-charge considers that the Contractor is not in a position to do so in time and charge the cost thereof, as to be determined by the Engineer-in-charge to the Contractor.</p> <p>15.2 In terms of Clause 32 of Indian Railways Standard General Conditions of Contract, April 2022 including the advance correction slips as on date issued by the authorised signatory of Railway Board, amended from time to time & upto date, the material and plants brought by the Contractor on the site or land occupied by the Contractor in connection with the works and intended to be used for execution thereof shall immediately, they are brought upon the sites of this said land be deemed to be the property of HORCL/HRIDC, vehicles, equipment, plant and machinery of the Contractor can be drafted by HORCL/HRIDC Administration at their discretion in case of accidents, natural calamities involving human lives, breaches, stoppage of train operations or any contingencies which require such requisitioning as essential. The decision in this regard of the Engineer-in-charge or his superiors shall be final and beyond the ambit of arbitration clause.</p> <p>15.3 In terms of clause 2.3.1, tenderer is required to submit the list of equipment, machinery, construction tools and plants available/ deployed at site. The successful tenderer on receipt of acceptance letter and conveying their consent shall submit name, addresses, telephone numbers, Fax number/E Mail address of the persons to be contacted for requisitioning the above items as detailed in forgoing clause 15.2 and notify from time to time if any change in the list of equipment/machinery or the addresses/ individuals to the Engineer-in charge in writing. The name and address, telephone numbers and the Contractor officials name shall also be displayed at the site of work.</p>
16.0	<u>NIGHT WORK</u>
	<p>If the Engineer-in-charge is satisfied that the work is not likely to be completed in time except by resorting to night work, he may order for the night work as per requirement, without confirming any right on the Contractor for claiming any extra payment for the same.</p>
17.0	<u>DISPOSAL OF SURPLUS EXCAVATED MATERIALS</u>
	<p>17.1 The Contractor shall at all-time keep the site free from all surplus earth, surplus materials, and all rubbish which shall arise from the works and should dispose of the surplus excavated materials as ordered by the Engineer-in-charge failing which it will be done at the cost of the Contractor and cost will be deducted from his dues.</p>

	<p>17.2 The Contractor shall within 15 days of completion of entire works remove all unused and surplus materials tools and plants staging and refuge or other materials produced by his operations and shall leave the site in a clear and tidy conditions.</p>
18.0	<u>SITE INSPECTION REGISTER</u>
	<p>18.1 A site inspection register will be maintained by the Engineer or his representative in which the Contractor will be bound to sign day to day entries made by the Engineer or his representative. The Contractor is required to take note of the instructions given to him through the site inspection register and should comply with the same within a reasonable time. The Contractor will also arrange to receive all the letters etc. issued to him at the site of works.</p> <p>18.2 The Contractor shall, from time to time (before the surface of any portion or the site is interfered with or the work thereon begun) take such levels as the Engineer may direct in his presence or any person authorised by him in writing. Such levels approved and checked by him or such authorised persons shall be recorded in writing and signed by the Contractor and shall form the basis of the measurements. Immediately before any portion of the work, below water level is started, the existing water levels are to be taken and recorded in a similar manner.</p>
19.0	<p>The Contractor shall have to make and maintain at his own cost suitable approach road and path, etc for proper inspection of the various works. He shall also provide all facilities as required by the Engineer such as Ladder and other appliances for satisfactory inspection of the works and places where materials for the work are stored or prepared.</p>
19.2	<p>Commencement of Works: The Contractor shall commence the works within 07 days after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay</p>
19.3	<p>Accepted Programme of Work: The Contractor who has been awarded the work shall as soon as possible but not later than 30 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organisation. (in terms of labour and supervisors), plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the</p>

	<p>Contractor shall endeavour to fulfill this programme of work. The progress of work will be watched accordingly, and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the Contractor in achieving earlier completion of item or whole of the works than indicated in the programme.</p> <p>Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Engineer shall be entitled to rely upon the programme when planning their activities. If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer within 15 days in accordance with this Sub-Clause.</p>
20.0	<p><u>OPENING UP OF WORK OR MATERIALS FOR INSPECTION OR TEST:</u></p> <p>Should the Engineer-in-charge, or any representative consider it necessary for the purpose of enabling inspection of tests analysis to be made to verify or ascertain the quality of any part of the works or of any materials, the Contractor shall as and when required by the Engineer or his representatives open up the work or materials for inspection or test or analysis, pull down or cut into any part of the work to make such openings, into under or through any part of the works as may be directed and shall provide all things facilities which in the opinion of the Engineer or his representative are necessary and essential for the purpose of inspection or test or analysis of the works or of any part thereof or the materials, or of workmanship and the Contractor shall close up, cover, rebuild and made good the whole at his own cost, as and when directed by and to the satisfaction of Engineer provided always that of the work in the opinion of the Engineer is found to his satisfaction and in accordance with the contract. The excess expenditure in such examination, inspection or test shall, upon the certificate of the engineer, be borne by HORCL/HRIDC.</p>
21.0	<p>GENERAL</p>
	<p>21.1 <u>PROVISION OF LIGHT SIGNALS ETC.</u></p> <p>The Contractor/s shall make such provision for lighting the works, materials and plant and provide all such marks and lights, signals and other appliances as may be necessary or as may be required by the Engineer or other responsible authorities during the execution completion and maintenance of the work and shall provide all labour, stores, etc. required for their efficient working and use at any time of day or night. He/They shall also provide all arrangement of every description of watching and maintenance required in connection with the foregoing and all other</p>

	<p>services for protection of any securing all dangerous places whether to the Contractor's workmen or to other persons and or vehicular traffic until the work is certified by the engineer to have been completed and taken over in accordance with the contract.</p> <p>21.2 The Contractor/s will provide upon the works to the satisfaction of the Engineer and at such, places as he may nominate, proper and sufficient lifesaving, fire-fighting and first aid appliances which shall at all times be available for use.</p> <p>21.3 LABOUR CAMPS</p> <p>Land for setting up a workshop by the Contractor or for his labour camp or for any other purpose, shall have to be arranged by the Contractor at his own cost and under his own arrangements. The Contractor, however, will be permitted to make use of HORCL/HRIDC land to the extent that can be made available to him free of cost, by HORCL/HRIDC in the vicinity of the site of works. The Contractor/s shall at all times be responsible for any damage or trespass committed by his agent and workmen for carrying out the work.</p> <p>21.4 The HORCL/HRIDC Administration may recommend to the concerned authorities the issue of necessary transport permits for the work. The Contractor shall, however, furnish full justification for the above facilities, to enable the HORCL/HRIDC Administration to address the State Government or other authorities in this connection. The Contractor shall also maintain regular log book of receipts and issue of the materials to work, if so required by the Civil Authorities. No claim would, however, be entertained by the non-issue of any priority permits or owing to any interruption in supply.</p> <p>21.5 No claim for idle labour and or idle machinery etc. on any account will be entertained. Similarly, no claim shall be entertained for business loss or any such loss.</p> <p>21.6 Note: In addition to the above clauses, the Contractor shall also be required to comply with the requirements mentioned in the section ‘Safety, Health and Environment (SHE) Protocol to be followed by the Contractor’ of this tender document.</p>
<p>22.0</p>	<p><u>Extension of Time in Contracts</u></p>
	<p>22.1 Attention is invited to Clause 17(B) of the G.C.C. April 2022 amended from time to time & up to date and Clause 8.1 of tender conditions according to which time is the essence of the contract. The competent authority while granting extension</p>

to the currency of contract under 17 (B) of Indian Railways Standard General Conditions of Contract, April 2022 amended from time to time & up to date. However, in such cases the following clauses shall be applicable.

22.2 If the Contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in Clause 17 and 17-A of Indian Railways Standard General Conditions of Contract, April 2022, HRIDC may, if satisfied that the works can be completed by the Contractor within reasonable short time thereafter, allow the Contractor for further extension of time (Proforma at Annexure-VII of Indian Railways Standard General Conditions of Contract, April 2022) as the Engineer-in-charge may decide. On such extension the HRIDC will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the Contractor as agreed damages and not by way of penalty for each week or part of the week, a sum calculated at the following rates of the contract value of the works.

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

S.No.	Duration of extension of time under Clause 17-B	Rate of Liquidated Damages
(i)	Up to Twenty Five percent of original period of completion including period of extension of DOC granted under Section 17A(i) of GCC	As decided by Engineer-in-charge, between 0.01% to 0.05% of contract value for each week or part of the week
(ii)	Above Twenty Five percent but upto Fifty percent of original period of completion including period of extension of DOC granted under Section 17A(i) of GCC	0.10% of contract value for each week or part of the week
(iii)	Above Fifty percent but upto Forty percent of original period of completion including period of extension of DOC granted under Section 17A(i) of GCC	0.30% of contract value for each week or part of the week

	<p>Provided further, that if HRIDC is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the Contractor to complete the work within further extension of time allowed as aforesaid, HRIDC shall be entitled without prejudice to any other right or remedy available in that behalf, to appropriate the Contractor’s Security Deposit and rescind the contract under Clause 62 of GCC (April 2022) of these Conditions, whether or not actual damage is caused by such default.</p>
<p>23.0</p>	<p><u>TAXES</u></p> <p>The Contractor shall be governed by the Taxes applicable at the place of actual execution of work.</p>
	<p>23.1 Taxes on works contract, octroi, royalty, toll tax, local tax on materials as well as services and any other tax levied by Central Govt /State Govt. or local bodies shall be borne by the tenderer. No part of such taxes on Contractor’s labour/material or any other account will be paid by HORCL/HRIDC. Therefore, the Contractor must ascertain the various taxes levied by the concerned Govt or local bodies at the place of execution of work and take into account for the same while quoting the rates. This should be kept in view before tendering.</p> <p>Note:</p> <ul style="list-style-type: none"> i. Tenderer to please note that all rates given in BOQ are inclusive of GST and all other taxes. ii. Works contracts shall be treated as supply of services as per Schedule –II GST Act. iii. GST Act and Rules issued from time to time by the Government/ concerned authorities shall be applicable. iv. Contractor/ suppliers/ service providers/ parties shall register their firms State wise under GSTIN (GST Identification Number) and submit at the time of opening of tender or before the signing the agreement and shall mention place of business, registered office address and email id. <p>23.2 If rates of existing GST or cess on GST for Works Contract is increased or any new tax /cess on Works Contract is imposed by Statute after the date of opening of tender but within the original date of completion/date of completion extended under clause 17 & 17A of GCC and the Contractor thereupon properly pays such taxes/cess, the Contractor shall be reimbursed the amount so paid. Further, if rates of existing GST or cess on GST for Works Contract is decreased or any tax/cess on Works Contract is decreased / removed by Statute after the date of opening of tender, the reduction in tax amount shall be recovered from</p>

	<p>Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.</p> <p>GST levied on the invoices raised by the Contractor will be temporarily withheld at the time of making payment for the invoice. GST withheld will be released by HRIDC/ HORCL on submission of proof, i.e. copy of Form GSTR-1 (reflecting the particular invoice) after due verification from the GST portal by the Employer</p> <p>23.3 HORCL/HRIDC will deduct the taxes specified by the concerned Central Govt/State Govt/Local bodies if required to be deducted at source under the relevant laws as applicable on the date of making the payment. HORCL/HRIDC will issue a certificate regarding tax so deducted. It will be responsibility of the Contractor to make further correspondence with concerned Govt or local bodies to ensure full deposition of the tax or for claiming a refund, if due, as is done in case of income tax.</p> <p>23.4 In case any tax is notified to be deducted at source from a specified date and certain payments have already been made in the period that lapsed between the date of applicability of tax and the actual date of implementation of the same, tax required to be deducted at source for this period will be recovered from the subsequent payment.</p> <p>23.5 Implementation of "The Building and Other Construction Workers (RECS) Act, 1996 and The Building and Other Construction Workers Welfare Cess Act, 1996 in HORCL/HRIDC Contracts: "The tenderer for carrying out any construction work in Haryana (name of the State) must get themselves registered from the Registering Officer under Section-7 of the building and other Construction Workers Act, 1996 and rules made thereto by the Haryana Govt. and submit certificate of Registration issued from the Registering Officer of the Haryana Govt. (Labour Deptt). As per this Act, the tenderer shall be levied a cess @1% (if applicable) of the cost of construction work, which would be deducted from each bill. Cost of material, when supplied under a separate schedule item, shall be outside the purview of cess."</p>
<p>24.0</p>	<p>All payments in respect of the contract during the currency of the contract shall be made through National electronic Fund transfer (NEFT) or Real Time Gross Saving (RTGS). The successful tenderer on award of contract must submit RTGS/NEFT Mandate Form complete in all respects as detailed at Annexure-J of the tender document. However, if the facility of RTGS/NEFT is not available at a particular location, the payment shall be made by Cheque. In such case the successful tenderer</p>

	on award of contract will have to furnish Contractor's Bank Account Number and Name of the Bank against which all payments in respect of the contract during the currency of contract shall be made.
25.0	<u>Damage to the HORCL/HRIDC/Railway Property:</u> Contractor(s) executing the works adjacent to the existing Railway track for e.g. doubling, gauge conversion, yard re-modelling etc. will take all care for avoiding any damage to the underground/OH services such as S&T cables, electric cables/wires, pipelines/sewer lines etc. They must ensure that the work is started after obtaining clearance in writing from the Engineer-in-charge regarding the route for signalling/ Electrical cables/water supply/ sewer lines etc. However, if any damage occurs during execution, he will immediately report the same to the Engineer-in-charge and stop the work further till clearance for restarting the work is given by the Engineer-in-charge. It may be further noted that if it is proved that damage is occurred due to the negligence on the part of the Contractor, the cost of the damage will be recovered from him/them. The decision of Engineer-in-charge will be final and binding upon the Contractor(s).
26.0	<u>Applicable for tender documents downloaded from internet</u>
26.1	Master copy of the tender document, which shall be also available for Tenderers to download online, will be available in the office of HRIDC. The Tender document submitted by the Tenderer(s) should strictly match the requirements of the tender uploaded by HRIDC. In case of any discrepancy in the submissions by Tenderers, their offers shall be summarily rejected and no claim on this account will be entertained by HRIDC.
27.0	DELETED
28.0	Maintenance Period: Not Applicable
29.0	Price Variation Clause: Not Applicable
30.0	<u>Mobilization Advance: (For Contract Value Rs. 25 Crores and Above)</u> Not Applicable. No mobilization advance shall be payable in this contract.
31.0	<u>Method of Measurement</u>
	Contractor shall be responsible for facilitating either GC or HRIDC for carrying out measurements of work executed and recording of measurements for the release of

on account/final payment. In such cases, the detailed procedure for recording of measurements, provisional payment, test check and final payment shall be as follows:

31.1. Recording of Measurement by GC-

- a) The General Consultants shall be directly responsible for supervision of work and shall liaise with the contractor for the successful completion of work as per specification, drawings, standard plan or design etc. issued by HRIDC. GC shall be responsible for initiating payments to agency for the acceptable work done and measurement of same shall be done by GC as per table below:

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SN	Activity	Duties of GC official	Duties of HRIDC official
i)	Recording of measurement	Site Engineer/Section Engineer	Asstt. Expert/Expert of respective field
ii)	Test checks of measurement	Geo Tech Expert	APM&DGM/Projects/HRIDC
iii)	Certification for correctness of bill/Certification for payment	Geo Tech Expert	-
iv)	Certification for payment	Project Director (GC)	Chief Project Manager/HRIDC

Note:

- i) **In the absence of any particular official as above, his function shall stand assigned to next higher official.**
- iii) **In case of GC, if Project Director is not available, duties assigned to Project Director shall be discharged by Deputy PD Civil or any other official proposed by PD/GC and approved by HRIDC.**
- b) The complete procedure for recording, test check and technical check of the measurement shall be as under: -
- i. On receipt of requisition for measurement from contractor, Site Engineer/Section Engineer will record measurement of the work in the presence of Contractor's Representative (as nominated) in the Measurement

Book issued by HRIDC in stipulated period. The Contractor's Representative will countersign the recorded measurement as token of their acceptance.

- ii. Geo Tech Expert will carry out test check, of a minimum of 50% of all the measurement recorded by the Site Engineer/Section Engineer in the Measurement Book. In case Geo tech Expert records measurements, the same level of test check of measurement shall be done by the Dy. PD/Civil/Project Director. If there is any ambiguity/dispute, whether a particular item requires 50% test check or not, Project Director associated with the project will decide and his decision will be final.
- iii. After recording of measurement and test check as per above para, the Geotech Expert will submit the Measurement Book after scrutiny of documents, the Geotech Expert will make 10% overall test check including 20% test check on hidden items of concerned bill along with certificates of quality test and other documents related to bill like test report including approved variations, if any, as prescribed above, to the Project Director within period of 5 days from the date of request of the agency.
- iv. Measurement in respect of supply items shall be supported by copy of original inspection certificate marked "FOR PAYMENTS", invoice of the supplier and certificate of Site Engineer/Section Engineer of the goods having been received at site in good and working condition.
- v. Test check by HRIDC officials: Nominated Official of HRIDC will make 10% uniform test check of all items (Minimum of every bill of each item) including 20% test check on hidden items from each bill. DGM/nominated official will make 10% test check on alternate bills. This activity should be completed within 2 days.
- vi. The GC should complete the recording of quantities as well as test checks including test check by HRIDC and shall forward it to HRIDC for payment as per contract agreement within 7 days from receipt of request letter from contractor or as directed by HRIDC.
- vii. For Variation of quantities in any item, the Project Manger shall allow variation of quantities in the contract schedule only to the extent authorized under the contract. In all other cases he shall obtain approval of Project Director prior to including the variations for payment. The proposal for sanction of variations by the competent authority should be initiated by the Project Director.

31.2. Deleted

32.0	SETTLEMENT OF DISPUTES
	<p>Conciliation of Disputes:</p> <p>(i) This clause is applicable in the tender having advertised value less than or equal to Rs 50 Crore.</p> <p>(ii) All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the "MD/HORCL" through "Notice of Dispute" provided that no such notice shall be served later than 30 days after the date of issue of Completion Certificate by the Engineer. "MD/HORCL" shall, within 30 days after receipt of the Contractor's "Notice of Dispute", notify the name of conciliator(s) to the Contractor.</p> <p>(iii) The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract.</p> <p>(iv) If the parties reach agreement on a settlement of the dispute, they shall draw up and sign a written settlement agreement duly signed by Engineer In-charge, Contractor, and conciliator(s). When the parties sign the settlement agreement, it shall be final and binding on the parties.</p> <p>(v) The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.</p> <p>(vi) The conciliation proceedings shall be terminated as per Section 76 of 'The Arbitration and Conciliation Act, 1996.</p>
32.1	<p>Mutual Settlement</p> <p>All such disputes or differences shall in the first place be referred by the Contractor to HORCL in writing for resolving the same through mutual discussions, negotiations, deliberation etc. associating representatives from both the sides and concerted efforts shall be made for reaching amicable settlement of disputes or differences.</p>
32.2	Conciliation/Arbitration
32.2.1	It is a term of this contract that Conciliation/ Arbitration of disputes shall not be

	<p>commenced unless an attempt has first been made by the parties to settle such disputes, within 120 days of submission of monthly statement of such claim, through mutual settlement.</p>
32.2.2	<p>In the event of failure to resolve any dispute or difference between the parties hereto as to the construction or operation of this contract, or the respective rights and liabilities of the parties on any matter in question, dispute or difference on any account or as to the withholding by HORCL of any certificate to which the contractor may claim to be entitled to, through mutual settlement, the Contractor may refer such matters to the Managing Director/HORCL in writing within 60 days from the date of failure of amicable settlement of such disputes or differences for settlement through Conciliation.</p> <p>If the efforts to resolve all or any of the disputes through Conciliation fail, the Contractor may refer to the Managing Director of Haryana Orbital Rail Corporation Limited (HORCL) for settlement of such disputes or differences through Arbitration. No disputes or differences shall be referred to Arbitration after expiry of 60days from the date of notification of the failure of Conciliation.</p>
32.2.3	<p>The demand for Conciliation or Arbitration shall specify the matters which are in question, or subject of the dispute or difference as also the amount of claim item wise. Only such dispute(s) or difference(s) in respect of which the demand has been made, together with counter claims or set off, given by HORCL, shall be referred to Conciliation or Arbitration and other matters shall not be included in the reference.</p>
(a)	<p>The Arbitration proceeding shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by MD/HORCL.</p>
(b)	<p>The claimant shall submit his claim stating the facts supporting the claim along with all relevant documents and the relief or remedy sought against each claim within a period of 30 days from the date of appointment of the Arbitral Tribunal</p>
(c)	<p>HORCL/HRIDC shall submit its defence statement and counter claim(s), if any, within a period of 60 days of receipt of copy of claim from Tribunal thereafter unless otherwise extension has been granted by Tribunal.</p>
(d)	<p>Place of Arbitration: The conciliation/ arbitration proceedings shall be held at Gurugram, Haryana.</p>
32.2.4	<p>No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original, claim or defence thereof during the course of</p>

	arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.
32.2.5	If the contractor(s) does/do not present his/their specific and final claim in writing, within a period of 90 days of receiving the intimation from HORCL/HRIDC that the final bill is ready for payment, he/they will be deemed to have waived his/their claim(s) and HORCL/HRIDC shall be discharged and released of all liabilities under the contract in respect of these claims.
32.3	<p>No suspension of work</p> <p>The Obligations of HORCL, the Engineer-In-Charge and the Contractor shall not be altered by reasons of conciliation / arbitration being conducted during the progress of works. Neither party shall be entitled to suspend the work on account of conciliation/ arbitration and payments to the Contractor shall continue to be made in terms of the contract.</p>
32.4 (a)	<p>i) Sole Conciliator/Sole Arbitrator:</p> <p>In cases where the total value of all claims/ counterclaims in question added together does not exceed INR 2.00 Crore (Rupees Two Crores), the Arbitral Tribunal shall consist of a sole arbitrator nominated by the Managing Director, HORCL.</p> <p>The sole arbitrator shall be appointed by the Managing Director of HORCL within 60 days from the day when a written and valid demand for arbitration is received by HORCL.</p> <p>ii) Arbitration Tribunal:</p> <p>In cases where the total value of all claims/counterclaims exceeds INR 2.00 Crore (Rupees Two Crores), the Arbitral Tribunal shall consist of a panel of three Officers not below GM level.</p> <p>For this purpose, HORCL will send a panel of more than 3 names to the contractor, within 60 days from the day when a written and valid demand for arbitration is received by HORCL. Contractor will be asked to suggest to the Managing Director at least 2 names out of the panel for appointment as contractor's nominee within 30 days from the date of dispatch of the request by HORCL. The Managing Director shall appoint at least one out of them as the contractor's nominee and will, also simultaneously appoint the balance number of arbitrators either from the panel or from outside the panel, duly indicating the 'presiding arbitrator' from amongst the 3 arbitrators so appointed. The Managing Director shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of</p>

	<p>contractor’s nominees. While nominating the arbitrator sit will be necessary to ensure that one of them is from the Accounts Department. An officer of AGM rank of the Accounts Department shall be considered of equal status to the GM of the other departments of HORCL/HRIDC for the purpose of appointment of arbitrator.</p> <p>ii) The minimum qualifications of Conciliator/ Arbitrator shall be graduate in the respective field. He will be a working officer with a minimum of 20years’ service. He should be clear from the vigilance angle and should be a person with reputation of high technical/ commercial ability and integrity. Also, he should not have associated with the contract to which the dispute pertains.</p> <p>iv) If one or more of the arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator or vacates his/their office/offices or is/are unable or unwilling to perform his functions as arbitrator for any reason whatsoever or dies or in the opinion of the Managing Director fails to act without undue delay, the Managing Director shall appoint new arbitrator/ arbitrators to act in his/their place in the same manner in which the / arbitrators had been appointed. Such reconstituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the previous arbitrator(s).</p> <p>v) The Arbitral Tribunal shall have power to call for such evidence by way of affidavits or otherwise, as the Arbitral Tribunal shall think proper, and it shall be the duty of the parties hereto to do or cause to be done all such things as may be necessary to enable the Arbitral Tribunal to make the award without any delay. The Arbitral Tribunal should record day-to-day proceedings. The proceedings shall normally be conducted on the basis of documents and written statements.</p> <p>vi) While appointing arbitrator(s) under sub clause 32.4(a)(i), 32.4(a)(ii) and 32.4(a)(iv) above, due care shall be taken that he/they is/are not the one/those who had an opportunity to deal with the matters to which the contract relates or who in the course of his/their duties as HORCL employee expressed views on all or any of the matters under disputes or differences. The proceedings of the Arbitral Tribunal or the award made by such Tribunal will however, not be invalid merely for the reason that one or more arbitrator had, in the course of his service, opportunity to deal with the matters to which the contract relates or who in the course of his/their duties expressed views on all or any of the matters under dispute.</p>
<p>32.4 (b)</p>	<p>i) The arbitral award shall state item-wise, the sum and reasons upon which it is based. The analysis and reasons shall be detailed enough so that the award could be inferred there from.</p>

	<p>ii) A party may apply for corrections of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award of tribunal within 60 days of the receipt of the award.</p> <p>iii) A party may apply to tribunal within 60 days of the receipt of award to make an additional award as to claims presented in the arbitral proceedings but omitted from the arbitral award.</p>
32.5	In case of the Tribunal, comprising of three members, any ruling or award shall be made by a majority of members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.
32.6	Where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.
32.7	The cost of arbitration shall be borne by the respective parties. The cost shall inter-alia include fee of the Conciliator/ Arbitrator(s) as per the rates fixed by HORCL from time to time and the fee shall be borne equally by both the parties. Further, the fee payable to the arbitrator(s) would be governed by the instructions issued on the subject by HORCL from time to time irrespective of the fact whether the arbitrator(s) is/are appointed by HORCL or by the court of law unless specifically directed by Hon'ble court otherwise on the matter.
32.8	<p>Settlement through Court:</p> <p>It is a term of this contract that the Contractor shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through clauses 32.1 and 32.2.</p>
32.9	The Conciliation and/or Arbitration proceedings shall be governed by the provisions of the Indian Arbitration and Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force.
32.10	The language of proceedings, documents or communications shall be in English and the award shall be made in English in writing.
32.11	<p>Award to be final and binding on all parties:</p> <p>An arbitral award shall be final and binding on all parties, as per provision of Arbitration and Conciliation Act, 1996 with latest amendment.</p>

<p>32.12</p>	<p>Exception: For settlement of disputes with central PSUs, the procedure as per existing orders of Permanent Machinery for Arbitration (PMA), Bureau of Public Enterprises, Govt. of India shall be followed.</p>																				
<p>32.13</p>	<p>JURISDICTION OF COURTS: In case of any legal dispute, Jurisdiction of Courts in Gurugram/Chandigarh, Haryana area only shall be applicable.</p>																				
<p>33.0</p>	<p>Minimum Requirement of Project Personnel</p>																				
<p>The Contractor shall deploy the minimum Project Personnel as per the requirement mentioned in the table below:</p> <table border="1" data-bbox="373 777 1377 1518"> <thead> <tr> <th>S. No</th> <th>Position</th> <th>Minimum No. of Personnel</th> <th>Minimum Educational Qualifications</th> <th>Minimum Experience</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Team Leader/Project-In-Charge</td> <td>01</td> <td>M.Tech/M.E in Geo technical Engineering OR B.Tech /B.E. in Civil Engineering</td> <td>07/10 years in Geotechnical Investigation works</td> </tr> <tr> <td>2</td> <td>Geotechnical Engineer</td> <td>01</td> <td>Graduate in Civil Engineering</td> <td>05 years in Geotechnical Investigation works</td> </tr> <tr> <td>3</td> <td>Lab-in-charge</td> <td>01</td> <td>B. Tech/B.E in Civil Engineering</td> <td>05 years in Geotechnical Investigation works</td> </tr> </tbody> </table>		S. No	Position	Minimum No. of Personnel	Minimum Educational Qualifications	Minimum Experience	1	Team Leader/Project-In-Charge	01	M.Tech/M.E in Geo technical Engineering OR B.Tech /B.E. in Civil Engineering	07/10 years in Geotechnical Investigation works	2	Geotechnical Engineer	01	Graduate in Civil Engineering	05 years in Geotechnical Investigation works	3	Lab-in-charge	01	B. Tech/B.E in Civil Engineering	05 years in Geotechnical Investigation works
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3	Lab-in-charge	01	B. Tech/B.E in Civil Engineering	05 years in Geotechnical Investigation works																	
<p>For Procurement related Comments: For the attention: Mr. Shiv Om Dwivedi Title/position: Chief Project Manager Employer: Haryana Orbital Rail Corporation Limited Email address: horc.etendering@gmail.com Signature of the Tenderer/s Address _____</p>																					

ANNEXURE-A

Name of the Bank:

Haryana Orbital Rail Corporation Limited,
Plot no.143, 5th floor,
Railtel Tower, Sector-44
Gurugram – 122003
Tel: +91 9311478893

Bank Guarantee Bond No.:

Date:

PERFORMANCE GUARANTEE BOND

In consideration of the Haryana Orbital Rail Corporation Limited (hereinafter called “Employer”) 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 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 Rs.....(Rs.....only) unless a demand under this guarantee is made on us in writing on or before..... we shall be discharged from our liabilities under this guarantee thereafter.

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

Signature of Banks Authorised official

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

Witness:

1. 2.

ANNEXURE – B**SUPPLEMENTARY AGREEMENT**

Articles of agreement made this day _____ in the year Two thousand and Twenty Three between the Managing Director, Haryana Orbital Rail Corporation Limited having his office at _____, herein after called HRIDC of the one part and _____ of the second part.

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

And whereas it was agreed by and between the parties hereto that the works would be completed by the party hereto of the second part on _____ date last extended' and whereas the party hereto of the second part has executed the work to the entire satisfaction of the party hereto of the first part. And whereas the party hereto of the first part already made payment of the party hereto of the second part diverse sums from time to time aggregating to Rs. _____ including the final bill bearing voucher No. _____ dated _____ (the receipt of which is hereby acknowledged by the party hereto of the second part in full and final settlement of all his /its claims under the principal agreement.

And whereas the party hereto of the second part have received further sum of Rs. _____ through the final bill bearing voucher No. _____ dated _____ (the receipt of which is hereby acknowledged by the party thereto of the second part) from the party hereto the first part in full and final settlement of all his/its disputed claims under principal agreement.

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

It is further agreed and understood by and between the parties that in consideration of the payment already made, under the agreement, the said Principal Agreement shall stand finally discharged and rescinded all the terms and conditions including the arbitration clause. It is further agreed and understood by and between the parties that the arbitration clause contained in the said principal agreement shall cease to have any effect and/or shall be deemed to be non-existent for all purposes.

Signature of the Contractor/s
Witness

1. _____
2. _____

For and on behalf of MD/ HRIDC

ADDRESS: _____

ANNEXURE – C**PERFORMA**
DECLARATION

I/We hereby solemnly declare that I/We visited the site of Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana personally and have made myself/ourselves fully conversant of the conditions therein and particular the following:

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

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

Signatures of the Tenderer/s

ANNEXURE – D**Constitution of Firm**

S.No.	Particular	Response
1	Constitution of the Firm (Tick as applicable)	Sole Proprietorship Firm/ Partnership Firm/ Company/ LLP/ Registered Society or Trust
2	Full name of the Sole Proprietorship Firm/ Partnership Firm/ Company/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 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**

Deleted

Deleted

ANNEXURE – G

Similar Work Experience

[Ref. Sub-Clause 2.3.2 (B) of General Tender Conditions and Instructions to Tenderers]
 [The following table shall be filled in for the Tenderer]

[The following table shall be filled in for the Tenderer or in case of JV/Consortium, each member of a Joint Venture/Consortium]

Tender No.: HORC/HRIDC/GGN/CGT/2023/GT01

Tenderer’s Name: _____

JV _____ Member’s _____ Name _____
 Page _____ of _____ pages

Similar Contract No.	Information		
Contract Identification			
Award date			
Completion date			
Role in Contract as Prime Contractor or Member in JV or Management Contractor or Sub-Contractor	[insert the role in Contract]		
Total Contract Amount	[insert Contract amount(s) and currency(ies)]	INR [insert *exchange rate and total Contract amount in INR equivalent]	
If member in a JV or sub-contractor, specify participation in total Contract amount	[insert Percentage participation]	[insert amount(s) and currency) of participation]	INR [insert exchange rate(i) and amount of participation in INR equivalent]
Employer's Name:			
Address:			
Telephone/fax number			
E-mail:			
Description of the similarity in accordance with Sub-Clause 3.4.2(a) of Section III:			
1. Amount (INR)	[insert the Contract amount in INR]		
2. Type of Work Executed (Geotechnical Investigation)	[insert Type of Work Executed]		

Tenderer’s Authorized Representative

Signature:

Date:

Company stamp:

Notes:

The Tenderer shall submit copy of certificates issued by the Employer (owner of the work) as documentary proof clearly indicating the similarity of the work as per Sub-Clause 2.3.2 (A), actual completion cost, actual completion date. Tenderer should make all efforts to submit the Completion certificate as per **Annexure-L**. Tender submitted without this documentary proof shall not be evaluated. Tender submitted without this documentary proof shall not be evaluated.

Deleted

ANNEXURE – I**Average Annual Contractual Turnover**

[Ref. Sub-Clause 2.3.2 (B) of General Tender Conditions and Instructions to Tenderers]
[The following table shall be filled in for the Tenderer]

Tender No.: HORC/HRIDC/GGN/CGT/2023/GT01

Tenderer's Name: _____

Page _____ of _____ pages

(All amounts in Millions)

Annual Turnover Data for the Last Three (03) Financial Years (Construction Only)			
Year	Amount Currency	*Exchange Rate	INR Equivalent
2019-20	[insert amount and indicate currency]		
2020-21			
2021-22			
Average Annual Contractual Turnover for last 3 financial years			

* See 2.3.2(C) of General Tender Conditions and Instruction to Tenderers.

Notes:

- (i) In case, the Financial Year is the same as the Calendar Year, the turnover for the year 2019, 2020 and 2021 shall be furnished.
- (ii) The Average Annual Construction Turnover shall be calculated by adding the turnover amount of last three financial years divided by three.
- (iii) The Tenderer is not required to submit any document as documentary evidence along with the Tender Documents. All information furnished in this form shall be certified by a Chartered Accountant/Company Auditor/Statutory Auditor.
- (iv) The Form duly certified by a Chartered Accountant/Company Auditor/Statutory Auditor shall also be signed by Tenderer's Authorized representative.

- (v) The above documents shall reflect the financial situation of the legal entity or entities comprising the Tenderer and not the Tenderer’s parent companies, subsidiaries, or affiliates.
- (vi) If the value of Annual construction Turnover is not submitted for any of the last three years prescribed in Financial Data, the Tender shall be evaluated by considering “NIL” Turnover for that year(s).

Tenderer’s Authorized Representative

Signature:

Date:

Company stamp:

Chartered Accountant/Company Auditor/Statutory Auditor

Certified that the information furnished above is correct as per the audited balance sheets of the entity.

Signature:

Name:

Position:

Date:

Company:

Company stamp:

Membership No:

Address:

Contact No:

Email ID:

ANNEXURE – J

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

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

1. Investor/customer’s name

2. Particulars of Bank Account:

A) Name of the Bank:

B) Name of the Branch.

Address

Telephone No.

C) RTGS/NEFT IFS Code.

D) Type of the account (S.B. Current or Cash Credit)

With code (10/11/13).

E) Ledger and Ledger folio number.

F) Account number (as appearing on the Cheque book) in lieu of the bank certificate to be obtained as under, please attach a blank cancelled cheque or a photocopy of a cheque or front page of your savings bank passbook issued by your bank for verification of the above particulars)

3. Date of effect

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge the responsibility expected of me as a participant under the scheme.

(.....)
Signature of the Investor/ Customer

Date:

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

Bank’s Stamp

ANNEXURE – K

MEMORANDUM OF UNDERSTANDING FOR JV

DELETED

ANNEXURE – L**COMPLETION CERTIFICATE**

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

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

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

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

Date of issue of certificate: -----

ANNEXURE – M**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 Rs. 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 understand that if the certificates regarding eligibility criteria 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 Tender Security besides banning of business for a period of up to 5(five) years. Further, I/we (insert name of the tenderer) ** _____ and all my/our constituents understand that my/our offer shall be summarily rejected.

8. I/we also understand that if the certificates 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 SD and Performance guarantee besides any other action provided in the contract including banning of business for a period of up to 5 (five) years.

**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:

- i) Should affidavit be in more than one separate page, each page shall be signed by the authorized signatory*
- ii) The contents in Italics (marked with **) are only for guidance purpose. Details as appropriate are to be filled in suitably by Tenderer*

ANNEXURE – N

Deleted

ANNEXURE – O-1

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 Shriaged aboutyears
R/o.....do hereby
solemnly affirm and declare as under:

1. That I am running a business in the name and style of M/S.....which is a sole proprietorship firm, and which has got GST registration No.....
2. That I am the sole proprietor of the said firm M/S
3. That the Head office of the above named firm is situated at

DEPONENT

Verification:

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

DEPONENT

(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

ANNEXURE – O-2

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

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

KNOW ALL MEN BY THESE PRESENTS: WHEREAS WE

(1)..... S/o Shri.....R/o.....

(2)..... S/o Shri.....R/o.....

(3)..... S/o Shri.....R/o.....

(4)..... S/o Shri..... R/o.....

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

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

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

1. To sign and submit Tender and participate in the aforesaid Tender of HRIDC on behalf of the firm.
2. To sign and submit all the necessary papers, letters, forms, quotes, Tenders 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.

Specimen signatures of the Attorney are appended below.

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

WITNESSES:

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

2. Signature
 Name:
 Address:

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

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

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

(Seal and signature of Notary Public)

Notes:

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

ANNEXURE – O-3

POWER-OF-ATTORNEY ON BEHALF OF THE JOINT VENTURE

DELETED

ANNEXURE – O-4

**CONSENT OF PARTNERS OF PARTNERSHIP FIRM FOR SIGNING JOINT
VENTURE**

DELETED

ANNEXURE – O-5

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

DELETED

ANNEXURE – O-6

**AFFIDAVIT BY SOLE PROPRIETORSHIP FIRM WHEN PARTICIPATING IN JOINT
VENTURE**

DELETED

ANNEXURE – O-7

**BOARD'S RESOLUTION OF COMPANY FOR ENTERING INTO JOINT VENTURE
(To be printed on Company's letter head)**

DELETED

ANNEXURE – O-8

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

DELETED

ANNEXURE – O-9

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

1. To sign and submit Tender and participate in the aforesaid Tender of HRIDC on behalf of the company.
2. To sign and submit all the necessary papers, letters, forms, quotes, Tenders 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 HORCL for and on behalf of the company.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

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

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

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

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

WITNESSES:

1. Signature
Name:
Address:

Executants Signature & Seal of Company:
Name:
Designation:

2. Signature
Name:
Address:

Specimen Signatures of Attorney Holder(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.

ANNEXURE – O-10

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, Tenders etc, negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the company in connection with completion of aforesaid tender work and to enter into liability against the company.

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

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

For the Organization,

(Seal of company & Signature of authorized person)

Name: _____

Designation: _____

Place:

Dated:

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

(Seal and signature of Notary Public)

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

ANNEXURE – O-11

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

- 1. To sign and submit Tender and participate in the aforesaid Tender of HRIDC on behalf of the LLP.
- 2. To sign and submit all the necessary papers, letters, forms, quotes, Tenders 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/HORCL 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.

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

WITNESSES:

1. Signature
Name:
Address:

Signatures of authorized representative & Seal of LLP:

Name of authorized representative (Executant):
Designation:

2. Signature
Name:
Address:

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

(1)Name Signature.....

(2Name).....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.

ANNEXURE – O-12

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

DELETED

ANNEXURE – O-13

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

DELETED

ANNEXURE - P**INSTRUCTIONS REGARDING ELECTRONIC TENDERING SYSTEM**

These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

1. Registration of Tenderers on e-tendering Portal:

- 1.1. 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.
- 1.2. As part of the enrolment process, the Tenderers will be required to choose a unique username and assign a password for their accounts.
- 1.3. 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:

- 2.1. 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.
- 2.2. 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>.
- 2.3. 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.
- 2.4. 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 etendering process (registration, online e-Tender submission/withdrawal, uploading of documents), Tenderer may contact the below representative of NIC:

Mr. Anuj Mahajan

E - mail: amahajan@nic.in, eprocnicry@yahoo.com

Help Desk: 0120-4001002, 0120-4200462, 0120-4001005, 0120-6277787, 0172-2700275.

- 2.5. 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 Tender 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 Tender 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).
- 2.6. In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a Tender, 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 Tender 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.
- 2.7. 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.
- 2.8. 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 Tender 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 Tender):

8.1. 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.

8.2. Preparation & Submission of online Applications/Tenders:

i. Detailed Tender documents may be downloaded from e-tendering website (<https://etenders.hry.nic.in>) **from 16.05.2023 at 1700 Hrs. IST, to 06.06.2023 upto 1500 Hrs. IST**, 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 Tender 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.

A. Only Electronic Form (Refer Tender document).

Financial or Price Tender 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 Tender 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 Tenders as per the dates mentioned in the schedule/Key Dates above.

Other Information:

1. The Tenderers shall fill in the item rate in the online BOQ templates of the tender.
2. Duly accepted copy of notarized or registered power of Attorney along with its two certified copies in the name of tenderer or authorized representative to act on behalf of the agency.
3. Tenderer must strictly abide by the stipulations set forth in detailed notice inviting tenders while tendering for the work.
4. In case any tenderer does not comply with procedure given in the tender document, it will be presumed that the tenderer is not interested in work and the work shall not be let out to him. Further he may be de-barred without further notice to him for failing to abide by the approved terms of detailed notice inviting tenders for this work.
5. The tenders which are not accompanied by the Tender Security or do not strictly follow the technical requirement, are liable to be summarily rejected without arising any reason and no claim whatsoever on their account will be considered.
6. Tenders quotations which are dependent upon the quotations of another tender shall be summarily rejected.

ANNEXURE-Q**DECLARATION/UNDERTAKING**

I/We, _____ (name and Designation) on behalf of _____ (Name of the tendering firm) do hereby declare/undertake that I/We have not employed any retired Engineer or retired gazette officer, nor made any Partner/Director etc. in our firm who retires from Government of India/ Government of Haryana Service in last one year as on the date of opening of tender in terms of Clause 2.2.12 of “General Tender Conditions and Instructions to Tenderer(s)” of tender document.

(authorized signatory)
Name of the tendering firm

Place:

Dated:

ANNEXURE-R**Definitions****STANDARD GENERAL CONDITIONS OF CONTRACT**

Definitions: In these Standard General Conditions of Contract, the following terms of the Indian Railways Standard General Conditions of Contract, April 2022 with advance correction slips issued by the authorised signatory of Railway Board, the ‘Railway’ shall read as HORCL/HRIDC for this Tender except where the context otherwise requires:

“Arbitration Act” means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time;

"BIS" means Bureau of Indian Standards.

“Contractor” means the person or persons, as the case may be, with whom HORCL/HRIDC has entered into any of the Contract for execution of activities related to the project;

“Director” shall mean Director of HRIDC.

“Employer” shall mean Haryana Orbital Rail Corporation Limited

“Employer’s Representative” shall mean Haryana Rail Infrastructure Rail Corporation Limited

“Competent Authority” means HRIDC

“Drawings” means all of the drawings, calculations and documents pertaining to the HORCL.

“Engineer” shall mean RITES Limited in Consortium with SMEC International Pty Ltd, 4th Floor, Plot No.144, RITES Limited, Sector-44, Gurugram, Haryana-122003.

“Force Majeure” or “Force Majeure Event” shall mean certain acts, events or circumstances beyond the control of the parties, for example, natural disasters or the outbreak of hostilities.

“General Manager” shall mean the Officer-in-Charge of the general superintendence and control of HRIDC.

“GOI” means the Government of India;

“HORCL” means the Haryana Orbital Rail Corridor Line from Palwal and shall include proposed New Pirthala Station to the proposed Harsana Kalan Station, parallel to DFCCIL line and KMP expressway which shall, connect to Indian Rail on Delhi Mathura line at Palwal Station comprising of system(s) built or to be built and maintained on the Site and includes civil, mechanical and electrical works, rail tracks, signalling and telecommunication equipment, and all other Project Assets necessary for and associated with operation of trains on the Site; Includes Project Section as defined above, its railway stations, staff amenities, offices, feeder routes, sidings including private sidings, loading and unloading infrastructure conceived and constructed before COD or conceived and augmented after COD in single or multiple stages;

“HRIDC” shall mean Haryana Rail Infrastructure Development Corporation Limited

“HORCL” shall mean Haryana Orbital Rail Corporation Limited

“Indian Railways” or “IR” shall refer to the India’s national rail system owned by MOR;

“Insurance” means the aggregate of the maximum sums insured under all insurances required to be taken out by contractor

“Limited Tenders” shall mean tenders invited from all or some contractors on the approved or select list of contractors with HRIDC.

“Managing Director” shall mean the Managing Director of HORCL.

“Open Tenders” shall mean the tenders invited in open and public manner and with adequate notice.

“RDSO” shall refer to Research Design and Standards Organization;

“Right of Way” means the constructive possession of the Site, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction, operation and maintenance of the Rail System and Commercial Development in accordance with this Agreement;

“State” means the State of Haryana and “State Government” means the government of that State;

“Specifications” shall mean the Specifications for Materials and Works of the Railway as specified under the authority of the Ministry of Railways or as amplified,

“Tenderer” shall mean the person / firm / co-operative or company whether incorporated or not who tenders for the works with a view to execute the works on contract with HRIDC and shall include their representatives, successors and permitted assigns.

“Works” shall mean the works contemplated in the drawings and schedules set forth in the tender forms and required to be executed according to the specifications.

ANNEXURE-S

CONTRACT AGREEMENT

CONTRACT AGREEMENT NO. _____ DATED _____

ARTICLES OF AGREEMENT made this _____ day of _____ 20____ between the Managing Director, Haryana Orbital Rail Corporation Limited having his office at _____, hereafter called the "Employer" of the one part and _____ herein after called the "Contractor" of other part.

WHEREAS the Contractor has agreed with the HRIDC for performance of the works _____ set forth in the Schedule hereto annexed upon the Standard General Conditions of Contract, corrected upto latest correction slips and the Specifications of _____ Railway/Organization corrected upto the latest correction slips and the Schedule of Rates of _____ Railway/Organization, corrected upto latest correction slips and the Special Conditions and Special Specifications, if any and in conformity with the drawings here-into annexed AND WHEREAS the performance of the said works is an act in which the public are interested.

NOW THIS INDENTURE WITNESSETH that in consideration to the payments to be made by the HRIDC, the Contractors will duly perform the said works in the said schedule set forth and shall execute the same with great promptness, care and accuracy in a workman like manner to the satisfaction of the HRIDC and will complete the same in accordance with the said specifications and said drawings and said conditions of contract on or before the Completion Period and will observe, fulfill and keep all the conditions therein mentioned (which shall be deemed and taken to be part of this contract, as if the same have been fully set forth herein), AND the HRIDC, both hereby agree that if the Contractor shall duly perform the said works in the manner aforesaid and observe and keep the said terms and conditions, the HRIDC will pay or cause to be paid to the Contractor for the said works on the final completion thereof the amount due in respect thereof at the rates specified in the Schedule hereto annexed.

Signature of the Contractor/s
Address _____
Date _____

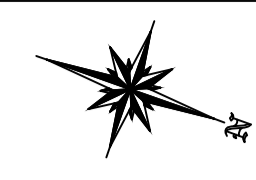
For and on behalf of Employer
Date _____

Signature of **Witnesses** (to Signature of Contractor) with address:
Witnesses:

ANNEXURE – T

Drawings

Plan and Profile of proposed alignment location



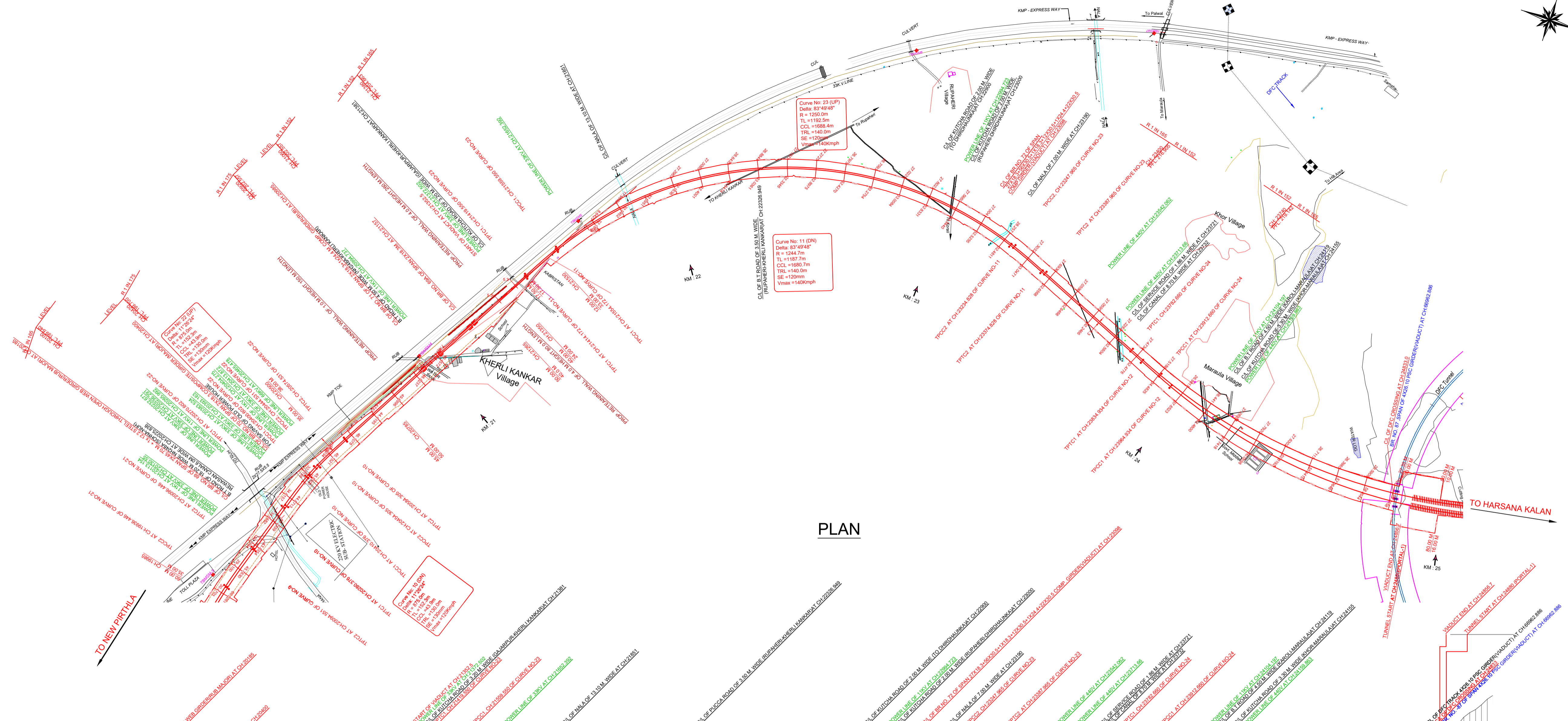
- NOTES :-**
- EXISTING WORK SHOWN IN BLACK.
 - PROPOSED WORK SHOWN IN RED.
 - ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - CHAINAGE IS RECKONED 0.00 FROM C.L. OF NEW PRITHLA STATION BUILDING.
 - RAIL LEVEL SHOULD BE 0.742m ABOVE FORMATION LEVEL FOR TRACK STRUCTURE.
 - 60KG NEW RAIL ON PSC SLEEPER (1660MM) WITH 350mm BALLAST CUSHION.
 - KILLING GRADIENT IS 1 IN 150 OF THIS SECTION (COMPENSATED).
 - VERTICAL CURVE WILL BE PROVIDED AS PER IRPWV PARA 4.9.
 - CROSS / LONGITUDINAL DRAINAGE ARRANGEMENT BET TRACK SHOULD BE PROVIDED WHEREVER REQUIRED.
 - TROLEY REFUGE IN BANKING / CUTTING SHALL BE PROVIDED AS PER PROVISION OF IRPWV.
 - STANDARD OF LOADING (FOR PROP. LINE) - 32.5 T LOADING-2008 & HIGH RISE OHE.
 - TELEPHONE CABLE TO BE LAID FOR TELECOMMUNICATION.
 - ALL ELECTRICAL XING WILL BE AS PER PARA II (I) OF CHAPTER I GENERAL OF SCHEDULE I OF SOD 2004.

LIST OF TBM

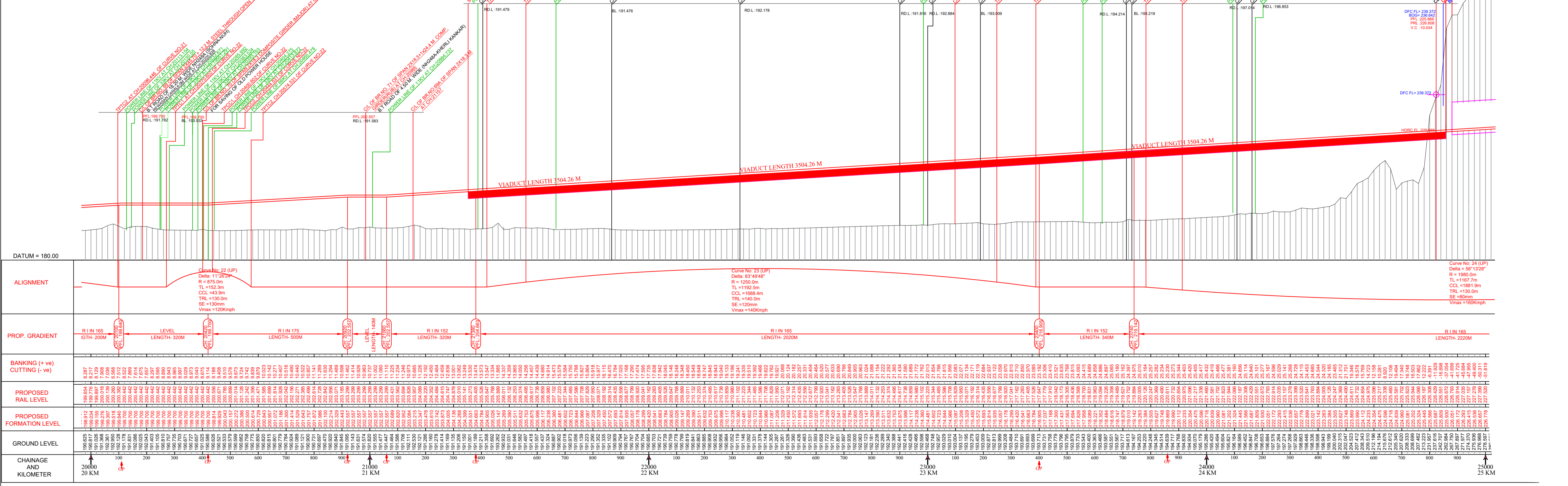
TBM No.	Easting	Northing	Elevation
SM-1	705588.878	3121113.675	194.387
SM-2	704954.348	3119500.444	193.724
SM-3	703625.564	3118824.368	193.601

LEGEND

EXISTING CENTRE LINE	—
PROPOSED CENTRE LINE	—
DFC CENTRE LINE	—
EXISTING TPTC	—
PROPOSED TPTC	—
TBM	—
KM-STONE	—
PROPOSED BOUNDARY	—
EXISTING BRIDGE	—
PROPOSED BRIDGE	—
NALA/CANAL DRAIN	—
PERMANENT STRUCTURE	—
TEMPORARY STRUCTURE	—
PROPOSED GATE LODGE	—
TOE LINE	—
ROAD	—
POWER LINE WITH POLE	—
PLYON	—
EMBANKMENT / BUND	—
ROCKY AREA	—
COMPOUND WALL	—
DITCH / QUARRY	—
BARBED WIRE FENCING	—
GROUND LEVEL	—



PLAN



SECTION

GCHORC		HRIDC	
NAME / DESIGNATION	SIGN	NAME / DESIGNATION	SIGN
CHARATEY RAM	—	SHYAM DWIVEDI	—
BUDHIR AGRAWAL	—	RAJU SOLANKI	—
KRISHAN CHAND SAINI	—	DEEPAK SINGH	—

NORTHERN RAILWAY

DELHI DIVISION

PROJECT: HARYANA ORBITAL RAIL CORRIDOR
CONNECTING PALWA TO SONPAT BYPASSING DELHI AREA BY LINKING ASHOKI-PALWA-SANPAT-BASUKHIM BY NEW ELECTRIFIED BG DOUBLE LINE

CLIENT: HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

GENERAL CONSULTANT: GENERAL CONSULTANT FOR HARYANA ORBITAL RAIL CORRIDOR
RITES Limited in consortium with SMEC International Pty. Ltd.

ITILES **SMEC**

TITLE: CONCEPTUAL PLAN & LONGITUDINAL SECTION (20.00 KM TO 25.00 KM)

GC DRG NO: GC-HRIDC-AL-DRW-ALN-PAP-20-25KM_AD
ISSUE Dt: 10.04.2023

SCALE: 1:10000

CONSULTANT: SM CONSULTANTS

DRAWN BY: L.MOHANTY **CHECKED BY:** SVRMM J **PROJECT ENGINEER:** S. SENEJIT

RELEASED FOR: PRELIMINARY FOR APPROVAL

ANNEXURE – U

Tender Security

The amount for Tender Security as per Clause 3.0 of General Tender Conditions and Instruction to Tenderer(S) will only be paid online by eligible Tenderers on eProcurement Portal of Government of Haryana.

DELETED

ANNEXURE – V

TERMS OF REFERENCE/ TECHNICAL SPECIFICATION

1	General
	HRIDC (Haryana Rail Infrastructure Development Corporation Ltd.) a joint venture of Govt. of Haryana and Ministry of Railways has been entrusted with design and construction of new BG line from Palwal to Sonipat named HORC in the state of Haryana, India by the Employer, Haryana Orbital Rail Corporation Limited (HORCL). In this connection HRIDC intend to appoint consultant by calling open tender for Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana. In this work HRIDC will be the employer and agency will be the contractor.
2	Objective The main objective of this work is as under:
2.1	Preparation of Geotechnical Investigation report for entire stretch of the viaduct proposed near tunnel at Sohana..
2.2	Geotechnical investigation will be carried out in such a way that, it covers the entire stretch of Viaduct. The Geotechnical Investigation to be carried out to meet the codal provisions/guidelines issued by Railways.
2.3	The Tenderer must visit the site prior to submitting his quotations/tender to acquaint himself fully with the nature, type, scope of work and involvement therein. The rates quoted shall remain firm during the entire period of execution till completion of the work and any additional claim for lack of knowledge shall not be entertained.
3.	Scope of work The scope of work shall be as below but not limited to:
3.1	The work shall include mobilization of adequate no of mechanical/hydraulic rigs inclusive of calyx in required numbers (minimum 10 no.) to achieve the progress milestones, with necessary accessories, tools and plants, providing necessary engineering supervision and technical personnel, skilled and unskilled labours, arranging water, drilling fluid, casing for drilling etc as required to carry out the entire field as well as laboratory investigation, analysis and interpretation of test data collected and preparation of a geotechnical report for designing of foundation for the Viaduct. No extra payment will be made for mobilization of plant and machinery and is included in the rate of drilling.

3.2	HRIDC will provide the location and Reduced Level (RL) of nearest bench marks. The contractor shall make his own arrangements for locating the co-ordinates and position of bore holes, trial pits and other field tests as per the drawings/sketches supplied to him. The contractor has to provide at the site required surveyor, skilled/unskilled manpower, all the required survey instruments, T&P to the satisfaction of the engineer-in-charge so that the work can be carried out accurately according to the specification and drawings. The Contractor should transfer the Northing, Easting and Reduced Level (X, Y and Z respectively) values and Borehole drilling to be taken up after satisfaction of site engineer.
3.3	Exploratory drilling to be conducted along the alignment and proposed viaduct pier and abutment locations up to a depth as specified in the technical specification/as decided by geologist and Engineer at site.
3.4	All the field data shall be recorded in the proforma recommended in Indian Standard Codes and the field records shall be countersigned by the engineer-in-charge or his representative. The contractor shall submit one copy of the field bore logs to the engineer-in-charge soon after the completion of each bore hole. All the investigations are to be carried out by the contractor as per the priority requirements of the engineer-in-charge.
3.5	Drilling locations will be provided by HRIDC.
3.6	Taking out of UDS and DS sample at specified interval and conducting Standard Penetration Test.
3.7	Recording of ground water table.
3.8	Conducting specified tests (in situ as well as in Lab) required for preparation of reports required for design of foundations for viaduct. All laboratory test data shall be recorded in the proforma recommended in the relevant Indian Standard Codes. Whenever desired, during the progress of work the engineer-in-charge/his representative may also be present at the laboratory where the contractor is arranging for execution of the laboratory tests.
3.9	The contractor shall inform, well in time, to the engineer-in-charge giving reasons if any additional specific tests he considers necessary to be carried out duly considering local sub-soil conditions.
3.10	Reinstatement of boreholes/site after completion of drilling: After completion of drilling and measurement of borehole depths by engineer, contractor will reinstate the boreholes/approaches/site as specified in the technical specifications of contract.

4	Data to be furnished by HRIDC
4.1	HRIDC will provide the final alignment both in Auto-cad and KML format.
4.2	HRIDC will provide the locations of Benchmark and values thereof established by earlier agency in Auto-cad/KML or any other traceable format.
4.3	HRIDC will provide tentative L-section for the section.
4.4	The coordinates and tentative depth of exploration to be conducted will be provided by HRIDC. The Geologist of the consultant and Site Engineer of HRIDC will decide the depth of drilling as per type of strata encountered and actual requirement.
5.0	Deployment of geologist/Geotech engineer:
5.1	Drilling work in soil and rock is to be done under supervision of a geologist /Geotechnical Engineer with minimum 5 years of experience. Minimum 4 nos of Geotechnical Engineer/Geologist shall be deployed at site for intensive supervision of drilling work. Along with the tender, tenderer will submit the CV of geologist proposed to be deployed at field for this purpose. Geologist to be deployed at field on award of contract.
5.2	In case, geologist/Geotechnical Engineer is not available during drilling, <u>deduction of Rs. 1 lakh per month or on prorata basis for part thereof will be made for absence period.</u> If in the opinion and judgement of Engineer-in-charge, knowledge/working/competency of geologist is not satisfactory, he may order the contractor for providing a substitute by a specified date and contractor will provide a suitable geologist to the satisfaction of engineer -in-charge. Intervening period from the date of notice for providing replacement and actual date of replacement will be considered as period of default and will be liable for deduction as above.
6.0	Laboratory:
6.1	All laboratory tests shall be conducted in an approved NABL laboratory/Govt. Engineering College using approved apparatus complying with the requirements and specifications of Indian standards or other approved standards for this class of work.
6.2	The scheduling of laboratory tests, conduction of lab tests, analysis and interpretation of test results, drafting of report and recommendations shall be carried out by a post graduate in geotechnical engineering with at least 5 years of experience. Contractor will submit CV of post graduate geotechnical engineer on award of contract.
7.0	Access to site:

<p>Any legal/administrative hindrance in getting access to site will be resolved by HRIDC. Crop compensation, if any, required to be paid to farmers will be arranged and paid by HRIDC. However, any improvement to ground, road etc. required for transportation of machinery etc. will be done by contractor at his cost and after demobilization of machinery after completion of work, ground/road will be reinstated to the original condition.</p>

TECHNICAL SPECIFICATIONS

1.0	CODES AND STANDARDS																																		
1.1	All standards, specification and codes of practice referred to herein shall be the latest editions including all applicable official amendments and revisions. The cut off date will be 28 days prior to opening date of tender.																																		
1.2	In case of conflict between this specification and those (IS codes and standards etc) referred to herein, the former shall prevail.																																		
1.3	<p>All work shall be carried out as per the specification and the following standards and codes including RDSO specification and any other IS/International code related to the work scope not mentioned below.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">IS: 1080</td> <td>Code of practice for design and construction of simple spread foundations</td> </tr> <tr> <td>IS: 1498</td> <td>Classification and identification of soils for general engineering purposes</td> </tr> <tr> <td>IS: 1888</td> <td>Method of load test on soils</td> </tr> <tr> <td>IS: 1892</td> <td>Code of practice for subsurface Investigation for foundation</td> </tr> <tr> <td>IS: 1904</td> <td>Code of practice for design and construction of foundations in soils: General requirements</td> </tr> <tr> <td>IS: 2131</td> <td>Method of standard penetration test for soils</td> </tr> <tr> <td>IS: 2132</td> <td>Code of practice for thin-walled tube sampling of soils</td> </tr> <tr> <td>IS: 2720</td> <td>Method of test for soils (Relevant parts)</td> </tr> <tr> <td>IS: 2809</td> <td>Glossary of terms and symbols relating to soil engineering</td> </tr> <tr> <td>IS: 2810</td> <td>Glossary of terms relating to soil dynamics</td> </tr> <tr> <td>IS: 2911</td> <td>Code of practice for design and construction of pile foundations (Relevant parts)</td> </tr> <tr> <td>IS: 2950</td> <td>Code of practice for design and construction of raft Part-I foundation</td> </tr> <tr> <td>IS: 3025</td> <td>Methods of sampling and testing (Physical and chemical) for water used in Industry</td> </tr> <tr> <td>IS: 3043</td> <td>Code of practice for earthing</td> </tr> <tr> <td>IS: 4078</td> <td>Code of practice for indexing and storage of drill cores</td> </tr> <tr> <td>IS: 4434</td> <td>Code of practice for in-situ vane shear test for soils</td> </tr> <tr> <td>IS: 4453</td> <td>Code of practice for exploration by pits, trenches, drifts and shafts</td> </tr> </table>	IS: 1080	Code of practice for design and construction of simple spread foundations	IS: 1498	Classification and identification of soils for general engineering purposes	IS: 1888	Method of load test on soils	IS: 1892	Code of practice for subsurface Investigation for foundation	IS: 1904	Code of practice for design and construction of foundations in soils: General requirements	IS: 2131	Method of standard penetration test for soils	IS: 2132	Code of practice for thin-walled tube sampling of soils	IS: 2720	Method of test for soils (Relevant parts)	IS: 2809	Glossary of terms and symbols relating to soil engineering	IS: 2810	Glossary of terms relating to soil dynamics	IS: 2911	Code of practice for design and construction of pile foundations (Relevant parts)	IS: 2950	Code of practice for design and construction of raft Part-I foundation	IS: 3025	Methods of sampling and testing (Physical and chemical) for water used in Industry	IS: 3043	Code of practice for earthing	IS: 4078	Code of practice for indexing and storage of drill cores	IS: 4434	Code of practice for in-situ vane shear test for soils	IS: 4453	Code of practice for exploration by pits, trenches, drifts and shafts
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IS: 4464	Code of practice for presentation of drilling information and core description in foundation investigation
IS: 4968	Method for subsurface sounding for soils-Dynamic Part -II method using cone and bentonite slurry
IS: 4968	Method for subsurface sounding for soils-Static cone Part-III penetration test
IS: 5249	Method of test for determination of in-situ dynamic properties of soil
IS: 5313	Guide for core drilling observations
IS: 5529	Code of practice for in-situ permeability test – Test in Part-I overburden
IS: 5529	Code of practice for in-situ permeability test - Test in bed Part-II rock
IS: 6065	Recommendation for the preparation of geological and geotechnical maps for river valley project
IS: 6403	Code of practice for determination of allowable bearing pressure on shallow foundation
IS: 6926	Code of practice for diamond core drilling for site investigation of river valley projects.
IS: 6935	Method of determination of water level in a bore hole
IS: 6955	Code of practice of subsurface exploration for earth and rockfill dams
IS: 7422	Symbols and abbreviations for use in geological maps, sections and subsurface exploratory logs (Relevant parts)
IS: 8009	Code of practice for calculation of settlement of Part-I foundation subjected to symmetrical vertical loads -Shallow foundations
IS: 8009	Code of practice for calculation of settlement of Part-II foundation subjected to symmetrical vertical loads –Deep foundations
IS: 8763	Guide for undisturbed sampling of sands
IS: 8764	Method for determination of point load strength index of rocks
IS: 9143	Method for the determination of unconfined compressive strength of rock materials
IS: 9179	Method for preparation of rock specimen for laboratory testing

	<p>IS: 9198 Compaction rammer for soil testing</p> <p>IS: 9214 Determination of modulus of sub-grade reaction in field</p> <p>IS: 9259 Specifications for liquid limit apparatus</p> <p>IS: 9640 Specifications for split spoon sampler</p> <p>IS: 9669 Specifications for CBR mold and its accessories</p> <p>IS: 10050 Method for determination of slake durability index of rocks</p> <p>IS: 10074 Specification for compaction mold assembly for light and heavy compaction</p> <p>IS: 10108 Code of practice for sampling by thin wall sampler with stationary piston</p> <p>IS: 10589 Equipment for determination of subsurface sounding of soils</p> <p>IS: 10837 Specifications of molds for determination of relative density and its accessories</p> <p>IS: 11229 Specifications for shear box testing of soils</p> <p>IS: 11315 Description of discontinuities in rock mass - Core Part-II recovery and rock quality</p> <p>IS: 12070 Code of practice for design and construction of shallow foundations on rocks</p> <p>IS:13372 Seismic testing of rock mass – Code of practice (Part I & II)</p> <p>RDSO/2020/GE: Comprehensive guidelines and</p> <p>IRS-0004 Specifications for Railway formation</p> <p>Any other code relevant to the scope of work.</p>
2.0	Field Survey
2.1	Survey of Bore Holes
2.1.1	<p>Marking of bore holes by RTK method:</p> <p>Agency will be provided with GPS bench mark list with location by HRIDC and agency has to mark all the bore hole location by RTK method using own manpower and machinery. The coordinates of structure location will be provided by HRIDC. HORCL is a linear project and bore hole locations are spread along the alignment.</p>
2.1.2	<p>Transfer of Reduced Level (Z value)</p> <p>Agency will use it's own machinery and manpower to transfer the Reduced Level of all bore hole location with reference to the Reduced level of nearest GPS location provided by HRIDC. Details of GPS locations will be provided by HRIDC.</p>

2.1.3	<p>Payment against this item will be made based on the Route KM of work covered along the alignment. The payable length will be calculated from the chainage of start of a particular patch to end of that particular stretch irrespective of number of bore holes surveyed.</p> <p>Payment can be claimed only after completion of both the surveys as stated in 2.1.1 & 2.1.2 and submission of the survey reports in acceptable format.</p>
2.2	Boring
2.2.1	<p style="text-align: center;">General Requirements</p> <p>a) Bore holes shall be drilled at specified locations to obtain information about the sub-soil profile, its nature, strength and to collect soil samples for strata identification and conducting laboratory tests. The minimum diameter of the bore hole shall be 150 mm and boring shall be carried out in accordance with the provisions of IS: 1892 and as per this specification.</p> <p>b) All bore holes shall extend up to the required depths. The decision regarding depth of bore holes will also be taken with the approval of engineer-in-charge at site as per type of foundation, soil strata observed during drilling. If the strata with standard penetration test (SPT) 'N' value greater than 100 is met with, the bore hole shall be advanced further by chiselling to specified depth or top of rock which is earlier. Identification of rock strata shall be on the basis of visual examination of SPT sample and rock fragments. After it is established that rock is met with, the borehole shall be advanced further by drilling in rock as specified in Clause-3.0 and cores shall be collected. When the bore hole is terminated in soil strata, an additional standard penetration test shall be carried out at the termination depth.</p> <p>c) Casing pipe shall be used in the borehole to support its sides when side fall is suspected to occur inside the borehole. When casing pipe is used, it shall be ensured that its bottom end is at all times 15 cm above the bottom of the bore hole. In case of cohesionless soils the advancement of the casing pipe shall be such that it does not disturb the soil to be tested or sampled. The casing shall be advanced by slowly turning the casing pipe and not by driving. The rates are inclusive of using casing pipe as per requirement. After completion of field work contractor may remove these casing pipes and fill the bore hole with excavated material and available soil around the bore hole location. No extra cost for this will be paid.</p>

	<ul style="list-style-type: none"> d) In-situ tests and collection of undisturbed samples (UDS) shall be carried out at regular interval of 3m and at change of strata or as decided by the engineer-in-charge. Representative disturbed and undisturbed samples shall be preserved for conducting various tests in the laboratory. Water table in the borehole shall be carefully recorded and reported. No water/drilling mud shall be added while boring above ground water table. For cohesionless soil below water table, the water level in the borehole shall all times be maintained at slightly above the water table. e) The bore hole shall be cleaned using suitable tools up to the depth of testing or sampling ensuring that there is minimum disturbance of soil at the bottom of the bore hole. The process of jetting through an open tube sampler shall not be permitted. Gentle circulation of drilling fluid shall be done when rotary mud circulation boring is adopted. f) On completion of the borehole, the portion drilled in soil shall be backfilled with excavated soil and available soil near the bore hole location unless otherwise specified and as directed by the engineer-in-charge. g) Wash boring shall not be adopted.
<p>2.2.2</p>	<p>Rotary Mud Circulation Drilling</p> <p>This method can be used in all types of soil below water table. In this method boring shall be done by rotating the bit fixed at the bottom of the drill rod. Proper care shall be taken to keep a firm contact between the bit and the bottom of the borehole. Bentonite or mud laden fluids shall be used as the drilling fluid to serve as the protective surface inside the borehole.</p>
<p>2.3</p>	<p>FIELD INVESTIGATION - ROCK</p>
<p>2.3.1</p>	<p>Rock Drilling</p> <p>Drilling in rock shall be done at specified locations or as per the directions of the engineer-in-charge. Before commencing drilling, it shall be proved that characteristics of rock has been met with as mentioned in clause 2.2.1(b). The starting depth of drilling in rock as mentioned in clause 2.2.1(b) shall be certified by the engineer-in-charge/site representative/contractor’s geologist. The portion drilled in rock shall be backfilled. The drilling in rock will be terminated after 15m if RQD<75% and</p>

	<p>after 5m if RQD>75% or as per direction of Engineer in Charge.</p>
2.3.2	<p>Equipment</p> <p>a) Suitable type of rig, along with necessary accessories, to be deployed for drilling in rock up to desired depth and getting required samples. Core drilling shall be done by rotary motion using diamond bit. The rotary core drilling equipment and procedure for drilling shall conform to IS: 6926. The equipment shall be provided with necessary facilities to regulate the spindle speed, bit pressure and water pressure during core drilling to get a good core recovery.</p> <p>b) Drilling shall be carried out with Nx size diamond tipped drill bits or impregnated diamond bits depending on the type of rock encountered. Double tube swivel core barrel of Type B conforming to IS: 6926 shall be used to ensure a good core recovery and to pick up cores from all layers of rock. suitable core catchers shall be used to ensure continuous and good core recovery.</p>
2.3.3	<p>Procedure</p> <p>a) The drilling fluid shall be clean water. Circulation of drilling fluid shall be started before the core barrel reaches the bottom of the hole to prevent cuttings or sludge from entering the core barrel at the start of coring. Drilling fluid shall be circulated continuously down the hollow rods and the sludge conveying the rock cuttings to the surface shall be collected.</p> <p>b) When drilling through soft/weathered/fractured rock, water circulation must be reduced so as to avoid shattering/breaking of core.</p> <p>c) The rotational speed of the bit (spindle speed), the amount of downward pressure applied on the bit (bit pressure) and water pressure shall be suitably adjusted and properly monitored so that the core is collected with least disturbance and to avoid shearing of the core from its base. Bit speed, bit pressure, water pressure for the type of bit for various rock types shall be as per Appendix A of IS:6926.</p> <p>d) No drill run shall exceed 0.75m in length. This can be increased to 1.5m provided the core recovery observed is more than 80% in two successive 0.75m drill runs and on approval from the</p>

	<p>engineer-in-charge/site representative. If the core recovery is less than 20% then SPT shall be performed before commencing the next drill run.</p> <p>e) If at any time blocking of the bit or grinding of the core is observed, the core barrel shall be withdrawn from the borehole regardless of the length of drill run completed. In this case additional bore hole may be drilled as per direction of engineer-in-charge/site representative and no extra payment will be made for this purpose.</p>
<p>2.3.4</p>	<p>Observations</p> <p>a) The colour of return water at regular intervals, the depth at which any change of colour of return water is observed, the depth of occurrence and amount of flow of hot water if encountered shall be recorded.</p> <p>b) The depths through which a uniform rate of penetration was maintained, the depth at which a marked change in rate of penetration or sudden fall of drill rod occurs, the depth at which any blockage of drill bit causing core loss if any etc shall be recorded.</p> <p>c) Any heavy vibration or torque noticed during drilling should be recorded together with the depth of occurrence.</p> <p>d) Special conditions like the depth at which grouting was done during drilling, presence of artesian conditions, loss of drilling fluid, observation of gas discharge with return water etc shall also be observed and recorded.</p> <p>e) During drilling operation, observation on return water, rate of penetration etc shall be recorded in a proforma as given in IS: 5313, Appendix-A.</p>
<p>2.3.5</p>	<p>Core Samples</p> <p>a) Core samples shall be extracted by the application of a continuous pressure at one end of the core with the barrel held horizontally without vibration. Friable cores shall be extracted from the barrel directly into a suitable sized half round plastic channel section. Care shall be taken to maintain the direction of extrusion of sample same as that while coring to avoid stress reversal.</p>

	<p>b) Immediately after withdrawal from the core barrel, the cores shall be placed in a tray and transferred into boxes specially prepared for the purpose. The boxes shall be made from seasoned timber or any other durable material and shall be indexed on top of the lid as per IS:4078. The cores shall be numbered serially and arranged in the boxes in a sequential order. The description of the core samples shall be recorded as per IS: 4464. Where no core is recovered, it shall be recorded as specified in the continuous record of core recovery and RQD in the bore log as per IS:11315, Part-II.</p> <p>c) The basic information for the description of rocks shall cover:</p> <ul style="list-style-type: none"> i) degree of weathering, ii) discontinuity spacing iii) strength iv) colour v) grain size vi) structural condition, the mineralogy of the grains and cementing material, rock name, special features like major joint planes, features/laminations, faults etc.
2.4	Standard Penetration Test (SPT)
2.4.1	<p>This test shall be conducted in all types of soil deposits met within the bore hole to find the variation in strength of the soil. This test shall be conducted at 3m interval, at every change of strata, at depths wherever undisturbed soil samples could not be collected or as per the direction of the engineer-in charge. Conduction of SPT interval may be changed as per site requirement. The starting depth of performing SPT shall be either 1m or 2 m depth (when UDS sample depth is 1m) below ground level. The depth of SPT and UDS shall be staggered in alternate boreholes. The depth interval between the top level of standard penetration test and to that of (next) undisturbed sampling shall not be less than 1m. The specification for equipment and other accessories, procedure for conducting the test, presentation of test results and collection of disturbed soil samples etc shall conform to IS: 2131.</p>
2.4.2	<p>This test shall be carried out by driving a standard split spoon sampler in the borehole by means of a 650 N Automatic trip hammer/manual by labour having a free fall of 0.75m. The sampler shall be driven using the hammer for</p>

	<p>450 mm penetration. While driving, the number of blows for every 150 mm penetration is to be recorded. The number of blows for the last 300 mm drive shall be reported as 'N' value. If the penetration is less than 450mm and number of blows is 100 then the actual penetration observed should be recorded in the bore log. This test shall be discontinued when the blow count is equal to 100 and the penetration shall be recorded. Refusal shall be considered to be met with when the blow count is equal to 100. However, bore hole in hard soil (N>100) will be further advanced to required depth by chiselling /other suitable methods. At the location where the test is discontinued, the penetration and the corresponding number of blows shall be reported. Sufficient quantity of disturbed soil samples shall be collected from the split spoon sampler for identification and laboratory testing. The samples shall be visually classified & recorded at the site and shall be properly preserved and labelled for future identification & testing. Where the collection of UD sample is not possible due to refusal/stiff strata, SPT should be conducted.</p>
2.4.3	<p>SPT will be conducted in rocky strata in the case of core recovery observed is less than 20% or as directed by the engineer-in-charge.</p>
3.0	<p>Sampling</p>
3.1	<p>General</p> <ul style="list-style-type: none"> a) Sufficient number of soil samples shall be collected for reliable estimation of soil properties. The samples collected shall be either disturbed or undisturbed. Disturbed soil samples shall be collected for field identification and conducting laboratory tests such as sieve analysis, index properties, specific gravity, chemical analysis etc. Undisturbed samples shall be collected to estimate physical, strength and settlement properties of the soil. b) All the accessories required for sampling and the method of sampling shall conform to IS:2132. All disturbed and undisturbed samples collected in the field shall be classified at site as per IS: 1498. c) All the samples shall be identified with date, bore hole or trial pit number, depth of sampling etc. It is also essential to mark an arrow pointing towards the top surface of the undisturbed sample as the soil was in-situ. Care shall be taken to keep the undisturbed soil samples and box samples vertically with the arrow directing upwards. The tube samples shall be properly trimmed at both ends should be suitably sealed with molten paraffin wax at both ends immediately after extracting the

	<p>samples from the bore hole/trial pit and suitably capped on both sides.</p> <p>d) Precaution shall be taken to ensure that there shall not be any change in moisture content and disturbance of the soil samples and they shall be placed in a temporary store at the end of the day's work. All the samples shall be kept over a bed of sand, jute bags, saw dust etc and covered over the top with similar material. The bed and top cover shall be kept moist till they are properly packed in wooden boxes. The contractor shall be responsible for packing and transporting of all the samples from site to the laboratory at the earliest after sampling with proper protection against loss and damage.</p> <p>e) All the samples shall be suitably packed in wooden boxes using sand, saw dust etc all around the samples before transporting to the laboratory for testing.</p>
<p>3.2</p>	<p>Disturbed Samples</p> <p>Disturbed soil samples shall be collected from cuttings and from split spoon sampler in boreholes at regular intervals to provide complete description of soil profile and its variation. The samples shall be immediately stored in airtight jars or polythene bags and labelled with borehole/trial pit number and depth.</p>
<p>3.3</p>	<p>Undisturbed Samples</p> <p>In each borehole undisturbed sample (UDS) shall be collected at regular interval of 3m or as directed by the engineer -in -charge. The starting depth of collecting UDS shall be either 1m or 2m, (where starting depth of SPT is 1m) depth below ground level or as directed by the engineer -in -charge. The starting depth shall be staggered in alternate boreholes. Undisturbed samples shall be of 100mm diameter and 450mm length. Samples shall be collected by thin tube sampler in such a manner that the structure of soil and its moisture content do not get altered. The specification for the accessories required for sampling and the sampling procedure shall conform to IS:1892 and IS:2132. Thin-walled sampler shall be used to collect undisturbed samples by pushing the tube into the soil. The sampling tube shall have a smooth finish on both surfaces and minimum effective length of 450mm. The area ratio of sampling tubes shall be less than 12.5%.</p>

	<p>Undisturbed samples in soft to stiff cohesive soils shall be obtained using a thin-walled sampler. In order to reduce wall friction, suitable precautions such as oiling the surfaces shall be taken. The bore hole shall be cleaned and the depth of sampling below ground level shall be noted. The sampler shall then be attached to the bottom of boring rods and lowered into the borehole. The sampler shall be pushed into the clay layer by hand or by jacking or by light hammering and soil sample of specified length shall be collected without disturbing the soil. The distance by which the sampler penetrates into the soil strata shall be checked. Care shall be taken to ensure that the sampler is not driven too far as this will compress the soil. The sampler shall be rotated to break the core at bottom of the sampler and then steadily drawn up.</p>
<p>3.4</p>	<p>Relaxation during sampling</p> <p>The sampler shall be pushed into the soil and driving of sampler shall be resorted to only when it cannot be pushed into the soil. This shall be done only with the permission of engineer-in-charge and all the details about same shall be recorded in the bore log.</p> <p>When ‘N’ value is greater than 50, and it is not possible to obtain UDS sample, same shall be replaced by conducting SPT at that depth.</p>
<p>4.0</p>	<p>Ground Water</p>
<p>4.1</p>	<p>The ground water table will be observed after 24 hrs to 48 hrs based on the strata after the completion of the bore hole.</p>
<p>4.2</p>	<p>Sub-Soil Water Samples</p> <p>a) Sub-soil water samples (when encountered) shall be collected for carrying out chemical analysis. Representative samples of ground water shall be collected when it is first encountered in boreholes before the addition of water to aid boring or drilling. Water samples shall not be collected when bentonite slurry or mud has been used for drilling operations. If water has been added for drilling purposes or if ground water has been diluted by surface rain water then the bore hole shall be dewatered and water be allowed to rise from which the sample may be taken. Minimum of 1 litre of water sample per bore hole to be collected.</p>

	<p>b) The sample shall be collected in a clean vessel and allowed to settle so that the supernatural liquid can be poured into a clean well rinsed glass or polythene bottle. Chemical analysis of water samples shall include determination of pH value, sulphate, & chloride contents.</p>
5.0	LABORATORY INVESTIGATION
5.1	<p>Essential Requirements</p> <p>a) All laboratory tests shall be conducted in an approved NABL laboratory/Govt. Engineering College using approved apparatus complying with the requirements and specifications of Indian standards or other approved standards for this class of work. It shall be checked that the apparatus is in good working condition before starting the laboratory tests. Calibration of all the instruments and their accessories shall be done carefully and precisely.</p> <p>b) All the laboratory test data shall be recorded in the proforma recommended in the relevant Indian Standard Codes. Whenever desired during the progress of work the engineer-in-charge may also be present at the laboratory where the contractor is arranging for execution of the laboratory tests.</p> <p>c) The contractor shall inform, well in time, to the engineer-in-charge giving reasons if any additional specific tests he considers necessary to be carried out duly considering local sub-soil conditions.</p> <p>d) Depending on the type of sub strata encountered, appropriate laboratory tests shall be conducted on soil and rock samples collected in the field. Laboratory tests shall be scheduled and performed by a qualified and experienced personnel who are thoroughly conversant with the work. Tests indicated in the schedule of items shall be performed on soil, rock and water samples as per relevant IS codes. Laboratory tests shall be carried out concurrently with field investigation since initial laboratory test results could be useful in planning the later part of field work. A schedule of laboratory tests shall be established by the contractor and the same shall be submitted to engineer-in-charge.</p>

	<p>e) All samples whether undisturbed or disturbed shall be extracted, prepared and examined by competent personnel properly trained and experienced in soil sampling, examination, testing and in using the apparatus as per the specified standards.</p> <p>f) Undisturbed soil samples retained in liners or seamless tube samplers shall be taken out without causing any disturbance to the samples using suitably designed extruder just prior to actual testing. If the extruder is horizontal, proper support shall be provided to prevent the sample from breaking. For screw type extruders the pushing head shall be free from the screw shaft so that no torque is applied to the soil sample in contact with the pushing head. For soft clay samples, the sample tube shall be cut by means of a high-speed hacksaw to specified test length and placed over the mould before pushing the sample into it with a suitable piston.</p> <p>g) While extracting a sample from a liner or tube care shall be taken to see that its direction of movement is the same as that during sampling to avoid stress reversal.</p> <p>h) After completion of all tests, a summary of test results for each soil and rock sample shall be presented in a proforma as approved by engineer in charge. Chemical test results on soil and water samples shall be furnished in a tabular form separately.</p>																
<p>5.2</p>	<p>Tests</p> <p>While conduction of SPT test, collection of disturbed and undisturbed samples will be done as per laid down frequency in preceding paras, tests as indicated in this specification and as called for by the engineer-in-charge shall be conducted. The tests shall include the following.</p> <p>a) Tests on Soil Samples</p> <table border="1" data-bbox="472 1543 1256 1911"> <thead> <tr> <th>S. N</th> <th>Test</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Visual and engineering classification</td> </tr> <tr> <td>2</td> <td>Sieve analysis and hydrometer analysis</td> </tr> <tr> <td>3</td> <td>Liquid, plastic and shrinkage limits and determination of Free Swell Index.</td> </tr> <tr> <td>4</td> <td>Specific gravity</td> </tr> <tr> <td>5</td> <td>Natural Density</td> </tr> <tr> <td>6</td> <td>Moisture content & Dry density</td> </tr> <tr> <td>7</td> <td>Unconfined compression Test</td> </tr> </tbody> </table>	S. N	Test	1	Visual and engineering classification	2	Sieve analysis and hydrometer analysis	3	Liquid, plastic and shrinkage limits and determination of Free Swell Index.	4	Specific gravity	5	Natural Density	6	Moisture content & Dry density	7	Unconfined compression Test
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5.3	<p data-bbox="344 1140 708 1176">Salient Test Requirements</p> <p data-bbox="440 1257 1292 1877">a) Triaxial shear test (UU) shall be conducted on undisturbed soil samples as per the relevant codes</p> <p data-bbox="440 1360 1292 1465">b) Triaxial shear test (CU) i.e., consolidated undrained with pore water pressure measurement will be conducted as relevant IS codes.</p> <p data-bbox="440 1501 1198 1537">c) Direct shear test will be conducted as relevant IS codes.</p> <p data-bbox="440 1568 1292 1633">d) Unconfined Compression Test will be conducted as relevant IS codes.</p> <p data-bbox="440 1669 1224 1705">e) Consolidation test will be conducted as relevant IS codes.</p> <p data-bbox="440 1736 1292 1877">f) Chemical analysis of sub-soil shall include determination of pH value, sulphate (both SO₃ and SO₄), chloride will be conducted as relevant IS codes. The contents in soil shall be indicated as percentage.</p>																						

	<p>g) Chemical analysis of sub-soil water sample shall include the determination of the properties such as pH value and chemical contents such as sulphate (both SO₃ and SO₄), chloride. The contents such as sulphate etc shall be indicated as ppm by weight.</p>
6.0	Preparation of Report
6.1	<p>General</p> <p>a) On completion of all the field and laboratory works, the contractor shall submit a draft report containing geological information of the region, procedure adopted for investigation, field observations, summarised test data, conclusion and recommendations. The report shall include detailed bore logs, sub-soil sections, field test results, laboratory observations and test results in both tabular as well as graphical forms, practical and theoretical considerations for the interpretation of test results, the supporting calculations for the conclusions drawn etc.</p> <p>b) Draft report: Initially, the contractor shall submit draft report in soft copy and two hard copy to engineer in charge for review.</p> <p>c) Final report combining all the volumes of draft report and complying the engineer's observations to draft report, will be submitted in one soft copy and three hard copies.</p>
6.2	<p>Data to be Furnished</p> <p>The report shall also include but not be limited to the following.</p> <p>a) A Plot Plan showing the location (GPS co-ordinates, Northing/Easting) and reduced levels (related to TBM supplied by HRIDC) of all field tests e.g. bore holes, trial pits etc properly drawn to scale and dimensioned with reference to the established grid lines.</p> <p>b) Geological information of the area such as geomorphology, geological structure, lithology, stratigraphy and tectonic faults, seismicity of the region and site, core recovery and rock quality designation etc.</p>

	<ul style="list-style-type: none"> c) Past observations and historical data if available for the area or for other areas with similar soil profile for similar structures in the surrounding areas. d) The bore logs should be prepared as per relevant IS code including reduced levels and co-ordinates showing the classification and thickness of individual stratum, position of ground water table, various in-situ tests conducted and samples collected at different depths and the rock stratum if met with. e) A lithological profile of soil/rock connecting various bore holes in order to give a clear picture of the variation of the subsoil strata as per IS: 6065 shall be prepared. f) Engineering classification of soil, grain size distribution curve & silt factor layer wise. g) Plot of standard penetration test ‘N’ values (both uncorrected and corrected) with depth for identified areas. h) Results of all laboratory tests summarised (i) for each sample as well as (ii) a consolidated table giving the layer-wise soil and rock properties. All the relevant charts, tables, graphs, figures, supporting calculations, conclusions and photographs of representative rock cores and trial pits shall be furnished. i) For all triaxial shear tests, Mohr's circle envelopes shall be furnished. If back pressure is applied for saturation, the magnitude of the same shall be indicated. j) For all consolidation tests e vs log P graph/curve shall be furnished. k) Values of compression index, coefficient of volume compressibility etc shall be furnished. The procedure adopted for calculating the compression index from the field curve and settlement of soil strata shall be clearly specified. l) Calculation of net safe bearing capacity for each foundation along with recommendations for type of foundations.
<p>6.3</p>	<p>Recommendations</p>

Recommendations for designing of foundation of Viaducts shall be given supported by calculations of net safe bearing capacity duly considering the type of soil/rock, structure, foundation type and ground water table etc. respectively. The recommendations shall include but not be limited to the following.

- a) Type of foundation to be adopted for various structures duly considering the sub strata characteristics, water table, total settlement permissible for the structures and equipment, minimum depth and width of foundation etc to be suggested in the report.
- b) If piling is envisaged the following shall be furnished with comprehensive supporting calculations.
 - i) Type of pile and reasons for recommending the same duly considering the sub strata characteristics.
 - ii) Suitable founding strata for the pile.
 - iii) Estimated load capacity of pile under compression and lateral loading for 1000mm ,1200 mm dia pile of different length shall be provided. End bearing and frictional resistance shall be indicated separately. Safe lateral and tensile load carrying capacities of pile with supporting calculations are also to be submitted.
 - iv) Magnitude of negative skin friction if any to be indicated.
 - v) If expansive soil is met with, then recommendation for alternate solution, including removal or retainment of the expansive soil under the structures, shall be given. In the latter case, detailed specifications of any special treatment required including specification for materials to be used, construction method, equipment to be deployed etc shall be furnished.
 - vi) Protective measures based on chemical nature of soil and ground water with due regard to the potential deleterious effects on concrete, steel and other building materials etc. Remedial measures for sulphate attack and acidity shall be dealt in detail.
 - vii) Susceptibility of sub soil strata to liquefaction in the event of earthquake. If so, recommendation for remedial measures.

	viii) Identification of any other potential geotechnical problems and their remedial measures.																						
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**Safety, Health and Environment (SHE) Protocol to be followed by
the Contractor**

Safety, Health and Environment (SHE) Protocol to be followed for this work

1.0 Introduction

1.1 Scope: This document defines the principal requirements of the HRIDC on Safety, Health and Environment (SHE) associated with the Contractor / sub-Contractor and any other agency to be practiced at construction worksites of Haryana Rail Infrastructure Development Corporation (HRIDC) at all time. Since HRIDC is the Principal HRIDC for all work men / women at all its work sites, applicability of HRIDC's SHE Manual is very important.

1.2 Application of this document: This document applies to all aspects of the Contractor's scope of work, including all aspects conducted by sub-Contractors and all other agencies. There shall be no activity associated to the contract, which is exempted from the purview of this document.

1.3 Purpose of this document: The objective of these guidelines is to ensure that adequate precautions are taken to avoid accidents, occupational illness and harmful effects on the environment during construction.

2.0 SHE targets and goals

2.1 The SHE targets, goals and aim for the Works are to achieve:

- i) Zero total recordable injuries.
- ii) Zero reportable environmental incidents
- iii) All personnel inducted in accordance with the approved Contractor SHE plan
- iv) Total compliance of conducting inspections and audits as per approved SHE plan
- v) 100% incident recording and reporting
- vi) 100% adherence of usage of appropriate PPEs at work.
- vii) Executing construction work with least disturbance to the environment, adjoining road users and traffic

3.0 Compliance

3.1 Memorandum of Understanding (MOU): A MOU placed at **Annexure-4** shall be executed before the award of contract by the Contractor with regard to various provisions on Safety, Health and Environment to be practiced during the construction work.

3.2 Statutory requirements

3.2.1 Primary Statutory Regulations: Contractor shall develop thorough understanding about Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 (i.e. BOCWR), Central Rules 1998, Building and Other Construction Workers' Welfare Cess Act, 1996 and Central Rules, 1998 and Haryana Building and Other Construction Workers' Welfare Board Rules, not only to satisfy the Inspectors' perspective

but the use of legislation as the strong tool for effective SHE management at construction worksites. Contractor is strongly advised to practice the principle of voluntary compliance.

3.2.2 In addition, the construction works shall be undertaken in accordance with all applicable legislation and Indian statutory requirements listed below but not limiting to:

- a) Indian Electricity Act 2003 and Rules 1956
- b) National Building Code, 2005
- c) Factories Act, 1948
- d) Motor Vehicles Act as amended in 1994 and The Central Motor Vehicles Rules, 1989.
- e) Indian Road Congress Code IRC: SP: 55-2001 ‘Guidelines on Safety In Road Construction Zones.
- f) The Petroleum Act, 1934 and Rules 1976
- g) Gas Cylinder Rules, 2003
- h) Indian Explosives Act. 1884, along with the Explosives substance Act 1908 and the Explosives Rules 1983
- i) The (Indian) Boilers Act, 1923
- j) The Public Liability Insurance Act 1991 and Rules 1991
- k) Minimum Wages Act, 1948 and Rules 1950
- l) Contract Labour Act, 1970 and Rules 1971
- m) Child Labour (Prohibitions & Regulations) Act, 1986 and Rules 1950
- n) Environment Protection Act, 1986 and Rules 1986
- o) Air (Prevention and control of Pollution) Act, 1981
- p) Water (Prevention and Control of Pollution) Act, 1974
- q) The Noise Pollution (Regulation & Control) Rules, 2000
- r) Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989
- s) The Hazardous Waste (Management & Handling) Rules, 1989
- t) Hazardous Waste Management Rules 1989 (as amended in 1999)
- u) Workman Compensation Act, 1923 along with allied Rules
- v) Fly ash utilization notification, Sept 1999 as amended in August 2003

3.2.3 **International Standards, Guidelines & ISO Certifications:** The works should be undertaken in accordance with the applicable international guidelines, standards and specifications on SHE and every contract shall aim to achieve ISO certifications listed below during the currency of the contract:

- a) OHSAS 18001-1999: Occupational Health and Safety Management System.
- b) ISO 14001-2004: Environmental Management Systems

4.0 General instructions for personnel working at the site

4.1 The Contractor shall ensure that all personnel working at the site receive induction training explaining the nature of the work, the hazards that may be encountered during the site work and the particular hazards attached to their own function within the operation.

- 4.2 All personnel shall be issued a photo identity card of size 85mm x 55mm duly signed by the authorized representative of the Contractor before they are engaged for any work and the format of the photo identity card should be approved from HRIDC.
- 4.3 Contractor shall also issue a safety handbook to all the personnel in a language known to the workers, which provides information on safety, health and emergency procedures that all personnel working on the contract are required to know and the need to follow. Contractor shall ensure that this is distributed, and its content introduced to all personnel working at the site.

5.0 Safety Protocols

5.1 Housekeeping:

- 5.1.1 Contractor shall understand and accept the importance of housekeeping. The working environment shall be kept clear of all unnecessary waste, thereby providing a first line of defense against accidents and injuries.
- 5.1.2 General Housekeeping shall be carried out by the Contractor and ensured at all times at Work Site, Construction Depot, Batching Plant, Labour Camp, Stores, Offices and toilets/urinals.
- 5.1.3 The Contractor shall be responsible to provide segregated containers for disposal of debris at required places and regular cleaning of the same.
- 5.1.4 Full height fence, barriers, barricades etc. shall be erected around the site in order to prevent the surrounding area from excavated soil, rubbish etc., which may cause inconvenience to and endanger the public. The barricade especially those exposed to public shall be aesthetically maintained by regular cleaning and painting as directed by the HRIDC. These shall be maintained in one line and level.
- 5.1.5 All surplus earth and debris should be removed/disposed-off from the working areas to officially designated dumpsites
- 5.1.6 No parking of trucks/trolleys, cranes and trailers etc. shall be allowed on roads, which may obstruct the traffic movement.
- 5.1.7 Roads shall be kept clear and materials like pipes, steel, sand boulders, concrete, chips and brick etc. shall not be allowed on the roads to obstruct free movement of road traffic.
- 5.1.8 Proper and safe stacking of material are of paramount importance at yards, stores and such locations where material would be unloaded for future use. The storage area shall be well laid out with easy access and material stored / stacked in an orderly and safe manner.
- 5.1.9 Flammable chemicals / compressed gas cylinders shall be safely stored.
- 5.1.10 Empty cement bags and other packaging material shall be properly stacked and removed.

5.2 Working at Height:

- 5.2.1 The Contractor shall ensure that work at height is properly planned for any emergencies and rescue, appropriately supervised, and carried out in a manner, which is reasonably practicable safe.

- 5.2.2 The Contractor shall ensure that work at height is carried out only when the weather conditions do not jeopardize the health or safety of persons involved in the work.
- 5.2.3 The Contractor shall ensure that no person at work passes across or near, or working on, from or near, a fragile surface (i.e. surface, which would be able to fail if any reasonably foreseeable loading were to be applied to it) where it is reasonably practicable to carry out work safely and under appropriate ergonomic conditions without his doing so. Prominent warning notices should be placed near such surfaces.
- 5.2.4 The Contractor shall, where necessary to prevent injury to any person, take suitable and sufficient steps to prevent, so far as is reasonably practicable, the fall of any material or object.
- 5.2.5 Where a workplace contains an area in which, owing to the nature of the work, there is a risk of any person at work falling a distance or being stuck by a falling object, which is liable to cause personal injury, the workplace shall be reasonably equipped with devices preventing unauthorized persons from entering such area.
- 5.2.6 Every workman shall use any work equipment or safety device provided to him for work at height by the Contractor
- 5.2.7 Requirements for collective safeguards for arresting falls:
- a) Collective safeguard are a safety net, airbag or other collective safeguard for arresting falls
 - b) A safeguard shall be suitable and of sufficient strength to arrest safely the fall of any person who is liable to fall.
 - c) Suitable and sufficient steps shall be taken to ensure, so far as practicable, that in the event of a fall by any person the safeguard does not itself cause injury to that person.
- 5.2.8 Requirement for Ladders:
- a) Every Contractor shall ensure that a ladder is used for work at height only if a risk assessment has demonstrated that the use of more suitable work equipment is not justified because of the low risk.
 - b) Only metal ladders shall be allowed. Bamboo ladders are prohibited

5.3 Overhead Protection: All Contractors shall provide overhead protections as per Rule 41 of BOCWR

5.4 Slipping, Tripping, Cutting, Drowning and Falling Hazards: As per Rule 42 of BOCWR

5.5 Lifting Appliances and Gear

- 5.5.1 Lifting appliances means a crane, hoist machinery, derrick, winch, gin pole, sheer legs, jack, hoist drum, slewing machinery, slewing bearing fasteners, lofting machinery sheaves, pulley blocks, hooks or other equipment used for lifting materials, objects or building workers and lifting gears means ropes, chain slings, shackles, hooks, lifting lugs, wire ropes, lifting eyebolts and eyenuts and other accessories of a lifting appliance.
- 5.5.2 No machine shall be selected to do any lifting on a specific job until its size and characteristics are considered properly against various parameters.

- 5.5.3 The Contractor shall ensure that a valid certificate of fitness is issued and available for all lifting appliances including synchronized mobile jacks, pre-stressing hydraulic jacks, jacks fitted with launching girders etc. and HRIDC's approval is taken before inducting any such appliance to the site.
- 5.5.4 Contractors shall ensure testing and periodical examination of lifting appliances and gears.
- 5.5.5 The Contractor shall ensure that the operator of lifting appliances is well qualified and trained

5.6 Launching Operation

- 5.6.1 As launching operation is one of the riskiest job, the Contractor shall take utmost precaution at all stages like planning, establishing casing yard, casting segments, transporting segments, fabrication and erection of launching girders, launching of segments, pre-stressing, auto launching of girders and dismantling of launching girders.
- 5.6.2 The Contractor shall prepare a comprehensive Method Statement for the launching operation, adhering to the SHE conditions laid down in conditions of contract on SHE. Particular reference shall be made to the provisions on working at height. As the entire process of launching has to be undertaken at an elevated level the safety of workers and the girder is paramount important. Necessary general guidelines shall be adhered to throughout the launching operation by the Contractor.

5.7 Construction machinery

- 5.7.1 Construction machineries may include dumpers and dump trucks, lift trucks and vibro hammers, rail welding equipment, mobile elevating work platforms, cranes, tipper lorries, lorry loaders, etc.
- 5.7.2 Every construction equipment shall be in sound mechanical working condition and certified by either competent person under Factories Act or manufacturers' warranty in case of brand new equipment or authorized persons/firms approved by HRIDC before induction at site.
- 5.7.3 All Vehicles shall be fitted with audible reverse alarms and maintained in good working condition. Reversing shall be done only when there is adequate rear view visibility or under the directions of a banksman.

5.8 Machine and general area guarding

- 5.8.1 The Contractor shall ensure at the construction site all motors, cogwheels, chains and friction gearing, flywheels, shafting, dangerous and moving parts of machinery are securely fenced or legged. The fencing of dangerous part of machinery is not removed while such machinery is in motion or in use.

5.9 Manual lifting and carrying of excessive weight

- 5.9.1 The Contractor shall ensure at the construction site that no building worker lifts by hand or carries overhead or over his back or shoulders any material, article, tool or appliances exceeding in weight as per Rule 38 of BOCWR (Max lifting weight for: Adult man = 55 kg and Adult woman = 30 kg), unless aided by another building worker or a device.

5.10 Lighting

5.10.1 The Contractor shall provide sufficient site lighting, of the right type and at the right place for it to be properly effective. Lighting ought not to introduce the risk of electric shock. Therefore, 230V supplies should be used for those fittings, which are robustly installed, and well out of reach e.g. flood lighting or high-pressure discharge lamps.

5.11 Hand Tools and Power Tools

5.11.1 The Contractor is wholly responsible for the safe condition of tools and equipment used by his employees and that of his sub-Contractors

5.11.2 Use of short / damaged hand tools shall be avoided, and the Contractor shall ensure all his hand tools used at his worksite are safe to work with or stored and shall also train his employees (including his sub-Contractors) for proper use thereby.

5.11.3 All hand tools and power tools shall be duly inspected before use for safe operation.

5.12 Dangerous and harmful environment

5.12.1 Exposure of building workers to dangerous and harmful environment shall be avoided unless suitable measures are taken and provided by the Contractor

5.12.2 Provisions of BOCWR Rule 40 shall be strictly followed by the Contractor in this regard

5.13 Fire prevention, protection and fighting system

5.13.1 The Contractor shall ensure that construction site is provided with fire extinguishing equipment sufficient to extinguish any probable fire at construction site. An adequate water supply is provided at ample pressure as per national standard.

5.13.2 Recharging of fire extinguishers and their proper maintenance should be ensured and as a minimum should meet Indian National Standards.

5.13.3 All drivers of vehicles, foreman, supervisors and managers shall be trained on operating the fire extinguishers and fire-fighting equipment.

5.14 Corrosive substances

5.14.1 As per BOCWR Rule 44, corrosive substances including alkalis and acids shall be stored and used by a person dealing with such substances at a building / construction site in a manner that it does not endanger the building worker and suitable PPE shall be provided by the Contractor to the worker during such handling and work. In case of spillage of such substances on building worker, the Contractor shall take immediate remedial measures.

5.15 Demolition works

5.15.1 The Contractor shall ensure that all demolition works be carried out in a controlled manner under the management of experienced and competent supervision.

5.15.2 No person other than building workers or other persons essential to the operation of demolition work shall be permitted to enter a zone of demolition and the area be provided with substantial barricades

5.16 Traffic management

- 5.16.1 The basic objective of such guidelines is to lay down procedures to be adopted by Contractor to ensure the safe and efficient movement of traffic and also to ensure the safety of workmen at construction sites.
- 5.16.2 All construction workers should be provided with high visibility jackets with reflective tapes and other necessary items
- 5.16.3 The Contractor shall make use of regulatory signs, warning signs, delineators (traffic cones, cylinder, drums, etc.) and barricades with sufficient visibility during the night hours also.

5.17 Personal Protective Equipment (PPEs)

- 5.17.1 The Contractor shall provide required PPEs to workmen to protect against safety and / or health hazards. Primarily PPEs are required for various protections such as Head Protection (Safety helmets), Foot Protection (Safety footwear, Gumboot, etc.), Body Protection (High visibility clothing (waistcoat/jacket), Apron, etc.), Personal fall protection (Full body harness, Rope-grip fall arrester, etc.), Eye Protection (Goggles, Welders glasses, etc.), Hand Protection (Gloves, Finger coats, etc.), Respiratory Protection. (Nose mask, SCBAs, etc.), and Hearing Protection (Ear plugs, Earmuffs, etc.).
- 5.17.2 The PPEs and safety appliances provided by the Contractor shall be of the standard as prescribed by Bureau of Indian Standards (BIS). If materials conforming to BIS standards are not available, the Contractor as approved by the HRIDC shall procure PPE and safety appliances.
- 5.17.3 All construction workers should be provided with high visibility jackets with reflective tapes conforming to the requirement specified under BS EN 471: 1994.
- 5.17.4 The Contractor shall at all time maintain a minimum of 10% spare PPEs and safety appliances and properly record and show to HRIDC during the inspections.
- 5.17.5 **Ensure Visitor's security:** It is always the duty of the Contractor to provide required PPEs for all visitors. Towards this required quantity of PPEs shall be kept always at the security post of the construction site.

5.18 Visitors to site

- 5.18.1 No visitor shall be allowed to enter the site without the permission of HRIDC. All the authorized visitors should report at the site office. Contractor shall provide visitor's helmet (White helmet with visitor sticker) and other PPEs like Safety Shoe, reflective jacket, respiratory protection etc. as per requirement at the site.
- 5.18.2 All Visitors shall always be accompanied by a responsible member of the site personnel.
- 5.18.3 The Contractor shall be fully responsible for all visitors' safety and health within the site.

6.0 Occupational Health and Welfare

6.1 Physical fitness of workmen

- 6.1.1 The contractor shall ensure that his employees/workmen subject themselves to such medical examination as required under the law or under the contract provision and keep a record of the same.

6.1.2 The contractor shall not permit any employee/workmen to enter the work area under the influence of alcohol or any drugs.

6.2 Medical facilities

6.2.1 **Medical Examination:** The contractor shall arrange a medical examination of all his employees including his sub-contractor employees employed as drivers, operators of lifting appliances and transport equipment before employing, after illness or injury, if it appears that the illness or injury might have affected his fitness.

6.2.2 **Occupational Health Centre:** The Contractor shall ensure at a construction site an occupational health centre, mobile or static is provided and maintained in good order.

6.2.3 **Ambulance van and room:** The contractor shall ensure at a construction site of a building or other construction work that an ambulance van and room are provided at such construction site or an arrangement is made with a nearby hospital for providing such ambulance van for transportation of serious cases of accident or sickness of workers to hospital promptly and such ambulance van and room are maintained in good repair and is equipped with standard facilities.

6.2.4 **First-aid boxes:** The contractor shall ensure at a construction site one First-aid box for 100 workers provided and maintained for providing First-aid to the building workers. Every First-aid box is distinctly marked "First-aid" and is equipped with sufficient articles.

6.2.5 The Contractor shall compulsorily adopt necessary measures for HIV/AIDS prevention & control, prevention of mosquito breeding, and prevention of smoking/alcohol/drugs consumption at the site.

6.2.6 **Noise:** The Contractor shall consider noise as an environmental constraint in his design, planning and execution of the Works and provide demonstrable evidence of the same on Employer's request. The Contractor shall, at his own expense, take all appropriate measures to ensure that work carried out by the Contractor and by his sub-Contractors, whether on or off the Site, will not cause any unnecessary or excessive noise which may disturb the occupants of any nearby dwellings, schools, hospitals, or premises with similar sensitivity to noise.

6.2.7 **Ventilation, illumination and radiation:** The Contractor shall take proper measures to:

- a) Ensure proper ventilation system is provided at site for various construction works
- b) Sufficient illumination at the work site
- c) The use of radioactive substances and radiating apparatus, if any used, shall comply with the Govt. regulatory requirements and all subsidiary legislation

6.2.8 **Welfare measures for workers:** The Contractor shall ensure that the following welfare measures for workers are provided for at the construction site:

- a) Sufficient latrine and urinal accommodation for workers
- b) Canteen for workers as per provisions of Section 37 of BOCWA and Rule 244 of BOCWR
- c) Effective arrangements to provide sufficient supply of wholesome drinking water with minimum quantity of 5 litres per workman per day (as per BOCWR). Quality of the drinking water shall conform to the requirements of national standards on Public Health.

- d) A free of charge temporary living accommodation to all workers conforming to provisions of Section 34 of BOCWA. These accommodations shall have cooking place, bathing, washing and lavatory facilities.

6.3 Guidelines to be followed with respect to COVID-19 situation and other similar epidemics: The Contractor shall ensure that the latest guidelines issued by Ministry of Health and Family Welfare (MoHFW), local government and the district administration are strictly followed at the construction works site. Following guidelines should be strictly adhered for safety of construction site workers:

- a) On day 0, before resuming the work on sites post lockdown period, mandatory medical check-up will be arranged for all workers.
- b) The workers coming from outside should observe home-quarantine for at least 14 days as per the guidelines issued by MoHFW.
- c) Only medically fit workers will be deployed at site and medical assistance will be arranged for unfit workers.
- d) A unique photo identity card with serial number will be issued to all the workers and their family members staying at site.
- e) All the essential items will be made available to them at site only. If necessary, they can go out wearing face masks, after informing the supervisor.
- f) No outside worker will be allowed to stay at site without following proper procedure and instructions.
- g) Start time on site will be staggered to avoid congestion at the entry gates.
- h) As in most cases, workers reside at the Sites, hence no travel arrangements are required for them.
- i) The workers staying outside (which are always nearby) should reach the site either by walking or by their individual mode of transport (bicycle, two-wheeler etc.).
- j) During attendance, training and other sessions, social distancing guidelines will be followed along with provision of no-touch attendance.
- k) All workers may be advised to take care of their own health and look out for respiratory symptoms/fever and, if feeling unwell, should leave the workplace immediately after informing their reporting officers.
- l) They should observe home-quarantine as per the guidelines issued by MoHFW and should immediately inform the nearest health centre or call 011-23978046.
- m) Workers should not shake hands when greeting others and while working on the site.
- n) Mandatorily wear face masks while working on site. While not wearing masks, cover your mouth and nose with tissues if you cough/sneeze or do so in the crook of your arm at your elbow.
- o) Avoid large gatherings or meetings. Maintain at least 1 metre (3 feet) distance from persons, especially with those having flu-like symptoms, during interaction.
- p) Not more than 2/4 persons (depending on size) should be allowed to travel in lifts or hoists.
- q) Use of the staircase for climbing should be encouraged.

- r) Workers should clean hands frequently by washing them with soap and water for at least 40 seconds.
- s) Workers should not share their belongings like food, water bottles, utensils, mobile phones etc. with others.
- t) The utensils should be washed properly post use at designated places.
- u) Post work, workers should change their clothes before leaving the site and clothing should not be shook out.
- v) Avoid touching your eyes, nose, or mouth with unwashed hands.

7.0 Environmental management

7.1 The Contractor shall ensure that sufficient environmental management checks and measures are in place and followed regularly. Some of these measures are listed in the sections below.

- 7.1.1 **Air quality** - Necessary precautions to minimize fugitive dust emissions, use of construction equipment designed and equipped to minimize or control air pollution, water down construction sites as required to suppress dust, etc.
- 7.1.2 **Water quality** - Comply with the Indian Government legislation and other State regulations in existence in Haryana in so far as they relate to water pollution control and monitoring.
- 7.1.3 **Accommodate archaeological and historical preservation concerns** that may arise due to the construction of the project and consult Archaeological Survey of India (ASI) and other parties, on the advice of HRIDC whenever required.
- 7.1.4 **Landscape and Greenery:** Maintain ecological balance by preventing deforestation and defacing of natural landscape
- 7.1.5 **Falling of trees:** The contractor shall identify the number and type of trees that are required to be felled as a result of construction of works and facilities related to the project and inform HRIDC.
- 7.1.6 **Waste:** The Contractor is required to develop, institute and maintain a Waste Management Programme (WMP) during the construction of the project for his works covering identification of disposal sites, quantities to be excavated/ disposed-off, split between waste & inert material, amounts intended to be stored temporarily on site location of such storage, and obtaining permission, wherever required, for disposal. Further, the Contractor shall handle waste in a manner that ensures they are held securely without loss or leakage thus minimizing potential for pollution. Also, he shall maintain and clean waste storage areas regularly. The provision of Construction and Demolition Waste Management Rule 2016 issued by Ministry of Environment Forest and Climate Change dated 29.03.2016 and published in the Gazette of India, Part – II, Section -3, Sub-section (ii) are binding upon the Contractor. Contractor shall implement these provisions at worksites, for which no extra payment will be payable.

7.1.7 **Hazardous waste management:** If encountered or generated as a result of Contractor’s activity, then waste classified as hazardous under the “Hazardous Wastes (Management & Handling) Rules, 1989, amendments 2000, 2003” shall be disposed-off in a manner in compliance with the procedure given in the rules under the aforesaid act.

7.1.8 **Energy management:** The Contractor shall use and maintain equipment so as to conserve energy and shall be able to produce demonstrable evidence of the same upon HRIDC’s request. Measures to conserve energy include but not limited to the following:

- a) Use of energy efficient motors and pumps
- b) Use of energy efficient lighting, which uses energy efficient luminaries
- c) Adequate and uniform illumination level at construction sites suitable for the task
- d) Proper size and length of cables and wires to match the rating of equipment
- e) Use of energy efficient air conditioners

Additional important safety guidelines for the Contractor

The Contractor shall be required to diligently follow the guidelines and instructions mentioned in the Clauses 8, 9 and 10 below.

8.0 Compendium of instructions on safety at work sites

Contractor shall also follow the following instructions on safety at work sites:

1.0	The Contractor(s) shall not allow any road vehicle belonging to him or his suppliers, etc. to ply in railway/HRIDC land next to the running line. If for execution of certain works viz. earthwork for parallel railway line and supply of ballast for new or existing rail line, gauge conversion, etc. road vehicles are necessary to be used in railway/HRIDC land next to the railway line, the Contractor(s) shall apply to the Engineer-in-Charge for permission giving the type and number of individual vehicles, names and license particulars of the drivers, location, duration and timings for such work/movement. The Engineer-in-Charge or his authorized representative will personally counsel, examine and certify the road vehicle drivers, Contractor(s)' flagmen and supervisors and will give written permission giving names of road vehicle drivers, Contractor(s)' flagmen and supervisors to be deployed on the work, location, period and timing of the work. This permission will be subject to be following obligatory conditions:
1.1	The road vehicles will ply only between sunrise and sunset.
1.2	Nominated vehicles & drivers will be utilized for the work in the presence of at least one flagman and one supervisor certified for such work.
1.3	The vehicles shall ply 6m clear of track. Any movement/work at less than 6m and up to minimum 3.5m clear of track centre shall be done only in the presence of a HRIDC

	employee authorized by the Engineer-in-Charge. No part of the road vehicle will be allowed at less than 3.5m from track centre. Cost of such HRIDC employee shall be borne by the HRIDC.
1.4	The Contractor(s) shall remain fully responsible for ensuring safety and in case of any accident, shall bear cost of all damages to his equipment, men and also damages to Indian Railway and its passengers.
2.0	Engineer-in-Charge may impose any other condition necessary for a particular work or site. (Ref. Railway Board's letter No. 98/CE-I/CT/15 dated 13.08.98, Annexure-VIII)
2.1	Assistant Officer/Sr. Scale Officer shall be the overall in-Charge for the safety at the site of work. It will be personal responsibility of the Inspectors (both in- Charge and supervisory) to ensure safety.
2.2	Contractor(s) shall provide 150mm thick white line with lime at a distance of 3.5m from the centre of existing track. This white line shall be in the entire length where work is going on and/or the vehicles/machineries are plying along the track. Nothing extra shall be paid for this.
2.3	Barricading with the help of portable fencing shall be provided in the length where the day's work is to be done in close vicinity of the track. The fencing shall consist of self-supporting steel column connected with at least 20mm thick red nylon rope. The columns shall be of 1.2m height. This will be placed at a distance of 3.5m, from centre line of the nearest track. This shall be paid.
2.4	Assistant Officer/Sr. Scale Officer shall issue Competency Certificate after checking license and their working to all drivers of nominated vehicle/machinery. Inspector at site shall ensure that the driver who does not possess Competency Certificate will not work at site.
2.5	The area between running line and white line shall not be permitted to become slushy and adequate drainage must be ensured at all times.
2.6	Machine/vehicles shall ply 6m clear of track and movement/work at less than 6m and upto 3.5m clear of track centre, shall be done in the presence of HRIDC employee authorized by Engineer-in-Charge. The HRIDC employee so deputed shall ensure safety of the track, with banner flags, hand signal lamps and detonators.
2.7	If vehicle/machinery/materials are to come within 3.5m of the existing track, work must be done under the presence of a HRIDC Inspector authorized to do safety works. A caution order shall be issued, and track will be protected with the banner flags, hand signal lamps and detonators.
2.8	Normally, night working shall be avoided. However, in certain areas like Delhi, the night working is unavoidable. The night working shall be permitted by DGM/HRIDC in writing. One Inspector shall be specifically deputed to supervise the night working.

	The site/area where night working is to be done shall be adequately lit. Nothing extra shall be paid for this. (Ref. CAO/C's letter No. 62-W/0/T/3/0/W.Spl/Gen. dated 22.05.2000, Annexure-V)
3.0	An authorized OHE staff should invariably be present, when relaying work or any major work on track is carried out in order to ensure the following points:
3.1	Power Block is correctly taken and "Permit to Work" (PTW) is issued
3.2	The structure bonds, track bonds, cross bonds, longitudinal rail bonds, etc. are not disturbed and if disconnected for the work, they are reconnected properly when the work is completed.
3.3	The return feeder connections to the rails at the feeding posts are proper and not disturbed.
3.4	The setting distance of the structures is not disturbed/ affected during the slewing.
3.5	The track level is not raised beyond the permissible limits during the work.
3.6	Excavation or digging near a mast foundation is done in such a manner that the foundation is not exposed.
3.7	The clearance particularly at over line structure is maintained to the required standards.
3.8	Precautions for the safety of staff working under the OHE are taken correctly.
3.9	The Engineering Officials-in-Charge of such major works shall ensure that intimation to their counterpart for OHE maintenance work is given with adequate notice. (Ref. Para 20714 of AC Traction Manual, Vol.-II, Part.)
3.10	All staff should be warned that contact within 2 metres (unless protected by the screen) to live portion of 25 KV traction OHE is dangerous and shall be strictly avoided. (Ref. G.R. 17.04 and S.R. 17.04 (I/a).
3.11	No work on overhead lines or in the zone within two metres of any live equipment shall be carried out unless a regular "Permit to Work" is obtained from the authorized traction staff and line is made dead and earthed. (Ref. G.R. 17.04 and their S.R.A.C.T.M. Chapter-X).
3.12	Before any overhead equipment bonding is disturbed, provisions of G.R. 17.05 and their SRs shall be complied with.
4.0	During the execution of works, unless otherwise specified the Contractor(s) shall at his own cost provide materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavation and works and shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property. (Ref. Clause 34.1 of Indian Railways Standard General Conditions of Contract, April 2022)

5.0	Existing roads or water courses shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor(s), except with the permission of the Engineer-in-charge. All compensation claimed for any unauthorized closure, cutting through, alteration, diversion or obstruction to such roads or water courses by the Contractor(s) or his agent or his staff shall be recoverable from the Contractor(s) by deduction from any sums which may become due to him in terms of the contract or otherwise according to law. (Ref. Clause 34.2 of Indian Railways Standard General Conditions of Contract, April 2022)
6.0	During progress of work in any street or thorough fare, the Contractor(s) shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thorough fare and for any drainage, water supply or means of lighting which may be interrupted by reason of the execution of the works and shall erect and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer-in-charge for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The work shall in such cases be executed night and day if so ordered by the Engineer-in-charge and with such vigour so that the traffic way is impeded for as short a time as possible. (Ref. Clause 34.3 of Indian Railways Standard General Conditions of Contract, April 2022)
7.0	The Contractor(s) shall be responsible to take all precautions to ensure the safety of the public whether on public or railway or HRIDC property and shall post such lookout men as may in the opinion of the Engineer-in-charge be required to comply with the regulations appertaining to the work. (Ref. Clause 34.4 of Indian Railways Standard General Conditions of Contract, April 2022)
8.0	The Contractor(s) shall be responsible for the safety of all employees directly or through petty Contractor(s) or sub-Contractor employed by him on the works and shall report serious accidents to any of them, however, and wherever occurring on the work to the Engineer or the Engineer's Representative and shall make every arrangement to tender all possible assistance. (Ref. Clause 56 of Indian Railways Standard General Conditions of Contract, April 2022)
9.0	The Contractor(s) shall be responsible for all risk to the works and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or to any other property of HRIDC or the Railway or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by HRIDC and this although all reasonable and proper precautions may have been taken by the Contractor(s), and in case the HRIDC shall be called upon to make good the costs, loss or damages, or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the Contractor(s), the amount of any costs or charges including costs and charges in connection with legal proceedings which the

	<p>HRIDC may incur in reference thereto, shall be charged to the Contractor(s). HRIDC shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the contractor(s), to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to Contractor(s) as aforesaid, any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise, and the incurring of any such expenses shall not be called in question by the Contractor(s). (Ref. Clause 24 of Indian Railways Standard General Conditions of Contract, April 2022)</p>
10.0	<p>Vulnerable locations where construction work adjacent to running line can cause accident should be protected by suitable strong barrier which should be included as a paid item in contract schedule. These locations should be decided by Executive Engineer-in-Charge of the work at the beginning of construction and intimated to Contractor(s) in writing. The barrier should be painted with retro reflective paint at suitable intervals to give warning at night. (Ref. Railway Board's letter No. 99/WI/S/Accident –Mangla Express dated 23.08.1999, Annexure-VII)</p>
11.0	<p>No work adjacent to running track should be carried out at night without express written authority from the Executive Engineer-in-Charge of the work. In fact, no Contractor(s) should do any kind of night working unless the Executive Engineer- in-Charge of the work gives the specified spots according to priority of work where night working has to be done. These spots should be well lit at night. In addition, the work should always be done under supervision of HRIDC supervisors in addition to Contractor(s)' supervisors. Suitable HRIDC personnel should be posted at site with safety equipment like banner flags, hand signal flags, hand signal lamps and detonators to arrange protection of trains. The HRIDC's Supervisor-in-Charge of such work should also give suitable message to adjacent stations as well as through control for issuing caution orders to the trains approaching the work site. For this purpose, he should be equipped with field telephone/walkie-talkie set. (Ref. Railway Board's letter No. 99/WI/S/Accident – Mangla Express dated 23.08.1999, Annexure-VII)</p>
12.0	<p>The training to the operators and supervisors of the work executing agencies in safe working along and on the track should be provided by HRIDC. The training could be imparted to such supervisors at Zonal/Divisional training schools or even by existing Officers and staff of the Construction Organization itself. The intention is to ensure that the supervisors of the work executing agencies get acquainted with the safety practices that are required to be taken while executing all those works which have bearing on the safety of the running tracks. The cost of training shall, however, be borne by the Contractor(s). (Ref. Railway Board's letter Nos. 99/CE-II/PRA/32(CRS) dated 05.07.2000, Annexure-IV & 99/CE-II/PRA/32 dated 20.04.2000, Annexure-VI)</p>

13.1	Drivers of train must be served with caution orders to look on for any obstructions at the place of work
13.2	Arrangements should be made to protect the track in case of emergency at work sites
13.3	The area of work should be demarcated by providing barricades and sign board which will enable the workmen posted at site and also the lorry drivers to have clear guidelines for movement of vehicles.
13.4	Movement of lorries near the track should be prohibited during night. In case it is unavoidable, adequate protective measures including lighting must be ensured.
13.5	Work should not be allowed to progress without the prior approval of the Engineer-in-Charge in case movement of vehicles close to the track is involved.
13.6	Machines and vehicles should ply 6 metres clear of track. In case movement at less than 6 metres away from track is inescapable, it should be permitted in the presence of HRIDC employee authorized by the Engineer-in-Charge.
13.7	Contractor(s)' representative should be issued a certificate by DGM/HRIDC to the effect that they have acquired sufficient knowledge about the safety precautions that are needed to be followed while working near the track. (Ref. Railway Board's letter No. 99/CE-II/PRA/32(CRS) dated 21.07.2000, Annexure-III)
14.2	All works planned for execution close to the running lines and fixed structures, on bridges, inside tunnels, cuttings, constructed areas, etc. should be carried out only after preparation of detailed plans for the same, getting clearances from the Engineering Department of the Open Line and approval of Competent Authority to ensure that the execution of the works will not in any way infringe the prescribed Schedule of Dimensions or aggravate existing permissible infringements.
14.3	Special training and counselling should be imparted to all field staff engaged in maintenance of railway/HRIDC assets regarding the safety at work sites and all of them should be in possessions of a compendium.
14.4	Similar training should also be organized for HRIDC's Associates and Contractors working in close proximity of the running track and specific Para to this effect should also be included in all future contracts requiring execution of work in the near vicinity of running lines.
14.5	All the work inside a tunnel, deep cuttings, on bridges, constructed areas, etc. should be carried out in accordance with the provisions in Chapter-VIII of IRPWM and Para-1009 of Bridge Manual-1998 and preferably under block protection. (Ref. Railway Board's letter No. 2000/CE-II/PRA/12 dated 16.05.2002, Annexure-II)
15.0	Wherever it is difficult to ply the trucks on road during day light hours for bringing building materials such as chips, sand, supply of ballast and bringing out earth in case

	<p>of suburban sections, the additional staff should be posted during night working duly properly lighted to ensure safety of the running tracks. In order to ensure that no short cuts or unsafe practices are adopted at construction site, Sr. Officials should inspect the safety aspect in detail during their inspection and guide the staff in adopting safe practices. They should record corrective action to be taken in site order books/ inspection books and their compliance followed up. In addition, periodic drives should be carried out to ensure safety at construction sites. In order to ensure safety, provision of mobile phones based on the needs of the individual work sites and keeping the provision in the estimate may be provided.</p> <p>(Ref. Railway Board's letter No. 2001/CE-II/PRA/10 (CRS) dated 16.05.2002, Annexure-I)</p>
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9.0 Safety precautions and measures to be observed during execution of ROB/ RUB/ Viaduct/ any other works in Railway and adjoining areas:

9.1 The Contractor(s) shall not allow any road vehicle belonging to him or his suppliers, etc. to ply in HRIDC/railway land next to the running line. If for execution of certain works viz. earthwork for parallel railway line and supply of ballast for new or existing rail line gauge conversion, etc. road vehicles are necessary to be used in railway/HRIDC land next to the railway line, the Contractor(s) shall apply to the Engineer-in-Charge for permission giving the type and number of individual vehicles, names and license particulars of the drivers, location, duration and timings for such work/movement. The Engineer-in-Charge or his authorized representative will personally counsel, examine and certify the road vehicle drivers, Contractor(s)' flagmen and supervisors and will give written permission giving names of road vehicle drivers, Contractor(s)' flagmen and supervisors to be deployed on the work, location, period and timing of the work. This permission will be subject to be following obligatory conditions:

9.2 Construction Activities and Safety:

- (a) The 'Methodology of Working' shall be incorporated in GAD and Temporary Arrangement Drawings.
- (b) The activities of work to be taken up during the railway traffic block/under speed restriction, etc. should be clearly mentioned in such drawings. If at any stage of execution, any discrepancy is found in the drawing with respect to the site condition affecting safety or some new activity of work is required to be done, the same should be brought to the notice of Railway & HRIDC Engineers and such works should be done only after approval by Railways/HRIDC. In such cases, the scheme may be modified and, if required, fresh CRS sanction shall have to be obtained.

9.2.1 The works required to be done under traffic block protection, are to be carried out only in the presence of Railway & HRIDC Engineering Officials. The Railway's and HRIDC's Supervisor has to certify safe conditions for passage of trains before resumption of traffic.

The works to be done under traffic shall be carried out under the provision of banner flag and protection by Engineering Flagman. If considered necessary, the Railway/HRIDC Flagman may be posted on account of the Contractor(s).

9.2.2 Following important activities of works shall be carried out under supervision of Railway/HRIDC Engineer or his nominated Supervisor:

- (a) Excavation at foundation/ground level near to railway track
- (b) Concrete casting and/or masonry work very close to railway track
- (c) Erection of temporary structures near to running lines.
- (e) Casting of structures like girder/slab over railway track
- (e) Stage-prestressing of girders when placed across railway tracks properly supported
- (f) Launching of precast/pre-assembled girders across railway tracks
- (g) Any work of lifting, side shifting and slewing of girders over the railway track
- (h) Dismantling of temporary structures, shuttering, scaffolding, etc. adjacent to and above the railway track. For carrying out activities of casting, erection, launching, handling and dismantling as listed above, the Contractor's Engineer shall furnish the Construction Programme in advance to HRIDC Supervising Engineer. No such work should be taken up in the absence of the HRIDC Supervising Engineer. For the activities which are to be done in presence of the HRIDC Engineer, prior intimation shall be given in writing and acknowledgement obtained from HRIDC's representative. Such activities of work shall not be carried out without the presence of HRIDC Site Engineer.

9.2.3 To ensure 'Safety' during construction activities, HRIDC Site Engineer may direct the Contractor's Supervisor/Engineer or their nominated representative for safe working procedures/ instructions, notwithstanding the contractual or MOU conditions prevailing between/ among HRIDC/other Departments like NHAI/Contractors/ Concessionaire.

9.2.4 All the records of Quality Assurance/Quality Control, testing of the materials and satisfactory completion of an activity shall be maintained at site by the Contractor's Engineer and Supervisor. On the basis of these records, HRIDC Site Engineer shall do stage-wise clearance of the works at following stages:

- (i) Completion of foundation
- (ii) Completion of substructure
- (iii) Completion of superstructure

Without such stage clearance, the work in next stage of construction shall not be allowed by the HRIDC Supervisor, unless proper system of check and exercise is followed at the site.

9.2.5 Normally, the high beam PSC girders are designed with wider top flange and shorter bottom flange with very high beam which makes the girder unsuitable during lowering, slewing and launching time.

9.2.6 During launching of girders and subsequent adjustments for placement of bearing, special attention and precautions are required at site to be followed rigorously without resorting to

shortcut practice or leaving the work at site to untrained or inexperienced Engineers. Normally, end diaphragms are not cast for the extreme both side girders. These shall be cast minimum 300mm on both sides for all 'I' beam girders to provide temporary supports for ensuring stability.

"OR"

For side adjustments and bearing placements below 'I' section girders, end brackets made of steel angles should be provided for all 'I' beams sequentially to avoid side titling of individual girders. End brackets shall be removed only after placing girders on bearing and casting of diaphragms.

- 9.2.7 During lowering, the jacks shall be operated duly keeping wooden packing of various thicknesses fixing the amount of lowering to the barest minimum, so that even if the jack fails, the wooden packing will take load and further stability of girder is not endangered.
- 9.2.8 Temporary crib support staging shall be interlaced with clamps and angles. Adequate base width shall be maintained proportionate to the height of stage, which is very essential for avoiding the oblong effect during launching of girders. During launching by RH girder method, the movement of the PSC girders shall be controlled both from front and rear with sync mechanism having simultaneous operation, so that the speed of the launching is always under control. Spare hydraulic jacks shall always be kept at site. Lowering of girder shall always be carried out at one end only. Further, the other end should be adequately secured by wire ropes, end brackets, etc. Thereafter, the process shall be continued alternately.
- 9.2.9 As far as possible, launching of girders by temporary staging shall be avoided and launching by heavy capacity cranes, wherever feasible, shall be adopted.
- 9.2.10 Steel girder launcher if used for launching of PSC girders should be pre-tested for the critical loading (likely to be encountered during actual launching) before deployment on the approaches regarding its strength as well as amount of permissible deflection using actual test PSC girder as a testing load. Connections at supports shall be inspected and certified prior to actual launching. It shall be adequately secured to the base support system on the pier cap.

9.3 General Construction Safety:

- 9.3.1 General safety precautions as applicable for bridge/civil works shall be adopted in field.
- 9.3.2 Working near the running line: Safe practices at site and at all times non-infringement to moving trains shall be ensured. Road vehicles, material trolleys, dollies with any tendency to roll off towards the running lines to be checked by providing chains, locking arrangements, blocks, etc. shall be ensured and the Site-in-Charge of the Contractor shall be primarily responsible, secondary responsibility being of Contractor's Consultant.

- 9.3.3 Testing of cranes, lifting jacks and other equipment: All equipment like cranes, lifting jacks shall be tested, duly calibrated and certified prior to the use at construction site.
- 9.3.4 Construction workers at site shall be provided with personal safety gear like reflective vest, helmet, leather shoes, gloves & eyewear approved as per construction industry standards. For persons working at pier top/girder level, temporary supports, hand railing, protection with help of ropes, slings and temporary railings shall be provided.
- 9.3.5 Routine safety checks, validity of test certificates for load bearing equipment especially for cranes outsourced from third party shall be ensured prior to deployment.

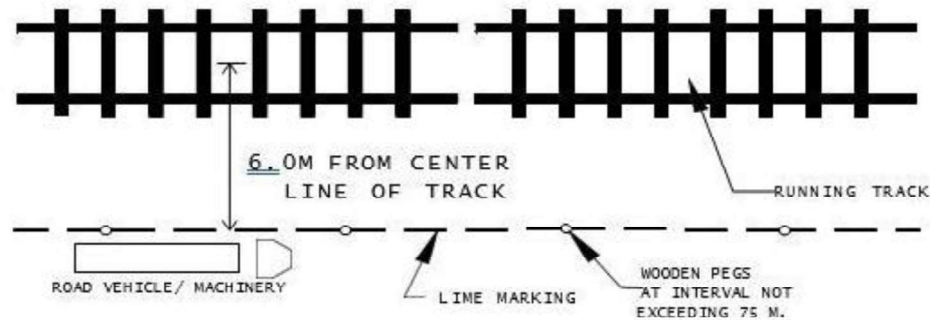
10.0 Safety Guidelines and Precautions for working close to Railway tracks

- 10.1 A large number of men and machinery are deployed by the contractors for track renewals, gauge conversions, doublings, bridge rebuilding etc. It is therefore essential that adequate safety measures are taken for the safety of the trains as well as the work force. The following measures should invariably be adopted.
- A. The contractor shall not start any work without the presence of the HRIDC supervisor at site.
 - B. Wherever the road vehicles and/or machinery are required to work in the close vicinity of railway line, the work shall be so carried out that there is no infringement to the Railway's schedule of dimensions. For this purpose, the area where road vehicles and/or machinery are required to ply, shall be demarcated and acknowledged by the contractor. Special care shall be taken for turning/ reversal of road vehicles/machinery without infringing the running track. Barricading shall be provided wherever justified and feasible as per site conditions.
 - C. The look out and whistle caution orders shall be issued to the trains and speed restrictions imposed where considered necessary. Suitable flagmen/detonators shall be provided where necessary for protection of trains.
 - D. The supervisor/workmen should be counseled about safety measures. A competency certificate to the contractor's supervisor as per Performa annexed shall be issued by DGM/HRIDC, which will be valid only for the work for which it has been issued.
 - E. The unloaded ballast/rails/sleepers/other P-Way materials after unloading along track should be kept clear off moving dimensions and stacked as per the specified heights and distance from the running track.
 - F. Supplementary site-specific instructions, wherever considered necessary shall be issued by the HRIDC's Engineer-in-charge.

10.2 PLYING OF ROAD VEHICLES AND WORKING OF MACHINERIES CLOSE TO RUNNING TRACKS

- A. Normally, the road vehicles shall be run, or machinery shall be worked so as not to come closer than 6.0m from centre line of nearest running track.

- B. The land strip adjacent to running tracks, where road vehicle is to ply or machinery is to work, shall be demarcated by lime in advance in consultation with the Railway's & HRIDC's Supervisor. Wooden pegs at interval not exceeding 75mtr. shall be provided along the line marking as permanent marks. The road vehicles shall ply or machinery shall work so as not to infringe the line of demarcation.



C. If a road vehicle or machinery is to work closer to 6.0m due to site conditions or requirement of work, following precautions shall be observed:

- a) In no case the road vehicle shall run or machinery shall work at distance less than 3.5m from centre line of track.
- b) Demarcation of land shall be done by bright colored ribbon/nylon cord suspended on 120 cm high wooden/bamboo posts at distance of 3.5 m from centre line of nearest running track.
- c) Presence of an authorized HRIDC's representative shall be ensured before plying of vehicle or working of machinery.
- d) Railway's Supervisor shall issue suitable caution order to Drivers of approaching train about road vehicles plying or machineries working close to running tracks. The train drivers shall be advised to whistle freely to warn about the approaching train. Whistle boards shall be provided wherever considered necessary.
- e) Lookout men shall be posted along the track at a distance of 800m from such locations who will carry red flag and whistles to warn the road vehicle/machinery users about the approaching trains.
- f) On curves where visibility is poor, additional lookout men shall be posted

D. If vehicle/machinery is to be worked closer to 3.5m from running track - Under unavoidable conditions, if road vehicles is to ply or machinery is to work closer to 3.5m due to site conditions or requirement of work, following precautions shall be observed:

- a) Plying of vehicles or working of machinery closer to 3.5m of running track shall be done only under protection of track. Traffic block shall be imposed wherever considered necessary. The site shall be protected as per provisions of Para No. 806 & 807 of P-Way Manual as case may be.
- b) Presence of a Railway's & HRIDC's Supervisor shall be ensured at worksite.

- c) Railway's & HRIDC's Supervisor shall issue suitable caution order to Drivers of approaching train about road vehicles plying or machineries working close to running tracks. The train drivers shall be advised to whistle freely to warn about the approaching train.

E. Precaution to be taken while reversing road vehicle alongside the track

The location where vehicle will take a turn shall be demarcated duly approved by Railway's/HRIDC's representative. The road vehicle driver shall always face the Railway track during the course of turning/reversing his vehicle. Presence of an authorized Railway/HRIDC representative shall be ensured at such location.

- F. Road vehicle shall not be allowed to run along the track during night hours generally. In unavoidable situations, however, vehicles shall be allowed to work during night hours only in the presence of an authorized Railway's/HRIDC's representative and where adequate lighting arrangements are made and where adequate precautions as mentioned earlier have been ensured.

- G. Road vehicles/machinery/plant etc. when stabled near running tracks shall be properly secured against any possible roll off and always be manned even during off hours.

10.3 EXECUTION OF WORKS CLOSE TO OR ON RUNNING LINES

- A. Any work close to or on running tracks shall be executed under the presence of a HRIDC's Supervisor only.

B. Precaution to be taken to ensure safety of trains while execution of work close to the running line or on running lines.

- a) Such works shall be planned and necessary drawings particularly with regard to infringement to moving dimensions shall be finalized duly approved by competent authority before execution of work. The work shall be executed only as per approved procedure and drawings.
- b) All temporary arrangements required to be made during execution of work shall be made in such a manner that moving dimension do not infringe.
- c) Suitable speed restriction shall be imposed, or Traffic block shall be ensured as required.
- d) The site shall be protected as per provisions of Para No. 806 & 807 of Indian Railway P-Way Manual as case may be.
- e) Necessary equipment for safety of trains during emergency shall be kept ready at site.

C. Precaution to be taken to ensure safety of electrical/signal/ telephone cables while excavating near tracks.

- a) Particular care shall be taken to mark the locations of buried electrical/signal/telephone cables on the plans jointly with S & T/Electric supervisor and also at site so that these are not damaged during excavation.

- b) Copy of the cable plan should be given to the contractor's authorized representative before handing over the site to start the work.
- c) Due care shall be taken to ensure that any part of the equipment or machinery or temporary arrangement does not come close to cables while working.
- d) Joint procedure order No. 17/2013 as mentioned in the compendium of instructions on safety at work site dated 31.03.2014 issued by PCE Office shall be followed for undertaking digging work in the vicinity of underground signaling, electrical and telecommunication cables.

D. Precaution to be taken during execution of works requiring traffic blocks.

- a) Any work, which infringes the moving dimensions, shall be started only after the traffic block has been imposed.
- b) Before closing the work, the track shall be left with the proper track geometry so that the trains run safely.
- c) After completion of work the released sleeper and fittings should be properly stacked away from the track to be kept clear of moving dimensions.
- d) Block shall be removed only when all the temporary arrangement, machineries, tools, plants etc. have been kept clear of moving dimensions.

E. Precaution to be taken during execution of works during night:

The work close to running line, generally, shall be carried out only during day hours. At locations, however, where night working is unavoidable, proper lighting arrangement should be made. The engineering indicator boards shall be lighted during night hours as per the provisions of IRPWM. The staff deputed for night working should have taken adequate rest before deploying them in night shift. We can specify duration of night shift from 20.00 hrs to 04.00 hrs. All other safety precautions applicable for daytime work should be strictly observed during night working.

F. Precautions to be taken to ensure safety of workers while working close to running lines:

- a) Necessary lookout men with red flags and whistles shall be provided to warn the workmen about the approaching train.
- b) Railway's/HRIDC's supervisor shall issue suitable caution order to Drivers of approaching train for whistling to warn the workers about the approaching train. Whistle boards shall be provided wherever considered necessary.
- c) A "First aid kit" shall always be kept ready at site

G. Precaution shall be taken for safety of public or passengers, while executing works at locations, used by passengers and public

The worksite shall be suitably demarcated to keep public and passengers away from work area. Necessary signage boards such as "Work in progress. Inconvenience is regretted" etc. shall be provided at appropriate locations to warn the public/ passengers. Adequate lighting

arrangement of worksite wherever required shall be done to ensure safety of public/passengers during night.

H. Precaution to be taken before stacking materials alongside the track to ensure that safety of trains is not affected - The following precautions shall be taken before stacking the materials along the track for stacking of ballast, rails, sleepers etc.

- a) The sites for material stacking should be selected in advance in such a manner as to ensure that no part of the material to be stacked is infringing the Standard Moving Dimensions. A plan of proposed stacking locations be made and signed jointly by an authorized HRIDC's/Railway's representative and contractor's representative.
- b) The selected locations shall be marked by lime in advance.
- c) Presence of an authorized HRIDC's/Railway's representative while unloading and stacking shall be ensured.
- d) The material shall be stacked in such a height so as to not to infringe SOD in case of accidental roll off.

I. Precaution for handling of departmental material trains - Instructions for working of material trains are contained in Chapter XII of IRPWM which should be brought to the notice of the supervisors and other staff working on the material trains. In addition to this, following precautions should be taken:

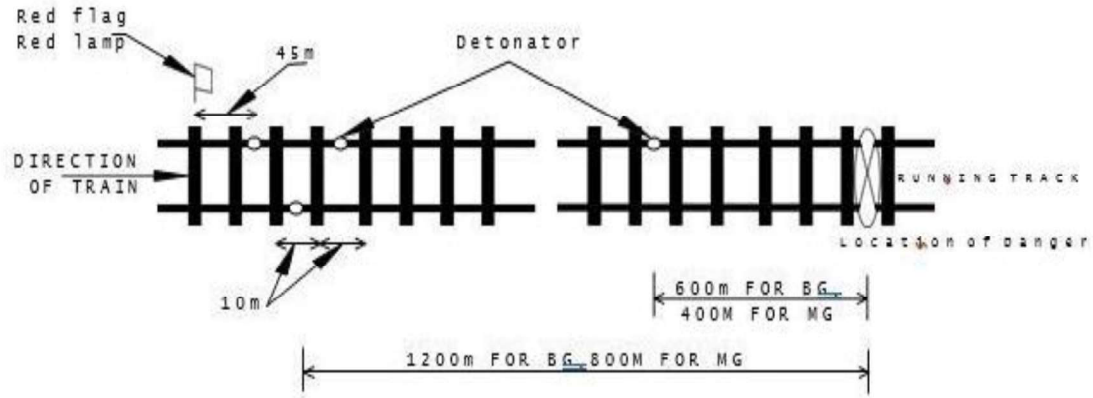
- a) Issue of 'fit to run' certificate:
As per Para 1207 before a material train is allowed to work, the complete rake should be examined by the Carriage and Wagon staff and a 'fit to run' certificate issued to the Guard.
- b) As per Para 1208 of IRPWM, a qualified Engineering official should be deputed on the train to ensure working of the material train as the Guard is not qualified to carry out such duties like Supervising of loading and unloading of materials.
- c) As per Para 1204 of IRPWM, the material train should not be permitted to work during the period of poor visibility due to fog, storm or any other cause except with the permission of the ADEN/DEN. Working of the material trains carrying labour should not be permitted between sunset and sunrise except in an emergency.
- d) While unloading rail panels by the side of the running track, placement of the panels, clear of the maximum moving dimensions should be ensured.
- e) Unloading of rail panels should be done by a team of trained staff under the active supervision of competent Supervisor/Officer.
- f) Before unloading of rail panels, site should be prepared by way of leveling/removing extra ballast, if any, from the crib and shoulder with the objective to ensure requisite lateral and vertical clearances so as to prevent slippage of rail panels due to vibration during the passage of trains.
- g) Reasonably adequate block should be asked and provided for unloading of the material and the work should be done preferably in day light to avoid shortcut in haste which may infringe the safety requirements.

J. Safety aspects to be observed while working in OHE area

- a) No electrical work close to running track shall be carried out without permission of HRIDC representative.
- b) A minimum distance of 2m has to be maintained between live OHE wire and body part of worker or tools or metallic supports etc.
- c) No electric connection etc. can be tapped from OHE.
- d) Authorized OHE staff should invariably be present when the relaying work or any major work is carried out.
- e) Power block is correctly taken and 'permit to work' is issued.
- f) The structure bonds, track bonds, cross bonds, longitudinal rail bonds are not disturbed and if disconnected for the work, they are reconnected properly when the work is completed.
- g) The track level is not raised beyond the permissible limit during the work

10.4 PROTECTION OF TRACK DURING EMERGENCY**A. Action to be taken when a contractor's supervisor or vehicle operator apprehends any unusual circumstances likely to infringe the track and endanger safe running of trains.**

- a) At any time if a contractor's supervisor or vehicle operator observes any unusual circumstances likely to infringe the track and apprehend danger to safe running of track, he shall take immediate steps to advise a HRIDC official of such danger and assist him in protection of track.
- b) The track shall be protected as under. One person shall immediately plant a red flag (red lamp during night) at the spot and proceed with all haste in the direction of approaching train with a red flag in hand (red lamp during night) and plant a detonator on rail at a distance of 600m from the place of obstruction of BG track (400m for MG track) after which he shall further proceed for not less than 1200m from the place of obstruction from BG track (800m for MG track) and plant three detonators at 10m apart on rails. After this he shall display the red flag (red lamp during night) at a distance of 45m from the detonators.
- c) Attempts shall also be made to send an advice to nearest Railway/HRIDC station about the incident immediately.



B. Action to be taken if train is seen approaching to site of danger and there is no time to protect the track as per guidelines mentioned above.

In such a case the detonators shall be planted on rails immediately at distance away from place of danger as far as possible and attention of driver of approaching train shall be invited by whistling, waving the red flag vigorously, gesticulating and shouting.

C. What action shall be taken if more than one track is obstructed.

- In case of single line protection as above shall be done in both the directions from place of danger.
- In case of double line or multiple lines, if other tracks are also obstructed, the protection as above shall be done for other track also.
- The protection shall be done in that direction and on that track first on which train is likely to arrive first.
- The Contractor's Supervisors, Operators and lookout men shall be properly explained about the direction of trains on running tracks.

D. Equipment required for protection of track.

Minimum compliment of protection equipment i.e. 10 detonators, 4 red hand flags, 4 red hand lamps, 4 banner flags and whistles etc. shall always be kept ready at worksites for use in case of emergency. HRIDC will arrange to provide detonators, whereas Contractor shall arrange other equipment at his own cost.

E. Arrangement of lookout men and competency required for lookout man to warn labour about approaching train.

- Contractor will provide lookout men.
- The lookout men shall be properly trained in warning to staff at worksite about approaching train.
- Only those lookout men shall be provided at site who have been issued with a competency certificate by the Railway's/HRIDC's Supervisor.

- d) In case, it is felt necessary to provide lookout men by HRIDC, the charges for the same as fixed by HRIDC Administration shall be recovered from Contractor.

10.5 Training to Supervisors and Operators of Contractor

The Supervisors and Operators of the contractor proposed to be deployed at work site, which is close to the running track, shall be imparted mandatory training by the HRIDC at site free of cost about the safety measures to be adopted while working in the vicinity of running track. HRIDC's Engineer-in charge of the work shall decide the scale, extent & adequacy of training. In case training is imparted at a recognized Railway training institute, the charges for the same, as decided by HRIDC, shall be recovered from the Contractor. A competency certificate to this effect to the individual Supervisor/Operator shall be issued as given below, by a HRIDC Officer not below the rank of DGM/HRIDC. No Supervisor/Operator of the Contractor shall work or allowed to work in the vicinity of running track that is not in possession of valid competency certificate.

All the labour, materials, tools, plants etc. except detonators, required for ensuring safe running of trains shall be provided by Contractor at his own cost. Wherever lookout men are provided by HRIDC, charges at the rate of Rs. 500/- per man day shall be recovered from Contractor.

A sample of training competency certificate is provided below for reference:

Competency Certificate
<p>Certified that Shri Supervisor/Operator of M/s. has been trained and examined in safety measures to be followed while working in the vicinity of running railway track for the work. His knowledge has been found satisfactory and he is capable of supervising the work safely.</p> <p>This certificate is valid only for the work mentioned in this certificate only.</p> <p style="text-align: right;">Signature and designation of the officer</p>

Annexure-4

Memorandum of Understanding between Haryana Orbital Rail Corporation Limited (HORCL) and the Contractor for safe execution of contract work

This Memorandum of Understanding is made and executed by and between **Haryana Orbital Rail Corporation Limited (HORCL)**, having its registered office at _____ or their authorized representative(s), hereinafter referred to as “EMPLOYER” (which expression shall wherever the context so requires or admits be deemed to mean and include its successors in business and assigns) of the one party

AND

M/s _____ having its registered office at _____ hereinafter referred to as the “CONTRACTOR” (which expression shall wherever the context so requires or admits be deemed to mean and include its successors in business and assigns) of the other party

WITNESSETH THAT

WHEREAS the EMPLOYER gives highest importance to the occupational safety, health and environment during execution of work, seeks cooperation from the CONTRACTOR in this endeavour.

Thus, this Memorandum of Understanding is for promoting the safety, health and environment aspects required to be followed at workplace/site and will be applicable to any site job to be done by the CONTRACTOR

AND

WHEREAS the CONTRACTOR has read all the terms and conditions of the EMPLOYER and whereas the CONTRACTOR has studied the following documents:

- (a) Tender Documents, including Notice Inviting Tender, General Conditions, Special Conditions,
- (b) Conditions of Contract on Safety, Health and Environment and Project Safety, Health and Environment Manual.
- (c) Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act 1996, Central Rules 1998, Building and Other Construction Workers Welfare Cess Act 1996 and Rules 1998 and Haryana Building and Other Construction Workers' Welfare Board Rules; and
- (d) Indian Electricity Act 2003 and Rules 1956.
- (e) Corresponding International / Bureau of Indian Standard Codes.

The amendments to any of the above rules and any other rules & regulations or procedures, circulars, notices & advices laid down by the EMPLOYER from time to time.

Now it is hereby AGREED AND DECLARED by and between the EMPLOYER and the CONTRACTOR as follows:

- Clause – I The CONTRACTOR shall abide by the terms and conditions stipulated in Condition of Contract on Safety, Health & Environment and Project Safety, Health & Environment Manual.
- Clause – II The CONTRACTOR shall undertake full responsibility for safe execution of job at workplace/site and safety of his personnel and adjoining road users during work.
- Clause – III Without giving any prior notice, the EMPLOYER shall from time to time be entitled to add/or amend any or all terms and conditions with a view to improving safety and occupational health of personnel and safety of work, with immediate effect and the same shall be binding on the CONTRACTOR. The contractor agrees to implement all such amendments, which shall be laid down by the EMPLOYER.
- Clause – IV Besides following the guidelines, safety rules and regulations, safety codes given in various safety procedures/documents mentioned above, the CONTRACTOR shall also prepare detailed method statement which includes job safety analysis wherever there are complicated and hazardous/high risk working involved and get it approved from EMPLOYER before execution of work.
- Clause – V Any negligence or violation in implementing any of the provision of the conditions of contract on Safety, Health & Environment shall be viewed seriously, and the CONTRACTOR is liable to compensate the EMPLOYER for the loss of reputation. The cost of damage shall be fixed on case-to-case basis.

In witness thereof the Parties hereto by representatives duly authorized have executed this Memorandum of Understanding on _ day of _ 20.

Signed on

Signed on

For and on behalf of HRIDC

For and on behalf of CONTRACTOR

Signature:

Signature:

Name:

Name:

Title:

Title:

Packet-II: FINANCIAL TENDER (BOQ)

Bill of Quantities

Schedule of Rate and Approximate Quantities

Bill of Quantities (BoQ)

<u>Schedule A - Geo Technical Investigation Works</u>					
NAME OF WORK	Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations for HORC Viaduct between Sohana & Dhulawat stations of Haryana Orbital Rail Corridor (HORC) Project in the State of Haryana				
Item No.	Item of Work	Unit	Quantity	Rate (Rs)	Amount (Rs)
1	Survey of all boreholes including plotting of co - ordinate (X, Y) by RTK Method on alignment plan and Z by digital level to mark borehole locations. Contractor has to conduct survey work by his equipment, survey instruments. Reference to be taken from the established GPS control points and reduced level benchmark intimated by HRIDC.	Per route Km	4	1,241.53	4,966.12
2	Exploratory Drilling of Bore holes down to required depth, drilling of 150mm diameter boreholes in all types of soil except hard rock and large boulders (boulder core more than 30 cm), including refiling and reinstating surface, and disposing off surplus material including use of mechanical/hydraulic rigs inclusive of calyx with power operated wrenches as wells as percussion/chiseling tool for advancing through occasional seams of hard strata to be employed, where necessary in dry area.			-	-
(a)	0m to 10m	Per Meter	1500	855.03	1,282,542.90
(b)	10m to 20m	Per Meter	1500	879.96	1,319,946.30
(c)	20m to 30m & above	Per Meter	3000	975.11	2,925,339.60
3	Drilling of NX size borehole (75mm dia.) in all types of hard rock and collection of rock core samples from boreholes and preserving in boxes.			-	-
(a)	0m to 10m	Per Meter	20	1,675.28	33,505.57
(b)	10m to 20m	Per Meter	100	1,698.25	169,824.56
(c)	20m to 30m	Per Meter	100	1,662.81	166,281.08
(d)	30m to 40m	Per Meter	50	1,662.81	83,140.54

4	Conducting standard penetration test as per IS 2131 at approximate 3.0 m intervals in bore holes, as directed by the Engineer in charge.	Each	2550	137.82	351,445.30
5	Taking out 100mm dia & 450mm long undisturbed samples of soil from bore holes, including provision of airtight containers for packing and labelling incl. transporting the samples where necessary. Samples where necessary shall be collected as per IS 2720.	Each	1800	107.63	193,733.86
6	Taking out disturbed samples of soil from bore holes, labelling and transporting the samples to laboratory. Samples shall be collected as per IS:2720.	Each	600	135.90	81,539.41
7	Conducting laboratory Tests on collected soil samples as per relevant IS code			-	-
(a)	Sieve analysis and hydrometer analysis	Each	3000	507.24	1,521,727.80
(b)	Liquid, plastic and shrinkage limits and determination of Free Swell Index.	Each	3000	661.45	1,984,348.80
(c)	Specific gravity of soil	Each	900	416.69	375,018.30
(d)	Natural density	Each	1800	203.42	366,159.60
(e)	Moisture content & dry density	Each	1800	487.56	877,601.88
(f)	Unconfined compression test, Box shear test for sand or Triaxial shear tests for clay (depending on the type of soil and field conditions on undisturbed or remoulded samples)	Each	800	1,502.04	1,201,633.44
8	Conducting laboratory Tests on collected rock samples as per relevant IS code			-	-
(a)	Density Test	Each	25	617.48	15,437.11
(b)	Water absorption and porosity	Each	25	617.48	15,437.11
(c)	Hardness Test	Each	25	617.48	15,437.11
(d)	Unconfined compression test	Each	25	617.48	15,437.11
(e)	Point load test	Each	25	617.48	15,437.11
(f)	Modulus of elasticity test and determination of Poisson Ratio	Each	25	4,038.25	100,956.37
(g)	Abrasion test	Each	25	3,325.62	83,140.54
9	Additional Tests			-	-
(a)	Consolidation test	Each	100	1,696.28	169,627.70
(b)	Chemical analysis of soil (sulphate, chloride, PH value)	Each	8	1,634.59	13,076.75
(c)	Collection of water samples at required intervals	Each	4	82.03	328.10
(d)	Chemical analysis of water (sulphate, chloride, PH value)	Each	4	1,362.27	5,449.08
10	Conducting Plate Load test (PLT) in various locations as per IS 1888 & specifications and as directed by the engineer-in-charge, plotting load intensity	Each	1	19,561.32	19,561.32

	verses settlement curve, complete test in all respect.				
12	Preparation of Report and Submission in soft copy and 3 hard copies	LS	1	65,620.00	65,620.00
	Total Amount (Including GST)				13,473,700.46

NOTES:

1. All Items are for complete items of work including all labour, material, all lead, lifts, ascends, descends, crossing of nallah or any obstructions, etc. including loading, unloading, handling, re-handling, taxes, octroi, royalty, compensation, etc. complete.
2. The Tenderer shall quote single percentage (%) Excess (+) or Less (-) on the estimated amount for Schedule 'A' in the prescribed place of Price Schedule in MS-Excel file.
3. The rates should be quoted including the payment of octroi/toll tax/sales tax/trade tax or any other tax as leviable by the Central Governmental/State Government/Local Bodies, etc.
4. All the items rates given in BOQ are inclusive of GST and all other taxes, etc.,
5. All the laboratory test data shall be recorded in the proforma recommended in the relevant Indian Standard Codes. Whenever desired during the progress of work the engineer-in-charge may visit at the laboratory from time to time where the contractor is arranging for execution of the laboratory tests.
6. The Tenderer must visit the site prior to submitting his quotations to acquaint himself fully with the nature, type, scope of work and involvement therein. The rates quoted shall remain firm during the entire period of execution till completion of the work and any additional claim for lack of knowledge shall not be entertained.

I/we clearly understand that I/we am/are not entitled to any other payment whatsoever except at the tendered rate quoted against each item for fully completed works as per conditions of contract.

Signature of Tenderer(s)
Address

Bill of Quantities

(Please refer MS Excel Sheet for quoting rates uploaded on eProcurement portal)

Item Rate BoQ

Tender Inviting Authority: **Haryana Rail Infrastructure Development Corporation Ltd**

Name of Work: **Geotechnical Investigation, Preparation of Geotechnical Report for designing of foundations of Viaduct (Ch.21100 m to 24860 m) near proposed Tunnel at Sohana in connection of Haryana Orbital Rail Corridor (HORC) Project in the state of Haryana**

Contract No: **HORC/HRIDC/GGN/CGT/2023/GT/01**

Name of the Bidder/ Bidding Firm / Company:

Bill of Quantities
 (NATIONAL COMPETITIVE TENDERING - RATES ARE TO BE GIVEN IN RUPEES (INR) ONLY)

(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. Tenderers are allowed to enter the Tenderer Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER	TEXT #	NUMBER #	TEXT #
Sl No.	Item Description	Item Code / Make	Quantity	Units	Estimated Rate	ESTIMATED PERCENTAGE RATE (%) to be entered by the Bidder	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
1	Schedule 'A': Geotechnical Investigation Works	item1			1,34,73,700.46	Select	-	INR Zero Only
Total in Figures							-	INR Zero Only
Quoted Rate in Words							INR Zero Only	



**Tenderer is only required to fill the information in the boxes highlighted with cyan colour in Price Schedule (Excel sheet)*