

SECTION-1. REQUEST FOR QUOTATION

Project Title: Independent Safety Assessment (ISA) Services for Train Control & Signaling System for Jaipur Metro Rail Line 1 – Phase B

Source of Funding: Asian Development Bank

Ref: INDEPENDENT SAFETY ASSESSMENT/2018/JMRC Date of Issue: 28.06.2018

Dear Sir,

1. The Jaipur Metro Rail Corporation (Employer) hereby requests you to submit price quotation(s) for providing the following services :-

Independent Safety Assessment (ISA) Services for Train Control & Signaling System for Phase 1B consists of approx 2.40 kms of Underground section from Chandpole Station to Badi Chauper with two underground stations on this line Choti Chaupar and Badi Chaupar.

JMRC Phase-1B section shall be commissioned in two stages i.e. Stage-1 & Stage-2.

Stage-1: Chandpole to Badi Chaupar Platform excluding Reversal Line and

Stage-2: Badi Chaupar Platform to Dead end (Including Reversal Line).

The ISA shall verify that the required level of safety is achieved by the Train Control & Signalling System, including interfaces of TC&S System of existing Phase-1A, to ensure the safe operation of the Metro in entire section from Mansarovar to Badi Chaupar under various stages.

The ISA objective shall be to collect, inspect and analyze all necessary data from all stakeholders to assess whether the TC&S Contractors have, throughout the project duration, applied appropriate processes and safety solutions in accordance with the requirements of the applicable safety standards, the Contract between the Employer and the respective Contractor, as well as the applicable local and national laws/acts. Where some of the documents are not being made available, the relevance of the same and the need for the same shall be justified by ISA for the Employer's Engineer to intervene and provide the same from the contractor.

If you, however, have been associated with the firm that prepared the design, specifications, or engaged in the preparation of the project documents or with the firm that will provide supervision of the works, shall be disqualified.

To assist in the preparation of your price quotation, the necessary requirements, specifications, bill of quantities and scope etc. with necessary form for submitting the quotation and a draft contract form are enclosed.

2. The ISA must fulfill the requirements specify in Section-6 (ToR).
3. The India (hereinafter called "JMRC") has received finance from the Asian Development Bank (the "Bank") in the form of a loan toward the cost of Jaipur Metro Rail Extension Phase B Project. The Government of Rajasthan, acting through the Urban Development and Housing, and the Jaipur Metro



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Rail Corporation, an executing agency, intends to apply a portion of the proceeds of this loan to eligible payments under the contract for which this RFQ is issued. Payments by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the loan agreement.

4. The JMRC invites proposals to provide the ISA services for its Phase 1B extension from the following RDSO empanelled ISA services firms:

S.No.	Name of the ISA (Full Name not Acronym)	Country of Incorporation	Type of Association
1.	Halcrow Rail Approvals Ltd.	United Kingdom	Lead/Single
2.	TUV Rheinland Rail Certification B.V.	Netherland	Lead/Single
3.	SNC Lavalin Rail and Transit Verification Limited, (Formerly Known as M/s ATKINS China Ltd., Hongkong)	United Kingdom	Lead/Single
4.	CERTIFER	France	Lead/Single
5.	Bureau Veritas Italia S.P.A.	GENOVA	Lead/Single
6.	TUV NORD System	Germany	Lead/Single
7.	TUV-SUD Rail GmbH	Germany	Lead/Single
8.	RINA Services S.P.A.	Italy	Lead/Single

5. Please note that it is not permissible to transfer this invitation to any other firm, such as parent companies, subsidiaries and affiliates. The JMRC will reject a RFQ if the Empanelled ISA drops a JV partner / consortium partner without the RDSO's prior consent.
6. The following mentioned documents are included -
- SECTION 1 - Request for Quotation
SECTION 2 -Contract Agreement
SECTION 3 - Form of Quotation
SECTION 4 - Bill of Quantities
SECTION 5 - Letter of Acceptance
SECTION 6 - Terms of Reference [ToR]
7. RFQ documents can be downloaded from JMRC official website (<https://transport.rajasthan.gov.in/jmrc>) and State Procurement Portal (sppp.rajasthan.gov.in) between 28.06.2018 to 27.07.2018
8. The proposal is to be submitted at the following addressed by 27.07.2018 before 15:00 Hrs.

Director (Project),
Jaipur Metro Rail Corporation Limited,
RAJSICO_Building, Udyog Bhawan Premises,
C-Scheme, Floor/Room number: 3rd Floor,
Jaipur (Rajasthan) Postal Code-302005
Country: India.



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9. Offer shall be valid for a period of 180 days from the latest date of submission and shall be accompanied by BG in the sum of INR 72,000/- as described in Chapter 9 clause 14 of Section-6.
10. The Technical offer and Price quotation are to be submitted in separately sealed envelopes distinctly marked accordingly and both to be put inside ONE envelope, which should be sealed and superscribed with RFQ Notice no. & date/ time of opening. Both technical offer & price quotation shall be opened on the same time by JMRC authority. The award of work shall be done after scrutiny & evaluation of RFQ.

The original Quotation with the Form of Quotation clearly marked "Original." And in addition, one quotation marked as "COPY" Shall be submitted.

11. The quotation in the relevant form duly signed & sealed, along with other required documents shall be submitted in an envelope. The envelope must be addressed to and delivered at the following address:

Director (Project), Jaipur Metro Rail Corporation Limited,
RAJSICO_Building, Udhyog Bhawan Premises ,
C-Scheme, Floor/Room number:
3rd Floor, Jaipur (Rajasthan) Postal Code-302005
Country: India.

Telephone: 0141- 2822250, Fax: +91-141-2822251, E-mail address: dp@jaipurmetrorail.in & gmst@jaipurmetrorail.in

12. The quotation in duplicate and written in ENGLISH language shall be for the services / works and based on the unit and total price indicated in the filled-in Bill of Quantities for a fixed unit rate contract (for a lump sum contract replace Bill of Quantities with Priced Activity Schedule]. The currency of the quoted prices and payment shall be the currency of the Employer's country (Indian National Rupees), or in any fully convertible currency of up to three foreign currencies. The quotation shall include all duties, taxes, and other levies excluding GST (GST Component details to be shown separately), payable by the ISA in accordance with the local laws & specified in ToR. The quotation shall be signed by you or by your authorized representative. Without a signature on your Form of Quotation, your quotation will not be considered further.

The currency that shall be used for RFQ evaluation and comparison purposes to convert RFQ prices expressed in various currencies into a single currency is Indian Rupees (INR). The source of the selling exchange rate shall be of **Reserve Bank of India**. The date for the selling exchange rate shall be **28 days** before final date of submission of RFQ.

The Employer will award the contract to the ISA whose quotation has been determined to be substantially responsive to this Request for Quotation and who has offered the lowest evaluated price quotation. A quotation is not substantially responsive if it contains deviations or reservations to the terms, conditions, requirements and specifications in this Request for Quotation and it will not be considered further. The Employer will evaluate and compare only the quotations determined to be substantially responsive.

13. In evaluating the quotations, the Employer will adjust for any arithmetical errors as follows:
(a) if there is a discrepancy between amounts in figures and in words, the amount in words will govern;
(b) if there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern;
If you refuse to accept the correction, your quotation will be rejected.
14. If you withdraw your quotation during the validity period and/or refuse to accept the award of a contract when and if awarded, you will be excluded from the list of contractors for the project for 2 years.
15. The contract will be governed by the terms and conditions detailed in ToR & elsewhere of the attached proposal.



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16. The ISA agency whose quotation has been accepted will be notified of the award of Assessment Work through the Letter of Acceptance issued by the Employer within appropriate period or 60 days from the date of submission of quotation.
17. The Employer intends to apply funds from the Asian Development Bank (ADB) for eligible payments under the Contract resulting from this Request for Quotation.
18. Under the ADB Anticorruption Policy, ISAs shall observe the highest standard of ethics during the procurement and execution of such contracts. ADB will reject a proposal for award and will impose sanctions on the parties involved if it determines that the ISA recommended for award or any other party has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. At the time of submission of your quotation, you should not be on the ADB sanctions list.
19. Please confirm by fax/email the receipt of this request and whether or not you will submit the price quotation(s).

Sincerely,

Director (Project),
Jaipur Metro Rail Corporation Limited,



SECTION - 2. CONTRACT AGREEMENT

THIS AGREEMENT made on the [insert number] day of [insert month], [insert year],

BETWEEN

(1) [Jaipur Metro Rail Corporation], a corporation incorporated under the laws of [India] and having its principal place of business at [address of employer] (hereinafter called "the Employer"), and (2) [name of contractor], a corporation incorporated under the laws of [country of contractor] and having its principal place of business at [address of contractor] (hereinafter called "the Contractor").

WHEREAS the Employer desires to engage the Contractor to Independent Safety Assessment (ISA) services for Train Control & Signalling System for JPJS02 Phase-1B certain Facilities, viz. [list of facilities] ("the Facilities") and the Contractor have agreed to such engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

**Article 1
Contract
Documents**

1.1 Contract Documents

The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:

- A) This Contract Agreement with appendixes hereto
- B) Letter of Acceptance
- C) Form of Quotation
- D) Bill of Quantities
- E) Request for Quotation
- F) Terms of Reference

1.2 Order of Precedence

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above.

1.3 Definitions (Reference GCC Clause 1)

Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the General Conditions.



**Article 2
Contract Price and
Terms of Payment**

2.1 **Contract Price**(Reference SCC Clause 5 and Section-4)
The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be the aggregate of [. . . amounts of foreign currency in words . . .], [. . . amounts in figures. . .] as specified in Term of reference (Total Summary), [. . . amounts of local currency in words . . .], [. . . amounts in figures. . .], or such other sums as may be determined in accordance with the terms and conditions of the Contract.

2.2 **Schedule of Payment &Milestones** (Reference in Chapter 5 of Section 6- Term of Reference).

The terms and procedures of payment according to which the Employer will reimburse the Contractor are given in the Appendix (Schedule of Payment & Milestones) hereto.

Payments shall be made into a bank account, nominated by the Contractor in Indian rupees in a bank in India unless otherwise permitted in Special Conditions of Contract. If payments are to be made in more than one currency, separate bank accounts may be nominated by the Contractor for each currency, and payments shall be made by the Employer accordingly.

In the event that the amount payable in accordance with SCC 5 and Section-4 or with any of the other terms of the Contract, the Employer shall arrange for the documentary credit to be amended accordingly

**Article 3
Effective Date**

3.1 **Effective Date** (Reference section-5)
The Effective Date for this Contract for commencement of work shall be the date of issue of Letter of Acceptance(LOA)

3.2 Each party shall use its best efforts to fulfill the following conditions for which it is responsible as soon as practicable.

(a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor.

(b) The Contractor has submitted to the Employer the performance security.

**Article 4
Communications**

4.1 The address of the Employer for notice purposes, [Employer's address].

4.2 The address of the Contractor for notice purposes, [Contractor's address].

**Article 5.
Appendixes**

5.1 The Appendixes listed in the attached List of Appendixes shall be deemed to form an integral part of this Contract Agreement.

5.2 Reference in the Contract to any Appendix shall mean the Appendixes



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attached hereto, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by, for and on behalf of the Employer

[Signature]

[Title]

in the presence of

[Signature]

[Title]

Signed by, for and on behalf of the Contractor

[Signature]

[Title]

in the presence of

[Signature]

[Title]

APPENDIXES

- Appendix 1 - Schedule of Payment& Milestones**
Refer Chapter 7 clause 7.2 of Section 6.
- Appendix 2 - Insurance Requirements**
Refer Chapter 9 clause 3 of Section 6
- Appendix 3 - Time Schedule**
Refer chapter 5 clause 5.12 of Section 6
- Appendix 4 - Scope of Works and Supply by the Employer**
Refer the chapter 1 to 6 of section-6
- Appendix 5 - List of Documents for Approval or Review**
Refer Chapter 5 of section-6
- Appendix 6 - Any other document forming part of the RFQ including
Corrigendum/Addendum/Post RFQ Clarifications**



SECTION - 3. PRICE QUOTATION

_____(Date)

To: _____(Employer's Name)

_____(Employer's Address)

We offer to execute the _____(name and number of the Contract) in accordance with the Conditions of Contract accompanying this Quotation for the Contract Price of _____(amount in words and numbers) (_____) (name of currency) _____. We propose to complete the works described in the Contract within a period of _____ months from the date of signing the Contract.

This Quotation and your written acceptance will constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Quotation you receive.

We hereby confirm that this Quotation complies with the Validity of the Quotation required by the proposal documents.

Authorized Signature: _____

Name and Title of Signatory _____

Name of ISA : _____
Address: _____

Phone number _____

Fax number, if any _____

[A filled-in "BILL OF QUANTITIES/PRICED ACTIVITY SCHEDULE" together with unit prices and total calculations should be attached to Form of Quotation.]



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SECTION- 4. BILL OF QUANTITIES (BOQ)

Stage :- 1 [Chandpole to Badi Chaupar Platform excluding Reversal Line]

BOQ (Deliverables Activity/Report & Man Days for Key/Non-Key Experts)

Sr. No	BOQ for Deliverables Activity/Reports	Key Experts (KE)/ Non Key Experts (NKE)	Designation	Unit Rate	Total Man Days Required.		Total Price Stage 1	
				(a)	Expat (c)	Indian (d)	Foreign Currency (a.c)	Local Currency (a.d)
1	Safety Assessment plan (para 5.1 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
2	Assessment of Initial Contractor's plan (para 5.2 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
3	Design Assessment (para 5.3 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
4	Assessment of Manufacturing and Installation Plans (para 5.4 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
5	Safety Auditing (para 3.4 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
6	Assessment & Study of Migration Plan of Existing (Phase-1A) line from Chandpole to	KE1						
		KE2						
		:						
		:						
		NKE1						



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	Badi Chauper Station (para 5.3 of TOR)	NKE2						
		:						
		:						
7	Hazard Assessment (Para 5.5.1 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
8	Engineering Safety Validation Case (Para 5.5.2 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
9	O&M Process Report (Para 5.6 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
10	Trial Running Test Assessment (Para 5.7.1 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
11	Final Certification (Para 5.8 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
12	Quarterly Progress Report (para 5.9 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						

- Note :- 1. 'KE' denotes Key Expert
2. 'NKE' denotes Non Key Expert
3. The CV's of Key/Non Key Experts demonstrating the qualification & experience shall be submitted.
4. ISA Agency to fill the above form.

Prices are inclusive of all taxes , duties, levies, cess, incidental charges etc. except GST.



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Stage-2 (Commissioning of 1B Section from CDPE to Badi Chaupar including Reversal Line)

BOQ (Deliverables Activity/Report & Man Days for Key/Non-Key Experts)

Sr. No	BOQ for Deliverables Activity/Reports	Key Experts (KE)/ Non Key Experts (NKE)	Designation	Unit Rate	Total Man Days Required.		Total Price Stage 2	
				(a)	Expat (c)	Indian (d)	Foreign Currency (a.c)	Local Currency (a.d)
1	Safety Assessment plan (para 5.1 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
2	Hazard Assessment (Para 5.5.1 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
3	Engineering Safety Validation Case (Para 5.5.2 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
4	Trial Running Test Assessment (Para 5.7.1 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
5	Final Certification (Para 5.8 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						
6	Quarterly Progress Report (para 5.9 of TOR)	KE1						
		KE2						
		:						
		:						
		NKE1						
		NKE2						
		:						
		:						

Note :- 1. 'KE' denotes Key Expert

RFQ for ISA Phase-1B services



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2. 'NKE' denotes Non Key Expert

3. The CV's of Key/Non Key Experts demonstrating the qualification & experience shall be submitted.

Prices are inclusive of all taxes, duties, levies, cess, incidental charges etc. except GST.

TOTAL QUATATION AMOUNT - LUMP SUM CONTRACT

The above fixed Lump Sum Price shall be apportioned among the Section as below:

S.No.	Work Description			Total quoted amounts of two Stages in figure & works.	
				Foreign Currency	Rupees Amount
EW-B	Independent Safety Assessment Services for Signalling & Train Control System of JMRTS Phase-1B section	Commissi oning Stages	Stage-1		
			Stage-2		
TOTAL					

Prices are inclusive of all taxes , duties, levies, cess, incidental charges etc. except GST.

Note :- Bidder/ ISA shall submit the details of GST component of stage commissioning of both Stage1 & Stage2 separately .



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SECTION - 5. NOTIFICATION OF AWARD

[Employer's letterhead]

Letter of Acceptance

[date]

To: [Name and address of the contractor]

1. This is to notify you that your RFQ dated [date] for execution of the [Independent Safety Assessment (ISA) services for Train Control & Signalling System for JPJS02 Phase-1B] for the Contract Price in the aggregate of [amounts in numbers and words] [name of currency], as corrected and modified in accordance with the ISA RFQ is hereby accepted by Jaipur Metro Rail Corporation.
2. Prices are inclusive of all taxes, duties, levies, cess, incidental charges etc. Except GST. You shall ensure full compliance with tax laws of India with regard to this contract and shall be solely responsible for the same.
3. All the works will be executed in accordance with conditions, specifications & standards stipulated in the RFQ.
4. You shall furnish following :-
 - a. Power of Attorney, MOU between the consortium members as per RFQ conditions.
 - b. Performance Security/Bond, as applicable in the stipulated format.
 - c. Empanelled Certificate from RDSO & valid accreditation of ISO/ IEC 17065.
5. You shall also undertake not to use information gained in the contract for any purpose without obtaining the prior approval of JMRC and shall not make any public announcement or divulge any material relating to project both in India & overseas without the prior written consent of JMRC.
6.
 - a). The date of issue of this "Letter of Acceptance" shall be treated as the "Notice to Proceed" for the purpose of this contract for the commencement of the works.
 - b). The completion period of contract will be as per attached Key Date.
7. This letter to acceptance shall form part of the Contract Agreement to be signed later and shall be binding as Contract Agreement till detailed agreement is signed.
8. The Letter of Acceptance is sent to you in duplicate. You are required to return one copy duly signed on all pages including your unconditional acceptance thereof so as to reach the undersigned within two days of issuance of this letter.

Thanking You.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:



SECTION - 6. TERMS OF REFERENCE (TOR)

LIST OF ABBREVIATIONS

ACR	Area of Control Region
AFTC	Audio Frequency Track Circuit
ALARP	As Low As Reasonably Possible
AOA	Area of Authority
ARS	Automatic Route Setting
ATO	Automatic Train Operation
ATP	Automatic Train Protection
ATR	Automatic Train Regulation
ATS	Automatic Train Supervision
BIS	Bureau of Indian Standards
CATC	Continuous Automatic Train Control
CBI	Computer Based Interlocking
CENELEC	European Committee for Electrotechnical Standards (Comité Européen de Normalisation Electrotechnique)
CER	Central Equipment Room
CMRS	Commissioner of Metro Railway Safety
JMRC	Jaipur Metro Rail Corporation
DTC	Depot Traffic Controller
EMC	Electro-Magnetic Compatibility
EMI	Electro-Magnetic Interference
FAT	Factory Acceptance Test
IHA	Interface Hazard Analysis
ISA	Independent Safety Assessor



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JMRC	Jaipur Metro Rail Corporation
LAN	Local Area Network
LOMA	Limit of Movement Authority
LRU	Line Replaceable Unit
MMI	Man-Machine Interface
MRTS	Mass Rapid Transit System
O&M	Operation & Maintenance
OSHA	Operation & Support Hazard Analysis
PHA	Preliminary Hazard Analysis
RAMS	Reliability, Availability, Maintainability, Safety
SAP	System Assurance Plan
SCC	Special Conditions of Contract
SCADA	Supervisory Control And Data Acquisition
SHE	Safety, Health & Environment
SSHA	Subsystem Hazard Analysis
T&C	Test & Commissioning
V&V	Verification & Validation

Reference documents

All reference documents listed below shall be used in their latest revision.

- [1]. Opening Rules of the Jaipur Metro Railway, 2013; General Rules of the Jaipur Metro Railway, 2013
- [2]. IEC 62290-1 Ed.2- Railway application- Urban guided transport management and command/control systems-Part 1: System principles and fundamental concepts.
- [3]. IEC 62290-2 Ed.2- Railway application- Urban guided transport management and command/control systems-Part 2: Functional requirements specification.
- [4]. CENELEC EN 50126 / IEC 62278 - Railway applications - The Specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS)
- [5]. CENELEC EN 50128 / IEC 62279 - Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems



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- [6]. **CENELEC EN 50129 / IEC 62425** - Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling.
- [7]. **CENELEC EN 50159 / IEC 62280** - Railway applications - Communication, signalling and processing systems - Safety related communication in closed/ open transmission systems
- [8]. **IEC 61508**- Functional Safety of Electrical/Electronic/Programmable Electronic Safety related systems.
- [9]. **ISO 9000**- ISO 9000 Standards series for quality systems
- [10]. Other- Further Standards apply for Environmental Conditions, EMC (EN 50121), etc.

Chapter-1

1. Background

Phase 1B consists of approx 2.4 km Underground section from Chandpole Station to Badi Chauper .There are two underground stations on this line Choti Chaupar and Badi Chaupar.

JMRC Phase-1B section shall be commissioned in two stages i.e. Stage-1 & Stage-2.

Stage-1: Chandpole to Badi Chaupar Platform excluding Reversal Line and

Stage-2: Badi Chaupar Platform to Dead end (Including Reversal Line).

Phase 1B section will be opened for revenue services as per the schedule given in 5.12 of this section.

The Jaipur Metro, Phase-1B Project is to be delivered, aiming at delivering the lines for revenue service on Two stage basis. For the purpose of the execution of the present ISA Services agreement, all activities delivered by the ISA for the execution of the present ISA Services agreement and described in the present document shall be repeated and reiterated for each and every section of the Works.

The relevant key dates are provided in 5.12 of this section.

Chapter-2

2. Objective(s) of the Assignment

The Works to be executed under the JP/JS02 Phase-1B tender/contract include the design, manufacture, supply, installation, testing & commissioning (T&C) and technical support for a complete, integrated Train Control & Signalling System including the supply of spares. All the sub systems, equipments to be used for Train control & Signalling system shall be same as those used on Phase 1A in JS-02 contract, or their upgrade of proven design.

The ISA Consultant's safety activities shall closely follow every stage of the Contracts' development process for Phase 1B.

The ISA Consultant shall verify that the required level of safety is achieved by the Train Control & Signalling System, including interfaces of TC&S System of existing Phase-1A, to ensure the

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safe operation of the Metro in entire section from Mansarovar to Badi Chauper under various stages.

The ISA Services shall be limited to the safety aspects of the respective Contracts' activities regarding design, manufacturing, installation, T&C, and inputs to O&M (for Phase-1B section).

Aspects such as Reliability, Availability, Maintainability (RAM), non-safety functions, Safety, Health & Environment (SHE) during the construction phase, as well as security are not the part of ISA Services.

The ISA Consultant shall have to assess both the Hardware and Software components of the Train Control & Signalling System for Phase-1B section, If required the details of existing Phase 1A contract may also be sought from TC&S system contracts i.e. M/s Alstom.

The ISA Services shall be performed following the principles and processes described in the CENELEC railway application standards EN50126, EN50128 and EN50129, as well as the relevant CENELEC guides for the implementation of these standards.

The ISA objective shall be to collect, inspect and analyze all necessary data from all stakeholders to assess whether the TC&S Contracts have, throughout the project duration, applied appropriate processes and safety solutions in accordance with the requirements of the applicable safety standards, the Contract between the Employer and the respective Contracts, as well as the applicable local and national laws/acts. Where some of the documents are not being made available, the relevance of the same and the need for the same shall be justified by ISA for the Employer's Engineer to intervene and provide the same from the contracts.

The ISA shall be focused on the Train Control & Signalling System, however, the ISA Consultant shall ensure that all hazards identified during Phase 1A assessment and found in 1B work shall be mitigated/ eliminated, including those shared with other systems such as, but not limited to, Rolling Stock, Track, Traction, Power Supply, and Civil Works.

The ISA Consultant shall also assess the documentation of all systems directly or indirectly interfacing with the Train Control & Signalling System as well as documentation related to Operation and Maintenance including of Phase-1A, if required.

The conclusions of the ISA Consultant shall be provided through deliverables as detailed in Para 5.

Chapter-3

3. Scope of Services, Tasks (Components) and Expected Deliverables

3.1 General ISA Activities

To perform the Safety Assessment of the Train Control & Signalling System, the ISA Consultant shall:



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- Assess the Contracts' development process of the systems and their interfaces, during every stage of the process; and
- Assess the systems based on the Contracts' design approach, specifications, built-in safety principles, safety demonstrations and safety analyses.
- To review and audit the migration plan & migration safety studies, submitted by TC&S Contracts, to cover train operations in existing terminal station CDPE during revenue period and testing/commissioning & modification work at night for implementing Phase 1B works in various stages.

The ISA Consultant may adapt the level of detail of the Safety Assessment according to following facts:

- Sub-system Safety Integrity Level (SIL); and
- Existing safety demonstrations for the related system/sub-systems.

The Safety Assessment shall be based upon two types of activities:

- Review of the Contracts documentation pertaining to quality/safety aspects / migration throughout the various stages of development of the Train Control & Signalling System; and
- Inspection and Safety Audits with in the Contracts entities and on site.

3.2 Documentation Review

The ISA Consultant shall independently review all relevant Contracts' documents for compliance with the selected standards, consistency with the respective specifications, as well as for adequacy of the determined Safety Integrity Level according to EN50126, EN 50128, EN50129 and any other relevant standards.

The ISA Consultant shall provide comments on the Contracts documents promptly. The assessor shall include the open points in the tracking log.

The ISA Consultant shall pay special attention to the applicability and appropriateness of the available pre-certificates and reports, fulfillment of safety- related application conditions, impact and requirements on the operational concept, including the safety-related systems directly or indirectly interfacing with the Train Control & Signalling System.

The ISA Consultant documentation review shall include audit of the Contracts' report on EMC/EMI analysis, if different from Phase 1A, and ATC & IXL data preparation and other test reports.

ISA shall fulfill all mandatory conditions as required by RDSO & other railways authorities and shall submit the necessary credential/ certificates to comply the conditions including RDSO empanelled certificate.



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3.3 ISA Tracking Log

Throughout its activities, the ISA Consultant shall maintain a Tracking Log containing all identified hazards, observations, remarks, findings and reservations pertaining to safety/quality.

Such Tracking Log shall be submitted to the Employer on a quarterly basis, along with Quarterly progress report.

3.4 Safety Audits

3.4.1 General

For each Safety Audit, the ISA Consultant shall:

- At the start of the project the ISA shall develop the System safety audit plan and program to detail their proposed audits and staffing as a part of Safety Assessment Plan (See Para 5.1 below);
- As a general rule, the ISA shall give minimum of two weeks of notice, in writing, of an impending System Safety Audit;
- Develop the Safety Audit protocol;
- Liaise with the Contracts(s) to ensure that the contracts is fully aware of the scope and timing of the audit;
- Carry out the Safety Audit;
- Record all discussions and observations; and
- Produce the Safety Audit Report.

The ISA Consultant shall submit the draft version of the Safety Audit Report to the Employer within a maximum of seven working days of completing the Safety Audit.

The ISA Consultant shall discuss the draft Safety Audit Report with the audited party and the Employer before the final version is completed and submitted.

After completion of the Safety Audit, the ISA Consultant shall document all observations and enter them in the Tracking Log.

3.4.2 Minimum Safety Audits

As a minimum, audits shall be performed for each of the following sub-systems:

- Computer-Based Interlocking (CBI)
- Wayside ATP
- Train borne ATP

The Assessor may choose to expand the list of the above sub-systems to satisfy his own assessment of the overall Train Control & Signalling System being delivered by the Contracts.

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Furthermore, and as a minimum, audits shall be performed for Phase-1B of following Works:

- Design
- Installation Tests
- Test & Commissioning

3.4.3 Any additional step necessary as per CENELEC standard.

3.4.4 Safety Audit Locations

The audit of the Train Control & Signalling System shall be conducted as a minimum at the contractor's premises in JMRC project site. The assessor may conduct additional audit at contractor's premises located outside India, if necessary.

3.4.5 No charges shall be paid for expenses related to accommodation & travelling. The contracts shall arrange its own office space, store, travelling expenses etc for their key persons.

Chapter-4

4. Team Composition & Qualification Requirements for the Key Experts :-

ISA to provide the details of team composition & CV of proposed experts deployed in this project. This requirement will not be used for evaluating purpose.

Chapter-5

5. Reporting Requirements and Time Schedule for Deliverables

The given below final reports shall be delivered in 2 number of hard copies in English language, along with a CD ROM / electronic copy.

5.1 Safety Assessment Plan

Based on the Preliminary Assessment Plan proposed by the ISA at Tender stage as well as initial discussions with the Employer and the Contracts, the ISA shall produce a refined Safety Assessment Plan 30 days after contract gets effective. This Plan shall be submitted to the Employer's Engineer for approval.

The Safety Assessment Plan shall cover, as a minimum, the following areas:

- The ISA's organisation for the discharge of his task and the way this organisation shall liaise with the other parties. In Particular, he shall produce an organisation chart identifying the key personnel, their responsibilities and function;
- The Safety Assessment Programme which shall detail each assessment task in a scheduled manner based on the Contractor's Project Master Schedule;
- A comprehensive list of deliverables to be issued by the ISA during the various phases of the Project in accordance with this schedule;
- The method used by the ISA to fulfill his obligations and ascertain that the safety studies produced by the Contracts have reached their intended objectives;
- The resources proposed to be used by the ISA. For each specific safety task, there shall be one unique dedicated individual with the relevant and proven level of



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competence. Individual curriculum vitae presented by the ISA as part of his Preliminary Assessment Plan shall be confirmed here, and any additional resources shall be documented along with their curriculum vitae for the Employer's approval;

- A preliminary list of installations proposed to be audited during the various phases of the Project;
- A comprehensive list and description of the tools to be used by the ISA to support his assessment activities.
- The ISA shall review the requirements for the system assurance specified in Chapter 4, 5, 6 and App V of PS, GS and elsewhere in JP/JS-02 Phase1B contract for developing the system assessment plan.

The Safety Assessment Plan shall be submitted as part of Report No. #1. The Safety Assessment Plan shall be reviewed every three months over the course of the Project and any up gradation will be reported through Quarterly Progress Report.

5.2 Assessment of the initial Contractor's Plans

The Assessor shall review the safety related elements of the following Plans issued by the Contracts at the beginning of the Design phase of Phase 1B:-

- Project Management Plan, comprising of:
 - Contractor's Project Plan
 - Interface Management Plan
- Systems Assurance Plan, comprising of:
 - Quality Plans
 - Safety Plans
 - Electromagnetic Compatibility (EMC) Plan
 - Software Quality Assurance Plan
- Design, Procurement and Manufacturing Plan, comprising of:
 - Design Plan
 - Design Verification and Validation (V&V) Plan
 - Factory Testing Plan
 - Procurement, Manufacturing and Delivery Plan
- Construction and Installation Management Plan, comprising of:
 - Construction and Installation Plan
- Completion Management Plan, comprising of:
 - Commissioning Plan
 - Operation and Maintenance Manuals Plan



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- Documentation Management Plan
- Configuration Management Plan
- Migration Plan, Migration Safety Studies

Assessment Report # 1 is to be produced by the ISA and shall provide recommendations to the Employer's Engineer / Project Manager and the Contracts for the improvement of the various plans listed above. The safety work group shall monitor the implementation of the corrective measures suggested. ISA shall also include the open points in the tracking log.

The Safety Work Group shall validate the ISA's recommendations and decide on the corrective measures, their allocation and the time required for their implementation. At the end of the allocated time for each of the corrective measure, the ISA shall audit their implementation and follow up the same in the tracking log.

5.3 Design and Migration Plan Assessment

5.3.1 During various stages of design, contracts shall deliver

- a) Hazard analysis conducted for this phase (1B) of the system life cycle viz
 - i) PHA
 - ii) Interface hazard analysis (including EMI/EMC)
 - iii) sub-system hazard analysis
 - iv) Operating hazard analysis including maintenance
 - v) Quantitative fault tree analysis
 - vi) FMECA
 - vii) Operability Studies
- b) Proof of safety report (Generic product safety case and Generic Application safety case) for all subsystems including but not limited to Trackside ATP, Onboard ATP, CBI, Train detection system, Bidirectional train to wayside communication system, ATO and ATS, if different from one submitted with Phase 1A contract.
- c) Identification of the employer's requirements as detailed in JP/JS02 Phase- 1B contract and supporting rules and procedures required to ensure safe operation and maintenance of the Train Control & Signalling system.
- d) Design options for controlling hazards. The effect of the design options on Safety Risk shall be taken into consideration
- e) List of residual risks requiring procedure-controlled mitigation measures. The Contracts shall provide a list of residual risks that cannot be eliminated through design. Operation and/or maintenance procedures are required in this case to minimize the risk rating. The operational procedures shall cover:
 - Normal operations
 - Degraded operations



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- Emergency operations
- f) Before the start of commissioning & installation activities of phase-1B section, ISA shall submit their recommendation/report based in the audit & review of migration plans & studies for stages wise option. This shall include but limited to. Identification of risks, hazardous conditions, other bottleneck etc. and suggest the mitigation measures & solutions in consultation with TC&S system contracts phase-1B to address the same.

5.3.2 The Assessor shall assess the Safety Studies undertaken by the Contracts (as described in Para 5.3.1 above), and issue to the Employer and the relevant parties, recommendations for the improvement of the System Safety. The assessment shall include but not be limited to:

- Completeness of the system and sub-system safety requirements, derived from specifications and hazard analysis, including those dedicated to human performance
- Assessment of the risks, the residual risks, and their acceptability
- Integrity levels definition and allocation
- Assessment of the ability/implementation of the generic system and sub- systems architectures and safety techniques to sustain the required Safety Integrity Level
- Assessment of the verification and validation methods (analysis and tests) defined by the Contracts in order to demonstrate the compliance of the safety components with their allocated safety objectives
- Assessment of the verification and validation methods (analysis and tests) defined by the Contracts in order to demonstrate the safety of the data (application data of vital equipments) to be used throughout the project
- Assessment of the verification method dedicated to the safety assurance of the operation and maintenance rules and procedures
- Assessment of the hazard logs (including updates) created by the contracts and issue requisite recommendation to all parties.
- List of residual risks requiring procedure-controlled mitigation measures

The assessment shall be the subject of Report # 2 which shall give recommendations to the Employer's Engineer/ Project Manager and the Contracts for improvements.



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5.4 Manufacturing and installation

The Assessor shall assess the safety aspects of Verification, Test & Acceptance plan of those equipments that have been identified during the Design phase as safety critical. This will include as a minimum, items listed in para 3.4.2. Upon receipt of the system and subsystems tests plans and tests specifications documents, the Assessor shall perform the assessment of the implemented system. The assessment shall in particular assess the adequacy of the Verification & Validation (V&V) tests specifications and program with regards to the Safety requirements. The assessment results shall be the subject of Report #3. Furthermore, the equipments which are safety critical shall be the subject of site installation auditing by the Assessor as detailed in Para 3.4 above. Auditing results shall be forwarded to the Employer and all relevant parties in Report #4. Report #4 shall be prepared for Phase-1B section.

5.5 Testing & Commissioning

5.5.1 Hazard Assessment Close Out Process

Engineering Safety Validation shall provide confirmation, by examination and provision of objective evidence(s), that the particular functional requirements for the safe performance of the System functions (including the successful performance of the established hazard mitigation measures that are identified during the Design stages) have been fulfilled.

The Engineering Safety Validation to be assessed by the Assessor shall focus on the Contractor's Engineering Safety Validation Plan, which shall include:

- The scope of the activities to be carried out during the Testing & Commissioning period, including all static and dynamic tests, integrated and dynamic tests and commissioning, and covering all safety critical functions
- The segregation of all Testing & Commissioning activities from residual construction activities
- The procedures required to conduct all Testing & Commissioning activities safely, including where necessary, the protection measures for any part of the Metro System which may be in operation
- The processes to be implemented to validate the safety critical aspects of software installation and testing
- The processes required to control and validate the safety implications and modifications carried out during the period of Testing & Commissioning
- The processes required to assess the safety implications of the results of tests and inspections carried out during the period of Testing & Commissioning
- The arrangements to record report and investigate accidents and incidents together with the systems necessary to formulate and implement measures to prevent occurrences

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The results of the assessment of this document for the contract JP/JS02 Phase -1B shall be the subject of Report #5.

5.5.2 Engineering Safety Validation Case

At the end of the Testing & Commissioning process but before trial running, the Contracts shall establish that all identified hazards can be satisfactorily closed. The same shall be assessed by ISA.

The assessment results shall be the subject of Report #6. This report shall be prepared for Phase1B section.

5.6 Operation & Maintenance preparation

The contracts shall aid the employer for operation & maintenance preparation through operation manual, maintenance manual and maintenance management system. The contracts shall also submit an operation and maintenance hazard analysis.

The Operation & Maintenance process shall be assessed by the Assessor, to ensure they comprise activity regulations to insure safety to its staff, the passengers and any third parties during the operation & maintenance of the Metro System. The results of this assessment for the contract JS02-Phase-1B shall be the subject of Report #7.

5.7 Trial running

5.7.1 Trial Running Tests Assessment

After completion of the System Acceptance Tests, and as a prerequisite to revenue service, the contracts shall conduct trial running tests involving day-to- day operation of the System. These tests shall include the demonstration of all routine and emergency procedures associated with operation of the line.

The assessment of the Trial Running Test Plan, tests procedures and tests results shall be the subject of Report #8. Report #8 shall be prepared in details for contract Phase-1B.

5.8 Final Certification for Revenue Service

The Assessor shall prepare a Final Certificate for Revenue Service for this section confirming that the System has adhered to SIL4 process from design to testing & commissioning stages, including application data of vital equipment for the signalling system and as such is deemed fit for revenue service with passengers. The said certificate shall then be presented by the Employer to the Commissioner of Metro Railway Safety (CMRS) which is the ultimate agency having authority for deciding to open the line for revenue service with passengers.



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5.9 Quarterly Progress Report

The Assessor shall prepare Quarterly Progress Reports covering the execution of the ISA Services.

The Quarterly Progress Reports shall include an executive summary and contain a clear and concise analysis statement in respect of every significant aspect of the ISA services, including without limitation:

- Program and progress
- Schedule of submissions made to the Employer with dates
- Decisions awaited by the Employer
- A report on safety and progress of the Safety Management Plan
- Up-dation to Safety Assessment Plan
- Tracking log
- An exception report highlighting problem areas and the steps taken to resolve them

Each progress report shall contain a next quarter anticipated program.

5.10 Structure of Reports

The Reports shall generally include the following information:

- An executive summary describing the service performed, the results of the assessment, recommendations and conclusion
- Details of audit performed wherever applicable including records of discussion (viz minutes of meeting with contractor's representative), results of the audit, recommendations and conclusion
- A technical summary
- A detailed technical assessment report
- Reference to standards and documents used
- The hazard log
- Hazard resolution progress
- Allotted time for corrective measures

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5.11 BOQ details for Phased / Stage Commissioning.

Stage-1 (Commissioning of 1B Section from CDPE to Badi Chaupar excluding Reversal Line)

Sr. No.	Activity
1.	Safety Assessment plan (para 5.1 of TOR)
2.	Assessment of Initial Contractor's plan (para 5.2 of TOR)
3.	Design Assessment Plan (para 5.3 of TOR)
4.	Assessment & Study of Migration Plan of Existing (Phase-1A) line from Chandpole to Badi Chaupar Station (para 5.3 of TOR)
5.	Assessment of Manufacturing and Installation Plans (para 5.4 of TOR)
6.	Safety Auditing (para 3.4 of TOR)
7.	Hazard Assessment (para 5.5.1 of TOR)
8.	Engineering Safety Validation Case (para 5.5.2 of TOR)
9.	O&M Process Report (para 5.6 of TOR)
10.	Trial Running Test Assessment (para 5.7.1 of TOR)
11.	Final Certification (para 5.8 of TOR)
12.	Quarterly Progress Report (para 5.9 of TOR)



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Stage-2 (Commissioning of 1B Section from CDPE to Badi Chaupar including Reversal Line)

Sr. No.	Activity
1.	Assessment & Study of Migration Plan of Existing (Phase-1A) line from Chandpole to Badi Chauper Station (para 5.3 of TOR)
2.	Hazard Assessment (para 5.5.1 of TOR)
3.	Engineering Safety Validation Case (para 5.5.2 of TOR)
4.	Trial Running Test Assessment (para 5.7.1 of TOR)
5.	Final Certification (para 5.8 of TOR)
6.	Quarterly Progress Report (para 5.9 of TOR)



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5.12 Time Schedule

The below given Schedule of Key Dates is for JP/JS 02 Phase-1B Contract (Train Control & Signalling System Bid).

Key Date	Description	Choti Chaupar- Badi Chaupar Section
KD1	Submission of Preliminary Design Document	Within 8 weeks from LOA
KD2	Submission of Final Design Document	Within 15 weeks from LOA
KD3	Obtain Consent of Employer's Engineer on Final Design submission	30 weeks prior to KD7
KD4	Delivery of Train Control & Signalling system / equipments at Contractor's premises in Jaipur	28 weeks prior to KD7
KD5	Completion of System Acceptance Test (SAT) & Integrating System Testing including ATO.	8 weeks prior to KD7
KD6	Submission of Safety Certificate	4 weeks prior to KD7
KD7	Revenue operation	15.03.2019 (Tentative)
KD8	Completion of Contract	15.03.2021 (Tentative)

5.13 Schedule of Key dates for ISA.

Key Date	Description	Choti Chaupar- Badi Chaupar Section
Stage-1 (Commissioning of 1B Section from CDPE to Badi Chaupar excluding Reversal Line)		
KD1-A	Submission of Final Certification for Revenue Services	4 weeks prior to ROD
KD1-B	Revenue operation	15.03.2019 (Tentative)
Stage-2 (Commissioning of 1B Section from CDPE to Badi Chaupar including Reversal Line)		
KD2-A	Submission of Final Certification for Revenue Services	4 weeks prior to operation of complete phase 1B section including reversal line.
KD2-B	Reversal Line Section Operation	15.03.2021 (Tentative)



Chapter- 6

6. Client's Input and Location of Services

- (a) Consultant shall provide Services at the following location(s): Jaipur Metro Rail E-W section (Phase 1A &1B) at Jaipur.
- (b) Ensure that the Consultant has access to wherever it is required in JMRC Phase 1A and 1B Section for the performance of the Services and also related documentation.
- (c) The authorized representative of the Client during the implementation of this Contract is:

Director (Project), Jaipur Metro Rail Corporation Limited,
RAJSICO_Building, Udhog Bhawan Premises ,
C-Scheme, Floor/Room number:
3rd Floor, Jaipur (Rajasthan) Postal Code-302005
Country: India.

Telephone: 0141- 2822250, Fax: +91-141-2822251, E-mail address: dp@jaipurmetrorail.in & gmst@jaipurmetrorail.in



Chapter- 7

1. Terms and conditions

7.1 Eligibility criteria-

- 7.1.1 The Bank permits consultants (individuals and firms, including Joint Ventures and their individual members) from the eligible countries as stated in Section 5 to offer consulting services for Bank-financed projects.
- 7.1.2 Furthermore, it is the Consultant's responsibility to ensure that its Experts, joint venture members, Sub-consultants, agents (declared or not), sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by the Asian Development Bank in Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers, which can be found in the following website: www.adb.org.

Sanctions

- 7.1.3 As an exception to the foregoing Clauses 7.1.1 and 7.1.2 above:
- 7.1.4 A firm or an individual sanctioned by the Bank for Corrupt and Fraudulent Practices or in accordance with Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers shall be ineligible to be awarded a Bank-financed contract, or to benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall determine. The list of debarred firms and individuals is available at the electronic address specified in the Data Sheet.

Prohibitions

- 7.1.5 Firms and individuals of a country or goods manufactured in a country may be ineligible if so indicated in Clause 7.1.9 (Eligible Countries) and:
- (a) as a matter of law or official regulations, the Borrower's/Beneficiary's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the provision of Services required; or
- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.

Restrictions for government-owned Enterprises

- 7.1.6 Government-owned enterprises or institutions in the Borrower's country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) that they are not dependent agencies of the Client.

Restrictions for Public Employees

- 7.1.7 Government officials and civil servants may only be hired under consulting contracts, either as individuals or as members of a team of a consulting firm, if they (i) are on leave of absence without pay; (ii) are not being hired by the agency they were working for immediately before going on leave; and (iii) their employment would not create a conflict of interest).



7.1.8 Financing Eligibility

The Client has received a loan from the Asian Development Bank: toward the cost of the Services and intends to apply a portion of the proceeds of this [loan] to eligible payments under this Contract, it being understood that (i) payments by the Bank will be made only at the request of the Client and upon approval by the Bank; (ii) such payments will be subject, in all respects, to the terms and conditions of the [loan] agreement, including prohibitions of withdrawal from the [loan] account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by the decision of the United Nations Security council taken under Chapter VII of the Charter of the United Nations; and (iii) no party other than the Client shall derive any rights from the [loan] agreement or have any claim to the [loan] proceeds.

7.1.9 Eligible Countries

Compliance with the Bank's eligibility policy is required throughout the Contract's execution. The list of eligible member countries is available below :-

- | | |
|---------------------------------|-------------------------------------|
| 1. Afghanistan | 35. Micronesia, Federated States of |
| 2. Armenia | 36. Mongolia |
| 3. Australia | 37. Myanmar |
| 4. Austria | 38. Nauru |
| 5. Azerbaijan | 39. Nepal |
| 6. Bangladesh | 40. The Netherlands |
| 7. Belgium | 41. New Zealand |
| 8. Bhutan | 42. Norway |
| 9. Brunei Darussalam | 43. Pakistan |
| 10. Cambodia | 44. Palau |
| 11. Canada | 45. Papua New Guinea |
| 12. China, People's Republic of | 46. Philippines |
| 13. Cook Islands | 47. Portugal |
| 14. Denmark | 48. Samoa |
| 15. Fiji | 49. Singapore |
| 16. Finland | 50. Solomon Islands |
| 17. France | 51. Spain |
| 18. Georgia | 52. Sri Lanka |
| 19. Germany | 53. Sweden |
| 20. Hong Kong, China | 54. Switzerland |
| 21. India | 55. Taipei, China |
| 22. Indonesia | 56. Tajikistan |
| 23. Ireland | 57. Thailand |
| 24. Italy | 58. Timor-Leste |
| 25. Japan | 59. Tonga |
| 26. Kazakhstan | 60. Turkey |
| 27. Kiribati | 61. Turkmenistan |
| 28. Korea, Republic of | 62. Tuvalu |
| 29. Kyrgyz Republic | 63. United Kingdom |



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30. Lao PDR	64. United States
31. Luxembourg	65. Uzbekistan
32. Malaysia	66. Vanuatu
33. Maldives	67. Viet Nam
34. Marshall Islands	

7.1.10 Technical Eligibility

<p>a. ISA selected for JMRC Phase-1B project should not have been involved in other project activities like general consultancy, tendering, design, testing etc. of same JMRC Phase 1B project.</p> <p>b. ISA shall ensure that the currency of accreditation of ISA as per ISO/IEC 17065 is valid on the date assignment given to them as well as on the date if ISA's final report after completion of the assignment.</p> <p>c. ISA firms on RDSO panel may authorize their Indian counterpart officers/ Representatives for ease in co-ordination, communication and RFQ on behalf of the ISA firm. Such authorization may be communicated to the JMRC organization directly. However, it is made clear that the assessment, certification etc. for the project shall be done by the firm on the panel as above and not by the Indian representatives.</p>	<p>RDSO Notification No. Sts/E /ISA-Vol.-IV dated 08.01.2018</p> <ol style="list-style-type: none"> 1. Submit relevant empanelment Certificate with RFQ submission. 2. Submit the latest & valid ISO/IEC 17065 certificate. 3. Submit the authorization letter, if Indian counterpart officer/ representatives deputed for coordination, communication & RFQ on behalf of ISA firm.
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7.2 Schedule of Payment & Milestones

JMRC shall make payments to the ISA based on the stage payments as shown below. The stage payments shall be made on completion of the corresponding activities after necessary deductions.

The percentages shown will be made for each activity based on the amount quoted in each currency.

Note: The progress schedule (weeks from Letter of Acceptance) is indicative and will be finalized during contract execution. The schedule of key dates for JPJS02 Phase-1B contract is provided in Term of Reference. The ISA should comply with key dates for contract.

Phased Commissioning

Stage-1 (Commissioning of 1B Section from CDPE to Badi Chaupar excluding Reversal Line)

S. No.	Activity Completed	Reference Clause as per Technical Specification	Stage Payment of Lump Sum	Progress Schedule (Weeks from LOA)
Obtain the "Notice of NO Objection" or "Notice of NO Objection Subject to----" from the Employer's Representative for:				
1.	Report 1	5.1 & 5.2	5%	
2.	Report 2	5.3	10%	
3.	Report 3	5.4	5%	



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4.	Report 4	5.4	15%	
5.	Report 5	5.5.1	5%	
6.	Report 6	5.5.2	5%	
7.	Report 7	5.6	5%	
8.	Report 8	5.7.1	5%	
9.	Final Certification for Revenue Service (For ATP & ATO)	5.8	25%	
10.	Quarterly Progress Report (Note: Proportionate amount for each quarterly audit report amounting to total 20% of JMRC-ISA -Phase-1B price will be paid for each audit report.	5.9	20%	Each quarter from the date of issue of LOA till Revenue Operation Date (ROD) quarter.

Stage-2 (Commissioning of 1B Section from CDPE to Badi Chaupar including Reversal Line)

S.No.	Activity Completed	Reference Clause as per Technical Specification	Stage Payment of Lump Sum	Progress Schedule (Weeks from LOA)
Obtain the "Notice of NO Objection" or "Notice of NO Objection Subject to----" from the Employer's Representative for:				
1.	Report 2	5.3	15%	
2.	Report 5	5.5.1	15%	
3.	Report 6	5.5.2	15%	
4.	Report 8	5.7.1	15%	
5.	Final Certification for Revenue Service (For ATP & ATO)	5.8	20%	
6.	Quarterly Progress Report (Note: Proportionate amount for each quarterly audit report amounting to total 20% of JMRC-ISA -Phase-1B price will be paid for each audit report.	5.9	20%	Each quarter from the date of issue of LOA till Revenue Operation Date (ROD) quarter.



CHAPTER- 8

8. GENERAL CONDITIONS OF CONTRACT

1. Definitions

- 1.1. Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:
- a) "Applicable Guidelines" means Guidelines on the Use of Consultants by ADB and Its Borrowers
 - b) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-consultant or Joint Venture (JV) member(s) assigned by the Consultant to perform the Services or any part thereof under the Contract.
 - c) Key Expert(s)" means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose Curricula Vitae (CV) was taken into account in the technical evaluation of the Consultant's proposal.
 - d) "Non-Key Expert(s)" means an individual professional provided by the Consultant or its Sub-consultant to perform the Services or any part thereof under the Contract.
 - e) "Sub-consultants" means an entity to whom/which the Consultant subcontracts any part of the Services while remaining solely liable for the execution of the Contract.

2. Eligibility

- 2.1 It is the Consultant's responsibility to ensure that its Experts, joint venture members, Sub-consultants, agents (declared or not), sub-Contracts, service providers, suppliers and/or their employees meet the eligibility requirements throughout the implementation of this Contract as established by the Asian Development Bank in the Guidelines on the Use of Consultants by ADB and Its Borrowers (www.adb.org) and as detailed in **chapter 7 (7.1) of Section-6 Terms of reference.**
- 2.2 Throughout the execution of the Contract, the Consultant shall comply with the import of goods and services prohibitions in the Client's country when
- (a) as a matter of law or official regulations, *[the Borrower's/ Beneficiary's]* country prohibits commercial relations with that country; or
 - (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.



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3. **Corrupt and Fraudulent Practices** The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in **chapter 10 of Section-6 Terms of reference.**
4. **Commissions and Fees Disclosure** 4.1 The Client requires the Consultant to disclose any commissions, gratuities or fees that may have been paid or are to be paid to agents or any other party with respect to the selection process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee. Failure to disclose such commissions, gratuities or fees may result in termination of the Contract and/or sanctions by the Bank.
5. **Force Majeure**
- a. **Definition** 5.1 For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action by Government agencies.
- 5.2 Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.
- b. **No Breach of Contract** 5.3 The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.
- c. **Measures to be Taken** 5.4 A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.
- 5.5 A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.
- 5.6 Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.



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5.7 During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:

- (a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or
- (b) Continue with the Services to the extent reasonably possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.

6. Suspension

6.1 The Client may, by written notice of suspension to the Consultant, suspend part or all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding seven (7) calendar days after receipt by the Consultant of such notice of suspension or if the ADB has suspended disbursements under the Financing Agreement.

7. Termination

7.1 This Contract may be terminated by either Party as per provisions set out below.

a. By the Client

7.2 The Client may terminate this Contract with at least fourteen (14) calendar days prior written notice to the Consultant after the occurrence of any of the events specified in paragraphs (a) through (e) of this Clause:

(a) If the Consultant does not remedy a failure in the performance of its obligations under the Contract after being notified by the Client in writing by specifying the nature of the failure and requesting to remedy it within at least ten (10) calendar days after the receipt of the Client's notice;

(b) If the Consultant becomes insolvent or bankrupt;

(c) If the Consultant, in the judgment of the Client or the Bank, has engaged in integrity violations as defined in **Section-6 Terms of reference**.

or if in the judgment of the Client or the Bank, continuing the Contract will be detrimental to the interests or reputation of the Client, the Bank, or the project.;

(d) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

(e) If the Financing Agreement has been terminated or the Bank has suspended disbursements under the Financing Agreement.



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- b. **By the Consultant**
- 7.3 The Consultant shall promptly notify the Client in writing of any situation or any event beyond the reasonable control of the Consultant, which makes it impossible for the Consultant to carry out its obligations under the Contract.
- 7.4 Upon written confirmation by the Client or upon failure of the Client to respond to such notice within 14 (fourteen) calendar days of receipt thereof, the Consultant shall be relieved from all liability and may thereupon terminate the Contract by giving no less than fourteen (14) calendar days, a written termination notice.
- 8. Obligations of the Consultant**
- a. **Standard of Performance**
- 8.1 The Consultant shall carry out the Services with due diligence and efficiency, and shall exercise such reasonable skill and care in the performance of the Services as is consistent with sound professional practices.
- 8.2 The Consultant shall act at all times so as to protect the interests of the Client and shall take all reasonable steps to keep all expenses to a minimum, consistent with sound professional practices.
- b. **Compliance**
- 8.3 The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and Sub-consultants, comply with the Applicable Law.
- c. **Conflict of Interests**
- 8.4 The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.
- 8.5 The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-consultants and any entity affiliated with such Sub-consultants, shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.
- 8.6 The Consultant shall not engage, and shall cause its Experts as well as its Sub-consultants not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract.
- 8.7 The Consultant has an obligation and shall ensure that its Experts and Sub-consultants shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.



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- 9. Confidentiality**
- 9.1 Except with the prior written consent of the Client, the Consultant and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant, including Experts, make public the recommendations formulated in the course of, or as a result of, the Services. This confidentiality does not limit the Consultant, including Experts and Sub-consultants, from disclosing any integrity violations or producing any such documents, records, evidence, or testimony as required by law or ADB's Anticorruption Policy and Integrity Principles and Guidelines
- 10. Insurance to be taken out by the Consultant**
- 10.1 The Consultant shall take out and maintain at its own cost adequate professional liability insurance as well as adequate insurance against third party liability and loss of or damage to equipment purchased in whole or in part with funds provided by the Client. The Consultant shall ensure that such insurance is in place prior to commencing the Services.
- 10.2 The Client undertakes no responsibility in respect of any life, health, accident, travel or other insurance which may be necessary or desirable for the Consultant, Expert(s), Sub-consultants, or specialists associated with the Consultant for purpose of the Services, nor for any dependent of any such person.
- 10.3 The Client reserves the right to require original evidence that the Consultant has taken out the necessary insurance.
- 11. Accounting, Inspection and Auditing**
- 11.1 The Consultant shall keep, and shall make all reasonable efforts to cause its Sub-consultants to keep, accurate and systematic accounts and records in respect of the Services and in such form and detail as will clearly identify relevant time changes and costs.
- 11.2 The Consultant shall permit and shall cause its Sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the site and/or all accounts and records relating to the performance of the Contract and the submission of the Proposal to provide the Services, and to have such accounts and records audited by auditor appointed by the Bank if requested by the Bank.
- 12. Reporting Obligations**
- 12.1 The Consultant shall submit to the Client the reports and documents specified in **Chapter 5 of section 6 and section 4 of Bill of Quantities**, in the form, in the numbers and within the time periods set forth in said Appendix.
- 13. Proprietary Rights of the Client in Reports and Records**
- 13.1 All reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential and become and remain the absolute property of the Client unless otherwise agreed by the Client in writing. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval



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of the Client.

(a) The consultant shall indemnify the Client from and against any and all claims, liabilities, obligations, losses, damages, penalties, actions, judgments, suits, proceedings, demands, costs, expenses and disbursements of whatsoever nature that may be imposed on, incurred by or asserted against, the Client during or in connection with the Services by reason of i) infringement or alleged infringement by the Consultant of any patent or other protected right, or ii) plagiarism or alleged plagiarism by the Consultant.

(c) The Consultant shall ensure that all goods and services (including without limitation all computer hardware, software and systems) procured by the Consultant from the Client funds or used by the Consultant in the carrying out of the Services do not violate or infringe any industrial property or intellectual property right or claim of any third party."

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| 14. Description of Key Experts | 14.1 | The title, agreed job description, qualification of each of the Consultant's Key Experts to be furnished as per Section-4 Bill of Quantities . |
| 15. Replacement of Key Experts | 15.1 | Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts. |
| | 15.2 | Notwithstanding the above, the substitution of Key Experts during Contract execution may be considered only based on the Consultant's written request and due to circumstances outside the reasonable control of the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, and at the same rate of remuneration. |
| 16. Removal of Experts or Sub-consultants | 16.1 | If the Client finds that any of the Experts or Sub-consultant has committed serious misconduct or has been charged with having committed a criminal act, or if the Client determine that a Consultant's Expert or Sub-consultant has engaged in corrupt, fraudulent, collusive, coercive <i>[or obstructive]</i> practice while performing the Services, the Consultant shall, at the Client's written request, provide a replacement. |
| | 16.2 | In the event that any of Key Experts, Non-Key Experts or Sub-consultants is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Consultant to provide a replacement or vary the contract to remove costs associated with removed experts or sub-consultants. |
| | 16.3 | Any replacement of the removed Experts or Sub-consultants shall possess better qualifications and experience and shall be acceptable to the Client. |
| | 16.4 | The Consultant shall bear all costs arising out of or incidental to any removal and/or replacement of such Experts. |
| 17. Client's Payment | 17.1 | In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to the |



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Obligation		Consultant for the services specified in section-4 Bill of Quantities and in such manner as described in Section-6 Terms of reference.
18. Mode of Billing and Payment	18.1	The payments under this Contract shall be made in accordance with the payments provisions in SCC and Section-6 Terms of reference.
	18.2	Payments do not constitute acceptance of the whole Services nor relieve the Consultant of its obligations.
19. Amicable Settlement of disputes	19.1	The Parties shall seek to resolve any dispute amicably by mutual consultation.
	19.2	If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute will consider it and respond in writing within seven (7) calendar days after receipt. If that Party fails to respond within seven (7) calendar days, or the dispute cannot be amicably settled within seven (7) calendar days following the response of that Party, Clause "Dispute Resolution" below shall apply.
20. Dispute Resolution	20.1.	Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the applicable adjudication/ arbitration.



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Chapter- 9

9. Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC. The clause number of the SCC is the corresponding clause number of the GCC.

Table of Clauses

SCC Clause No.	GCC Sub Clause No.	Description
1.		<p>a. SCC is to be read in conjunction with the GCC. Entire clause of GCC is not replaced unless specifically mentioned in SCC against the relevant clause.</p> <p>b. The "Consultant" to be read as "the Assessor".</p>
2.	2	The RDSO empanelled ISA for Metro Rail Project can participate in RFQ.
3.	10	<p>The insurance coverage against the risks shall be as follows:-</p> <p>a. Professional liability insurance, with a minimum coverage of 5% of the contract prize in type and proposition of currencies in which price is payable.</p> <p>b. Employer's liability and workers' compensation insurance in respect of the experts / ISAs in accordance with the relevant provisions of the applicable law in the Client's country, as well as, with respect to such Experts, any such life, health, accident, travel or other insurance as may be appropriate.</p> <p>In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed.</p> <p>Within 12 weeks of receipt of the Letter of Acceptance, the successful ISA shall submit all insurances.</p>
4.	16	Sub-contracting of the whole or part of the ISA works shall not be allowed.
5.	18	<p>(i) Contract Price</p> <p>The Contract Price shall be specified in Section 4. The rates and prices quoted in the Bill of Quantities shall be quoted separately in the following currencies :</p> <p>a. For inputs to the Works/ Services, which are expected to be supplied from within India, in Indian Rupees.</p> <p>b. For those inputs to the works/ Services, which are expected to be supplied from outside India, in foreign currency.</p> <p>The Contract Price shall not be adjusted on account of fluctuations in the rates of exchange between the foreign currencies of the Contract</p>

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		<p>and Indian Rupees.</p> <p>The ISA is required to note the following while quoting his prices:-</p> <p>As this project is funded by Asian Development Bank (ADB), the project is governed by the following exemptions.</p> <p>A. Custom Duty</p> <p>a. The project is eligible for exemption of custom duty as per notification no. 84/97-customs dated 11.11.1997, as amended by notification no. 85/99-cus. Dated 06.07.1999 and no. 119/99-cus. Dated 02.11.1999 and notification no. 75/2001 dated 01-07-01 and notification no. 107/2001-cus. Dated 12.10.2001 (Subject to the GST notifications , only for the part which is not subsumed in the GST).</p> <p>Note: 1. Amendments to above notifications, if any, up to the date 28 days prior to the deadline for submission of RFQs shall also be deemed to be taken into consideration in the Contract Price.</p> <p>In addition to above exemptions (Custom duty) if any other exemptions which are available to the Contractor by virtue of any notification of Government / Local Bodies existing as on 28 days prior to the submission of the RFQs, may be availed by the contract and JMRC will assist wherever it is required to in respect of any permission, certificate from the Government and issue the necessary documents.</p> <p>B. RFQ Evaluation:-</p> <p>1. The ISA shall quote fix lump sum price or as per BOQ price (as the case may be) inclusive of all taxes, levies, duties, cess, freight, insurance and all other incidental charges except GST required to fulfill the contract requirements including statutory deduction viz., TDS towards Income Tax /GST etc. except the exemptions stated in clause A above to the extent the same are applicable and available.</p> <p>2. However, any new taxes/duties or any statutory variation in the existing taxes/duties applicable to the JMRC project during the contractual completion shall be to the employers account i.e. reduction is to be passed on to the employer and increase to be reimbursed by the employer. The ISA agency shall furnish the documentary evidence in support of their claims for reimbursement from JMRC. However, any increase in cost due to new taxes/duties or any statutory variation in the existing taxes/duties applicable to the JMRC project during extended contractual period due to contractors fault shall be to contractor account, whereas any decrease in the taxes/duties shall be employers account</p>
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		<p>C. Taxes and duties paid to the sub-vendors shall not be paid separately and therefore are to be included in the price.</p> <p>(No price escalation shall be provided)</p> <p>(ii) Interim Payment Certificates</p> <p>In case of „Lump Sum“ contract with milestone payment, the fixed Lump Sum Price shall be apportioned by the Contractor amongst the various milestone with the approval of the Employer/ Engineer. The ISA shall be entitled to submit to the Engineer requests for interim payments only upon the achievement of one or more of the Milestones.</p> <p>At the beginning of each month, the Engineer shall issue to the Contractor certificate in respect of each Milestone due to be achieved in the preceding month stating:</p> <ol style="list-style-type: none">The date on which the Milestone was achieved; orThe non-achievement of the Milestone. <p>The Contractor shall submit a statement in three copies to the Engineer at the beginning of each month, in a form approved by the Engineer, showing the amounts to which the Contractor is entitled, together with supporting documents, including Milestone Certificates. The statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:</p> <ol style="list-style-type: none">The amount due in respect of Milestones certified achieved by the Engineer;Any amounts to be added and deducted for the advance payments and recovery thereof;Any other additions or deductions is due and approved by the Engineer in accordance with the Contract; andThe deduction of the amounts certified in all previous Interim Payment Certificates. <p>The ISA shall not submit more than one request for interim payment per month.</p> <p>If any Milestone is not achieved by the end of the month in which it is scheduled to be achieved, the Engineer shall suspend the payment.</p> <p>Payments suspended under this Clause shall be resumed by being included in the next application for interim payment made after the Milestone is achieved.</p> <p>(iii) All the payments to the Assessor shall be made by E-payment / Cheque /Letter of Credit.</p>
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6.	19 & 20	<p>Disputes and Arbitration</p> <p>The Dispute Board shall be appointed within 30 days after the Effective Date.</p> <p>If the efforts to resolve all or any of the disputes through conciliation fails, then such disputes or differences, whatsoever arising between the parties, arising out of touching or relating to construction/ manufacture, measuring operation or effect of the Contract or the breach thereof shall be referred to Arbitration in accordance with the following provisions:</p> <ol style="list-style-type: none"> Matters to be arbitrated upon shall be referred to a sole Arbitrator if the total value of the claim is upto Rs.5 million and to a panel of three Arbitrators if total value of claims is more than Rs.5 million. The Employer shall provide a panel of three arbitrators for the claims upto Rs.5 million and a panel of five Arbitrators for claims of more than Rs.5 million. The Contractor shall have to choose the sole Arbitrator from the panel of three and/or one Arbitrator from the panel of five in case three Arbitrators are to be appointed. The Employer shall also choose one Arbitrator from this panel of five and the two so chosen will choose the third arbitrator from the panel only. The Arbitrator(s) shall be appointed within a period of 30 days from the date of receipt of written notice/ demand of appointment of Arbitrator from either party. Neither party shall be limited in the proceedings before such arbitrator(s) to the evidence or arguments put before the Project Manager for the purpose of obtaining his decision. No decision given by the Project Manager in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator(s) on any matter, whatsoever, relevant to dispute or difference referred to arbitrator/s. The arbitration proceedings shall be held in Jaipur only. The language of proceedings, that of documents and communication shall be English. The Employer at the time of offering the panel of Arbitrator(s) to be appointed as Arbitrator shall also supply the information with regard to the qualifications of the said Arbitrator nominated in the panel along with their professional experience, phone nos. and addresses to the contractor. The award of the sole Arbitrator or the award by majority of three Arbitrators as the case may be shall be binding on all parties. <p>Interest on Arbitration Award</p> <p>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.</p> <p>Cost of Arbitration</p> <p>The cost of arbitration shall be borne by the respective parties. The cost shall, inter alia, include the fees of the arbitrator (s) as agreed by both the parties or provided under the International Arbitration Rules.</p> <p>Jurisdiction of Courts</p> <p>Where recourse to a Court is to be made in respect of any matter, the court at Jaipur shall have the exclusive jurisdiction to try all disputes</p>
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		<p>between the parties.</p> <p>Suspension of Work on Account of Arbitration</p> <p>The reference to Conciliation/Arbitration shall proceed notwithstanding that the Works shall not then be or be alleged to be complete, provided always that the obligations of the Employer, Project Manager and the Contractor shall not be altered by reasons of arbitration being conducted during the progress of the Works. Neither party shall be entitled to suspend the work or part of the work to which the dispute relates on account of arbitration and payments to the Contractor shall continue to be made in terms of the Contract.</p>
7.	Additional Clause	<p>ISAs may express the price for their Services in any fully convertible currency, singly or in combination of up to three foreign currencies & Local currencies. If and to the extent that the pricing document expressly specifies in relation to a cost centre that the contractor is entitled to payment in a currency other than Indian Rupees, or the Engineer makes a determination of cost in a currency other than Indian Rupees, all such payments shall be made in the relevant foreign currency and no adjustment shall be made to any payment or to the final contract sum on account of any fluctuation in the exchange rate between Indian rupees and such other currency from the base date.</p> <p>The currency that shall be used for RFQ evaluation and comparison purposes to convert RFQ prices expressed in various currencies into a single currency is Indian Rupee (INR). The source of the selling exchange rate shall be of Reserve Bank of India. The date for the selling exchange rate shall be 28 days before date of submission of RFQ.</p>
8.	Additional Clause	<p>Liquidated damages for delay</p> <p>"Liquidated damages shall be recovered as specified below :-</p> <p>I. 0.05% of the fixed Lump Sum price per day of delay for the Key Dates related to the Taking-Over of a Section, and the Taking-Over of the whole of the Works.</p> <p>II. 0.005% of the fixed Lump Sum price per day of delayed other than the ones relating to the Taking-Over of a Section.</p> <p>The maximum limit shall be 10% of the contract price.</p>
9.	Additional Clause	ISA shall follow the schedule of Signalling System contract JP/JS02 Phase1B
10.	Additional Clause	<p>Defect Liability Period</p> <p>Duration of Defects Liability shall be a period of 3 months reckoned from the date of reversal line section opening.</p> <p>The each section is brought into use for the carriage of the fare paying public (RoD).</p>
11.	Additional Clause	<p>Performance Security</p> <p>Within 28 days of receipt of the Letter of Acceptance, the successful ISA shall furnish Performance Security in the form of a bank guarantee from a branch in India of a scheduled foreign bank or from a scheduled commercial bank in India acceptable to the Employer for an amount of</p>



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		10% of the Contract value in types and proportions of currencies in which the Contract Price is payable (as per forms of Chapter 11 of section-6)
12.	Additional Clause	Contractor may apply for part completion of any milestone, if the milestone activity has been at least 50% completed, along with supporting details justifying the percentage completion being requested. The Employer's Engineer shall have the full authority to accept, modify or reject any such request. The decision of the Engineer shall be final and binding. Notwithstanding early completion of the Milestones or part of milestones, the payment to the Contractor at any time shall not exceed the cumulative monthly cash flows agreed at the time of award of the Contract.
13.	Additional Clause	Time for Completion The Time for Completion of the whole of the activities shall be as per Key Dates defined in clause 5.12 of chapter 5 of Section-6 (Term of Reference).
14.	Additional Clause	<p>The offer shall furnish as part of its submission, in original form, an unconditional bank guarantee for tender Guarantee /security is INR 72000/- to be submit in form attachedin Chapter-11 of Sectlion-6.</p> <p>Tender security from a reputable source from an eligible country as described in Chapter 7 (7.1.2) of section 6(Eligible Countries). In the case of a bank guarantee, the Tender security shall be submitted using the bank guarantee for tender Guarantee Form to the Employer. The form must include the complete name of the ISA. The Tender security shall be valid for 28 days beyond the original validity period 180 days of the RFQ, or beyond any period of extension.</p> <p>Any RFQ not accompanied by a substantially compliant Tender security or Tender-Securing Declaration, shall be rejected by the Employer as nonresponsive.</p> <p>The Tender security of the unsuccessful ISA shall be returned as promptly as possible upon the successful ISA's furnishing of the performance security pursuant.</p> <p>The Tender security of successful ISAs shall be returned as promptly as possible once the successful ISA has signed the Contract and furnished the required Performance Security.</p>
15.	Additional Clause	If the RFQ, which results in the lowest Evaluated RFQ Price, is seriously unbalanced or front loaded in the opinion of the Employer, the Employer may require the ISA to produce detailed price analyses for any or all items of the Price Schedules, to demonstrate the internal consistency of those prices with the methods and time schedule proposed. After evaluation of the price analyses, taking into consideration the terms of payments, the Employer may require that the amount of the performance security be increased at the expense of the ISA to a level sufficient to protect the Employer against financial loss in the event of default of the successful ISA under the Contract.
16.	Additional Clause	<u>Bank Guarantee Formats</u> Bank Guarantee to be encashed on production in the respective bank without assigning any reason, unconditional / irrevocable



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	<p>Bank Guarantee is to be sent by issuing bank branch, directly to the Address mentioned hereunder i.e.</p> <p>Director (Project), Jaipur Metro Rail Corporation :Limited, Third Floor, RAJSICO Building, Udyog Bliawan, Tilak Marg, Jaipur- 302 005 (Rajasthan) India.</p>
	<p>Bank Accounts detail in which BG is to be remitted in case of encashment.</p> <p>JAIPUR METRO RAIL CORPORATION LIMITED STATE BANK OF INDIA JAIPUR TILAK MARG BRANCH, TILAK MARG, C-SCHEME, JAIPUR 302005 ACCOUNT NO. : 61208185606 IFSC : SBIN0031510</p>



CHAPTER 10

10. BANK'S POLICY – CORRUPT AND FRAUDULENT PRACTICES

ADB's anticorruption policy requires that borrowers (including beneficiaries of ADB-financed activity), as well as consultants (including their personnel, agents, sub-consultants, sub-Contracts, or suppliers) under ADB-financed contracts, observe the highest standard of ethics during the selection process and in execution of such contracts. In pursuance of this policy, in the context of these Guidelines, ADB

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
- (i) A "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;*
 - (ii) A "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;*
 - (iii) A "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;*
 - (iv) A "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;*
 - (v) Abuse, this is theft, waste, or improper use of assets related to ADB-related activity, either committed intentionally or through reckless disregard; +
 - (vi) Conflict of interest, which is any situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations; +
 - (vii) "obstructive practice" includes a) deliberately destroying, falsifying, altering or concealing of evidence material to an ADB investigation; b) making false statements to investigator in order to materially impede an ADB investigation; c) failing to comply with requests to provide information, documents or records in connection with an ADB investigation; (d) threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or e) materially impeding ADB's contractual rights of audit, inspection, or access to information. +
 - (viii) These terms collectively are called "integrity violations."
- (b) will reject a proposal for an award if it determines that the consultant recommended for the award has directly, or through an agent, engaged in integrity violations in competing for the contract in question;
- (c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the borrower of ADB financing engaged in integrity violations during the consultant selection process or the execution of that contract, without the borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation;
- (d) will sanction a firm or individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, such consulting firm, individual or successor from participation in ADB-financed or ADB-administered, or supported activities or to benefit from an ADB-financed or ADB-administered, or supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in integrity violations or other prohibited practices; and



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- (e) will have the right to require that, in consultant selection documentation and in Contracts financed by ADB, a provision be included requiring consultants (including their personnel, agents, sub-consultants, sub-Contracts, or suppliers) to permit ADB or its representative to inspect their accounts and records and other documents relating to consultant selection and to the performance of the Contract and to have these audited by auditors appointed by ADB; and requiring consultants (including their personnel, agents, sub-consultants, sub-Contracts, or suppliers) to cooperate with ADB inspection or investigation and extend all necessary assistance for satisfactory completion of such inspection or investigation.

.....
* See Guidelines on Use of Consultants by ADB and Its Borrowers, para 1.23

+ See ADB's Integrity Principles and Guidelines, para. 2A.



CHAPTER- 11

11. FORMS

Performance Security

..... Bank's name, and address of issuing branch or office¹

Beneficiary:Name and address of employer.....

Date:.....

Performance Guarantee No.:

We have been informed that name of the contractor. (hereinafter called "the Contractor") has entered into Contract No. reference number of the contract. dated with you, for the execution of name of contract and brief description of plant and services. (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contracts, we name of the bank. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of name of the currency and amount in figures² (..... amount in words.) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing in the JMRC's bank account as details mentioned-

Jaipur Metro Rail Corporation Limited
State Bank of India Account No:- 61208185606
IFSC Code:- SBIN0031510
Jaipur Tilak Marg Branch,
Tilak Marg, C-Scheme, Jaipur-302005.

accompanied by a written statement stating that the Contracts is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire notearlier than

(a) 6 months after our receipt of

- (i) a copy of the Completion Certificate; or
- (ii) a registered letter from the Contracts, attaching a copy of the notice to the project manager that the Facilities are ready for commissioning, and stating that 14 days have elapsed from receipt of such notice (or 7 days have elapsed if the notice was a repeated notice) and the project manager has failed to issue a Completion Certificate or inform the Contracts in writing of any defects or deficiencies; or
- (iii) a registered letter from the Contracts stating that no Completion Certificate has been issued but the Employer is making use of the Facilities; or

(b) the ____ day of ____, 2__.

Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.



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This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458 (or ICC Publication No. 758 as applicable), except that subparagraph (ii) of Sub-Article 20(a) is hereby excluded³.

.....
Seal of bank and signature(s)

-- Note to ISA --

If the institution issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.

Bank Guarantee is to be send by issuing bank branch, directly to the Address mentioned hereunder i.e.
Director (Project), Jaipur Metro Rail Corporation Limited,
RAJSICO_Building, Udhog Bhawan Premises ,
C-Scheme, Floor/Room number:
3rd Floor, Jaipur (Rajasthan) Postal Code-302005
Country: India.

-
- 1 All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.
 - 2 The guarantor shall insert an amount representing the percentage of the contract price specified in the contract and denominated either in the currency(ies) of the contract or a freely convertible currency acceptable to the employer.
 - 3 Or the same or similar to this clause specified in the Uniform Rules for Demand Guarantees, ICC Publication No. 758, where applicable.



FORM OF BANK GAURANTEE FOR TENDER GUARANTEE

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

KNOW ALL MEN by these presents that we _____ (Name of Bank) of India, having our registered office at _____ (hereinafter called "the Bank") are bound unto JAIPUR METRO RAIL CORPORATION (hereinafter called "Employer") in sum of Rs. _____ for which payment well and truly to be made to the said Employer, the Bank binds himself, his successors and assigns by these presents.

WHEREAS _____ (Name of ISA) (hereinafter called "the ISA") has submitted his tender dated _____ for "Independent Safety Assessment (ISA) Services for Train Control & Signaling System for Jaipur Metro Rail Line 1 – Phase B". (hereinafter called "RFQ/Tender").

WHEREAS the ISA is required to furnish a Bank Guarantee for the sum of Rs. _____ (Amount in figures and words) as Tender Guarantee against the ISA's offer as aforesaid.

AND WHEREAS _____ (Name of Bank and address) have, at the request of the ISA, agreed to give this guarantee as hereinafter contained.

We further agree as follows:

- (i) That the Employer may without affecting this guarantee grant time or other indulgence to or negotiate further with the ISA in regard to the conditions contained in the said tender and thereby modify these conditions or add thereto any further conditions as may be mutually agreed upon between the Employer and the ISA.
- (ii) That the guarantee herein before contained shall not be affected by any change in constitution of our Bank or in the constitution of the ISA.
- (iii) That any account settled between the Employer and the ISA shall be conclusive evidence against us of the amount due hereunder and shall not be questioned by us.
- (iv) That this guarantee commences from the date hereof and shall remain in force till:
 - a. The ISA in case his tender is accepted by the Employer, executes a formal agreement after furnishing the Performance Guarantee on a scheduled Indian Bank located in India acceptable to the Employer
 - b. 208 days from the last date of submission of the tender, which shall be suitably extended on the request of JMRC.
 - c. That the expression "the ISA" and "the Bank" herein used shall, unless such an interpretation is repugnant to the subject or context, include their respective successors and assigns.
- (v) We undertake to pay to the Employer the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of any one or more of the conditions (a) & (b), mentioned below, specifying the occurred condition or conditions.
 - a) If the ISA withdraws his Tender during the period of Tender validity specified in the Form of Tender, or



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- b) if the ISA having been notified of the acceptance of his Tender by the Employer during the period of tender validity in case the ISA fails or refuses to furnish the Performance Guarantee

Signature of Authorized Official
of the
Bank: _____

Name of Official:

Designation

STAMP/SEAL OF BANK

SIGNATURE OF WITNESS

NAME OF WITNESS

Address of witness



A handwritten signature in blue ink, appearing to be 'Akh'.